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## **EFFECTIVE STRATEGIES FOR COLLECTING SEXUAL BEHAVIOR DATA FROM ADOLESCENTS IN SCHOOLS**

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## **Why Collect Adolescent Sexual-Behavior Data?**

- Prevalence estimates
- Tracking trends over time
- Needs analysis
- Program planning
- Program evaluation
- Research

## The California Experience

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- **Teenage Pregnancy Prevention Grant Program** (CA Department of Education, SB-1170, \$10 million/year)
- **HIV/AIDS Prevention Education Grant Program** (CA Department of Education, EC-51201.5, \$650,000/year)
- **Partnership for Responsible Parenting/Community Challenge Grant Program** (CA Department of Health Services, AB-3483, \$60 million/year)
- **Teenage Pregnancy Prevention Initiative** (California Wellness Foundation, \$60 million for five years)
- **Adolescent Family Life Program** (US DHHS, Office of Adolescent Pregnancy Prevention, \$50 million annually nationwide, includes new abstinence-only funds)

## Commonly Used Survey Modes

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- Telephone interviews
- Face-to-face interviews
- Computer-assisted self-interview techniques
- Self-administered questionnaires
  - as part of a face-to-face interview
  - by mail
  - ***in school*** (both unique and common challenges)

## In-School Self-Administered Questionnaires

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### ■ Advantages

- Efficiency
- Larger numbers possible
- Potentially greater levels of confidentiality
- Population matches intervention focus

### ■ Disadvantages

- Burden on schools
- Length of class period limits number of questions
- Strict parental consent requirements
- Skip pattern limitations
- Limitations on probing and encouraging
- Political opposition

## Critical Challenges to be Addressed

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1. **Reliability and Validity:** Maximizing survey utility
2. **Sensitivity:** Avoiding potential iatrogenic effects
3. **Beyond Ever and Never:** Integrating behaviors, intentions and circumstances
4. **Behavioral Trends and Program Effects:** Tracking changes over time

## 1. Reliability and Validity: Maximizing survey utility

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- Developmental and cultural appropriateness
- Selection of an efficient and representative sample
- Maximum participation of the selected sample
  - School access
  - Parental consent
  - Dropouts, absentees, and refusers
- Identification and elimination of suspect data

## Developmental Appropriateness

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- **Reading level**
  - Median reading grade level often assumed
  - Many kids who are the most at risk functioning substantially below median
- **Conceptual level**
  - Simplicity and directness required in stating the question
  - Questions often too complex for some adults process
- **Consistency of meaning**
  - Scientific terms versus everyday slang
  - Slang terms vary by culture, neighborhood, over time
  - Meanings vary by culture, translation

## Maximizing Participation

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### ■ Opportunities for refusal at several levels

- Administrative (school board, school district, school site, classroom)
- Individual (parent, student)

### ■ Potential reasons for school-level refusal

- Survey takes time away from instruction
- Additional burden on teachers
- Concerns about media attention
- Fear of parental complaints
- Overall *survey clutter*

## School Access

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### **California Youth Risk Behavior Survey (YRBS)**

- 22% school-consent raised to 74% over 8 years

### **California Student Substance Use Survey (CSS)**

- extensive use of comparable replacement schools to reach required number of schools

### **California Healthy Kids Survey (CHKS)**

- technical assistance and support materials to local district coordinators

## Parental Consent

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- Active versus passive consent
- Federal Goals 2000 legislation (Sections 439/1017)
  - clear about drugs, ambiguous about sexual behavior
- California Education Code (51513)
  - clear about sexual behavior, ambiguous about drugs
- The standard is becoming active consent
- Potentially decrease response rate as much as .50 (e.g., 90% with passive becomes 40% with active)
- Most non-consenters are just not motivated to respond
- Differences in many relevant areas between active consenters and non-consenters
- Intensive follow-up methods are expensive but can nearly recover the full response rate

## Population Coverage

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- In-school versus out-of-school youth
- Absentees and dropouts not in-school
- Major differences between in and out groups
- However, there are very small difference between in-school and total combined in and out group
- And in any case, dropouts are a distinct population and should be viewed as such

