

Survey Research

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Objectives

- Define survey research and why survey research is conducted
- List at least 3 methods of conducting survey research
- Describe at least 3 limitations of survey research



What Is A Survey?

- Commonly used method of collecting information about a population of interest
- Gathering information from a sample of individuals in order to learn something about the larger population from which is was drawn



Why Conduct a Survey?

Considerations

- ★ What data is already available?
- ★ Can the required information even be collected in a survey?
- ★ What are the data collection goals?
 - ★ What do you need and from whom?
- ★ Are the results to be descriptive, causal, or relational?



Why Conduct a Survey? Additional Considerations

- ✱ Want timely & accurate data
- ✱ Provide benchmarks or make comparisons?
- ✱ Prioritize actions based on data?



What Is Involved in Conducting a Survey?

- ✿ Set objectives for the information collected
- ✿ Determine the research design
- ✿ Prepare a reliable & valid data collection instrument
- ✿ Administer & score the instrument
- ✿ Analyze the data
- ✿ Report the results



How To Conduct a Survey: Components

- ✱ Survey Design
- ✱ Sample & Sampling
- ✱ Modes/Types of Surveys
- ✱ Questionnaire Design
- ✱ Limitations
- ✱ Logistics
- ✱ Ethical Considerations



Survey Design

- ✱ Cross sectional
- ✱ Longitudinal
- ✱ Successive independent samples
- ✱ Test-retest
- ✱ Case-control



Sample & Sampling

- ★ Target Population – who want to generalize to
- ★ Study Population – what population can you get access to
- ★ Sampling Frame – how gain access to them (what source used)
- ★ Sample – who is in your study



Sampling Frame

✦ Probability Sampling

- ✦ Examples: Simple Random Sample, Stratified Random Sample, Cluster (Area) Sample

✦ Non-Probability Sampling

- ✦ Convenience Sample (Haphazard), Purposive Sample (Snowball, Quota)



Sample & Sampling: Goal

- ✦ In a properly designed sample, all units in the target population have a known measurable, non-zero chance of selection or being included in the sample, so results can reliably be projected to the population



Modes/Types of Surveys: Mail

✿ Pros

- ✿ Relatively inexpensive
- ✿ Respondent completes when convenient
- ✿ Can include pictures

