National Survey on Drug Use and Health (NSDUH)

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Center for Behavioral Health Statistics and Quality, SAMHSA

CNSTAT Workshop on Criminal Justice and Population Health Surveys
March 30, 2016
Location of NSDUH in HHS

U.S. Department of Health and Human Services (HHS)

Substance Abuse and Mental Health Services Administration (SAMHSA)

Center for Behavioral Health Statistics and Quality (CBHSQ)

Division of Surveillance and Data Collection (DSDC)

Populations Survey Branch (PSB) ← NSDUH staff
What is NSDUH?

- Primary source of statistical information on substance use and mental health issues in the U.S. civilian noninstitutionalized population
- Sponsored by SAMHSA; planned and managed by the Center for Behavioral Health Statistics and Quality
- Data collection conducted under contract with RTI International in North Carolina
Uses of NSDUH

- National, state, and substate estimates of substance use, substance use disorders, and mental health problems
- Identify correlates
- Measure trends
- Determine substance use and mental health service needs
- Funding allocations
NSDUH History

- 1971 - First national drug survey (n=3,000)
- 1974-1988 – NIDA conducts survey every 2-3 years
- 1990 – Annual data collection begins (n=9,000)
- 1992 – Continuous data collection begins (n=30,000)
- 1994 – Questionnaire, estimation redesign (n=18,000)
- 1999 – Major survey redesign:
  - State-based sample (n=70,000)
  - Shift from paper to computer-assisted data collection
- 2002 – Several methods changes
  - Changed name from NHSDA to NSDUH
  - Started incentive payment ($30)
  - Enhanced QC of fieldwork
- 2014 – Sample redesign (improved precision overall)
- 2015 – Partial questionnaire redesign, revamped Rx drug questions, other questionnaire changes, new lead letter, Q&A brochure, and computers
NSDUH Population Coverage

• Civilian noninstitutionalized population age 12 or older in the 50 states and D.C.
• Includes: households, college dormitories, homeless in shelters, migratory work camps, civilians on military bases, halfway houses
• Excludes: active military, long-term hospital residents, prison populations, homeless not in shelters
# NSDUH Sample Design

<table>
<thead>
<tr>
<th>Design Component</th>
<th>Description</th>
<th>Total U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratification</td>
<td>State Sampling Regions (SSRs) (collection of census tracts)</td>
<td>750</td>
</tr>
<tr>
<td>Stage 1 sample</td>
<td>Census Tracts (8 per SSR)</td>
<td>6,000</td>
</tr>
<tr>
<td>Stage 2 sample</td>
<td>Census Block Groups</td>
<td>6,000</td>
</tr>
<tr>
<td>Stage 3 sample</td>
<td>Segments (collection of census blocks)</td>
<td>6,000</td>
</tr>
<tr>
<td>Stage 4 sample (Screening)</td>
<td>Dwelling Units (addresses)</td>
<td>128,000 completed screenings</td>
</tr>
<tr>
<td>Stage 5 sample (Interview)</td>
<td>0, 1, or 2 persons aged 12+ (12-25 year olds oversampled)</td>
<td>67,500 completed interviews</td>
</tr>
</tbody>
</table>
## Annual State Sample Characteristics

<table>
<thead>
<tr>
<th>States</th>
<th>Number of Strata</th>
<th>Segments per Strata</th>
<th>Respondents per Segment (Cluster Size)</th>
<th>Annual Target Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>36</td>
<td>8</td>
<td>15.83</td>
<td>4,560</td>
</tr>
<tr>
<td>FL, NY, TX</td>
<td>30</td>
<td>8</td>
<td>13.75</td>
<td>3,300</td>
</tr>
<tr>
<td>IL, MI, OH, PA</td>
<td>24</td>
<td>8</td>
<td>12.50</td>
<td>2,400</td>
</tr>
<tr>
<td>GA, NC, NJ, VA</td>
<td>15</td>
<td>8</td>
<td>12.50</td>
<td>1,500</td>
</tr>
<tr>
<td>Remaining 38 states &amp; D.C.</td>
<td>12</td>
<td>8</td>
<td>10.00</td>
<td>960</td>
</tr>
<tr>
<td><strong>All States Combined</strong></td>
<td><strong>750</strong></td>
<td><strong>8</strong></td>
<td><strong>11.25</strong></td>
<td><strong>67,500</strong></td>
</tr>
</tbody>
</table>

Note: Except for the “All States Combined” row, all numbers shown are for each state. For example, FL, NY, and TX each have an annual target sample size of 3,300.
# Annual Target State Sample Characteristics by Age