## Absentee Bias: *Monitoring the Future* Analysis

### Annual Drug Use Estimates (percents) for Absentees and all High School Seniors, 1981

	Seniors Present	Absentees (17 - 23%)	Seniors + Absentees	Bias
Alcohol	87.0	91.5	87.8	0.8
Marijuana	46.1	62.5	49.0	2.9
Cocaine	12.4	21.4	14.0	1.6
Amphetamines	26.0	38.4	28.2	2.2
Inhalants	4.1	6.4	4.5	0.4

from: **Johnston, L.D. and O'Malley P. M. (1985).** Issues of validity and population coverage in student surveys of drug use. In B.A. Rouse, N.J. Kozel, & L.G. Richards (Eds.), *Self-Report Methods of Estimating Drug Use: Meeting Current Challenges to Validity*. NIDA Research Monograph 57, Washington DC: USGPO, 31-54.

## Absentee Bias: Data from the *Swiss Multicenter Adolescent Survey on Health*

### Behavior Prevalence Percents by Absentee Status (1992-93 survey)

	Students Present	Absentees (3%)	Students + Absentees	Bias
<i>Ever had sex?</i>	38	67	39	1
<i>Have a girl/boyfriend?</i>	34	40	34	0
<i>Ever tried cannabis?</i>	29	40	29	0

from: **Michaud, P. A., Delbos-Piot, I., & Narring, F. (1998).** Silent dropouts in health surveys: Are nonrespondent teenagers different from those who participate in school-based surveys? *Journal of Adolescent Health*, 22, 326-333.

## Honesty

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### ■ Untruthful responding

- Sensitive questions may over-report or underreport
- Sex, drug use we find both over and underreporting

### ■ Strategies

- Assure confidently
- Check for exaggerated responses
- Include phony drug name (Derbisol - derbs, DB, dirt)
- Ask respondents to certify their honesty

## CHKS Self Report Reliability Items

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### Questions:

- 1. I understood the questions on this survey*
- 2. I answered the questions on this survey carefully*
- 3. I answered the questions on this survey honestly*

### Response options:

- *All of the questions*
- *Most of the questions*
- *Only some of the questions*
- *Hardly any of the questions*

## Consistency

### ■ Partial or completely random responding

- Respondent often unmotivated
- Especially after multiple assessments over time
- Sometimes leads to random responding

### ■ Strategies

- Work to increase interest
- Carefully consider questionnaire length
- Beware of multiple administrations
- Include inter-item consistency checks

## Effect of Eliminating Suspect Respondents

### Ninth Grade Scale Score Coefficient Alphas (1991)

Scale (n items)	Full sample alpha	Cleaned sample alpha	Difference
Neighborhood (7)	.52	.71	.19
Family (12)	.59	.70	.11
Friends (6)	.47	.66	.19
School (19)	.51	.75	.24
Social Support (3)	.46	.45	-.01
Drug Attitude (8)	.89	.87	-.02
Drug Prevention (4)	.47	.47	0

*from:* Constantine, N. A., Wrona, M. R., & Sanborn, J. (1991). *Santa Clara County Survey of Drug, Alcohol, and Tobacco Use Among Students in Grades 5, 7, 9, and 11*. San Francisco: Far West Laboratory. (ERIC Document Reproduction Service, Accession Number ED 339962).

## 2. Sensitivity: Avoiding potential iatrogenic effects

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- **Does exposure to sexual behavior items influence sexual behavior?**
  - Probably not if asked right (e.g., Halpern, et al., 1994 )
- ***Assumed positive* question wording**
  - Skip patterns often eliminated on in-school surveys
  - Adolescents experience repeated exposure to surveys
  - Likely to interpret these questions as implicit expectations
- ***Assumed wanted* question wording**
  - Non-trivial minority of sexually experienced adolescents have experienced only unwanted sex
  - Coercion usually not addressed, therefor assumed wanted
  - Disclosure response issues: confidentiality, responsibility to provide treatment

