Introduction

Results from the 2018 National Survey on Drug Use and Health: Detailed Tables is a collection of tables presenting national estimates from the National Survey on Drug Use and Health (NSDUH).[1] These tables present information for youths aged 12 to 17 and adults aged 18 or older (separately and combined) on drug, alcohol, and tobacco use, as well as substance use disorder (SUD), risk and availability of substance use, treatment, health topics, and alcohol consumption. For youths, additional topics include youth experiences, mental health service utilization, major depressive episode (MDE), and treatment for depression. For adults, additional topics include any mental illness (AMI), serious mental illness (SMI), mental health service utilization (i.e., treatment or counseling for mental health issues), suicidal thoughts and behaviors, MDE, treatment for depression, and serious psychological distress (SPD). Measures such as the co-occurrence of mental disorders with substance use or with SUDs also are presented for both adults and youths. Estimates are presented by a variety of demographic, geographic, and other variables. The tables include prevalence rates of the behaviors, numbers of persons engaging in these behaviors, and other statistics.

The reference tools section summarizes the tools provided to help navigate the detailed tables and to define the topics presented within them. These tools include the table of contents, key to selected variables, glossary, list of table titles, and a new search feature. The key to selected variables lists key topics used in the detailed tables and provides the specific categories displayed for each topic in the tables. A glossary of topics and terms used in these detailed tables can be found in Appendix A. Where relevant, the glossary provides cross-references between terms and specific question wording for clarity. In addition to these tools, several NSDUH reports also include more details on the topics presented in the detailed tables. The *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions* report also offers information on key definitions and shares the same glossary that appears with these detailed tables; moreover, this report provides further analytic details on the survey topics, design, and methodology.[2] In addition to these detailed tables and the methodological summary report, a first findings report for the 2018 NSDUH focuses on key substance use and mental health indicators among persons aged 12 or older.[3]

SURVEY DESIGN

A coordinated sample design was developed for the 2014 through 2017 NSDUHs. A large reserve sample was selected at the time the 2014 through 2017 NSDUH sample was selected. This reserve sample was (or will be) used to field the 2018 through 2022 NSDUHs. Thus, the 2018 through 2022 NSDUH designs simply continue the coordinated design. The

---

[1] Starting with the 2015 NSDUH, the detailed tables are a combination of the prior detailed tables and the mental health detailed tables. For information on mapping current sections back to pre-2015 sections, refer to the Table Numbering Section of the 2016 detailed tables' introduction at https://www.samhsa.gov/data/.

[2] Center for Behavioral Health Statistics and Quality. (2019). *2018 National Survey on Drug Use and Health: Methodological summary and definitions*. Retrieved from https://www.samhsa.gov/data/

[3] See the following reference: Center for Behavioral Health Statistics and Quality. (2019). *Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health* (HHS Publication No. PEP19-5068, NSDUH Series H-54). Retrieved from https://www.samhsa.gov/data/

coordinated sample design is state based with an independent, multistage area probability sample within each state and the District of Columbia. As a result, states are viewed as the first level of stratification. Each state is further stratified into approximately equally populated state sampling regions (SSRs). Creation of each year's multistage area probability sample then involves selecting census tracts within each SSR, census block groups within census tracts, and area segments (i.e., a collection of census blocks) within census block groups. Finally, dwelling units (DUs) are selected within segments, and within each selected DU, up to two residents who are at least 12 years old are selected for interviewing.

This partitioning of states divided the United States into a total of 750 SSRs, which results in 750 degrees of freedom (*df*) for most national estimates presented in these detailed tables. Estimates for mean age of first use and average number of days used are the exception. These estimates are treated differently because of the possibility of smaller sample sizes; therefore, they potentially belong to fewer variance estimation strata, and cell-specific degrees of freedom are used. For more information on degrees of freedom, see Section 6 of the 2017 NSDUH statistical inference report.[4]

The coordinated sample design for 2014 through 2022 includes a 50 percent overlap in third-stage units (area segments) within each successive 2-year period from 2014 through 2022. In addition to reducing cost, this designed sample overlap slightly increases the precision of estimates of year-to-year trends because of the expected small but positive correlation resulting from the overlapping area segments between successive survey years. The design also allocates more interviews to the largest 12 states (compared with the 1999 to 2013 design). Making the sample sizes more proportional to the state population sizes improves the precision of NSDUH estimates.

