Introduction

Results from the 2020 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 (including nicotine vaping), 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, suicidal thoughts and behaviors, 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 people 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 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 *2020 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 2020 NSDUH focuses on key substance use and mental health indicators among people aged 12 or older.[3]

Considerations for the 2020 NSDUH Detailed Tables

The coronavirus disease 2019 (COVID-19) pandemic made 2020 a unique year within the history of NSDUH. On January 31, 2020, U.S. Department of Health and Human Services Secretary Alex M. Azar II declared a public health emergency in the United States to aid in the

[1] Starting with the 2015 NSDUH, the detailed tables have included 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. (forthcoming). *2020 National Survey on Drug Use and Health: Methodological summary and definitions*. Retrieved from https://www.samhsa.gov/data/

[3] Center for Behavioral Health Statistics and Quality. (in press). *Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health* (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Retrieved from https://www.samhsa.gov/data/

response to the COVID-19 pandemic (U.S. Department of Health and Human Services, 2020).[4] The Substance Abuse and Mental Health Services Administration (SAMHSA) suspended Quarter 1 in-person data collection on the 2020 NSDUH on March 16, 2020, because of the COVID-19 pandemic. With administrative approval, a small-scale data collection effort was conducted during Quarter 3 from July 16 to 22, 2020, to assess the feasibility of safely resuming in-person data collection. The small-scale data collection effort was conducted in selected counties of two states where data collection was deemed safe based on state- and county-level COVID-19 metrics. For the remainder of 2020, however, it became clear that conventional in-person data collection would be severely limited due to the COVID-19 pandemic.

To reduce the impact on NSDUH data collection due to the COVID-19 pandemic, SAMHSA approved the addition of web-based data collection on September 11, 2020. In Quarter 4 of 2020 (i.e., October to December), web-based interviewing became the primary form of NSDUH data collection. Conventional in-person data collection was carried out wherever it was considered safe to do so based on county- and state-level COVID-19 metrics. Questions were added to the survey in Quarter 4 to assess impacts of COVID-19 on substance use, mental health, and treatment. In addition, some modifications were made to the web-based instrument.

The data from Quarters 1 and 4 were combined to generate the 2020 estimates that are shown in most of the 2020 NSDUH detailed tables. The small number of Quarter 3 interviews were grouped with the Quarter 4 data for weighting, imputation, and estimation. SAMHSA decided to produce estimates for 2020 using the combined data to increase the sample sizes and resulting precision of the estimates. Estimates for 2020 are presented in the detailed tables along with estimates prior to 2020, when available. Unlike prior years, however, Quarters 2 and 3 were largely unrepresented in the 2020 data. This gap in the data is an important caveat for the combined estimates from the 2020 NSDUH. The final combined sample sizes in 2020 also were considerably smaller than the sample sizes in 2019. Consequently, the 2020 standard errors for estimates were generally higher than those in 2019.

Given the differences in data collection periods and other methodological procedures between 2020 and prior NSDUH years, SAMHSA decided not to make statistical comparisons between 2020 estimates and those from applicable prior years in the detailed tables. Due to methodological changes for 2020, caution is advised when comparing 2020 and prior years. Caution should also be used when attempting to disentangle the effects on estimates due to real changes in the population (e.g., COVID-19, other events) from the effects due to methodological changes. See Chapters 2, 3, and 6 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions* report for details.[5]

Survey Design

A coordinated sample design was developed for the 2014 through 2022 NSDUHs. The coordinated sample design is state based with an independent, multistage area probability sample

[4] U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2020, January 31). *Determination that a public health emergency exists*. Retrieved from https://www.phe.gov/emergency/news/healthactions/phe/Pages/2019-nCoV.aspx

[5] See the reference in footnote 2.

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 at 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. Additionally, estimates calculated using Quarter 4 data only use a reduced *df* to account for collapsed strata. For more information on degrees of freedom, see Chapter 6 of the 2019 NSDUH statistical inference report.[6]

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 12 largest states (compared with the 1999 to 2013 design).[7] 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 and continuing through 2020, the allocation of the NSDUH sample became 25 percent for youths 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.

The sample design included two special changes for the 2020 NSDUH:

- expansion of the sample to support a special clinical validation study, and

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[6] Center for Behavioral Health Statistics and Quality. (2021). *2019 National Survey on Drug Use and Health methodological resource book, Section 13, Statistical inference report*. Retrieved from https://www.samhsa.gov/data/

[7] In the 1999 to 2013 design, the eight largest states each had a target sample size of 3,600. The remaining states and the District of Columbia each had a sample size of 900. In 2014, the sample design was modified so that the sample size per state was relatively more proportional to the state population. For a full list of target sample sizes per state in 2013 and from 2014 to 2022, see Table 2.1 in the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions* (see the reference in footnote 2).