## Sample YRBS *assumed positive* items

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- *Did you drink alcohol or use drugs before you had sexual intercourse the last time?*
- *How old were you when you had sexual intercourse the first time?*
- *The last time you had sexual intercourse, did you use a condom?*

(The first response option for these questions provides an opportunity for the student to contradict the positive assumption, e.g., I never had sexual intercourse)

## Sample CSS *assumed positive* items

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- *How old were you the first time you tried marijuana?*
- *How much alcohol did you drink just before you took a drug for the first time?*
- *How do you like to drink alcohol?*

(The first response option for these questions provides an opportunity for the student to contradict the positive assumption, e.g., I never used drugs)

## CHKS proposed neutralizing clause

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***The next 11 questions ask about sexual behavior and opinions.***

E.1 Have you ever had sexual intercourse?

- (A) Yes
- (B) No

E.2 ***If you have ever*** had sexual intercourse, how old were you the first time?

- (A) I have never had sexual intercourse
- (B) 11 years old or younger
- (C) 12 years old
- (D) 13 years old
- (E) 14 years old
- (F) 15 years old
- (G) 16 years old
- (H) 17 years or older

## CHKS compromise neutralizing introduction

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**The next 11 questions ask about sexual behavior and opinions. Whether or not you have ever had sexual intercourse, please answer all of these questions. For each you will be able to answer that you never had sexual intercourse.**

E.1 Have you ever had sexual intercourse?

- (A) Yes
- (B) No

E.2 How old were you when you had sexual intercourse for the first time?

- (A) I have never had sexual intercourse
- (B) 11 years old or younger
- (C) 12 years old
- (D) 13 years old
- (E) 14 years old
- (F) 15 years old
- (G) 16 years old
- (H) 17 years or older

## 3. Beyond Ever and Never: Integrating behaviors, intentions and circumstance

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### **American Drug and Alcohol Survey**

- Edwards, et al. at the Tri-Ethnic Center, Fort Collins, CO.
- 36 drug-use categories including: *drug dependent; polydrug user; occasional marijuana user; light alcohol user; tried alcohol; never tried any drug; etc.*

### **Adolescent heterosexual experience: A new typology.**

- Miller, et al. (1997). *J Adolescent Health*, 20, 179-186.
  - Five patterns of adolescent heterosexual experience: *Delayers, Anticipators, One-Timers, Steadies, Multiples.*

### **Degree of wantedness as a dimension**

- Leigh, et al. (1994). *J Adolescent Health*, 15, 117-125.
  - Expectation vs. desire discrepancies for 20% of sample

## 4. Behavioral Trends and Program Effects: Tracking changes over time

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- Power of linked longitudinal data
- Anonymous vs. confidential
- Tracking system challenges
- Attrition considerations
- Likely to lead to less honest reporting, smaller response rate
- Possibility of data being subpoenaed (DHHS confidentiality certificate possible)

## Eight Summary Recommendations (1-4)

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1. Invest sufficiently in marketing and follow-up to achieve adequate levels of administrative and parental consent
2. Recognize that in- and out-of school youth represent two distinct populations with distinct needs and prevention strategies
3. Keep questionnaire length within reasonable limits
4. Don't assume that responses are honest and consistent - do systematic checking and eliminate the most suspicious cases

## Eight Summary Recommendations (5-8)

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5. Use language and constructions at the simplest level possible, and pilot test with diverse youth in the lowest decile of language comprehension
6. Use skip patterns or neutralizing clauses with assumed positive risk behavior questions
7. Look beyond simple yes/no categorizations to programmatically relevant patterns and typologies
8. Carefully consider the real costs and benefits of tracking individual respondents

## Advancing the Field: Building methodological studies into your work

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- **Need to embed methodological studies into research and evaluation designs**  
(Catania, et al., 1993)
- **Examples from our work**
  - **YRBS Question Comprehension:** randomized study of YRBS question comprehension - four experimental conditions, over three assessment times, 2,500 participants
  - **Effects of Removing Inconsistent and Untruthful Responders:** Comprehensive analysis of reliability checks and eliminations, cutoff combinations, affect on scale coefficient alphas, etc.

## For More Information

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**For more information, please contact:**

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