2011 NATIONAL SURVEY ON DRUG USE AND HEALTH

PROCEDURES FOR EDITING SUPPLEMENTARY SELF-ADMINISTERED DATA IN THE 2011 NSDUH COMPUTER-ASSISTED INTERVIEW

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1. Introduction

This is the second in a series of three reports that document procedures developed for editing computer-assisted interviewing (CAI) data from the 2011 National Survey on Drug Use and Health (NSDUH). The first report in the series, *General Principles and Procedures for Editing Drug Use Data in the 2011 NSDUH Computer-Assisted Interview*,[1] is designed as the starting point for providing background on basic CAI editing issues and procedures. Specifically, the first document in the series discusses the following topics:

- general principles associated with the editing of the CAI data, including the assignment and meaning of standard NSDUH codes (and principles for assigning relevant "not applicable" types of codes);

- initial processing steps, including (a) general procedures for the coding of "OTHER, Specify" data, (b) creation of edit-ready raw variables, (c) initial processing of age-related variables, (d) identification of usable cases, (e) investigation of potentially problematic response patterns, and (f) edits of date-dependent variables when the interview date was judged to be questionable; and

- edits involving the key self-administered drug use variables in the cigarettes through sedatives sections, including edits of (a) the lead lifetime use variables (i.e., gate questions), where respondents indicated whether they have ever used the drug of interest; (b) the recency-of-use variables, where respondents who indicated lifetime use of the drug indicated when they last used that drug; (c) the 12-month and 30-day frequency variables, where respondents who indicated use of a drug in the 12 months or 30 days prior to the interview indicated the number of days they used that drug in the period of interest; and (d) remaining variables in a module.

The CAI instrument allowed a private mode of data collection for respondents to answer questions pertaining to drug use and other sensitive topics. This self-administration was accomplished through the use of audio computer-assisted self-interviewing (ACASI), in which respondents could read the questions on the computer screen and enter their responses directly into the laptop computer. All respondents also were encouraged to listen to an audio recording of the questions on headphones and then enter their answers into the computer. This prevented interviewers (or others in the household) from knowing what questions the respondents were being asked and how they were answering. This feature of ACASI was especially useful for respondents with limited reading ability because they could listen to the questions instead of having to read them. For demographic questions, computer-assisted personal interviewing (CAPI) was used in which interviewers read the questions and respondents gave their answers aloud to the interviewers, who then entered the responses into the computer.

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[1] Kroutil, L. A., Handley, W., & Bradshaw, M. R. (2013). General principles and procedures for editing drug use data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

The CAI instrument was divided into core and noncore sections. Core sections, such as key demographic characteristics and drug use prevalence questions, were designed to stay relatively constant from one year to the next to permit measurement of trends in drug use. In contrast, the content of noncore sections could show more change across years to measure new topics of interest or to rotate certain topics in or out of the interview. In noncore sections, therefore, questions or entire modules could be added or deleted, or the wording of existing questions could change from one year to the next.

This report is designed to document how the supplementary, or noncore, self-administered data were edited from the 2011 CAI instrument. Because ACASI was used for these sections, the remainder of the report refers to them as noncore ACASI sections or modules. Editing procedures for the interviewer-administered CAPI sections are described in a third companion document.[2]

Section 2 of this report discusses general issues associated with the editing of the noncore ACASI data. Section 3 focuses on specific issues associated with the editing of individual noncore ACASI modules, where applicable. The 2011 CAI instrument contained the following noncore ACASI modules:

- special drugs,
- risk/availability,
- blunts,
- substance dependence and abuse,
- special topics,
- marijuana purchases,
- prior substance use,
- substance treatment,
- health care,
- adult mental health service utilization (administered only to adults aged 18 or older),
- social environment (administered only to adults),
- parenting experiences (administered only to parent/legal guardian in dwelling units where a 12 to 17 year old also was selected for an interview),
- youth experiences (administered only to youths aged 12 to 17),
- mental health (administered only to adults),
- adult depression and adolescent depression (the former administered to adults and the latter administered to youths),

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[2] Kroutil, L. A., Chien, C., Handley, W., & Bradshaw, M. R. (2013). Procedures for editing interviewer-administered data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

- youth mental health service utilization (administered only to youths), and

- consumption of alcohol.

The content of these modules is described in Section 3. Although youths were administered the youth mental health service utilization module before they received the adolescent depression module, we have grouped the adolescent depression module with the corresponding adult depression module because their content and logic were similar.

Logical editing uses data from elsewhere within the same respondent's record to reduce the occurrence of missing or ambiguous data or to resolve inconsistencies between related variables.[3] Documentation for most procedures for logically editing data in the 2011 NSDUH is included in this editing and coding section (Section 10) of the 2011 methodological resource book (MRB). The imputation report (Section 11 of the 2011 MRB) contains descriptions of additional editing procedures for variables that subsequently undergo statistical imputation.[4] For some variables, these procedures may involve assumptions (e.g., picking the midpoint from a range) or other additional edits to prepare the variables for imputation. Exhibit 1 provides a crosswalk to identify the location of relevant documentation on editing procedures in the 2011 MRB.

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[3] There are a few situations where data from outside the respondent's record is used in logical editing. Some editing procedures involve data from the screener, where an eligible member of the dwelling unit reports basic information about all members of the dwelling unit. In situations where two members of the same dwelling unit are selected for the survey and complete the interview, data from the second respondent's record may be used in logical editing of some variables in the first respondent's record, or vice versa. This procedure allows use of information from both respondents to determine relationships among household members.

[4] Frechtel, P. A., Archambault, H. J., Carpenter, L. A., Edwards, S. L., Laufenberg, J. S., Martin, P. C., Moore, A. S., & Scott, V. M. (2013). Imputation report. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 11, prepared for Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.006.007). Research Triangle Park, NC: RTI International.

Exhibit 1. Location of Documentation on Editing in the 2011 Methodological Resource Book

Variable Group	Location within MRB Section 10 (Editing and Coding)[1]	Location within MRB Section 11 (Imputation) Where Logical Edits/ Additional Edits Are Discussed
Core Demographics	Report 3: Interviewer-Administered Data, Section 3.1	Sections 3.2 and 4.2
Drugs	Report 1: General Principles/Core Drug Data Report 2: Supplementary Self-Administered Data, Section 3.1.1	Section 5.2
Nicotine Dependence	Report 2: Supplementary Self-Administered Data, Section 3.4	(No additional edits discussed)
Immigrant Status	Report 3: Interviewer-Administered Data, Section 3.2.2	Sections 4.2.2 and 4.2.3
Employment	Report 3: Interviewer-Administered Data, Section 3.2.4	Section 4.2.1
Roster	None	Sections 7.2 to 7.4
Health Insurance	Report 3: Interviewer-Administered Data, Section 3.2.5	Section 9.2
Income	Report 3: Interviewer-Administered Data, Section 3.2.6	(No additional edits discussed)
Roster Pair	None	Sections 10.2 to 10.4

MRB = methodological resource book.

[1] Section 10 contains three reports. The first report describes general editing principles and procedures for editing the core substance use data. The second report describes procedures for editing supplementary self-administered interview data. The third report describes procedures for editing interviewer-administered data.

2. General Edit Issues for the Noncore ACASI Data

The following general issues were relevant to the editing of the noncore audio computer-assisted self-interviewing (ACASI) data:

- comparison of noncore ACASI data with related data on drug use (or nonuse) from the core section of the interview,

- implementation of general "legitimate skip" fills,

- handling of missing data, and

- handling of common inconsistencies within a given noncore ACASI section.

2.1 Comparison of Noncore ACASI Data with Core Drug Use Data

The contingent questioning strategy in computer-assisted interviewing (CAI) allowed respondents' answers from core modules or other preceding sections to determine whether respondents (a) should not be asked certain questions in a noncore module, or (b) should not be administered an entire module at all. For example, if respondents reported in the core heroin section that they never used heroin, there was no need to ask them further questions in the special drugs module pertaining to smoking, sniffing, or injecting heroin. Similarly, questions in the substance dependence and abuse module pertaining to use of cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, or sedatives were relevant only for respondents who had used those substances within the 12 months prior to the interview.[5] In addition, the substance treatment module was relevant only for respondents who reported some lifetime use of alcohol or other drugs, not counting cigarettes. Consequently, respondents who reported in the core modules that they had never used alcohol, illicit drugs, or prescription-type psychotherapeutics for nonmedical reasons (i.e., pain relievers, tranquilizers, stimulants, or sedatives) were not asked the questions in the substance treatment module.

2.1.1 Situations in Which Noncore ACASI Data Were Edited with Respect to Core Drug Use Data

Core drug use data (typically, recency of use) were used to edit noncore ACASI data in situations when noncore ACASI questions had been skipped because respondents were nonusers of the drug or had not used in the period of interest. The following codes were typically assigned

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[5] For the substance dependence and abuse module, respondents were routed into the questions pertaining to dependence or abuse symptoms for cocaine, heroin, or stimulants if they reported use of these drugs in the past 12 months in the special drugs module, even if their corresponding recency variables in the core suggested less recent use. For alcohol and marijuana, frequency-of-use data for the past 12 months or past 30 days also were relevant for determining whether to ask respondents the questions about dependence or abuse for these two drugs. Infrequent users of these two drugs in the past 12 months were skipped out of the dependence and abuse questions. Only those respondents who reported using cigarettes in the past 30 days were asked the cigarette questions in the substance dependence and abuse module.

in situations when questions or entire sections were skipped because the respondent was a nonuser or did not use a drug within the period of interest:

> 91 (or 991, or 9991, etc.) = NEVER USED [DRUG(s)] OF INTEREST, and

> 93 (or 993, or 9993, etc.) = USED [DRUG] BUT NOT IN THE PERIOD OF INTEREST.

For example, if a respondent never used hallucinogens, then all of the skipped questions in the substance dependence and abuse module that pertained to hallucinogens were assigned codes of 91. Similarly, if a respondent used hallucinogens but not in the past 12 months, then the skipped questions in the substance dependence and abuse module that pertained to hallucinogens were assigned codes of 93.

The following analogous codes also were assigned through logical editing:

> 81 (or 981, or 9981, etc.) = NEVER USED [DRUG(s)] Logically assigned, and

> 83 (or 983, or 9983, etc.) = USED [DRUG] BUT NOT IN THE PERIOD OF INTEREST Logically assigned.

These codes were given values in the 80s to signify that existing values were overwritten during logical editing. For example, the recency-of-use variables for psychotherapeutics (i.e., pain relievers, tranquilizers, stimulants, and sedatives) were assigned codes of 81 when the only indication of lifetime nonmedical use involved over-the-counter (OTC) medications. Thus, if the recency-of-use variable for pain relievers was assigned a code of 81 during the edits for that core module, then any data in the substance dependence and abuse module for pain relievers were similarly overwritten with codes of 81.

Additional special codes were assigned in the substance treatment module when respondents reported lifetime treatment for alcohol or other drugs (not counting cigarettes) but they had never used a particular drug of interest (e.g., heroin). These special codes are described as part of the more specific discussion of edits for the substance treatment module (Section 3.8).

Other special situations occurred in specific noncore ACASI modules (e.g., special drugs) when core drug use data were used to edit the related noncore variables. These are discussed in connection with a specific module's edits in Section 3.

2.1.2 Situations in Which Noncore ACASI Data Were Not Edited with Respect to Core Drug Use Data

With few exceptions (discussed in Section 3), drug use data from core modules were used to edit noncore ACASI data only when respondents were legitimately skipped out of corresponding noncore questions based on prior answers in the relevant core section (or sections). Otherwise, noncore ACASI items generally were not edited for consistency with core items, and core items were not edited to make them consistent with answers in noncore ACASI

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modules. Consequently, inconsistencies could remain between related core and noncore ACASI variables.

For example, respondents who reported in the core heroin module that they used heroin at some point in their lifetime would be asked questions in the special drugs module pertaining to the smoking of heroin, sniffing of heroin, or use of heroin with a needle. It would be possible for respondents in the special drugs module to report more recent use of heroin by one or more of these routes than what they reported in the core heroin module for when they last used heroin (e.g., last used heroin more than 12 months ago based on the core heroin recency question, but last smoked heroin more than 30 days ago but within the past 12 months). In this example, the special drugs data for heroin were not edited to make them consistent with the core heroin recency-of-use variable, nor was the core heroin recency variable edited to make it consistent with respondents' answers to the heroin questions in the special drugs module.

The rationale for not doing further detailed editing between core and noncore modules was to permit more reliable measurement of drug use trends based on data from the core modules, which were designed to remain fairly constant across survey years. In contrast, the content of the noncore modules could undergo more change from year to year. Consequently, use of noncore data to edit core data could affect the measurement of trends if noncore items were present or absent in a given survey year. Similarly, use of core data as the final arbiter to resolve inconsistencies between related core and noncore items could result in loss of noncore data that might be useful to analysts.

2.2   Implementation of General "Legitimate Skip" Fills

Some noncore ACASI modules contained lead questions that governed skip logic within the module in order to determine whether respondents should be asked further questions about the topic of interest. For example, the substance treatment module included a lead question about whether respondents had ever received treatment for their use of alcohol or other drugs (not counting cigarettes), based on these respondents reporting lifetime use of alcohol or at least one other drug. If respondents answered "no" to this lead question, there was no need for them to be asked additional questions about the actual receipt of treatment services.

In addition, some modules were intended to be administered only to specific age groups. For example, the entire social environment module was designed to be administered only to respondents aged 18 or older. Similarly, the youth experiences module was designed to be administered only to respondents aged 12 to 17. The CAI logic routed respondents out of these modules if their ages were outside the required ranges for administering the modules.

A third general situation involving assigned legitimate skip codes occurred when respondents were asked questions about some other condition (e.g., arrests other than the ones listed, treatment for some other drug). If respondents answered affirmatively, they were asked to specify a response (e.g., specifying the other offense for which they were arrested in the past 12 months). The CAI program skipped respondents out of these "OTHER, Specify" questions if they answered the lead question negatively (e.g., not arrested for any other offenses in the past 12 months). Therefore, legitimate skip codes were assigned to the edited "OTHER, Specify" variable when the other condition did not apply.

The following general code was assigned when respondents were skipped out of a given question and it could be determined *unambiguously* that the question did not apply based on the answer to a previous question or based on some other criteria (e.g., age of the respondent):

99 (or 999, or 9999, etc.) = LEGITIMATE SKIP.

For example, if a respondent was 18 or older and the youth experiences questions had been skipped, codes of 99 (or 999, etc.) were assigned in the logical editing process to the skipped youth experiences variables. Similarly, if a respondent had used alcohol or some other drug at least once in his or her lifetime but answered the lifetime treatment question TX01 as "no," the CAI program skipped the respondent out of all remaining questions about receipt of treatment services. Codes of 99 (or 999, etc.) were assigned to the skipped substance treatment variables in this situation to signify that the respondent had used alcohol or drugs at least once but had never received substance abuse treatment.

The following analogous code also was assigned through logical editing:

89 (or 989, or 9989, etc.) = LEGITIMATE SKIP Logically assigned.

The value of 89 signified that existing values were overwritten during logical editing. For example, if a respondent was somehow routed into the youth experiences module but that respondent was subsequently classified as being 18 or older, any answers that the respondent gave in the youth experiences module were overwritten with codes of 89 (or 989, etc.). These codes signified that the adult respondent logically was not eligible to be asked the youth experiences module's questions.

As in the general procedures described in the first volume of the data editing documentation (see footnote 1), edits in these types of situations required the ability to determine *unambiguously* that a question did not apply. For example, if respondents answered the lead question TX01 ("Have you ever received treatment or counseling for your use of alcohol or any drug, not counting cigarettes?") as "don't know" or "refused," the CAI skip logic treated these responses as equivalent to a negative response. In these situations, all questions were skipped pertaining to receipt of treatment. From the standpoint of respondent burden, there often may be little value in asking further questions about a particular topic, such as alcohol or other drug treatment, if respondents could not indicate unambiguously whether the topic was relevant at all.

On the other hand, responses of "don't know" or "refused" to a lead question that governs a skip pattern are ambiguous—they do not provide an analyst with conclusive information one way or the other. Consequently, such responses could be thought of as *potentially* affirmative responses, as opposed to inferring that they are negative responses. For this reason, when respondents answered a lead question as "don't know" or "refused," missing values were retained for the questions that the CAI program skipped, unless data existed elsewhere to infer a nonmissing value for a variable that had been skipped (see Section 2.3).

2.3   Handling of Missing Data

The occurrence of missing data was not eliminated completely in CAI because respondents had the option of answering "don't know" or "refused" to questions when asked for a response. In addition, questions often were skipped if respondents answered a lead question as "don't know" or "refused," as noted above.

Where possible, however, an important aim of the editing in the noncore ACASI sections was to use data provided by the respondent to replace missing values with nonmissing values. Special codes that were assigned to indicate when editing was done are discussed in Section 3 in connection with section-specific edits.

For example, the series of questions in TX04 (i.e., specific locations where respondents received treatment in the past 12 months) was skipped if respondents answered "don't know" or "refused" to question TX02 ("During the past 12 months, that is, since [DATEFILL], have you received treatment or counseling for your use of alcohol or any drug, not counting cigarettes?").[6] If these respondents reported last receiving treatment in the past 12 months, it could be inferred logically that question TX02 should have been answered as "yes." If these respondents also indicated a specific location in question TX25 for where they last received treatment, that answer could be logically assigned to the corresponding item from the question TX04 series.

When respondents answered "don't know" or "refused" to a lead question and it was not possible to replace missing values with nonmissing values, the following standard codes for missing data that were used in prior National Surveys on Drug Use and Health (NSDUHs) were applied:

>   94 (or 994 or 9994, etc.) = DON'T KNOW (DK),
>
>   97 (or 997 or 9997, etc.) = REFUSED (REF), and
>
>   98 (or 998 or 9998, etc.) = BLANK (i.e., nonresponse [NR]).

When a lead question retained a code of 97 after other editing had been done, refusal codes were assigned to the skipped questions within that branch (i.e., the refusal was "propagated"). That is, it was logically inferred that a refusal to the lead question was a blanket refusal to answer any questions on that topic. When a lead question retained a code of 94 after other editing had been done, values of "blank" were retained in the questions that had been skipped.

Similarly, when all items in a noncore ACASI module pertaining to a particular drug had been skipped because the core recency variable had a final value of 97, that refusal was propagated onto the skipped noncore variables. When all items in a noncore ACASI module pertaining to a drug had been skipped because a core recency variable had a missing value of 98 (e.g., if a lead question on lifetime use of a drug was answered as "don't know"), the skipped noncore variables retained a value of "blank."

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[6] "DATEFILL" indicates the date filled in by the CAI program to establish a point of reference for respondents to use in answering the question.

A third situation in which refusals were propagated occurred when respondents refused to answer a lead question to an "OTHER, Specify" variable (e.g., whether they had been arrested in the past 12 months for some other offense). When respondents refused to answer such questions, the "OTHER, Specify" questions were skipped, and refusal codes were assigned to the edited specify variables.

The following additional missing data code could be assigned to noncore ACASI variables:

85 (or 985, or 9985, etc.) = BAD DATA Logically assigned.

As was the case for the processing of data in the core modules, period-specific variables pertaining to the past 30 days or past 12 months were assigned bad data codes if there was some question about the value stored by the CAI system for the interview date; this processing was done to the "raw" variables (see footnote 1 in Section 1).

2.4   Handling of Common Inconsistencies within a Noncore ACASI Section

The contingent questioning strategy in CAI was designed to reduce inconsistencies in respondents' answers by skipping them out of questions that did not apply to them. Consequently, respondents had limited opportunity to give answers that would be inconsistent with prior answers. Although this approach reduced the opportunity for respondents to answer inconsistently, it did not eliminate inconsistencies completely in the noncore ACASI sections.

One common type of data inconsistency that occurred in the noncore ACASI sections involved situations when respondents indicated something in "OTHER, Specify" items that corresponded to preceding related items. When respondents specified something that corresponded to an item they had been asked about previously but they had not answered that previous item as "yes," the editing procedures assigned a value of "yes" to the relevant question. The following code typically was used when a response of "yes" was logically inferred:

3 = Yes LOGICALLY ASSIGNED.

If there was a lead to the "OTHER, Specify" question that was in the form of a "yes/no" question (e.g., "During the past 12 months, were you arrested and booked for some other offense besides these that have been named?"), the affirmative answer was retained in the lead to the "OTHER, Specify" question. The redundant specify code also was retained to indicate to analysts the source of the logically inferred "yes" value. In the special topics section, for example, the SP03 question series asked respondents to indicate specific offenses for which they were arrested and booked in the past 12 months. It was possible for respondents to indicate that they were arrested and booked for "some other offense" and then to specify a crime that corresponded to a prior question in the series. For example, respondents might specify a response that corresponded to burglary or breaking and entering, even though they already had been asked about arrests for this offense. In this situation, if the burglary/breaking and entering question was not answered as "yes," the editing procedures assigned a value to the edited variable to indicate that an affirmative response was inferred.

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A second type of potential inconsistency concerned situations in which respondents answered an entire series of questions as "no," but an answer to a prior question suggested that at least one of the subsequent questions should have been answered as "yes." A final, "other" type of question typically existed in the series as well (e.g., some other offense, treatment in some other location, treatment for some other drug). When this type of situation occurred, the edits typically inferred some kind of "yes" or unknown value onto the final other question in the series. Examples are discussed in Section 3 in connection with module-specific edits.

2.5   Handling of Patterned Responses

Checks for patterned responses (i.e., responses following an unlikely and often inconsistent or nonsensical numeric pattern) in core modules could result in a case being retained as a final respondent, but with variables from one or more core modules being assigned the appropriate codes for bad data (see footnote 1). When this occurred, we also assigned codes for bad data to the corresponding variables in noncore modules. For example, if a respondent's variables in the pain relievers module were assigned codes for bad data because of patterned responses in that module and the respondent was routed to questions pertaining to pain relievers in the substance dependence and abuse module, we also assigned bad data codes to the pain relievers data in the substance dependence and abuse module.

A small number of cases in 2011 (i.e., fewer than 20) had other occurrences of patterned responses in their noncore ACASI data. Responses were replaced with bad data codes when these patterns occurred. Bad data codes were assigned for one or more respondents in each of the noncore ACASI modules in 2011 beginning with the substance dependence and abuse module (and including the parenting experiences module in 2011).

In particular, answers were replaced with bad data codes if respondents keyed answers of "1" (or multiple-digit responses of "1," where applicable) to every question they were asked within a module. In the youth experiences module, adolescents who keyed answers of "2" wherever possible also had their answers replaced with bad data codes. For respondents to key all possible items as "2" in the youth experiences module would mean that they keyed this response to 42 items in a row, including that they had engaged in all "problem" activities (such as getting into fights, carrying a handgun, or selling illegal drugs) exactly "1 or 2 times" in the past year. These respondents who keyed "2" wherever possible also would have participated in exactly two school-based activities, two community-based activities, two church- or faith-based activities, and two other kinds of activities in the past year.

3. Edit Issues for Specific Noncore ACASI Modules

As indicated in the introduction, the 2011 computer-assisted interviewing (CAI) instrument contained the following noncore audio computer-assisted self-interviewing (ACASI) modules:

- special drugs,
- risk/availability,
- blunts,
- substance dependence and abuse,
- special topics,
- marijuana purchases,
- prior substance use,
- substance treatment,
- health care,
- adult mental health service utilization (administered only to adults aged 18 or older),
- social environment (administered only to adults),
- parenting experiences (administered only to parent/legal guardian in dwelling units where a 12 to 17 year old also was selected for an interview),
- youth experiences (administered only to youths aged 12 to 17),
- mental health (administered only to adults),
- adult depression and adolescent depression (the former administered to adults and the latter administered to youths),
- youth mental health service utilization (administered only to youths), and
- consumption of alcohol.

This section describes the content of the individual noncore ACASI modules. It also discusses the processing of the edited variables for these modules, along with any specific issues that pertained to the editing of the data in a given module.

3.1 Special Drugs Module

The special drugs module asked about the smoking and sniffing of heroin; use of heroin, methamphetamine, other stimulants, cocaine, or other drugs with a needle for nonmedical reasons; general needle use behaviors (e.g., needle sharing); and where respondents got the last needle that they used. New questions were added to this module in 2005 and updated in 2006 to

capture information about methamphetamine use from respondents who did not report methamphetamine use in the core stimulants module (e.g., if they may not have recognized it as a stimulant in the context of questions about prescription stimulants). Respondents who indicated methamphetamine use in these new questions were asked when they last used methamphetamine, whether they ever used a needle to inject methamphetamine, and, if applicable, when they last used a needle to inject methamphetamine. In addition, questions were added to the special drugs module in 2006 for a series of additional drugs that respondents had not been explicitly asked about in any of the preceding core drug use modules.

This section documents the editing procedures for the special drugs module, including the drug items that were added in 2006, the additional methamphetamine follow-up questions, and any refinements to the editing procedures for other special drugs variables. In addition, analyses involving the new methamphetamine items are discussed in the 2006 National Survey on Drug Use and Health (NSDUH) report of national findings[7] and the 2005 and 2006 methamphetamine analysis reports that were prepared for the 2005 and 2006 methodological resource books (MRBs).[8,9]

Additional analyses also have been conducted that examine the effect on prevalence estimates due to the addition of several of the drug variables that were added in 2006. These analyses are discussed in a separate report that was prepared for the 2006 MRB.[10]

3.1.1   Methamphetamine Use

As noted above, new questions were added to the special drugs module in 2005 (questions SD17a through SD18b) to capture information about methamphetamine use from respondents who did not report methamphetamine use in the core stimulants module. In the questions that were added in the 2005 survey, respondents who indicated methamphetamine use in SD17a were asked when they last used methamphetamine (SD17b), whether they ever used a needle to inject methamphetamine (SD18a), and if applicable, when they last used a needle to inject methamphetamine (SD18b).

Following these additional questions on methamphetamine, there have been questions since 2006 (SD17a1 through SD17a2sp and associated "consistency checks" SD17a1 and

[7] Office of Applied Studies. (2007). *Results from the 2006 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 07-4293, NSDUH Series H-32). Rockville, MD: Substance Abuse and Mental Health Services Administration.

[8] Ruppenkamp, J., Davis, T., Kroutil, L., & Aldworth, J. (2006). Methamphetamine analysis report. In *2005 National Survey on Drug Use and Health: Methodological resource book* (Section 20, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. 283-2004-00022, Deliverable No. 39, RTI/0208726.187.038). Research Triangle Park, NC: RTI International.

[9] Ruppenkamp, J., Frechtel, P., Aldworth, J., Carpenter, L., Clarke, A., Davis, T., Kroutil, L., & Martin, P. (2007). Methamphetamine analysis report. In *2006 National Survey on Drug Use and Health: Methodological resource book* (Section 15, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. 283-2004-00022, Deliverable No. 39, RTI/0209009). Research Triangle Park, NC: RTI International.

[10] Kroutil, L., Vorburger, M., & Aldworth, J. (2007). Evaluation of the effects of new noncore drug data on prevalence estimates in the National Survey on Drug Use and Health (NSDUH). In *2006 National Survey on Drug Use and Health: Methodological resource book* (Section 18, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. 283-2004-00022, Deliverable No. 39, RTI/0209009). Research Triangle Park, NC: RTI International.

SD17alt) for respondents who reported in the core stimulants module that they had never used methamphetamine but who also reported methamphetamine use in the special drugs module. In the consistency check questions, these respondents were asked to indicate which answer was correct: their report from the core stimulants module that they never used methamphetamine or their report from the special drugs module that they had used it. If respondents confirmed their reported use of methamphetamine in the special drugs module, they were asked why they had not reported methamphetamine use when they were asked about it earlier in the stimulants module (SD17a2). Respondents could indicate in SD17a2 that (1) they had not previously reported methamphetamine use because the question was asked in the context of other questions about prescription drugs, and they did not think of methamphetamine as a prescription drug; (2) they made a mistake when they answered the earlier question about methamphetamine; or (3) there was some other reason. If respondents reported that there was some other reason why they had not previously reported methamphetamine use, they were asked to specify what this other reason was (SD17a2sp).

Exhibit 2 describes important issues in editing these methamphetamine variables. In editing these methamphetamine variables, the "OTHER, Specify" data from questions SD05a through SD05e pertaining to use of other drugs with a needle were checked for any reports that respondents had used a needle to inject methamphetamine. If respondents specified use of methamphetamine as "some other drug" they used with a needle, these responses overruled any denial of methamphetamine use (or use of methamphetamine with a needle) that may have occurred in questions SD17a, SD18a, SD17a1, or SD17alt.

In addition, if respondents reported lifetime methamphetamine use in question SD17a (edited variable MTHAMP) but did not know or refused to report in question SD17b when they last used it, the edited methamphetamine recency variable MTHAREC was assigned a code of 9 (Used at some point in the lifetime, LOGICALLY ASSIGNED). Other issues involved in editing data from SD18a and SD18b pertaining to use of methamphetamine with a needle are discussed in Section 3.1.2.

Additional questions have been included in the special drugs module since 2007 that ask about first use of methamphetamine and frequency of use in the past 12 months. As for the noncore methamphetamine variables described above, a key aspect of processing these variables about first use of methamphetamine and frequency of use in the past 12 months involved assignment of appropriate codes of 91 (or 991, etc.) if respondents never used methamphetamine. In addition, codes of 93 (or 993) were assigned to the 12-month frequency variables if respondents last used methamphetamine more than 12 months ago.

Respondents who confirmed methamphetamine use in the consistency check questions (SD17a1 or SD17alt) were asked to report their age when they first used methamphetamine (edited variable MTHAAGE). Respondents who first used within 1 year of their current age were asked to report the year and month when they first used methamphetamine (edited variables MTHAYFU and MTHAMFU, respectively). The CAI logic triggered consistency checks if respondents reported a year and month of first use that was inconsistent with their reported age at first use. Thus, these items were analogous to those that asked about first use of drugs in the core modules and in the noncore blunts module (see Section 3.3). Consequently, the same edits were

Exhibit 2. Edit Issues for Variables on General Methamphetamine Prevalence and Related Follow-Up Questions in the Special Drugs Module

Issue	Edits Implemented
The respondent (R) reported methamphetamine use in the core stimulants module (i.e., question ST01 or STREF1 was answered as "yes").	The edited variables MTHAMP (corresponding to question SD17a), MTHAREC (SD17b), MTHANEDL (SD18a), MTANDLRC (SD18b), MTHEVCK (from SD17a1 and SD17alt), MTHNORSN (SD17a2), and MTHNOSP (SD17a2sp) were assigned legitimate skip codes.
The R had been routed to the methamphetamine follow-up questions in the special drugs module because the R had not reported methamphetamine use in ST01 or STREF1. However, the R had specified use of methamphetamine as "some other stimulant" in the core stimulants module.	If SD17a had not been answered as "yes," and no other reports of methamphetamine use existed in the special drugs module (see below), then MTHAMP was assigned the code for bad data.
The R reported in question SD17a that he or she had never used methamphetamine, but the R also specified use of methamphetamine with a needle somewhere in the "OTHER, Specify" items SD05a through SD05e, pertaining to use of other drugs with a needle.	The R was logically inferred to be a methamphetamine user. The edited variables MTHAMP (corresponding to SD17a) and MTHANEDL (corresponding to SD18a) were assigned a code of 3 (Yes, LOGICALLY ASSIGNED). Because questions SD17b and SD18b pertaining to the most recent use of methamphetamine and most recent use of methamphetamine with a needle, respectively, had been skipped, the edited variables MTHAREC (corresponding to SD17b) and MTANDLRC (SD18b) were assigned codes of 9 (Used at some point in the lifetime, LOGICALLY ASSIGNED).
After reporting methamphetamine use in SD17a, the R reported in question SD17a1 or SD17alt that his or her earlier report from the core stimulants module was correct that he or she had never used methamphetamine. However, the R also specified using methamphetamine with a needle.	The decision was made that these "OTHER, Specify" data overruled the R's denial of methamphetamine use from SD17a1 or SD17alt. MTHAMP retained a code of 1 (i.e., "yes"), and the variable MTHEVCK was assigned the code for bad data. If SD18a did not indicate use of methamphetamine with a needle, MTHANEDL was assigned a code of 3 and MTANDLRC was assigned a code of 9 (see above).
After reporting methamphetamine use in SD17a, the R reported in question SD17a1 or SD17alt that his or her earlier report from the core stimulants module was correct that he or she had never used methamphetamine. The R did not specify any use of methamphetamine with a needle.	The R was logically inferred *not* to be a methamphetamine user. MTHAMP was assigned a code of 4 (No, LOGICALLY ASSIGNED), and codes of 81 (Never used methamphetamine, LOGICALLY ASSIGNED) were assigned to MTHAREC, MTHANEDL, and MTANDLRC. The answer that confirmed that the R had never used methamphetamine was retained in MTHEVCK to document the source of the logical inference of nonuse of methamphetamine. MTHNORSN and MTHNOSP were assigned codes of 99 (LEGITIMATE SKIP).
The R did not know or refused to report in SD17a1 or SD17alt which answer was correct: the earlier report of nonuse from the core stimulants module or the report of methamphetamine use in the special drugs module.	MTHAMP through MTANDLRC were set to bad data.

(continued)

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Exhibit 2. Edit Issues for Variables on General Methamphetamine Prevalence and Related Follow-Up Questions in the Special Drugs Module (continued)

Issue	Edits Implemented
The R did not indicate methamphetamine use in the core stimulants module and also reported in SD17a that he or she never used methamphetamine. No other reports of methamphetamine use existed elsewhere in the special drugs module.	MTHAMP retained a code of 2 (i.e., "no"). Codes of 91 (NEVER USED METHAMPHETAMINE) were assigned to MTHAREC, MTHANEDL, and MTANDLRC. Codes of 99 were assigned to MTHEVCK, MTHNORSN, and MTHNOSP.
Follow-up questions were skipped because the R refused to indicate in SD17a whether he or she ever used methamphetamine.	Codes of 97 (i.e., refused) were assigned to the remaining edited methamphetamine variables. Thus, a refusal to report methamphetamine use in SD17a was propagated onto MTHAREC, MTHANEDL, and MTANDLRC.
The R reported in SD17a1 or SD17alt that his or her report of methamphetamine use in question SD17a was correct. The R reported in SD17a2 that there was "some other reason" why he or she had not previously reported methamphetamine use in the core stimulants module. However, the written response in SD17a2sp indicated either that the R did not recognize methamphetamine as a prescription drug, or that the R made a mistake in answering the previous core question about methamphetamine.	MTHNORSN was assigned a code of 11 (Used in the past 30 days LOGICALLY ASSIGNED) if the R gave an answer in SD17a2sp indicating that he or she did not recognize methamphetamine in the context of questions about prescription drugs. MTHNOSP (corresponding to SD17a2sp) retained a code of 1 (i.e., "yes") to indicate the source of the logical inference in MTHNORSN. Similarly, MTHNORSN was assigned a code of 12 (Used more than 30 days ago but within the past 12 months LOGICALLY ASSIGNED) if the R gave an answer in SD17a2sp indicating that he or she made a mistake in answering the methamphetamine question in the core stimulants module, and MTHNOSP retained a code of 2 (i.e., "no").
MTHAMP indicated that the R was a lifetime user of methamphetamine, and there was nothing in the follow-up questions to indicate that this answer was incorrect. However, the R did not know or refused to report when he or she last used methamphetamine.	The methamphetamine recency variable (MTHAREC) was generally assigned a code of 9 (i.e., used at some point in the lifetime). Exceptions are noted below. • If the R reported last using methamphetamine with a needle in the past 30 days, then MTHAREC was assigned a code of 11 (Used in the past 30 days, LOGICALLY ASSIGNED). • Otherwise, if the R reported last using methamphetamine with a needle more than 30 days ago but within the past 12 months, then MTHAREC was assigned a code of 8 (Used at some point in the past 12 months, LOGICALLY ASSIGNED). A code of 8 was assigned because the R could have used methamphetamine in the past 30 days.

applied to these methamphetamine variables as were applied to the corresponding questions in the core modules and in the blunts module.[11]

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[11] For brevity, the issues associated with handling consistency checks for methamphetamine incidence are not described here in detail but are the same as those described in Exhibit 5 of this document for blunts and in the following additional location: Kroutil, L. A., Handley, W., & Bradshaw, M. R. (2013). Exhibit 6 – Core edit issues involving consistency checks for incidence. General principles and procedures for editing drug use data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

Additionally, respondents who reported using methamphetamine in the past 12 months in questions SD17b or SD18b and who did not report that an earlier answer that they never used methamphetamine was correct (as reported in the core stimulants module) were asked to report on their frequency of use of methamphetamine in the past 12 months. As in the core drug modules, respondents could report their methamphetamine frequency of use in one of three ways: (1) use on an average number of days per week in the past 12 months, (2) use on an average number of days per month in the past 12 months, and (3) the total number of days they used in the past 12 months. We created a single composite edited variable MTHAYTOT to translate these answers to a total number of days that respondents used methamphetamine in the past 12 months. In the same manner as for 12-month frequency variables in the core drug modules, the value in MTHAYTOT was prorated as needed for respondents who initiated use in the past 12 months and therefore were not users over the entire 12-month period.[12]

These items on first use of methamphetamine and 12-month frequency were not used in editing the methamphetamine recency variable MTHAREC. Thus, MTHAREC was created in a manner comparable with how it was created since 2006 to maintain data on trends in methamphetamine use. However, inconsistencies could exist between MTHAREC and these new variables, such as if respondents reported that they initiated methamphetamine use in the past 12 months but they reported last using methamphetamine more than 12 months ago.

In addition, the CAI logic for asking about first use of methamphetamine and the 12-month frequency of use differed slightly with respect to the consistency checks SD17a1 and SD17alt that were triggered when respondents reported in the core stimulants module that they never used methamphetamine but reported use in the special drugs module. Specifically, the only respondents who were eligible to be asked about first use of methamphetamine in the special drugs module were those who specifically reported in the core stimulants module that they never used methamphetamine and then explicitly confirmed their methamphetamine use in SD17a1 or SD17alt. However, respondents who reported last using methamphetamine in the past 12 months were eligible to be asked about their 12-month frequency, as long as they had not reported in SD17a1 or SD17alt that an earlier report of having never used stimulants was correct; this included situations in which SD17a1 and SD17alt had been skipped because respondents reported in the core stimulants module that they did not know whether they ever used methamphetamine (i.e., and therefore had not previously denied ever using the drug).

3.1.2 Heroin Use and Needle Use Variables

An important aspect of the processing of variables in this module pertaining to the smoking of heroin, the sniffing of heroin, or needle use consisted of assigning codes of 91, 93, or 99 (see Sections 2.1.1 and 2.2) to variables that had been skipped because the questions did not apply. For example, respondents who never used heroin, stimulants other than methamphetamine, or cocaine were not asked questions in the special drugs module that pertained to these drugs. Similarly, respondents who did not indicate use of methamphetamine in

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[12] Kroutil, L., Handley, W., & Bradshaw, M. R. (2013). Exhibit 5 – Issues in the editing of 12-month and 30-day frequency variables. General principles and procedures for editing drug use data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

the core stimulants module and who continued to indicate in the follow-up questions in the special drugs module that they never used methamphetamine did not need to be asked further questions pertaining to the use of methamphetamine with a needle. In addition, respondents who indicated that they never used heroin, methamphetamine (in both the core stimulants module and in the noncore special drugs module), stimulants other than methamphetamine, cocaine, or any other drug with a needle for nonmedical reasons did not need to be asked questions about general needle use behaviors or the source of the last needle they used. Exhibit 3 describes specific edits that were implemented for these variables when the corresponding items were skipped.

Since 2001, respondents who reported in the core heroin module that they were lifetime heroin users but who answered "no" to all questions about smoking heroin (question SD01), sniffing heroin (question SD03), or using it with a needle (question SD08) have been asked a follow-up question SDHEUSE to determine how these respondents administered the heroin they had reported using. SDHEUSE was an "enter all that apply" type of question that allowed respondents to report multiple ways that they used heroin. SDHEUSE included response options for smoking heroin, sniffing heroin, using heroin with a needle, or use of heroin "some other way." Respondents who reported using heroin "some other way" were asked to specify in question SDHEUSE2 what this "other" mode of heroin administration was.

In turn, HEOTSMK, HEOTSNF, and HEOTNDL were used to edit the corresponding lifetime heroin variables HERSMOKE, HERSNIFF, and HERNEEDL, respectively. For example, if HEOTSMK indicated that the respondent had smoked heroin (HEOTSMK = 1 or 3), HERSMOKE was edited to indicate that the respondent was logically inferred to have smoked heroin at least once in his or her lifetime.

In addition, respondents were routed to follow-up recency questions for smoking, sniffing, or using heroin with a needle if they reported using heroin in any of these ways in question SDHEUSE. Information from these follow-up questions was used in the creation of the heroin smoking, sniffing, or needle recency variables HRSMKREC, HRSNFREC, and HRNDLREC. However, if respondents initially did not report using heroin in these ways in SDHEUSE, they were skipped out of these follow-up recency questions for smoking, sniffing, or using heroin with a needle. Therefore, if respondents' only indication of smoking, sniffing, or using heroin with a needle came from the "OTHER, Specify" response associated with SDHEUSE, the corresponding variables HRSMKREC, HRSNFREC, or HRNDLREC were set to 9 (Used at some point in the lifetime LOGICALLY ASSIGNED).

Exhibit 4 describes other edit issues and specific edits that were implemented in the special drugs module. For example, lifetime users of heroin could report that they smoked heroin at least once but not indicate when they last smoked it. The general edit was to assign a nonspecific value to the edited recency variable (i.e., HRSMKREC) to indicate that the respondent smoked heroin at some point in his or her lifetime. In some special situations, however, it was possible to infer that respondents could not have smoked heroin in the past 12 months. In these situations, respondents reported last using heroin more than 12 months ago, and there were no responses for other heroin-related questions in the special drugs module to indicate that these respondents had used heroin in the past 12 months.

Exhibit 3. Specific Skip Logic Edits for Heroin Use and Needle Use Variables in the Special Drugs Module

Response Pattern	Edit
Variables were skipped because the respondent (R) never used the drug of interest, and there were no other indications elsewhere in the special drugs module that the respondent ever used this drug.	Codes of 91 were assigned to the edited variables. For example, if the R never used heroin, the edited variables HERSMOKE, HRSMKREC, HERSNIFF, HRSNFREC, HERNEEDL, and HRNDLREC were assigned codes of 91.
Variables were skipped because the R refused to indicate in the corresponding core module whether he or she ever used the drug of interest, and there were no other indications elsewhere in the special drugs module that the respondent ever used this drug.	Codes of 97 (i.e., refused) were assigned to the edited variables. Thus, for example, a refusal from the heroin recency-of-use variable in the core was propagated onto the heroin variables in the special drugs module.
Variables were skipped because the R did not know in the core module whether he or she ever used the drug of interest, and there were no other indications elsewhere in the special drugs module that the R ever used this drug.	The skipped special drugs variables pertaining to this drug retained a value of 98 (i.e., blank).
For the methamphetamine variables that existed prior to 2005, other stimulants, and cocaine, there were no indications elsewhere in the special drugs module of the R reporting use of this drug as "some other drug" that he or she used with a needle. The R was a lifetime user of the drug of interest, but the corresponding needle recency variable was skipped because of the following:	
• The R never used the drug with a needle.	Codes of 93 were assigned to the corresponding needle recency variable (e.g., CONDLREC) to indicate that the R used the drug but never with a needle.
• The R refused to indicate whether he or she had ever used the drug with a needle.	A code of 97 was assigned to the edited needle recency variable (i.e., the refusal was propagated).
• The R did not know whether he or she had ever used that drug with a needle.	The edited needle recency variable retained a code of 98 (i.e., blank).

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Exhibit 3.   Specific Skip Logic Edits for Heroin Use and Needle Use Variables in the Special Drugs Module (continued)

Response Pattern	Edit
For the methamphetamine variables that were added in 2005, there were no indications elsewhere in the special drugs module of the R reporting use of methamphetamine as "some other drug" that he or she used with a needle. MTHAMP indicated that the R was a lifetime user of methamphetamine, but the corresponding needle recency variable MTANDLRC was skipped because of the following:	
• The R never used methamphetamine with a needle (from MTHANEDL).	Codes of 93 were assigned to the corresponding methamphetamine needle recency variable MTANDLRC to indicate that the R used methamphetamine but never with a needle.
• The R refused to indicate or did not know in MTHANEDL whether he or she had ever used methamphetamine with a needle.	A code of 97 was assigned to MTANDLRC (i.e., the refusal was propagated).
The R was a lifetime user of heroin, but relevant recency variables for smoking heroin (HRSMKREC), sniffing heroin (HRSNFREC), or using it with a needle (HRNDLREC) were skipped because of the following:	
• The R never used heroin via the route of interest.	Codes of 93 were assigned to the relevant heroin recency variable(s) (e.g., HRSMKREC for smoking heroin) to indicate that the R used heroin but not in that particular way.
• The R refused to indicate whether he or she had ever used heroin via the route of interest.	A code of 97 was assigned to the relevant heroin recency variable(s) (i.e., the refusal was propagated).
• The R did not know whether he or she had ever used heroin via the route of interest.	The edited heroin recency variable(s) retained a code of 98 (i.e., blank).
(In the case of heroin use with a needle, there were no other indications elsewhere in the special drugs module of heroin use with a needle.)	The special situation in which Rs reported lifetime use of heroin in the core but reported that they never smoked, sniffed, or used it with a needle is discussed in the text.

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Exhibit 3. Specific Skip Logic Edits for Heroin Use and Needle Use Variables in the Special Drugs Module (continued)

Response Pattern	Edit
Questions SD10c and SD11 pertaining to use of other stimulants with a needle had been skipped because methamphetamine was the only stimulant that the R had reported ever using.	If the lifetime methamphetamine variable METHDES was coded as 1 (i.e., "yes") and all other lifetime stimulant variables had values of 2 (i.e., "no"), the edited other stimulant needle variables OSTNEEDL and OSTNLREC (corresponding to questions SD10c and SD11, respectively) were assigned codes of 99 (legitimate skip). This edit was not done if SD10c and SD11 were skipped when METHDES had the only affirmative response, but at least one of the other lifetime stimulant variables had a value of "don't know" or "refused."
The R was a lifetime methamphetamine user in the core stimulants module. In addition, questions SD10c and SD11 pertaining to use of other stimulants with a needle had been answered because the R reported use of "some other stimulant" in the stimulants module. Based on "OTHER, Specify" data in the stimulants module, however, methamphetamine was the only stimulant that the R had ever used.	Data were retained in the needle recency variable for other stimulants (OSTNLREC) if the R reported more recent use of "other" stimulants with a needle than what the R reported for the methamphetamine needle recency (MTNDLREC); that is, no editing was done. Otherwise, nonblank values in OSTNLREC were replaced with codes of 89 (Legitimate skip LOGICALLY ASSIGNED).
General needle use variables were skipped because the R reported never using heroin, methamphetamine, other stimulants, cocaine, or any other drug (question SD05; edited variable OTDGNEDL) with a needle. For methamphetamine, this included reports in the methamphetamine question SD18a (added in 2005) and in the methamphetamine question that existed prior to 2005 that the R had never used methamphetamine with a needle.	Codes of 99 (i.e., legitimate skip) were assigned to all of the general needle use variables that had been skipped (GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET).
General needle use variables were skipped because question SD05 was answered as "no" (OTDGNEDL = 2); there were no affirmative reports of heroin, methamphetamine, other stimulants, or cocaine with a needle, but one or more of the lifetime needle use variables for these drugs was answered as "don't know" or "refused."	When there was no affirmative report of use of heroin, methamphetamine, other stimulants, or cocaine with a needle, question SD05 was worded as follows: "Have you ever, even once, used a needle to inject *any drug* that was not prescribed for you ..." (wording not italicized in the interview). Therefore, codes of 99 (i.e., legitimate skip) were assigned to all of the general needle use variables that had been skipped (GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET) because it could be inferred that the response of "no" in question SD05 pertained to use of any drug with a needle. However, no editing was done to any responses of "don't know" or "refused" in the lifetime needle use variables pertaining to heroin (HERNEEDL), methamphetamine (MTHNEEDL), other stimulants (OSTNEEDL), or cocaine (COCNEEDL).
General needle use variables were skipped because question SD05 was refused (OTDGNEDL = 97), and there were no affirmative reports of heroin, methamphetamine, other stimulants, or cocaine with a needle.	The refusal from OTDGNEDL was propagated to the general needle use variables GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET.