<table>
<thead>
<tr>
<th>States</th>
<th>Age 12+</th>
<th>Age 12-17</th>
<th>Age 18-25</th>
<th>Age 26+</th>
<th>Age 18+</th>
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<tbody>
<tr>
<td>CA</td>
<td>4,560</td>
<td>1,140</td>
<td>1,140</td>
<td>2,280</td>
<td>3,420</td>
</tr>
<tr>
<td>FL, NY, TX</td>
<td>3,300</td>
<td>825</td>
<td>825</td>
<td>1,650</td>
<td>2,475</td>
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<td>IL, MI, OH, PA</td>
<td>2,400</td>
<td>600</td>
<td>600</td>
<td>1,200</td>
<td>1,800</td>
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<tr>
<td>GA, NC, NJ, VA</td>
<td>1,500</td>
<td>375</td>
<td>375</td>
<td>750</td>
<td>1,125</td>
</tr>
<tr>
<td>Remaining 38 states &amp; D.C.</td>
<td>960</td>
<td>240</td>
<td>240</td>
<td>480</td>
<td>720</td>
</tr>
<tr>
<td>All States Combined</td>
<td>67,500</td>
<td>16,875</td>
<td>16,875</td>
<td>33,750</td>
<td>50,625</td>
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Interviewer (right) Speaking with the NSDUH Screening Respondent at Doorstep

2014 NSDUH screening response rate: 82%

Lead letter mailed before visit to dwelling unit

~ 5 minute Screening
Respondent (right) Completing the ACASI Portion of the NSDUH Interview

2014 NSDUH interview response rate: 71%

~ 1 hour Interview

$30 cash provided at the end of interview
**Current Questionnaire Topics**

- Demographics (CAPI*)
- Recency, Frequency, Initiation (ACASI**)
  - Tobacco
  - Alcohol
  - Marijuana
  - Cocaine
  - Crack
  - Heroin
  - Hallucinogens
  - Inhalants
  - Methamphetamine
  - Pain relievers
  - Tranquilizers
  - Stimulants
  - Sedatives
  - Special Drugs

*Computer-Assisted Personal Interview, **Audio Computer-Assisted Self-Interviewing
Current Questionnaire Topics

- Risk/Protective factors**
- Substance use disorders (DSM-IV)**
- Criminal justice involvement (Special Topics section)**
- Prior substance use**
- Health conditions (e.g., diabetes, HIV/AIDS, cancer), height/weight**
- Employment, workplace issues**
- Sexual orientation and attraction (Adults)**
- Disability status**
- Family structure* and identification of active-duty family members **
- Insurance, income, program participation**

*Computer-Assisted Personal Interview, **Audio Computer-Assisted Self-Interviewing
Current Questionnaire Topics

- Adults and Adolescents
  - Treatment/counseling (substance use/mental health)**
  - Major depressive episode (DSM-IV)**
- Adults
  - Perceived need for mental health treatment**
  - Reasons for not getting mental health treatment**
  - Psychological distress**
  - Impairment**
  - Suicide thoughts, plans, and attempts**

*Computer-Assisted Personal Interview, **Audio Computer-Assisted Self-Interviewing
Prior Criminal Justice Involvement Questions

Questions about criminal justice involvement were added in 1991 and include ever arrested and booked for breaking the law and the number of times arrested and booked for breaking the law in the past year. Also included are questions on arrested and booked during the past year for the following offenses (respondents were instructed to circle all that apply): larceny or theft; burglary or breaking and entering; aggravated assault; other assault such as simple assault or battery; motor vehicle theft; robbery; forcible rape; murder, homicide, or nonnegligent manslaughter; arson; driving under the influence; drunkenness or other liquor law violation; possession or sale of drugs; prostitution or commercialized sex; other property offenses such as fraud, possessing stolen goods, vandalism; and other offenses (write-in response). Separate questions on past year probation and past year parole were also included.

These questions were added to address the paucity of data on the relationship between drug use and criminal behavior among the general population.
Current Criminal Justice Involvement Questions

These questions are located in the “Special Topics” section of the questionnaire.

INTROSP The next questions are about encounters with the police or the court system.

SP01 Not counting minor traffic violations, have you ever been arrested and booked for breaking the law? Being ‘booked’ means that you were taken into custody and processed by the police or by someone connected with the courts, even if you were then released.

1 Yes
2 No
DK/REF

SP02 [IF SP01 = 1] Not counting minor traffic violations, how many times during the past 12 months have you been arrested and booked for breaking a law?

[IF SP02 = 1 - 99 OR DK/REF] The next questions are about offenses that are against the law. As you read each question, please answer whether you were arrested and booked for that offense during the past 12 months.
Current Criminal Justice Involvement Questions

SP03a [IF SP02 = 1 - 99 OR DK/REF] In the past 12 months, were you arrested and booked for motor vehicle theft?