- changes to the sample design in response to the COVID-19 pandemic.

The first of these changes was planned before the start of 2020 NSDUH data collection. The second change was necessitated by the limitations that the COVID-19 pandemic imposed on in-person data collection. For more detailed information on these changes, see Chapter 3 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[8]

Breaks in Trends Due to Questionnaire and Other Changes

NSDUH has undergone changes over the years 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 often cause breaks in trends. Information pertaining to some of the major changes over the years as they pertain to the 2020 detailed tables are summarized below. For more detailed information on these revisions, revisions that pertain to detailed tables for earlier survey years, and changes that do not pertain to the detailed tables, see Chapters 2 and 3 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[9]

2020 Changes and Impact

Changes to Substance Use Disorder (SUD) Measures

Beginning with the 2020 NSDUH, SUD estimates for alcohol and illicit drugs were based on criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-5).[10] Illicit drugs included marijuana, cocaine, heroin, hallucinogens, inhalants, methamphetamine, and the misuse of prescription psychotherapeutic drugs (i.e., pain relievers, tranquilizers, stimulants, and sedatives). Prior to the 2020 NSDUH, SUD estimates for alcohol and illicit drugs were based on criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV).[11,12]

People were classified under the DSM-5 criteria as having an SUD for a given substance if they met two or more of the criteria for that substance. In contrast, people were classified as having an SUD based on the DSM-IV criteria according to whether they met criteria for dependence or abuse. People were classified as having dependence if they met three or more of the DSM-IV dependence criteria for a given substance. People were classified as having abuse if they did not meet criteria for dependence but met one or more of the abuse criteria. For more information on the DSM-5 criteria including the imputation method used to replace missing values in the DSM-5 data and differences between the former DSM-IV SUD criteria and the

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[8] See the reference in footnote 2.

[9] See the reference in footnote 2.

[10] American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (DSM-5) (5th ed.). Arlington, VA: Author.

[11] The SUD variables based on the DSM-IV criteria will be available on the 2020 NSDUH public use data file. See the 2019 methodological summary and definitions report for details on how SUD variables were created based on the DSM-IV criteria. Center for Behavioral Health Statistics and Quality. (2020). *2019 National Survey on Drug Use and Health: Methodological summary and definitions*. Retrieved from https://www.samhsa.gov/data/

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

DSM-5 criteria, see Section 3.4.3 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[13]

Preliminary analyses of 2020 data suggested that these differences would yield higher SUD estimates in 2020 based on the DSM-5 criteria. SAMHSA concluded that the change from DSM-IV to DSM-5 criteria for estimating SUD would lead to breaks in the comparability of 2020 SUD estimates with estimates from prior years. Consequently, detailed tables for the 2020 NSDUH present SUD estimates only for 2020. SUD estimates for 2019 and earlier in the 2020 detailed tables are noted as not comparable due to methodological changes.

Changes to Suicidal Thoughts and Behavior Measures among Adults

In the mental health section of the 2020 NSDUH questionnaire, adult respondents were asked about suicidal thoughts and behaviors in the past 12 months. Before Quarter 4 of 2020, only those adult respondents who reported that they had serious thoughts of suicide in the past 12 months were asked whether they made a suicide plan or tried to kill themselves. Beginning in Quarter 4, all adults were asked whether they made a suicide plan or attempted suicide regardless of what they reported for serious thoughts of suicide.

Few adult respondents in Quarter 4 (fewer than 15) did not report that they had serious thoughts of suicide but that they had made suicide plans or had attempted suicide. For estimates of suicide plans and suicide attempts that were based on the 2020 data from Quarters 1 and 4, the Quarter 4 data were adjusted so that any respondents in Quarter 4 who reported having serious thoughts of suicide in the past 12 months were treated in the analyses as not making suicide plans or attempting suicide in that period. This handling of Quarter 4 data was consistent with how corresponding data were handled in Quarter 1 and in prior years when respondents reported that they did not have serious thoughts of suicide in the past 12 months.

This issue of the changed skip logic in Quarter 4 also applied to estimates for the receipt of medical attention because of suicide attempts and hospitalization because of suicide attempts that were based on the 2020 data from Quarters 1 and 4. Respondents in Quarter 4 who were handled in the combined analyses as not attempting suicide because they reported that they did not have serious thoughts of suicide in the past 12 months were also handled as not receiving medical attention or not staying overnight in a hospital because of a suicide attempt. These analysis procedures enabled consistency in the way that Quarter 4 data were handled compared with analyses in prior years.