Exhibit 4.   Edit Issues (Other Than Skip Patterns) Pertaining to Heroin Use and Needle Use in the Special Drugs Module

Issue	Edits Implemented
The respondent (R) was a lifetime user of heroin and reported smoking, sniffing, or using heroin with a needle at least once in his or her lifetime, but did not know or refused to indicate when he or she last smoked, sniffed, or injected heroin.	The edits depended on the most recent use of heroin reported in the corresponding core heroin recency variable: • In general, the edited heroin recency variables in the special drugs module (HRSMKREC, HRSNFREC, HRNDLREC) were assigned a code of 9 (i.e., used at some point in the lifetime). • However, if the core heroin recency indicated that the R last used heroin more than 12 months ago and there was no other indication in the special drugs module that the R had used heroin in the past 12 months (see below), then the edited variables pertaining to smoking, sniffing, or injection of heroin were assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED). This edit did not apply if the R answered "did not know" or refused to report when he or she last used heroin in a particular way (e.g., smoking it) but reported last using it a different way in the past 12 months (e.g., with a needle).
The R was a lifetime user of methamphetamine (in the core stimulants module), other stimulants, or cocaine and reported using the relevant drug with a needle at least once in his or her lifetime, but did not know or refused to indicate when he or she last used that drug with a needle.	The edits depended on the most recent use reported in the corresponding core recency variable: • In general, the edited needle recency variable (e.g., CONDLREC for cocaine) was assigned a code of 9 (i.e., used at some point in the lifetime). • However, if the core recency indicated that the R last used the drug more than 12 months ago, then the edited needle recency variable pertaining to that drug was assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED).
For the methamphetamine variables added in 2005, the R was a lifetime user of methamphetamine in MTHAMP, and the R was a lifetime user of methamphetamine with a needle in MTHANDL, but the R did not know or refused to report the last time he or she last used it with a needle.	The edits depended on the most recent use reported in the methamphetamine recency variable MTHAREC: • In general, the edited methamphetamine needle recency variable MTANDLRC was assigned a code of 9 (i.e., used at some point in the lifetime). • However, if MTHAREC indicated that the R last used methamphetamine more than 12 months ago, then MTANDLRC was assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED). Logically, the R could not have used methamphetamine with a needle in a more recent time period.
The R reported in the core drug modules that he or she never used one or more of the following: heroin (HERREC = 91), methamphetamine (METHREC = 81 or 91), other stimulants (STIMREC = 81 or 91), or cocaine (COCREC = 91). However, the R specified use of one or more of these drugs as "some other drug" that he or she had ever injected.	No editing was done to the core drug data. However, the R was logically inferred in the special drugs data to be a lifetime user of that drug with a needle, even though the core drug data indicated that the R never used that drug. The corresponding needle recency variable was set to a value of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). For example, if the R reported in the heroin module that he or she never used heroin but specified injection of heroin as "some other drug," the lifetime heroin needle use variable HERNEEDL was set to 3 (Yes LOGICALLY ASSIGNED), and the heroin needle recency HRNDLREC was set to 9. Similar edits were done for the needle use variables pertaining to methamphetamine, other stimulants, and cocaine.

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Exhibit 4. Edit Issues (Other Than Skip Patterns) Pertaining to Heroin Use and Needle Use in the Special Drugs Module (continued)

Issue	Edits Implemented
For the methamphetamine variables added in 2005, MTHAMP or MTHANEDL (or both) were logically inferred to be answered as "yes." The R also specified use of methamphetamine with a needle in the "OTHER, Specify" variables OTDGNDLA through OTDGNDLE.	These methamphetamine variables were edited to be made consistent with the "OTHER, Specify" data: • MTHAREC and MTANDLRC were assigned a code of 9 (i.e., used at some point in the lifetime). • If the R reported lifetime methamphetamine use in MTHAMP but use of methamphetamine with a needle had been logically inferred in MTHANDL, then MTANDLRC generally was assigned a code of 9. However, if MTHAREC indicated that the R last used any methamphetamine more than 12 months ago, MTANDLRC was assigned a code of 13 (i.e., More than 12 months ago LOGICALLY ASSIGNED).
In the methamphetamine variables added in 2005, the R indicated more recent use of methamphetamine with a needle in MTANDLRC than the R indicated for most recent use of any methamphetamine in MTHAREC.	MTHAREC was edited to reflect the indication of more recent use from MTADNLRC. • If MTANDLRC indicated that the R last used methamphetamine with a needle in the past 30 days, but MTHAREC did not indicate use in the past 30 days, MTHAREC was assigned a code of 11 (Used in the past 30 days LOGICALLY ASSIGNED). • If MTANDLRC indicated that the R last used methamphetamine with a needle more than 30 days ago but within the last 12 months, and MTHAREC indicated that the R last used methamphetamine more than 12 months ago, MTHAREC was assigned a code of 12 (Used more than 30 days ago but within the past 12 months LOGICALLY ASSIGNED). • If MTANDLRC indicated that the R last used methamphetamine with a needle more than 30 days ago but within the last 12 months, and MTHAREC did not indicate use in the past year, MTHAREC was assigned a code of 8 (Used at some point in the past 12 months LOGICALLY ASSIGNED.
The R had been logically inferred to be a nonuser of prescription-type stimulants because the only drugs that the R reported using in the stimulants module were over-the-counter (OTC) drugs. In addition, the R did not specify use of methamphetamine or other stimulants with a needle as "some other drug" that the R used with a needle.	Any data in the methamphetamine and other stimulant needle variables MTHNEEDL, MTNDLREC, OSTNEEDL, and OSTNLREC were wiped out and replaced with a code of 81 (i.e., NEVER USED METHAMPHETAMINE/STIMULANTS Logically assigned) for consistency with the inference that the R was a lifetime nonuser of prescription-type stimulants. This edit did not apply to the methamphetamine variables added in 2005.
The R was asked questions about use of methamphetamine and other stimulants with a needle because the R reported lifetime use of methamphetamine and "some other stimulant" in the stimulants module (and no other stimulant). However, only methamphetamine was specified as the "other" stimulant.	The R was treated as being a lifetime user only of methamphetamine. Therefore, any data in the other stimulant needle use variables OSTNEEDL and OSTNLREC were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned). This edit indicated that the R logically should have skipped the questions pertaining to OSTNEEDL and OSTNLREC. (As noted in Exhibit 2, the methamphetamine variables added in 2005 were assigned codes of 99 when the R reported lifetime methamphetamine use in the core stimulants module.)

(continued)

Exhibit 4.   Edit Issues (Other Than Skip Patterns) Pertaining to Heroin Use and Needle Use in the Special Drugs Module (continued)

Issue	Edits Implemented
The R was logically inferred to be a lifetime user of methamphetamine with a needle in the MTHNEEDL variable that existed prior to 2005 (i.e., MTHNEEDL = 3) based on the R's "OTHER Specify" data in the variables OTDGNDLA through OTDGNDLE.	If the lifetime other stimulant needle use variable OSTNEEDL did not have data indicating that the R had or had not used a needle to inject other stimulants (i.e., OSTNEEDL = 1, 2, 3, or 4), whatever raw data existed in questions SD10c and SD11 were reassigned to the corresponding edited variables OSTNEEDL and OSTNLREC, respectively.
The R was logically inferred to be a lifetime user of methamphetamine (METHDES = 3) based on "OTHER, Specify" data in the stimulants module, and the methamphetamine needle variable MTHNEEDL had missing data. Further, the variable MTHANEDL added in 2005 did not indicate use of methamphetamine with a needle.	If OSTNEEDL = 2 and MTHANEDL did not equal 1 (i.e., "yes"), the R was logically inferred not to have used a needle to inject methamphetamine (i.e., MTHNEEDL = 4, where 4 = No LOGICALLY ASSIGNED). If the methamphetamine needle recency variable MTNDLREC had been skipped, it was assigned a code of 93 (USED METHAMPHETAMINE BUT NEVER WITH A NEEDLE). When the R had not indicated lifetime methamphetamine use in questions ST01 or STREF1 in the core, question SD10c (corresponding to OSTNEEDL) asked whether the R had used a needle to inject *any* stimulant. Therefore, it could be logically inferred that the R had never used a needle to inject methamphetamine.
The R specified lifetime use of more than five drugs with a needle.	Priority was given to retaining as many unique mentions as possible for other drugs that the R used with a needle. Thus, multiple mentions of the same drug would be counted only once. Priority also would be given to retaining mentions of drugs that were covered in the special drugs module that the R had not previously reported using with a needle (e.g., if the question corresponding to MTHNEEDL had been answered as "no" but methamphetamine had been specified as "some other drug" that the R used with a needle). Conversely, retention of "OTHER, Specify" codes corresponding to drugs that the R had already reported using with a needle were given lower priority.
	If there were still more than five mentions of unique drugs after the above steps, priority was given to retaining the most serious drugs according to the Drug Enforcement Administration (DEA) drug schedule (e.g., first priority to retaining mention of Schedule I drugs that have no approved medical use in the United States, second priority to retaining Schedule II drugs).
	Finally, after the drugs had been ranked according to their severity based on the DEA drug schedule, if mention of more than five drugs still remained, the codes were retained in the order they appeared in the data.

(continued)

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Exhibit 4. Edit Issues (Other Than Skip Patterns) Pertaining to Heroin Use and Needle Use in the Special Drugs Module (continued)

Issue	Edits Implemented
The R reported using a needle to inject a drug for nonmedical reasons (SD05 = 1), but the R previously reported never using marijuana, cocaine, heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, or prescription sedatives.	No editing was done if the R • specified needle use involving a drug that could be abused or had psychoactive properties (e.g., steroids, one or more categories of drugs covered in the core modules that were not covered elsewhere in special drugs, such as prescription pain relievers), or • reported one or more "risky" needle use behaviors (reusing a needle, needle sharing, or cleaning a needle with bleach). The R was inferred not to be a lifetime nonmedical needle user (OTDGNEDL = 4) if the R • specified use of a drug that was typically not abused and did not have psychoactive properties (e.g., if injection of antibiotics was specified), and • reported never reusing a needle, sharing a needle (before or after someone had used it), or cleaning a needle with bleach (i.e., "risky" needle use behaviors). When OTDGNEDL = 4, any data in the general needle use variables GNNDREUS, GNNDLSH1, GNNDCLEN, GNNDLSH2, and GNNDGET were replaced with a code of 89 (LEGITIMATE SKIP Logically assigned).
The general needle use items corresponding to questions SD12 through SD16 had been answered. However, the only indications of lifetime needle use had been set to bad data (e.g., if MTHANEDL had been set to bad data; see Exhibit 2).	The edited general needle use variables GNNDREUS through GNNDGET were set to bad data.
The R reported getting his or her last needle "some other way" and specified a meaningful response for how he or she last got the needle.	The final, edited variable pertaining to how the R got his or her last needle (GNNDGET) was a composite of the response categories that were offered to the R (i.e., bought the needle from a pharmacy, got the needle from a needle exchange, bought the needle on the street, got the needle in a shooting gallery, got the needle some other way). This was done because the computer-assisted interviewing (CAI) logic did not allow Rs to specify an "other" way that they got the needle if they reported getting the needle in one of the first four ways. When Rs reported getting the needle "some other way" and specified a meaningful way they got the needle, that response was assigned to GNNDGET.
The R reported getting his or her last needle "some other way" and did not know what that other way was, refused to specify what that other way was, or gave a response that was coded as bad data (e.g., a nonsensical response).	The final, edited variable pertaining to how the R got his or her last needle (GNNDGET) retained a nonspecific code of "some other way." Stated another way, the response of "some other way" was given precedence over the missing value in the "OTHER, Specify" response. The edit was done in this manner to provide a nonmissing value for analysts to use.
The R answered "don't know" or "refused" at the outset, when asked how he or she got the last needle that he or she used.	The response of "don't know" or "refused" was retained in the final, edited variable (GNNDGET).

Since 2001, respondents have been asked in question SD05 (edited variable OTDGNEDL) whether they ever used a needle to inject "some other drug" with a needle (if respondents previously reported lifetime use of heroin, methamphetamine, other stimulants, or cocaine with a needle) or "any drug" with a needle (if respondents had not previously indicated use of any of the above drugs with a needle). If question SD05 was answered as "yes" (OTDGNEDL = 1), respondents then were asked to specify what (other) drug(s) they used with a needle. Respondents could specify up to five drugs that they had injected (edited variables OTDGNDLA through OTDGNDLE).

Consequently, it was possible for respondents to have reported in a core drug module that they never used a particular drug that was covered in the special drugs module but then specify use of that drug with a needle in OTDGNDLA through OTDGNDLE. For example, respondents could indicate in the core heroin module that they never used heroin but then specify lifetime injection of heroin in OTDGNDLA through OTDGNDLE. In this situation, no editing was done to the core drug data. However, these respondents were logically inferred in the relevant special drugs variables to be users of that particular drug at some point in the lifetime. Thus, for example, if respondents reported in the core heroin module that they never used heroin, but then they specified heroin as "some other drug" that they used with a needle, the edited lifetime heroin needle use variable HERNEEDL was assigned a code of 3 (Yes LOGICALLY ASSIGNED) and the heroin needle recency variable HRNDLREC was assigned a code of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED).

Respondents also could report in the special drugs module that they used a needle to inject a drug for nonmedical reasons, even though they previously reported that they never used marijuana, cocaine, heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, or prescription sedatives. Beginning in 2001, however, respondents were asked to specify what "other" drug(s) they had injected. Thus, it was possible to identify respondents who corroborated their report of lifetime injection drug use (e.g., if injection of anabolic steroids was reported) despite having previously reported nonuse of all drugs covered in the core modules. Similarly, it was possible from "OTHER, Specify" data on other drugs that respondents had injected to identify those whose needle use probably was limited to legitimate, medical uses (e.g., injection of antibiotics). Therefore, we logically inferred that respondents had never used needles for nonmedical purposes if (a) they were lifetime nonusers of all drugs covered in the core; (b) they indicated that they never engaged in behaviors that would be indicative of nonmedical needle use, such as needle sharing, use of bleach to clean needles, or reusing of needles; and (c) all of the "other" drugs they reported using with a needle typically were not drugs of abuse. In this situation, the variable OTDGNEDL corresponding to question SD05 was set to a value of 4 (No LOGICALLY ASSIGNED). Any data in the general needle use variables GNNDREUS through GNNDGET were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned) to indicate that respondents logically should have skipped these items because they appeared to be reporting about legitimate use of drugs with a needle.

In addition, recoded needle use variables (STNEELDR, STNLRECR, and NEDLRECR) were created from variables pertaining to use of methamphetamine, other stimulants, heroin, or cocaine with a needle. STNEEDLR and STNLRECR were analogous to the variables STNEEDLE and STNDLREC, respectively, that existed in 1999 and 2000. Similarly,

NEDLRECR was analogous to the recoded needle recency variable NEDLRECC that existed in 1999 and 2000. These variables did not take into account data from the methamphetamine variables that have been present in the special drugs module since 2005. Consequently, STNEEDLR, STNLRECR, and NEDLRECR were designed to be comparable with data in these variables prior to 2005 for use in analysis of trends in needle use.

STNEEDLR was created from the lifetime methamphetamine needle use variable MTHNEEDL and the lifetime other stimulant needle use variable OSTNEEDL. The logic for creating STNEEDLR is documented below.

- If respondents reported use of methamphetamine or other stimulants with a needle, STNEEDLR was coded as 1 ("yes").

- If respondents were users of methamphetamine or other stimulants but reported never injecting stimulants with a needle, STNEEDLR was coded as 2 ("no").

- If respondents had never used stimulants, STNEEDLR was coded as 81 or 91 (depending on the value in the core stimulant recency variable STIMREC). Missing data from MTHNEEDL or OSTNEEDL were carried over to STNEEDLR.

STNLRECR was derived from the needle recency variables MTNDLREC (most recent use of methamphetamine with a needle) and OSTNLREC (most recent use of other stimulants with a needle). The logic for creating STNLRECR is documented below.

- If respondents had never used stimulants, STNLRECR was assigned a code of 81 or 91, depending on the value in STIMREC.

- Similarly, if STNEEDLR was coded as 2 ("no"), STNLRECR was coded as 93 (used stimulants but never with a needle).

- If respondents had injected methamphetamine or some other stimulant, the general principle in assigning a value to STNLRECR was to pick the most recent use that the respondent reported. For example, if respondents indicated in either MTNDLREC or OSTNLREC that they used methamphetamine or other stimulants with a needle within the past 30 days, then STNLRECR indicated use of stimulants with a needle in the past 30 days.

- However, if respondents reported last using methamphetamine with a needle more than 30 days ago but within the past 12 months but all that was known was that they used other stimulants with a needle at some point in their lifetime, it still could be inferred that they had used a needle to inject any stimulant at some point in the past 12 months (potentially including the past 30 days). The nonspecific value for past year use was assigned (i.e., a code of 8) because the respondents could have been more recent users of other stimulants with a needle.

- Similarly, if respondents indicated use of one of these stimulants (i.e., methamphetamine or other stimulants) with a needle in a definite period more than 30 days ago but the respondents did not know or refused to indicate whether they had ever used the other type of stimulant with a needle, a nonspecific value of lifetime use

(i.e., a code of 9) was assigned to STNLRECR because the respondents may have been more recent users of stimulants with a needle than what they had reported.

The needle recency variable NEDLRECR was created from the variables HRNDLREC (most recent use of heroin with a needle), CONDLREC (most recent use of cocaine with a needle), and STNLRECR (most recent use of any stimulant with a needle, as noted above). The logic for creating NEDLRECR is documented below.

- If respondents never used a needle to inject any of these drugs nonmedically (including situations in which respondents never used cocaine, heroin, or stimulants), NEDLRECR indicated that the respondents had never used cocaine, heroin, or stimulants with a needle.

- If respondents reported using one or more of these drugs with a needle, the general principle in assigning a value to NEDLRECR was to identify the most recent use reported by the respondents. In particular, if respondents reported using one or more of these drugs with a needle in the past 30 days, it could be determined unambiguously that the respondents were past month needle users.

- In other situations, however, if one or more of the cocaine, heroin, or stimulant needle recency variables indicated nonspecific use at some point in the respondents' lifetime, NEDLRECR was assigned a value to indicate nonspecific past year or lifetime use. For example, if respondents reported last using cocaine with a needle more than 30 days ago but within the past 12 months, yet all that was known was that they used heroin with a needle at some point in their lifetime, it still could be inferred that they had used some drug with a needle in the past 12 months. The nonspecific value for past year use was assigned (i.e., a code of 8) because the respondents could have been more recent users of heroin with a needle.

- Similarly, if respondents indicated use of one of these drugs with a needle more than 12 months ago and they did not know or refused to indicate when they last used one of the other drugs with a needle, a nonspecific value of lifetime use (i.e., a code of 9) was assigned to NEDLRECR because the respondents may have been more recent needle users than what they had reported elsewhere.

In addition, recoded needle use variables (STNEDL06, STNLRC06, and NDLREC06) were created to incorporate the methamphetamine needle use questions that were added to the module in 2005 and the follow-up items on methamphetamine use that were added to the module in 2006 (and retained since then). These new needle use variables were based on the variables STNEELDR, STNLRECR, and NEDLRECR (documented above). Consequently, data in STNEDL06, STNLRC06, and NDLREC06 may not be comparable with data in STNEEDLR, STNLRECR, and NEDLRECR from prior survey years.

The recoded lifetime stimulant needle variable STNEDL06 was derived from the variable STNEEDLR. STNEDL06 was updated to reflect data from the new variable MTHANEDL (ever used a needle to inject methamphetamine), after MTHANEDL had been edited (see above). The logic for creating STNEDL06 is documented below. This logic for creating STNEDL06 was implemented only if (a) MTHEVCK had been set to bad data (see Exhibit 2); (b) respondents had specified use of methamphetamine as "some other drug" that they used with a needle; or (c)

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respondents had not previously reported methamphetamine use in the core stimulants module because they had not thought of methamphetamine as a prescription drug or for some similar reason (e.g., knowing methamphetamine by a slang term other than the examples given in the core).

- If MTHANEDL indicated use of methamphetamine with a needle and STNEEDLR did not already indicate use of any stimulant with a needle, then STNEDL06 was recoded as 1 ("yes").

- If STNEEDLR had been coded as 81 or 91 (i.e., never used stimulants) and MTHAMP indicated lifetime methamphetamine use but MTHANEDL did not indicate use with a needle, then STNEDL06 was recoded as 2 ("no"), instead of 81 or 91.

- Otherwise, if MTHANEDL had a missing value and STNEEDLR did not indicate that respondents used stimulants with a needle, STNEDL06 was assigned a missing value.

The recoded stimulant needle recency variable STNLRC06 was derived from the variable STNLRECR and was updated to reflect data from MTANDLRC (most recent use of methamphetamine with a needle), after MTANDLRC had been edited. The logic for creating STNLRC06 is documented below. The same conditions described above for implementing the logic for STNEDL06 also applied to STNLRC06.

- If respondents indicated last using methamphetamine with a needle within the past 30 days in MTANDLRC and STNLRECR did not already indicate use of stimulants with a needle in the past 30 days, then STNLRC06 was recoded to indicate use of stimulants with a needle in the past 30 days.

- If respondents indicated needle use in MTANDLRC in some period other than the past 30 days but STNLRECR indicated that respondents either had never used stimulants or had never used stimulants with a needle (i.e., based on core stimulants data and special drugs variables that existed prior to 2005), then STNLREC06 was updated with the period of most recent use that the respondents indicated in MTANDLRC.

- If respondents reported last using methamphetamine with a needle more than 30 days ago but within the past 12 months (in MTANDLRC) but all that was known was that the respondents used other stimulants with a needle at some point in their lifetime, it still could be inferred that the respondents had used a needle to inject any stimulant at some point in the past 12 months (potentially including the past 30 days). The nonspecific value for past year use was assigned (i.e., a code of 8) because respondents could have been more recent users of other stimulants with a needle.

- Similarly, if respondents indicated use of methamphetamine (from MTANDLRC) or other stimulants with a needle in a definite period more than 30 days ago and the respondents did not know or refused to indicate whether they had ever used the other type of stimulant, a nonspecific value of lifetime use (i.e., a code of 9) was assigned to STNLRC06 because the respondents may have been more recent users of stimulants with a needle than what they had reported.

- If MTANDLRC had a definite value indicating most recent use more than 30 days ago, STNLRECR was coded as 9 (i.e., used at some point in the lifetime), but OSTNEEDL indicated that the respondents had not used other stimulants with a needle, then the STNLRC06 was assigned the value from MTANDLRC plus a value of 10. For example, if MTANDLRC was coded as 3 (last used methamphetamine with a needle more than 12 months ago) and STNLRECR was coded as 9, then STNLREC06 was assigned a value of 13. In this situation, the code of 9 in STNLRECR would have come from the methamphetamine data that existed in the special drugs module prior to 2006, and not from data for other stimulants.

- If STNLRECR indicated that that respondents had never used stimulants (i.e., STNLRECR = 91) but MTANDLRC indicated that they had used methamphetamine but never with a needle, then STNLREC06 was recoded to a value of 93 (USED STIMULANTS BUT NEVER WITH A NEEDLE).

- If STNLRECR was coded as 91 (see above) and MTANDLRC also indicated that respondents had never used methamphetamine, then STNLREC06 continued to be coded as 91.

Because of the addition of the new methamphetamine variables, the needle recency variable NDLREC06 was derived from the variable NEDLRECR (see above). NDLREC06 was updated based on values in STNLRC06. The logic for creating NDLREC06 is documented below.

- If respondents indicated last using stimulants with a needle within the past 30 days based on STNLRC06, and NDLREC06 did not already indicate use in that period, then NDLREC06 was recoded to indicate use of cocaine, heroin, or stimulants with a needle in the past 30 days.

- If STNLRC06 indicated that respondents used stimulants with a needle at some point in the past 12 months (STNLRC06 = 8) and NEDLRECR did not indicate use in the past 30 days or NEDLRECR was not already coded as 8 (i.e., used at some point in the past 12 months), then NDLREC06 was recoded as 8.

- Similarly, if STNLRC06 indicated that respondents used stimulants with a needle at some point in their lifetime (STNLRC06 = 9) and NEDLRECR did not indicate use in the past 12 months or NEDLRECR was not already coded as 9 (i.e., use at some point in the lifetime), then NEDLREC06 was recoded as 9.

- If respondents reported using stimulants with a needle (from STNLRC06) in some definite period other than the past 30 days, the general principle in assigning a value to NDLREC06 was to identify the most recent use reported by the respondents. For example, STNLRC06 indicated that respondents last used stimulants with a needle more than 30 days ago but within the past 12 months but NEDLRECR indicated that respondents last used a needle to inject cocaine, heroin, or stimulants more than 30 days ago but within the past 12 months, then NDLREC06 was recoded to reflect the value from STNLRC06.

- If respondents were logically inferred to have last used stimulants with a needle more than 12 months ago (STNLRC06 = 13) and NEDLRECR was coded as 9 (i.e., used at

some point in the lifetime) but respondents had never used cocaine or heroin with a needle, then NEDLREC06 was recoded as 13.

- If STNLRC06 had a missing value and NEDLRECR indicated needle use at some point in the past 12 months (but not in the past 30 days), then NDLREC06 was recoded as 8 (i.e., used at some point in the past 12 months). Similarly, if STNLRC06 had a missing value and NEDLRECR indicated needle use but not in the past 12 months, then NDLREC06 was recoded as 9 (i.e., used at some point in the lifetime).

3.1.3 Additional Drug Variables

Questions have been included in the special drugs module since 2006 for the following drugs that did not have specific questions in any of the core drug modules:

- GHB (gamma hydroxybutyrate);
- Adderall® (a prescription stimulant) used without a prescription or for the experience or feeling it caused (i.e., "nonmedical" use);
- Ambien® (a prescription sedative) used without a prescription or for the experience or feeling it caused;
- nonprescription cough or cold medicines, also known as over-the-counter (OTC) medicines, to get high;
- ketamine (a hallucinogen);
- the hallucinogens DMT (dimethyltryptamine), AMT (alpha-methyltryptamine), and 5-MeO-DIPT (5-methoxy-diisopropyltryptamine); and
- *Salvia divinorum* (a hallucinogen).

Respondents were shown images on-screen of Adderall® and Ambien® to aid them in recalling whether they had ever used these drugs nonmedically.

If respondents reported that they ever used a particular drug mentioned above, they were asked to report when they last used that drug. In addition, respondents who reported that they last used OTC cough or cold medicines to get high in the past 12 months were asked to specify what OTC drugs they used to get high in that period. Respondents could specify up to five drugs that they used to get high. Therefore, the edited variables COLDYR1 through COLDYR5 (corresponding to the "OTHER, Specify" items SD27a through SD27e) captured up to five medications that respondents reported using to get high.

The "OTHER, Specify" variables for OTC cough and cold medicines were coded using a decimal system to preserve relationships between similar responses and to capture additional details that respondents provided. For example, there are multiple formulations of OTC cold medicines under the brand name of Robitussin® that vary in terms of the specific ingredients they contain, such as the OTC cough suppressant dextromethorphan (DXM). Therefore, if respondents specified that they used a Robitussin® product to get high in the past 12 months but the only detail they provided was that they used "Robitussin," that response was assigned a default code of 829.0 (Robitussin®, no other information). However, if respondents specifically

reported that they used Robitussin® DM to get high (a product that contains DXM), that response was coded as 829.1 and was documented as Robitussin® DM. Thus, the main code of 829 indicated use of a Robitussin® product to get high in the past 12 months, and the decimal value indicated whether respondents provided additional detail about their use of specific Robitussin® products to get high.

An important aspect of the processing of these drug variables consisted of assigning codes of 91 (or 9991) to variables that had been skipped because the questions did not apply. For example, if respondents reported in question SD19 (edited variable GHB) that they never used GHB, the edited recency-of-use variable GHBREC (corresponding to question SD24) was assigned a code of 91. Similarly, if respondents reported that they last used an OTC cough or cold medicine to get high more than 12 months ago, COLDYR1 through COLDYR5 were assigned codes of 9993.0 to indicate that respondents had used OTC cough or cold medicines to get high, but not in the past 12 months.

In addition, if respondents reported that they had ever used a drug (e.g., GHB) but they did not know or refused to report when they last used it, the edited recency-of-use variable (e.g., GHBREC) was assigned a code of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). If the most recent use of OTC cough or cold medicines (edited variable COLDREC, corresponding to question SD27) had been assigned a code of 9, COLDYR1 through COLDYR5 were left as blank (code of 9998.0) because some of these respondents may have used OTC cough or cold medicines to get high in the past 12 months.

Data from the "OTHER, Specify" needle use variables OTDGNDLA through OTDGNDLE (see Sections 3.1.1 and 3.1.2) and the cough and cold medicine variables COLDYR1 through COLDYR5 were used in editing these additional drug use variables, except for editing of the OTC cough and cold variables COLDMEDS (corresponding to question SD22a) and COLDREC. Specifically, OTDGNDLA through OTDGNEDLE were not used to edit COLDMEDS and COLDREC because there could be too much room for interpretation regarding what might constitute a nonprescription cough or cold medicine. In contrast, the questions for the other additional drugs in the special drugs module pertained to specific drugs.

Thus, for example, if a respondent had not reported lifetime use of ketamine but the respondent specified using ketamine with a needle in OTDGNDLA through OTDGNDLE, then the edited variable KETAMINE (corresponding to question SD23a) would be assigned a code of 3 (Yes LOGICALLY ASSIGNED). In turn, the recency-of-use variable KETAREC (corresponding to question SD28) would be assigned a code of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). However, there were no situations in 2011 in which data from the "OTHER, Specify" needle use variables OTDGNDLA through OTDGNDLE resulted in any responses being logically inferred in these additional drug use variables. Nevertheless, this logic is in place for handling these types of patterns in future survey years.

In addition, if a respondent specified use in the past year of GHB, Adderall®, Ambien®, ketamine, DMT, AMT, 5-MeO-DIPT, or *Salvia divinorum* as a nonprescription cough or cold medicine in COLDYR1 through COLDYR5, that response was used to edit the other drug data. Using Ambien® as an example, if question SD21 pertaining to lifetime nonmedical use of Ambien® was not answered as "yes" (or had not logically been inferred as "yes" from the above

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edits based on OTDGNDLA through OTDGNDLE), the corresponding edited variable AMBIEN was assigned a code of 3 (Yes LOGICALLY ASSIGNED). In turn, the corresponding edited recency-of-use variable (e.g., AMBIREC, corresponding to question SD26) was assigned a code of 8 (Used at some point in the past 12 months LOGICALLY ASSIGNED) because COLDYR1 through COLDYR5 pertain to use in the past 12 months. If a respondent had answered question SD21 for Ambien® as "yes" and reported last using it more than 12 months ago but also specified using it in the past 12 months in COLDYR1 through COLDYR5, AMBIREC also was assigned a code of 8.

Because the questions corresponding to COLDMEDS and COLDREC asked specifically about use of OTC cough or cold medicines, respondents also would be expected to report at least one OTC medicine in COLDYR1 through COLDYR5 or to have some response of "don't know" or "refused" in the corresponding items (i.e., if respondents did not know the name of the drug or did not want to report it). Therefore, a variable called OTCFLAG was created to indicate when respondents' reports of use of OTC cough or cold medicines in the past year were not substantiated by the "OTHER, Specify" data. OTCFLAG had the values shown below when these situations occurred.

- OTCFLAG had a value of 1 (i.e., "yes") when respondents specified only the use of drugs that require a prescription in the United States[13] or drugs that are not available as OTC medicines in the United States, even if they may be available as OTC medicines elsewhere.

- OTCFLAG had a value of 2 (i.e., "no") when COLDYR1 through COLDYR5 had values only of 9985.0 (bad data) or 9998.0 (blank).

No further editing was done to the OTC variables when OTCFLAG indicated that respondents' reports of use of OTC cough or cold medicines to get high in the past year were not substantiated in COLDYR1 through COLDYR5. However, OTCFLAG would alert analysts when this issue occurred.

3.2   Risk/Availability Module

The risk/availability module asked about the perceived risk of harm associated with use of alcohol or specific illegal drugs, perceived ease of obtaining different illegal drugs, whether respondents were approached by someone in the past 30 days who was trying to sell an illegal drug, and general risk-taking types of behaviors. The latter included questions on the frequency with which respondents got a "kick out of doing things that are a little dangerous," how often they tried to test themselves "by doing something a little risky," and their frequency of seatbelt use.

Minimal processing of data was done to variables in this section. Specifically, the raw variables were assigned final, mnemonic variable names (e.g., RSKPKCIG corresponding to question RK01a, which asked about the perceived risk of harm associated with smoking one or

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[13] If respondents reported the use of drugs that may require a prescription in some locations in the United States but may be available without a prescription elsewhere in the United States (e.g., cough medicines containing low doses of codeine), the medication was assumed to have been obtained without a prescription.

more packs of cigarettes per day). No further editing or processing was done to the variables in this module.

3.3   Blunts Module

Since 2004, all respondents have been asked if they ever smoked part or all of a cigar with marijuana in it, commonly referred to as a "blunt." If respondents were lifetime users of blunts, they also were asked how long it had been since they had smoked a blunt. In addition, if respondents indicated blunt use in the past 30 days, they were asked to report the number of days they smoked blunts in the past 30 days. If respondents reported use of both cigars (from the tobacco module) and blunts in the past 30 days, they also were asked if they had smoked a cigar *without* marijuana in it during the past 30 days.

In addition, the module included consistency checks in selected situations where respondents gave reports of blunt use that were inconsistent with what they had reported in the core marijuana module. Specifically, respondents could have reported earlier in the interview that they never used marijuana or hashish and then indicate that they had smoked a blunt in the past 30 days. Similarly, respondents could have reported that their last use of marijuana was more than 30 days ago and then indicate use of blunts in the past 30 days. In these situations, respondents were asked why they had reported earlier that they had never used marijuana or hashish or that they had not used it in the past 30 days, respectively.

An important aspect of the processing of variables in this module consisted of assigning codes of 91 and 99 (see Sections 2.1.1 and 2.2) to variables that had been skipped because the questions did not apply. For example, if respondents said they never smoked part or all of a blunt, they were skipped out of the remaining blunts questions. Thus, respondents were assigned codes of 91 (NEVER USED BLUNTS) to the variables BLNTREC (most recent use of a blunt, corresponding to question BL02) and BLNT30DY (frequency of use of blunts in the past 30 days, corresponding to question BL02a) if they reported that they had never smoked blunts. Similarly, if respondents refused to report whether they had ever smoked part or all of a blunt, that refusal code was assigned to BLNTREC and BLNT30DY as well. In addition, if respondents reported being lifetime users of blunts but reported that they last used blunts more than 30 days ago, question BL02a would have been skipped. Therefore, BLNT30DY was assigned a code of 93 (DID NOT USE BLUNTS IN THE PAST 30 DAYS) in this situation.

Minimal editing was done to the variables BLNT30C1, BLNT30C2, RSNOMRJ, and RSNMRJMO, corresponding to questions BL03, BL04, BL05, and BL06, respectively; these variables pertained to the above-mentioned consistency checks between respondents' answers in the blunts and marijuana modules. If respondents reported not using blunts in the past month or reported that they were a lifetime marijuana user, questions BL03 and BL05 would have been skipped. Therefore, BLNT30C1 and RSNOMRJ were assigned a code of 99 in this situation. Similarly, if respondents were not past month users of blunts or reported last using marijuana in the past 30 days in the core marijuana module (i.e., a response in the marijuana module that was consistent with reported use of blunts in the past 30 days), then questions BL04 and BL06 would have been skipped. Therefore, BLNT30C2 and RSNMRJMO were assigned a code of 99 in these situations.

If respondents were routed to question BL03 (because they reported past month use of blunts but previously reported never using marijuana) and then they refused to answer question BL03, a refusal was propagated from BLNT30C1 to RSNOMRJ. If respondents answered BL03 as "don't know," RSNOMRJ retained a code of 98. Similarly, if respondents were routed to BL04 (because they reported past month use of blunts but previously reported using marijuana but not in the past 30 days) and they refused to answer, a refusal was propagated from BLNT30C2 to RSNMRJMO. Respondents answering "don't know" to question BL04 retained a code of 98 in RSNMRJMO.

In addition, since 2005, respondents who were lifetime users of blunts have been asked how old they were when they first used blunts (BL08). If respondents reported first using blunts within 1 year of their current age, they were asked to report the specific year and month when they first used, with the allowable years ranging from 2009 to 2011. If respondents reported first using blunts at their current age, their last birthday was in the current year, and they were interviewed after their last birthday, the CAI program assumed that the first use of blunts occurred in the current year (i.e., 2011). These respondents were asked only for the month when they first used in the current year. The remaining respondents who first used blunts within 1 year of their current age could be routed to one of two possible questions on the specific year they first used. They then were routed to a question to report on the specific month they first used blunts in the year they had reported previously.

Because the routing logic to the different versions of the year-of-first use and month-of-first-use questions was mutually exclusive, we created a single, composite set of year-of-first-use and month-of-first-use variables (BLNTYFU and BLNTMFU, respectively) from the individual raw variables. In addition, the final year-of-first-use variables were recoded to replace raw codes with values for the specific years (i.e., 2009 through 2011). In situations in which the CAI program skipped the year-of-first-use questions because it could be logically inferred that first use of blunts occurred in the interview year (i.e., 2011), we assigned a code of "2011" to BLNTYFU; this was done even if respondents did not know what month they first used in the current year, or if they refused to report what month they first used in the current year. If the year- and month-of-first-use questions had been skipped because respondents first used blunts at ages that were more than 1 year below their current ages, we assigned legitimate skip codes to the BLNTYFU and BLNTMFU.

A consistency check also was included for situations in which the apparent age when respondents first used blunts that was calculated from their year and month of first use and their date of birth (CAI variable MYR1STBL) was inconsistent with the age that respondents directly reported for when they first used blunts (CAI variable AGE1STBL). For example, the consistency check was triggered if a 16-year-old respondent reported first using blunts at age 16 but then reported first using blunts in a year and month that would have meant the respondent was 15 years old when he or she first used blunts. No further editing needed to be done if respondents indicated twice in a row that the age at first use that was calculated from the month and year of first use was correct. The CAI program updated the value for AGE1STBL (corresponding to the edited variable BLNTAGE) to agree with the values for the month and year of first use.

A calculation of an age at first use based on respondents' reported year and month of first use of blunts was not done if respondents reported that they first used blunts in the same month as their birth dates; in this situation, a unique age at first use could not be determined. Similarly, this consistency check was not triggered if respondents had missing data in either of the year or month questions, such as if respondents knew the year when they first used blunts but they did not know the month of first use.

If respondents indicated at some point in the consistency check sequence that the value they had originally reported for their age at first use was correct (and by extension, that the year and month of first use was not correct), they had an opportunity to revise the values for their year of first use and their month of first use. These revised reports for year and month of first use were used in subsequent editing steps. Otherwise, respondents' answers to the original year- and month-of-first-use questions were used in subsequent editing.

Exhibit 5 discusses issues pertaining to the consistency checks for these incidence variables for blunts and the edits that were implemented. For consistency with how the core incidence data have been edited, the default when a respondent did not resolve an inconsistency between the age at first use and the month and year of first use was to favor the age at first use in subsequent editing decisions. Unlike the core incidence data, however, the incidence variables for blunts did not undergo subsequent statistical imputation.

Because these incidence variables were not present in 2004, editing of BLNTREC beyond 2004 did not take into account these incidence data for consistency with how BLNTREC was edited in 2004. Keeping the editing procedures comparable with those in 2004 would permit analysts to examine trends since 2004. However, we created a flag variable that indicated when incidence data suggested more recent use than what the respondent indicated in BLNTREC. The flag was coded as 98 (blank) if no inconsistency existed between BLNTREC and the incidence data.

Exhibit 6 presents additional issues involved in editing variables in the blunts module and how these issues were addressed. Many of these were issues that had been identified when the module was added to the survey in 2004, particularly with regard to the editing of BLNTREC. For example, if respondents reported using blunts but they also reported never using marijuana, then question BL03 was triggered only when respondents reported using blunts in the past 30 days. Respondents who verified that they had never used marijuana would then have their BLNTEVER answer assigned to 4 (No LOGICALLY ASSIGNED) and BNLTREC assigned to 81 (NEVER USED BLUNTS, Logically assigned). Exhibit 6 also discusses miscellaneous issues that applied to the editing of the incidence variables that have been present since 2005, other than previous issues related to consistency checks.

No editing was done to make the incidence data for blunts consistent with incidence data for cigars or marijuana from their respective core sections of the interview, or vice versa. Thus, for example, incidence data in the blunts module could indicate that respondents first smoked a cigar with marijuana in it at an earlier age than they reported for when they first used cigars or marijuana. However, variables in the blunts section of the NSDUH codebooks included a standard footnote to indicate that these noncore data may be inconsistent with data from core modules.

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Exhibit 5. Blunts Edit Issues Involving Consistency Checks for Incidence

Issue	Edits Implemented
The respondent (R) indicated in the final verification check (BLCC06) that the age at first use (AFU) based on the new month and year of first use (MFU and YFU) was correct (i.e., BLCC06 = 4). The computer-assisted interviewing (CAI) program updated the AFU (AGE1STBL) with the value of the age calculated from the MFU and YFU (i.e., MYR1STBL). However, the new value for the AFU indicated that the R was more than 1 year younger than his or her current age at the time the R first used blunts (e.g., the R was 16, reported first use of blunts at age 15, but then confirmed an MFU and YFU that meant the R was 14 when the R first used blunts). Had the R initially reported this AFU, the R would not have been routed to the MFU and YFU questions.	The updated value was retained in the edited AFU variable BLNTAGE (e.g., first use at age 14 for a 16-year-old R in this example). Based on this updated AFU, it was logically inferred that the R should have skipped the MFU and YFU items. A code of 9989 was assigned to the YFU variable BLNTYFU, and a code of 89 was assigned to the MFU variable BLNTMFU.
The final verification check (BLCC06) was skipped because the R entered revised data for the MFU and YFU that made BLNTMFU and BLNTYFU consistent with the AFU in BLNTAGE.	No editing was done because the R was considered to have resolved the inconsistency.
The final verification check (BLCC06) was skipped because the R entered a new MFU that was the same as the R's birth month.	The new MFU could be consistent with the AFU, depending on whether the use in that month occurred before or after the R's birthday. No editing was done to the AFU, MFU, and YFU, as long as the revised MFU and YFU were potentially consistent with the AFU. However, BLNTMFU and BLNTYFU were set to bad data if they could never be consistent with the AFU. Suppose, for example, that a hypothetical R was born in June 1993, was interviewed in March 2011 (age 17 at the time of the interview), reported first use of blunts at age 17, and initially reported first use in May 2010. First use in May 2010 would have meant that the R was 16 when he or she first used blunts because the R's 17th birthday was not until June 2010. If the R changed the month and year to June 2010, that could be consistent with first use at age 17, if the use occurred after the R's birthday. However, if the R changed the month and year to June 2009, it would never be possible for the R to have first used at age 17 and also to have first used in June 2009. In this latter situation, BLNTMFU and BLNTYFU would be set to bad data.
The R entered a new MFU or YFU that differed from what the R previously reported. The age based on the revised MFU and YFU (updated in MYR1STBL) still mismatched the AFU, but the R indicated in the final verification check that the new value from MYR1STBL was correct.	No editing was done in this situation. The CAI program automatically updated AGE1STBL to be consistent with the updated values reported for the MFU and YFU.

Exhibit 5.   Blunts Edit Issues Involving Consistency Checks for Incidence (continued)

Issue	Edits Implemented
The consistency check was triggered between AGE1STBL and MYR1STBL. However, the R answered the first consistency check (BLCC03, regarding whether the value in MYR1STBL was correct) as "don't know" or "refused." The R then exited the consistency check loop without having resolved the inconsistency.	The AFU from AGE1STBL was retained in BLNTAGE, but BLNTMFU and BLNTYFU were set to bad data.
The consistency check was triggered between AGE1STBL and MYR1STBL. However, the R entered the same values for the YFU and MFU that triggered the inconsistency with the AFU in the first place.	No editing was done to BLNTAGE, but BLNTYFU and BLNTMFU were set to bad data.
The R entered new values in the consistency checks for the MFU and YFU that again yielded a nonmissing value for MYR1STBL. However, the R failed to resolve the inconsistency between AGE1STBL and the updated value in MYR1STBL. The R also reported either in the first verification check that MYR1STBL was not correct (i.e., BLCC03 = 6) or reported in the second verification check that the AFU from AGE1STBL was correct (i.e., BLCC04 = 2).	No editing was done to the AFU. The following edits were implemented for the MFU and YFU: • The default edit was to set BLNTMFU and BLNTYFU to bad data. • As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," BLNTMFU and BLNTYFU were assigned the code that corresponded to the answer in the final verification check.
The R entered new values in the consistency checks for the MFU and YFU that again yielded a nonmissing value for MYR1STBL. However, the R failed to resolve the inconsistency between AGE1STBL and the updated value in MYR1STBL. The R also reported in the second verification check that neither answer was correct for what was originally captured in AGE1STBL and MYR1STBL (i.e., BLCC04 = 3).	The following edits were implemented for BLNTAGE, BLNTMFU, and BLNTYFU: • The default edit was to set BLNTAGE, BLNTMFU, and BLNTYFU to bad data. • As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," BLNTAGE, BLNTMFU, and BLNTYFU were assigned the code that corresponded to the answer in the final verification check.
The R triggered the initial consistency check between the AFU, MFU, and YFU and reported that the age from MYR1STBL was correct (i.e., BLCC03 = 4). However, the R answered the second consistency check (BLCC04) as "don't know" or "refused." Consequently, the R did not have an opportunity to correct the inconsistency between the AFU, MFU, and YFU.	The relevant codes for "don't know" or "refused" were assigned to BLNTAGE, BLNTMFU, and BLNTYFU. The rationale for this edit is that conclusive information did not exist regarding whether the AFU indicated the R's correct age when he or she first used blunts, or whether the MFU and YFU indicated the R's correct age at initiation. Therefore, BLNTAGE, BLNTMFU, and BLNTYFU all were set to missing values.