Starting in 2014, the allocation of the sample by age group changed. In the 2005 through 2013 NSDUHs, the sample was allocated equally between three age groups: 12 to 17, 18 to 25, and 26 or older. Starting in 2014, the allocation of the NSDUH sample became 25 percent for adolescents aged 12 to 17, 25 percent for young adults aged 18 to 25, and 50 percent for adults aged 26 or older. The sample of adults aged 26 or older was further divided into three subgroups: aged 26 to 34 (15 percent), aged 35 to 49 (20 percent), and aged 50 or older (15 percent). These age allocation changes were designed to reflect more closely the actual population distributions by state and age group, so the precision of estimates overall and for older age groups could be improved.

BREAKS IN TRENDS DUE TO QUESTIONNAIRE AND OTHER CHANGES

NSDUH has undergone changes over the years in order to improve the quality of its data and to address the changing needs of policymakers and researchers with regard to substance use and mental health issues. These changes affect the level of comparability across years and many times cause breaks in trends. Information pertaining to some of the more major changes over the years as they pertain to the detailed tables are summarized below. For more detailed information

---

[4] See the following reference: Center for Behavioral Health Statistics and Quality. (2019). *2017 National Survey on Drug Use and Health: Methodological resource book (Section 13, Statistical inference report)*. Retrieved from https://www.samhsa.gov/data/

on these revisions and changes that do not pertain to the detailed tables, see Chapters 2 and 3 of the *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[5]

2017 Changes and Impact

Changes to Any Other Prescription Drug Subtype Measures

Starting with the 2015 NSDUH, new tables showing any use and misuse of various types of prescription drug subtypes were added to the detailed tables. During data processing for the 2016 detailed tables, it was discovered that a small number of respondents reported past year misuse of "any other" prescription pain reliever, tranquilizer, stimulant, or sedative, but they specified (1) only the misuse of prescription drugs that corresponded to existing prescription drug subtypes shown in the NSDUH questionnaire, or (2) only the misuse of prescription drugs that corresponded to existing subtypes and the misuse of over-the-counter (OTC) drugs. As a consequence, these respondents were double-counted because they were included in estimates for "any other" prescription drug and for the relevant prescription drug subtype. For example, if a respondent specified that Vicodin® was the only "other" prescription pain reliever that he or she misused in the past year (or specified only Vicodin® and an OTC drug, such as Advil®), then the respondent was included in the past year misuse estimates both for hydrocodone products and for other prescription pain relievers. This issue affects the subtype variables for past year misuse but ***not*** the subtype variables for any past year use because respondents were asked to specify only the names of other prescription drugs that they misused in the past year. The 2016 detailed tables contain a footnote alerting users about this double-counting. The issue was corrected starting with the 2017 detailed tables.

Changes to Adult Mental Health Outpatient Treatment Measures

Starting with the 2004 NSDUH, three questions were included at the end of the adult mental health service utilization section of the questionnaire asking about alternative types of treatment, counseling, or support in the past 12 months for mental health issues. The write-in responses for other alternative sources of care have been used since 2004 to logically assign respondents to the three edited service types (inpatient, outpatient, or prescription medication), as applicable. However, the decision was made to ***not*** use the write-in information from the other alternative sources of care question when defining the three corresponding treatment recodes used in the 2004 detailed tables. Respondents who were logically inferred to have utilized a service type based on write-in data from the other alternative sources of care question were assigned a system missing code in the corresponding treatment recode and excluded from the analyses for the detailed tables.

Starting with the 2010 detailed tables, respondents who were logically inferred to have received outpatient services based on these write-in data for other alternative sources of mental health services were classified as having received outpatient treatment. This same change was not implemented for the inpatient treatment and prescription medication recodes. To address this data quality issue, the adult mental health outpatient treatment estimates in the 2017 detailed tables were revised to exclude the write-in responses for the other alternative sources of care in

---

[5] See the reference in footnote 2.

2010 through 2016, consistent with the estimates prior to 2010. As a result, the 2010 to 2016 estimates presented in the 2017 and subsequent years' detailed tables may differ from previously published estimates. This update was applied only to the outpatient mental health measures for the 2010 to 2016 NSDUHs; thus, measures derived from the outpatient mental health measure remain unchanged for 2010 to 2016. Starting with the 2017 NSDUH, the updated outpatient mental health measure is being used for all derived measures.

