

## CDC Adolescents and Technology Panel



### Using Technology for Adolescent Research

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\* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting CIPHR for further information.



## Why use technology?



Compared to interviewer-based methodologies (e.g., in-person interviewer, telephone interview), self-administered surveys tend to:

1. Have increased self-disclosure – especially about sensitive topics (e.g., substance use)
2. Lower rates of social desirability bias
3. Can collect about 20% more information (online vs. telephone)

(e.g., Joinson, 1998; Joinson, 1999, etc)

## Why use technology?



Computer-based technology has many benefits over other self-administered methodologies including:

1. Intuitive skip patterns
2. Minimizes data entry errors
3. Minimizes missing / invalid data
4. Fewer resources necessary in a multi-site survey (potentially)

## Case Study: Growing up with Media



Our goals:

- Sensitive questions (e.g., violent behavior, substance use)
- Complex survey with lots of skips
- Longitudinal survey
- Nationally representative data

Our solution → Online survey

## Incorporating technology



### ...Into sampling

- Use a computer program to track demographic characteristics of participants to improve the ease of balancing the sample (e.g., age, sex)
- Identification of respondents
  - Computer program to randomly identify the next household to call
  - Online panels (Harris Panel OnLine)
  - Online surveys aimed at understanding use (e.g., characteristics of users of an online depression support group)

## Case Study: Growing up with Media



### Our methodology plan:

- RDD survey to recruit the households
- Online survey to increase self-disclosure

29% Response Rate to the RDD (RR3 on AAPOR)

34% (35 / 103) completed the online survey

## Case Study: Growing up with Media



What now?

Online recruitment, online survey

## Incorporating technology (cont)



### ...Into data collection

- Web-based / computer-based data collection tools for self-administration
- Computer-assisted telephone interview (CATI)
- PDA / text messaging (via cell phone) for "real-time" data collection

### ...Into follow-up / retention of sample

- Automated email / text reminders
- Mass emails / text messages
- Personalized web site to update contact information

## Case Study: Growing up with Media



Incorporating technology into the data collection:

- Mass emails to promote panel retention
- Automated follow up emails to promote response rate
- Use of a computer program to ensure balancing of sample on age and sex

## Considerations for practical implementation?



COST savings..?

- Recruitment costs related to staff costs (e.g., interviewers)
- Time and money to update/modify materials
- Communication with participants (e.g., email vs. text message vs. letter)

## Case Study: Growing up with Media



Benefits

- Increased sample size (from 1200 to 1600)
- Increased survey length (from 20 to 25 minutes)
- Increase our panel retention efforts to two mailings and one email reminder every year

## Considerations for practical implementation?



COST increases..?

- Buying computers, servers, software
- Hiring technology staff (e.g., programmers, designers)
- Understanding the data security issues in transmitting (e.g., HIPAA) as well as storing (e.g., firewalls) data

## Considerations for practical implementation?



COST increases..?

“Cost” of using an unfamiliar methodology?

## Case Study: Growing up with Media



Drawbacks

- Discussion of “propensity scoring” is unfamiliar to many
- Response rate of 26% is deemed too low by some

## Ethical / IRB considerations



- Consent
  - Obtaining / confirming parental consent
  - Waiver of documentation of consent
- Collecting personal / sensitive data
  - Ensuring privacy? (Public computers, computers at home in a public space)
  - Be aware of legal restrictions (e.g., COPPA)

## Case Study: Growing up with Media



We used the HPOL as our sampling frame, so the survey firm had already confirmed the identity of their members

We included text in the consent and assent about the importance of being in a private space, and provided instructions on how to ‘suspend the survey’ if not in a safe place

## Case Study: Growing up with Media



IRB and process issues:

- Concerns about the impact of the sensitive questions on youth, especially in an 'uncontrolled' environment

Privacy was an issue because of our "hand-off" methodology

→We included in the consent and "hand-off" text about the importance of privacy, and instructions on how to "suspend" the survey.

## Considerations for practical implementation



ACCESS

Internet users tend to be:

- From more affluent households
- Be of White race
- Have a higher household education

The "digital divide" is decreasing (see the US Department of Commerce)

Among Internet users, we're seeing disparity in connection speed

## Considerations for practical implementation

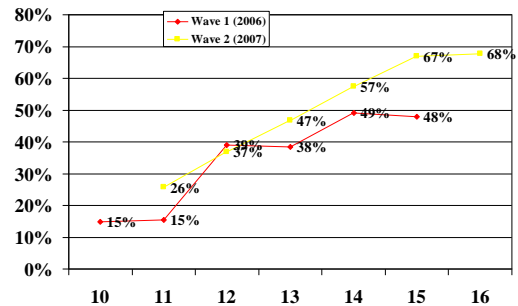


ACCESS

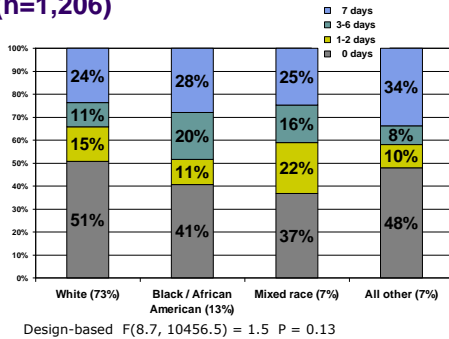
Text messaging is increasing among adolescents. In the GuwM survey, we saw a 45% increase over 1 year:

- 35.6% of 10-15 year olds sent and received text messages 1+ days/week in 2006
- 51.7% of them sent and received text messages 1+ days/week in 2007

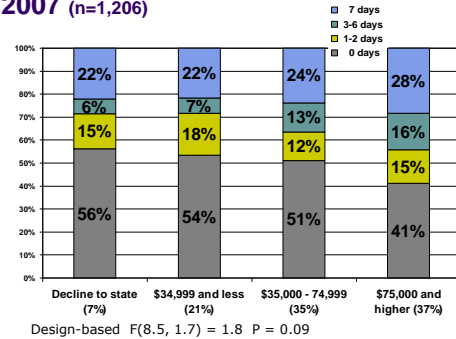
## Send and receive text messages 1+ day per week on average, by age



## Cross-tabulation of child race and cell phone ownership in 2007 (n=1,206)



## Cross-tabulation of household income and cell phone ownership in 2007 (n=1,206)



## Case Study: Growing up with Media

The focus of our study was on the influence of violence delivered via new technologies (e.g., video games and the Internet) on behavior.

By definition, we wanted our child respondents to have some level of exposure to the Internet.

## Quick summary

Remember:

All methodologies have limitations and biases.

You need to be very clear about what your goals are, and what methodology will minimize your bias while maximizing your goals the best.