Exhibit 6. Edit Issues Pertaining to the Blunts Module Other than Consistency Checks for Incidence

Issue	Edits Implemented
The respondent (R) reported lifetime use of blunts but did not know or refused to report in BL02 when he or she last used them.	The blunt recency variable BLNTREC (corresponding to question BL02) was set to 9 (Used at some point in the lifetime LOGICALLY ASSIGNED). The 30-day frequency BLNT30DY was left as blank.
The R reported using blunts (BLNTEVER = 1, corresponding to question BL01), but the R previously reported never using marijuana (MJEVER = 2). The consistency check BLNT30C1 (corresponding to question BL03) was triggered because the R reported using blunts in the past 30 days in question BL02 and the R never used marijuana. BLNT30C1 was not triggered for less recent reports of blunt use.	• If BLNT30C1 = 1 (i.e., R has verified that he or she has never used marijuana): – BLNTEVER was set to 4 (No LOGICALLY ASSIGNED). – BLNTREC was set to 81 (NEVER USED BLUNTS Logically assigned). – BLNT30DY was to 91 (if blank) or 81 (if we needed to overwrite a value). – Incidence variables (BLNTAGE, BLNTYFU, BLNTMFU) were assigned codes of 981, 9981, and 81, respectively. – Other assignment of legitimate skip codes applies, as described in the main text. • If BLNT30C1 = 2 (i.e., R has verified past month use of blunts), no editing was done to BLNTEVER or BLNTREC. We also did not use these noncore data in blunts to edit the core MJEVER variable.
The R reported using blunts, but the R previously reported never using marijuana. BLNT30C1 was not triggered because the R reported use of blunts that was less recent than the past 30 days.	• BLNTEVER was set to a value of 11 (i.e., "bump" by 10) to signify that the R reported lifetime use of cigars with marijuana in them but reported never using marijuana in the core, and the R was not asked to verify which answer was correct. • No editing was done to the recency values in BLNTREC.
The R reported using blunts in the past 30 days, and the R is a marijuana user. However, the R reported last using marijuana more than 30 days ago but within the past 12 months or more than 12 months ago. The consistency check BLNT30C2 (corresponding to question BL04) was triggered for these cases.	• If BLNT30C2 = 1 (i.e., R has verified that the core marijuana recency is correct): – BLNTREC was set to 19 (More than 30 days ago LOGICALLY ASSIGNED). – BLNT30DY was set to 93 if blank and to 83 (DID NOT USE BLUNTS IN THE PAST 30 DAYS Logically assigned) if we needed to overwrite 30-day frequency data. – Note, however, that no editing was done to BLNTREC when BLNT30C2 = 1, but we had set the core marijuana recency MJREC to a value of 8 or 9 (Used at some point in the past 12 months or Used at some point in the lifetime, respectively), based on edits in the marijuana module (footnote 1 in Section 1 in the main text). The rationale for doing no editing to BLNTREC was that values of 8 or 9 in MJREC indicated potential use of marijuana in the past month. • If BLNT30C2 = 2 (i.e., R has verified past month use of blunts), no editing was done to BLNTEVER or BLNTREC. We also did not use these noncore data in blunts to edit the core marijuana recency MJREC.

(continued)

Exhibit 6.   Edit Issues Pertaining to the Blunts Module Other than Consistency Checks for Incidence (continued)

Issue	Edits Implemented
The R reported last using blunts more than 30 days ago but within the past 12 months (BLNTREC = 2), and the R reported last using marijuana more than 12 months ago (MJREC = 3).	BLNT30C2 (BL04) was not triggered in this situation because the R did not report use of blunts in the past 30 days. • BLNTREC was set to a value of 12 (i.e., "bump" by 10), to signify that the R reported last using blunts more than 30 days ago but within the past 12 months but reported last using marijuana more than 12 months ago, and the R was not asked to verify which answer was correct. • We continued to set the 30-day frequency BLNT30DY to 93 because the R was not a past month user of blunts.
The R reported last using blunts more than 30 days ago but within the past 12 months (BLNTREC = 2), but the marijuana recency MJREC was assigned codes of 8 or 9 (Used at some point in the past 12 months or lifetime, respectively).	No editing was done to the blunts variables when MJREC had values of 8 or 9 because BLNTREC = 2 was not necessarily inconsistent with when the R last used marijuana.
Question BL07 (edited variable BLNTNOMJ) was skipped. The R reported in the tobacco module that he or she never smoked a cigar and reported in the blunts module that he or she never smoked a blunt.	BLNTNOMJ was set to a value of 91 (NEVER USED CIGARS/BLUNTS). This included situations in which we had set BLNTEVER to 4 (No LOGICALLY ASSIGNED) and BLNTREC to 81 (NEVER USED BLUNTS Logically assigned) because the R confirmed in BLNT30C2 that he or she never used marijuana.
BLNTNOMJ was skipped, and the R reported lifetime use of blunts but definitely did not smoke blunts in the past 30 days. The R also reported in the tobacco module that he or she did not smoke a cigar in the past 30 days (including situations in which the R reported never smoking a cigar).	BLNTNOMJ was set to value of 93 (DID NOT USE CIGARS/BLUNTS IN THE PAST 30 DAYS). This edit also was implemented if the R reported use of blunts less recently than the past 30 days but reported in the core tobacco module that he or she never smoked a cigar. Even though the cigar and blunts data were inconsistent, BLNTNOMJ still was not applicable.
BLNTNOMJ was skipped, and the R reported lifetime use of blunts but definitely did not smoke blunts in the past 30 days. Unlike the situation above, the R reported in the tobacco module that he or she smoked cigars in the past 30 days.	BLNTNOMJ was set to a value of 5, where 5 = Yes LOGICALLY ASSIGNED (from skip pattern). For instance, if the R has reported last smoking cigars with marijuana in them more than 30 days ago, we could logically infer that all past month cigar use had to involve use of cigars that did not have marijuana in them.
BLNTNOMJ was skipped, even though the R reported use of blunts in the past 30 days (BLNTREC = 1). However, the R had reported lifetime use of cigars in the tobacco module but reported not smoking cigars in the past 30 days.	Rather than assign a code of 99 (LEGITIMATE SKIP), BLNTNOMJ was set to a value of 14, where 14 = USED BLUNTS PAST 30 DAYS/DIDN'T USE CIGARS PAST 30 DAYS.
BLNTNOMJ was skipped, even though the R reported use of blunts in the past 30 days (BLNTREC = 1). However, the R had reported in the tobacco module that he or she had never smoked part or all of a cigar.	Rather than assign a code of 99, BLNTNOMJ was set to a value of 24, where 24 = USED BLUNTS PAST 30 DAYS/NEVER USED CIGARS.

Exhibit 6. Edit Issues Pertaining to the Blunts Module Other than Consistency Checks for Incidence (continued)

Issue	Edits Implemented
BLNTNOMJ was skipped because the cigar recency variable CIGARREC or the blunts recency variable BLNTREC had missing values or "indefinite" values (i.e., used at some point in the past 12 months, or used at some point in the lifetime).	BLNTNOMJ was left as 98 (blank).
Question BL07 (corresponding to BLNTNOMJ) was answered but was not answered as "yes," and the R had not smoked blunts in the past 30 days.	BLNTNOMJ was set to a value of 3, where 3 = Yes LOGICALLY ASSIGNED. This edit affected cases where BL07 had been answered (but not as "yes"), and the Rs confirmed in BLNT30C2 that they did not use marijuana in the past 30 days.
The age at first use (AFU) was inconsistent with the R's current age despite the R being prompted to change the AFU.	The final age was accepted as the standard, and BLNTAGE was set to bad data.
BLNTAGE had a value of "don't know" (DK) or "refused" (REF), including situations where this assignment has been made from the consistency check data.	If the questions pertaining to BLNTYFU and BLNTMFU were skipped because the R answered the AFU as DK or REF, the DK or REF value from BLNTAGE was propagated onto BLNTYFU and BLNTMFU. This edit was designed to indicate the reason that BLNTYFU and BLNTMFU had been skipped. In addition, because the R may have first used blunts within 1 year of his or her current age, the month- and year-of-first-use (MFU and YFU) questions may have been relevant to the R. If the R had answered the MFU and YFU questions but BLNTAGE had a final code for DK or REF (i.e., due to a consistency check response), data in BLNTYFU and BLNTMFU were overwritten with the corresponding DK or REF value from BLNTAGE. Retaining the MFU and YFU data in this situation would imply that the R first smoked blunts within 1 year of his or her current age.
The MFU has been skipped because the R answered the YFU as DK or REF.	The DK or REF value from BLNTYFU was propagated onto BLNTMFU. That is, if the R did not know in what year he or she first used blunts, it was assumed that the R would not know the month either. Similarly, a refusal to answer the YFU was interpreted to be a blanket refusal to answer the month as well as the year.
The R had missing data for the MFU. However, one of the following occurred: • The YFU was the current calendar year, and the R was interviewed in January. • The R first used at his or her current age, the R first used in the current calendar year, and the R's most recent birthday occurred in the interview month. • The R first used at his or her current age, the R first used in the prior calendar year, and the R's most recent birthday occurred in December.	The MFU could be logically inferred, as indicated below. • The MFU was logically inferred to be January of the interview year. That would be the only month in which the R could have initiated use of blunts in the current year. • The MFU was logically inferred to be the interview month. If the R first used in the current calendar year and attained his or her current age in the interview month, the R logically could not have initiated use of blunts in any month other than the interview month. • The MFU was logically inferred to be December. If the R first used blunts in the prior calendar year and attained his or her current age in December of that year, the R logically could not have initiated use in any month other than December of the prior calendar year.

3.4   Substance Dependence and Abuse Module

The substance dependence and abuse module asked about symptoms of dependence or abuse in the past 12 months that were associated with the use of alcohol, marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, prescription pain relievers, prescription tranquilizers, prescription stimulants, and prescription sedatives. This section also included items to assess for dependence on cigarettes if respondents had reported use of cigarettes in the past 30 days.

Respondents were not asked the cigarette dependence items unless they reported in the tobacco module that they used cigarettes in the past 30 days. For alcohol through sedatives, respondents who never used a given drug in the 12 months prior to the interview (including respondents who had never used a specific drug) were not asked the corresponding questions in the substance dependence and abuse module pertaining to dependence or abuse symptoms for that substance.[14] For alcohol and marijuana, respondents who had used these substances in the past 12 months also were skipped out of the corresponding dependence and abuse questions if they were only infrequent users of these two drugs in the past 12 months.

Consequently, an important aspect of the processing of variables in this module consisted of assigning codes of 91 or 93 (see Section 2.1.1) to variables that had been skipped because the questions did not apply. As noted previously, if recency-of-use variables for the psychotherapeutic drugs were assigned a code of 81, then any data in the substance dependence and abuse module for that psychotherapeutic drug were overwritten with codes of 81. For cocaine, heroin, and stimulants, however, respondents' answers in the substance dependence and abuse module were retained if they were routed into that respective section in the substance dependence and abuse module because they reported past year use in the special drugs module (see footnote 14 in this section).

For cigarettes, if respondents previously indicated that they had never used cigarettes, the edited cigarette dependence variables were assigned codes of 91, where 91 = NEVER USED CIGARETTES. If respondents indicated lifetime use of cigarettes but the most recent use of cigarettes was clearly more than 30 days prior to the interview, the edited cigarette dependence variables were assigned codes of 93, where 93 = DID NOT USE CIGARETTES IN THE PAST 30 DAYS.

For alcohol and marijuana, the final, edited 12-month frequency variables (ALCYRTOT and MJYRTOT, respectively) also were used in assigning codes of 93 or 83 to the substance dependence and abuse variables pertaining to these substances. For example, if the edited

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[14] For cocaine, heroin, and stimulants, respondents were not asked the corresponding questions in the substance dependence and abuse module if there was no indication of use in the past 12 months either in the relevant core module (or modules, in the case of cocaine and crack) or in respondents' answers from the special drugs module. As noted in a previous footnote in Section 2.1, however, respondents who did not indicate past year use of cocaine, heroin, or stimulants in the relevant core sections but indicated past year use in the special drugs module *were* routed by the CAI instrument into the relevant drug dependence or abuse questions. For stimulants, this routing logic included situations in which respondents reported use of methamphetamine in the past year in the methamphetamine follow-up items that were added to the special drugs module in 2005 and the follow-up questions that were added in 2006 (see Section 3.1).

variable ALCYRTOT indicated that respondents had used alcohol in the past 12 months but on fewer than 6 days in that period, the edited substance dependence and abuse variables for alcohol were assigned codes of 93 if they had been skipped. If respondents answered one or more dependence or abuse questions for alcohol but the final value for ALCYRTOT indicated that they had used alcohol on fewer than 6 days in the past 12 months, the previous answers in the dependence and abuse questions were overwritten with codes of 83. Similar edits were done for marijuana if MJYRTOT indicated that respondents used marijuana on fewer than 6 days in the past 12 months.

A second important aspect of the processing of the substance dependence and abuse variables involved assignment of legitimate skip codes when respondents qualified for being asked dependence or abuse questions about a given substance but they legitimately skipped out of one more questions about that substance. For example, the symptom of tolerance to the effects of alcohol was measured through two related questions, DRALC06 ("During the past 12 months, did you need to drink more alcohol than you used to in order to get the effect you wanted?") and DRALC07 ("During the past 12 months, did you notice that drinking the same amount of alcohol had less effect on you than it used to?"). An affirmative answer to either question would indicate tolerance. Thus, if respondents had already answered DRALC06 as "yes," there was no need to ask DRALC07. If the edited variable corresponding to question DRALC06 (ALCNDMOR) was coded as 1 (i.e., "yes"), the edited variable corresponding to question DRALC07 (ALCLSEFX) was assigned a legitimate skip code.

Aside from assignment of codes of 91, 93, or 99, minimal additional editing was done to the substance dependence and abuse variables. In particular, for the cigarette dependence variables, no editing was done when respondents entered the same response for all items (e.g., keying a "1" to every item). If respondents entered the same response to all cigarette dependence items, however, that would strongly suggest that they were not paying careful attention to the questions. Nevertheless, these data were retained in order to allow analysts to decide how they would want to handle these cases.

However, one notable change was that since 2005, the CAI logic for questions related to stimulant dependence or abuse have taken into account the new follow-up questions SD17b or SD18b that were added to the special drugs module for respondents who had not previously reported methamphetamine use in the core stimulants module (see Section 3.1). Thus, if respondents in 2005 indicated past year use of methamphetamine in these noncore questions, they were asked questions in the substance dependence and abuse module about stimulant dependence or abuse. In addition, since 2006, this logic has skipped respondents out of the dependence and abuse questions for stimulants if they reported methamphetamine use in the past year in the special drugs module but then they reported in question SD17a1 that their earlier report of lifetime nonuse of methamphetamine from the core stimulants module was actually the correct response.

Since 2008, the instrument routing logic also has taken into account reports from the special drugs module of past year nonmedical use of Adderall® for asking the stimulant dependence and abuse questions and past year nonmedical use of Ambien® for asking the dependence and abuse questions for sedatives. In addition, respondents who reported past year

use of ketamine, DMT, AMT, "Foxy," or *Salvia divinorum* have been asked the hallucinogen dependence and abuse questions.

In editing the stimulant dependence and abuse variables, we retained stimulant dependence or abuse data for these respondents who indicated past year methamphetamine use or past year nonmedical use of Adderall® in the noncore special drugs items. Consequently, if the stimulant dependence and abuse variables had been skipped because lifetime nonuse of methamphetamine had been logically inferred for the noncore methamphetamine recency MTHAREC and ADDEREC also indicated lifetime nonuse, the edited stimulant dependence and abuse variables were assigned codes of 91 (NEVER USED STIMULANTS). Otherwise, if MTHAREC or ADDEREC indicated past year use, data were retained in the stimulant dependence and abuse variables, even if the other stimulant variables that existed prior to 2005 (including the methamphetamine and other stimulant needle use variables that were in the special drugs module prior to 2005) would have indicated that the respondent was not a past year stimulant user. Similar principles since 2008 applied to the editing of the sedative dependence and abuse variables based on AMBIREC and the hallucinogen dependence and abuse variables based on KETAREC, TRYPREC, and SALVREC (see Section 3.1.3). In the case of hallucinogens, for example, data were retained in the dependence and abuse variables if there was any indication of past year use in KETAREC, TRYPREC, or SALVREC, even if the core variable HALLREC did not indicate past year use.

Therefore, in addition to the flag variable STMDAFLG that has been present since 2005 to indicate differences for analysts in the editing of the stimulant variables in the substance dependence and abuse module, we created the flag variables HALDAFLG and SEDDAFLG to indicate differences in how the hallucinogen and sedatives variables in the substance dependence and abuse module have been edited since 2008. In the case of STMDAFLG, levels 1 through 6 have been present since 2005 to document the effects of the noncore methamphetamine data on the editing of the stimulant dependence and abuse variables, and levels 11 through 16 have been present since 2008 to document the effects of ADDEREC on the editing of these variables. Documentation for these levels in STMDAFLG in 2011 was as follows, where "Now" refers to this survey year (i.e., 2011):

    1 = Never used based on 04/Now: Not past yr user

    2 = Not past yr user based on 04/Now: Blank

    3 = Never used based on 04/Now: Blank

    4 = Blank based on 04/Now: Past yr user

    5 = Not past yr user based on 04/Now: Past yr user

    6 = Never used based on 04/Now: Past yr user

  11 = Never used based on 07/Now: Not past yr user

  12 = Not past yr user based on 07/Now: Blank

13 = Never used based on 07/Now: Blank

14 = Blank based on 07/Now: Past yr user

15 = Not past yr user based on 07/Now: Past yr user

16 = Never used based on 07/Now: Past yr user

98 = BLANK (NO DIFFERENCE BETWEEN 04 AND NOW)

Thus, a code of 98 in STMDAFLG meant that the presence of the noncore methamphetamine and Adderall® items in the special drugs module had no effect on how the stimulant dependence and abuse variables have been edited since 2004. For example, if respondents indicated past year nonmedical use of stimulants in the core stimulants module (i.e., but they did not indicate methamphetamine use) or if they indicated that they used stimulants with a needle in the past year (from MTNLDREC or OSTNLREC in the special drugs module), they would have been asked questions about stimulant dependence or abuse regardless of how they answered the methamphetamine and Adderall® questions in the special drugs module. Similarly, if respondents were classified as lifetime nonusers of stimulants based on their answers in the core stimulants module, and the special drugs data (including the additional methamphetamine Adderall® items) continued to indicate that these respondents never used methamphetamine or other prescription-type stimulants (or Adderall®), the stimulant dependence and abuse items were coded as 91, as would have been the case in 2004 and earlier years.

For codes 1 through 6 in STMDAFLG since 2008, ADDEREC did not indicate past year nonmedical use of Adderall®. A code of 1 in STMDAFLG meant that respondents who skipped the stimulant dependence and abuse questions also would have skipped out of these items in 2004 and earlier years. The only difference was that in 2004 (and earlier), the edited stimulant dependence and abuse variables would have been coded as 91 (NEVER USED STIMULANTS). Based on data from the additional methamphetamine variables in the special drugs module, these variables currently were coded as 93 (DID NOT USE STIMULANTS IN THE PAST 12 MONTHS).

A code of 2 meant that respondents would have been coded as lifetime but not past year users of stimulants based solely on the variables that existed in 2004. The stimulant dependence and abuse variables currently were coded as 98 (blank) because these respondents reported methamphetamine use in the additional special drugs items, but it was not clear whether they used methamphetamine in the past year.

A code of 3 meant that respondents would have been coded as nonusers based solely on the variables that existed in 2004. The stimulant dependence and abuse variables were coded as 98 (blank) for the same reason as that given for situations in which STMDAFLG was coded as 2.

Beginning with codes of 4, nonmissing data existed in the current stimulant dependence and abuse variables that would not have existed in 2004.

- A code of 4 meant that the variables that existed in 2004 indicated that respondents were at least lifetime nonmedical users of stimulants, but it was not clear whether

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they had used in the past year. However, these respondents indicated past year methamphetamine use in the additional special drugs items.

- A code of 5 meant that respondents would have been classified as lifetime but not past year nonmedical users of stimulants based on the variables that existed in 2004, but they indicated past year methamphetamine use in the additional special drugs items.

- A code of 6 indicated the greatest potential difference between 2004 and currently. Based on the variables that existed in 2004, these respondents would have been classified as never having used stimulants nonmedically, but they indicated past year methamphetamine use in the additional special drugs items.

Levels 11 through 16 in STMDAFLG were analogous to levels 1 through 6. For levels 11 through 16, however, the noncore methamphetamine data would not have affected how the stimulant dependence and abuse variables were edited but ADDEREC did. For example, a code of 11 in STMDAFLG meant that respondents who skipped the stimulant dependence and abuse questions in 2008 onward also would have skipped out of these items in 2007, even with the noncore methamphetamine data. The difference was that in 2007, the edited stimulant dependence and abuse variables would have been coded as 91 (NEVER USED STIMULANTS) because the respondent was classified as a lifetime nonuser of stimulants based on the core stimulant data and noncore methamphetamine data. However, ADDEREC indicated that these respondents used Adderall® nonmedically more than 12 months ago but in their lifetime. Consequently, the stimulant dependence and abuse variables in this situation were assigned a code of 93 (DID NOT USE STIMULANTS IN THE PAST 12 MONTHS); this was analogous to the situation where STMDAFLG = 1.

Similarly, since 2008, codes 14 through 16 indicated that nonmissing data existed in the stimulant dependence and abuse variables that would not have existed in 2007. In particular, a code of 16 indicated the greatest potential difference between 2007 and currently. Based on the variables that existed in 2007, these respondents would have been classified as never having used stimulants nonmedically (including never having used methamphetamine based on the noncore special drugs data). However, they indicated past year nonmedical use of Adderall®.

In HALDAFLG and SEDDAFLG, levels 1 through 6 corresponded to levels 1 through 6 in STMDAFLG. In HALDAFLG and SEDDAFLG, however, data were compared relative to the results of how the relevant dependence and abuse variables would have been edited in 2007 (rather than 2004). For example, a code of 1 in HALDAFLG meant that respondents who skipped the hallucinogen dependence and abuse questions in 2008 onward also would have skipped out of these items in 2007. The difference was that in 2007, the edited hallucinogen dependence and abuse variables would have been coded as 91 (NEVER USED HALLUCINOGENS) because the core hallucinogen data indicated that the respondents never used hallucinogens. However, there was some indication of use more than 12 months ago in KETAREC, TRYPREC, or SALVREC but no indication of use in the past 12 months. Consequently, the current hallucinogen dependence and abuse variables were assigned a code of 93 (DID NOT USE HALLUCINOGENS IN THE PAST 12 MONTHS) in this situation.

3.5   Special Topics Module

The special topics module asked about arrests in the respondents' lifetime and in the past 12 months, including arrests for specific offenses in the past 12 months (not counting minor traffic violations). This section also included questions about respondents being on probation or parole in the past 12 months, operating vehicles under the influence of alcohol or illegal drugs in the past 12 months, and respondents' knowledge about their States' marijuana laws.

If respondents reported that they had never been arrested in their lifetime and they did not report being on probation or parole in the past 12 months (see below), the edited variables pertaining to arrests in the past 12 months were assigned legitimate skip codes. Other standard edits described in Section 2.3 pertaining to situations where respondents answered "don't know" or "refused" to the lifetime arrest question were applied to the past year arrest variables that had been skipped.

Similarly, if respondents reported being arrested in their lifetime but reported being arrested 0 times in the past 12 months, the questions pertaining to arrests for specific offenses in the past 12 months were assigned legitimate skip codes. Respondents who did not know how many times they were arrested in the past 12 months or who refused to answer this question were asked whether they were arrested for specific offenses in the past 12 months. This was consistent with the logic in 1999 and since 2001 but differed from the logic in 2000, when respondents who answered "don't know" or "refused" to the question about the number of specific arrests in the past 12 months were skipped out of questions about arrests for specific offenses in the past 12 months.

Respondents also were skipped out of questions pertaining to driving under the influence of alcohol or illegal drugs if they reported in the core modules that they never used alcohol, marijuana, cocaine, heroin, hallucinogens, inhalants, or prescription psychotherapeutics for nonmedical reasons; this included situations in which respondents were classified as having never used stimulants nonmedically based on their answers in the core stimulants module, and the special drugs data (including the added special drugs items on use of methamphetamine) continued to indicate that the respondents had never used stimulants. When respondents were lifetime nonusers of alcohol and the other drugs mentioned above, all skipped variables pertaining to driving under the influence of alcohol or illegal drugs were assigned a code of 91 to indicate that the respondents were lifetime nonusers of all of these substances. If respondents were skipped out of one or more of the substance use and driving items because their most recent use of a drug was more than 12 months ago, the edited variables were assigned legitimate skip codes.

In addition, respondents were asked about driving under the influence of illegal drugs (alone or in combination with alcohol) if they reported use of methamphetamine in the past year in the methamphetamine follow-up items from the special drugs module. No editing was done to the variables about driving under the influence of illegal drugs in this situation. However, the additional methamphetamine items from the special drugs module would have affected routing to the items in special topics about driving under the influence of illegal drugs only if these methamphetamine items were the sole indication of use of drugs other than alcohol in the past year. Stated another way, if respondents had reported past year use of marijuana, cocaine, heroin,

hallucinogens, or inhalants, or if they had reported past year nonmedical use of pain relievers, tranquilizers, stimulants other than methamphetamine, or sedatives, they would have been asked the questions about driving under the influence of illegal drugs regardless of how they answered the questions from the special drugs module about methamphetamine. A flag (DRVFLAG) was created for use by the analysis team to identify any respondents whose only use of drugs other than alcohol came from the methamphetamine items in the special drugs module; updated logic for this flag has been in place since 2006 to take into account the consistency checks between the core and noncore responses that were added to the special drugs module in 2006 (see Section 3.1).

The variable pertaining to a State's maximum legal penalty for first offense possession of an ounce or less of marijuana was renamed from MXMJPENL to MXMJPNLT. The variable name was changed to reflect the addition of a response category for "No penalty" and to alert analysts that data in MXMJPNLT from 2006 onward may not be comparable with data in MXMJPENL prior to 2006.

Minimal editing was done to the variables MXMJPNLT, MXMJSURE, and MEDMJUSE, corresponding to questions SP07, SP08, and SP09, respectively; these variables pertained to knowledge about State marijuana laws and penalties. If respondents indicated in MXMJPNLT that they did not know the maximum legal penalty in their States for possession of an ounce or less of marijuana for personal use, or if they refused to answer this question, the edited variable MXMJSURE (regarding respondents' degree of certainty about their answer to question SP07) was assigned a legitimate skip code. In addition, if interviewers had entered incorrect information in the FIPE4 question regarding the State where the respondent's sampled dwelling unit was located, the variables MXMJPNLT, MXMJSURE, and MEDMJUSE were assigned bad data codes.[15] This latter edit was done because the State that respondents were asked about in these questions was governed by the State that interviewers entered in FIPE4. Hence, if interviewers entered incorrect State information in FIPE4, the answers that respondents provided in questions SP07 through SP09 were deemed to be questionable. For example, if a respondent lived in California (FIPE4 = 5) but the interviewer entered that the respondent's sampled dwelling unit was in Colorado (FIPE4 = 6), the respondent would be asked for information on marijuana laws in Colorado.

Exhibit 7 presents additional edit issues that were specific to the special topics module. For example, respondents could report that they had never been arrested in their lifetime but could report that they were on probation, parole, or supervised release in the past 12 months. Because someone could not be on probation or parole without first having been arrested for a crime, these respondents were logically inferred to have been arrested in their lifetime. When this situation occurred, the skipped variables pertaining to arrests in the past 12 months retained a value of blank.

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[15] Creation of the edited variable STATELOC from FIPE4 is discussed in detail in the following document: Kroutil, L. A., Chien, C., Handley, W., & Bradshaw, M. R. (2013). Procedures for editing interviewer-administered data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

Exhibit 7.   Edit Issues Pertaining to the Special Topics Module

Issue	Edits Implemented
The respondent (R) reported never having been arrested or answered the lifetime arrest question as "don't know" or "refused" but reported being on probation or parole in the past 12 months.	The R was logically inferred to have been arrested at least once in his or her lifetime (i.e., BOOKED = 3). The rationale for this edit was that someone could not be on probation or parole without first having been arrested for a crime. The skipped variables pertaining to arrests in the past 12 months retained a value of blank.
The R reported being arrested in the past 12 months, did not report being arrested for a specific crime in that period, but reported being arrested for this crime as "some other offense."	The R was logically inferred to have been arrested for that crime. No further editing was done to the affirmative answer where the R reported being arrested for "some other offense" (BKOTH). Similarly, no further editing was done to the "OTHER, Specify" variable (BKOTHOFF) that indicated the crime for which the R was arrested (see Section 2.4).
The R reported being arrested at least once in the past 12 months and answered all specific past year arrest questions as "no," but reported an offense in the "some other offense, specify" (BKOTHOFF) through the series of follow-up questions SP03r, SP03rsp, SP03s, and SP03ssp.	The variable for "some other offense" (BKOTH) was logically inferred to be "yes." A code of 3 (i.e., Yes LOGICALLY ASSIGNED) was assigned to BKOTH.
The R reported being arrested at least once in the past 12 months but answered all specific past year arrest questions as "no" and reported nothing in the "some other offense, specify" (BKOTHOFF) to support the indication of being arrested.	The response was retained to indicate that the R had been arrested in the past 12 months. A code of 5 (i.e., Offense unknown LOGICALLY ASSIGNED) was assigned to the "some other offense" variable (BKOTH).
The R reported being arrested for every offense in the past 12 months that was asked about in the module. (For youths aged 12 to 17, that included reports of being arrested for possession of tobacco; this question was skipped for adults.)	The edits differed, depending on what Rs specified for their "other" offense: • If a valid "other" offense was not specified, the entire series of past year offense variables was assigned a bad data code. • If the R gave a valid response for some other offense for which he or she was arrested in the past 12 months, the data were retained to indicate that the R was arrested for this other offense. However, the variables pertaining to arrests for all other offenses were set to bad data. • For adults, the variable pertaining to arrests for possession of tobacco (BKPOSTOB) continued to be assigned a legitimate skip code.
The R reported being arrested only one time in the past 12 months, did not report being arrested for some other offense (BKOTH = 2), but reported being arrested for every other offense in that same period.	Not including BKOTH or its associated "OTHER, Specify" variable (BKOTHOFF), the variables pertaining to arrests for specific offenses in the past 12 months were assigned a bad data code. For adults, the BKPOSTOB variable continued to be assigned a legitimate skip code.
The R reported being arrested 80 or more times in the past 12 months.	The variable pertaining to the number of arrests in the past 12 months (NOBOOKYR) was set to bad data.
The R had alternating "yes/no" or "no/yes" patterns to all questions about arrests for specific offenses in the past 12 months (e.g., SP03a = 1, SP03b = 2, SP03c = 1).	All variables pertaining to arrests for specific offenses in the past 12 months were set to bad data.

(continued)

Exhibit 7. Edit Issues Pertaining to the Special Topics Module (continued)

Issue	Edits Implemented
The R was asked questions about driving under the influence of alcohol or illegal drugs solely because the R originally reported past year use of one or more psychotherapeutics (i.e., pain relievers, tranquilizers, stimulants, or sedatives). However, the R was logically inferred to be a lifetime nonuser of these psychotherapeutics because the only reported lifetime use involved over-the-counter (OTC) drugs.	Any data in the substance use and driving variables (DRVALDR, DRVAONLY, and DRVDONLY) were replaced with codes of 81 (i.e., NEVER USED ALCOHOL OR DRUGS Logically assigned).
The R was asked questions about driving under the influence of alcohol, but the alcohol recency variable ALCREC had been set to bad data.	The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of alcohol (DRVAONLY) were set to bad data.
The R was routed into questions about driving under the influence of alcohol and illegal drugs in combination and about driving under the influence of illegal drugs, but (a) the only drug that the R definitely used in the past 12 months was alcohol (i.e., after all editing had been done to the core recency-of-use variables for alcohol and other drugs), and (b) it could not be determined that the R was not a past year user of all of the other drugs.	The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of illegal drugs (DRVDONLY) were set to bad data.
The R had not used alcohol in the past 12 months and was routed into the question about driving under the influence of illegal drugs solely because of psychotherapeutic use that turned out to be limited to OTC use. In addition, one or more other drug recency-of-use variables were ambiguous with respect to past year use, so it could not be determined whether the R did or did not use other illegal drugs.	The edited variable (DRVDONLY) was set to bad data.
All core drug recency variables that had triggered respondents being asked questions about driving under the influence of drugs in the past 12 months had been set to bad data.	The edited variables pertaining to driving under the influence of alcohol and illegal drugs in combination (DRVALDR) and driving under the influence of illegal drugs (DRVDONLY) were set to bad data.

Since 2002, respondents who reported in question SP02 that they were arrested and booked for breaking the law at least once in the past 12 months and gave negative answers to every question about specific arrests (including arrests for "some other offense") have been routed to a follow-up question, SP03r, that asked respondents to verify their previous answer from SP02. If respondents did not indicate that their previous answer from question SP02 was correct, they were routed to question SP03s, where they were allowed to update their answer regarding the number of times they were arrested or booked in the past 12 months. If respondents indicated in SP03s that they had been arrested or booked 0 times in the past 12 months, the edited variable NOBOOKYR was assigned a value of 0. Further, when SP03s indicated that respondents had been arrested and booked 0 times in the past 12 months, it was logically inferred that all items pertaining to specific arrests in the past 12 months should have been skipped. Therefore, all of the variables associated with specific arrests in the past 12 months were assigned codes of 89.

If respondents indicated in SP03r that their previous answer from SP02 was correct, or if they reported being arrested and booked for at least one offense in SP03s, they were asked to specify at least one offense for which they were arrested and booked in the past 12 months (questions SP03rsp or SP03ssp). If respondents specified a legitimate offense in SP03rsp or SP03ssp after giving negative answers to every question about specific arrests, the "OTHER, Specify" variable BKOTHOFF was updated to incorporate the response from SP03rsp or SP03ssp. A code of 3 also was assigned to the "some other offense" variable (BKOTH) to indicate that this edit had taken place. This code of 3 had the following meaning:

3 = Yes LOGICALLY ASSIGNED.

Any information that respondents specified in SP03rsp or SP03ssp also was used to edit variables pertaining to offenses that respondents previously had been asked about. For example, if respondents had answered question SP03a as "no" (i.e., had not been arrested and booked for motor vehicle theft in the past 12 months) but then specified in SP03rsp or SP03ssp that motor vehicle theft was one of the offenses for which they had been arrested, the edited variable BKMVTHFT was assigned a code of 3 (Yes LOGICALLY ASSIGNED).

If respondents reiterated in SP03r or SP03s that they had been arrested and booked for at least one offense in the past 12 months but still did not report a legitimate offense in questions SP03rsp or SP03ssp (including situations in which they answered SP03rsp or SP03ssp as "don't know" or "refused"), then a code of 5 was assigned to BKOTH. This code of 5 had the following meaning:

5 = Offense unknown.

Stated another way, the response from SP02 or SP03s was retained in NOBOOKYR to indicate that the respondents were arrested in the past 12 months, but it was not possible to determine the specific crime for which they were arrested.

3.6   Marijuana Purchases Module

The marijuana purchases module focused on the acquisition of marijuana. Administration of questions in this module was limited to respondents who had reported previously that they used marijuana in the past 12 months. These respondents were asked how they obtained the last marijuana they used, including buying it, trading something for it, getting it for free (or sharing someone else's), or growing it. The module also included questions about the contexts in which respondents engaged in transactions involving marijuana, including where respondents were when they bought, traded for, or got marijuana for free; from whom the respondents got the marijuana (if they did not grow it themselves); and whether they sold or gave away any of this marijuana (including those respondents who grew their own).

If respondents did not report buying the last marijuana they used, they were asked a follow-up question to identify those who had bought any marijuana in the past 12 months. Respondents who reported purchasing the last marijuana they used or who reported purchasing it at any time during the past 12 months were asked more detailed questions about their purchases

of marijuana, and they were skipped out of questions pertaining to trading for marijuana, getting it for free, or growing it.

Similarly, respondents who reported that they traded something for the last marijuana they used and who had not bought marijuana at any time during the past 12 months were asked more detailed questions about trading for marijuana. If respondents did not report trading for the last marijuana they used, they were asked a follow-up question to identify those who had traded something for marijuana in the past 12 months. Respondents who had not been routed into questions about buying marijuana and who were asked more detailed questions about trading for marijuana were skipped out of questions pertaining to getting marijuana for free or growing it.

Respondents who were routed into more detailed questions about purchases of marijuana were asked whether they last bought marijuana in "joints" or in loose form, the quantity they purchased the last time they bought marijuana, and the price they paid. Similar questions were asked of respondents who were routed into questions about trading for marijuana, except that these respondents were asked to estimate the worth of the marijuana they obtained through trading.

Edits in this module principally involved assigning appropriate legitimate skip codes based on the logic for determining whether respondents should be administered the module, or the routing logic within the module, if respondents had used marijuana in the past 12 months. If respondents reported in the marijuana module in the core that they had never used marijuana, the edited variables in the marijuana purchases module were assigned codes of 91 (or 991, etc.) to indicate that respondents had skipped out of the module because they were lifetime nonusers of marijuana. Similarly, if respondents' edited marijuana recency MJREC indicated that they last used marijuana more than 12 months ago, the edited variables in the marijuana purchases module were assigned codes of 93 (or 993, etc.) to indicate that respondents had skipped out of the module because they had used marijuana, but not in the past year. If respondents had been skipped out of the marijuana purchases module but their edited marijuana recency had a value of 9 (Used at some point in the lifetime LOGICALLY ASSIGNED), the skipped marijuana purchases variables retained codes of blank because at least some of these respondents potentially used marijuana in the past 12 months and would have been eligible to be asked questions in the marijuana purchases module.

If respondents previously reported that they had used marijuana in the past 12 months, a key aspect of the editing of variables in the marijuana purchases module involved assignment of legitimate skip codes (99, 999, etc.) according to how respondents were routed through the module. As discussed previously, for example, respondents who gave some report of having bought marijuana were skipped out of questions about trading for marijuana, growing it, or getting it for free. Similarly, respondents who gave some indication of having traded for marijuana (without having indicated buying it) were skipped out of questions related to growing it or getting it for free. If respondents reported buying or trading for marijuana and bought or traded for it in joints, they were skipped out of questions pertaining to buying or trading for marijuana in loose form, and vice versa. If respondents bought or traded for marijuana in loose form, respondents also were routed into or skipped out of questions about the quantities they obtained based on whether they reported purchasing or trading for grams, ounces, or pounds of marijuana. In addition, respondents who reported that they grew the last marijuana they used

(without having indicated that they bought or traded for marijuana) were skipped out of questions related to getting marijuana for free, and respondents who reported that they got their last marijuana for free were skipped out of questions related to growing it.

The remaining processing of the variables in the marijuana purchases module involved creating summary variables for the price that respondents paid for the last marijuana they bought or the estimated value of the marijuana they got through a trade. Respondents were first asked to report broad categories of prices. For some of these broader categories (e.g., if respondents reported paying $21.00 to $50.99), respondents were asked to report more detailed price categories (e.g., $21.00 to $30.99; $31.00 to $40.99; $41.00 to $50.99) in order to define more narrowly how much they paid for the marijuana (or how much they estimated the marijuana to be worth). The routing to these more detailed questions was contingent on the broader price category that respondents reported, such that responses to the more detailed price questions were mutually exclusive. Therefore, "composite" summary cost variables were created based on this routing logic.

For example, if respondents reported buying marijuana in loose form the last time, the broad price category variable was called MMLSPCTB (corresponding to question MJE20), where "LS" stood for marijuana in loose form, and "PCTB" stood for "broad price category." Similarly, the detailed price category variable for buying marijuana in loose form was called MMLSPCAT and was derived from responses in questions MJE20 through MJE25. If, for example, a respondent reported in question MJE20 that he or she paid "$21.00 to $50.99" for the last marijuana purchase (level 4 in question MJE20), MMLSPCAT was coded as 41 if the respondent reported paying $21.00 to $30.99 (level 1 in question MJE21); 42 if the respondent reported paying $31.00 to $40.99 (level 2 in question MJE21); and 43 if the respondent reported paying $41.00 to $50.99 (level 3 in question MJE21).

If respondents reported a broad price category for the marijuana they bought or traded for but they did not know (or refused to report) a more detailed price, the response from the "broad" price category variable (e.g., MMLSPCTB) was used to create a value for the corresponding detailed price category variable (e.g., MMLSPCAT). For example if respondents reported paying $21.00 to $50.99 in question MJE20 but they did not recall more detailed information, the variable MMLSPCAT was assigned a code of 40. This code indicated that it could at least be determined that the respondent paid $21.00 to $50.99, but that more detailed information was not available.

In addition, respondents who reported that they bought marijuana, traded something for marijuana, or got it for free in the past 12 months were asked where they were the last time they got marijuana in these different ways (edited variables MMBPLACE, MMTPLACE, and MMFLACE for where respondents were when they last bought, traded for, or got marijuana for free, respectively). Available response categories in these items were (a) inside a public building, such as a store, restaurant, sports arena, bar, or club; (b) inside a school building; (c) outside on school property; (d) inside a home, apartment, or dorm; (e) outside in a public area, such as a parking lot, street, or park; or (f) some other place.

"OTHER, Specify" variables have been included in the marijuana purchases module since 2005 to capture further information from respondents who reported that they were in some

other place when they last bought marijuana, last traded something for marijuana, or last got marijuana for free. If the other place that respondents specified corresponded to one of the response categories mentioned above, the relevant category in the "place" variable was assigned, plus a value of 10 (e.g., in MMBPLACE for buying marijuana, corresponding to question MJE27). Suppose, for example, that respondents reported that they were in some other place when they last bought marijuana (i.e., category 6 chosen in question MJE27), but they specified something that corresponded to them being outside in a public area. That would have been equivalent to respondents having selected category 5 from MJE27. Therefore, MMBPLACE was assigned a code of 15, where 15 = Outside in a public area LOGICALLY ASSIGNED.

3.7   Prior Substance Use Module

The prior substance use module covered a wide variety of topics:

- retrospective use of marijuana, cigarettes, alcohol, and cocaine in the year prior to the past 12 months (also referred to below as the past 12 to 24 months);

- the age, year, and month when respondents last used substances covered in the core section of the interview (i.e., age of last use [ALU], year of last use [YLU], and month of last use [MLU]) or in the noncore special drugs module for methamphetamine if they were lifetime but not past month users of these substances;

- sources of psychotherapeutic drugs that respondents used nonmedically in the past month or past year, including how friends or relatives obtained psychotherapeutic drugs that respondents subsequently got from these other persons; and

- the sequence of initiation of use of cigarettes, alcohol, and marijuana.

One of the important aspects of the processing of variables in this module consisted of assigning codes of 91 and 99 (see Sections 2.1.1 and 2.2) to variables that had been skipped because the questions did not apply. For example, if respondents never used marijuana or indicated use in the past 30 days, they were skipped out of the questions asking for their age, year, and month when they last used marijuana. Respondents were skipped out of the questions pertaining to the age, year, and month when they last smoked cigarettes daily if (a) they smoked every day in the past 30 days, or (b) they never had a period in their lives when they smoked cigarettes every day for at least 30 days. When a given core recency variable (e.g., MJREC for marijuana) had a refusal code and the corresponding variables in the prior substance use module had been skipped, that refusal from the core recency was propagated to the edited prior substance use variables. Documentation of issues and edits for specific subsections of the prior substance use module is presented below.

3.7.1   Retrospective Use

Since 2003, this module has included a question about retrospective use of marijuana in the year prior to the past 12 months (i.e., edited variable MRJYRBFR, corresponding to question LU01). In addition, retrospective questions on use of cigarettes, alcohol, and cocaine in the year before the past 12 months (edited variables CIGYRBFR, ALCYRBFR, and COCYRBFR, respectively) have been included since 2005. These questions were analogous to MRJYRBFR.

If respondents never used the drug of interest (e.g., marijuana), the retrospective variable (e.g., MRJYRBFR) was assigned a code of 91. In addition, the cigarette recency variable CIGREC indicated if respondents last smoked cigarettes more than 3 years ago (CIGREC = 4). Logically, if respondents last smoked cigarettes more than 3 years ago, they would not have smoked a cigarette in the past 12 to 24 months. Therefore, when CIGREC indicated that respondents last smoked cigarettes more than 3 years ago and question LU37 (corresponding to CIGYRBFR) had been skipped, CIGYRBFR was assigned a code of 99 (LEGITIMATE SKIP).

The retrospective variables MRJYRBFR, ALCYRBR, CIGYRBFR, and COCYRBFR were not edited for consistency with other data for these drugs in the prior substance use module. For example, if MRJYRBFR indicated that respondents used marijuana in the past 12 to 24 months but respondents indicated that they last used marijuana at an age in edited variable MRJAGLST that would suggest that they last used marijuana more than 2 years ago, no editing was done to either MRJYRBFR or MRJAGLST. However, a codebook "NOTE" was added to alert analysts that these types of inconsistencies could exist between the related variables for these drugs.

3.7.2   Last Use of Drugs

The prior substance use module included questions about the last use of all drugs that were covered in the core section of the interview. If respondents were lifetime users of specific substances in the core section but had not used these substances in the past 30 days, they were asked in this module for the age, year, and month when they last used these drugs or tobacco (i.e., age of last use [ALU], year of last use [YLU], and month of last use [MLU]). If respondents ever had a period of smoking cigarettes daily but had not smoked every day in the past 30 days, they also were asked for the age, the year, and the month when they last smoked cigarettes on a daily basis.

Specifically, respondents who last used a given drug more than 30 days ago[16] were asked how old they were when they last used that drug. If respondents reported last using the drug within 1 year of their current age, they were asked to report the specific month and year when they last used, with the allowable years ranging from 2009 to 2011. If respondents reported last using the drug at their current age and their birth month was earlier than the interview month (i.e., they reached their current age in the same year that they were interviewed), the CAI program assumed that the last use of the drug occurred in the current year (i.e., 2011). These respondents were asked only for the month that they last used in the current year. The remaining respondents who last used a drug within 1 year of their current age could be routed to one of two possible questions on the specific year they last used. They then were routed to a question to report on the specific month that they last used the drug in the year they had reported previously.

Because the routing logic to the different versions of the month- and year-of-last-use questions was mutually exclusive, we created a single, composite set of month-of-last-use and year-of-last-use variables from the individual raw variables. In addition, if respondents indicated a specific year that they last used a drug, the final year-of-last-use variables for 2011 were

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[16] Subsequent discussion also applies to respondents whose last period of smoking cigarettes every day occurred more than 30 days ago.

recoded to replace raw codes with values for the specific years (i.e., 2009 through 2011). If respondents confirmed that they last used a drug at their current age and were interviewed subsequent to their birthday, we assigned a code of "2011" to the year of last use; this was done even if respondents did not know what month they last used in the current year, or if they refused to report what month they last used in the current year. If the month- and year-of-last-use questions had been skipped because respondents last used the drug more than 1 year younger than their current ages, we assigned legitimate skip codes to the final month- and year-of-last-use variables.

Since 2005, consistency checks have been included in the module that were triggered when the values for the month and year of last use were inconsistent with the age at last use. Specifically, for respondents who recently stopped use of a given drug, the CAI program calculated a second age at last use based on the month- and year-of-last-use data by comparing these data with the respondent's date of birth. This comparison was not done if the respondent reported last use of the drug in the same month that he or she was born; a unique age at last use could not be determined from the month and year of last use in these situations because it was not known whether the drug use occurred before or after the respondent's birthday. Similarly, a consistency check was not triggered if the respondent had missing data in either of the month or year questions, such as if the respondent knew the year when he or she last used a drug but did not know the month of last use.

