Discussion of Reading Assignment 2

A survey of sexual risk behavior for HIV infection in Nakhonsawan, Thailand, 2001
Cheewanan Lertprijitasuwan, Tanarak Pilipat and Richard A. Jenkins

Objective: To determine the prevalence of sexual risk behaviors for HIV in the general population aged 15–44 years in Nakhonsawan province, Thailand.

Method: Cross-sectional survey.

A two-stage cluster sampling technique was used to select 320 participants aged 15–44 years from the general population. Participants were asked questions on demographic characteristics, sexual behaviors, and socio-economic status.

Information dissemination

Download from: http://www.ph.ucla.edu/epi/epi41808.html

Rapid Survey Methodology

Second Component: Portable Computer and Printer

• Battery operated
  • Compute and print in field
  • IBM compatible (Windows)
  • Adequate-sized RAM and hard disk
  • Temperature up to 38–43°C (100–110°F)
  • Humidity up to 95–99%

First Component: Limited Number of Variables

• Need to be able to gather data, analyze findings and complete a written report in 2-3 weeks
• Gathering too many variables requires too much time
• Policy- and decision makers want information quickly
• By limiting variables, must determine which are most important and worth the cost of acquiring

Third Component: Appropriate software

• Word-processing
  • Interview forms, management control forms, protocols, and final report
• Statistics (Epi Info and Stata)
  • Data entry, editing, preliminary analysis, and advanced analysis
• Csurvey
  • Sample size determination, selecting clusters with probability proportionate to size (PPS), and selecting random-start HH
• Spreadsheet and/or graphics
  • Tables and graphs

Fourth Component: Appropriate Sampling Method

• Explain two-stage cluster sampling method and train field staff
• Plan field work with regional health officials
• Identify 30 communities (or clusters) to be visited following PPS sampling at the first stage
• Sample 10 units per cluster at the second stage for a total of 300
  • (i.e., 30 clusters x 10 per cluster)
Rapid Survey Methodology

Fifth Component: Information Dissemination

- Share selected findings with local officials before leaving the field
  - Do not include controversial or critical items
- Present the main findings to the commissioner of the survey and professional colleagues within 2-3 weeks of starting the field work
  - Feature short text and many figures
- Complete the written report within 3-4 weeks of starting the field work
  - Included graphics of the main findings

Who is to be Surveyed?

Target versus Study Population

Questions to be Addressed in Planning a Survey

- Who is to be surveyed?
- What unit is to be sampled?
- How much error is acceptable?
- How valuable is the information?

Who is to be Surveyed?

Survey of Brothels in Chiang Mai, Thailand

Who is to be Surveyed?

Survey of Initial Care at Hospital in Hanoi, Vietnam
What Unit is to be Sampled?

- Households
- Individuals
- Events
- Beliefs
- Episodes

How Much Error is Acceptable?

**BIASED**
- Accuracy
- Precision

- Average value of all sample means
- True value in population

**UNBIASED**
- Accuracy
- Precision

- Average value of all sample means
- True value in population

How Much Error is Acceptable?

Assume a survey is repeated over and over again in a population.

**BIASED**
- Average value of all sample means
- True value in population

**UNBIASED**
- True value in population
- Average value of all sample means

How Valuable is the Information?

- Knowledge of truth: decision saves lives
- Mistake: decision cost money but does not save lives

Inefficient

Additional Issues in Planning a Survey

**Frequency of Surveys**

- one time
- periodic of same people
- continuing of different people
**Frequency of Surveys**

**One Time**
(cross-sectional)

- ask questions about one moment in time

Descriptive information on behavior, practices, knowledge, patterns of health conditions, existing services, or facilities

**Frequency of Surveys**

**Periodic of Same People**
(cohort)

- identify group
- ask questions at repeated moments in time

Descriptive information on the natural history of health conditions or predictive information for estimating future behavior and practices

**Frequency of Surveys**

**Continuing of Different People**
(panel)

- ask same questions at different moments in time in different settings

Descriptive temporal and spatial patterns of behavior, practices, knowledge and patterns of health conditions

**Additional Issues in Planning a Survey**

**Required Information and Cost**

- Desired-variables
  - decision makers or subject-matter specialists
- desired precision
  - Decision-makers, subject-matter specialists, and statisticians
- budget and time restrictions
  - decision-makers

**Additional Issues in Planning a Survey**

**Standardized Measurements**

- Define what is to be measured
- Have an objective technique for its measurement
- Define the condition under which the technique is to be used
- Use trained personnel

**Additional Issues in Planning a Survey**

**Instruments for Obtaining Measurements**

- Questionnaire (self-reported responses)
- Interview (face-to-face responses)
- Chart review
- Observer of personnel, facilities, items or events
- Examiners of subjects
- Actual measuring instruments or tools
Example of an Instrument
Measuring sensitive sexual behavior

Tell me about your sex life.

Example of an Instrument
Measuring sensitive sexual behavior

1) I don't want to talk about my sex life to a stranger.
2) If you tell others in the community, my family will be embarrassed and my reputation will be ruined.

Example of an Instrument
Measuring sensitive sexual behavior

Sampling
• Make a list of the group
• Using a random number table, select a random sample from the list

Example of an Instrument
Measuring sensitive sexual behavior

Questions for HIV Study

• Ever had sexual intercourse
• Ever had sexual intercourse with non-regular (or casual) partner
• Age at first sexual intercourse
• Ever used condoms
• Used condom during last sex act
• Used condom during last sex act with non-regular (or casual) partner

Example of an Instrument
Measuring sensitive sexual behavior

Questions for HIV Study
Past 12 Months

• Are sexually active
• Had at least one non-regular sexual partner
  • Number of non-regular sexual partners
• Frequent at least one sex worker
  • Number of times with sex worker
• Consistent condom use with non-regular sex partners
Additional Issues in Planning a Survey

Plausible Values for Measurements
Error Check at Data Entry

- Range of values for each measurement
  - range check
- Possible relationship with other variables
  - logic check

Check Code feature of Epi Info

Check Code Overview

Check Code Overview

Check Codes will have on error, will correct and data selection to improve entity of data quality and frequency. To create Check Codes, open the Data Editor by selecting the Data window located in the Program menu or by selecting Check Codes from the File menu or

To enter Epi Info, click on a code for the process entering data to data sets or reports. Check Codes are created using the Code | Menu | Program Editor

Reading Assignment 3

To be Discussed Next

Program priorities or for monitoring program ac-

Tutorials for Learning Epi Info

Download from: http://www.ph.ucla.edu/epi/epi41808.html

Check codes

Source: http://www.cdc.gov/epiinfo/tutorials.htm

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