NSDUH Redesign

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Overview of NSDUH

• Annual household survey of civilian, noninstitutionalized population aged 12 and older

• Provides national, state, and substate estimates of substance abuse and mental health issues
Current NSDUH Sample Design

- 7,200 segments; 140,000 dwelling units (DUs)

- 68,000 respondents each year, representative nationally and in each State
  - n=3,600 in 8 large states, n=900 in other states

- Oversampling of young people
  - 1/3 of sample in each age group: 12-17, 18-25, 26+
NSDUH Data Collection

- 12-month data collection period
- “Dear Resident” letters mailed to DUs
- FI visits DUs, does 5 min. screener
- Select 0, 1, or 2 HH members
- Face-to-face interview (1 hr., mainly ACASI)
- $30 given to each participant
Why Redesign?

• Update questionnaire and sample design

• Implement more efficient data collection and estimation methods
Redesign Plan

• Assess data needs
  • Contact States, other data users to determine what data are needed

• Methods research and development
  • Explore various design alternatives in terms of cost and impact on data quality and analytic capability
  • Assess effects on estimates, and whether redesign could be done with a split sample to “bridge” old and new estimates
  • Field test promising data collection methods

• Present plan to key stakeholders to gain acceptance

• Implement new sample design in 2014; Qx in 2015
Methods Studies-Sampling

- **USPS Frame Study**
  - Field test using frame constructed from residential mailing lists

- **Sample Issues Study**
  - Determine optimal cluster sizes
  - Assess pros and cons of biennial survey
  - Assess impact of changing sampling rates for demographic and geographic groups
  - Develop more flexible sample design
  - Assess feasibility of interviewing children under 12

- **Investigation of Census/ACS Options**
  - Assess the use of the ACS for sampling, small area estimation, and weighting activities
Methods Studies- Estimation

• **Imputation and Editing Evaluation**
  • Evaluating different methods to simplify procedures and reduce processing time

• **Weighting Assessment**
  • Examining different predictor variables to improve weighting adjustments

• **Small Area Estimation**
  • Studying ways to estimate change and trends more efficiently and evaluate the quality of substate estimates
Methods Studies-Response Rates

- Contact Materials Study
  - Develop improved informational documents that respondents receive (lead letter, study description, question and answer brochure, etc.)
Methods Studies-
Questionnaire

- **Electronic Pill Cards/Calendar Study**
  - *Develop on-screen prescription pill photos and reference date calendar; assess usability*

- **Debriefing Questions/Persuasive Statement Study**
  - *Test whether reinforcing confidentiality and requesting honesty improves responses*
  - *Assess usefulness of FI and respondent debriefing questions (e.g., privacy, comprehension, etc.) as indicators of data quality.*
Methods Studies - Questionnaire

- **Questionnaire Structure Study**
  - Test “ensemble” vs. “interleafed” format
  - Explore moving more questions to core

- **Clinical Validation Phase II**
  - Compare Substance Dependence and Abuse module to a structured clinical interview

- **Prescription Drug Module Redesign**
  - Update definitions for nonmedical use and therapeutic classes
  - Incorporate new drugs
  - Move Methamphetamine out of prescription drugs
  - Develop better trend measurement method
Other Relevant Studies

- Mode/setting/context effects studies
  - *Effects can be large for sensitive data*
- Impact of incentives on reporting
  - *Significant positive effect found in 2002 along with reduction in overall cost*
- Interviewer Effects Analysis
  - *Interviewer experience correlates negatively with respondent reporting of drug use*
Schedule for NSDUH Redesign

- November 2007 – November 2008: Develop background materials, plan methods tests, receive input from subject-matter experts & other data users
- June 2008 – September 2011: Conduct methods studies, develop and modify questionnaire content
- May 2010 - April 2011: Mailing list field test, conduct focus groups, usability testing, and cognitive interviewing
- May 2011: SAMHSA approval of redesign plan
- August 2011 – January 2012: Cognitive testing of new questionnaire
- Sept 2012 - Nov 2012: Questionnaire field test data collection
- June 2013 – August 2013: Dress rehearsal data collection
- January 2014 - New sample design begins
- January 2015: New questionnaire begins
Dilemma: Change the Measure or Measure Change?

We would like to:

• Maintain valid trend data—high priority

• Update questionnaire
  • Data priorities change
  • New phenomena

• Update methodology
  • Improve data quality
  • Incorporate better methods

• Reduce Costs
  • Future budgets unknown
New NSDUH Design: Sampling

- Age, state sample reallocation (2014)
  - Improve precision, efficiency; reduce cost

- Increase cluster size in some states (2014)
  - Cost savings with little loss in precision

- Continue field counting and listing for now
  - Uncertainties about cost and coverage with address list-based

- No change in target population
New NSDUH Design: Instrumentation

- No change in data collection methods
- Update/improve contact materials (2015)
- Maintain $30 incentive
- New questionnaire (2015)
  - Nearly identical for cigarettes, alcohol, marijuana, cocaine, inhalants, hallucinogens, heroin
  - Major revision for prescription drugs
  - A few topics added, deleted, based on new priorities
  - No change in dependence/abuse—wait for DSM-V
Improvements to Prescription Drug Module

- Update drugs covered (every year)
- Methamphetamine moved to a separate module
- On-screen pictures of pills
- Probe past year use/misuse of specific drugs
- Separate components of “nonmedical” use:
Partial NSDUH Redesign

• **Pros**
  - Might fix most egregious problems, e.g., prescription drug use, methamphetamine use
  - Most likely no break in trends for alcohol, tobacco, marijuana, cocaine

• **Cons/risks**
  - Will still result in break in trends for some measures
  - Some questionnaire improvements not made
  - Possibility of break in trends for all drugs due to context effects, contact materials, or sample design (e.g., impact on field staff)
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