In the remaining situations in which respondents provided complete data for the month and year of last use, a consistency check was triggered if the month and year of last use suggested that respondents stopped use of the drug at an earlier or a later age than what they had previously reported in their age-at-last-use question. For example, a consistency check was triggered if a 16-year-old respondent reported last using a drug at age 16 but then reported last using the drug in a month and year that would have meant the respondent was 15 years old when he or she last used the drug. No editing needed to be done if respondents indicated twice in a row that the age at last use that was calculated from the month and year of last use was correct. The CAI program updated the value for the age at last use (e.g., AGELSTCG for cigarettes) to agree with the values for the month and year of last use.

If respondents indicated at some point in the consistency check sequence that the value they had reported for their age at last use (e.g., question LU03 for cigarettes) was correct, they had an opportunity to revise the values for their year of last use and their month of last use. If a consistency check was triggered between the age at last use and data in the month and year of last use, the month and year of last use were updated with any year and month data that the respondent entered in the consistency checks (e.g., LUCG07 and LUCG07a for any cigarette use). These data were used in subsequent editing steps. Otherwise, the month- and year-of-last-use data were picked up from the original source variables (e.g., LU03a through LU03d for any cigarette use) for use in subsequent editing.

Exhibit 8 discusses issues pertaining to the consistency checks between the age at last use, year of last use, and month of last use and the edits that were implemented. The default when a respondent did not resolve an inconsistency between the age at last use and the month and year of last use was to favor the age at last use in subsequent editing decisions.

Exhibit 8. Edit Issues Pertaining to Consistency Checks for Age, Year, and Month of Last Use Variables in the Prior Substance Use Module

Issue	Edits Implemented
The respondent (R) indicated in the final verification check (e.g., LUCG08 for cigarettes) that the age of last use (ALU) based on the new month and year of last use (MLU and YLU) was correct (e.g., LUCG08 = 4). The computer-assisted interviewing (CAI) program updated the ALU (such as AGELSTCG for cigarettes) with the value of the age calculated from the MLU and YLU (referred to subsequently as the MYRLST age, such as MYRLSTCG, for cigarettes). However, the new value for the ALU indicated that the R was more than 1 year younger than his or her current age at the time the R last used the drug (e.g., the R was 16, reported last use of the drug at age 15, but then confirmed an MLU and YLU that meant the R was 14 when the R last used the drug). Had the R initially reported this ALU, the R would not have been routed to the MLU and YLU questions.	The updated value was retained for the ALU (e.g., last use at age 14 for a 16-year-old R in this example). Based on this updated ALU, it was logically inferred that the R should have skipped the MLU and YLU items. A code of 9989 was assigned to the YLU variable (e.g., CIGYLU for cigarettes), and a code of 89 was assigned to the MLU variable (e.g., CIGMLU).
The final verification check (e.g., LUCG08 for cigarettes) was skipped because the R entered revised data for the MLU and YLU that made them consistent with the ALU.	No editing was done because the R was considered to have resolved the inconsistency.
The final verification check (e.g., LUCG08) was skipped because the R entered a new MLU that was the same as the R's birth month.	The new MLU could be consistent with the ALU, depending on whether the use in that month occurred before or after the R's birthday. No editing was done to the ALU, MLU, and YLU, as long as the revised MLU and YLU were potentially consistent with the ALU. However, the MLU and YLU were set to bad data if they could never be consistent with the ALU. Suppose, for example, that a hypothetical R was born in June 1993, was interviewed in March 2011 (age 17 at the time of the interview), reported last use of cigarettes at age 17, and initially reported last use in May 2010. Last use in May 2010 would have meant that the R was 16 when he or she last smoked cigarettes because the R's 17th birthday was not until June 2010. If the R changed the month and year to June 2010, that could be consistent with last use at age 17, if the use occurred after the R's birthday. However, if the R changed the month and year to June 2009, it would never be possible for the R to have last used at age 17 and also to have last used in June 2009. In this latter situation, CIGMLU and CIGYLU would be set to bad data.
The consistency check was triggered between the ALU and the MYRLST age. However, the R answered the first consistency check (e.g., LUCG05 for cigarettes, regarding whether the value in the MYRLST age was correct) as "don't know" or "refused." The R then exited the consistency check loop without having resolved the inconsistency.	The value for the ALU was retained, but the MLU and YLU were set to bad data.

(continued)

Exhibit 8. Edit Issues Pertaining to Consistency Checks for Age, Year, and Month of Last Use Variables in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The final verification check (e.g., LUCG08 for cigarettes) was skipped because the R entered the same values for the MLU and YLU that triggered the inconsistency with the ALU in the first place.	The value for the ALU was retained, but the MLU and YLU were set to bad data.
The R entered a new MLU or YLU that differed from what the R previously reported. The MYRLST age based on the revised MLU and YLU still mismatched the ALU, but the R indicated in the final verification check that this MYRLST age was correct.	No editing was done in this situation. The CAI program automatically updated the ALU to be consistent with the updated values reported for the MLU and YLU.
The consistency check was triggered between the ALU and the MYRLST age calculated from the MLU and YLU. However, the R answered the first consistency check (e.g., LUCG05 for cigarettes) as "don't know" or "refused." The R then exited the consistency check loop without having resolved the inconsistency.	The ALU was retained, but the MLU and YLU were set to bad data.
The R entered values in the consistency checks for the MLU and YLU that again yielded a nonmissing MYRLST age based on the MLU and YLU. However, the R failed to resolve the inconsistency between the ALU and the MYRLST age. The R also reported either in the first verification check that the MYRLST age was not correct (e.g., LUCG05 = 6 for cigarettes) or reported in the second verification check that the ALU was correct (e.g., LUCG06 = 2 for cigarettes).	No editing was done to the ALU. The following edits were implemented for the MLU and YLU: • The default edit was to set the MLU and the YLU to bad data. As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," the MLU and YLU were assigned the code that corresponded to the answer in the final verification check.
The R entered values in the consistency checks for the MLU and YLU that again yielded a nonmissing MYRLST age based on the MLU and YLU. However, the R failed to resolve the inconsistency between the ALU and the MYRLST age. The R also reported in the second verification check that neither the ALU nor original MYRLST age was correct (e.g., LUCG06 = 3 for cigarettes).	The following edits were implemented for the ALU, MLU, and YLU: • The default edit was to set the ALU, MLU, and YLU to bad data. As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," the ALU, MLU, and YLU were assigned the code that corresponded to the answer in the final verification check.
The R triggered the initial consistency check between the ALU, MLU, and YLU and reported that the MYRLST age calculated from the MLU and YLU was correct (e.g., LUCG05 = 4). However, the R answered the second consistency check (e.g., LUCG06 for cigarettes) as "don't know" or "refused." Consequently, the R did not have an opportunity to correct the inconsistency between the ALU, MLU, and YLU.	The relevant codes for "don't know" or "refused" were assigned to the ALU, MLU, and YLU. The rationale for this edit is that conclusive information did not exist regarding whether the ALU indicated the R's correct age when he or she last used a drug, or whether the MLU and YLU indicated the R's correct age at last use. Therefore, the ALU, MLU, and YLU all were set to missing values.

Respondents also were skipped out of the year- and month-of-last-use questions if they indicated that they last used a drug (or last smoked cigarettes every day) at an age that was more than 1 year younger than their current age. In these situations, the edited year- and month-of-last-use variables were assigned legitimate skip codes.

Prior substance use variables were not edited with respect to *imputed* core drug use variables. Suppose, for example, that respondents did not know or refused to report when they first used marijuana, but they gave ages of last use for marijuana in question LU02 that were consistent with their current ages. Although the potential existed for the imputed marijuana age at first use (AFU; imputed variable: IRMJAGE) to be imputed to a value greater than the age of last use, the marijuana age of last use (MRJAGLST) was not edited for consistency with IRMJAGE.

Similarly, if a core drug recency variable (e.g., MJREC for marijuana) had been assigned an "indefinite" value of 8 or 9 (indicating use at some point in the past 12 months or lifetime, respectively; see footnote 1 in Section 1), the corresponding imputed recency (e.g., IRMJRC for marijuana) could be statistically imputed to indicate past month use (IRMJRC = 1). Although the prior substance use module was designed for respondents who were not past month users, any data in this module were retained for respondents who were statistically imputed to be past month users. In this situation, analysts would have the option of deciding whether to use or disregard data from respondents who were imputed to be past month users.

Exhibit 9 describes edit issues and the specific edits that were implemented for the age-, year-, and month-of-last-use variables in the prior substance use module (i.e., other than the issues described in Exhibit 8 when consistency checks were triggered between the age-, year-, and month-of-last-use variables). For example, a consistency check was triggered if respondents entered an age of last use that was earlier than the age when they reported first using drugs or cigarettes, or when they first smoked cigarettes daily. Because these age-of-last-use questions occurred in a noncore module, respondents were not allowed to change their answers to the corresponding age-at-first-use questions from the core modules. Thus, the only way that respondents could resolve the inconsistency between the age of last use and age at first use was to change their answer to the age-of-last-use question. If respondents indicated that their inconsistent age of last use was correct or they entered a new age-of-last-use value that was still inconsistent with the age at first use, the edited age-of-last-use variable (e.g., MRJAGLST for marijuana) was assigned a bad data code. Thus, the relevant age at first use from the core modules was used as the standard against which the corresponding noncore age-of-last-use variable was compared. Similarly, the year- and month-of-first-use questions for a given drug from the core section of the interview were used as standards for editing the year- and month-of-last-use variables for that drug.

As was the case in prior years, methamphetamine users who reported lifetime but not past month use of methamphetamine in the core stimulants module were routed into the questions for last use of methamphetamine. Since 2007, methamphetamine users identified in the special drugs module (see Section 3.1.1) also have been routed into these questions. The question wording for the age, year, and month when respondents last used methamphetamine differed depending on whether use was reported in the core stimulants module or in the noncore special drugs module. If respondents reported methamphetamine use in the core stimulants module, the wording of questions for the age, year, and month of last use asked about use of "Methamphetamine, Desoxyn, or Methedrine." For users identified through the special drugs module, the questions about the age, year, and month of last use simply referred to use of "Methamphetamine."

Exhibit 9. Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module

Issue	Edits Implemented
The age of last use (ALU) for a given drug or behavior (MRJAGLST for marijuana, CIGDLLST for daily cigarette smoking) was greater than the respondent's (R's) current age.	The ALU was set to bad data.
The ALU was lower than the age at first use (AFU) from the core (e.g., MJAGE for marijuana). If the ALU for drugs, cigarettes, or daily cigarette use was lower than the corresponding AFU, a consistency check was triggered. The Rs were not allowed to go back and change the AFU from the core; the only way they could resolve the inconsistency was by making the ALU consistent with the AFU. Thus, the Rs may indicate that the ALU was correct as reported, or they could enter a new ALU that still was inconsistent with the AFU.	The ALU was set to bad data, even if the R reported in the consistency check that "yes," what the R had previously reported for the ALU was correct. Thus, we used core AFU data to edit the noncore ALU, but not vice versa.
The AFU from the core (e.g., MJAGE for marijuana) had a missing value, but the ALU (e.g., MRJAGLST) was defined. That included situations in which the AFU was set to bad data as part of the "flag and impute" edits (see footnote 1 in Section 1 of the main text).	No editing was done to the ALU, as long as it was consistent with the R's age (see above). In addition, no editing was done to the ALU if the imputed AFU (e.g., IRMJAGE for marijuana) was given a value greater than the ALU. (To preserve consistency of the imputed AFU data with imputed data from prior years, imputation of the core AFU variables in 2011 did not take into account data from the corresponding ALU variables.)
The edited core recency (e.g., CIGREC for cigarettes) indicated that the last use was more than 12 months ago, but the ALU indicated last use at the R's current age. The answer to the ALU would suggest use in the past 12 months. (For cigarettes, either CIGAGLST or CIGDLLST could be inconsistent with the recency.)	No editing was done to the ALU. However, a standard codebook footnote was included for these variables to alert analysts to the fact that values in this noncore module could be inconsistent with values from core modules.
The core recency was set to an "indefinite" value of 8 or 9 (used at some point in the past 12 months or used at some point in the lifetime, respectively). These indefinite recency values could be imputed to past month use. If the raw (i.e., unedited) recency in the corresponding core module indicated use more than 30 days ago, the R would be routed to the prior substance use module and could provide data for the ALU. The latter would suggest that the R is not a past month user, even though the final imputed recency might indicate that the R is a past month user.	No editing was done to the ALU. The standard codebook footnote described above also applied to this issue.
For Rs who last used drugs more than 30 days ago but within the past 12 months, the number of days that the R could have used a drug (e.g., marijuana) in the past 12 months based on MRJAGLST was less than the number of days in the edited or imputed 12-month frequency for marijuana (MJYRTOT or IRMJFY, respectively).	No editing was done to MRJAGLST. The standard codebook footnote described above also applied to this issue.

(continued)

Exhibit 9. Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The ALU variable had a missing value, but the corresponding AFU indicated that the R first used (or started smoking cigarettes daily) at his or her current age.	• The ALU was set to equal the AFU. Logically, last use cannot be any later than the R's current age. • As part of this same edit, if the year of first use (YFU) indicated that the R first used in the year of the interview, then the R was logically inferred to have last used in the current year.
The year of last use (YLU) had a missing value. In addition, the R reported first using a drug (or first smoking cigarettes daily) at an age that was 1 year younger than his or her current age. The R also reported first using the drug (or first smoking cigarettes daily) in the current year.	No editing was done to the ALU, but the YLU was set to equal the YFU. Logically, if the first use was in the current year, then the last use had to be in the current year as well.
The month of last use (MLU) had a missing value, but the corresponding month of first use (MFU, or first daily cigarette use) was in the calendar month prior to in the interview month.	The MLU was set to equal the MFU. Logically, if the R was routed to the prior substance use module because he or she had not used a given drug in the past 30 days, the R also had to have last used that drug in the month prior to the interview month.
The R was interviewed in January and reported first use of a drug (or first daily cigarette use) in December of the previous year.	If the YLU had a missing value or had a value that was inconsistent with the YFU, then the YLU was set to equal the YFU. Concurrently, the MLU was set to equal the MFU under similar constraints.
The ALU had a missing value, but the calculated age of last use variable (MYR; e.g., MYRLSTMJ for marijuana) from the YLU, MLU, and birth date was consistent with the AFU and the R's current age. In addition, none of the above edits had been applied.	The ALU was set equal to the calculated age of last use (MYR).
The R gave a valid value for the YLU and reported last use in the same month when he or she had a birthday, or else the R answered the MLU question as "don't know" or "refused."	Two possible values for the ALU were calculated, based on the YLU that the R reported and the R's birth year. If neither of these two possible values matched the ALU that the R reported, then the YLU and MLU were set to bad data.
The R reported an ALU (and also may have reported values for the YLU and MLU) for when he or she last used any hallucinogen. However, the ALU, YLU, and MLU variables were skipped for LSD, PCP, or Ecstasy because the R had used only LSD, PCP, or Ecstasy, respectively.	Values from the ALU, YLU, and MLU for any hallucinogen (HALAGLST, HALYLU, and HALMLU, respectively) were transferred to the edited variables that had been skipped for LSD, PCP, or Ecstasy. For example, if the R was a lifetime user only of Ecstasy, data from HALAGLST, HALYLU, and HALMLU were transferred to the corresponding variables ECSAGLST, ECSYLU, and ECSMLU for Ecstasy.

(continued)

Exhibit 9.   Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The R reported an ALU (and also may have reported values for the YLU and MLU) for when he or she last used OxyContin® in the core pain relievers module or methamphetamine in the core stimulants module, respectively. However, the ALU, YLU, and MLU variables were skipped for any pain relievers or any stimulants because the R was a lifetime user of only these drugs in the respective modules.	Values from the ALU, YLU, and MLU for OxyContin® (OXYAGLST, OXYCYLU, and OXYCMLU) or methamphetamine (MTHAGLST, METHYLU, and METHMLU) were transferred to the corresponding edited variables that had been skipped for any pain relievers or any stimulants. For example, if the only pain reliever that the R had ever used nonmedically was OxyContin®, data from OXYAGLST, OXYCYLU, and OXYCMLU were transferred to the corresponding variables ANLAGLST, ANALYLU, and ANALMLU for any pain relievers. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module (see the text for further explanation).
The R reported last using any cocaine and crack cocaine in the same year. However, the R also reported last using any cocaine in a month that was earlier than the month when the R reported *first* using crack cocaine. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The MLU for any cocaine was set to bad data. Similar edits were implemented for the MLU variables for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, this edit for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module (see the text for further explanation).
The ALU for crack cocaine was later than the corresponding ALU for any cocaine. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The ALU for cocaine was set to equal the ALU for crack cocaine. Similar edits were implemented for the ALUs for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, this edit for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.
The ALU for any cocaine had a missing value. However, the R reported last using crack cocaine at his or her current age. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	• The ALU for any cocaine was set to equal the ALU for crack cocaine. Logically, if the R last used crack at his or her current age, that also had to be the age at which the R last used any cocaine. • As part of this same edit, if the crack YLU variable indicated that the R last used crack in the current year, then the cocaine YLU was set to the current year. Similar edits were implemented for the ALUs for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.

(continued)

Exhibit 9. Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The YLU for crack cocaine was later than the YLU for any cocaine. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The YLU for any cocaine was set to equal the YLU for crack cocaine. Values in the MLU for crack cocaine also were carried over to the MLU for any cocaine. Similar edits were implemented for the YLU and MLU variables for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.
The YLU for cocaine had a missing value. However, the R also indicated that he or she last used crack cocaine at an age that was 1 year younger than his or her current age. The R also reported last using crack cocaine in the current year. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	No editing was done to the ALU for any cocaine, but the YLU for any cocaine was set to the current year. Logically, if the last use of crack cocaine was in the current year, then the last use of any cocaine had to be in the current year as well. Similar edits were implemented for the YLU and MLU variables for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.
The R last used any cocaine and crack cocaine at the same age and in the same year. However, the R reported last using crack cocaine in a month that was later than what the R reported for last use of any cocaine. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The MLU for any cocaine was set to equal the MLU for crack cocaine. Similar edits were implemented for the MLU variables for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.
The cocaine MLU had a missing value, but the R reported last using crack cocaine in the calendar month prior to the interview month. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The MLU for any cocaine was set to the calendar month prior to the interview month. Logically, if the R was asked the questions about any cocaine and crack cocaine in the prior substance use module because he or she had not used these drugs in the past 30 days, the R also had to have last used any cocaine in the month prior to the interview month. Similar edits were implemented for the MLU variables for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.

Exhibit 9. Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The ALU for any cocaine had a missing value, but the calculated value in the MYR variable for crack cocaine was consistent with both the crack ALU and the R's current age. In addition, none of the above edits was applied. This issue also could occur for daily cigarette use (relative to any cigarette use), OxyContin® use (relative to any pain reliever use), and methamphetamine use reported in the core stimulants module (relative to any stimulant use).	The ALU for any cocaine was set to equal the MYR value for crack cocaine. Similar edits were implemented for the ALUs for any cigarette use, any pain reliever use, or any stimulant use when this issue applied in their respective sections of the prior substance use module. However, these edits for methamphetamine and stimulants did not apply when last use of methamphetamine was based on methamphetamine use identified in the noncore special drugs module.
The R reported last using any hallucinogen and LSD, PCP, or Ecstasy in the same year. However, the R also reported last using any hallucinogens in a month that was earlier than the month when the R reported *first* using LSD, PCP, or Ecstasy.	The MLU for any hallucinogens was set to bad data.
At least one of the ALUs for LSD, PCP, and Ecstasy was greater than the ALU for any hallucinogen.	• The hallucinogen ALU was set to the latest ALU from the ALUs for LSD, PCP, or Ecstasy. • As part of this same edit, if a given ALU for LSD, PCP, or Ecstasy was moved over to the ALU for any hallucinogens and the corresponding YLU for LSD, PCP, or Ecstasy was later than the YLU for any hallucinogen, then the later YLU was moved over to the YLU for any hallucinogen. If two or all three of these drugs had the same latest ALU value relative to the hallucinogen ALU, then the latest YLU from these drugs was moved over to the YLU for any hallucinogen. • If the YLU for LSD, PCP, or Ecstasy was moved over to the YLU for any hallucinogen and the hallucinogen MLU had a nonmissing value that was earlier than the corresponding MLU for LSD, PCP, or Ecstasy, then the MLU for any hallucinogen was set to the latest MLU from LSD, PCP, or Ecstasy.
The ALU for any hallucinogens had a missing value, but one or more ALUs for LSD, PCP, or Ecstasy indicated that the R last used at his or her current age.	• The hallucinogen ALU was set to be equal to the R's current age. • As part of this same edit, if a given YLU for LSD, PCP, or Ecstasy indicated that the R last used in the current year, then the hallucinogen YLU was set to the current year.
The ALU for any hallucinogens had a missing value, and one or more ALUs for LSD, PCP, or Ecstasy indicated that the R last used at a year younger than his or her current age. At least one YLU for LSD, PCP, or Ecstasy indicated that the R last used any of these drugs in the current year.	The hallucinogen YLU was set to the current year. No editing was done to the hallucinogen ALU.

(continued)

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Exhibit 9.   Edit Issues Pertaining to the Age, Year, and Month of Last Use in the Prior Substance Use Module (continued)

Issue	Edits Implemented
The MLU for any hallucinogens had a missing value, but the R reported last using LSD, PCP, or Ecstasy in the calendar month prior to the interview month.	The MLU for any hallucinogens was set to the calendar month prior to the interview month. Logically, if the R was asked the questions about any hallucinogens and LSD, PCP, or Ecstasy because he or she had not used these drugs in the past 30 days, the R also had to have last used any hallucinogens in the month prior to the interview month.

Because methamphetamine users who reported use in the core stimulants module were asked about prescription forms of the drug (e.g., Desoxyn®), the edits described in Exhibit 9 continued to hold for the age, year, and month of last use of prescription stimulants when methamphetamine users from the core stimulants module reported a later age, year, and month of last use than they reported for last use of *prescription* stimulants. However, these edits did not apply when respondents were identified as methamphetamine users through the special drugs module. In this latter situation, the question wording "Methamphetamine" was assumed to refer to the "street" form of the drug and not to prescription forms. For this reason, documentation of codes that indicated lifetime nonuse of stimulants was modified from "NEVER USED STIMULANTS" to "NEVER USED PRESCRIPTION STIMULANTS" beginning in 2007.

3.7.3   Sources of Psychotherapeutic Drugs

Since 2005, the prior substance use module has included questions on how nonmedical users of prescription pain relievers, prescription tranquilizers, prescription stimulants, methamphetamine, and prescription sedatives obtained the medications they misused in the past 30 days or past 12 months. For stimulants, these questions differentiated between stimulants that are typically available by prescription and methamphetamine, which is typically manufactured outside the legitimate pharmaceutical industry by illicit laboratories and distributed through illegal trafficking.[17]

For all of these drugs except methamphetamine, respondents were given a list of 10 potential sources of prescription medications. These sources included prescriptions from one or more doctors, fake prescriptions, thefts from medical facilities, the Internet, drug dealers, and friends or relatives (obtained with or without the knowledge of friends or relatives). Respondents also had the option of indicating that they obtained these medications "in some other way." Respondents who indicated that they obtained these medications in some other way were asked to specify what that other way was.

Questions about how methamphetamine users obtained this drug included a reduced list of six potential sources of the drug. Unlike the psychotherapeutic drugs that often may be available by prescription, the methamphetamine questions did not include options for respondents obtaining methamphetamine by prescription (including fake prescriptions written for

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[17] Although methamphetamine also is available in prescription form (e.g., Desoxyn®), legitimate prescribing of methamphetamine in the United States is relatively rare.

methamphetamine) or by stealing methamphetamine from medical facilities or pharmacies. Response options for methamphetamine included obtaining the drug from a friend or relative for free, buying it from a friend or relative, taking it from a friend or relative without asking, buying it from a drug dealer or other stranger, buying it on the Internet, or getting it "in some other way." Again, respondents who reported that they got methamphetamine in some other way were asked to specify how they obtained it.

Since 2006, respondents who reported that they obtained pain relievers, tranquilizers, stimulants, sedatives, or methamphetamine from a friend or relative for free have been asked follow-up questions (e.g., LU27a for pain relievers) on how the friend or relative originally obtained the drug. These items were added in 2006 due to the large number of respondents in 2005 who reported obtaining these drugs from a friend or relative for free. Similar to their predecessor questions, for all of these drugs except methamphetamine, respondents were given the same list of 10 sources for where a friend or relative could have obtained the drugs. Respondents also had the option of indicating that the friend or relative obtained these medications "in some other way"; in that situation, respondents then were asked to specify the other way that the friend or relative obtained the medication.

Respondents who reported that they last used a given psychotherapeutic drug in the past 30 days[18] were asked to report all of the ways that they obtained that drug in the past 30 days (e.g., question LU27 for pain relievers). Thus, the questions pertaining to how past month nonmedical users obtained these drugs in that period were "enter all that apply" questions in which respondents could indicate more than one source of these drugs. Each response option, such as "I got the pain reliever from a friend or relative for free" in question LU27 for pain relievers, was captured as a separate variable (ANLFRFRE for this option). Documentation for these "enter all that apply" variables was as follows:

1 = Response entered, and

6 = Response not entered.

Codes of 94 and 97 (for "don't know" and "refused" respectively) were assigned to an entire list of variables if respondents did not know or refused to report the source of the psychotherapeutic drugs that they used nonmedically in the past 30 days.

Similar edits applied to the variables pertaining to how friends or relatives obtained medication that respondents subsequently used nonmedically. Specifically, if respondents reported that they last used a psychotherapeutic drug nonmedically in the past 30 days and they reported that they got the drug from a friend or relative for free, respondents were asked to report all of the ways that the friend or relative obtained that drug in the past 30 days (e.g., LU27a for pain relievers). In this situation, the corresponding variables were coded as 1, 6, 94, or 97, as described above.

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[18] For pain relievers, this included respondents who reported using OxyContin® nonmedically in the past 30 days. For methamphetamine, this included respondents who reported last using methamphetamine in the follow-up questions in the special drugs module and those who reported last using methamphetamine with a needle in the special drugs module (see Section 3.1), as well as those respondents who reported last using methamphetamine in the past 30 days in the core stimulants module.

Respondents who used these drugs in the past 30 days and indicated more than one source of these drugs in that period were asked to report how they obtained the drugs that they last used (e.g., question LU28 for pain relievers). Similarly, respondents whose most recent use of a given psychotherapeutic drug was more than 30 days ago but within the past 12 months[19] were asked to report how they obtained the drug the last time that they used it. Unlike the "enter all that apply" variables pertaining to how past month nonmedical users obtained these drugs, respondents were allowed to enter only one response for how they obtained the psychotherapeutics for their last nonmedical use. Thus, for the edited variables ANLGTLAS, TRNGTLAS, STMGTLAS, and SEDGTLAS (pertaining to how respondents got pain relievers, tranquilizers, prescription stimulants, or sedatives, respectively, the last time they used them), codes in these variables corresponded to those in the corresponding questions LU28, LU30, LU32, and LU36 for these drugs.

If respondents reported that they last obtained a psychotherapeutic drug from a friend or relative for free in the past 12 months (e.g., in ANLGTLAS for pain relievers), similar edits applied to the variables pertaining to how friends or relatives obtained the medication that respondents last used nonmedically. Respondents could indicate only one way that the friend or relative obtained the psychotherapeutic drug that respondents last used nonmedically.

For methamphetamine, question LU34 pertaining to how respondents obtained methamphetamine the last time they used it (and question LU34a pertaining to how friends or relatives obtained the methamphetamine that respondents last used) contained a reduced number of response options. Specifically, response options were not offered to respondents for obtaining methamphetamine via prescription (i.e., including fake prescriptions) or stealing it from medical facilities or pharmacies. Response categories in questions LU34 and LU34a were recoded in the corresponding edited variables MTHGTLAS (i.e., how the respondent obtained the methamphetamine the last time he or she used it) and MTHFFLAS (i.e., how the friend or relative obtained the methamphetamine that the respondent last used) to match the corresponding levels in the variables pertaining to the other psychotherapeutics. For example, level 5 in ANLGTLAS was "I got the pain reliever from a friend or relative for free." Similarly, level 5 in ANLFFLAS (i.e., how the friend or relative obtained the prescription pain reliever that the respondent last used nonmedically) was "He or she got the pain reliever from another friend or relative for free." In question LU34 for methamphetamine, however, "I got the Methamphetamine from a friend or relative for free" was the first response category. Similarly, the first response category in question LU34a was "He or she got the Methamphetamine from another friend or relative for free."

Therefore, if respondents reported that the last time they used methamphetamine, they got it from a friend or relative for free (LU34 = 1), that response was recoded to 5 in the edited variable MTHGTLAS. Similarly, if a respondent reported that he or she got the methamphetamine that he or she last used from a friend or relative for free, and the friend or relative had gotten that methamphetamine from another friend or relative for free (LU34a = 1), that response was recoded to 5 in the edited variable MTHFFLAS.

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[19] Again, for pain relievers, this included nonmedical use of OxyContin® more than 30 days ago but within the past 12 months. For methamphetamine, this included indications of use more than 30 days ago but within the past 12 months from either the core stimulants module or from questions in the noncore special drugs module (see Section 3.1).

Consistent with overall editing procedures for the prior substance use module, an important aspect of editing the variables pertaining to sources of psychotherapeutic drugs involved assigning appropriate legitimate skip codes. Conditions under which specific legitimate skip codes were assigned are discussed below for pain relievers, tranquilizers, and sedatives. Special issues for prescription stimulants and methamphetamine are discussed separately.

- If respondents reported in the relevant core section of the interview that they never were nonmedical users of prescription pain relievers, tranquilizers, or sedatives, the variables pertaining to how respondents obtained these drugs for nonmedical use and how friends or relatives obtained these drugs were assigned codes of 91 (e.g., NEVER USED PAIN RELIEVERS).

- If respondents were logically inferred in the relevant core section of the interview to have never used prescription pain relievers, tranquilizers, or sedatives nonmedically, the variables pertaining to how respondents obtained these drugs for nonmedical use and how friends or relatives obtained these drugs were assigned codes of 81 (e.g., NEVER USED PAIN RELIEVERS Logically assigned).

- If the variables for a given psychotherapeutic drug (e.g., pain relievers) had been skipped because respondents refused to answer all lifetime questions in the corresponding core module regarding whether they had ever used that type of drug nonmedically, the refusal was propagated to the skipped source of psychotherapeutics variables, including the variables on how friends or relatives obtained them.

- If respondents reported that their last nonmedical use was more than 30 days ago but within the past 12 months, the variables pertaining to how respondents obtained that drug for nonmedical use in the past 30 days and how friends or relatives obtained it were assigned codes of 93 (e.g., DID NOT USE PAIN RELIEVERS IN THE PAST 30 DAYS).

- If respondents reported that their last nonmedical use was more than 12 months ago, the variables pertaining to how respondents obtained that drug for nonmedical use in the past 30 days and how friends or relatives obtained it were assigned codes of 93 (same meaning as above). In addition, the variables pertaining to how respondents obtained that drug the last time that respondents misused it in the past 12 months (e.g., ANLGTLAS and the associated "OTHER, Specify" variable ANLGTOSP for pain relievers) and how friends or relatives obtained the drug were assigned codes of 93 (e.g., DID NOT USE PAIN RELIEVERS IN THE PAST 12 MONTHS).

- If respondents reported that they got the drug from only one source in the past month (e.g., only one answer chosen in question LU27 for pain relievers), the corresponding variable for how respondents got the drug the last time they used it (e.g., ANLGTLAS for pain relievers) was assigned a legitimate skip code. The corresponding "OTHER, Specify" variable (e.g., ANLGTOSP for pain relievers) also was assigned a legitimate skip code. In these situations, it was not necessary to ask respondents how they got the drug the last time because they logically would have gotten it from that single source.

- If respondents used a drug nonmedically in the past 30 days but they did not report that one of the ways they obtained it was from a friend or relative for free, the

corresponding edited variables pertaining to how friends or relatives obtained the drug were assigned legitimate skip codes.

- If respondents were asked how they obtained a given psychotherapeutic drug the last time they used it nonmedically and they did not report that they obtained it from a friend or relative for free, the corresponding edited variable pertaining to how the friend or relative obtained the drug was assigned a legitimate skip code.

As noted previously, questions in the prior substance use module distinguished between how respondents obtained *prescription* stimulants and how they obtained methamphetamine. The logic for assigning codes of 91 or 93 that was described above for pain relievers, tranquilizers, and sedatives also applied to the variables for the source of prescription stimulants if respondents reported in the core stimulants module that they never used methamphetamine or any prescription-type stimulants nonmedically, or if their most recent reported use of any stimulants from the core stimulants module caused them to be skipped out of the questions pertaining to how they obtained prescription stimulants in the past 30 days or the past 12 months. Similarly, if respondents reported that they obtained prescription stimulants from only one source in the past 30 days, the questions regarding how they obtained prescription stimulants the last time they used them nonmedically (i.e., STMGTLAS and STMGTOSP) were assigned legitimate skip codes.

In addition, respondents were not asked how they obtained prescription stimulants for nonmedical use if the only stimulant they reported ever using in the core stimulants module was methamphetamine. In this situation, the variables pertaining to the source of *prescription* stimulants were assigned legitimate skip codes. This edit also was implemented when respondents reported lifetime use of only two stimulants: methamphetamine and "some other stimulant," but the only "other" stimulant they specified using was methamphetamine. In this situation, data in the source of prescription stimulants variables were overwritten with codes of 89.

Although the core stimulants module did not explicitly ask when respondents last used stimulants other than methamphetamine, no editing was done to the prescription stimulants variables if the core recency-of-use variables for any stimulants (STIMREC) and methamphetamine (METHREC) indicated use in the same period, such as if STIMREC and METHREC both indicated use in the past 30 days. For example, if respondents were lifetime nonmedical users of methamphetamine and other stimulants and they indicated that they last used methamphetamine in the past 30 days, they also were expected to have reported that they used any stimulants in the past 30 days. Because questions LU31 and LU32 explicitly asked respondents how they obtained prescription stimulants, we made the assumption when STIMREC and METHREC both indicated use in the same period that respondents' answers to questions LU31 and LU32 pertained to how they obtained prescription stimulants, and not how they obtained methamphetamine.

Because of the relationship between the core recency variables STIMREC and METHREC, however, a consistency check was triggered in the core stimulants module if respondents reported more recent use of methamphetamine (from the core question ST19) than they reported for any stimulants (from the core question ST09). In some of these situations, it was less clear whether respondents' answers in LU31 or LU32 referred specifically to

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prescription stimulants and not to methamphetamine. Therefore, we created a flag variable (STMGTFLG) when a consistency check was triggered between the recency of use for any stimulant and methamphetamine in the core stimulants module. The default value in STMGTFLG was 98 (BLANK [NO ANSWER]). Situations in which STMGTFLG had values other than 98 are described below.

We set STMGTFLG to a value of 1 if valid values existed in LU31 or LU32 for how respondents obtained prescription stimulants for nonmedical use and either of the following occurred:

- respondents answered the consistency check question STCC18 (which would indicate that their previous answer in the general stimulant recency question ST09 was incorrect),[20] regardless of whether they resolved the inconsistency between the most recent use of any stimulant and methamphetamine; or

- respondents did not resolve the inconsistency, but the edited stimulant recency STIMREC was logically edited to more recent use based on the methamphetamine recency METHREC.

For example, suppose respondents reported in question ST09 that they last used any stimulant "more than 12 months ago," but they reported in ST19 that they last used methamphetamine "more than 30 days ago but within the past 12 months." If these respondents changed their stimulant recency to "more than 30 days ago but within the past 12 months" in STCC18, they would be routed to question LU32, regarding how they obtained *prescription* stimulants the last time they used them nonmedically. If these respondents reported obtaining prescription stimulants in a way that persons also might obtain methamphetamine, it could be questionable to assume that these answers in LU32 referred specifically to prescription stimulants and not to methamphetamine. STMGTFLG also could be set to a value of 1 if respondents reported in question STCC17 that "neither answer was correct" for their most recent use of any stimulant or methamphetamine and they indicated use of stimulants in the past month or past year in STCC18.

We set STMGTFLG to a value of 2 if valid values existed in LU31 or LU32 when the following occurred:

- respondents answered STCC19 (but not STCC18, which would indicate that their previous answer for when they last used methamphetamine was incorrect, but that the stimulant answer was correct), and

- they revised their methamphetamine recency (METHREC) to be consistent with the recency for any stimulants (STIMREC).

For these cases where STMGTFLG = 2, it could be more reasonable to assume that answers in LU31 or LU32 pertained to prescription stimulants and not methamphetamine. However, this

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[20] Question STCC18 is asked if respondents indicated in question STCC17 that their methamphetamine recency from question ST19 was correct (i.e., and by extension, that their general stimulant recency was incorrect) or that neither answer to their general stimulant recency and methamphetamine recency was correct. In question STCC18, respondents are asked again to report when they last used any stimulant nonmedically.

value in STMGTFLG would still alert analysts to the occurrence of an inconsistency in the core stimulants data between when respondents reported last using any stimulants and methamphetamine.

In assigning values to STMGTFLG, we did not concern ourselves with situations in which LU31 or LU32 had missing values because the respondents had not resolved the inconsistency between the most recent use of any stimulant and methamphetamine, and STIMREC had been edited to infer use in the past month or past year, based on data in METHREC. Suppose, for example, that respondents initially reported last using methamphetamine in the past 30 days but they reported last using any stimulant more than 30 days ago but within the past 12 months, and they did not resolve this inconsistency when prompted to do so. For these respondents, STIMREC was assigned a value of 11 (Used in the past 30 days LOGICALLY ASSIGNED). Because these respondents reported last using stimulants more than 30 days ago but within the past 12 months, they would be asked LU32 but they would be skipped out of LU31. In this example, we applied the default assumption that the answers in LU32 pertained to how respondents obtained prescription stimulants because respondents appeared to be making a distinction between "stimulants" and methamphetamine.

We also did no editing in this example to the variables from LU31 regarding how respondents obtained prescription stimulants for nonmedical use in the past 30 days. Specifically, we did not infer that the source of prescription stimulants for respondents' last nonmedical use of prescription stimulants from LU32 applied to how respondents obtained prescription stimulants in the past 30 days because respondents may have used only methamphetamine but not prescription stimulants in the past month. Likewise, we did assign values of 93 to the 30-day prescription stimulants variables because some respondents may have misused prescription stimulants in the past month.

The skip logic for the variables pertaining to how respondents obtained methamphetamine took into account respondents' answers to the core methamphetamine questions in the stimulants module and the follow-up questions on methamphetamine from the special drugs module (see Section 3.1). Thus, codes of 91 were assigned to the methamphetamine variables if respondents reported one of the following:

- they indicated in both the core stimulants module and on follow-up in special drugs that they never used methamphetamine;

- they did not know or refused to report in the core stimulants module whether they ever used methamphetamine, but they indicated in special drugs that they never used it; or

- they explicitly indicated in the core stimulants module that they never used methamphetamine, but they did not know or refused to report on follow-up in the special drugs module whether they had ever used it.

Similarly, codes of 93 were assigned to the source of methamphetamine variables in one of two ways: (a) respondents reported in the core stimulants module that their last use of methamphetamine was outside of the period(s) of interest for asking the methamphetamine questions LU33 or LU34; or (b) respondents did not report methamphetamine use in the core

stimulants module, but they reported use in special drugs, with their last use being outside of the period(s) of interest for LU33 or LU34. For example, if respondents did not report methamphetamine use in the core stimulants module but they reported in the special drugs question SD17b that they last used it more than 30 days ago but within the past 12 months, the variables corresponding to question LU33 were assigned codes of 93, and data from LU34 (and the "OTHER, Specify" variable LU34SP, if applicable) were assigned to the edited variable MTHGTLAS (and to MTHGTOSP, if applicable). Codes of 93 also were applied to the variables pertaining to how friends or relatives obtained methamphetamine if they did not use methamphetamine in the period of interest. For example, if respondents did not use methamphetamine in the past 12 months, then the edited variables MTHFFLAS and MTHFFLSP (pertaining to how friends or relatives obtained the methamphetamine that respondents last used) were assigned codes of 93.

Miscellaneous skip issues also applied to the source of psychotherapeutics variables. These edits applied to all of the psychotherapeutic drugs, with situations being cited for pain relievers. For example, if respondents used prescription pain relievers nonmedically in the past 30 days and they did not indicate that they obtained prescription pain relievers "in some other way" in that period in question LU27, then the corresponding "OTHER, Specify" variable (e.g., ANLOTHSP, corresponding to question LU27SP) was assigned a code of 99. If respondents refused to report how they got pain relievers that they used nonmedically in the past 30 days, ANLOTHSP also was assigned a code of 97 (REFUSED). Similarly, if respondents used pain relievers nonmedically in the past 12 months, were asked question LU28, and did not indicate that they got pain relievers "in some other way" the last time they used them nonmedically, then the edited "OTHER, Specify" variable ANLGTOSP (corresponding to question LU28SP) was assigned a code of 99. If respondents refused to report how they got pain relievers the last time they used them nonmedically, ANLGTOSP also was assigned a refusal code.

Consistent with our general "OTHER, Specify" coding procedures, levels 1 through 9 in the "OTHER, Specify" variables were used for responses that corresponded to existing response options. For example, a code of 5 was assigned to ANLOTHSP (corresponding to question LU27SP) if respondents reported in LU27SP that they got pain relievers in the past 30 days from a friend or relative for free. These same coding categories applied to the "OTHER, Specify" variables for methamphetamine. Thus, a code of 5 also was assigned to MTHOTHSP (corresponding to question LU33SP) if respondents reported getting methamphetamine from a friend or relative for free in the past 30 days, even though this was the first response option in question LU33.

Exhibit 10 describes additional issues that were relevant to the editing of the source of psychotherapeutics variables. For these issues, we use the source of pain relievers variables as examples, although these edits also applied to the other psychotherapeutic drugs. If the issues described in Exhibit 10 occurred in the variables on how friends or relatives obtained psychotherapeutic drugs, the edits described in Exhibit 10 also were applied to these variables for friends or relatives.

Exhibit 10. Edit Issues Pertaining to the Source of Psychotherapeutics Variables in the Prior Substance Use Module

Issue	Edits Implemented
Respondents (Rs) last used a particular psychotherapeutic drug in the past 30 days. They reported getting the drug "in some other way" in the past 30 days and specified a source that corresponded to one of the available response options for obtaining the drug in the past 30 days.	If Rs did not report getting the drug from that particular source in the past 30 days, the corresponding variable was assigned a code of 3. For example, if Rs did not report that they got pain relievers from a friend or relative for free in the past 30 days but they reported this in the "OTHER, Specify" variable ANLOTHSP (corresponding to question LU28SP), then the 30-day variable for getting pain relievers from a friend or relative for free (ANLFRFRE) was assigned a code of 3. In this example, a code of 3 meant, "Response entered LOGICALLY ASSIGNED (from ANLOTHSP)." Similar edits were implemented if Rs reported that they obtained the drug from a friend or relative for free in the past 30 days, the friend or relative obtained the drug "in some other way," and the source of the friend or relative's drug corresponded to one of the available response options for how the friend or relative obtained medication that the R used nonmedically in the past 30 days.
Rs last used a particular drug in the past 30 days. They reported getting the drug in a specific way the last time they used it nonmedically that they did not report for the past 30 days.	Logically, if Rs last used a drug in the past 30 days, the way that they got the drug the last time they used it nonmedically also applied to the past 30 days. The corresponding past month variable was assigned a code of 5. For example, if Rs did not report that they got pain relievers from a friend or relative for free in the past 30 days but they reported in question LU28 that they got the last pain relievers they misused in this way, then ANLFRFRE was assigned a code of 5. In this example, a code of 5 meant, "Response entered LOGICALLY ASSIGNED (from ANLGTLAS)." Similar edits were implemented if Rs reported that they obtained the drug from a friend or relative for free in the past 30 days, and the Rs also reported that the friend or relative obtained the drug that the Rs last used in a way that the Rs did not report for the 30-day items on how the friend or relative obtained the drug.
Rs were logically inferred to have gotten medication from friends or relatives for free in the past 30 days (e.g., ANLFRFRE = 3 or 5). Consequently, Rs were not asked how the friends or relatives obtained the medication.	The edited variables pertaining to how the friends or relatives obtained the medication retained a code of 98 (i.e., blank). If the Rs had reported directly that they obtained a psychotherapeutic drug from a friend or relative for free (instead of the response being logically inferred), they would have been asked the subsequent questions about how the friend or relative obtained the drug.

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Exhibit 10. Edit Issues Pertaining to the Source of Psychotherapeutics Variables in the Prior Substance Use Module (continued)

Issue	Edits Implemented
Rs reported that they got the last drug they used nonmedically in "some other way," but they specified getting it in one of the ways that they had been asked about previously.	The code from the "OTHER, Specify" variable plus a value of 10 was added to the variable for how Rs obtained the drug the last time they used it nonmedically (i.e., "bump" by 10). For example, if Rs reported getting pain relievers in some other way when they last used them nonmedically (LU28 = 10), but they specified getting them from a friend or relative for free (i.e., ANLGTOSP = 5), then ANLGTLAS was coded as 15. Similar edits were implemented if Rs reported that friends or relatives obtained a drug that the Rs last used in "some other way" and then the Rs specified one of the ways they had asked about previously. For example, if ANLFFOSP was coded as 5 (i.e., the friend or relative got the pain reliever from another friend or relative for free), then ANLFFLAS (how the friend or relative obtained the pain reliever that the R last used nonmedically) was coded as 15.
Rs were logically inferred to have gotten the last medication they used nonmedically from friends or relatives for free (e.g., ANLGTLAS = 15 for pain relievers; see above). Consequently, Rs were not asked how the friends or relatives obtained the medication that the Rs last used.	The corresponding edited variable pertaining to how the friends or relatives obtained the medication that the Rs last used retained a code of 98 (i.e., blank).
Rs were logically inferred to have gotten a drug from one of the sources they were asked about for the last time they used it nonmedically. The Rs also used the drug in the past 30 days and did not report getting the drug from that source in the past 30 days.	The corresponding 30-day variable was assigned a code of 5. For example, if ANLGTLAS = 15 because getting pain relievers from a friend or relative for free was specified as "some other way" that Rs got the pain relievers the last time they used them nonmedically, then ANLFRFRE was coded as 5, if it was not already coded as 1 or 3 (e.g., if Rs had not previously specified getting pain relievers from a friend or relative for free as "some other way" they got them in the past 30 days). Similar edits were in place for the variables pertaining to how friends or relatives obtained a drug that Rs used nonmedically in the past 30 days. For example, if Rs used prescription pain relievers nonmedically in the past 30 days, got the pain relievers they used the last time from friends or relatives for free, and the friends or relatives were logically inferred to have gotten the pain relievers in a particular way, then the friends or relatives were logically inferred to have gotten the pain relievers in this way for pain relievers that the Rs used nonmedically in the past 30 days.
Rs reported that they or friends/relatives got a drug in the past 30 days or the last time in "some other way." However, the Rs explicitly specified that the drug they or friends/relatives obtained was an over-the-counter (OTC) drug.	No editing was done when Rs specified that they had obtained OTCs.