Changes to Youth Reasons for Receiving Mental Health Services Measures

In the detailed tables, estimates for the reasons for receiving mental health services in the past year among youths who received specific mental health services are presented. Youths aged 12 to 17 were asked about the reasons for receiving mental health services in two separate questions. As an example, youths were asked the reason they were admitted the last time they stayed overnight or longer in a hospital to receive treatment or counseling for emotional or behavioral problems not caused by alcohol or drugs. Responses included thought about or tried to kill self, felt depressed, felt very afraid and tense, broke rules and "acted out," had eating problems, or some other reason. Youths who responded that there was some other reason for being admitted to the hospital were then asked a follow-up question about what was the other reason for which they stayed overnight in the hospital.

During data processing for the 2017 detailed tables, data quality improvements included a reclassification of three other specify levels that are actually defined disorders and are now included as "self-reported mental disorder." Previously, these levels were included as "some other reason." Another improvement allowed for respondents who entered a valid reason for a service type other than "some other reason" in the first question to be assigned a "no" value for the unselected service types in the first question, regardless of how the respondent answered the second question asking about reasons for receiving treatment. These coding changes were retroactively applied to the 2016 data; therefore, the 2016 estimates presented in the 2016 detailed tables may not match those appearing in more recent detailed tables. These coding improvements had little impact on the estimates, and the recodes are considered comparable with previous years.

In the detailed tables, mental health services for youths are divided into specialty services (e.g., outpatient or inpatient/residential) or nonspecialty services (e.g., education, general medicine, or child welfare). In addition to the coding improvements noted above, the code for the specialty mental health and education, general medicine, or child welfare measures was revised to assign some respondents who indicated receiving specialty mental health services and were known to have not received education, general medicine, or child welfare services for the specified reason to the "no" category. Previously, these respondents were assigned a system missing code. This issue occurred only when, in addition to the single nonspecialty mental health service they reported, respondents indicated receiving specialty mental health services and either had missing data for the specific reason or indicated receiving specialty mental health services for the specific reason. This coding revision was applied retroactively to the 2016 data; therefore, the 2016 estimates for the specialty mental health and education, general medicine, or child welfare measures presented in the 2016 detailed tables may not match those appearing in more recent detailed tables. Due to the number of respondents recategorized by this recode, these measures in 2016 and onward are not comparable with those in 2015 and prior years.

Changes to Standard Error Estimates

As with previous detailed tables, a "mixed" method approach for calculating standard errors was implemented in the 2017 detailed tables. An alternative method for estimating the standard error for the total number of persons is applied to a select subset of domains whose size estimates are forced to match their respective U.S. Census Bureau population estimates through the weight calibration process. The standard errors for all other domains are calculated directly in SUDAAN®.[6] For more information on calculating standard errors in the detailed tables and this alternative method, see Section 5 of the 2017 NSDUH statistical inference report.[7]

In Tables 5.22 to 5.25 within the 2016 detailed tables, the alternative standard error estimation method was inadvertently applied to the overall race categories that should have been calculated directly in SUDAAN along with the three-way interaction of age by Hispanic origin by race. (Per NSDUH standard practices for detailed tables, standard errors for three-way interactions should be calculated directly in SUDAAN.) In the 2017 detailed tables, standard errors were calculated accordingly in Tables 5.22 to 5.25; therefore, standard errors of the 2016 total estimates for the non-Hispanic white and non-Hispanic black or African American race categories may differ from those presented in the 2016 detailed tables. The magnitude of change for standard errors of the total estimates for other affected domains was not large enough to be seen in the detailed table estimates.

2016 Changes and Impact

Changes to Specific Prescription Drugs

To account for changing popularity and availability of specific prescription drugs, NSDUH has been designed to allow for the addition and removal of specific prescription drugs from year to year.[8] These specific prescription drugs were further categorized into subtypes and presented as such in the detailed tables. The following specific prescription drugs from 2015 were removed because they had been discontinued or were reported infrequently in the 2015 data: Roxicet®, Actiq®, buspirone, hydroxyzine, meprobamate, and Ritalin® SR. Additionally, buprenorphine plus naloxone was added to the prescription pain relievers section to provide a generic form of the brand-name drug Suboxone®. The impact assessment determined that the removal and addition of these drugs did not change the comparability of the prescription drug subtypes or overall pain reliever estimates presented in the detailed tables.

