Title: Health Status Assessment: Measurement and Inference

Instructor:
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Description: This course will be an introduction to health status assessment focused on measurement and survey design. We will address two central questions: 1) How do we measure health status?; and 2) How do we relate the data to possible inferential populations? Topics will include the fundamentals of study design and theory in health status assessment, internal and external validity, measurement validity, questionnaire construction, scaling and scoring, sampling methodology, uses and limitations of outcomes data, and survey implementation. By the end of the course, students should be able to critique and evaluate existing health status measures and to weigh the costs and benefits of using an “off-the-shelf” measure as compared to designing a new instrument. Throughout the course, students will learn about current data collection efforts at the University of Chicago.

Course time and location:
M/W 1:30-2:50; BSLC 240

Course Prerequisites:
Required: Descriptive and bivariate statistics
Recommended: Multivariate statistics, Business 856/PP 461/SSA 475 “The Health Services System”

Required Text:

The text will be available at the University Bookstore after April 5, 2006 (the publication date).

Additional Resources:


Evaluation:
Class participation: 30%
Midterm: 20%
Presentation: 10%
Final project: 40%

Midterm exam – short answer, take-home exam
**Final Project** – Students will design and administer a survey, using the SF-8 as the foundation (e.g., adding disease-specific or social support questions to the pre-existing instrument). The final project will entail the following steps: 1) developing the sampling plan; 2) developing the survey questionnaire; 3) pilot testing the survey questionnaire; 4) assessing the reliability and validity of the survey questionnaire; 5) administering the survey questionnaire; 6) analyzing the survey results; and 7) writing up the survey results. Students will present their findings during the last class session. **Students may work in teams.**

**Sessions and Readings:**

**MARCH 27  OVERVIEW**


**MARCH 29  FUNDAMENTALS OF STUDY DESIGN**

Aday LA. *Designing and Conducting Health Surveys.*

Chapter 1. “Thinking about topics for health surveys”

Chapter 2. “Matching the survey design to survey objectives”


Patrick DL, Erickson P. *Health Status and Health Policy: Allocating Resources to Health Care.*

Chapter 4. “Concepts of health-related quality of life”

**APRIL 3  GENERIC MEASURES**

Spilker B (ed). *Quality of Life and Pharmacoeconomics in Clinical Trials.* Lippincott-Raven, 1996.

Chapter 34. Ware JE. “The SF-36 Health Survey” – pp. 337-345.


Chapter 9.
APRIL 5  DISEASE SPECIFIC MEASURES


APRIL 10  INTERNAL AND EXTERNAL VALIDITY

Chapter 1 “Causal inference and the language of experimentation”
Chapter 2 “Validity”

APRIL 12  MEASUREMENT VALIDITY—RELIABILITY, VALIDITY, RESPONSIVENESS I


APRIL 17  MEASUREMENT VALIDITY—RELIABILITY, VALIDITY, RESPONSIVENESS II


APRIL 19  EX: STUDY DESIGN OF THE HOSPITALIST PROJECT

David Meltzer, MD, PhD
Associate Professor
Medicine, Economics, Harris School of Public Policy


APRIL 24  QUESTIONNAIRE CONSTRUCTION

Aday LA. Designing and Conducting Health Surveys.
   Chapter 8. “General principles for formulating questions”
   Chapter 9. “Formulating questions about health”
   Chapter 10. “Formulating questions about demographics and behavior”
   Chapter 11. “Formulating questions about knowledge and attitudes”

APRIL 26  EX: QUESTIONNAIRE CONSTRUCTION IN THE HUTTERITE POPULATION

Lianne Kurina
Assistant Professor
Department of Health Studies

Harkness JA, Van de Vijver FJR, Mohler PP. Cross-Cultural Survey Methods
   Chapter 6. “Culture-sensitive context effects: A challenge for cross-cultural surveys”
   Chapter 13. “Social desirability in cross-cultural research”

MAY 1  SAMPLING

Colm O'Muircheartaigh  
Professor, Harris School of Public Policy  
Vice President for Statistics and Methodology, the National Opinion Research Center

Aday LA. Designing and Conducting Health Surveys.  
Chapter 6. “Deciding who will be in the sample” – pp. 112-142.  
Chapter 7. “Deciding how many will be in the sample” – pp. 143-176.

Lohr SL. Sampling: Design and Analysis.  
Chapter 7. “Complex Surveys” – pp. 221-249.


MAY 3  SCALING AND SCORING


Aday LA. Designing and Conducting Health Surveys.  
Chapter 12. “Guidelines for formatting the questionnaire”  
Chapter 13. “Monitoring and carrying out the survey”

MAY 8  PLANNING FOR DATA ANALYSIS

Aday LA. Designing and Conducting Health Surveys.  
Chapter 4. “Planning the analysis of the survey data”  
Chapter 5. “Choosing the method of data collection”  
Chapter 14. “Preparing the data for analysis”  
Chapter 15. “Planning and implementing the analysis of the data”

MAY 10  MEASUREMENT CHALLENGES IN HEALTH DISPARITIES RESEARCH


**MAY 15**  
**EX: MEASURING IMPLICIT RACISM**

**Thomas Fisher, MD, MPH**  
**Robert Wood Johnson Clinical Scholar**

LaVeist, TA. Beyond dummy variables and sample selection: what health services researchers ought to know about race as a variable. *Health Services Research.* 1994; 29:1-16.


**MAY 17**  
**THE ROLE OF AGE IN DATA COLLECTION**


MAY 22  EX: SCALING AND SCORING – PROGNOSTIC VALUE OF NOMOGRAMS

Martha Gulati, MD, MS, F.A.C.C.
Assistant Professor
Department of Medicine
Department of Preventive Medicine
Bluhm Cardiovascular Institute of Northwestern Northwestern University Feinberg School of Medicine


MAY 24  EX: THE ROLE OF AGE AND THE NOAH PROJECT


MAY 29  LIFE COURSE APPROACHES TO HEALTH STATUS ASSESSMENT


Korn EL, Graubard BI. Analysis of Health Surveys Chap 7. “Analysis of Longitudinal Surveys”

Lee SJ, Lindquist MS, Segal MR, Covinsky KE. Development and validation of a prognostic index for 4-year mortality in older adults.

MAY 31  STUDENT PRESENTATIONS