Changes to Kratom Measures

Starting with the 2020 NSDUH, kratom use measures were imputed instead of using the zero fill method for unknown responses. Kratom use measures used to generate estimates presented in the 2020 detailed tables were imputed for both 2019 and 2020. Therefore, the 2019 kratom use estimates presented in the 2020 detailed tables may differ from those presented in prior years.

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[13] See the reference in footnote 2.

Mode Changes

The 2020 NSDUH for the first time included self-administered interviews collected via the web in addition to the standard in-person data collection from prior years. The web mode was introduced in Quarter 4 out of necessity because in-person data collection posed unreasonable health risks for respondents and FIs[14] in most geographical areas during the COVID-19 pandemic. Although the in-person and web questionnaires had similar content as much as possible, there were notable differences for in-person and self-administered web interviews. Such differences between data collection modes can lead to "mode effects," or differences in respondent characteristics and response patterns between the in-person and web modes. For the 2020 NSDUH, however, potential effects of the COVID-19 pandemic on substance use and mental health outcomes were completely confounded with these mode effects.

Break-Off Analysis Weights

The introduction of web-based data collection in Quarter 4 of 2020 increased item nonresponse due to respondents not completing the full survey (i.e., break-offs). For Quarter 4 of 2020, most missing data in usable interviews (Section 2.3.1) among adults were due to break-offs later in the survey. To reduce the potential bias that would arise from handling missing data due to break-offs the same way that other missing data (i.e., responses of "don't know" or "refused") were handled in analyses (i.e., excluding missing data or zero fill method), break-off analysis weights were created for 2020. These break-off analysis weights were used for a subset of the detailed tables that presented nonimputed measures that were asked later in the survey.

Changes to Standard Error Estimates

As with previous detailed tables, a "mixed" method approach for calculating standard errors was implemented for the 2020 detailed tables. An alternative method for estimating the standard error for the total number of people was applied to a select subset of domains whose size estimates were forced to match their respective U.S. Census Bureau population estimates through the weight calibration process. The standard errors for all other domains were calculated directly in SUDAAN®. For more information on calculating standard errors in the detailed tables and on this alternative method, see Chapter 5 of the 2019 NSDUH statistical inference report.

In Tables 7.24, 7.25, 7.31, and 7.32 within the 2019 detailed tables, the alternative standard error estimation method was inadvertently applied to these tables among people aged 12 to 20 and among people aged 21 or older. Because these age groups were not forced to match their respective U.S. Census Bureau population estimates, the standard errors of totals should have been calculated directly in SUDAAN. In the 2020 detailed tables, the standard errors were calculated accordingly in Tables 7.24, 7.25, 7.31, and 7.32; therefore, standard errors of the 2002 to 2019 total estimates in these tables may differ from those presented in prior detailed tables.

[14] The COVID-19 pandemic also could have posed health risks for others coming into contact with respondents or FIs, such as family members living with FIs.

2017 Changes and Impact

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 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 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. Recodes that use the outpatient mental health measure as a source variable were not updated for the 2010 to 2016 NSDUHs. For example, the "received any mental health treatment in the past year" recode, a combination measure for inpatient, outpatient, and prescription drug mental health treatment, was not revised. Starting with the 2017 NSDUH, the updated outpatient mental health measure has been used for any recodes.

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 mental/neurological disorders and are now included as "self-reported mental/neurological 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 those from 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.[15]

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.[16] These specific prescription drugs are 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® to reduce potential confusion between these two similar-sounding drug names. As expected, there was a reduction in reports of using Tylenol® with codeine 3 or 4. The impact assessment

[15] Although there were no questionnaire changes in 2020, users should use caution when comparing estimates from 2020 to estimates from previous years due to methodological changes.

[16] Any specific drug added to or removed from the survey affects the drug screener questions and the main drug section questions.

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 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 youths 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.[17]

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

[17] Although there were no questionnaire changes in 2020, users should use caution when comparing estimates from 2020 to estimates from previous years due to methodological changes.

edited OxyContin® use and misuse variables are not incorrect, the estimates based on the imputation-revised OxyContin® use and misuse variables are recommended.

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; and substance use treatment. Additionally, 2015 estimates by education and employment status 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 including the term "nonmedical use" and instead including 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*.[18]

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 specific information about each of the 2015 changes, see Sections 3.4.1 and 3.4.2 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[19]

To evaluate the changes from the 2015 redesign, a 12-month questionnaire redesign impact assessment was completed.[20] 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

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[18] 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/

[19] See the reference in footnote 2.