The "any past year use of prescription pain reliever" response option for Tylenol® with codeine 3 or 4 was modified to clarify that this drug was not the same as OTC Tylenol® in order to reduce potential confusion between these two similarly sounding drug names. As expected, there was a reduction in reports of using Tylenol® with codeine 3 or 4. The impact assessment confirmed that the estimates of use and misuse of codeine products were not comparable between 2015 and 2016, but the overall pain relievers category remained comparable. The lack

---

[6] See the following reference: RTI International. (2012). *SUDAAN®, Release 11.0* [computer software]. Research Triangle Park, NC: Author.
[7] See the reference in footnote 4.
[8] Any specific drug added to or removed from the survey affects the drug screener questions and the main drug section questions.

of comparability for codeine products has been noted in the detailed tables that present estimates for prescription pain relievers, opioids, and prescription psychotherapeutics.

Changes to Education Measures

In 2016, the question about current school enrollment in the Back End Demographics section was reworded to clarify the question for younger respondents. Instead of asking, "Are you now attending or are you currently enrolled in school?" the question was revised to ask, "Do you go to school?" The revised question also instructs respondents to answer "yes" if they were "on holiday or break from school, such as spring break or summer vacation, but plan to return when the break is over." An impact assessment concluded that the percentage of adolescents aged 12 to 17 who reported currently being enrolled in school decreased between 2015 and 2016; however, estimates of current school enrollment data among those aged 18 to 22 that are used in creating the college enrollment estimates are considered comparable between 2015 and 2016 or later years.

Additionally, text defining what is included in the term "school" was added for consistency to a different current school enrollment question asked specifically of youths aged 12 to 17. These current enrollment data are used to subset the student characteristic, adult involvement, and youth perceptions' tables in Section 3 of the detailed tables. The impact assessment determined that the additional text had a negligible effect on the resulting data.

Changes to Driving Under the Influence Measures

Starting with the 2016 NSDUH, respondents who reported past year alcohol use or selected illicit drug use were asked individual questions about driving under the influence of each substance they indicated using. The selected illicit drugs include marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, and methamphetamine. Previously, questions about driving under the influence of illicit drugs did not specify individual drugs and were asked of past year users of illicit drugs, including prescription psychotherapeutics. After analyzing the 2016 estimates for driving under the influence and comparing the results with the 2015 estimates, it was determined that breaks in trends occurred for all measures of driving under the influence, including the measure of driving under the influence of only alcohol.

Changes to OxyContin® and Oxycodone Product Estimates

Starting with the 2016 NSDUH, OxyContin® and oxycodone estimates in the pain reliever subtype detailed tables are based on the imputation-revised OxyContin® use and misuse variables. In the 2015 detailed tables, these estimates were based on the edited OxyContin® use and misuse variables. As a result, the 2015 estimates presented in the 2015 detailed tables may not match those appearing in more recent detailed tables. Although the estimates based on the edited OxyContin® use and misuse variables are not incorrect, the estimates based on the imputation-revised OxyContin® use and misuse variables are recommended.

Changes to Standard Error Estimates

As with previous detailed tables, a "mixed" method approach for calculating standard errors was implemented in the 2016 detailed tables. For more information, see the subsection on Changes to Standard Error Estimates in the 2017 Changes and Impact section.

In Tables 1.28 to 1.87 within the 2015 detailed tables, the alternative standard error estimation method was inadvertently applied to some three-way interactions. As previously noted, the standard error for three-way interactions should be calculated directly in SUDAAN per NSDUH standard practices for detailed tables. Tables 1.29 to 1.66 within the 2016 detailed tables calculated standard errors accordingly; therefore, standard errors of the 2015 total estimates for the non-Hispanic white and non-Hispanic black categories (in the 2016 detailed tables) may differ from those presented in the 2015 detailed tables.

2015 NSDUH Redesign Changes and Impact

The NSDUH questionnaire underwent a partial redesign in 2015. These changes led to breaks in the comparability of 2015 estimates with estimates from prior years. Due to the breaks in comparability, many estimates from years prior to 2015 have been noted in the detailed tables as not comparable due to methodological changes. These include measures of overall illicit drug use; use of hallucinogens, inhalants, and methamphetamine; misuse of prescription drugs; binge and heavy alcohol use overall and among females; smokeless tobacco use; illicit drug use disorder and use disorders of selected illicit drugs; and substance use treatment. Additionally, 2015 estimates by education and current employment have been noted as not comparable with prior years. Other topics, such as the mental health topics, did not undergo major changes and therefore are considered comparable.