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Exhibit 10. Edit Issues Pertaining to the Source of Psychotherapeutics Variables in the Prior Substance Use Module (continued)

Issue	Edits Implemented
Rs last used a particular drug in the past 30 days. They reported getting the drug in "some other way" the last time they used it nonmedically, and they did not report getting the drug in some other way in the past 30 days.	The variable for obtaining the drug in some other way in the past 30 days was assigned a code of 5. The "OTHER, Specify" response for how Rs got the drug the last time they used it nonmedically also was transferred over to the "OTHER, Specify" variable for the past 30 days (provided that Rs had not specified that they obtained OTCs). For example, if Rs reported that they got pain relievers in some other way the last time they used them nonmedically and they specified getting them from a friend, relative, or at home, but they did not specify whether they got them for free, bought them, or took them without asking (ANLGTOSP = 11), then the 30-day variable ANLOTHWY (for "some other way") was assigned a code of 5, and the corresponding "OTHER, Specify" variable ANLOTHSP was coded as 11 as well. Similar edits were implemented if Rs reported that they got a drug from a friend or relative in the past 30 days. In particular, the "other" response for how friends or relatives obtained the drug that the Rs last used nonmedically was transferred to the corresponding "OTHER, Specify" variable for how friends or relatives obtained the drug that Rs used nonmedically in the past 30 days (e.g., ANLFFOSP for pain relievers), provided that the R did not specify that the friend or relative had obtained OTCs.

3.7.4   Sequence of Initiation

If respondents first used alcohol and cigarettes, cigarettes and marijuana, alcohol and marijuana, or all three substances at the same age, they were asked to report which of these they used first. For example, if respondents indicated that they first used alcohol and marijuana at the same age, they were asked which of these they had used first.

- Questions LU22, LU23, and LU24 (corresponding to the edited variables USEALCG, USEMJCG, and USEALMJ, respectively) were asked when respondents reported first use of only two of these substances at the same age (i.e., USEALCG = use of alcohol and cigarettes at the same age; USEMJCG = use of marijuana and cigarettes at the same age; and USEALMJ = use of alcohol and marijuana at the same age).

- Questions LU25 and LU26 (corresponding to the edited variables USEACM and USENEXT) were asked when respondents reported first use of all three of these substances at the same age; USEACM indicated which of these three substances the respondents used first, and USENEXT indicated which of the remaining two substances the respondents used next.

As was the case for the processing of other variables in the prior substance use module, an important aspect of editing these sequence-of-use variables involved assigning various

legitimate skip codes, as appropriate. Conditions under which specific legitimate skip codes were assigned are discussed below.

- If respondents never used alcohol or cigarettes (regardless of whether they ever used marijuana), USEALCG was assigned a code of 91. Documentation of a code of 91 for this variable was 91 = NEVER USED ALCOHOL/CIGARETTES.

- If respondents never used marijuana or cigarettes (regardless of whether they ever used alcohol), USEMJCG was assigned a code of 91. Documentation of a code of 91 for this variable was 91 = NEVER USED MARIJUANA/CIGARETTES.

- If respondents never used alcohol or marijuana (regardless of whether they ever used cigarettes), USEALMJ was assigned a code of 91. Documentation of a code of 91 for this variable was 91 = NEVER USED ALCOHOL/MARIJUANA.

- If respondents never used alcohol, cigarettes, or marijuana, USEACM and USENEXT were assigned a code of 91. Documentation of a code of 91 for these variables was 91 = NEVER USED ALCOHOL/CIGARETTES/MARIJUANA.

- If the values in the edited age-at-first-use variables for alcohol (ALCTRY), cigarettes (CIGTRY), and marijuana (MJAGE) all were valid and equal, USEALCG, USEMJCG, and USEALMJ were assigned a code of 99 (LEGITIMATE SKIP).

- If at least one value for ALCTRY, CIGTRY, or MJAGE was valid but the values for all three were not equal, USEACM and USENEXT were assigned a code of 99.

- If at least one value for ALCTRY or CIGTRY was valid but the values were not equal, USEALCG was assigned a code of 99. Similarly, if at least one value for MJAGE or CIGTRY was valid but the values were not equal, USEMJCG was assigned a code of 99. If at least one value for ALCTRY and MJAGE was valid but the values were not equal, USEALMJ was assigned a code of 99.

Miscellaneous skip issues also applied to the data, such as if USEALCG (corresponding to LU22) was blank for some reason other than those mentioned above but some value other than 85, 91, 98, or 99 existed in questions LU23, LU24, or LU25. In these situations, a legitimate skip code was assigned to the relevant skipped variable (e.g., USEALCG). Similarly, if USEACM and USENEXT (corresponding to LU25 and LU26) had been skipped but data existed in LU22, LU23, or LU24, then USEACM and USENEXT were assigned legitimate skip codes. This logic covered residual situations in which variables might be skipped but data existed in one of the alternate variables.

Exhibit 11 describes additional edits pertaining to these sequence-of-use variables. For example, if ALCTRY, CIGTRY, and MJAGE all had codes of 997 (REFUSED) because respondents refused to answer the age-at-first-use questions for these drugs, or because respondents refused to answer the lifetime use question (for alcohol or marijuana), all blank values in USEALCG through USENEXT were replaced with the two-digit refusal code of 97. If for some reason respondents were routed into any of the questions corresponding to these variables when all of these ages at first use had a refusal code, nonblank values in USEALCG through USENEXT were overwritten with bad data codes.

Exhibit 11. Edit Issues Pertaining to the Sequence of Initiation for Alcohol, Cigarettes, and Marijuana in the Prior Substance Use Module

Issue	Edits Implemented
All age-at-first-use (AFU) variables for these drugs had codes of 997, indicating the respondent (R) refused to answer the AFU questions for these drugs, or the R refused to answer the lifetime use question.	A code of 97 (REFUSED) was assigned to each sequence-of-use variable USEALCG, USEMJCG, USEALMJ, USEACM, or USENEXT that was blank. Otherwise, if the R was routed to a given question for some reason, a bad data code was assigned to the edited variable.
One or both AFUs for the drugs of interest had missing values, but the corresponding sequence-of-use variable had a valid value. For example, the AFU variables AGE1STAL and AGE1STCG that were stored by the computer-assisted interviewing (CAI) program had equal values while the interview was in progress, such that the R was asked USEALCG. In our editing of the core data, however, we could have set the cigarette AFU variable CIGTRY to bad data because of an inconsistency with the cigarette recency CIGREC. Similarly, we could have set the alcohol AFU variable ALCTRY to bad data because of an inconsistency with the alcohol variable ALCREC.	A code was assigned that was equal to the original value of the sequence variable plus 10 (i.e., "bump" by 10). This edit preserved data indicating that the R was routed to a particular item and how the R answered, but it would alert analysts that one or both of the AFUs that routed the R to the item was questionable. For example, if question LU22, corresponding to USEALCG, was coded as 1, indicating that the R started using alcohol before using cigarettes, but the AFU for alcohol or the AFU for cigarettes had missing values (e.g., bad data), then USEALCG was assigned a code of 11.
The R initiated use of a given pair of drugs (e.g., alcohol and cigarettes) within 1 year of his or her current age. However, the sequence variables were not consistent with the *edited* year-of-first-use (YFU) and month-of-first-use (MFU) variables from the core modules. For example, the R reported in question LU22 that he or she first used alcohol before using cigarettes. However, the edited YFU and MFU data from the tobacco and alcohol modules indicated that the R first used cigarettes in an earlier year or month than when the R first used alcohol.	Where edited YFU and MFU data existed for a given pair of drugs, the edits logically inferred a sequence of use that was consistent with the core YFU and MFU data. For example, if the R answered question LU22 as 1 (corresponding to USEALCG), that would indicate that the R used alcohol before using cigarettes. However, if the cigarette YFU and MFU data indicated use of cigarettes before alcohol, USEALCG was assigned a code of 4, where 4 = Cigarettes LOGICALLY ASSIGNED. Similarly, if the R answered LU22 as 2, indicating that the R used cigarettes before using alcohol, but the alcohol YFU and MFU data indicated use of alcohol before cigarettes, then a code of 3 was assigned to USEALCG, where 3 = Alcohol LOGICALLY ASSIGNED.

These edits also were performed when USEALCG has missing values (e.g., "don't know" [DK] or "refused" [REF]), but YFU and MFU data from the core could be used to infer a nonmissing value in USEALCG. These principles also applied to edits of USEMJCG and USALMJ.

The rationale for these edits was that the Rs themselves provided data in the core modules that indicated the sequence with which they used these drugs. As discussed elsewhere in this section, we also were editing other prior substance use data for consistency with AFU, YFU, and MFU data. |

(continued)

Exhibit 11. Edit Issues Pertaining to the Sequence of Initiation for Alcohol, Cigarettes, and Marijuana in the Prior Substance Use Module (continued)

Issue	Edits Implemented
Values of 1 or 2 in question LU26 (corresponding to USENEXT) had different meanings, depending on how the R answered question LU25 (corresponding to USEACM).	USENEXT was recoded to parallel the levels in USEACM (1 = Alcohol; 2 = Cigarettes; 3 = Marijuana). • USEACM = 1 indicated that the R first used alcohol before using cigarettes or marijuana. When USEACM = 1, a value of 1 in LU26 indicated that the R used cigarettes next. A value of 2 in LU26 indicated that the R used marijuana next. Therefore, when USEACM = 1, USENEXT was coded as 2 when LU26 = 1 and was coded as 3 when LU26 = 2. • USEACM = 2 indicated that the R first used cigarettes before using alcohol or marijuana. When USEACM = 2, a value of 1 in LU26 indicated that the R used alcohol next. A value of 2 in LU26 indicated that the R used marijuana next. Therefore, when USEACM = 2, USENEXT was coded as 1 when LU26 = 1 and was coded as 3 when LU26 = 2. • USEACM = 3 indicated that the R first used marijuana before using cigarettes or alcohol. When USEACM = 3, a value of 1 in LU26 indicated that the R used alcohol next. A value of 2 in LU26 indicated that the R used cigarettes next. Therefore, when USEACM = 3, USENEXT was coded as 1 when LU26 = 1 and was coded as 2 when LU26 = 2.
Data existed in USEACM (LU25), but one or more AFUs had been set to bad data (e.g., because of an inconsistency in the core modules between the AFU and the recency).	Values other than those for DK, RE, or bad data were bumped by 10 in USEACM and USENEXT. As was the case for USEALCG, USEMJCG, and USEALMJ, this edit preserved data in USEACM and USENEXT while making analysts aware that there is a potential issue with the data.
Question LU25 (corresponding to USEACM) was answered as 1, indicating that the R first used alcohol. However, this response was inconsistent with one or more YFU or MFU variables from the core modules for cigarettes, alcohol, or marijuana.	We first checked indications from the core YFU and MFU data for cigarettes and marijuana that the R used either of these drugs first. • If we could determine unambiguously that the R used cigarettes before using marijuana or alcohol, the edits assigned a code of 5 to USEACM, where 5 = Cigarettes LOGICALLY ASSIGNED. For example, if the respective YFU variables for cigarettes, alcohol, and marijuana, CIGYFU, ALCYFU, and MJYFU, all were defined and CIGYFU was earlier than the other two (but, by definition, the R first used all three substances at the same age), we could logically infer that cigarette use occurred first. • Similarly, if we could determine unambiguously that the R first used marijuana before using cigarettes or alcohol, the edits assigned a code of 6 to USEACM, where 6 = Marijuana LOGICALLY ASSIGNED. Otherwise, if there was some indication that the R used either marijuana or cigarettes before using alcohol but incidence data were not fully defined for all three substances, USEACM was set to bad data.

(continued)

Exhibit 11. Edit Issues Pertaining to the Sequence of Initiation for Alcohol, Cigarettes, and Marijuana in the Prior Substance Use Module (continued)

Issue	Edits Implemented
Question LU25 (corresponding to USEACM) was answered as 2, indicating that the R first used cigarettes. However, this response was inconsistent with one or more YFU or MFU variables from the core modules for cigarettes, alcohol, or marijuana.	We first checked for indications from the core YFU and MFU data for alcohol and marijuana that the R used either of these drugs first. • If we could determine unambiguously that the R used alcohol before using marijuana or cigarettes, the edits assigned a code of 4 to USEACM, where 4 = Alcohol LOGICALLY ASSIGNED. • Similarly, if we could determine unambiguously that the R first used marijuana before using cigarettes or alcohol, the edits assigned a code of 6 to USEACM, where 6 = Marijuana LOGICALLY ASSIGNED. Otherwise, if there was some indication that the R used either alcohol or marijuana before using cigarettes but incidence data were not fully defined for all three substances, USEACM was set to bad data.
Question LU25 (corresponding to USEACM) was answered as 3, indicating that the R first used marijuana. However, this response was inconsistent with one or more YFU or MFU variables from the core modules for cigarettes, alcohol, or marijuana.	We first checked for indications from the core YFU and MFU data for cigarettes and alcohol that the R used either of these drugs first. • If we could determine unambiguously that the R used alcohol before using marijuana or cigarettes, the edits assigned a code of 4 to USEACM, where 4 = Alcohol LOGICALLY ASSIGNED. • Similarly, if we could determine unambiguously that the R first used cigarettes before using alcohol or marijuana, the edits assigned a code of 5 to USEACM, where 5 = Cigarettes LOGICALLY ASSIGNED. Otherwise, if there was some indication that the R used either alcohol or cigarettes before using marijuana but incidence data were not fully defined for all three substances, USEACM was set to bad data.
USEACM had been assigned codes of 4, 5, 6, or 85 (bad data).	To edit USENEXT, we followed a sequence of logic similar to that outlined above for USEACM. For example, if USEACM had been set to a value of 4 (used alcohol first) and the core YFU and MFU data for cigarettes and marijuana indicated that the R used cigarettes next, we set USENEXT to a value of 5 (Cigarettes LOGICALLY ASSIGNED), if USENEXT did not already indicate that the R used cigarettes next. If we had set USEACM to bad data and USENEXT was not blank, we also set USENEXT to bad data.

3.8   Substance Treatment Module

The substance treatment module asked about receipt of treatment services for the use of alcohol or other drugs, not counting cigarettes. Questions about the receipt of treatment services included questions about receipt of treatment in the respondents' lifetime and in the past 12 months, specific locations where respondents received treatment in the past 12 months, emergency room visits in the past 12 months related to their use of specific drugs, whether they were still in treatment, the length of time since they were last in treatment (if they were not currently in treatment), specific questions about their last (or current) treatment episode, whether they were enrolled in treatment on October 1, 2010, and whether the only treatment they received in the past 12 months was detoxification.

Since 2007, respondents who reported methamphetamine use in the special drugs module have been eligible to be asked questions in the substance treatment module. However, this logic change affected only those respondents who reported methamphetamine use in the special drugs module and did not report use of alcohol or other drugs in the core modules; users of methamphetamine and other drugs would have been eligible to be asked the substance treatment questions based on their reported use of other drugs. However, no respondents in 2011 reported that they received substance treatment based solely on their reported methamphetamine use in the special drugs module.

In addition, respondents who reported methamphetamine use in the special drugs module were eligible to be asked question TX05 about visits to a hospital emergency room in the past 12 months to receive treatment for their use of cocaine, heroin, marijuana, PCP, LSD, or methamphetamine, provided that (a) they reported having received treatment in the past 12 months in question TX02, and (b) they reported in question TX03 that they received treatment in the past 12 months for their use only of drugs or their use of both alcohol and drugs. Again, all respondents who reported methamphetamine use in the special drugs module and reported receiving treatment in the past 12 months for their use of drugs (with or without receipt of treatment for alcohol use) either reported that they did not visit a hospital emergency room to receive treatment for their use of cocaine, heroin, marijuana, PCP, LSD, or methamphetamine, or they reported use of one of these other drugs in addition to their use of methamphetamine.

Questions also have been included since 2004 to capture information about respondents' life history of substance treatment. Respondents who had ever received treatment for their use of alcohol or other drugs but did not receive treatment in the past 12 months were asked questions regarding their receipt of treatment for their use of alcohol, other drugs, or both, depending on the substances they had reported using.[21] Where relevant, these respondents subsequently were asked to report the ages when they first received treatment for alcohol, drugs, or both. Respondents who reported that they had received treatment in the past 12 months were asked similar questions. Questions about treatment life history for respondents who reported that they had received treatment in the past 12 months also took into account their answers to question TX03, regarding whether they received treatment in the past 12 months for their use of alcohol, drugs, or both.

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[21] Since 2007, reports of substance use have been based on reports in the core modules or reports of methamphetamine use from the special drugs module.

Since 2006, questions TX52 and TX53 have been included in the substance treatment module to ask whether respondents had attended a self-help group in the past 12 months (question TX52; edited variable TX12MSHG), and if so, whether this was for alcohol use, drug use, or both (TX53; edited variable TX12SGAD). These items were administered to respondents who previously indicated that they used alcohol or other drugs but they did not report receiving *treatment* through a self-help group in the past 12 months; use of the term "treatment" is inconsistent with the language used in the self-help/recovery community. Therefore, these items were added to assess whether asking respondents about treatment they received could result in underestimates of attendance at self-help group meetings.

Questions about the last or current treatment episode were asked principally of respondents who reported that they received treatment in the past 12 months (question TX02 answered as "yes"); the logic also routed respondents to the last or current treatment questions if they did not know or refused to report in question TX02 whether they had received treatment in the past 12 months. If respondents received treatment in the past 12 months (or answered question TX02 as "don't know" or "refused") and reported in question TX07 that they were currently in treatment,[22] subsequent questions asked about the main location where they were receiving treatment, specific drugs for which they were receiving treatment, the primary drug for which they were receiving treatment (if treatment for more than one drug was reported), the length of time that they had been in treatment thus far, and anticipated payment sources for their current treatment. If respondents were asked question TX07 and did not report currently being in treatment, these subsequent questions pertained to their last treatment episode, such as the duration of their last treatment and the payment sources for their last treatment. Respondents who did not report that they were currently in treatment also were asked about the outcome of their last treatment.

The substance treatment module also included questions about respondents' perceived need for treatment in the past 12 months if they never received treatment or did not report that they received treatment in the past 12 months. Questions about respondents' perceived need for treatment included questions about specific drugs for which respondents thought they needed treatment and whether they made specific efforts to receive treatment in the past 12 months. In addition, respondents who received treatment in the past 12 months but did not report that they were currently in treatment were asked whether they felt the need for *additional* treatment in the past 12 months. Those respondents who reported that they felt the need for additional treatment were asked about the specific drugs for which they needed additional treatment and whether they made specific efforts to receive additional treatment.

As noted previously, the substance treatment module was relevant only for respondents who reported some lifetime use of alcohol or other drugs, not counting cigarettes. Therefore, all of the edited treatment variables were assigned codes of 91 (i.e., NEVER USED ALCOHOL OR DRUGS) if respondents were skipped out of the entire substance treatment module because they never used alcohol, illicit drugs (including methamphetamine), or prescription-type psychotherapeutics for nonmedical reasons (i.e., pain relievers, tranquilizers, stimulants, or sedatives).

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[22] Question TX07 asks, "Are you currently receiving treatment or counseling for your [TXFILL1]?" where [TXFILL1] could be replaced with "alcohol use," "drug use," or "alcohol or drug use."

In situations where respondents' only lifetime use of drugs involved use of OTC medications that were reported in one or more of the psychotherapeutics modules (i.e., and they did not report methamphetamine use in the special drugs module), codes of 81 were assigned to all of the edited substance treatment variables (i.e., NEVER USED ALCOHOL OR DRUGS Logically assigned). This was done to signify that these respondents were logically inferred to be lifetime nonusers of alcohol or drugs. This code of 81 also set these respondents apart from those whose original answers indicated that they had never used any of these drugs. These edits for assigning codes of 91 or 81 also applied to the self-help variables TX12MSHG and TX12SGAD.

3.8.1 Receipt of Substance Treatment Services

An important aspect of the processing of the substance treatment variables involved assignment of relevant legitimate skip codes when it could be determined unambiguously from respondents' answers that subsequent questions did not apply. In particular, respondents who were lifetime users of alcohol or at least one other drug were asked if they had ever received treatment for their alcohol or other drug use, not counting cigarettes. If respondents reported that they never received treatment (i.e., TXEVER = 2), the CAI program skipped them out of all remaining questions pertaining to the receipt of treatment services. Thus, if respondents clearly indicated that they never received treatment, the skipped treatment service variables were assigned legitimate skip codes. As described in Section 2.3, when the treatment service questions were skipped because respondents refused to indicate whether they ever received treatment, the edited variables were assigned a refusal code; if treatment service questions were skipped because respondents did not know whether they ever received treatment, the edited variables retained a value of blank.

Similarly, respondents were not asked subsequent questions about receipt of treatment services in the past 12 months if they did not report having ever received treatment in that period (i.e., TXYREVER = 2). Thus, if respondents reported that they did not receive treatment in the past 12 months and there were no other responses in the substance treatment module to suggest that they had (see below), legitimate skip codes were assigned to the variables pertaining to receipt of treatment in specific locations in the past 12 months. The procedures for editing 12-month treatment variables that had been skipped when respondents refused to indicate whether they had received treatment in the past 12 months or did not know whether they had received treatment in this period were the same as those described above.

If respondents reported that they received treatment in the past 12 months, it was possible for them to be asked subsequent questions about treatment in an emergency room in the past 12 months for their use of marijuana, cocaine, heroin, LSD, PCP, or methamphetamine. Respondents were not asked these questions if they previously reported that their treatment in the past 12 months was only for their use of alcohol. Thus, "legitimate skip" codes were assigned to the edited variables pertaining to emergency room use (TXYRVSER and TXYRNMER), provided there were no other answers in the substance treatment module to suggest that respondents should have been asked these questions (see below). Similarly, legitimate skip codes were assigned to the edited variable pertaining to the number of emergency room episodes for treatment of these six drugs (TXYRNMER) if respondents reported that they never received treatment in an emergency room related to their use of these drugs.

In addition, respondents who reported receiving treatment in the past year were not asked certain questions about receipt of treatment related to their use of specific drugs if they were lifetime nonusers of these drugs. For example, respondents who never used heroin were not asked whether they last received (or were currently receiving) treatment for their use of heroin. Similarly, respondents who reported receiving treatment in the past 12 months but who never used marijuana, cocaine, heroin, LSD, PCP, or methamphetamine were not asked the questions about use of hospital emergency room services for the use of these drugs. Rather than assign the usual type of legitimate skip code (i.e., 99 or 89), however, a special code of 6 was assigned in these situations, provided that the respondent had not indicated receipt of treatment for any of these drugs elsewhere in the substance treatment module. This code had the following meaning:

6 = Never used the relevant drug.

This coding was done because respondents could be routed into or skipped out of a number of different combinations of questions depending on their reported drug use history. For example, a respondent who reported that he or she had received treatment in the past 12 months and was a lifetime user of alcohol, marijuana, cocaine, hallucinogens, prescription pain relievers, and prescription stimulants would selectively be asked the questions about treatment for these drugs during his or her last treatment or current episode and would not be asked the questions pertaining to treatment for heroin, inhalants, prescription tranquilizers, and prescription sedatives.

When respondents were skipped out of a question related to treatment for a given drug because they refused to indicate whether they had ever used that drug, the refusal was propagated onto the edited variable pertaining to treatment for that drug. For example, if a respondent reported receiving treatment in his or her lifetime but refused to indicate whether he or she had ever used heroin, the question about treatment for heroin during the last treatment episode was skipped. The edited variable pertaining to treatment for heroin (TXLTYHER) was therefore assigned a refusal code.

As noted above, respondents who did not report that they received treatment in the past 12 months were not asked questions about their last treatment episode. Therefore, if the final edited variable pertaining to receipt of treatment in the past 12 months indicated that respondents had not received treatment during this period (i.e., TXYREVER = 2), the variables pertaining to the last treatment episode were assigned legitimate skip codes.

Most of the editing of the substance treatment questions TX45 through TX51a that have been present since 2004 also involved assigning legitimate skip codes where relevant. Consistent with the logic described above, if respondents had never used alcohol or other drugs, these variables were assigned codes of 91 or 991 (or 81 or 981, if their only use of drugs involved OTC medications). In addition, if respondents reported in question TX01 that they had never received treatment, these variables were assigned legitimate skip codes (e.g., 99 or 999). Questions TX45 through TX48a also pertained to respondents who had received treatment but not in the past 12 months. Therefore, if respondents reported in question TX02 that they received treatment in the past 12 months, the edited variables corresponding to questions TX45 through TX48a were assigned legitimate skip codes. In addition, when respondents reported receiving treatment in the past 12 months, subsets of the variables corresponding to questions TX49

through TX51a were assigned legitimate skip codes based on answers in question TX03 regarding receipt of treatment in the past 12 months for alcohol, drugs, or both. Variables corresponding to TX49 through TX51a also were assigned legitimate skip codes based on indications in the core modules or in the special drugs module for methamphetamine that respondents never used alcohol or never used any illicit drugs. Similar assignment of legitimate skip codes occurred for the variables corresponding to TX49 through TX51a if respondents received treatment in their lifetime but not in the past 12 months, or depending on respondents' answers in the core drug modules or in special drugs for methamphetamine. For example, if respondents answered question TX02 as "no" regarding receipt of treatment in the past 12 months, the variables corresponding to TX49 through TX51a were assigned legitimate skip codes; by definition, these respondents had to have answered the lifetime treatment question TX01 as "yes."

Exhibit 12 presents additional edit issues that were specific to the variables for the receipt of treatment services for variables that existed prior to 2004. For example, the answers to the questions on receipt of treatment in the past 12 months and the last time that respondents received treatment could be inconsistent. Specifically, respondents could report that they received treatment in the past 12 months (TX02 = 1) but then subsequently report that the last time they received treatment was more than 12 months ago (TX24 = 3). For these respondents, the recency of treatment was inferred to be at some point within the past 12 months (TXLASREC = 8). Respondents also could provide an answer other than "yes" when asked in question TX02 whether they had received treatment in the past 12 months and then indicate that they last received treatment in the past 30 days or more than 30 days ago but within the past 12 months (TX24 = 1 or 2). In these situations, the respondents were logically inferred to have received treatment in the past 12 months. Similarly, respondents could answer "don't know" or "refused" when asked whether they had received treatment in the past 12 months and then report that they last received treatment more than 12 months ago. In this situation, a negative response was logically inferred for the variable pertaining to receipt of treatment services in the past 12 months (TXYREVER = 4).

In addition, composite variables combining data from more than one individual item were created for the following:

- the main place where respondents received (or were receiving) treatment during their last (or current) treatment episode (TXLTYMN);

- the outcome of the last treatment episode, for respondents who were not currently in treatment (TXLTYOUT); and

- the length of time that respondents had been in treatment or currently had been in treatment thus far (TXLTYDUR).

For the first two variables listed above, respondents could select a response category from a list, including selection of an "other" category (e.g., treatment in some other place). Only those respondents who chose the other category were routed into a second item where they were asked to specify the other location or the other outcome of their treatment. Consequently, the final variables for the main place where respondents received (or were receiving) treatment during

Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004

Issue	Edits Implemented
The respondent's (R's) only report(s) of drug use in the core drug modules that routed the R into question TX01 about lifetime substance treatment had been set to bad data as part of the core drug editing.	Nonblank values in the edited variables pertaining to receipt of substance treatment were replaced with bad data codes.
Responses to the questions on the receipt of treatment in the past 12 months and the last time that the R received treatment were inconsistent (e.g., if the R reported that he or she did not receive treatment in the past 12 months but subsequently reported last receiving treatment during that period).	The edits favored responses that indicated more recent receipt of treatment: • If an R responded affirmatively that he or she had received treatment in the past 12 months but reported last receiving treatment "more than 12 months ago," the edits logically inferred that the R last received treatment at some point in the past 12 months (i.e., TXLASREC = 8). • If an R reported that he or she did not receive treatment in the past 12 months but reported last receiving treatment in the past 12 months, the edits logically inferred that the R had received treatment in that period (i.e., TXYREVER = 3).
The question on the receipt of treatment in the past 12 months had missing data (e.g., a response of "don't know" or "refused"), but the question on the last time that the R received treatment did not. Alternatively, the question on the last time that the R received treatment had missing data, but the question on receipt of treatment in the past 12 months did not.	Where possible, data were used to replace the missing value with a nonmissing value. Suppose, for example, that the R did not know or refused to report whether he or she had received treatment in the past 12 months. • If the R reported last receiving treatment in this period, the ambiguous response was replaced with a value to indicate that the R had received treatment in this period (i.e., TXYREVER = 3). • If the R reported last receiving treatment more than 12 months ago, it was logically inferred that the question about receipt of any treatment in the past 12 months should have been answered as "no" (i.e., TXYREVER = 4).
The question about the most recent receipt of treatment had missing data.	Data from the past year treatment variable (TXYREVER) or the lifetime treatment variable (TXEVER) were used to replace missing values in the edited treatment recency variable TXLASREC. • If the R had received treatment in the past 12 months (TXYREVER = 1), TXLASREC was assigned a code of 8 to indicate treatment at some point in the past 12 months. • If the R had not received treatment in the past 12 months (TXYREVER = 2), TXLASREC was assigned a code of 13 to indicate that the last treatment episode was more than 12 months ago. • If the question about treatment in the past 12 months (TX02) was answered as "don't know" or "refused" and the R did not report currently being in treatment in question TX07, TXLASREC was assigned a code of 9 to indicate treatment at some point in the R's lifetime. (The R had to have answered the lifetime treatment question TX01 as "yes" in order to have been routed to TX02.)

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Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
The R reported currently being in treatment in question TX07, so the question about the most recent time that the R had been in treatment was skipped.	The edited variable corresponding to question TX07 (TXRCVNOW) continued to be coded as 1 (i.e., "yes"). Instead of a legitimate skip code being assigned, the edited treatment recency variable (TXLASREC) was assigned a code of 7, where 7 = Still in treatment LOGICALLY ASSIGNED. A code of 21 (still in treatment) also was assigned to the treatment outcome variable TXLTYOUT.
The R reported currently being in treatment in question TX07 but did not know or refused to report in question TX02 whether he or she had received treatment in the past 12 months.	The R was logically inferred to have received treatment in the past 12 months (TXYREVER = 3).
The R was routed to question TX07 but did not know or refused to report whether he or she was still in treatment.	Data from the treatment outcome variable (TXLTYOUT) and treatment recency variable (TXLASREC) were used to replace missing values in the edited variable TXRCVNOW, corresponding to TX07. • If the R had received treatment in the past 30 days (TXLASREC = 1) and reported still being in treatment (TXLTYOUT = 1 or 21), TXRCVNOW was assigned a code of 3 to indicate that the R logically was still in treatment. • Otherwise, if the R definitely had not received treatment in the past 30 days, TXRCVNOW was assigned a code of 4 to indicate that the R logically was no longer in treatment.
The R reported that he or she was not currently in treatment (TXRCVNOW = 2 or 4), but the R reported still being in treatment when asked about the outcome of the last treatment episode.	The treatment outcome variable (TXLTYOUT) was assigned a bad data code.
The R specified receiving treatment for an over-the-counter (OTC) psychotherapeutic medication (e.g., aspirin).	This information on OTC drugs was not used to infer treatment for any of the psychotherapeutic drugs because the questions about receipt of treatment for psychotherapeutic drugs referred specifically to treatment for prescription-type medications (i.e., not to OTCs).
The R did not report receiving treatment for a particular drug during his or her last (or current) treatment episode, but treatment for this drug was specified as treatment for "some other drug." In the case of the psychotherapeutics, the "other" drug specified was not an OTC drug.	The R was inferred to have received (or be receiving) treatment for the use of that drug. A code of 3 (Yes LOGICALLY ASSIGNED) was assigned to the corresponding edited drug variable. For example, Rs who did not report receiving treatment for prescription stimulants but reported receiving treatment for street stimulants were considered to qualify as having received treatment for prescription-type stimulants (i.e., those that were not available as OTCs, which would include street drugs). In this example, the edited variable TXLTYSTM would be assigned a code of 3.
The R did not report receiving treatment for a particular drug during his or her last (or current) treatment episode but indicated that this drug was the primary drug for which he or she last received treatment (or was currently receiving treatment).	The R was inferred to have received (or be receiving) treatment for the use of that drug.

(continued)

Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
The R reported receiving treatment only for alcohol in the past 12 months, but questions about treatment for specific drugs during the last or current treatment episode had missing values (i.e., "don't know," "refused," bad data, or blank).	The R was logically inferred not to have received treatment for that drug during the last or current episode. The missing value in that drug's variable was replaced with a special code of 4 (No LOGICALLY ASSIGNED).
The R was routed to questions about the last or current treatment episode but did not have any indication of treatment for any of the drugs that he or she ever used.	The following edits were implemented: • If the R reported receiving treatment only for alcohol in the past 12 months, a special logically inferred "yes" code of 5 was assigned to the variable for alcohol treatment during the last treatment episode (TXLTYALC). • If the R reported receiving treatment only for drugs other than alcohol in the past 12 months, a special code of 5 was assigned to the "some other drug" variable (TXLTYSOD) to indicate that the drug for which the R received treatment was unknown. • Otherwise, a special code of 7 was assigned to TXLTYSOD, the "some other drug" variable, to indicate that treatment for alcohol or other drugs was unknown. (Prior to 2002, these edits required Rs to have denied receiving treatment for all drugs they had ever used. Since 2002, the above edits also have been implemented if Rs did not report treatment for any specific drugs, and missing data existed in the questions about treatment for specific drugs.)
The R was logically inferred to have received treatment for alcohol during the last or current treatment episode (TXLTYALC = 5), and question TX36 about treatment for any other drug (TXLTYSOD) was answered as "no."	The edited "OTHER, Specify" variables TXLTYA through TXLTYE were assigned legitimate skip codes.
The R refused to report in question TX36 whether he or she received treatment for any other drug.	The refusal was propagated onto the edited "OTHER, Specify" variables TXLTYA through TXLTYE. Since 2002, this edit has been implemented regardless of whether the R had reported treatment for at least one drug in questions TX26 through TX35. (Prior to 2002, this edit required at least one response of "yes" in TX26 through TX35.)
The R reported treatment only for "some other drug," but the only substances specified were tobacco products (i.e., cigarettes, chewing tobacco, snuff, cigars, pipe tobacco).	The variables specifying treatment for tobacco products were assigned bad data codes. In addition, other variables pertaining to the last (or current) treatment episode were assigned bad data codes if the items had been answered. The following variables were affected: TXLTYMN (i.e., main place where the R was last treated); TXLTYOUT (i.e., outcome of the last treatment episode); variables beginning with TXPY (i.e., payment sources for the last [or current] treatment episode); and TXLTYDUR (i.e., length of the last or current treatment). The rationale for these edits was that anything pertaining to the last treatment (e.g., payment sources for the last or current treatment) would logically be assumed to pertain to treatment only for tobacco.

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Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
If the R reported in the alcohol module that he or she never used alcohol (AL01 = 2), the R would be skipped out of question TX26, pertaining to receipt of treatment for alcohol. However, the R also could report in question TX03 that he or she received treatment for "alcohol only" or "alcohol and drugs" in the past 12 months.	The edited variable pertaining to receipt of alcohol treatment during the last or current episode (TXLTYALC) retained a code of 98 (blank).
Question TX37 pertaining to the main drug for which the R last received (or was currently receiving) treatment was skipped because the R reported receipt of treatment for only one drug during the last or current treatment episode. That includes situations in which the only drug for which the R reported receiving treatment was "some other drug."	The edited variable TXLTYPRM was assigned a legitimate skip code, provided that none of the edited variables about treatment for alcohol through prescription sedatives (TXLTYALC through TXLTYSED) had a code of 98 (blank). Otherwise, TXLTYPRM retained a code of 98.
The R reported being in treatment for 366 days in the past 12 months.	The edited variable TXLTYDUR was edited to 365 days.
The length of time that the R reported currently being in treatment or being in treatment the last time translated to a number of years greater than the R's age.	The edited variable TXLTYDUR was assigned a bad data code.
The R reported receiving treatment in the past 12 months and reported receiving treatment in the past 12 months for alcohol only or drugs only. However, this response was inconsistent with the responses to questions on the drugs for which the R was treated (or was being treated) during the last (or current) treatment episode. For example, the R reported being treated in the past 12 months only for alcohol but reported last being treated for use of one or more other drugs.	Logically, the last or current treatment episode would fall within the 12-month period prior to the interview. Therefore, the variable pertaining to receipt of treatment for alcohol, other drugs, or both in the past 12 months (TXYRADG) was edited as follows: • If the R originally indicated treatment for alcohol only (i.e., a code of 1 in question TX03), with treatment for other drugs also having been indicated during the last episode, a special code of 11 was assigned to TXYRADG. • If the R originally indicated treatment for drugs only (i.e., a code of 2 in question TX03), with treatment for alcohol also having been indicated during the last episode, a special code of 12 was assigned to TXYRADG. The edits were done in this manner because the subsequent fill pattern for specific locations where the R received treatment in the past 12 months was based on the R's original answer for receipt of treatment only for alcohol, only for other drugs, or both.

<div align="right">(continued)</div>

Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
The R reported receiving treatment in the past 12 months but did not know or refused to report whether he or she received treatment only for alcohol, only for other drugs, or for both. However, data were provided on the drugs for which the R was treated during his or her last (or current) treatment episode.	Data on the drugs for which the R was last treated (or was currently being treated) were used to indicate the *minimum* for which the R could have been treated in the past 12 months: • If the R indicated last (or currently) being treated for alcohol but did not indicate treatment for other drugs during the last (or current) treatment episode, it was possible to infer in TXYRADG that the R was at least treated for alcohol in the past 12 months in TXYRADG (but the R also may have been treated for other drugs at some point during that period). A special code of 4 was assigned to TXYRADG. • If the R indicated last (or currently) being treated for one or more drugs other than alcohol but did not indicate treatment for alcohol, it was possible to infer in TXYRADG that the R was at least treated for drugs other than alcohol in the past 12 months. A special code of 5 was assigned to TXYRADG. • If the R reported last (or currently) being treated both for alcohol and for other drugs, it was possible to infer in TXYRADG that the R was treated for both alcohol and other drugs in the past 12 months. A special code of 6 was assigned to TXYRADG.
The R reported receiving treatment in the past 12 months and did not report receiving treatment in a particular location in the past 12 months, but this location was specified as treatment in "some other place" in the past 12 months.	The R was logically inferred to have received treatment in that location in the past 12 months. A code of 3 (Yes LOGICALLY ASSIGNED) was given to the edited treatment location variable in this situation.
The R reported receiving treatment in the past 12 months (or was inferred to have received treatment in the past 12 months) and did not report receiving treatment in a particular location that he or she subsequently reported was the main place that he or she received treatment the last time (or the main place where he or she was currently receiving treatment).	The R was logically inferred to have received treatment in that location in the past 12 months. A special logically assigned "yes" code of 5 was assigned to indicate that the affirmative response came from the data on the main location where the R last received (or was currently receiving) treatment. If the R reported that the main location where he or she received treatment was "some other place" and specified a valid response in question TX25SP, that "OTHER, Specify" response also was moved over to the "OTHER, Specify" variable TXYROTSP pertaining to treatment locations in the past 12 months.
The R reported receiving treatment in the past 12 months but answered "no" to every item about particular locations for treatment in that period, including "some other place."	The edited variable pertaining to "some other place" (TXYRSOP) was assigned a special code of 7 to indicate that the treatment location was unknown.

(continued)

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Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
The R reported receiving treatment in the past 12 months and did not initially indicate receiving treatment in a hospital emergency room in that period. However, the R subsequently reported receiving treatment in the past 12 months in an emergency room for use of marijuana, cocaine, heroin, LSD, PCP, or methamphetamine.	The variable that did not indicate treatment in an emergency room (TXYRTXER) was edited to infer that the R had received treatment in that location in the past 12 months.
The R reported receiving treatment in the past 12 months in every specific location that was asked about (i.e., except for treatment in "some other place").	No editing was done if the R reported being or having been in treatment for 15 days or more. If the R reported being or having been in treatment for fewer than 15 days, however, responses of "yes" in the entire list of edited past year treatment location variables were replaced with bad data codes. If treatment in "some other place" also was reported, the edited variable TXYRSOP was assigned a bad data code. In the variable TXYROTSP (i.e., the other treatment location that was specified), any responses were replaced with bad data codes. If the R also reported that he or she was still in treatment (TX07 = 1), the edited variable TXRCVNOW also was assigned a bad data code.
Rs could report still being in treatment in question TX07 but may report that they received treatment only in jail in the past 12 months.	When Rs reported receiving treatment only in jail in the past 12 months, they were logically inferred not to be currently in treatment (TXRCVNOW = 4). This edit also applied when Rs reported that the main treatment location was jail, and this was the only specific location reported for treatment in the past 12 months.
The R did not report a particular payment source for his or her last episode of treatment but specified this payment source as "some other source."	The R was inferred to have used that particular payment source for treatment. A code of 3 (Yes LOGICALLY ASSIGNED) was assigned to the edited variable for that payment source.
The R answered all items about payment sources for treatment as "no," including the item indicating that the last treatment was free.	A special code of 5 was assigned to the edited "some other source" variable (TXPYSOS) to indicate that the payment source was unknown.
The R reported that every specific payment source that was asked about paid for his or her last episode of treatment (i.e., except for "some other source" and free payment, the latter of which would have been skipped).	All source of payment variables that the R had answered as "yes" were assigned a bad data code. That included situations in which "some other source" of payment also was reported. In the variable TXPYSP (i.e., the other payment source that was specified), any responses were replaced with bad data codes.

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Exhibit 12. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Existed Prior to 2004 (continued)

Issue	Edits Implemented
The R reported *all* of the following: • receipt of treatment in every specific location in the past 12 months (i.e., except for treatment in "some other place"), and • payment of the last treatment by every specific payment source (i.e., except for "some other source" and free treatment).	When this specific pattern occurred, data from additional variables also were assumed to be questionable. Responses entered for the following variables were replaced with bad data codes: TXYRADG (i.e., treatment for alcohol, drugs, or both in the past 12 months); TXYRVSER (treatment in an emergency room for marijuana, cocaine, heroin, LSD, PCP, or methamphetamine in the past 12 months); TXYRNMER (number of times the R visited an emergency room for treatment of the above drugs); TXLTYMN (the main place the R received treatment the last time); drugs that the R was asked about for the last treatment episode (including the main drug for which the R received treatment, if applicable); and TXLTYDUR (length of time in treatment currently or the last time).
The R indicated that "some other source" paid for the last treatment, but then specified that this treatment was free.	If no other payment source was indicated, then it was logically inferred that the R's last treatment's was free (i.e., TXPYFRE = 3). Otherwise, if one or more payment sources had been indicated previously (e.g., private health insurance, the R's own funds), then it was inferred that "some other source" had not paid for the last treatment. In this situation, the response of free treatment that had been specified also was wiped out in the edited "OTHER, Specify" variable (TXPYSP).
The R reported in question TX44 that the only treatment he or she received in the past 12 months was for detoxification (or answered TX44 as "don't know" or "refused"), but the R also reported attending self-help groups in the past 12 months. Self-help groups typically are not places where people go to receive detoxification.	The response was accepted that the R received treatment in a self-help group in the past 12 months, and the R was logically inferred to have received treatment other than detoxification in that period. The edited variable corresponding to question TX44 (TXYRDTXO) was assigned a code of 4 (No LOGICALLY ASSIGNED).

their last (or current) treatment episode and the outcome for that last episode included data both from the existing response categories that respondents were allowed to choose and valid "other" responses that they specified. If respondents chose the other category but specified something that was coded with a missing value (i.e., "bad data," "don't know," "refused," or blank), a final code of "other" was retained for these two variables.

The variable pertaining to the length of time that respondents had been in treatment (TXLTYDUR) was derived from a question that asked respondents to indicate whether they wanted to give their answer in terms of days, months, or years, and from questions that asked for the number of days, months, or years that they were in treatment. TXLTYDUR was expressed as the number of days that respondents were in treatment. If respondents answered in terms of a number of months, their reported number of months was multiplied by 30. If respondents answered in terms of a number of years that they had been in treatment, their reported number of years was multiplied by 365.

If respondents answered in terms of a number of months in treatment, the treatment duration data also were compared for consistency with the respondent's age. Specifically, the

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number of months in treatment was divided by 12 to yield an estimated number of years in treatment. If the reported number of years in treatment exceeded the respondent's current age, then TXLTYDUR was assigned a bad data code. If the difference between the respondent's current age and the number of years in treatment was 10 or fewer years, this data pattern was flagged. Such respondents would have been reporting that they had *not* been in treatment for 10 or fewer years. However, TXLTYDUR was not set to bad data for this latter situation.

Exhibit 13 presents edit issues that were specific to the substance treatment variables that were added to the survey in 2004. For example, respondents could report that they first received treatment for their use of alcohol at ages that were earlier than when they first reported using alcohol. No editing was done to these data. However, flags were created to indicate whether the ages for first treatment of alcohol or other drugs were consistent with reported ages at first use from the core modules or in the special drugs module for methamphetamine (since 2007), and if not, the flags indicated the degree of inconsistency between these data. The meaning of the values in these flag variables is discussed in more detail in Exhibit 13.

In addition, data from substance treatment variables that existed prior to 2004 were used to edit these added variables. However, data from these added substance treatment variables were not used to edit the substance treatment variables that existed prior to 2004. Consequently, variables that also existed prior to 2004 (as well as in 2004 through 2011) were created in a manner that was comparable with how these variables were created in prior years.

An important aspect of editing the variables TX12MSHG (corresponding to question TX52) and TX12SGAD (corresponding to TX53) involved assigning relevant codes based on the skip logic for these items. For example, if respondents were routed to question TX52 and answered it as "no," then TX12SGAD was assigned a legitimate skip code. Similarly, if TX52 was refused, that refusal was propagated to TX12SGAD. In addition, if the lifetime treatment variable TXEVER (corresponding to question TX01) had been set to bad data, then any nonblank values also were replaced with codes for bad data in TX12MSHG and TX12SGAD (see Exhibit 12).

If question TX52 had been skipped because respondents had reported earlier in the substance treatment module that they received treatment in a self-help group in the past 12 months (from question TX04h), then TX12MSHG was assigned a code of 5, where 5 = Yes LOGICALLY ASSIGNED (from skip pattern). In addition, TX53 was skipped when question TX04h was answered as "yes." Therefore, if values of 1, 2, or 3 existed in TXYRSGAD (corresponding to question TX04h1 and indicating treatment in a self-help group in the past 12 months for alcohol only, drugs only, or both alcohol and drugs, respectively), TX12SGAD (corresponding to TX53) was assigned corresponding codes of 11, 12, or 13. "Bumping" these values by 10 in the assignment of codes from TXYRSGAD to TX12SGAD indicated to analysts that a logical inference was made in TX12SGAD; in contrast, codes of 1, 2, or 3 in TX12SGAD came from respondents answering TX53 directly. Other values greater than 3 that existed in TXYRSGAD were moved over to TX12SGAD without further editing. In particular, if TXYRSGAD (from question TX04h1) had been legitimately skipped because respondents reported in question TX03 that they were treated in the past 12 months for alcohol only or drugs only, then a legitimate skip code could be assigned to TX12SGAD as well.