Questions are also asked about the following offenses:
2) larceny or theft; 3) burglary or breaking and entering; 4) aggravated assault; 5) other assault, such as simple assault or battery; 6) robbery; 7) forcible rape; 8) murder, homicide, or nonnegligent manslaughter; 9) arson; 10) driving under the influence of alcohol or drugs; 11) drunkenness or other liquor law violations; 12) possession of tobacco (age 12-17 only); 13) possession, manufacture, or sale of drugs; 14) prostitution or commercialized sex; 15) any other sexual offense, not including rape or prostitution; 16) fraud, possessing stolen goods, or vandalism; 17) some other offense (write-in response)

SP04 Were you on probation at any time during the past 12 months?
1 Yes
2 No
DK/REF

SP05 Were you on parole, supervised release, or other conditional release from prison at any time during the past 12 months?
1 Yes
2 No
DK/REF
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Yes</th>
<th>No</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever Arrested (67,000)</td>
<td>16.8%</td>
<td>82.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Probation (15,000)</td>
<td>2.2%</td>
<td>97.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Parole/Supervised Release (4,400)</td>
<td>0.7%</td>
<td>99.1%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
# 2015 NSDUH Questionnaire Timing Data

<table>
<thead>
<tr>
<th>Domain</th>
<th>Total Questionnaire (minutes)</th>
<th>Special Topics Section (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents</td>
<td>58.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Probation Respondents</td>
<td>63.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Parole/Supervised Release Respondents</td>
<td>66.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Respondents not on Probation or Parole/Supervised Release</td>
<td>58.6</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Currently NSDUH does not collect any other data on probationers & parolees or any reentry population data. Adding additional questions at the very end to capture this information will be difficult given the structure of the interview (from CAPI to ACASI, then back to CAPI and identification of proxy respondents for selected questions). Adding questions elsewhere may produce context effects to other questions including sensitive back-end CAPI questions. Conducting a field test, pilot test or a split sample may not always detect these effects given the “small” sample sizes. We may not know the consequences until the main study is completed. Also, the focus of the survey is on substance use and mental health outcomes and adding other material could raise IRB concerns that may require information about the additional questions to be conveyed to respondents upfront.
Adding a CJ Module: Potential Considerations

- If a new module is to be implemented in NSDUH, the optimal approach would be to incorporate it into the next NSDUH redesign given the assumption that trends may be broken and a new baseline created for various outcomes, either anticipated or unanticipated. Work on the 2015 partial questionnaire redesign began in late 2007 with implementation in 2015 after stakeholder input, development of questions, cognitive testing, the design and completion of methods studies and field tests, a new contract RFP, and final agency/OMB approvals.
Identifying Context Effects Resulting from Questionnaire Changes

- Estimates for approval of marijuana use showed an unusually large change from 2002 to 2003

- Question on approval of cigarette use preceded the marijuana question in 2002, but was dropped in 2003

- This finding led to regular monitoring of context effects
Response Distribution for:
“How do you feel about adults trying marijuana or hashish once or twice?”

Source: Wang, Baxter, Painter 2005
2014 NSDUH Reports

2014 NSDUH

2014 Sample Experience Report (includes information on the 2014 sample redesign)

2014 NSDUH Results

2014 NSDUH Detailed Tables
Selected NSDUH Reports

2015 NSDUH Redesign Materials and Questionnaire
2015 NSDUH, Supporting Statement Attachment D – Redesign Pretesting Summary Report

2012 NSDUH Questionnaire Field Test Final Report (for the 2015 questionnaire redesign)

2013 NSDUH Dress Rehearsal Final Report (for the 2015 questionnaire redesign)

2015 NSDUH Screener, Questionnaire, and Show Cards: FINAL

2014-2015 NSDUH Redesign Changes
Selected NSDUH Reports

Arrests

Arrestee Substance Use: Comparison of Estimates from the National Survey on Drug Use and Health and the Arrestee Drug Abuse Monitoring Program

Past Year Arrest among Adults in the United States: Characteristics of and Association with Mental Illness and Substance Use
http://media.samhsa.gov/data/2k12/DataReview/DR008/CBHSQ-datareview-008-arrests-2012.htm

Arrests for Driving Under the Influence among Adult Drivers
http://media.samhsa.gov/data/2k5/DUIarrests/DUIarrests.pdf

Illicit Drug Use among Persons Arrested for Serious Crimes
Selected NSDUH Reports

Probation or Parole
Mental and Substance Use Disorders among Adult Men on Probation or Parole: Some Success against a Persistent Challenge  http://media.samhsa.gov/data/2k11/MentalDisorders/MentalDisorders.htm

Trends in Substance Use Disorders among Males Aged 18 to 49 on Probation or Parole  
http://media.samhsa.gov/data/2k14/NSDUH084/sr084-males-probation-parole.pdf

Parents on Probation or Parole  
http://media.samhsa.gov/data/2k10/176/176ParentProbParolHTML.pdf

Context Effects
Modeling Context Effects in the National Survey of Drug Use and Health (NSDUH)  