The 2015 NSDUH partial redesign also introduced new definitions. For example, changes to the prescription drug section in the 2015 NSDUH resulted in the detailed tables no longer using the term "nonmedical use" and instead using the term "misuse." For more specific information about each of the 2015 NSDUH changes, see Section C of the *2015 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[9]

Starting with the 2015 NSDUH, there was also a change in the focus of the questions for specific prescription psychotherapeutic drugs. The focus shifted from lifetime use of all respondents to use more than 12 months ago among respondents who last misused any prescription drug. This shift appeared to affect the lifetime misuse of prescription drugs and the prescription drug misuse initiation measures. For this reason, starting with the 2015 detailed tables, estimates for lifetime prescription drug use and estimates for initiation of misuse of prescription drugs among individuals who were at risk for initiation are not shown. For more

---

[9] See the following reference: Center for Behavioral Health Statistics and Quality. (2016). *2015 National Survey on Drug Use and Health: Methodological summary and definitions*. Retrieved from https://www.samhsa.gov/data/

specific information about each of the 2015 changes, see Sections 3.4.1 and 3.4.2 in Chapter 3 of the *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[10]

In order to evaluate the changes from the 2015 redesign, a 12-month questionnaire redesign impact assessment was completed.[11] Analyses found significant differences between 2015 and previous years for the risk and availability variables. It was determined that these measures are not comparable for years prior to 2015.

Previous Mental Health Changes and Impact

Because of additional survey improvements and questionnaire changes to the mental health sections between 2002 and 2012, it is not possible to assess long-term trends for all of the mental health measures. A summary of the changes is described below, but for more detailed information on revisions, see Chapters 3.4.6 and 3.4.7 in Chapter 3 of the *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[12]

In 2012, revisions were made to the 2008 to 2011 past year AMI and SMI estimates. Past year mental illness estimates for 2008 through 2011 found in mental health detailed tables and reports published prior to 2012 were based on a prediction model for mental illness developed using the 2008 clinical data from the Mental Health Surveillance Study. An improved model was used for estimates starting in 2012. For the 2012, 2013, and 2014 mental health detailed tables and the 2015 to 2018 detailed tables,[13] the 2012 to 2018 estimates and the previous 2008 to 2011 estimates are based on the 2012 model.

It is recommended that the mental illness variables derived from the 2012 model not be used when analyzing variables for past year suicidal thoughts, past year MDE, the Kessler-6 (K6) mental disorder scale, or the World Health Organization Disability Assessment Schedule (WHODAS) scale, and it is also recommended that the mental illness variables derived from the 2012 model not be used when analyzing other closely linked variables (including past year suicide attempts, past year suicide plans, medical treatment for suicide attempts, lifetime MDE, SPD, or components used in the K6 or WHODAS scales). For detailed information on model revisions to the mental illness items, see Chapter 3.4.7 in Chapter 3 of *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[14] As with the mental illness estimates based on the 2008 model, the mental illness estimates based on the 2012 model are not comparable with SMI estimates produced from NSDUH data prior to 2004; however, long-term trend estimates are available for SMI starting with 2008.

Because of the 2008 questionnaire revisions to the mental health section, several estimates in 2008 (MDE and past 12-month SPD) were affected by context effects. However, an

[10] See the reference in footnote 2.

[11] See the following reference: Center for Behavioral Health Statistics and Quality. (2017). *2015 National Survey on Drug Use and Health: Methodological Resource Book (Section 15, 2015 Questionnaire Redesign Impact Assessment, final report, Volumes 1 and 2)*. Retrieved from https://www.samhsa.gov/data/

[12] See the reference in footnote 2.

[13] See footnote 1.

[14] See the reference in footnote 2.

adjustment for the questionnaire changes was applied to estimates of MDE for 2005 to 2008. Therefore, long-term trend estimates for these two measures are available from 2005 through 2018. For more detailed information, see Section 3.4.8 in Chapter 3 of the *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[15] No additional questionnaire changes from 2009 to 2018 have led to changes in these adult mental health measures. Moreover, no questionnaire changes have been implemented that affected the adult mental health service utilization questions; therefore, estimates of mental health service utilization presented in these detailed tables reflect trends from 2002 to 2018. The only exceptions are estimates that combine mental health data with other topics that are considered not comparable.