Exhibit 13. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Were Added in 2004

Issue	Edits Implemented
The respondent (R) reported receiving substance treatment in the past 12 months (i.e., TXYREVER = 1).	The following lifetime treatment variables were assigned legitimate skip codes: TXALONEV, TXALONAG, TXDRONEV, TXDRONAG, TXALCDEV, TXALCDAG, TXDRGAEV, and TXDRGAAG. These variables corresponded to questions TX45, TX45a, TX46, TX46a, TX47, TX47A, TX48, and TX48a, respectively.
The R was logically inferred to have received treatment in the past 12 months (i.e., TXYREVER = 3). Consequently, the R was routed into the lifetime treatment questions. Had the R answered the past year treatment question TX02 as "yes," however, the R would have been skipped out of the lifetime treatment questions.	Responses of 1 and 2 (i.e., "yes" and "no," respectively) in TXALONEV, TXDRONEV, TXALCDEV, and TXDRGAEV were bumped by a value of 10 (i.e., set to values of 11 or 12). No editing was done to these variables if they had values of 94 ("don't know") or 97 ("refused").
The R received treatment in his or her lifetime but not in the past 12 months, and the R never used alcohol (i.e., ALCEVER = 2). The R also reported using at least one other drug in the marijuana through sedatives modules or in the special drugs module for methamphetamine.	The following variables pertaining to lifetime alcohol treatment were assigned legitimate skip codes: TXALONEV, TXALONAG, TXALCDEV, TXALCDAG, TXDRGAEV, and TXDRGAAG.
The R received treatment in his or her lifetime but not in the past 12 months, and the R indicated unambiguously in the marijuana through sedatives modules or in the special drugs module for methamphetamine that he or she never used any of these drugs. The R also reported using alcohol.	All the variables pertaining to drugs are skip filled, namely, TXDRONEV, TXALCDEV, TXDRGAEV and the age variables TXDRONAG, TXALCDAG, and TXDRGAAG.
The R reported first receiving substance treatment for alcohol or other drugs (or both) at an age that was later than his or her current age.	Consistent with standard editing practice, any ages for first receipt of treatment that were inconsistent with the R's current age were set to bad data.

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Exhibit 13. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Were Added in 2004 (continued)

Issue	Edits Implemented
The R reported first receiving treatment for alcohol or other drugs at an age that was earlier than the age-at-first-use (AFU) data from the core drug use modules or the special drugs module for methamphetamine. • For alcohol, the R reported first receiving treatment for alcohol at an age that earlier than ALCTRY, the AFU for alcohol from the core alcohol module. • For other drugs, the R reported first receiving treatment for his or her use of drugs at an age that was earlier than the minimum AFU for the drugs that the R reported using.	No editing was done to the age at first treatment data that were inconsistent with the AFU data from the core substance use modules. However, flags were created to indicate the degree of deviation from (a) ALCTRY (TXFGALAG), (b) the minimum AFU for other drugs (TXFGDGAG), and (c) the minimum AFU from both ALCTRY and the AFUs for other drugs (TXFGADAG). Values in these flags had the following meanings: 0 = First treatment age was consistent with minimum AFU 1 = First treatment age differs from minimum AFU by 1 year 2 = First treatment age differs from minimum AFU by 2 years 3 = First treatment age differs from minimum AFU by 3 or 4 years 4 = First treatment age differs from minimum AFU by 5 or more years. The flag for both alcohol and drugs (TXFGADAG) was created from the values in TXFGALAG and TXFGDGAG. The final value in TXFGADAG was chosen according to whatever value in TXFGALAG and TXFGDGAG indicated the greatest inconsistency between treatment age and core AFU data. If both TXFGALAG and TXFGDGAG were blank, then TXFGADAG was set to blank as well.
The R could report receiving treatment for alcohol in the past 12 months and could give an age when he or she first received alcohol treatment. However, the R previously reported in the core alcohol module that he or she never used alcohol. Similarly, the R could report receiving treatment for other drugs in the past 12 months and could give an age when he or she first received drug treatment. However, the R previously reported never using drugs in the core marijuana through sedatives modules or in the special drugs module for methamphetamine.	Again, no editing was done to the inconsistent treatment age data. However, the flag variables mentioned above were assigned a code of 5 when this situation occurred. This code of 5 had the following meaning: 5 = Never used alcohol in core but reported an alcohol treatment age 5 = Never used drugs in core but reported a drug treatment age. If TXFGALAG or TXFGDGAG had a value of 5, then TXFGADAG also was assigned a value of 5, where 5 = Any lifetime nonuse with a related treatment age.

(continued)

Exhibit 13.   Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Were Added in 2004 (continued)

Issue	Edits Implemented
The R answered the lifetime treatment question TX01 (edited variable TXEVER) as "don't know" or "refused."	The following edits were implemented for the lifetime treatment variables TXALONEV through TXDRGAAG according to what the R reported in the core substance use modules for lifetime use (or nonuse) of alcohol or drugs. • If the R was a lifetime user only of alcohol (i.e., had definitely never used other drugs that were covered in the core modules), the lifetime variables pertaining to treatment for drugs (TXDRONEV, TXDRONAG, TXALCDEV, TXALCDAG, TXDRGAEV, and TXDRGAAG) were assigned legitimate skip codes; even if the R had reported lifetime receipt of treatment, these variables still would have been skipped because the R never used any of the drugs covered in the core module. In addition, if TXEVER was refused, that refusal was propagated to TXALONEV and TXALONAG. • If the R was a lifetime user of other drugs but had never used alcohol, the lifetime variables pertaining to treatment for alcohol (TXALONEV, TXALONAG, TXALCDEV, TXALCDAG, TXDRGAEV, and TXDRGAAG) were assigned legitimate skip codes; even if the R had reported lifetime receipt of treatment, these variables still would have been skipped because the R never used alcohol. In addition, if TXEVER was refused, that refusal was propagated to TXDRONEV and TXDRONAG.
The R had the following pattern in his or her data: 1. Lifetime use of alcohol (i.e., ALCEVER = 1). 2. Initially skipped out of past year treatment questions but was logically inferred to have received treatment in the past 12 months (i.e., TXYREVER = 3; see Exhibit 12). 3. Never used marijuana through sedatives, or methamphetamine (based on answers from special drugs). 4. Question TX45 (edited variable TXALONEV) was answered as "no," meaning that the R had never received treatment or counseling for alcohol. Logically, the R had to have received treatment for something, and alcohol was the only substance that the R reported using.	TXALONEV was bumped by 20, such that TXALONEV would show a value of 22. This was done instead of inferring that the R received alcohol treatment. Nevertheless, a value of 22 in TXALONEV would alert analysts to an inconsistency in the data and give them the option of deciding how to handle these cases in an analysis.

Exhibit 13. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Were Added in 2004 (continued)

Issue	Edits Implemented
The R had the following pattern in his or her data: 1. Lifetime use of at least one drug in the marijuana through sedatives modules or methamphetamine use from the special drugs module. 2. Initially skipped out of past year treatment questions but was logically inferred to have received treatment in the past 12 months (i.e., TXYREVER = 3). 3. Never used alcohol. 4. Question TX46 (edited variable TXDGONEV) was answered as "no," meaning that the R had never received treatment or counseling for drugs other than alcohol. Logically, the R had to have received treatment for something, and illicit drugs (but not alcohol) were the only substances that the R reported using.	TXDRONEV was bumped by 20, such that TXDRONEV would show a value of 22. This was done instead of inferring that the R received drug treatment. Nevertheless, a value of 22 in TXDRONEV would alert analysts to an inconsistency in the data and give them the option of deciding how to handle these cases in an analysis.
The R reported lifetime use of both alcohol and other drugs. However, both TXALCDEV = 2 and TXDRGAEV = 2, meaning that the R never got treatment for either alcohol or drugs. Logically, if the R answered the lifetime treatment question TX01 (edited variable TXEVER) as "yes," the R had to have gotten treatment for something.	Both TXALCDEV and TXDRGAEV were bumped by 20, such that the edited value would be 22. Again, this would give analysts the option of deciding how to handle these cases in an analysis.
A lifetime lead variable (i.e., TXALONEV, TXDRONEV, TXALCDEV, and TXDRGAEV) was coded as 2 (i.e., "no") or was coded as 12 (based on the second issue described in this exhibit).	The corresponding age-at-first-treatment variables TXALONAG, TXDRONAG, TXALCDAG, and TXDRGAAG were assigned legitimate skip codes.
A past year lead variable (i.e., TXYALDRG, TXYDRALC) was coded as 2 (i.e., "no").	The corresponding age-at-first-treatment variables TXYALDAG and TXYDRAAG were assigned legitimate skip codes.

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Exhibit 13. Edit Issues Pertaining to the Receipt of Substance Treatment Variables That Were Added in 2004 (continued)

Issue	Edits Implemented
The past year treatment variable TXYRADG (corresponding to question TX03) indicated that the R was treated in the past year only for alcohol or only for drugs.	If TXYRADG = 1 (i.e., treatment in the past year only for alcohol), the following variables were assigned legitimate skip codes: TXYDRAGE (age at first treatment for drugs, if the R had been treated in the past year only for drugs), TXYDRALC (whether the R ever was treated for alcohol use, if the R had ever used alcohol and had been treated in the past year only for drugs), TXYDRAAG (the treatment age variable corresponding to TXYDRALC), TXYADAAG (age at first treatment for alcohol, if the R had been treated in the past year for both alcohol and drugs), and TXYADDAG (age at first treatment for drugs, if the R had been treated in the past year for both alcohol and drugs).
	Similarly, if TXYRADG = 2 (i.e., treatment in the past year only for drugs), the following variables were assigned legitimate skip codes: TXYALAGE (age at first treatment for alcohol, if the R had been treated in the past year only for drugs), TXYALDRG (whether the R ever had been treated for drug use, if the R had ever used marijuana through sedatives and had been treated in the past year only for alcohol), TXYALDAG (the treatment age variable corresponding to TXYALDRG), TXYADAAG (age at first treatment for alcohol, if the R had been treated in the past year for both alcohol and drugs), and TXYADDAG (age at first treatment for drugs, if the R had been treated in the past year for both alcohol and drugs).
TXYRADG indicated that the R was treated in the past year for both alcohol and drugs, including situations in which the R was logically inferred to have received treatment for both alcohol and drugs in the past year.	The following variables were assigned legitimate skip codes: TXYALAGE, TXYALDRG, TXYALDAG, TXYDRAGE, TXYDRALC, and TXYDRAAG. If TXYRADG = 6 (i.e., logically inferred to have received treatment for both alcohol and drugs in the past year; see Exhibit 12), the skipped variables TXYADAAG and TXYADDAG retained codes of blank.
TXYRADG had been assigned a code of 4 (i.e., received treatment for alcohol in the past year but treatment for drugs during this period was unknown; see Exhibit 12).	The following variables pertaining to receipt of treatment only for drugs were assigned legitimate skip codes: TXYDRAGE, TXYDRALC, and TXYDRAAG. The skipped variables pertaining to treatment for alcohol in the past year, with or without treatment for drugs (i.e., TXYALAGE, TXYALDRG, TXYALDAG, TXYADAAG, and TXYADDAG), retained codes of blank.
TXYRADG had been assigned a code of 5 (i.e., received treatment for alcohol in the past year but treatment for drugs during this period was unknown; see Exhibit 12).	The following variables pertaining to receipt of treatment only for alcohol were assigned legitimate skip codes: TXYALAGE, TXYALDRG, and TXYALDAG. The skipped variables pertaining to treatment for drugs in the past year, with or without treatment for alcohol (i.e., TXYDRAGE, TXYDRALC, TXYDRAAG, TXYADAAG, and TXYADDAG), retained codes of blank.

(continued)

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Issue	Edits Implemented
TXYRADG had been assigned a code of 11 (i.e., the R had reported receiving treatment only for alcohol in the past 12 months but some treatment for drugs also was indicated; see Exhibit 12). TXYALDRG did not indicate that the R had ever received treatment for his or her use of drugs.	TXYALDRG was assigned a code of 3 (i.e., Yes LOGICALLY ASSIGNED).
TXYRADG had been assigned a code of 12 (i.e., the R had reported receiving treatment only for drugs in the past 12 months but some treatment for alcohol also was indicated; see Exhibit 12). TXYDRALC did not indicate that the R had ever received treatment for his or her use of alcohol.	TXYDRALC was assigned a code of 3 (i.e., Yes LOGICALLY ASSIGNED).
TXYRADG had been set to bad data.	Any nonblank values in variables that were dependent on TXYRADG were set to bad data. This edit was relevant to the following questions (corresponding edited variables shown in parentheses): TX49 (TXYALAGE), TX49a (TXYALDRG), TX49b (TXYALDAG), TX50 (TXYDRAGE), TX50a (TXYDRALC), TX50b (TXYDRAAG), TX51 (TXYADAAG), and TX51a (TXYADDAG).
TXYRADG was answered as "don't know" or "refused."	All of the variables TXYALAGE through TXYADDAG that had been skipped retained codes of blank.

Variables pertaining to the lifetime receipt of treatment (TXEVER), treatment in the past 12 months (TXYREVER), treatment in a self-help group in the past 12 months (TXYRSHG), and treatment for alcohol, drugs, or both in a self-help group in the past 12 months (TXYRSGAD) were not edited to make them consistent with data in questions TX52 and TX53. Consequently, the integrity of trends in the receipt of treatment (particularly in the past 12 months) can be preserved. This decision also was in agreement with the decision that was made in 2004 not to edit substance treatment variables that existed in the module prior to 2004 for consistency with data from questions TX45 through TX51a that were added to the substance treatment module in 2004.

However, a flag variable (TXSHGFLG) was created to alert analysts to situations in which data were inconsistent between TX12MSHG and TXYRSHG. The default value of TXSHGFLG was 98 (blank). In addition, TXSHGFLG was assigned values of 91 if respondents had never used alcohol or other drugs, and it was assigned values of 81 if the logical inference had been made that respondents had never used alcohol or other drugs. Assignment of values other than 81, 91, or 98 to TXSHGFLG is described below.

- TXSHGFLG was set to a value of 1 if respondents answered TX52 as "yes" (i.e., attended a self-help group for their own use of alcohol or other drugs in the past year) but the respondents answered question TX04h as "no" (i.e., did not receive treatment in a self-help group in the past 12 months). In this situation, the answers in TX04h

and TX52 may be seen as contradictory, except that respondents may not have thought of self-help group attendance as "treatment" when they were answering question TX04h.

- TXSHGFLG was set to a value of 2 if respondents answered TX52 as "yes" but they reported either that they did not receive any treatment in the past 12 months or in their lifetime. A separate level was created for this pattern because these respondents may not have thought of self-help groups as "treatment" when they were answering question TX01 (lifetime receipt of treatment) or TX02 (receipt of treatment in the past 12 months). Consequently, respondents who attended self-help groups in the past 12 months may have answered TX01 or TX02 as "no."

- TXSHGFLG was set to a value of 3 if the edited variable TXYRSHG (corresponding to question TX04h) indicated that respondents were logically inferred to have received treatment in a self-help group in the past year, but TX12MSHG also did not indicate that these respondents attended a self-help group in the past 12 months. In this situation, TX12MSHG was inconsistent with TXYRSHG, but only because a logical inference had been made that TXYRSHG should have been answered as "yes."

- TXSHGFLG was set to a value of 4 if TX52 was answered as "yes" but the edited variable TXYRSHG had a value for "don't know," "refused," or "blank." In particular, TXYRSHG could have been blank if question TX04h had been skipped and we had subsequently inferred that respondents got treatment in the past 12 months. In these types of situations, data in TX12MSHG and TXYRSHG were not necessarily contradictory.

- TXSHGFLG was set to a value of 5 if question TX04h was answered as "no" and TX52 was answered as "don't know" or "refused." Although a logical inference was not made in TX12MSHG that respondents did not attend self-help groups in the past 12 months, analysts would have the option of inferring that respondents absolutely did not attend self-help groups in the past 12 months for their own use of alcohol or other drugs based on TXYRSHG. Alternatively, analysts could decide to treat self-help group attendance data as missing based on TX12MSHG.

3.8.2 Perceived Need for Substance Treatment

The basic content of the section of the substance treatment module in 2011 pertaining to respondents' perceived need for substance abuse treatment did not change relative to 2010. Since 2007, however, respondents who reported methamphetamine use in the noncore special drugs module and who did not report that they received treatment for their alcohol or other drug use in the past 12 months have been eligible to be asked whether they felt that they needed treatment for their alcohol or other drug use at any time in the past 12 months. As noted above, this logic change was relevant only for those respondents who reported methamphetamine use in the special drugs module and did not report use of alcohol or other drugs in the core modules. However, no respondents whose only substance use came from their report of methamphetamine use in the special drugs module and who reported that they never received substance treatment reported that they felt that they needed treatment in the past 12 months.

Since 2002, respondents have been asked to report the reasons why they did not receive substance treatment services despite feeling the need for treatment (question TX22A). Similarly, respondents who reported that they received treatment but needed additional treatment have been asked why they did not receive additional treatment or counseling (question TX23A).

Based on a review of what respondents had specified in quarter 1 of 2002 as leading "other" reasons for not getting substance treatment or additional treatment, additional questions (TX22B and TX23B) have been included in the interview since 2003 to capture commonly endorsed other reasons for not receiving treatment. Therefore, if respondents answered question TX08 as "yes" (i.e., perceived the need for substance treatment), they eventually were routed to question TX22A, where they could report up to 10 reasons for not receiving substance treatment, including "some other reason or reasons." If respondents chose the "some other reason or reasons" option in question TX22A, they were routed next to question TX22B, where they could choose additional reasons for not getting substance treatment; again, respondents were given the option in question TX22B to report "some other reason or reasons." If respondents chose this "other" response category in TX22B, they were asked to specify the *most important* other reason why they did not get treatment. Thus, respondents were asked to specify only the most important other reason for not getting substance treatment. Similar logic was in place for questions TX23A and TX23B, when respondents reported in TX09 that they perceived a need for additional substance treatment.

Questions TX22A, TX22B, TX23A, and TX23B were "enter all that apply" questions in which respondents could choose more than one reason from each list. Each response option (e.g., "You had no health care coverage, and you couldn't afford the cost") was captured as a separate variable. The edited variables corresponding to the individual response options in TX22A, TX22B, TX23A, and TX23B were coded as 1 (Response entered) or 6 (Response not entered), if at least one item was chosen from the TX22A, TX22B, TX23A, and TX23B lists.

In addition, the 10th response option in questions TX22A and TX23A ("some other reason or reasons") was principally considered to be a "toggle" to questions TX22B and TX23B, respectively. Therefore, separate "some other reason or reasons" variables were not created to correspond to the last response category in TX22A and TX22B. Similarly, separate variables were not created to correspond to the last category in TX23A and TX23B.

The edits described below were implemented in 2003 to take into account the addition of questions TX22B and TX23B. The edits described use TX22A and TX22B as examples but also applied to TX23A and TX23B.

- If respondents chose the 10th response option in TX22A, any response that was entered from the TX22B series was coded as 1, and anything that respondents did not choose from the TX22B list was coded as 6.

- If respondents chose a response from TX22A but did not choose the 10th response category in TX22A, the variables corresponding to the response categories in TX22B (i.e., NDTXNOND through NDTXSOR) all were given a code of 6 (Response not entered), rather than being assigned "legitimate skip" codes. That is, TX22A and TX22B were considered together to be one big series of reasons.

- If respondents chose category 10 in question TX22A, chose at least one reason from TX22B, but did not choose category 6 in TX22B (some other reason or reasons), the edited variable NDTXSOR (some other reason or reasons for not receiving substance treatment) was assigned a code of 6. That is, it was inferred in this situation that the list of specific reasons in TX22B was adequate for capturing why respondents did not get substance treatment. For example, if a respondent chose category 10 in TX22A and then chose only category 2 in TX22B ("You thought you could handle the problem without treatment"), it would be reasonable to infer that this response in TX22B was the only other reason why the respondent did not get treatment.

- If respondents chose response category 10 in question TX22A, it was possible for them to answer TX22B as "don't know" or "refused" (i.e., did not know or refused to report what the other reasons were). When this occurred, the "some other reason" variable NDTXSOR was set to 1 (Response entered) in order to retain information that the respondent chose "some other reason or reasons" somewhere in the series. Remaining variables corresponding to the TX22B series retained codes of 94 ("don't know") or 97 ("refused").

- If respondents answered question TX22A as "don't know" or "refused," question TX22B was skipped. Therefore, the relevant code of 94 or 97 was propagated onto the variables corresponding to the TX22B list.

- If NDTXSOR had a value of 6 (see above), the "OTHER, Specify" variable NDTXRIMP was assigned a legitimate skip code. If NDTXSOR had a refusal code, that refusal was propagated onto NDTXRIMP.

- If NDTXSOR had a code of 1 when the respondent answered "don't know" or "refused" to the TX22B series, the "OTHER, Specify" variable NDTXRIMP retained a code of 98 (blank).

Consistent with general editing procedures, if respondents reported a reason that corresponded to a reason in the lists for TX22A/TX22B or TX23A/TX23B, that reason was logically inferred to have been chosen in the relevant edited variable. Suppose, for example, that a respondent had not received treatment but felt the need for it, and the respondent specified that one of the reasons for not receiving treatment was that he or she was not ready to stop using alcohol or drugs. If the respondent had not chosen this response in TX22A, the edited variable NDTXREDY (corresponding to response category 5 in TX22A) was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). Similarly, if the respondents specified that they did not get treatment because they thought they could handle the problem without treatment but had not chosen that reason in TX22B, the edited variable NDTXHNDL (no substance treatment because the respondent thought he or she could handle the problem without treatment) was assigned a code of 3.

Conversely, if respondents did not report "some other reason" why they did not receive treatment in the past 12 months (edited variable NDTXSOR = 6, corresponding either to response category 10 in question TX22A not being chosen or response category 6 in question TX22B not being chosen), legitimate skip codes were assigned to the edited "OTHER, Specify" variable NDTXRIMP (corresponding to question TX22SP). Similar edits were done for the "OTHER, Specify" variable pertaining to reasons for not receiving additional treatment if

respondents reported that they felt the need for additional treatment but did not indicate "some other reason" for not receiving additional treatment.

As was the case with the variables pertaining to receipt of treatment services, an important aspect of the processing of the variables pertaining to perceived need for treatment involved assigning relevant legitimate skip codes. In particular, the variables on perceived need for treatment were compared with data on receipt of treatment services in the past 12 months. For example, if respondents had received treatment services in the past 12 months, the questions about perceived need for treatment in that period did not apply. Thus, legitimate skip codes were assigned to the variables pertaining to the perceived need for any alcohol or other drug treatment when respondents had received treatment in the past 12 months. Similarly, if respondents received treatment in the past 12 months and they reported that they were still in treatment (TXRCVNOW = 1), the questions about perceived need for additional services did not apply, and legitimate skip codes were assigned to the corresponding edited variables.

Respondents who had not indicated that they received treatment in the past 12 months and who were lifetime users of alcohol or some other drug also were skipped out of questions regarding their perceived need for additional treatment. Again, the edited variables corresponding to perceived need for additional services were assigned legitimate skip codes. Those respondents who had not indicated that they received treatment in the past 12 months were asked the general question about whether they perceived themselves as needing treatment for their use of alcohol or other drugs (edited variable NDTXNEDR). If they did not see themselves as needing treatment, they were skipped out of questions pertaining to perceived need for treatment for specific drugs in the past 12 months. Again, legitimate skip codes were assigned to the edited variables that had been skipped.

Similarly, respondents were globally skipped out of questions TX11 through TX22 (regarding their perceived need for any treatment for alcohol or specific other drugs) if they reported in question TX02 that they received treatment in the past 12 months. Therefore, the edited variables corresponding to questions TX11 through TX22 (NDTXALCR through NDTXEFTR) were assigned legitimate skip codes.

Legitimate skip codes also were assigned in situations in which respondents were lifetime nonusers of a particular drug. For example, if respondents indicated that they needed treatment for their use of alcohol or drugs, they were asked about their perceived need for treatment only for those specific drugs that they had ever used; legitimate skip codes were assigned to the skipped drug-specific variables that respondents had never used. Thus, for example, if a respondent had never used heroin but reported needing treatment in the past 12 months for alcohol or drugs (TX08 = 1), a legitimate skip code was assigned to the edited variable pertaining to the perceived need for treatment for heroin (NDTXHERR).

Procedures consistent with those described in Section 2.3 also were implemented when questions about the perceived need for treatment were potentially applicable, but respondents refused to report whether they had ever used a particular drug. For example, if a respondent had not received treatment in the past 12 months, reported needing treatment in the past 12 months for alcohol or other drugs, but refused to report whether he or she had ever used heroin, the item about perceived need for treatment for heroin was skipped. Because the respondent refused to

report about lifetime use or nonuse of heroin, the edited variable NDTXHERR was assigned a refusal code.

Exhibit 14 presents additional edit issues that were specific to the variables pertaining to the perceived need for treatment services. As noted above, for example, respondents were skipped out of questions TX11 through TX22 if they reported that they received treatment in the past 12 months. If respondents had not originally reported receiving treatment in the past 12 months but were logically inferred to have done so (see Exhibit 12), these respondents would have been routed to questions TX11 through TX22. Rather than wipe out respondents' answers, however, special codes were assigned to indicate that respondents were routed into questions about their perceived need for treatment for use of specific drugs when they were logically inferred to have received treatment in the past 12 months. This procedure would allow analysts to decide whether to use or disregard these data in their analyses.

3.9   Health Care Module

The health care module included questions for female respondents aged 12 to 44 regarding whether they were currently pregnant, and if so, the number of months that they had been pregnant. This section also included questions for all respondents regarding utilization of hospital emergency room services and overnight inpatient hospitalizations in the past 12 months, as well as lifetime and past year histories of specific health conditions.

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. For example, males of any age and women over the age of 44 were assigned legitimate skip codes to the pregnancy variables. Similarly, if females aged 12 to 44 reported that they were not currently pregnant (PREGNANT = 2), legitimate skip codes were assigned to the variable pertaining to the number of months that they were pregnant (PREGMOS).

In the pregnancy variables, if women reported currently being pregnant, the allowable range for the number of months that they were pregnant ranged from 1 to 9 months. Thus, women who reported that they were currently pregnant were not allowed to report that they had been pregnant for "0" months.

In the health care questions, respondents who did not report that they were hospitalized overnight in the past 12 months (edited variable INHOSPYR) were not asked for the number of times they were hospitalized in that period (edited variable NMNGTHSP). If respondents reported that they were not hospitalized overnight in the past 12 months (INHOSPYR = 2), the variable NMNGTHSP was assigned a legitimate skip code. If respondents refused to report whether they were hospitalized overnight in the past 12 months (INHOSPYR = 97), that refusal was propagated onto NMNGTHSP.

The allowable range for the question about the number of nights that respondents were inpatients in a hospital in the past 12 months included 365. No editing was done to the variable NMNGTHSP when respondents reported that they had spent all 365 nights in a hospital in the past 12 months.

Exhibit 14. Edit Issues Pertaining to the Perceived Need for Treatment Variables

Issue	Edits Implemented
The only indication(s) of lifetime drug use that routed the respondent (R) into the substance treatment questions had been set to bad data because only over-the-counter (OTC) drug use had been reported in the core.	Nonblank values in the edited variables pertaining to perceived need for substance treatment were replaced with bad data codes.
The R specified the need for treatment for an OTC psychotherapeutic medication (e.g., aspirin).	This information on OTC drugs was not used to infer need for treatment for any of the psychotherapeutic drugs because the questions about perceived need for treatment for psychotherapeutic drugs referred specifically to prescription-type medications (i.e., and not OTCs).
The R did not report needing treatment for a particular drug in the past 12 months, but need for treatment for this drug was specified as a treatment need for "some other drug." In the case of the psychotherapeutics, the other drug specified was not an OTC drug.	The R was inferred to perceive the need for treatment for the use of that drug. For example, Rs who did not report needing treatment for prescription stimulants but reported needing treatment for street stimulants were considered to qualify as perceiving the need for treatment for prescription-type stimulants (i.e., those that were not available over the counter, which would include street drugs). The edited variable NDTXSTMR was assigned a code of 3 (Yes LOGICALLY ASSIGNED). This code of 3 could be edited further, as discussed below.
The R reported needing treatment in the past 12 months for the use of alcohol or other drugs, but questions about the perceived need for treatment for all specific drugs that the R had ever used were answered as "no."	A special code was assigned to the "some other drug" variable (NDTXSOD) to indicate that the specific drug for which the R thought that he or she needed treatment was unknown.
Question TX10, pertaining to the perceived need for additional treatment, is an "enter all that apply" type of question. That is, Rs could report needing additional treatment for more than one drug shown in the list in TX10. However, Rs could report needing additional treatment for drugs that they had reported never using in the corresponding core module (e.g., reported never using heroin but reported needing additional treatment for heroin). In contrast, Rs would not get asked questions TX11 through TX21 (regarding perceived need for treatment for specific drugs) unless they were lifetime users of a particular drug.	No editing was done when this pattern occurred. Consequently, these noncore data would be inconsistent with the core data.

(continued)

Exhibit 14. Edit Issues Pertaining to the Perceived Need for Treatment Variables (continued)

Issue	Edits Implemented
The R was logically inferred to have received treatment in the past 12 months (TXYREVER = 3). Because the R did not originally answer question TX02 as "yes," the computer-assisted interviewing (CAI) program routed the Rs to questions about whether they thought they needed treatment for their use of alcohol or specific drugs (i.e., question TX08 and questions TX11 through TX22).	The following edits were done when TXYREVER = 3: • If a question was originally answered as "yes," then the corresponding edited variable was assigned a code of 11 (Yes [TXYREVER = 3]). For example, if the R reported needing treatment for alcohol or other drugs (TX08 = 1), then the edited variable NDTXNEDR was assigned a code of 11. Similarly, if the R reported needing treatment for a specific drug (e.g., prescription stimulants), then the edited variable (e.g., NDTXSTMR) was assigned a code of 11. • If a question was originally answered as "no," then the corresponding edited variable was assigned a code of 12 (No [TXYREVER = 3]). For example, if TX08 had been answered as "no" (TX08 = 2), then NDTXNEDR was assigned a code of 12. (If NDTXNEDR was set to 12, then subsequent variables continued to be assigned legitimate skip codes.) Similarly, if a question about the need for treatment for a specific drug had been answered as" no," then the edited variable was assigned a code of 12. • If the R was inferred to perceive the need for treatment for a drug based on "OTHER, Specify" data, the edited variable was assigned a code of 13. Suppose, for example, that NDTXSTMR had already been coded as 3 because the R had specified prescription-type stimulants as "some other drug" for which the R needed treatment (but question TX19 had not been answered as "yes"). If the R was logically inferred to have received treatment in the past 12 months (TXYREVER = 3), then NDTXSTMR was subsequently coded as 13 (Yes LOGICALLY ASSIGNED [TXYREVER = 3]). • If the R was a lifetime nonuser of a drug, the edits continued to assign a legitimate skip code. For example, if the R had never used prescription-type stimulants, then NDTXSTMR continued to receive a code of 99 when TXYREVER = 3. • Codes for any reasons that respondents reported for why they did not get treatment were bumped by 10; the resulting codes were 11 or 13. The rationale for these edits was that Rs would not have been asked questions about their perceived need for treatment for alcohol or specific other drugs if they had originally reported that they received treatment in the past 12 months. The above edits were done to conserve respondents' answers, as opposed to wiping out the data.
The R reported making an effort to get treatment (question TX22 answered as "yes"), but the R reported not needing treatment for every specific drug that he or she was asked about.	The edited variable NDTXEFTR was assigned a code of 11. The same edits described above for other variables that applied when TXYREVER = 3 also were performed when NDTXEFTR was assigned a code of 11 due to this issue.

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Questions have been included in the health care module since 2005 about the occurrence of the following health conditions in the lifetime and past 12 month periods: anxiety disorder, asthma, bronchitis, cirrhosis of the liver, depression, diabetes, heart disease, hepatitis, high blood pressure, HIV/AIDS (i.e., human immunodeficiency virus or acquired immunodeficiency syndrome), lung cancer, pancreatitis, sexually transmitted disease (STD, such as chlamydia, gonorrhea, herpes, or syphilis), sinusitis, sleep apnea, stroke, tinnitus, tuberculosis, or ulcers. The content of these items and associated edits have not changed.

Respondents were asked whether a doctor or other medical professional had ever told them that they had any of the specific health conditions mentioned above. Respondents could report that they had been told that they had as many of these conditions as applied (i.e., this was an "enter all that apply" question). Respondents also could report that they never had any of these conditions. However, if they reported having one of the conditions listed above and also that they never had any of these conditions, the CAI program triggered an error message that required the respondents to resolve the inconsistency before they could proceed further.

If respondents reported that they had been told that they ever had some of these specific conditions, they were asked whether a doctor or other medical professional told them they had these specific conditions in the past 12 months. The CAI logic restricted respondents' choices in the past 12 months to those conditions that they reported for the lifetime period. For example, if a respondent reported ever being told by a doctor or other health professional that he or she had asthma and bronchitis, but the respondent did not indicate being told that he or she had any of the other health conditions, the respondent's choices for the past 12 month period were limited to reporting whether a doctor or health professional told the respondent that he or she had asthma, bronchitis, or none of these conditions; if the respondent attempted to choose another response for a condition in the past 12 months (e.g., diabetes), the CAI program triggered an error message that this was not one of the respondent's choices. Similarly, respondents were not allowed to report that they had one or more health conditions in the past 12 months and that they had "none of the above" (i.e., none of these conditions in the past 12 months).

Because these were "enter all that apply" variables, separate variables were created for each health condition for the lifetime and past year periods (e.g., LIFANXD and LIFASMA for lifetime occurrence of anxiety disorders or asthma, respectively; YRANXD and YRASMA for the occurrence of these respective conditions in the past year). The individual edited variables for these lifetime and past year health conditions were coded as 1 or 6. Documentation for these "enter all that apply" variables in the health care module was as follows:

1 = Response entered, and

6 = Response not entered.

The CAI logic discussed above eliminated the occurrence of the inconsistent data patterns noted above for these health condition variables, namely reports of having specific health conditions and having none of them, or respondents not reporting these conditions for the lifetime period but reporting them for the past 12 months. Consequently, the editing procedures for these health condition variables involved assignment of legitimate skip codes based on the skip/routing logic. These edits are discussed below.

- If respondents reported that they never had any of these conditions in the lifetime period (i.e., edited variable LIFNONE coded as 95), all of the variables pertaining to lifetime medical conditions (LIFANXD through LIFULCER) were assigned legitimate skip codes. In addition, all of the past year variables (YRANXD through YRULCER and also YRNONE) were assigned legitimate skip codes.

- If respondents reported the lifetime occurrence of at least one of these conditions, LIFNONE was assigned a legitimate skip code.

- If respondents reported the lifetime occurrence of at least one of these conditions but that a doctor or other health professional did not tell them that they had any of these conditions in the past 12 months (i.e., edited variable YRNONE coded as 95), all of the variables pertaining to past year medical conditions (YRANXD through YRULCER) were assigned legitimate skip codes.

- If respondents reported the lifetime occurrence of at least one of these conditions and they did not report the lifetime occurrence of specific other conditions, the corresponding past year variables for the conditions they did not report were assigned legitimate skip codes. For example, if respondents reported that a doctor or other health professional had ever told the respondents that they had diabetes (LIFDIAB = 1) but they did not report ever being told that they had high blood pressure (LIFHBP = 6), the past year high blood pressure variable YRHBP was assigned a legitimate skip code.

- If respondents reported the lifetime occurrence of a particular condition but they did not report that a doctor or other health professional told them that they had this condition in the past year, the edited variable for the condition in the past year was coded as 6 (Response not entered). Suppose, for example, that a respondent reported the lifetime occurrence of bronchitis and high blood pressure (LIFBRONC = 1 and LIFHBP = 1, respectively), and the respondent reported being told in the past year that he or she had high blood pressure but the respondent did not report being told in the past year that he or she had bronchitis, then YRBRONC was coded as 6 and LIFHBP was coded as 1 (Response entered).

- If respondents reported that a doctor or other health professional told them in the past year that they had one or more specific health conditions, YRNONE was assigned a legitimate skip code.

Because these health condition questions were "enter all that apply" items, if respondents indicated that they did not know or refused to report whether they had any of these conditions in the lifetime or past year periods, codes of 94 (for "don't know") or 97 (for "refused") were propagated to all of the raw variables corresponding to these health conditions in the relevant time period, including the raw variables indicating that respondents had none of these conditions. Therefore, if respondents reported at least one lifetime health condition but they answered the past year question as "don't know" or "refused," the corresponding codes of 94 or 97 that were assigned to the past year health conditions that the respondents did not report having in their lifetime were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned). In this situation, YRNONE retained the code of 94 or 97 because respondents may not have been told in the past year that they had any of the conditions that they reported for the lifetime period. These

edits preserved those responses of "don't know" or "refused" in the past year variables that correspond to conditions that respondents reported that they had in their lifetime.

For example, suppose a respondent reported being told that he or she had diabetes in his or her lifetime but did not choose the lifetime item for lung cancer (i.e., LIFDIAB = 1 but LIFLUNCA = 6). If the respondent answered the past year question as "don't know," the edited past year variable for diabetes (YRDIAB) retained a code of 94 but the past year variable for lung cancer (YRLUNCA) was assigned a code of 89. In addition, YRNONE retained a code of 94.

In addition, if respondents answered the question for the lifetime list of health conditions as "don't know" or "refused," the corresponding code of 94 or 97 was propagated to LIFNONE as well. The item also was skipped pertaining to the occurrence of these conditions in the past year. In this situation, the code of 94 or 97 was retained in LIFNONE because respondents may never have been told by a health professional that they had any of these conditions. The relevant code of 94 or 97 also was propagated to the individual past year variables. For example, if respondents did not know whether a health professional had ever told them that they had any of these conditions, codes of 94 were assigned to the edited past year variables YRANXD through YRULCER and to YRNONE. That is, if these respondents did not know whether they had ever been told that they had any of these conditions, it could reasonably be inferred that the respondents did not know whether they had any of them in the past year. This edit served to reduce the number of codes of "blank" in the corresponding past year variables.

No editing was done in situations in which respondents reported that they had been told at some point in their lifetime that they had certain long-term chronic medical conditions (e.g., cirrhosis of the liver, HIV/AIDS) but did not report these conditions for the past year period. The rationale for not editing the data in this situation was that the past year question asked respondents to indicate which of these conditions a doctor or medical professional told them that they had in the past 12 months. Consequently, respondents may have had these chronic conditions in the past 12 months, but a doctor or other health professional literally may not have told them in the past 12 months that they had these conditions. Nevertheless, analysts would have the option of deciding how to handle these types of special situations.

3.10   Adult Mental Health Service Utilization Module

The module on adult mental health service utilization asked adult respondents about (a) their receipt of specific sources of inpatient or outpatient mental health services in the past 12 months, (b) the length of time that respondents spent in specific inpatient mental health settings or the number of outpatient visits that respondents made to specific types of outpatient mental health providers, (c) payment sources for mental health services, (d) use of prescribed medication for a mental health condition, (e) unmet demand for services (i.e., the respondent felt the need for mental health services but did not receive them), (f) use of alternative sources of treatment (e.g., acupuncture), and (g) how respondents were prompted to get treatment. If the lifetime substance treatment question TX01 indicated that respondents had received treatment for their use of alcohol or other drugs (or if they answered the question as "don't know" or "refused"), respondents were instructed not to include substance abuse treatment in their answers about mental health treatment.

Sources of inpatient mental health treatment or counseling that were asked about in the module included (a) a private or public psychiatric hospital, (b) a psychiatric unit within a general hospital, (c) a medical unit within a general hospital, (d) another type of hospital, (e) a residential treatment center, or (f) "some other type of facility." Sources of outpatient mental health treatment or counseling that were asked about in the module included (a) an outpatient mental health clinic or center, (b) the office of a private therapist not associated with a clinic, (c) a doctor's office that was not part of a clinic, (d) an outpatient medical clinic, (e) a partial day hospital or day treatment program, or (f) "some other place." Sources of alternative treatment that were asked about in the module included treatment from (a) an acupuncturist or acupressurist; (b) a chiropractor; (c) an herbalist; (d) an in-person support group or self-help group; (e) an Internet support group or chat room; (f) a spiritual or religious advisor, such as (but not limited to) a pastor, priest, or rabbi; (g) a telephone hotline; (h) a massage therapist; or (i) "other" (i.e., some other source).

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 12 to 17, and (b) assignment of legitimate skip codes to adult respondents' data based on routing logic within the adult mental health service utilization module. For example, if respondents reported that they did not stay overnight or longer in a hospital or other facility to receive mental health counseling in the past 12 months (AUINPYR = 2), all subsequent variables pertaining to inpatient mental health services were assigned legitimate skip codes.

In addition, if respondents did not report receiving treatment in a particular facility or setting in the past 12 months, the questions pertaining to the number of times they received treatment in that setting were skipped. For example, if respondents reported receiving outpatient mental health services in the past 12 months (AUOPTYR = 1) but did not indicate that they received outpatient services in a day treatment program, the edited variable pertaining to receipt of day treatment services (AUOPDTMT) was assigned a legitimate skip code. If respondents reported receiving inpatient or outpatient services in one or more locations from the lists they were provided but they did not report receiving services in "some other type of facility" (for inpatient services) or "some other place" (for outpatient services), the edited "OTHER, Specify" variables (AUINYRSP for inpatient and AUOPYRSP for outpatient) were assigned legitimate skip codes.

Similarly, if respondents reported only one source of payment for inpatient or outpatient mental health services, there was no need to ask them who paid for (or would pay for) most of the inpatient or outpatient services that they received. For example, if respondents reported that they received outpatient mental health services in the past 12 months but reported only that private insurance paid for their outpatient mental health services, the edited variable pertaining to the principal payment source (AUPOPMOS) was assigned a legitimate skip code.

In questions pertaining to the specific places where respondents received inpatient or outpatient mental health services in the past 12 months, they were allowed to enter more than one place from the list where they received services. Similarly, respondents could select more than one response from lists of payment sources for their inpatient or outpatient services. Information for each of these mental health service locations or payment sources was

subsequently captured as a discrete variable. For example, information about receipt of inpatient mental health services in a psychiatric hospital, the psychiatric unit of a general hospital, the medical unit of a general hospital, another type of hospital, a residential treatment center, or some other type of facility was captured in the variables AUINPSYH, AUINPGEN, AUINMEDU, AUINAHSP, AUINRESD, and AUINSFAC, respectively. Documentation for these "enter all that apply" variables in the adult mental health service utilization module was as follows:

1 = Response entered, and

6 = Response not entered.

Codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to an entire list of variables if respondents did not know or refused to report what specific places they received mental health services or what specific sources paid (or would pay) for their mental health treatment. If an entire list was blank but respondents had previously reported receiving inpatient services (e.g., if respondents broke off the interview), then the lists of variables pertaining to locations for inpatient services or payment for inpatient services retained a code of 98 (i.e., "blank"); similar logic was applied if respondents reported receiving outpatient mental health services but the location or payment variables were entirely blank.

Adult respondents also were asked if there was any time in the past 12 months when they felt the need for mental health treatment but did not get services. Respondents who answered this question as "yes" then were asked to indicate the reason (or reasons) why they did not get treatment. Based on a review of what respondents had specified in quarter 1 of 2002 as leading "other" reasons for not getting mental health treatment, an additional question (ADMT27A) has been included in the module since 2003 to capture commonly endorsed other reasons for not getting treatment. Therefore, if respondents answered question ADMT26 as "yes" (i.e., perceived the need for mental health treatment), they were routed first to question ADMT27, where they could report up to nine reasons for not receiving mental health treatment, including "some other reason or reasons." If respondents chose the "some other reason or reasons" option in question ADMT27, they were routed next to question ADMT27A, where they could choose additional reasons for not getting mental health treatment; again, respondents were given the option in question ADMT27A to report "some other reason or reasons." If respondents chose this "other" response category in ADMT27A, they were asked to specify the *most important* other reason why they did not get treatment. Respondents since 2003 also have been asked to specify only the most important other reason for not getting mental health treatment.

Questions ADMT27 and ADMT27A were "enter all that apply" questions, in which respondents could choose more than one reason from each list. Each response option (e.g., "You couldn't afford the cost") was captured as a separate variable. The edited variables corresponding to the individual response options in ADMT27 were coded as 1 (Response entered) or 6 (Response not entered), if at least one item was chosen from the ADMT27 list.

In addition, the ninth response option in question ADMT27 ("some other reason or reasons") was considered principally to be a "toggle" to question ADMT27A. Therefore, separate

"some other reason or reasons" variables were not created to correspond to the last response category in ADMT27 and the last category in ADMT27A.

The edits described below have been implemented since 2003 to take into account the data from question ADMT27A.

- If respondents chose the ninth response option in ADMT27, any response that was entered from the ADMT27A series was coded as 1, and anything that respondents did not choose from the ADMT27A list was coded as 6.

- If respondents chose a response from ADMT27 but did not choose the ninth response category in ADMT27, the variables corresponding to the response categories in ADMT27A (i.e., AUUNOND through AUUNSOR) all were given a code of 6 (Response not entered), rather than being assigned "legitimate skip" codes. That is, ADMT27 and ADMT27A were considered together to be one big series of reasons.

- If respondents chose category 9 in question ADMT27, chose at least one reason from ADMT27A, but did not choose category 7 in ADMT27A (some other reason or reasons), the edited variable AUUNSOR (some other reason or reasons for not receiving mental health treatment) was assigned a code of 6. That is, it was inferred in this situation that the list of specific reasons in ADMT27A was adequate for capturing why respondents did not get mental health treatment. For example, if a respondent chose category 9 in ADMT27 and then chose only category 2 in ADMT27A ("You thought you could handle the problem without treatment"), it would be reasonable to infer that this response in ADMT27A was the only other reason why the respondent did not get treatment.

- If respondents chose response category 9 in question ADMT27, it was possible for them to answer ADMT27A as "don't know" or "refused" (i.e., did not know or refused to report what the other reasons were). When this occurred, the "some other reason" variable AUUNSOR was set to 1 (Response entered) in order to retain information that the respondent chose "some other reason or reasons" somewhere in the series. Remaining variables corresponding to the ADMT27A series retained codes of 94 ("don't know") or 97 ("refused").

- If respondents answered question ADMT27 as "don't know" or "refused," question ADMT27A was skipped. Therefore, the relevant code of 94 or 97 was propagated onto the variables corresponding to the ADMT27A list.

- If AUUNSOR had a value of 6 (see above), the "OTHER, Specify" variable AUUNRIMP was assigned a legitimate skip code. If AUUNSOR had a refusal code, that refusal was propagated onto AUUNRIMP.

- If AUUNSOR had a code of 1 when the respondent answered "don't know" or "refused" to the ADMT27A series, the "OTHER, Specify" variable AUUNRIMP retained a code of 98 (blank).

Consistent with the editing procedures in prior years, if AUUNMTYR indicated that there was not a time in the past 12 months when respondents felt the need for mental health treatment but did not receive services (AUUNMTYR = 2), the edited variables corresponding to

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questions ADMT27 and ADMT27A were assigned legitimate skip codes. Similarly, if AUUNMTYR was refused, that refusal was propagated onto the skipped variables from questions ADMT27 and ADMT27A.

Similarly, since 2004, respondents have been shown a list of alternative sources of mental health treatment in question ADMT29a (edited variable AUALTYR) and were asked whether they had received treatment, counseling, or support from other sources such as these in the past 12 months. Respondents who answered ADMT29a as "yes" were asked question ADMT29b, pertaining to specific sources of alternative mental health treatment in the past 12 months. ADMT29b also was an "enter all that apply" type of question. Therefore, the individual variables AUALACUP (acupuncturist or acupressurist), AUALCHIR (chiropractor), AUALHERB (herbalist), AUALSGRP (in-person support group or self-help group), AUALINET (Internet support group or chat room), AUALRELG (spiritual or religious advisor, such as a pastor, priest, rabbi), AUALHLIN (telephone hotline), AUALMASG (massage therapist), and AUALOTH (other source) pertaining to the individual sources of alternative treatment in ADMT29b were assigned codes of 1 or 6, as described above, when AUALTYR = 1 (i.e., "yes"). When AUALTYR = 2 (i.e., "no"), AUALCHIR through AUALOTH and AUALOTSP (the "OTHER, Specify" variable for other sources of alternative treatment) were assigned legitimate skip codes. When AUALTYR was refused, that refusal was propagated to AUALACUP through AUALOTSP. When AUALOTH was coded as 6 (Response not entered), a legitimate skip code was assigned to AUALOTSP.