✿ Cons

- ✿ Survey must be short & simple
- ✿ Literacy & education levels
- ✿ Languages



Modes/Types of Surveys: Phone

☀️ Pros

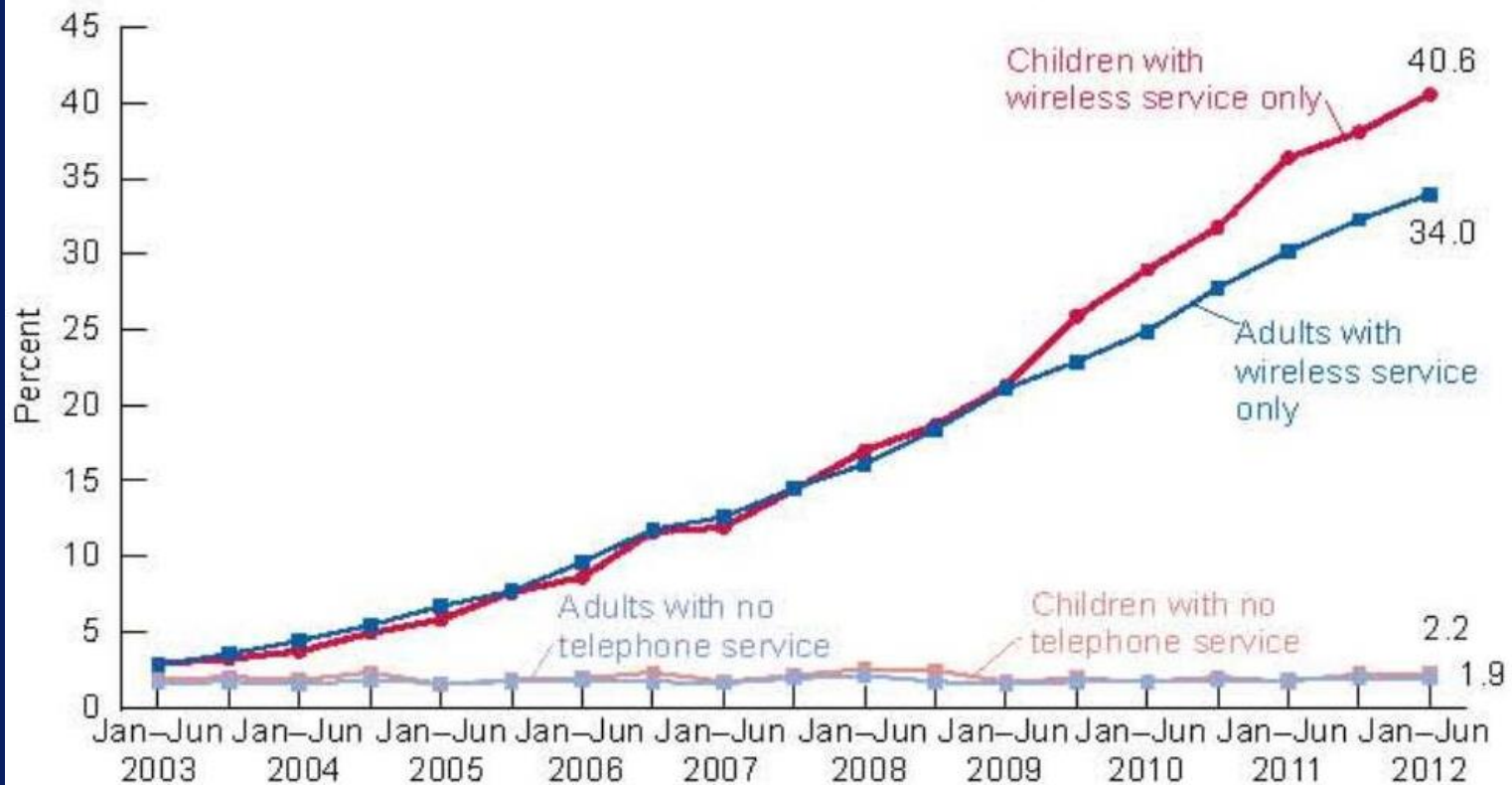
- ☀️ Can dial random numbers
- ☀️ Complex survey & skip patterns
- ☀️ Data entered as survey completed

☀️ Cons

- ☀️ Oversaturation of calls, caller ID
- ☀️ Response rates historically have declined
- ☀️ More cell-only households, cost & logistics



Percentages of adults and children living in households with only wireless telephone service or no telephone service: United States, 2003–2012



NOTE: Adults are aged 18 and over; children are under age 18.

DATA SOURCE: CDC/NCHS, National Health Interview Survey.



Modes/Types of Surveys: In-Person

★ Pros

- ★ Longer interviews
- ★ More detailed information, can probe
- ★ Flexibility

★ Cons

- ★ Very costly
- ★ Very experienced interviewers
- ★ Logistics of finding/obtaining sample