[20] 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/

information on revisions, see Sections 3.4.6 and 3.4.7 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[21]

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 2020 detailed tables,[22] the 2012 to 2020 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 Section 3.4.7 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[23] 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 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 2019. For more detailed information, see Section 3.4.8 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[24] No additional questionnaire changes from 2009 to 2020 have led to changes in these adult mental health measures.[25] 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 2020.[26,27] The only exceptions are estimates that combine mental health data with other topics that are considered not comparable.

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[21] See the reference in footnote 2.

[22] See footnote 1.

[23] See the reference in footnote 2.

[24] See the reference in footnote 2.

[25] See footnote 17.

[26] Questions on receipt of virtual mental health services were added to the questionnaire during Quarter 4 data collection; however, estimates of mental health service utilization in Sections 8 through 11 of the detailed tables do not include data from these questions. Estimates for adult and youth virtual mental health services can be found at the end of Sections 8 and 9, respectively.

[27] See footnote 17.

No questionnaire revisions affected MDE for youths aged 12 to 17; thus, long-term trend estimates are available from 2004 through 2020.[28] 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 those from 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 changes 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 2020 surveys should not be compared with estimates from the 2001 or earlier surveys to examine changes over time. In addition to the 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 2020. However, it is instructive to compare NSDUH estimates from 1971 to 2020 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 2019. With this approach, comparisons between 1998 and 1999, between 2001 and 2002, and between 2019 and 2020 should be made with caution because changes in outcomes reflect possible effects of methodological changes as well as any real changes in respondent behavior. Additionally, data collection methods and time periods for 2020 were affected by the COVID-19 pandemic. Nevertheless, when these data are combined in a single

[28] See footnote 17.

presentation, it often becomes clear that confounded 1-year changes in estimates are small relative to a long-term shift in prevalence that has occurred over the past 50 years.

Table Presentation

The majority of the 2020 detailed tables present estimates from the 2019 and 2020 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 2020, 2008 to 2020, or 2015 to 2020, with a few tables presenting data from various years starting from 2004 to 2009 and a couple of tables presenting data from 1971 to 2020. Additionally, 12 tables present data for measures added to the questionnaire starting with the 2020 NSDUH; therefore, a single year of data is presented. The 2020 estimates in these 12 tables have been calculated using data from Quarters 1 and 4 of 2020, as discussed in the Considerations for the 2020 NSDUH Detailed Tables section of this introduction and are labeled as "2020" in table titles and columns for brevity. Lastly, 18 tables present data for measures added to the questionnaire starting with Quarter 4 of the 2020 NSDUH; therefore, only Quarter 4 data are used to calculate estimates in these tables.

The following sections provide information on how the tables are organized, the types and purpose of tables that are available, information about specific indicators used for the 2020 detailed tables, information on missingness, information on the impact of rounding on estimates presented in the tables, how totals are to be interpreted within the tables, and information on the new legal-size multiyear trend 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 13 subject matter sections and the number of tables per section in 2020[29] are as follows:

Section 1: Illicit Drug Use/Misuse Tables – 1.1 to 1.127

Section 2: Tobacco Product Use, Nicotine Vaping, and Alcohol Use Tables – 2.1 to 2.47

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

Section 4: Incidence Tables – 4.1 to 4.10

Section 5: Substance Use Disorder and Treatment Tables – 5.1 to 5.43

Section 6: Miscellaneous Tables – 6.1 to 6.37

[29] See footnote 1.

Section 7: Trend Tables – 7.1 to 7.54

Section 8: Adult Mental Health Tables – 8.1 to 8.71

Section 9: Youth Mental Health Tables – 9.1 to 9.17

Section 10: Adult Mental Health Trend Tables – 10.1 to 10.37

Section 11: Youth Mental Health Trend Tables – 11.1 to 11.9

Section 12: Sample Size and Population Tables – 12.1 to 12.10

Section 13: Perceived Effects of Coronavirus Disease 2019 (COVID-19) Tables – 13.1 to 13.11

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 people 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 people 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.

The majority of tables within the detailed tables contain four table types (A, B, C, and D) as defined above. In previous years, there was a fifth table type that presented the *p* values from tests of statistical significance of differences between columns in the "B" tables. Due to methodological changes for 2020, significance testing between 2020 and prior years was not performed for the 2020 detailed tables. 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 2 (Tobacco Product Use, Nicotine Vaping, and Alcohol Use Tables) – includes single-year tables related to nicotine vaping for which only table types A, B, C, and D are produced.
- Section 4 (Incidence Tables) includes one subset of tables for which only table types B and D are produced and another subset of tables for which only table types A and C are produced. Specifically, Tables 4.1 to 4.8 and 4.10 present numbers and percentages of past year initiates in table type B and associated standard errors for each of these estimates in table type D. Table 4.9 presents the number of people who

initiated before various age cutoffs in table type A and the associated standard errors in table type C.