No questionnaire revisions affected MDE for youths aged 12 to 17; thus, long-term trend estimates are available from 2004 through 2018. However, revisions to the youth mental health service utilization module of the 2009 NSDUH questionnaire resulted in new estimates and a discontinuation of trends for several items on the mental health service settings. New questions regarding the receipt of mental health services from juvenile justice settings were added in 2009, and questions regarding services from educational settings were revised and are not comparable with estimates prior to 2009.

Changes to Previously Published 2006 to 2010 Estimates

During regular data collection and processing checks for the 2011 NSDUH, data errors were identified that affected the data for Pennsylvania (2006 to 2010) and Maryland (2008 and 2009). Cases with erroneous data were removed from the data files, and the remaining cases were reweighted to provide representative estimates. The errors had minimal impact on the national estimates and no effect on direct estimates for the other 48 states and the District of Columbia, but they had an appreciable effect on estimates for Pennsylvania, Maryland, the mid-Atlantic division, and the Northeast region. Estimates for the Northeast region based on 2006 to 2010 data may differ from previously published estimates. Tables and estimates based only on data since 2011 are unaffected by these data errors. All affected tables (i.e., tables with estimates based on 2006 to 2010 data) contain a note to indicate this to the user. Caution is advised when comparing data from older reports with data from more recent reports that are based on corrected data files.

New 2002 Baseline

Methodological changes implemented in the 2002 NSDUH affected the comparability of the 2002 estimates with prior surveys. Some of the changes included the addition of a $30 incentive, a change in the survey name from the National Household Survey on Drug Abuse (NHSDA) to the current name, and updated population data from the 2000 decennial census being incorporated into the sample weights. Because of these improvements in the 2002 NSDUH, the 2002 data constitute a new baseline for tracking trends in substance use and other measures. Therefore, estimates from the 2002 through 2018 surveys should not be compared with estimates from the 2001 or earlier surveys to examine changes over time. In addition to the

---

[15] See the reference in footnote 2.

2002 baseline change, the aforementioned changes may also constitute a new baseline for various measures.

Methodology changes throughout NSDUH's history make it difficult to assess long-term trends from tables presenting data from 1971 to 2018. However, it is instructive to compare NSDUH estimates from 1971 to 2018 by "piecing together" the data from time periods for which data are comparable. Specifically, valid trend comparisons can be made for 1971 to 1998, 1999 to 2001, and 2002 to 2018. With this approach, comparisons between 1998 and 1999, and between 2001 and 2002, should be made with caution because they are potentially biased due to changes in methods. Nevertheless, when these data are combined in a single presentation, it often becomes clear that the effects of the changes in methods are small compared with the major shifts in substance use prevalence that have occurred over the past 50 years.

TABLE PRESENTATION

The majority of the 2018 detailed tables present estimates from the 2017 and 2018 NSDUHs. Also included are a number of tables that present data from prior surveys in the series, including a section of tables presenting data mainly from 2002 to 2018, 2008 to 2018, or 2015 to 2018, with a few tables presenting data from various years starting from 2004 to 2009 and a couple of tables presenting data from 1971 to 2018. The following sections provide information on how the tables are organized, the types of tables that are available, information about specific indicators used for the 2018 detailed tables, information on missingness, information on the impact of rounding on estimates presented in the tables, and how totals are to be interpreted within the tables.

Table Numbering

The detailed tables are numbered using a three-part numbering scheme (e.g., 1.15A). The first part of the table number (**1**.15A) is the subject matter section to which a particular table belongs. The second part (1.**15**A) is the number of the table within a particular section. The third part (1.15**A**) is a table type indicator, an alphabetic letter appended to the table number. Each table number, as explained below, has multiple table types. Tables are numbered sequentially within each subject matter section. Identical tables across years may not be assigned the same table number each year.

The 12 subject matter sections and the number of tables per section in 2018[16] are as follows:

Section 1: Illicit Drug Use/Misuse Tables – 1.1 to 1.122

Section 2: Tobacco Product and Alcohol Use Tables – 2.1 to 2.35

Section 3: Risk and Protective Factor Tables – 3.1 to 3.18

Section 4: Incidence Tables – 4.1 to 4.8

Section 5: Substance Use Disorder and Treatment Tables – 5.1 to 5.39

---

[16] See footnote 1.

Table Types and Purpose

The table type indicators are primarily defined as follows; however, some exceptions do exist and are noted in subsequent text.