Modes/Types of Surveys: Internet

★ Pros

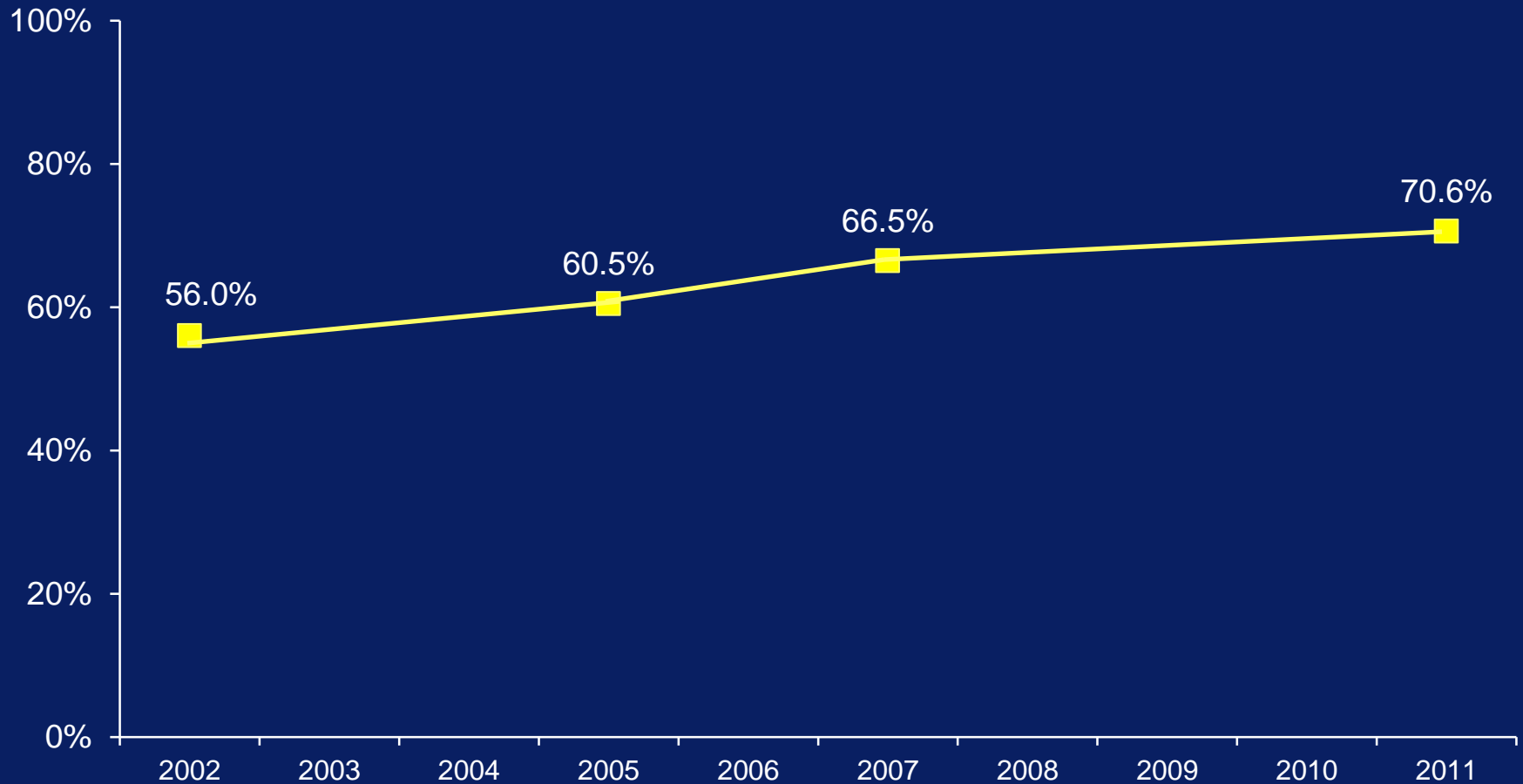
- ★ Complex survey & skip patterns
- ★ Data entered as survey completed
- ★ Cost
- ★ Show pictures

★ Cons

- ★ Internet not universal
- ★ Not representative of population, may not know who
- ★ Quit in process of questionnaire, not as likely if talking
- ★ Logistics of finding/obtaining sample



Percent of Adults (18+ yrs) Who Access the Internet in a Typical Week, LACHS 2002-2011



Questionnaire Design

✦ Keep in mind:

- ✦ Analysis plan
- ✦ How are you going to use data
- ✦ What are the data collection goals
- ✦ What do you need and from whom



Questionnaire Design

✦ Draft Questionnaire

- ✦ Content

- ✦ Wording

- ✦ Response format

- ✦ Order/sequence

✦ Programming & Training

✦ Pre-Test

✦ Edit & Revise



Questionnaire Design: Goals

- ✱ Clear & concise
- ✱ Unambiguous
- ✱ Well-defined concepts
- ✱ Distinct phraseology
- ✱ Length
- ✱ Order



Drafting Questionnaire: Considerations

- ✿ What types of questions (open/closed-ended)
- ✿ How complex will questions be
- ✿ Will lengthy questions be asked
- ✿ Will screening questions be needed
- ✿ Will long response scales be used
- ✿ Can sequence be controlled



Drafting Questionnaire: Considerations

- ✿ Can respondent be expected to know about the issue
- ✿ Will respondent need to consult records
- ✿ What is respondents literacy/reading level
- ✿ Visuals needed

- ✿ Standardized/validated question
- ✿ Can compare over time or across groups



Questionnaire Design: Examples

✦ Double-barreled

✦ Do you buy frozen meat and frozen fish?