Coding of AUALOTSP, regarding other alternative practitioners, was based on information from the National Institutes of Health's (NIH's) National Center for Complementary and Alternative Medicine (NCCAM) (http://nccam.nih.gov/health/whatiscam/). NCCAM groups complementary and alternative medicine (CAM) into the following categories:

- *Natural Products*: Herbalists fall under this type of therapy, along with use of dietary supplements and probiotics.

- *Mind and Body Medicine*: In addition to cognitive therapies and support groups, other forms of mind/body interventions include yoga, acupuncture, or personal action or self-care outside of a support group, such as meditation or prayer.

- *Manipulative and Body-Based Practices*: This category includes practitioners, such as chiropractors, massage therapists, and osteopaths.

- *Other CAM Practices*: These include (a) movement therapies (e.g., Pilates); (b) manipulation of energy fields that do not necessarily involve spinal or muscle/soft tissue manipulations (e.g., Reiki, magnet therapy, healing touch); (c) traditional healers (e.g., Native American healers); and (d) whole medical systems, which are complete systems of theory and practice that have evolved over time in different cultures apart from Western medicine (e.g., traditional Chinese medicine, homeopathy, naturopathy, Ayurvedic medicine from India).

In addition, the "OTHER, Specify" variable AUOPYRSP (other source of outpatient mental health treatment or counseling) had previously included a code 11 for support groups, self-help groups, or group counseling. However, AUALSGRP pertained only to support groups or self-help groups that were not commonly part of treatment or counseling from a mental health

professional. In contrast, group counseling likely would be administered from a mental health professional. For this reason, respondents who reported group counseling were assigned to a category in AUOPYRSP that has been present since 2003 (43 = Group counseling, self-help not specified). Only those respondents who reported receiving treatment from support groups or self-help groups retained a code of 11 for AUOPYRSP. Therefore, documentation for code 11 in AUOPYRSP has read as "Support group/self-help group" since 2004. Respondents who reported in AUOPYRSP that they had received treatment or counseling from a support group or self-help group were logically inferred in AUALSGRP to have received treatment from this source, if AUALSGRP had not already been coded as 1; this issue is described further in Exhibit 15.

In subsequent analyses of the adult mental health service utilization data, respondents were not classified as having received outpatient mental health treatment if the only "outpatient" location that they reported was a support group or self-help group. In contrast, group counseling was considered a valid other form of outpatient treatment. Therefore, to facilitate analysis of trends in adults' receipt of outpatient mental health treatment in the past 12 months, we also revised AUOPYRSP in 2003 to reclassify respondents into category 43 if they reported group counseling and to retain a code of 11 in AUOPYRSP only for those respondents who reported receiving services from a support group or a self-help group.

Exhibit 15 also discusses additional issues that were relevant to the editing of the adult mental health service utilization variables. For example, respondents could report receipt of outpatient mental health services in "some other place" and then specify a location (e.g., a private therapist's office) that they had not already chosen as a place where they received services. In these situations, respondents were logically inferred to have received services at that location. For example, if respondents had not already indicated that they received outpatient mental health treatment in the office of a private therapist, the edited variable AUOPTHER was assigned a code of 3 (Response entered LOGICALLY ASSIGNED).

3.11   Social Environment Module

As noted above, the social environment module was administered only to adults. This section included questions about respondents' changes of residence in the past 5 years, involvement in criminal or potentially criminal activities, attitudes about adults trying marijuana once or twice, and religious involvement. A shorter version of this module has been administered since 2005 with the deletion of items related to neighborhood cohesiveness. Consequently, the name of this module has been changed from "social and neighborhood environment" prior to 2005 to "social environment" since 2005.

As was the case in prior years, minimal processing of data was done to variables in this section. The primary data processing involved assignment of legitimate skip codes for respondents who were aged 12 to 17. Adults were asked all questions within the social environment module. As noted in Section 2.5, responses were replaced with codes for bad data if adult respondents keyed "1" (or multiple-digit responses of "1" if they occurred) to all of the questions that were asked in the module. Although codes of "1" would be plausible for all variables in this module, responses were set to bad data if the pattern of keying "1" wherever possible continued from prior modules.

Exhibit 15. Edit Issues Pertaining to the Adult Mental Health Service Utilization Variables

Issue	Edits Implemented
Respondents (Rs) did not choose an outpatient treatment location from the list of locations in question ADMT14, but that location was specified as a source of outpatient mental health treatment in the past 12 months in AUOPYRSP.	The edited variable corresponding to receipt of outpatient treatment at that location was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if an R did not report receiving outpatient mental health counseling at the office of a private therapist, reported receiving outpatient counseling in "some other place," and specified something to indicate that he or she received counseling from a private therapist, the edited variable AUOPTHER was assigned a code of 3.
Rs reported receiving mental health services in every inpatient or outpatient location in a list.	For inpatient treatment, all of the variables corresponding to the service locations were set to bad data, including the numbers of nights that Rs reported spending at these various inpatient treatment settings.
	For outpatient treatment, the edits depended on what Rs specified for the "other" outpatient location where they received mental health treatment.
	• If a valid "other" outpatient location was not specified, the entire series of outpatient variables (including the reported numbers of visits) was set to bad data.
	• If the R reported a valid "other" outpatient location where he or she received mental health services in the past 12 months, the data were retained to indicate that the R received services in this location. However, the remaining variables pertaining to receipt of outpatient mental health treatment were set to bad data.
Rs reported at least one of the following: (a) they stayed overnight as an inpatient for mental health treatment in a particular type of facility for 365 or 366 days in the past 12 months, or (b) they stayed overnight as an inpatient in more than one type of facility, and the total number of nights that they stayed as inpatients summed to 365 or more.	If Rs reported inpatient treatment in a particular location for 366 days in the past 12 months, the corresponding edited variable (e.g., AUNMPSYH for the number of nights hospitalized in a psychiatric hospital) was reset to 365. No other editing was done when these patterns occurred.
Rs did not choose a payment source for their mental health treatment but subsequently indicated that this was (or would be) the principal payment source.	The edited payment source variable was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if an R did not report that private health insurance paid or would pay for outpatient treatment but then reported that private insurance was (or would be) the principal source of payment, the edited variable AUPOPINS (private health insurance paid/will pay for any outpatient mental health treatment) was assigned a code of 3.
Rs reported a specific source of payment for their services but also reported that "No one paid because the treatment was free."	No editing was done because these responses were not necessarily inconsistent. Rs could have received services in more than one setting or from more than one provider, with some services being free and other services requiring payment.

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Exhibit 15. Edit Issues Pertaining to the Adult Mental Health Service Utilization Variables (continued)

Issue	Edits Implemented
Rs did not report a specific reason in question ADMT27 or ADMT27A for why they did not receive mental health treatment in the past 12 months, but they specified this as "some other reason."	The edited variable associated with that particular reason for not receiving mental health treatment was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if Rs specified that they did not get mental health treatment because they could not afford the cost and they had not chosen that reason in question ADMT27, the edited variable AUUNCOST (no mental health treatment because the R could not afford the cost) was assigned a code of 3. Similarly, if Rs specified that they did not get treatment because they thought they could handle the problem without treatment but had not chosen that reason in ADMT27A, the edited variable AUUNHNDL (no mental health treatment because the R thought he or she could handle the problem without treatment) was assigned a code of 3.
Rs did not choose a particular alternative service provider from the list of providers in question ADMT29b, but that provider was specified as a source of alternative mental health treatment or support in the past 12 months.	The edited variable corresponding to receipt of alternative treatment from that type of provider was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). For example, if an R did not report receiving treatment or support from a chiropractor in question ADMT29b, reported receiving treatment from some other provider, and specified something to indicate that he or she received treatment or support from a chiropractor, the edited variable AUALCHIR was assigned a code of 3.
Rs did not report receiving inpatient mental health treatment, or they reported receiving inpatient treatment but not at a location listed in question ADMT02. However, the Rs also specified treatment in a particular inpatient location as some other source of "alternative" treatment in AUALOTSP.	If a specific inpatient treatment location had not been reported in AUINPSYH through AUINRESD but the Rs specified treatment in that location in AUALOTSP, the edited inpatient variable was assigned a code of 5, where 5 = Response entered LOGICALLY ASSIGNED (from AUALOTSP). In addition, if AUINPYR, pertaining to receipt of any inpatient mental health treatment in the past 12 months, was not answered as "yes," AUINPYR was assigned a code of 3, where 3 = Yes LOGICALLY ASSIGNED.
Rs did not report receiving outpatient mental health treatment, or they reported receiving outpatient treatment but not at a location listed in question ADMT14. However, the Rs also specified treatment in a particular outpatient location as some other source of "alternative" treatment in AUALOTSP.	If a specific outpatient treatment location had not been reported in AUOPMENT through AUOPDTMT but the Rs specified treatment in that location in AUALOTSP, the edited outpatient variable was assigned a code of 5, where 5 = Response entered LOGICALLY ASSIGNED (from AUALOTSP). This code of 5 was designed to allow analysts to distinguish between logical inferences based on AUOPYRSP (see above) and those based on AUALOTSP. In contrast, if the R did not report receiving mental health treatment in an outpatient medical clinic, for example, a code of 3 in AUOPCLNC would mean that the R had not reported treatment in an outpatient medical clinic but reported receiving treatment in that location as some other outpatient location, from AUOPYRSP. In addition, if AUOPTYR, pertaining to receipt of any outpatient mental health treatment in the past 12 months, was not answered as "yes," AUOPTYR was assigned a code of 3, where 3 = Yes LOGICALLY ASSIGNED.

(continued)

Exhibit 15. Edit Issues Pertaining to the Adult Mental Health Service Utilization Variables (continued)

Issue	Edits Implemented
Rs did not report taking medication in the past 12 months that was prescribed for a mental health condition. However, the Rs also specified that they took medication as some other source of "alternative" treatment in AUALOTSP.	The edited variable AURXYR, pertaining to taking prescribed medication in the past 12 months, was assigned a code of 3, where 3 = Yes LOGICALLY ASSIGNED.
Rs did not report receiving treatment from any alternative providers in the past 12 months, or they reported receiving alternative treatment but not from a provider listed in question ADMT29b. However, the Rs also specified treatment from a particular alternative provider as some other source of "outpatient" treatment in AUOPYRSP.	If treatment from a specific alternative provider had not been reported in AUALACUP through AUALMASG but the Rs specified treatment from that location in AUOPYRSP, the edited alternative treatment variable was assigned a code of 5, where 5 = Response entered LOGICALLY ASSIGNED (from AUOPYRSP). This code of 5 was designed to allow analysts to distinguish between logical inferences based on AUALOTSP (see above) and those based on AUOPYRSP. For example, if the R did not report receiving mental health treatment from a chiropractor but reported receiving outpatient treatment from a chiropractor in AUOPYRSP, the edited variable AUALCHIR (mental health treatment from a chiropractor in the past 12 months) was assigned a code of 5. In comparison, a code of 3 in AUALCHIR would mean that the R had not reported treatment from a chiropractor but reported receiving that treatment from some other provider in AUALOTSP. In addition, if AUALTYR, pertaining to receipt of any alternative mental health treatment in the past 12 months, was not answered as "yes," AUALTYR was assigned a code of 3, where 3 = Yes LOGICALLY ASSIGNED.

3.12 Parenting Experiences Module

The parenting experiences module was intended to be administered only in dwelling units (DUs) where (a) two people had been selected for an interview, (b) a 12 to 17 year old had been selected for an interview (regardless of whether the youth completed the interview), and (c) the respondent being interviewed was the parent or legal guardian of the 12 to 17 year old who also was selected for an interview. Editing of the parenting experiences data first involved editing the field interviewer (FI) checkpoint variables (FIPE1, FIPE2, and FIPE3) completed by the interviewers toward the beginning of the interview.[23] The variables in the parenting experiences module then were edited based on the final values assigned to the edited FIPE variables.

The content of this module did not change in 2011. However, a feature has been included in the instrument since 2003 that locked interviewers and respondents out of the audio computer-assisted self-interviewing (ACASI) section of the interview, once that section had been completed. Interviewers could go back and change information in core demographics questions, but the computer-assisted interviewing (CAI) program did not reroute respondents back into the

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[23] "Checkpoint" refers to an item completed by the interviewer about the location of the sampled dwelling unit (SDU) or characteristics of the sample within the SDU; these checkpoints are not seen by the respondent and are used to determine what the respondent is asked in subsequent sections of the interview.

ACASI section. This "lockout" feature did not affect how the FI checkpoint data were edited but did affect the editing of the parenting experiences data. Issues associated with this ACASI "lockout" are described in Section 3.12.2.

3.12.1 Editing of the Field Interviewer Checkpoint Variables

Interviewers were instructed to enter into these checkpoints the relevant information described above for determining whether respondents were eligible to be administered the parenting experiences questions. These checkpoint variables were edited for consistency with the pair-selection and pair-respondent sample variables (PAIRSEL and PAIRRESP, respectively). These checkpoints were interviewer-administered and not self-administered. Editing of these checkpoints was related to the edits for the parenting experiences questions (which were self-administered), however, because the final values in the edited checkpoints were critical for determining whether respondents were in fact eligible to be asked the parenting experiences questions.

Editing of the FIPE1 Checkpoint (and Related Edits). First, the FIPE1 variable was edited for consistency with the pair-selection variable PAIRSEL. Specifically, this checkpoint pertained to whether two people were selected for an interview at that DU. There were no situations in 2011 when two people were interviewed at a given DU without two people having first been selected. Therefore, editing FIPE1 involved reviewing only information on the number of people selected for an interview at that DU based on PAIRSEL.

If the pair-selection data indicated that two people were selected from that DU, then FIPE1 should have been answered as "yes." Therefore, if the pair-selection data indicated that two people were selected and FIPE1 was not answered as "yes," a code of 3 (i.e., Yes LOGICALLY ASSIGNED) was assigned to the edited FIPE1 variable (SKPX2PER). Similarly, if the pair-selection data indicated that only one person was selected from that DU, then FIPE1 should have been answered as "no." Therefore, if the pair-selection data indicated that only one person was selected and FIPE1 was not answered as "no," the editing procedures logically inferred that "no" should have been the answer. If the edited version of FIPE1 indicated that two people were not selected for an interview, then the edited versions of FIPE2 (SKPX1217) and FIPE3 (SKPXPRNT) were assigned legitimate skip codes. If data existed in FIPE2 or FIPE3 when the edited SKPX2PER was inferred to be answered as "no," SKPX1217 and SKPXPRNT were assigned codes of 89 (i.e., LEGITIMATE SKIP Logically assigned) to signify that these two checkpoints should have been skipped.

Editing of the FIPE2 Checkpoint (and Related Edits). Next, FIPE2 was edited for consistency with PAIRSEL, PAIRRESP, and the age of the respondent. Specifically, this checkpoint pertained to whether a 12 to 17 year old was selected for an interview at that DU, *regardless of whether the selected youth actually responded*. Edits of the FIPE2 checkpoint data involved review of both the pair-selection data (PAIRSEL) and the pair-respondent data (PAIRRESP) in case either indicated that a 12 to 17 year old was selected or interviewed.

The age of the respondent was taken into account because interviewers were skipped past this checkpoint if respondents were aged 12 to 17. Therefore, the edited version of FIPE2

(SKPX1217) was assigned legitimate skip codes (i.e., 99 if FIPE2 was blank and 89 if FIPE2 was not blank) when the respondent was a youth.

The remaining edits for FIPE2 were implemented when the respondent was an adult. If both PAIRSEL and PAIRRESP indicated that a 12 to 17 year old was neither selected nor interviewed, it reasonably could be inferred that FIPE2 should have been answered as "no." If FIPE2 was not already answered as "no," the edits assigned a code to SKPX1217 to indicate that a response of "no" was logically inferred. This included situations in which the pair-selection data indicated that a 12 to 17 year old was not selected, and a completed interview was obtained from only one respondent, who was not aged 12 to 17, regardless of whether PAIRSEL and PAIRRESP were totally consistent. For example, if the pair-selection data indicated that an 18 to 25 year old and a 26 to 34 year old were selected, but a single interview was obtained from a 35 to 49 year old, the pair-selection and pair-respondent data were not totally consistent, but neither would suggest that a 12 to 17 year old should have been selected. When the edited SKPX1217 indicated that a 12 to 17 year old was not selected, including situations described above in which the edits inferred that no 12 to 17 year old was selected, then legitimate skip codes were assigned to the edited variable SKPXPRNT corresponding to FIPE3 (code of 99 if FIPE3 was blank; or 89 if it was not blank).

If either PAIRSEL or PAIRRESP indicated that a 12 to 17 year old was selected or interviewed, it could be inferred that FIPE2 should have been answered as "yes." Therefore, if FIPE2 was not already answered as "yes," a special code was assigned to SKPX1217 to indicate that a response of "yes" was logically inferred. This included the following situations: (a) PAIRSEL indicated that a 12 to 17 year old was selected, and PAIRRESP indicated that an interview was obtained from a 12 to 17 year old, regardless of whether PAIRSEL and PAIRRESP matched exactly (e.g., a 12 to 17 year old and a 26 to 34 year old were selected, but interviews were obtained from a 12 to 17 year old and a 35 to 49 year old); and (b) PAIRSEL indicated that a 12 to 17 year old was selected, but a single interview from an adult was obtained at the DU, regardless of whether the adult category from PAIRSEL matched the category in PAIRRESP (e.g., a 12 to 17 year old and 26 to 34 year old were selected, but a single interview was obtained from a 35 to 49 year old). In the latter situation, the respondent result (from PAIRRESP) was not totally consistent with what would be expected based on the pair selection, but PAIRRESP would not provide any information to directly contradict the indication from PAIRSEL that a 12 to 17 year old was selected.

If PAIRSEL and PAIRRESP disagreed when two people were interviewed, with one indicating the selection or interview of a 12 to 17 year old but the other variable did not, then special codes were assigned to SKPX1217. When this type of inconsistency occurred, a code of 11 was assigned to SKPX1217 when FIPE2 was originally answered as "yes," and a code of 12 was assigned when FIPE2 was originally answered as "no."

Suppose, for example, that PAIRSEL indicated that a 12 to 17 year old and a 35 to 49 year old were selected for the interview, but PAIRRESP indicated that an 18 to 25 year old and a 35 to 49 year old were actually interviewed, with the interviewer keying FIPE2 = 1 in the adult's interview (i.e., "yes," a 12 to 17 year old was selected for an interview at this DU). In this situation, the "yes" in FIPE2 was consistent with who was *selected* (according to the information provided by the screening respondent), but it was not consistent with the ages provided by the

respondents themselves. Therefore, the edited variable SKPX1217 would be set to a value of 11 in this example.

This latter edit preserved the information that the interviewer originally entered but also denoted that an inconsistency existed between PAIRSEL and PAIRRESP. This edit also was designed to preserve any possible parenting experiences data when both FIPE2 and FIPE3 (see below) were answered as "yes" but there was an inconsistency between PAIRSEL and PAIRRESP. When an inconsistency occurred between PAIRSEL and PAIRRESP, an analyst would have discretion about whether to use parenting experiences data in an analysis.

Editing of the FIPE3 Checkpoint. This checkpoint pertained to whether the respondent was the parent or legal guardian of the 12 to 17 year old who also was selected to be interviewed at that DU. A refinement to the skip logic that has been in place since the 2001 survey skipped respondents out of both FIPE2 and FIPE3 when respondents were 12 to 17, and these youths would not have an opportunity to be routed into the parenting experiences module. Therefore, when FIPE3 had been skipped because the respondent was 12 to 17, the edited FIPE3 variable SKPXPRNT was assigned a legitimate skip code.

No further editing of FIPE3 was done when PAIRSEL indicated that a 12 to 17 year old was selected and PAIRRESP had some result *other than* that of two adults having been interviewed at that DU. The rationale for this approach was that FIPE3 was based on who the actual respondent was, provided that a 12 to 17 year old was selected. For example, if PAIRSEL indicated that a 12 to 17 year old and a 26 to 34 year old were selected, but a 35 to 49 year old and a 12 to 17 year old were interviewed, and FIPE3 was answered as "yes" (i.e., this adult respondent is the parent of the youth who was selected), that 35- to 49-year-old respondent may indeed have been a parent or legal guardian of the youth who was selected. This principle also would have held if the selected youth did not respond. Therefore, any data that were present in the parenting experiences module would be preserved.

In contrast, the following situations could occur when FIPE3 was inconsistent with either PAIRSEL or PAIRRESP: (a) PAIRSEL indicates that a youth/adult pair was selected, but two adult interviews were obtained at that DU; or (b) PAIRRESP indicated that a youth/adult pair was interviewed, but PAIRSEL indicated that an adult/adult pair was selected. When either of these inconsistencies occurred, a code of 11 was assigned to SKPXPRNT when FIPE3 was originally answered as "yes," and a code of 12 was assigned when FIPE3 was originally answered as "no."

Suppose, for example, that PAIRSEL indicated that an 18 to 25 year old and a 35 to 49 year old were selected for the interview, but PAIRRESP indicated that a 12 to 17 year old and a 35 to 49 year old were actually interviewed, and the interviewer keyed FIPE2 = 1 and FIPE3 = 1 in the adult's interview. Stated another way, the interviewer indicated that "yes," a 12 to 17 year old was selected for an interview at this DU, and "yes," this 35- to 49-year-old respondent was the parent of the 12- to 17-year-old youth who was selected. In this situation, FIPE3 was consistent with PAIRRESP but not PAIRSEL. Furthermore, based on who was interviewed at that DU, the 35 to 49 year old may indeed be the parent of the 12 to 17 year old who also was interviewed at that DU. In this situation, the edited SKPXPRNT would be set to a value of 11 to denote that this type of inconsistency has occurred. Again, this edit would preserve any possible

parenting experiences data—especially in situations in which an adult/child *respondent* pair was obtained.

3.12.2 Editing of the Variables in the Parenting Experiences Module

The variables in the actual parenting experiences module were edited according to the final values assigned to SKPX2PER, SKPX1217, and SKPXPRNT based on the edits described above. In particular, if the above three variables indicated that the respondent was not eligible to be administered the parenting experiences questions, then the edits assigned the appropriate legitimate skip codes to the parenting experiences variables. This included replacing blank values with legitimate skip codes when a code of 12 had been assigned SKPXPRNT and the parenting experiences module has been skipped. The rationale for this latter edit was that even if FIPE3 was answered as "no" when PAIRSEL and PAIRRESP were inconsistent, the adult respondent still may not have been the parent or legal guardian of the youth who also was selected for an interview at that DU.

Conversely, if a respondent had been skipped out of the parenting experiences module and the edited FIPE variables SKPX2PER, SKPX1217, or SKPXPRNT indicated that the respondent was *potentially* eligible to be administered the parenting experiences questions (i.e., the respondent skipped the module based on the original answers in the FIPE questions, but other data suggested that the respondent may have been eligible to be asked these questions), then the edited parenting experiences variables retained a value of "blank." For example, if FIPE2 had been keyed as "no" and it was inferred for SKPX1217 that a 12 to 17 year old was selected (i.e., SKPX1217 = 3), then FIPE3 and the parenting experiences questions also would have been skipped. In this situation, the respondent's eligibility or ineligibility to be administered the parenting experiences questions could not be determined because the field interviewer (FI) was not routed to the final checkpoint. Therefore, it could not be determined whether the respondent should have been asked the parenting experiences questions or should have been skipped.

As noted previously, the interview has included a "lockout" feature since 2003 that does not allow interviewers or respondents to go back into the ACASI sections and change their answers once that section of the interview had been completed. However, interviewers could go back to the beginning of the interview after respondents had been administered the ACASI sections and change FIPE1 through FIPE3 in a manner that made the final value in FIPE3 inconsistent with the presence of data in the parenting experiences module. Specifically, FIPE3 ("Is this respondent the parent or legal guardian of the 12 - 17 year old child who was selected for an interview?") could be answered as something other than "yes," with at least some data existing in the parenting experiences module. According to the CAI logic, however, the module was to be administered only when the interviewer indicated that the respondent was the parent or guardian of the selected 12 to 17 year old (i.e., FIPE3 = 1).

The following is an example of a scenario where parenting experiences data could exist when FIPE3 was not answered as "yes." If the FI initially answered FIPE1 through FIPE3 as "yes" (i.e., two people were selected at that DU, a 12 to 17 year old was selected at that DU, and the respondent is the parent/guardian of that 12 to 17 year old), the respondent would be routed through the ACASI parenting experiences questions. In the household roster section of the "back-end" demographics section, however, a "hard error" would be triggered if the second

person selected to be interviewed was not identified in the roster. Before the interview could proceed, the interviewer would need to change the information in the household roster to make it consistent with the information in FIPE1 through FIPE3, or else the interviewer would need to go back and change the information in FIPE1 through FIPE3 to make it consistent with the roster. In particular, an interviewer could resolve this inconsistency by going back and changing one of the answers in FIPE1 through FIPE3 from "yes" to "no." Because the interviewer and respondent are locked out of ACASI, however, the parenting experiences data would be saved as it had been entered originally. The instrument development team was able to reproduce this type of scenario to yield a result where FIPE3 was not answered as "yes" but data existed in one or more questions in the parenting experiences module.

If interviewers changed the value in FIPE3 to "no," this would not present a problem in editing the parenting experiences data because the corresponding edited variable SKPXPRNT indicated that the respondent was not the parent or legal guardian of the youth who was selected for an interview. Consequently, parenting experiences data were edited to infer that these respondents should have legitimately skipped the parenting experiences module. Any data that existed in the parenting experiences module were overwritten with codes of 89 (or 9989, etc.).

However, changes made by the interviewer to FIPE1 through FIPE3 that resulted in SKPXPRNT having a final value of 98 (i.e., blank) were more problematic. Because the edits for SKPX2PER, SKPX1217, and SKPXPRNT were consistent with the pair-selection and pair-respondent data (PAIRSEL and PAIRRESP, respectively), the decision was made to retain the value of 98 in SKPXPRNT. Therefore, any nonblank values that existed in the parenting experiences module were replaced with codes for bad data.

One set of variables involved skip logic within the parenting experiences module. Specifically, respondents were skipped out of question pe04 (length of most serious discussion about the dangers of tobacco/alcohol/other drug use) when question pe03 had a value of 1 (i.e., talked with child 0 times in the past year about the dangers of tobacco/alcohol/other drug use), or if pe03 was answered as "don't know" or "refused." Standard procedures for assigning legitimate skip codes or propagating refusal codes were implemented in the edited version of question pe04 (PXSERDIS) depending on the response in pe03 (edited variable PXKIDYR).

Parents were asked to report the birth date of the youth who was selected for an interview at that DU (question pe01). However, the birth year that respondents could enter for the youth in question pe01 was restricted to ages that would be more consistent with selection of a 12 to 17 year old (but also allowed for birth dates that would include 18 year olds, in case a 17-year-old respondent just recently had a birthday). Thus, respondents were prevented from entering birth dates that would be extremely inconsistent with selection of a 12 to 17 year old (such as entry of the current interview year for the birth year).

A refinement has been implemented for the parenting experiences edit logic since 2003 to take into account the situation in which all remaining parenting experiences questions had been skipped because the respondent did not provide a date of birth for the selected youth in question pe01 or did not provide an age for the youth in question pe01b. Prior to 2003, the skipped parenting experiences variables were assigned legitimate skip codes. Since 2003, the parenting experiences variables have retained codes for "blank" when this pattern occurred. The effect of

this refinement in 2003 was to make the frequencies of legitimate skip values in PXCHCIG (corresponding to question pe02) and subsequent parenting experiences variables agree with the total count of codes of 2 or 12 (i.e., "no"), or 89 or 99 (i.e., legitimate skip) in SKPXPRNT.

The CAI program also calculated an age for the youth who was selected for an interview based on the youth's date of birth (as reported by the parent) and the interview date at the start of the parenting experiences module. Respondents were asked to confirm this age (question pe01a). If parents did not confirm the age that the CAI program calculated for the youth, they were asked to provide a corrected age for the youth who was selected for an interview (question pe01b). Similarly, if respondents did not know or refused to report the date of birth of the selected youth, they were asked to report an age in question pe01b without having to indicate the youth's date of birth.

This information was captured in the created variable PXCHLDAG. Specifically, PXCHLDAG contained the age based on the reported date of birth for the youth and the interview date (if respondents confirmed that this age was correct), or else PXCHLDAG contained the age supplied by the respondent from question pe01b. If respondents supplied a corrected age for the youth in question pe01b that was between 12 and 18 and it mismatched the age of the youth that was calculated from the birth date and interview date information, the edited variables containing the birth date information for the youth (PXBMONTH, PXBDAY, and PXBYR) were assigned bad data values. If respondents answered question pe01b as "don't know" or "refused" when they were asked to provide a corrected age for the selected youth, that response of "don't know" or "refused" was assigned to PXCHLDAG. In addition, if respondents answered question pe01a as "don't know" or "refused" when they were asked to confirm the age of the youth who was selected for the interview, we retained the age for the youth in PXCHLDAG that the CAI program had previously calculated (see above). When values in parenting experiences variables had been set to bad data because SKPXPRNT was blank, PXCHLDAG also was assigned a code for bad data.

A recoded variable (PXCMPAGE, for "compare age") also was created that compared the selected youth's age (from PXCHLDAG) with the respondent's age for the second interview conducted at that DU. If two interviews were obtained at that DU and a 12 to 17 year old was selected for an interview, then PXCMPAGE was calculated as the absolute value of the difference between PXCHLDAG and the actual age of the second respondent, within defined categories (i.e., 0 year difference in ages; 1 year difference in ages; 2 year difference in ages; 3 to 4 year difference in ages; and 5 or more year difference). If the adult respondent answered "don't know" or "refused" to the question about the youth's date of birth, or if the youth's date of birth information was set to bad data because of invalid dates, these codes were reflected in PXCMPAGE.

For the large majority of cases where an interview was obtained from a 12 to 17 year old, PXCMPAGE indicated no difference between the age based on the date of birth reported by the parent and the youth's age recorded in the second interview at that DU. Nevertheless, information about more extreme differences in ages as recorded by PXCMPAGE (e.g., a difference of 2 or more years between the two ages) could be used by analysts in deciding whether to use the parenting experiences data in an analysis. When the second interview was from an 18 year old, PXCMPAGE was assigned a value of 18. When the second interview was

from an adult older than age 18 (i.e., and the parent was supposed to be reporting about a 12 to 17 year old), the edit program assigned a code of 50 to PXCMPAGE. Again, these codes were designed to give analysts discretion in using or disregarding parenting experiences data when the second interview at a DU came from an adult.

If a 12 to 17 year old was supposed to be selected at a given DU but only the adult was interviewed, PXCMPAGE was assigned a code of 93. This code was assigned because there were no data to corroborate the youth's date of birth reported by the parent.

If the edited FIPE variables from above indicated that the respondent was not eligible to be administered the parenting experiences questions, then PXCMPAGE was assigned a code of 99 (i.e., legitimate skip). That included situations in which the edited FIPE3 was assigned a code of 12 because of an inconsistency between PAIRSEL and PAIRRESP, and the parenting experiences module had been skipped (see above). Otherwise, if the parenting experiences module was all blank or if PXCMPAGE was undefined for some other reason, then PXCMPAGE was assigned a code of 98. This code of 98 in PXCMPAGE meant "other missing." This code of 98 also was applied in PXCMPAGE when SKPXPRNT was blank and parenting experiences data had been replaced with codes for bad data.

3.13 Youth Experiences Module

As noted above, the youth experiences module was administered only to respondents aged 12 to 17. This section included questions about changes of residence in the past 5 years; school enrollment and related issues (e.g., opinions about the importance of assigned schoolwork) in the past 12 months, including homeschooling; other social and family characteristics (e.g., substance use behaviors of other students or friends, personal attitudes about substance use, parental attitudes about substance use); people with whom the youth could confide about a serious problem; exposure to alcohol- and other drug-related prevention messages in school or outside school; and personal behaviors (e.g., involvement in criminal or potentially criminal activities, involvement in extracurricular activities) that might be associated positively or negatively with the use of alcohol or other drugs. The youth experiences module also included questions about youths' religious involvement in the past 12 months and opinions about religious issues; these questions had been interviewer-administered prior to 2001. The content of this module did not change relative to 2008.

Minimal processing of data was done to variables in this section. The primary data processing involved assignment of legitimate skip codes based on the CAI routing logic. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 18 or older, and (b) assignment of legitimate skip codes to youths' data based on routing logic within the youth experiences module.

Some special issues were encountered in editing the variables corresponding to question YE22, which pertained to people whom youths could turn to if they had a serious problem. Specifically, youths were asked to enter all the different types of people to whom they could turn to (e.g., a parent, a friend). This question also included a response category for youths who felt that there was no one they could talk to about a serious problem.

For variables indicating the youths' relationships to people whom they could turn to if the youths had a serious problem, the following codes were assigned through logical editing:

1 = Response entered, and

6 = Response not entered.

If the entire list of responses was blank (e.g., if a youth broke off the interview before getting to these questions), the edited variables retained a code of "blank."

Youths could indicate that there was no one they could talk to about a serious problem but then indicate that they could talk to one or more of the people or types of people in the list from question YE22. In this situation, the variable pertaining to the first item in the list ("There is nobody I can talk to about a serious problem") was assigned a code of 11 (if that response was chosen along with another response from the list). Similarly, codes of 11 were assigned to the edited relationship variables (e.g., my mom, my dad) when they were chosen along with the response that there was nobody that the youth could talk to.

3.14   Mental Health Module

From 2004 to 2007, the mental health module for adults consisted of two primary components. First, a 12-month Kessler-6 (K6) distress scale was administered, then questions about lifetime and 12-month major depressive episode (MDE) were asked. Since 2008, however, the K6 questions have collected data on distress in the past 30 days and in the past 12 months (see Section B.4.5 in the 2008 national findings report for details).[24] Respondents were routed into the 12-month version of the K6 if they reported having a period in the past 12 months when they felt more depressed, anxious, or emotionally stressed than they felt in the past 30 days.

In 2008, adult respondents also were administered one of two impairment scales—an abbreviated World Health Organization Disability Assessment Schedule (WHODAS) (see Section B.4.6 in the 2008 national findings report for details) or the Sheehan Disability Scale (SDS)—and suicidal ideation questions. These impairment and suicide questions were placed after the K6 questions, but before the MDE questions. A random split-sample design was implemented in 2008 for adults where respondents in sample A were administered the WHODAS scale and respondents in sample B were administered the SDS. All adult respondents were administered the suicidal ideation questions after the impairment items, but before the MDE items. Starting with 2009, the SDS items were no longer included in the mental health module, and the WHODAS has been used to assess impairment.

Apart from propagating refusals from the lead questions for the WHODAS, minimal processing of data was done to the mental health variables. The primary data processing involved assignment of legitimate skip codes for respondents who were aged 12 to 17. Legitimate skip codes also were assigned to data from adults based on other skip logic within the module. If

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[24] Office of Applied Studies. (2009). *Results from the 2008 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 09-4434, NSDUH Series H-36). Rockville, MD: Substance Abuse and Mental Health Services Administration.

adults broke off the interview before they reached the WHODAS questions, then all of the WHODAS variables retained a code of 98 (i.e., "blank").

3.15   Adult and Adolescent Depression Modules

The adult and adolescent depression modules have been present in the interview since 2004. Questions in these modules were based on those used in Dr. Ronald Kessler's latest National Comorbidity Survey (NCS) (http://www.hcp.med.harvard.edu/ncs/). These new modules were designed to produce lifetime and 12-month prevalence estimates of major depressive episode (MDE), severity of 12-month MDE, age at first MDE, lifetime number of episodes, current and 12-month treatment, and the respondent's perception of treatment effectiveness. The module used for adults was based on Dr. Kessler's NCS Replication (NCS-R), and the adolescent module was based on the NCS Adolescent (NCS-A).

There were some differences in wording between related items in these modules, such as use of simpler wordings for the adolescent depression questions. For example, question AD17 in the adult depression module asked respondents how "severe" their "emotional distress" was during their worst periods lasting 2 weeks or longer when they had problems with their mood. The corresponding question YD17 from the adolescent depression module asked adolescents how "strong" their "bad feelings" were during these periods. Despite these differences in wording, we used similar naming conventions for the variables in these two modules. For example, the edited variable corresponding to question AD17 from the adult depression module was ADWRDST (where WR = worst period, and DST = distress), and the edited variable corresponding to question YD17 from the adolescent depression module was YOWRDST, even though YD17 did not ask about distress. Thus, the only difference in the names for analogous edited variables in these modules was in the use of the two-letter prefix that defined which module a given variable came from: "AD" for variables from the adult depression module and "YO" for adolescent depression variables.

There also were differences in how the CAI program created indicators of MDE for adolescents and adults based on differences in the NSC-A and NCS-R. Specifically, the criteria for defining respondents as having the symptom of loss of interest or pleasure in most things was less restrictive for adolescents than for adults. In particular, the DSM-IV[25] criteria for MDE place more emphasis for adolescents on the cognitive aspects of depression, such as boredom or apathy, rather than on somatic or physical complaints, such as sleep loss, that may be manifest in adults with MDE. For example, somatic or physical complaints, such as sleep loss, may be due to factors during adolescence other than depression. Consequently, somatic or physical complaints that may be associated with MDE among adults function less well as indicators of MDE among adolescents than do cognitive indicators. For this reason, the CAI logic gave adolescents additional opportunities to be classified as having the symptom of loss of interest based on their answers to questions that were not taken into account in classifying adults as having this symptom.

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[25] American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (DSM-IV) (4th ed.). Washington, DC: Author.

Despite these differences between the adult and adolescent depression modules, the basic logic for asking questions was similar between the two modules. Therefore, the remainder of this section discusses edits for both of these modules together. Except where differences are discussed in terms of how variables were edited for these modules, the same basic edits discussed below applied to variables in both modules.

An important aspect of the processing of variables in these modules consisted of assigning legitimate codes based on the routing logic within these modules. In particular, adults were assigned legitimate skip codes to the edited variables in the adolescent depression module, and adolescents were assigned legitimate skip codes to the edited variables in the adult depression module.

As an additional example, respondents were asked a series of questions to identify changes in appetite or weight. They first were asked whether they had a much smaller appetite than usual during the most recent time when their problems were the worst (questions AD26a and YD26a, corresponding to edited variables ADWRELES and YOWRELES, respectively). If respondents answered the relevant question as "yes," they were skipped out of subsequent questions about increases in appetite and weight gain. If respondents reported having less appetite, they were asked whether they lost weight without trying to, and if so, whether their weight loss was due to them being sick or on a diet; respondents who indicated that their weight loss was due to sickness or a diet were not asked to report how many pounds they lost in weight.

Conversely, if respondents did not report in AD26a/YD26a that they had less appetite than usual, they were asked whether they had a much larger appetite than usual (questions AD26b and YD26b, corresponding to edited variables ADWREMOR and YOWREMOR, respectively). Respondents who reported that they had a much larger appetite were skipped out of remaining questions related to weight loss. These respondents subsequently were asked whether they gained weight without trying to. If respondents reported gaining weight without trying to, the CAI program asked follow-up questions to rule out weight gains due to growth (for respondents aged 21 or younger) or pregnancy (for females); respondents who indicated that they gained weight because they were growing or because they were pregnant were not asked to report how many pounds they gained. Thus, editing of the adult and adolescent depression variables related to changes in appetite or weight involved assignment of legitimate skip codes to these variables based on the routing logic for the corresponding questions.

As noted in Section 2.2, we generally did not assign legitimate skip codes if a lead question was answered as "don't know" or "refused." However, we made important exceptions to this principle in our editing of the adult and adolescent depression variables due to our consideration of other aspects of the routing logic in these modules. In particular, the lead screening questions ASC21 through ASC23 (corresponding to edited variables ADDPREV, ADDSCEV, and ADLOSEV) and YDS21 through YDS23 (corresponding to edited variables YODPREV, YODSCEV, and YOLOSEV) at the beginning of these modules had a special skip logic. If a particular lead question was not answered affirmatively, this logic routed respondents into follow-up questions that could screen respondents into further questions about depression.

In the adult depression module, for example, if question ASC21[26] was answered as "don't know" or "refused," the subsequent question AD01[27] was skipped. In this situation, however, respondents were routed to follow-up question ASC22.[28] Thus, if respondents answered question ASC21 "don't know" or "refused" but they answered question ASC22 as "yes," they were still eligible to be administered the remainder of the adult depression module, depending on how they answered subsequent questions.

Therefore, we assigned legitimate skip codes (where relevant) to the variables corresponding to questions AD01 through AD09 in the adult depression module (edited variables ADDPDISC, ADDPLSIN, ADDSLSIN, and ADLSI2WK) if at least one item from questions ASC21, ASC22, or ASC23 was answered as "yes" or "no." For example, if question ASC21 was answered as "don't know," and question ASC22 or ASC23 was answered as "yes" or "no," the editing procedures assigned a legitimate skip code to ADDPDISC, corresponding to question AD01. Similarly, if question ASC22 was answered as "don't know" but ASC23 was answered as "yes" or "no," the editing procedures assigned a legitimate skip code to ADDSLSIN, corresponding to question AD02. In turn, if ADDPDISC, ADDPLSIN, and ADDSLSIN all were answered as "no" or had legitimate skip codes after the above edits, then ADLSI2WK (corresponding to AD09) was assigned a legitimate skip code. The values in ADDPDISC, ADDPLSIN, ADDSLSIN, and ADLSI2WK determined whether subsequent variables were assigned legitimate skip codes. The logic provided in this example for adult depression also was applied to the variables in the adolescent depression module.

As discussed in Section 2.3, if a lead question that governs a skip pattern was refused, the editing procedures typically "propagated" that refusal from the lead question to the variables that had been skipped. For most of the adult and adolescent depression variables, however, we did not perform this refusal propagation. The CAI program contained routines for scoring the symptom indicators for MDE. The CAI program coded the symptom score variable DSMMDEA2 as 2 if the sum of the numbers of codes of 1 (i.e., has symptom), "don't know," or "refused" in the individual symptom indicators was less than 5. Therefore, we wanted to avoid a situation in which propagating refusals might lead to a different overall score if analysts were to calculate DSMMDEA2 based on edited variables.

The exception to this rule of not propagating refusals in the adult and adolescent depression modules concerns the final questions regarding receipt of counseling from a medical doctor or other professional about the respondents' symptoms of depression (e.g., questions AD86 through AD86f in the adult depression module). For example, if question AD86 (edited variable ADSEEDOC) was refused, the editing procedures still propagated that refusal code to the skipped variables that were dependent on AD86.

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[26] Question ASC21 asked, "Have you ever in your life had a period of time lasting several days or longer when most of the day you felt sad, empty, or depressed?"

[27] If respondents answered question ASC21 as "yes," they were asked question AD01. Question AD01 asked, "During times when you felt sad, empty, or depressed most of the day, did you ever feel discouraged about how things were going in your life?"

[28] Question ASC22 asked, "Have you ever had a period of time lasting several days or longer when most of the day you were very discouraged about how things were going in your life?"

In addition, the CAI program created MDE symptom variables and overall MDE symptom scores for adults and adolescents. Exhibit 16 lists the final, edited variables that were created from these symptom variables and overall symptom scores. For each variable, we also provide an explanation of the meaning of that variable. The only editing that was done to these variables in Exhibit 16 was to assign legitimate skip codes based on the respondent's age (i.e., 12 to 17 or 18 or older). Thus, the values that were created by the CAI program were preserved in the variables listed in Exhibit 16.

Exhibit 16. Depression Symptom and Score Variables

Adult Depression Variable	Adolescent Depression Variable	Explanation
AD_MDEA1	YO_MDEA1	Respondent (R) felt sad, empty, depressed, or discouraged most of the day.
AD_MDEA2	YO_MDEA2	R lost interest or pleasure in most things.
AD_MDEA3	YO_MDEA3	R had changes in appetite or weight (not due to growth, pregnancy, illness, or dieting).
AD_MDEA4	YO_MDEA4	R had sleep problems.
AD_MDEA5	YO_MDEA5	Others noticed that the R was restless or lethargic.
AD_MDEA6	YO_MDEA6	R felt tired or low on energy nearly every day.
AD_MDEA7	YO_MDEA7	R felt worthless nearly every day.
AD_MDEA8	YO_MDEA8	R was unable to concentrate or make decisions.
AD_MDEA9	YO_MDEA9	R was suicidal (had thoughts of suicide, made plans, or made an attempt).
ADSMMDEA	YODSMMDE	Score of symptom indicators 1 through 9 from above.

Relatively little additional editing was done to the adult and adolescent depression variables, aside from assigning legitimate skip codes. Additional editing issues that were relevant to these modules are described below.

If respondents reported a period of time when their symptoms or problems were the worst, they were asked to report how old they were when this time started (edited variables ADWRAGE for adults and YOWRAGE for adolescents). In addition, if respondents scored as positive for MDE (edited variables ADSMMDEA and YODSMMDE) and they reported that these problems caused some interference with their work, social life, or relationships, they were asked to report the age at which these problems first occurred (edited variables ADPBAGE and YOPBAGE). If respondents reported an age of onset in any of these variables that was greater than their current age, these variables were set to bad data. For adults, if ADWRAGE had been set to bad data and the respondent's original answer was age 22 or greater, the respondent was skipped out of the question about weight gain because the respondent was growing (edited variable ADWRGROW). Therefore, if ADWRAGE had been set to bad data, ADWRGROW retained a code of blank.

As noted previously, if respondents reported gaining or losing weight and these gains or losses could not be attributed to factors other than depression (e.g., growth, pregnancy, dieting), respondents were asked to report the number of pounds they gained or lost. In particular, respondents were allowed to report that they gained or lost 0 pounds. No editing was done to the variables ADWRGNLB, ADWRLSLB, YOWRGNLB, or YOWRLSLB when this response of 0 pounds occurred because respondents did not have an opportunity to report gains or losses of less

than 1 pound. Furthermore, only gains or losses of 10 or more pounds resulted in respondents being scored as having the symptom of changes in appetite or weight.

In addition, a feature of the logic for asking respondents about gains or losses in weight was that if respondents were asked the question about gaining weight without trying and they answered it as "don't know" or "refused," they had an additional opportunity to be asked questions about losing weight without trying. That is, the program was looking for the first affirmative set of answers that would allow a determination to be made of whether respondents gained or lost enough pounds to qualify for being depressed. Consequently, no editing was done if respondents originally gave an answer in the questions corresponding to ADWREMOR or YOWREMOR (i.e., having a much larger appetite than usual), they answered the weight gain question (corresponding to ADWRGAIN or YOWRGAIN) as "don't know" or "refused," and then they were routed into the questions about weight loss.

If respondents reported that they talked to a medical doctor or other professional in the past 12 months about the problems they were experiencing related to depression, they were asked to report which professionals they saw or talked to. In the question pertaining to the specific professionals that they saw or talked to, respondents were allowed to enter more than one type of professional from the list they were presented. As in other modules, documentation for these "enter all that apply" variables in the adult and adolescent depression modules was as follows:

1 = Response entered, and

6 = Response not entered.

Codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to an entire list of variables if respondents did not know or refused to report the specific professionals that they saw or talked to about their problems. If the entire list was blank but respondents had previously reported that they saw or talked to a professional about their problems, then the specific variables corresponding to categories of helping professionals retained a code of 98 (i.e., "blank").

Respondents could report that they saw or talked to "another type of helping professional" and then specify a helping professional that they had already been asked about, such as a psychiatrist. Thus, for example, if the edited variable ADPSYMD, pertaining to services from a psychiatrist, was not coded as 1 and respondents specified that they saw or talked to a psychiatrist, ADPSYMD was assigned a code of 3, where 3 = Response entered LOGICALLY ASSIGNED.

3.16 Youth Mental Health Service Utilization Module

The module on youth mental health service utilization asked respondents aged 12 to 17 about their receipt of specific sources of inpatient, foster care, outpatient, or school-based mental health services in the past 12 months; the number of nights that respondents spent in specific inpatient or foster care mental health settings; the number of times they visited specific types of outpatient or school-based mental health providers; and the reasons for receiving inpatient, foster care, outpatient, or school-based services for mental health problems the last time they received

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such services. Specific sources of mental health services that respondents were asked about included (a) any type of hospital, (b) a residential treatment center, (c) foster care or a therapeutic foster home, (d) a partial day hospital or day treatment program, (e) a mental health clinic or center, (f) a private therapist, (g) an in-home therapist, (h) a pediatrician or other family doctor, (i) special education services, and (j) in-school counseling, such as from school counselors or school psychologists.

In 2009, a set of questions from prior years was deleted from the youth mental health utilization module; the deleted questions asked about receipt of special education services and receipt of school counseling in the past 12 months, and whether youths were ever in jail or foster care. In their place, a set of questions has been included since 2009 that measure the same constructs as the questions from prior years but with different wordings. For youths' experiences with the juvenile justice system, the questions since 2009 also focus on the past 12 months rather than the lifetime period and collect additional information about these encounters with the juvenile justice system. The revised questions that have been included since 2009 asked about the following for the past 12 months: (a) receipt of counseling or treatment for mental health problems from social workers, school psychologists, or school counselors; (b) the reason for the last talk with a social worker, school psychologist, or school counselor (if applicable); (c) attendance at a school for students with emotional or behavioral problems or participation in a special program at a regular school for students with emotional or behavioral problems; (d) time spent overnight or longer in a juvenile detention center; (e) the number of nights spent in a juvenile detention center (if applicable); and (f) receipt of treatment or counseling for emotional or behavioral problems in a juvenile detention center (if applicable).

An important aspect of processing the variables in this section involved assignment of legitimate skip codes, where relevant. That included (a) assignment of legitimate skip codes to variables in the entire module for respondents who were aged 18 or older, and (b) assignment of legitimate skip codes to youths' data based on routing logic within the youth mental health service utilization module. For example, if respondents reported that they did not stay overnight or longer in a hospital to receive mental health counseling in the past 12 months (YUHOSPYR = 2), all subsequent variables pertaining to mental health services in a hospital were assigned legitimate skip codes. That included the number of nights that respondents stayed in a hospital and the reasons that they were hospitalized the last time.

Although respondents in the youth experiences module who reported that they were not enrolled in school in the past 12 months were asked whether they were homeschooled during this period, the youth experiences variable pertaining to homeschooling (YEHMSLYR, corresponding to question YE09a) was not used to edit youth mental health service utilization variables pertaining to receipt of school-based mental health services. Only the youth experiences variable pertaining to school enrollment in the past 12 months (YEATNDYR, corresponding to question YE09) was used to edit these school-based service variables.

If respondents reported that they stayed overnight or longer in foster care or in a therapeutic foster care home in the past 12 months for emotional or behavioral problems, they were not asked whether they had ever been in foster care. Therefore, the edited variable pertaining to foster care in the lifetime (YUFCAREV) was assigned a code of 5 (Yes LOGICALLY ASSIGNED [from skip pattern]). This code of 5 indicated that it could be

logically inferred that respondents had ever been in foster care because they reported being in foster care in the past 12 months.

Similarly, if the variable pertaining to foster care in the past 12 months (YUFCARYR) initially had a missing value (e.g., if respondents did not know or refused to report whether they stayed in foster care in the past 12 months) but respondents reported that they had never been in foster care (YUFCAREV = 2), it could be inferred that these respondents had not been in foster care in the past 12 months. In these situations, the edited variable YUFCARYR was assigned a final code of 4 (No LOGICALLY ASSIGNED). The remaining variables related to foster care in the past 12 months were assigned legitimate skip codes.

For each type or location of mental health treatment or counseling that respondents were asked about, they could report that they received services the last time at that particular location for any of the following reasons: (a) they thought about or tried to kill themselves, (b) they felt depressed, (c) they felt very afraid or tense, (d) they were breaking rules or "acting out," (e) they had eating problems, (f) they had trouble controlling their anger, (g) they had gotten into physical fights, (h) they had problems at home or in their families, (i) they had problems with their friends, (j) they had problems with people other than friends or family, (k) they had problems at school, or (l) some other reason. The reasons pertaining to trouble controlling anger through problems at school have been included since 2005 based on identification of commonly reported "other" reasons that respondents specified prior to 2005 for why they received treatment.

For each mental health service location where youths received services, information on these reasons for receiving services subsequently was captured as a discrete variable. For example, if respondents reported receiving mental health counseling from a pediatrician or family doctor, information about why they received counseling the last time was captured in the variables YUFDSUIC (suicidal), YUFDDEPR (depressed), YUFDFEAR (afraid and tense), YUFDBKRU (breaking rules), YUFDEATP (eating problems), YUFDANGR (anger), YUFDFITE (physical fights), YUFDFMLY (problems in family), YUFDFRND (problems with friends), YUFDOTPP (problems with people other than family or friends), YUFDSCHL (problems at school), and YUFDSOR (some other reason). Documentation for these "enter all that apply" variables in the youth mental health service utilization module was as follows:

> 1 = Response entered, and
>
> 6 = Response not entered.

No further editing was done if respondents endorsed every single reason on a list as pertaining to why they received mental health services at a given location in the past 12 months.

Codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to an entire list of variables if respondents did not know or refused to report why they received counseling at a specific location in the past 12 months; this applied as well to the items for the additional reasons why respondents received counseling that were added in 2005. If an entire list of reasons was blank but respondents had previously reported receiving services at a given location (e.g., if respondents broke off the interview), then the list of reasons for receiving services at that location retained a code of 98 (i.e., "blank").

For purposes of illustration, if youths reported in question YSU22 that they had received treatment or counseling from a pediatrician or other family doctor in the past 12 months (i.e., for emotional or behavioral problems that were not caused by alcohol or drugs), they were routed first to question YSU23 regarding the number of times they received treatment from a family doctor, and then they were routed to question YSU24, regarding the reason(s) for their visit; question YSU24 has been present in the module ever since the module was added to the survey.[29] As in prior years, YSU24 was an "enter all that apply" item, and individual variables were created corresponding to the specific reasons why respondents got treatment.

Respondents could report up to six reasons in YSU24 for why they received treatment from a family doctor, including "some other reason." If respondents chose the "some other reason" option in question YSU24, they were routed next to question YSU24a, where they could choose the additional reasons for receiving treatment that were noted above, such as difficulty controlling anger; again, respondents were given the option in question YSU24a to report "some other reason." If respondents chose this "other" response category in YSU24a, they were asked to specify the *most important* other reason why they did got treatment in this location; this request for the most important other reason was a noteworthy change relative to prior years (see below).

Based on the logic noted above, the sixth response option in question YSU24 (some other reason) was principally considered to be a "toggle" to question YSU24a. Therefore, a separate "some other reason" variable was not created to correspond to the last response category in YSU24.

The edits described below have been implemented since 2005 to take into account the items on additional reasons why youths received treatment (e.g., YSU24a).

- If respondents chose the sixth response option in YSU24, any response that was entered from the YSU24a series was coded as 1, and anything that respondents did not choose from the YSU24a list was coded as 6.

- If respondents chose a response from YSU24 but did not choose the sixth response category in YSU24, the variables corresponding to the response categories in YSU24a (i.e., YUFDANGR through YUFDSOR) all were given a code of 6 (Response not entered), rather than being assigned "legitimate skip" codes. That is, YSU24 and YSU24a were considered together to be one big series of reasons.

- If respondents chose the sixth category in question YSU24, chose at least one reason from YSU24a, but did not choose category 7 in YSU24a (some other reason), the edited variable YUFDSOR (some other reason for receiving treatment) was assigned a code of 6. That is, it was inferred in this situation that the list of specific reasons in YSU24a was adequate for capturing why respondents saw a family doctor about emotional or behavioral problems in the past 12 months. For example, if a respondent chose category 6 in YSU24 and then chose only category 3 in YSU24a ("You had problems at home or in your family"), it would be reasonable to infer that this

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[29] Questions in this module for treatment that youths received in other settings were structured in the same manner as in this example for treatment from a family doctor. The changes to the questions for additional reasons why youths received treatment from a family doctor also applied to the other sources of treatment in this module.

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response in YSU24a was the only other reason why the respondent visited a family doctor about emotional or behavioral problems.

- If respondents chose the sixth response category in question YSU24, it was possible for them to answer YSU24a as "don't know" or "refused" (i.e., did not know or refused to report what the other reasons were). When this occurred, the "some other reason" variable YUFDSOR was set to 1 (Response entered) in order to retain information that the respondent chose "some other reasons" somewhere in the series. Remaining variables corresponding to the YSU24a series retained codes of 94 ("don't know") or 97 ("refused").

- If respondents answered question YSU24 as "don't know" or "refused," question YSU24a was skipped. Therefore, the relevant code of 94 or 97 was propagated onto the variables corresponding to the YSU24a list.

- If YUFDSOR had a value of 6 (see above), the "OTHER, Specify" variable YUFDIMPR (i.e., the most important other reason why the respondent received treatment from a family doctor) was assigned a legitimate skip code. If YUFDSOR had a refusal code, that refusal was propagated onto YUFDIMPR.

- If YUFDSOR had a code of 1 when the respondent answered "don't know" or "refused" to the YSU24a series, the "OTHER, Specify" variable YUFDIMPR (which has been three digits in length since 2005) retained a code of 998 (blank).

Consistent with general editing procedures, if respondents reported a reason that corresponded to a reason in the lists for YSU24/YSU24a, that reason was logically inferred to have been chosen in the relevant edited variable. Suppose, for example, that the most important other reason that a respondent reported for receiving treatment from a family doctor indicated that the respondent was breaking rules or "acting out." If the respondent had not chosen this response in YSU24, the edited variable YUFDBKRU was assigned a code of 3 (Response entered LOGICALLY ASSIGNED). Similarly, if the respondent specified that a problem in the respondent's family was the most important other reason for receiving treatment from a family doctor and the respondent had not chosen this response in YSU24a, the edited variable YUFDFMLY was assigned a code of 3. Conversely, if respondents did not report "some other reason" why they received treatment in the past 12 months from a family doctor (edited variable YUFDSOR = 6, corresponding to response category 6 in question YSU24 not being chosen or response category 6 in question YSU24a not being chosen), legitimate skip codes were assigned to the edited "OTHER, Specify" variable YUFDIMPR (corresponding to question YSU24SP).

As noted above, the "OTHER, Specify" items in this module underwent an important change in 2005. Prior to 2005, youths were asked to specify "the other reason" why they received services in a particular location or from a given type of provider. Some respondents in these prior years gave a considerable amount of information in the space that was allotted to them to specify their other reason(s) for receiving services. Often, multiple reasons were reported. Therefore, prior to 2005, up to five separate "OTHER, Specify" codes were assigned for a given treatment location or provider based on respondents' explanations regarding why they received services.

Because youths since 2005 have been asked to specify the "most important" other reason why they received services in a particular location, only one reason was captured in the

"OTHER, Specify" variables. If respondents specified more than one reason as the "most important" other reason why they received treatment in a given location, only the first reason that respondents specified was coded as a general rule. The exception to this rule was that any reports of respondents thinking about or trying to kill themselves were given precedence in coding, regardless of whether this reason was specified first. In addition, we used this change in the "OTHER, Specify" variables for this module as an opportunity to revise the "OTHER, Specify" codes to regroup related reasons together, such as reasons that indicated that respondents had a diagnosed condition (e.g., attention-deficit/hyperactivity disorder, or ADHD). For these reasons, the "OTHER, Specify" data from 2005 onward are not comparable with data prior to 2005.

In a relatively rare number of situations, youths denied receiving mental health services as part of an "OTHER, Specify" response. In these situations, the "OTHER, Specify" response was assigned a bad data code. Data were retained that indicated that the youths received mental health services in a given location in the past 12 months.

Respondents could report that the number of nights they stayed overnight in a hospital or residential treatment program in the past 12 months (or the sum of the two, if respondents reported staying in both settings) was greater than or equal to 365 nights. In these situations, no editing was done to the data. If respondents reported spending 366 nights in an inpatient/residential setting or in foster care for treatment or counseling for emotional or behavioral problems, however, the number of nights in the corresponding edited variable was "trimmed" back to 365. For example, if respondents reported staying overnight in a hospital for 366 nights for treatment or counseling for emotional or behavioral problems, the corresponding edited variable YUHOSPNM was set to a value of 365.

3.17 Consumption of Alcohol Module

The consumption of alcohol module covered a variety of topics related to respondents' use of alcohol. Administration of questions in this module was limited to respondents who had ever used alcohol, and a subset of questions was limited to respondents who reported alcohol use in the past 30 days. Respondents were asked questions about the following topics:

- number of drinks consumed on the last occasion of alcohol use in the past 30 days;
- the last occasion of alcohol use in the past 30 days by persons under the legal drinking age of 21, including who respondents were with, where they drank, and how they obtained the alcohol;
- use of other drugs in combination with alcohol (i.e., at the same time or within a couple of hours of using alcohol) in the past 30 days; and
- history of binge alcohol use (i.e., consumption of five or more drinks on a single occasion for males or four or more drinks on a single occasion for females).

This section documents the editing procedures for the consumption of alcohol module.

3.17.1 Skip Logic Issues in the Consumption of Alcohol Module

One of the important aspects of the processing of variables in the consumption of alcohol module consisted of assigning codes of 91, 93, and 99 to variables that had been skipped because the questions did not apply. In particular, certain questions may not apply to respondents for multiple reasons, such as if they never used alcohol or if they were male.

Exhibit 17 discusses the prioritization of skip logic edits in this module. For example, if respondents had never used alcohol, variables in the consumption of alcohol module were assigned a code of 91, 991, or 9991 (NEVER USED ALCOHOL), regardless of whether questions might not be applicable for other reasons. For example, male respondents who had never used alcohol were assigned codes of 91, 991, or 9991 in the questions about females' history of consuming four or more drinks on a single occasion, even though males were not eligible for these questions because of their gender. However, this edit kept a constant number of cases coded as indicating nonuse of alcohol for most variables in the module.

3.17.2 Edit Issues for the 30-Day Consumption of Alcohol Variables

Other than implementation of edits based on the skip logic (see Exhibit 17), only limited editing was done for the variables pertaining to the number of drinks that respondents consumed the last time they drank in the past 30 days (question CA01; edited variable CADRLAST) and the variables pertaining to alcohol use in the past 30 days among persons aged 12 to 20 (questions CA02a through CA07SP). In particular, no editing was done to CABUYFRE (corresponding to question CA03), CAGVMONY (corresponding to question CA04), CABUYWHO (corresponding to question CA05a), or CABPLACE (corresponding to question CA05b) if respondents reported in question CA04 that they gave money to someone else who bought their last alcoholic beverage for the respondents, but then they reported in CAFRESP (corresponding to CA07SP) that the "other" way that they got the last alcoholic beverage they drank was by purchasing it, such as with fake identification. The rationale for not editing these variables was that we may not have enough detail from what respondents specified to know how these variables should be edited. For example, question CA04 about buying alcohol was asked only if respondents reported in question CA03 that they paid for the last alcohol that they drank. Even if the respondent specified buying alcohol in CAFRESP, however, we would not know whether the respondent bought the alcohol with his or her own money or whether the alcohol was purchased with someone else's money.

In question CA07 (edited variable CAFREWHO), respondents were asked to give one response for how they got the last alcoholic beverage that they drank, including the option to report that they got it "some other way." As noted above, respondents who reported that they got the alcohol some other way were asked to specify what this other way was (edited variable CAFRESP). If a response was given in CAFRESP that corresponded to one of the existing response options in question CA07, then CAFREWHO was assigned the relevant response plus a value of 10. For example, if CAFRESP indicated that respondents got their last alcoholic beverage from a nonrelative who was 21 or older who gave the alcohol to the respondent (i.e., equivalent to CA07 = 3), then CAFREWHO was assigned a code of 13.

Exhibit 17. Prioritization of Specific Skip Logic Edits for the Consumption of Alcohol Module

Response Pattern	Edit
Data from the core alcohol module indicated that the respondent (R) never used alcohol.	Codes of 91 (or 991, 9991) were assigned to the edited variables in this module. This edit took precedence over situations in which questions may not have been applicable for other reason (e.g., if Rs were male).
Even if the R had used alcohol, data from remaining core modules indicated that the R had never used drugs other than alcohol.	Codes of 91 were assigned to the edited variables corresponding to questions CA08 and CA09, pertaining to alcohol use in combination with other drugs in the past 30 days (edited variables CADRKDRG through CADRKSED). The code of 91 had the following meaning in these variables: NEVER USED ALCOHOL OR NEVER USED OTHER DRUGS. Similarly, if the R had not used illicit drugs and the R had been logically inferred to be a nonuser of at least one drug, then these edited variables were assigned codes of 81, where 81 = NEVER USED ALCOHOL OR NEVER USED DRUGS Logically assigned.
Data from the core alcohol module indicated that the R had used alcohol, but definitely not in the past 30 days.	Codes of 93 (or 993, 9993) were assigned to the edited variables in this module to indicate that the R did not use alcohol in the past 30 days.
Even if the R had used alcohol in the past 30 days, data from remaining core modules indicated that the R had used some other drugs in the lifetime but not in the past 30 days.	Codes of 93 were assigned to the edited variables corresponding to questions CA08 and CA09. The code of 93 had the following meaning in these variables: DID NOT USE ALCOHOL OR DID NOT USE DRUGS IN THE PAST 30 DAYS. In addition, data were overwritten with codes of 83 (DID NOT USE ALCOHOL OR DID NOT USE DRUGS IN THE PAST 30 DAYS Logically assigned) in CADRKDRG (corresponding to question CA08) if the only reports of drug use in the past 30 days had been changed to indicate logical inference of lifetime nonuse because the only drugs that the R had ever reported using in the past 30 days were over-the-counter (OTC) psychotherapeutic drugs.
The R had used alcohol in the past 30 days (or was potentially a past month user, based on ALCREC = 8 from the core alcohol module), but the R was aged 21 or older.	The edited variables corresponding to questions CA02 through CA07SP about underage alcohol use were assigned codes of 99 (LEGITIMATE SKIP) if they were blank or otherwise were assigned codes of 89 (LEGITIMATE SKIP Logically assigned).

<div align="right">(continued)</div>

Exhibit 17. Prioritization of Specific Skip Logic Edits for the Consumption of Alcohol Module (continued)

Response Pattern	Edit
The R had used alcohol in the past 30 days (or was potentially a past month user) and was aged 12 to 20.	• If the R did not indicate in question CA02b that he or she drank the alcohol in some other place the last time, then the edited variable CADROTHSP (corresponding to question CA02SP) was assigned a legitimate skip code (i.e., 99 if blank or 89 otherwise).
	• If the R indicated in question CA03 (edited variable CABUYFRE) that the R paid for the last alcohol that he or she drank:
	– Edited variables corresponding to questions CA07 (edited variable CAFREWHO) and CA07SP (edited variable CAFRESP) were assigned a legitimate skip code.
	– If the R paid for the last alcoholic beverage that he or she drank but the R gave money to someone else who bought it (question CA04 = 2, corresponding to the edited variable CAGVMONY), then the edited variables corresponding to questions CA05 (CABUYWHO), CA05a (CABPLACE), and CA05b (CABUNDAG) were assigned a legitimate skip code.
	– If the R paid for the last alcoholic beverage that he or she drank and also bought it (CAGVMONY = 1), then the edited variable corresponding to question CA06 (CAGVWHO) was assigned a legitimate skip code. In addition, if the R reported in CA05 that he or she bought the alcohol in a store, in a restaurant, in a club, or at an event (CA05 = 1), then CABUNDAGE was assigned a legitimate skip code. If the R reported in question CA05 that he or she bought the alcohol from another person (CA05 = 2), then CABPLACE was assigned a legitimate skip code.
	• If the R indicated in question CA03 that he or she did not pay for the last alcohol that he or she drank:
	– CAGVMONY, CABUYWHO, CABPLACE, CABUNDAG, and CAGVWHO were assigned a legitimate skip code.
	– If the R did not report in question CA07 that he or she got the last alcoholic beverage some other way, then the edited variable CAFRESP (corresponding to CA07SP) was assigned a legitimate skip code.

(continued)

Exhibit 17.   Prioritization of Specific Skip Logic Edits for the Consumption of Alcohol Module (continued)

Response Pattern	Edit
The R had used alcohol in the past 30 days and also had used other drugs in that period.	• If the R reported in question CA08 (edited variable CADRKDRG) that he or she did not use other drugs at the same time or within a couple of hours of the last time when the R drank alcohol in the past 30 days, then the edited variables corresponding to the drugs in question CA09 (i.e., edited variables CADRKMRJ through CADRKSED) were assigned legitimate skip codes. • Otherwise (e.g., if CA08 was answered as "yes"), if the core data indicated that the R had not used a particular drug in the past 30 days but the R had used some other drug in the past 30 days, then the variable corresponding to the drug that the R had not used was assigned a legitimate skip code. Suppose, for example, that the R used other drugs at the same time or within a couple of hours of when the R last used alcohol and the R had used marijuana but not cocaine in the past 30 days. In this situation, CADRKCOC (i.e., use of cocaine in combination with alcohol) was assigned a legitimate skip code.
The R reported using other drugs at the same time or within a couple of hours of when he or she last used alcohol. However, question CA09 about use of alcohol in combination with specific drugs was skipped because the R reported use of only one illicit drug in the past 30 days.	The edited variable corresponding to the one illicit drug that the R had used in the past 30 days was assigned a code of 5, where 5 = Response entered LOGICALLY ASSIGNED (from skip pattern). For all other drugs that the R had definitely not used in the past 30 days, the edited variables were assigned legitimate skip codes. For example, if the R answered question CA08 as "yes," and the only drug that the R reported using in the past 30 days was marijuana, then it could be logically inferred that the R used marijuana at the same time or within a couple of hours of when he or she last used alcohol, and the edited variable CADRKMRJ was assigned a code of 5.
The R was a lifetime alcohol user but was male.	The edited variables corresponding to questions CA12 through CA14d about females' consumption of four or more drinks on a single occasion were assigned codes of 99 (or 999, 9999) if they were blank or otherwise were assigned codes of 89 (or 989, 9989).
The lifetime binge alcohol question CA10 (for consumption of five or more drinks on a single occasion) had been skipped because either of the following occurred: • The core data indicated some consumption of five or more drinks on a single occasion in the past 30 days. • Question CA01 (edited variable CADRLAST) indicated that the R had five or more drinks the last time that he or she drank in the past 30 days.	The edited variable CABNGEV (corresponding to question CA10) was set to a value of 5, where 5 = Yes LOGICALLY ASSIGNED (from skip pattern).
Question CA10 was answered as "no," indicating that the R had never had five or more drinks on a single occasion.	The edited variables CABNGAGE (corresponding to question CA11), CABNGYFU (derived from questions CA11a through CA11c), and CABNGMFU (derived from questions CA11c and CA11d) were assigned legitimate skip codes.

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Exhibit 17. Prioritization of Specific Skip Logic Edits for the Consumption of Alcohol Module (continued)

Response Pattern	Edit
The lifetime binge alcohol question CA12 for females (for consumption of four or more drinks on a single occasion) had been skipped because any of the following occurred: • The core data indicated that the R usually had four or more drinks on those days when she drank in the past 30 days. • CADRLAST indicated that the R had four or more drinks the last time she drank in the past 30 days. • Question CA10 (edited variable CABNGEV) was answered as "yes," indicating that the R had consumed five or more drinks on a single occasion at least once in her lifetime.	The edited variable CA4FDEV (corresponding to question CA12) was set to a value of 5, where 5 = Yes LOGICALLY ASSIGNED (from skip pattern).
For female Rs, question CA12 was answered as "no," indicating that these Rs had never had four or more drinks on a single occasion. There also was no indication from CA10 that the R had ever had five or more drinks on a single occasion.	• The edited variables CA4FDAGE (corresponding to question CA14), CA4FDYFU (derived from questions CA14a through CA14c), and CA4FDMFU (derived from questions CA14c and CA14d) were assigned legitimate skip codes. • If the R had used alcohol in the past 30 days (or the most recent period of alcohol use was ambiguous and could have included the past 30 days), and there was no other indication that she had ever had four or more drinks on a single occasion, then the edited variable CA4FDDYS (corresponding to question CA13) was assigned a legitimate skip code. Otherwise, if the R was a lifetime alcohol user but definitely had not used alcohol in the past 30 days, then the edits described above took precedence, and CA4FDDYS was assigned a code of 93.

Questions CA02b (where underage respondents drank alcohol the last time) and CA09 (the specific drugs that respondents of any age used at the same time or within a couple of hours of when they last drank alcohol) were "enter all that apply" questions. As in other modules, the responses were captured as discrete variables. Documentation for these discrete "enter all that apply" variables was as follows:

1 = Response entered, and

6 = Response not entered.

For the edited variables corresponding to question CA02b, if respondents specified some other place where they drank alcohol the last time that corresponded to one of the existing response options in question CA02b, and they had not chosen that response, then the corresponding edited variable was assigned a code of 3, where 3 = Response entered LOGICALLY ASSIGNED. For example, if respondents reported that they drank alcohol in someone else's home the last time they drank but they had not chosen this response in question

CA02b, then the edited variable CADROTHM was assigned a code of 3. In addition, codes of 94 and 97 (for "don't know" and "refused," respectively) were assigned to the entire list of variables corresponding to question CA02b if respondents did not know or refused to report where they were the last time they drank alcohol.

For the edited variables corresponding to question CA09, codes of 94 or 97 were retained only for those drugs that respondents used in the past 30 days (or were potentially past month users, such as if a core recency variable had been coded as 8, meaning that the respondent used the drug at some point in the past 12 months, which could include within the past 30 days). Otherwise, codes of 94 or 97 in the individual drug variables corresponding to question CA09 were replaced with codes of 89 (LEGITIMATE SKIP Logically assigned) if respondents used some drug in the past 30 days but not the drug that corresponded to the variable of interest. Suppose, for example, that respondents used marijuana and inhalants in the past 30 days and did not use any other illicit drugs in that period. If question CA08 was answered as "yes" and CA09 was refused, the edited variables CADRKMRJ and CADRKCOC retained codes of 97, and the remaining drug variables were assigned codes of 89.

Special consideration also was given to the editing of the variables CADRKCOC (last use of alcohol in combination with cocaine), CADRKHER (last use of alcohol in combination with heroin), CADRKSTM (last use of alcohol in combination with prescription stimulants), and CADRKMTH (last use of alcohol in combination with methamphetamine). In particular, respondents who answered question CA08 as "yes" would have the response option "Cocaine or 'crack'" (captured in CADRKCOC) available to them if they previously reported past month use of cocaine in any of the following places: (a) in the core cocaine module, (b) in the core crack cocaine module, or (c) in the noncore special drugs module (i.e., use of cocaine with a needle in the past 30 days. Similarly, respondents who answered question CA08 as "yes" could choose the response option "Heroin" (captured in CADRKHER) if they reported past month use of heroin in the core heroin module or if they reported past month sniffing, smoking, or injection of heroin in the noncore special drugs module. The response option "Prescription stimulants" (captured in CADRKSTM) was available to respondents if they reported nonmedical use of stimulants in the past 30 days in the core stimulants module or if they reported that they used stimulants other than methamphetamine with a needle in the past 30 days. For methamphetamine, the response option "Methamphetamine" (captured in CADRKMTH) was available to respondents who indicated past month methamphetamine use in the core stimulants module or who indicated past month use in the noncore special drugs module, provided that these additional methamphetamine users from the noncore special drugs module did not indicate in question SD17a1 that their earlier report from the core that they never used methamphetamine was actually the correct response (see Section 3.1).

Consequently, respondents would have the response options for CADRKCOC, CADRKHER, CADRKSTM, or CADRKMTH available to them if they reported past month use (or nonmedical use) of the relevant drug(s) in the noncore special drugs module, even if they had not reported past month use in the corresponding core module(s). In most situations, no further editing was done to these data, even though the corresponding core data did not indicate use in the past 30 days. In particular, no editing was done to data in CADRKMTH if respondents reported in the core stimulants module that they never used methamphetamine, but they reported past month use of methamphetamine in the special drugs module and they also reported in the

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follow-up question SD17a2 that they "made a mistake" (or a similar other reason for not reporting methamphetamine use) when they were answering the core question about methamphetamine.

The one exception to this editing principle concerned editing of CADRKSTM. Respondents who reported nonmedical use only of methamphetamine and of "some other stimulant" in the core stimulants module were routed to question ST09 (for the most recent nonmedical use of any stimulant) and to question ST19 (for the most recent use of methamphetamine). If respondents reported nonmedical use of stimulants in the past 30 days in question ST09 but they were logically inferred to be lifetime nonmedical users of only methamphetamine (i.e., the only "other" stimulant that they specified using nonmedically was methamphetamine), then any data in the response option corresponding to CADRKSTM were overwritten with a code of 89 as part of the data editing. That is, it was logically inferred that these respondents should not have been asked about their use of *prescription* stimulants while they were drinking alcohol or within a couple of hours of drinking alcohol in the past 30 days.

3.17.3 Edit Issues for the Binge Alcohol History Variables

Questions CA10 through CA14d captured information on respondents' history of having consumed five or more drinks on a single occasion (regardless of gender) or four or more drinks on a single occasion (for females). If respondents were lifetime alcohol users and other data from the core alcohol module or from CADRLAST did not indicate that respondents had consumed five or more drinks on a single occasion in the past 30 days, then they were asked in question CA10 (edited variable CABNGEV) whether they had ever had five or more drinks on a single occasion in their lifetime. Those respondents who had ever consumed five or more drinks on a single occasion (or had reported this in the past 30 days in the core alcohol module or in CADRLAST) were asked in question CA11 (edited variable CABNGAGE) to report how old they were the first time when they first had five or more drinks. If CABNGAGE was within 1 year of respondents' current age, they were routed to questions CA11a through CA11d (edited variables CABNGYFU and CABNGMFU) to report the year and month when they first had five or more drinks on a single occasion.

Similarly, female respondents were asked question CA12 (edited variable CA4FDEV) if they were lifetime alcohol users and other data from the core alcohol module or from CADRLAST did not indicate that they had consumed four or more drinks on a single occasion in the past 30 days, and CABNGEV did not indicate that they had ever consumed five or more drinks on a single occasion. In addition, question CA13 (edited variable CA4FDDYS) asked female respondents who used alcohol in the past 30 days to report the number of days they had four or more drinks on a single occasion in the past 30 days. Question CA14 (edited variable CA4FDAGE) asked female respondents to report how old they were the first time they had four or more drinks on a single occasion. If CA4FDAGE was within 1 year of female respondents' current age, they were routed to questions CA14a through CA14d (edited variables CA4FDYFU and CA4FDMFU) to report the year and month when they first had four or more drinks on a single occasion.

As noted above, the routing logic for these questions took into account respondents' answers in the core alcohol module. Specifically, the computer-assisted interviewing (CAI)

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program created a flag variable called FOURORMOREFLAG. The default value for this flag was 0. The flag was coded as 2 if there was some indication in the alcohol module that respondents had consumed five or more drinks on a single occasion in the past 30 days. Otherwise, if question AL07 indicated that respondents usually had four drinks on those days when they drank in the past 30 days, then this flag was coded as 1.

The edited variable corresponding to this flag was named ED4FLAG. If the variables NODR30A (corresponding to question AL07) and DR5DAY (corresponding to question AL08) indicated consumption of five or more drinks on a single occasion but ED4FLAG did not already have a value of 2, then ED4FLAG was set to a logically assigned value of 12. Otherwise, if NODR30A indicated usual consumption of four drinks in the past 30 days and ED4FLAG did not already have a value of 1, then ED4FLAG was set to a value of 12. If NODR30A and DR5DAY had been set to bad data as a result of edits in the core alcohol module,[30] then ED4FLAG also was set to bad data. In turn, any questions that had been answered in CA11 through CA14d were set to bad data.

Revised routing logic for variables related to binge alcohol history has been in place since 2007 based on patterns that were identified during review of the edited data in the 2006 survey. Specifically, the routing logic was revised for question CA11 (edited variable CABNGAGE) to take into account FOURORMOREFLAG (edited variable ED4FLAG). In 2006, the logic took into account respondents' original answers about consumption of five or more drinks on a single occasion in the core alcohol question AL08. However, respondents in 2006 who changed their answer to indicate that they had five or more drinks on 0 days in the past 30 days in response to a consistency check between the 30-day frequency of any alcohol use and the frequency of binge alcohol use in that period (see footnote 30) were incorrectly asked question CA11 based on their original answer in AL08. The FOURORMOREFLAG variable reflected this consistency resolution between the overall 30-day frequency and the frequency of consumption of five or more drinks, such that these respondents have been correctly skipped out of question CA11 since 2007. Consequently, no data in CABNGAGE were overwritten with codes of 989 (LEGITIMATE SKIP Logically assigned) to indicate that respondents should not have been asked CA11.

In addition, updated routing logic for females for questions CA13 (edited variable CA4FDDYS) and CA14 (edited variable CA4FDAGE) has been in place since 2007 to include FOURORMOREFLAG in addition to questions CA01 (edited variable CADRLAST) and CA12 (edited variable CA4FDEV). This corrected for a logic error in 2006 in which female respondents were routed to CA13 and CA14 only if they answered question CA12 as "yes" or reported in question CA01 (CADRLAST) that they had four or more drinks the last time they drank alcohol in the past 30 days. Those female respondents in 2006 who were skipped out of question CA12 based on the flag variable from the core alcohol module (i.e., ED4FLAG) or who reported consumption of five or more drinks in question CA10 (CABNGEV) were not asked subsequent questions about their consumption of four or more drinks, unless they reported in

[30] See Kroutil, L. A., Handley, W., & Bradshaw, M. R. (2013). General principles and procedures for editing drug use data in the 2011 NSDUH computer-assisted interview. In *2011 National Survey on Drug Use and Health: Methodological resource book* (Section 10, prepared for the Substance Abuse and Mental Health Services Administration under Contract No. HHSS283200800004C, Deliverable No. 39, RTI/0211838.207.003). Research Triangle Park, NC: RTI International.

question CA01 that they last had four or more drinks. Because of this change in 2007, no data in CA4FDAGE were assigned a code of 990 (NOT ASKED THE QUESTION Logically assigned) due to female respondents being incorrectly skipped out of question CA12. Similarly, no codes of 90 (which had the same meaning as that for 990) were assigned to CA4FDDYS in 2007 if female respondents had used alcohol in the past 30 days.

Exhibit 18 discusses additional issues associated with the editing of the binge alcohol history variables in the consumption of alcohol module. The first set of issues pertains to the consistency checks between the age when respondents reported that they first had five or more drinks (or four or more drinks for females) in a single occasion, and the age at initiation based on the year and month when respondents reported that they first engaged in this behavior.

We then discuss issues related to the editing of these binge alcohol use variables relative to respondents' ages and to corresponding core alcohol use data. For example, if respondents reported in question CA11 that they first had five or more drinks on a single occasion at an age that was earlier than what they reported for when they first had a drink of any alcohol (from the core alcohol use variable ALCTRY), then CABNGAGE was set to bad data. Any nonmissing values in CABNGYFU and CABNGMFU also were replaced with codes for bad data. Similarly, suppose respondents first used any alcohol at their current age. If they had a lifetime history of consumption of five or more drinks on a single occasion (including any indication of this behavior in the past 30 days) but CA11 had a missing value (e.g., "don't know" or "refused"), then it could be logically inferred in CABNGAGE that the first episode of binge alcohol use occurred at the respondents' current age.

For female respondents, the data pertaining to consumption of five or more drinks on a single occasion and consumption of four or more drinks on a single occasion also were edited for consistency with one another. For example, if CABNGAGE (from question CA11) indicated consumption of five or more drinks at an age that was earlier than what respondents reported in CA14, then CA4FDAGE was assigned the earlier age from CABNGAGE.

In addition, "editing indicator" (EI) variables were created to indicate when nonmissing values were logically assigned to the binge alcohol variables in the consumption of alcohol module. The default value for these EI variables was 1 (i.e., questionnaire data). The EI variables were assigned a value of 2 (Logically assigned data) if a logical inference was made that involved assignment of a nonmissing value. In the above example, if CA4FDAGE was assigned an earlier age from CABNGAGE, then the corresponding variable EI4FDAGE was assigned a value of 2.

In keeping with the general principle of not using noncore data to edit core data, no editing was done to core data when a respondent's reported first consumption of five or more drinks on a single occasion (or four or more drinks for females) suggested more recent use of alcohol than was indicated in the core recency variable ALCREC. For example, ALCREC may not indicate use in the past month or past year, but respondents could report that they first had five or more drinks or four or more drinks on a single occasion at their current age. Although these data from the consumption of alcohol would suggest that these respondents used alcohol in the past 12 months, no editing was done to ALCREC based on these data.

Exhibit 18.   Edit Issues Involving the Binge Alcohol Use Variables in the Consumption of Alcohol Module

Issue	Edits Implemented
The respondent (R) indicated in the final verification check for the age when he or she first engaged in binge alcohol use (BACC06 for five or more drinks and WBACC06 for four or more drinks) that the age at first binge alcohol use (AFU) based on the new month and year of first use (MFU and YFU) was correct (i.e., BACC06 = 4 or WBACC06 = 4). The computer-assisted interviewing (CAI) program updated the AFU (AGE1STBA or AGE1WBA for female respondents) with the value of the age calculated from the MFU and YFU (i.e., MYR1STBA or MYR1WBA). However, the new value for the AFU indicated that the R was more than 1 year younger than his or her current age at the time the R first engaged in binge alcohol use. Had the R initially reported this AFU, the R would not have been routed to the relevant MFU and YFU questions.	The updated value was retained in the edited AFU variables CABNGAGE or CA4FDAGE. Based on the updated value for the AFU, it was logically inferred that the R should have skipped the MFU and YFU items. A code of 9989 was assigned to the relevant YFU variable (CABNGYFU or CA4FDFYU), and a code of 89 was assigned to the corresponding MFU variable (CABNGMFU or CA4FDMFU).
The final verification check (BACC06 or WBACC06) was skipped because the R entered revised data for the relevant MFU and YFU that made MFU and YFU for first binge alcohol use consistent with the AFU.	No editing was done because the R was considered to have resolved the inconsistency.
The final verification check (BACC06 or WBACC06) was skipped because the R entered a new MFU that was the same as the R's birth month.	The new MFU could be consistent with the AFU, depending on whether the use in that month occurred before or after the R's birthday. No editing was done to the AFU, MFU, and YFU, as long as the revised MFU and YFU were potentially consistent with the AFU. However, the revised MFU and YFU were set to bad data if they could never be consistent with the AFU.
The R entered a new MFU or YFU that differed from what the R previously reported. The age based on the revised MFU and YFU (updated in MYR1STBA or MYR1WBA) still mismatched the AFU, but the R indicated in the final verification check that the new value from the relevant MYR variable was correct.	No editing was done in this situation. The CAI program automatically updated the value for the AFU to be consistent with the updated values reported for the MFU and YFU.
The consistency check was triggered between the "AGE1" AFU variable stored by the CAI program (e.g., AGE1STBA for consumption of five or more drinks) and the corresponding MYR variable (e.g., MYR1STBA). However, the R answered the first consistency check (e.g., BACC03, regarding whether the value in MYR1STBA was correct) as "don't know" or "refused." The R then exited the consistency check loop without having resolved the inconsistency.	The AFU value that had been stored in the AGE1 variable (e.g., in AGE1STBA) was retained, but the corresponding MFU and YFU variables were set to bad data.
The consistency check was triggered between the AGE1 and corresponding MYR variables. However, the R entered the same values for the YFU and MFU that triggered the inconsistency with the AFU in the first place.	No editing was done to the AFU, but the YFU and MFU variables were set to bad data.

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Exhibit 18. Edit Issues Involving the Binge Alcohol Use Variables in the Consumption of Alcohol Module (continued)

Issue	Edits Implemented
The R entered new values in the consistency checks for the MFU and YFU that again yielded a nonmissing value for the MYR variable. However, the R failed to resolve the inconsistency between the AGE1 variable and the updated value in the MYR variable. The R also reported either in the first verification check that the MYR was not correct (e.g., BACC03 = 6) or reported in the second verification check that the AFU from the AGE1 variable was correct (e.g., BACC04 = 2).	No editing was done to the AFU. The following edits were implemented for the MFU and YFU: • The default edit was to set the MFU and YFU to bad data. • As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," the MFU and YFU were assigned the code that corresponded to the answer in the final verification check.
The R entered new values in the consistency checks for the MFU and YFU that again yielded a nonmissing value for the MYR. However, the R failed to resolve the inconsistency between the AGE1 variable and the updated value in the MYR variable. The R also reported in the second verification check that neither answer was correct for what was originally captured in the AGE1 and MYR variables (e.g., i.e., BACC04 = 3).	The following edits were implemented for the AFU, MFU, and YFU: • The default edit was to set the AFU, MFU, and YFU to bad data. • As an exception to the default edit, if the final verification check was answered as "don't know" or "refused," the AFU, MFU, and YFU were assigned the code that corresponded to the answer in the final verification check.
The AFU was inconsistent with the value from the MYR (based on the MFU and YFU). The R also reported that the age from the MYR was correct (e.g., BACC03 = 4). However, the R answered the second consistency check (BACC04) as "don't know" or "refused." Consequently, the R did not have an opportunity to correct the inconsistency between the AFU, MFU, and YFU.	The relevant codes for "don't know" or "refused" were assigned to the AFU, MFU, and YFU. The rationale for this edit is that conclusive information did not exist regarding whether the AFU indicated the R's correct age when he or she first engaged in binge alcohol use, or whether the MFU and YFU indicated the R's correct age at initiation of binge alcohol use. Therefore, the AFU, MFU, and YFU all were set to missing values.
The R reported first binge alcohol use at an age that was earlier than what was reported for his or her first use of any alcohol or at an age that was greater than the R's current age.	The edited AFU variable (e.g., CABNGAGE) was set to bad data. Any nonmissing values in the YFU and MFU also were set to bad data.
The R reported first binge alcohol use in a year that was earlier than what the R reported for the year in which he or she first used any alcohol.	The edited YFU variable was set to bad data. Any nonmissing values in the MFU also were set to bad data.
The R reported first binge alcohol use in the same year in which the R first used any alcohol. However, the R reported first binge alcohol use in a month that was earlier than the month in which the R first used any alcohol.	The edited MFU variable was set to bad data.
The R reported first binge alcohol use in the same month as his or her birth month. However, the R could never have first engaged in binge alcohol use at the age he or she reported and also have first engaged in binge alcohol use in the year that the R reported.	The relevant YFU and MFU variables were set to bad data.

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Exhibit 18. Edit Issues Involving the Binge Alcohol Use Variables in the Consumption of Alcohol Module (continued)

Issue	Edits Implemented
An edited AFU variable for binge alcohol use had a missing value. However, the R first used alcohol at his or her current age.	• The binge alcohol AFU variable with the missing value was set to the R's current age. • The corresponding editing indicator (EI) variable was set to a value of 2, where 2 = Logically assigned data. • If the YFU and MFU had been set to bad data but the raw values that the R reported for the YFU and MFU were the same as those in ALCYFU and ALCMFU, then the relevant binge YFU and MFU variables were reset to their raw values.
An edited YFU variable for binge alcohol use had a missing value. However, the R first used alcohol in the current survey year.	• The binge alcohol YFU variable with the missing value was set to the current year. • If the edited YFU was not the same as the raw value, then the corresponding EI variable was set to a value of 2, where 2 = Logically assigned data. • If the MFU had a missing value and ALCMFU indicated that the R first used alcohol in the interview month, then the binge MFU was set to the same value as ALCMFU. If the edited MFU value was not the same as the raw value, then the corresponding EI variable for the MFU (e.g., EIBNGMFU) was set to a value of 2.
An edited MFU variable for binge alcohol use had a missing value. However, the YFU data and interview date supplied information on when the R logically first engaged in binge alcohol use.	• The missing value in the MFU was replaced with the definite month in which the R logically first engaged in binge alcohol use. For example, if the R reported first use of any alcohol and first binge alcohol use in the same year and the R first used any alcohol in December of that year, then December logically was the only month in that year in which the R could have initiated binge alcohol use. • If the edited MFU value was not the same as the raw value, then the corresponding EI variable for the MFU (e.g., EIBNGMFU) was set to a value of 2.
For females, the R reported first consumption of five or more drinks on a single occasion that was earlier than the age she reported for first consumption of four or more drinks.	• The earlier AFU from CABNGAGE was assigned to CA4FDAGE, and EI4FDAGE was set to a value of 2. • If CABNGYFU had a nonmissing value, then data from CABNGYFU and CABNGMFU also were transferred to CA4FDYFU and CA4FDMFU. • If the edited values for CA4FDYFU and CA4FDMFU differed from the corresponding raw values, then EI4FDYFU and EI4FDMFU were assigned a value of 2.

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Exhibit 18. Edit Issues Involving the Binge Alcohol Use Variables in the Consumption of Alcohol Module (continued)

Issue	Edits Implemented
For females, the R reported first consumption of five or more drinks on a single occasion in a year that was earlier than the year she reported for first consumption of four or more drinks.	• The earlier YFU from CABNGYFU was assigned to CA4FDYFU, and EI4FDYFU was set to a value of 2. • Data from CABNGMFU also were transferred to CA4FDMFU. • If the edited value for CA4FDMFU differed from the corresponding raw value, then EI4FDMFU was assigned a value of 2.
For females, the R reported first consumption of five or more drinks on a single occasion and four or more drinks on a single occasion in the same year. However, the R reported first consumption of five or more drinks in a month that was earlier than what she reported for first consumption of four or more drinks.	• Data from CABNGMFU were transferred to CA4FDMFU. • If the edited value for CA4FDMFU differed from the corresponding raw value, then EI4FDMFU was assigned a value of 2.
For females, CA4FDDYS (corresponding to question CA13) had a missing value. However, the edited variable DR5DAY from the core alcohol module indicated that these Rs had five or more drinks on a single occasion on all 30 days in the past month.	CA4FDDYS was assigned a value of 30, and EI4FDDYS was assigned a value of 2.
For females, CA4FDDYS had a nonmissing value that was less than the number of days from DR5DAY.	CA4FDDYS was assigned the value from DR5DAY, and EI4FDDYS was assigned a value of 2.
For females, the R reported that she had four or more drinks on a single occasion on 0 days in the past 30 days. However, CADRLAST or the core alcohol data indicated some consumption of four or more drinks in that period.	CA4FDDYS was set to bad data.