- 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 tables. Specifically, Tables 5.32 to 5.34, 5.36, and 5.38 presents estimates among all people and percentages among people who needed treatment in the A tables, where the percentages are repeated in the B tables.
- Section 6 (Miscellaneous Tables) includes one table, Table 6.2, for which table type A contains both numbers and percentages, where the percentages are repeated in the B table. This table presents estimates among all people and percentages among past month cigarette smokers in the A table, where the percentages are repeated in the B table.
- Section 7 (Trend Tables) contains a subset of multiyear tables for which only table types B and D are produced. Specifically, Tables 7.17 and 7.18 present the average number of days people used specific substances in table type B and associated standard errors for each of these estimates in table type D. Table 7.45 presents the mean age for past year initiates in table type B and associated standard errors in table type D. Tables 7.53 and 7.54 present estimated percentages for 1971 to 2020 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; thus, table types A and C are not produced.
- 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 2020 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. For more information on how low precision is defined, see Section 3.2.2 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[30]

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 2020,

[30] See the reference in footnote 2.

respondents were not asked about lifetime nicotine vaping. Thus, for 2019 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.

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 2020 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 2020 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.

Additionally, in tables that show estimates for 2020 and prior years, the 2020 estimates are italicized to indicate the potential break in comparability of estimates between 2020 and prior years. The tables also include a note to caution data users about making direct comparisons between estimates in 2020 and those from prior years. The note also refers data users to the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions* report for more information on the changes for 2020.[31] Because significance testing was not performed between years in the 2020 detailed tables, the type A and B tables do not contain a significance indicator to specify whether differences between estimates in 2020 and prior years are significant or an associated definitional footnote for the indicator.

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. Historically, the missingness level has been less than 5 percent for most measures presented in the detailed tables. Exceptions are 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. As discussed earlier, there was an increase in rates of item nonresponse due to break-offs in Quarter 4; therefore, the level of missing data for 2020 is higher than in past years. Break-off analysis weights were created for 2020 and used for a subset of detailed tables to help reduce potential bias from the increase in missing data. See Section 3.3.2 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions* report.[32] A note is included on any tables that used the break-off analysis weights.

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[31] See the reference in footnote 2.
[32] See the reference in footnote 2.

Rounding

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 of < 0.05 percent or < 500, respectively, and do not represent an absence of people displaying a particular characteristic. Nonrounded estimates of zero are suppressed. Starting in 2020 for confidentiality protection, survey sample sizes greater than 100 were rounded to the nearest 10, and sample sizes less than 100 were not reported (i.e., are shown as "<100" in tables) in all Section 12 detailed tables.

Suppression Due to Low Precision

Overall screening and interview response rates were lower in 2020 than in previous years; therefore, the sample size for 2020 was lower than previous years. As a result, there is a higher level of suppression for the 2020 estimates compared with previous years. In some cases, tables were modified or excluded from the detailed tables to avoid displaying tables with an overwhelming amount of suppression. Notably, geographic region, county type, and health insurance rows were removed from the virtual services table in Section 5 (Table 5.43), and estimates for youth suicidal thoughts and behavior because of COVID-19 were not presented in Section 13. For more information on how low precision is defined, see Section 3.2.2 of the *2020 National Survey on Drug Use and Health: Methodological Summary and Definitions*.[33]

Definitions of Totals

Totals are defined in different ways within the detailed tables. Totals can refer to the estimated number of people with a specific characteristic, as shown in 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 2020 was approximately 968,000 and was shown as 968. 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 people who fit the criteria in the columns, which are the column denominators (i.e., 19,725,000 adults reported a perceived unmet need for mental health services in the past year for 2020), and this number is used as the denominator in all the reason estimates.

Legal-Size Multiyear Trend Tables

Starting with the 2019 NSDUH, multiyear trend tables that include estimates for any years from 2006 or earlier have been formatted for printing on legal-size paper. The multiyear

[33] See the reference in footnote 2.

trend tables were reformatted to allow the presentation of all available survey years for each trend. However, Tables 7.53 and 7.54, which present data from 1971 to 2020, were not formatted for printing on legal-size paper. To print the legal-size tables on letter-size paper, select the "shrink oversized pages" option in the print dialog window. This option will reduce the font point size, allowing the full content of the table to fit on letter-size paper. For the best printing results, use the PDF-web version of the detailed tables.