Questionnaire Design: Examples

★ Biased or Loaded

★ What do you see as the advantages of eliminating welfare?



Questionnaire Design: Examples

- ✦ Screener or filter question needed

- ✦ Do you think the TV show Grey's Anatomy shows too much blood for being on prime time?



Questionnaire Design: Examples

✦ Double negative

- ✦ Parents should not be allowed to send their children to school if they are not immunized.

Change to:

- ✦ Parents should be allowed to send their children to school even if they are not immunized.



Questionnaire Design: Examples

- ★ Does respondent have needed info & terminology
 - ★ Have you ever heard of a vaccine to prevent HPV and cervical cancer?

Change to:

Human papillomavirus also called HPV, is a common sexually transmitted infection known to cause cervical cancer in women. A vaccine to prevent HPV infection is available and is called the cervical cancer vaccine or HPV shot. Before today, have you ever heard of a vaccine to prevent HPV and cervical cancer?



Questionnaire Design: Examples

- ✦ Specific enough

- ✦ Where were you born?



Questionnaire Design: Examples

- ✱ All relevant responses included

- ✱ Do you use regular or premium gas in your car?

- ✱ All responses are mutually exclusive

- ✱ In which of the following do you live?

- ✱ House

- ✱ Apartment

- ✱ Suburbs



Questionnaire Design: Response Categories Examples

✱ Discrete enough

✱ How often do you have pain from your arthritis?

✱ All the time

✱ Most of the time

✱ Some of the time

✱ A little of the time

✱ Rarely

✱ Never



Exercise

- ✿ Did you buy the new brand of laundry detergent Clean and did you like it?
- ✿ What do you see as the benefits of a tax cut?
- ✿ Did you like the movie Life of Pi?
- ✿ Do you smoke?
- ✿ How much soda or sugar-sweetened beverages do you drink?



Drafting Questionnaire

- ✿ Can the question be misunderstood
- ✿ What assumptions does the question make
- ✿ Does the question contain difficult or unclear terminology
- ✿ Is time frame specified



Order

- ✿ Strong intro conveying what, who, why
- ✿ Start with easy, short, non-threatening, answerable question
- ✿ Is placement of question influenced by prior question
- ✿ Ask about one topic at a time
- ✿ When switching topics, use a transition
- ✿ More sensitive questions towards the end
- ✿ Conclusion – friendly & grateful for time & effort



Programming & Training

✱ Programming/Writing Questionnaire

- ✱ Coding
- ✱ Logical checks
- ✱ Skip patterns

✱ Training

- ✱ Interviewers trained and monitored



Pre-Test

- ✿ Critical for identifying questionnaire problems
- ✿ “Do not know”/”Refused” responses can be a sign of misunderstanding or sensitivity of question
- ✿ Assist in checking skip patterns & formatting
- ✿ Monitoring interviewers



Limitations & Biases

- ✿ Coverage error – when your study population is not inclusive
- ✿ Sampling error – random differences that exists between the sample and the study population
- ✿ Non-response error – differences between those who did not respond compared to those who did
- ✿ Measurement error – difference between the observed/reported value & true value



Administrative

- ✱ Costs
- ✱ Facilities
- ✱ Time
- ✱ Personnel
- ✱ Potential other resources



Simplicity

- ✿ Simplicity, simplicity, simplicity
- ✿ Greatest challenge is to take important topics and translate them into simple concepts, behaviors, and simple words....



Simplicity

...Otherwise, the result could be

- ✱ incomplete or misleading data
- ✱ item refusals
- ✱ respondent fatigue effects
- ✱ even the respondent's complete refusal



Thank You