Table Type	Purpose of the Table
A	Presents estimates of the numbers of persons exhibiting the specified behavior or characteristic (e.g., substance use) in the populations described by the column and row headings.
B	Presents estimates of the percentages of persons exhibiting the specified behavior or characteristic (e.g., substance use) in the populations described by the column and row headings.
C	Presents the standard error associated with each of the estimates in the "A" tables.
D	Presents the standard error associated with each of the estimates in the "B" tables.
N	Presents the number of cases in the specified NSDUH sample with the characteristics defined by the column and row headings.
P	Presents the p values from tests of the statistical significance of differences between columns in the "B" tables.

The majority of tables within the detailed tables contain five table types (A, B, C, D, and P) as defined above. Note that table type N is used exclusively within Section 12 to display the sample size counts. Exceptions to this organization are noted as follows:

- Section 4 (Incidence Tables) contains tables for which only table types B, D, and P are produced. Tables 4.1 to 4.8 present numbers and percentages of past year initiates in table type B, associated standard errors for each of these estimates in table type D, and p values from tests of statistical differences between years in table type P.

- Section 5 (Substance Use Disorder and Treatment Tables) includes one subset of tables for which table type A contains both numbers and percentages, where the percentages are repeated in the B table. Specifically, the subset of tables (Tables 5.32 to 5.34, 5.36, and 5.38) presents estimates among all persons and percentages among persons who needed treatment in the type A tables, where the percentages are repeated in the B tables.

- Section 7 (Trend Tables) contains one subset of tables for which only table types B, D, and P are produced, and one subset of tables for which only table types B and D are produced. A subset of tables (Tables 7.17 and 7.18) includes multiyear tables that involve only table types B, D, and P. Tables 7.17 and 7.18 present the average number of days used specific substances in table type B, associated standard errors for each of these estimates in table type D, and *p* values from tests of statistical differences between years in table type P. The second subset of tables (Tables 7.66 and 7.67) are multiyear tables that present estimated percentages for 1971 to 2018 in table type B and associated standard errors in table type D. The estimated total number of users and associated standard errors are not presented, nor are between-year significance tests implemented; thus, table types A, C, and P are not used.

- Section 12 (Sample Size and Population Tables) contains only table types A, C, and N. Population counts, standard errors, and sample sizes are displayed in table types A, C, and N, respectively. Percentages of the population and associated standard error tables are not provided in this section.

Table Indicators

Each 2018 detailed table, including those for all of the above table types, contains the following definitional footnote, regardless of whether any or all of the indicators were used in the table:

* = low precision; -- = not available; da = does not apply; nc = not comparable due to methodological changes; nr = not reported due to measurement issues.

The "* = low precision" portion of the footnote indicates an estimate is being suppressed (i.e., not shown) due to low precision.

The "-- = not available" portion of the footnote indicates that for the given year, the questions used to produce the estimates were not available. For example, prior to 2015, respondents were not asked about having a past year methamphetamine use disorder. Thus, for 2014 and earlier years, those estimates are shown with the "--" notation.

The "da = does not apply" portion of the footnote indicates that the question or estimate does not apply to a certain group. For example, in pregnancy tables, the trimester estimates are shown as "da" for overall females and nonpregnant females, and in the incidence tables that show numbers in thousands and percentages in the same table, the *p* values for the numbers in thousands are replaced with "da" because the detailed tables show only *p* values of tests of differences of percentages.

The "nc = not comparable due to methodological changes" portion of the footnote indicates that estimates for the measure do exist for prior years, but they are no longer comparable with the current year estimate. For example, illicit drug use estimates are available for all years in the detailed tables, but the 2015 through 2018 estimates are not comparable with the 2002 through 2014 estimates due to questionnaire changes. Thus, the 2014 and prior year estimates are shown with the "nc" notation.

The "nr = not reported due to measurement issues" portion of the footnote indicates that the estimate could be calculated based on available data but is not calculated due to potential measurement issues. For example, lifetime use of prescription pain relievers for 2015 through 2018 is shown as "nr" because the questionnaire was changed to focus on past year misuse of pain relievers rather than lifetime past year use of pain relievers, and there appears to be an underestimate of lifetime pain reliever use compared with prior years.

For more information on how low precision is defined and further details on the changes noted above, see Chapter 3.2.2 in Chapter 3 and Chapter 4 of the *2018 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[17]

Additionally, all type A and B detailed tables where significance testing was performed between years contain the following footnote, regardless of whether any difference was significant:

[a] The difference between this estimate and the 2018 estimate is statistically significant at the .05 level. Rounding may make the estimates appear identical.

Tables where significance testing was not performed between years do not contain these footnotes.

Missingness

Some measures have missing data. In the detailed tables, a footnote or note is included to alert a user to the fact that missing data were excluded from the analysis. For the 2018 NSDUH, an investigation was completed to look at missing data rates in the 2018 detailed tables. The investigation was done for all new measures (i.e., received neither substance use treatment at a specialty facility nor mental health services) and measures shown among a new domain (e.g., smoking one or more packs of cigarettes a day by underage/legal age categories; MDE, MDE with severe impairment, receipt of treatment for depression among those with severe impairment, and suicidal behaviors by detailed age groups and SUD status). The level of missingness in these measures was similar to or lower than the level from previous evaluations. Specifically, the missingness level was less than 5 percent for all measures evaluated with the following exceptions: the weighted rate of numerator missingness was 7.6 percent for MDE and MDE with severe impairment among those with past year sedative use disorder.

For other measures, the results from the 2014 through 2017 investigations were assumed to still hold. That is, missing data were not a concern for most topics. However, a few items did have a slightly higher rate of missing data (e.g., items on perceived availability of various illicit drugs, items on the source of prescription drugs obtained for most recent use, and items on reasons for receiving most recent mental health services for youths). Specifically, less than 5 percent of the risk, availability, and protective factor subpopulations evaluated in 2016 had both weighted and unweighted missingness rates above 5 percent. The highest weighted rate of numerator missingness was 7.8 percent. The exclusion of respondents with missing data induces a negative bias for estimates of population totals and may induce a bias in either direction for

---

[17] See the reference in footnote 2.

estimates of population means and proportions. For more information on missingness, see Chapter 4 of the 2017 NSDUH statistical inference report.[18]

Rounding and Effect on Significance Testing

Prevalence estimates in percentages are rounded to the nearest tenth of a percent, and total estimates are rounded to the nearest thousand. Due to this rounding, prevalence estimates of 0.0 percent and total estimates of 0 are displayed in the tables. These estimates are rounded down from a percentage < 0.05 percent or < 500, respectively, and do not represent an absence of persons displaying a particular characteristic. Nonrounded estimates of zero are suppressed.

Testing between two prevalence estimates can indicate significant differences, which involves estimates that appear identical when rounded but are actually different. Note that similar results can be seen in the average age-at-first-use estimates and the estimates for the average number of days used, which are also rounded to the nearest tenth, and the total estimates. For example, Table 7.3B, a trend table in the 2018 detailed tables, shows how seemingly identical estimates from previous years can differ in significance when each is compared against the current year's estimate. The estimate for past month crack use among persons aged 12 or older was 0.1 percent for 2008, 2010, 2011, 2013, 2014, and 2015, but only the 2011 estimate was significantly different from the 2018 estimate of 0.2 percent. Although the rounded estimates for 2008, 2010, 2011, 2013, 2014, and 2015 appeared to be the same, the unrounded estimates were 0.145 percent for 2008, 0.149 percent for 2010, 0.089 percent for 2011, 0.144 percent for 2013, 0.134 percent for 2014, and 0.147 percent for 2015; moreover, each of these estimates had varying standard errors that affected the testing. Note that differences in precision can also cause seemingly identical (or identical) previous year estimates to differ in significance when compared with the current year's estimate.

Definitions of Totals

Totals are defined in different ways within the detailed tables. Totals can refer to the estimated number of persons with a specific characteristic, as shown in detailed table type A and displayed in numbers of thousands. For example, in Table 2.1, the total estimated population of youths aged 12 to 17 who used cigarettes in the past year in 2018 was approximately 1,365,000 and shown as 1,365. Totals can also be presented in the table rows or columns, either as a total of a subgroup category or listed as the "Total Population." If the estimate is a total of a subgroup category (e.g., total of gender), the estimate is the total number of both males and females combined. Instances where measures have missing data may cause the subcategories to not add up to a total and are noted in the tables. If the estimate is shown as the "Total Population" on the row, then that estimate is usually included as a reference for tables with a nonstandard denominator. This total population estimate is normally the number being used in the nonstandard denominator to allow users to easily see that estimate without having to switch tables. For example, in Table 8.33, the total population row for table type A shows the estimated number of persons who fit the criteria in the columns, which are the column denominators (i.e.,

---

[18] See the reference in footnote 4.

14,215,000 adults reported a perceived unmet need for mental health services in the past year for 2018), and this number is used as the denominator in all the reason estimates.