

INTRODUCTION TO HEALTH SERVICES RESEARCH POPULATION HEALTH 796

Spring 2014
WARF Room 758
Monday 9:00 AM-11:30 AM

Health Services Research is...

"... a multidisciplinary field, both basic and applied, that examines the use, costs, quality, accessibility, delivery, organization, financing and outcomes of health care services to increase knowledge and understanding of the structure, process and effects of health services for individuals and populations." [Institute of Medicine, 1995]

Course Instructor

Marguerite Burns, PhD
Assistant Professor, Population Health Sciences
Room 501 WARF Building
meburns@wisc.edu
Office hours: Immediately after class and by appointment

Ifna Ejebe, ejebe@wisc.edu
Teaching Assistant, Population Health Sciences

Course Description and Learning Objectives

The theoretical and methodological foundations of HSR are highly varied; however, an aspiration to conduct well-designed studies that yield meaningful and generalizable findings is common to all corners of HSR. This course is a response to that aspiration. In the first module, we will focus on the basic elements of research design and the process by which an idea becomes a feasible, compelling research question. The second module provides a critical overview of quasi-experimental research designs that play a particularly important role in HSR today. We will then consider the criteria -- effectiveness, efficiency and equity-- that health services researchers use to evaluate healthcare system characteristics, interventions, and policies. Applying the lessons of modules 1 and 2, we will study the definitions, theoretical foundations, and measurement of these criteria and critically review an illustrative sample of the resulting evidence.

Upon successful completion of the course, students should be able to:

- 1) Describe the aims and scope of health services research;
- 2) Read HSR literature critically including the identification and evaluation of research questions, hypotheses, theoretical framework, study design, methodological approaches, and conclusions; and
- 3) Identify the strengths and limitations of prominent quasi-experimental designs in HSR.

Course Requirements and Evaluation

- 1) Staying current with assigned readings, participation in class discussions and exercises
- 2) Three in-class tests
- 3) One cumulative final exam
- 4) In a small group, lead class discussion with the questions that you develop.

Tests

- The three in-class tests will cover the material from the following time periods: Test 1, Weeks 1-3; Test 2, Weeks 4-6; Test 3, Weeks 7-11.

Final Exam

- The final exam is cumulative. You will receive a limited number of questions in advance of the final exam. At the time of the final exam, you will be asked to answer a subset of those questions.

Discussion Questions

- During the 3rd module of the course, develop 8-10 discussion questions (and their answers) and lead discussion of these questions in class. Questions should apply the lessons from course modules 1 & 2 to a week's readings.

Requirement	Date	% of final grade
Test I	February 17	20%
Test II	March 10	20%
Test III	April 14	20%
Final Exam	See UW Registrar for Date/Time	30%
Participation		10%

Textbooks

Required

The Research Methods Knowledge Base, 3e. Trochim WMK. Atomic Dog Publishing: Cincinnati, OH.

Recommended

Experimental and Quasi-Experimental Designs for Generalized Causal Inference. 2002. Shadish WR; Cook TD; Campbell DT. Wadsworth: Belmont, CA. ISBN: 0-395-61556-9

Evaluating the Healthcare System Effectiveness, Efficiency, and Equity (3rd Edition). 2004. Aday L; Begley CE; Lairson DR; Balkrishnan R. Health Administration Press: Chicago, IL. ISBN: 1-56793-222-3

REQUIRED READINGS BY WEEK AND TOPIC

MODULE I: BUILDING BOCKS OF RESEARCH DESIGN IN HSR		
1	1/27/14	<p>Course Introduction, and Causal Thinking & Hypothesis Generation</p> <p>Aday, Chapter 1 pp.1-6 and Fig1.1.</p> <p>Brook RH. Health Services Research and Clinical Practice.2010. JAMA. 305(15):1589-1590;</p> <p>Trochim Sections 1-1a through 1-1c; 1-1e; 1-2.d; 7-1; 7-1a;</p> <p>Mechanic D. 2002. Lessons from the unexpected: The importance of data infrastructure, conceptual models, and serendipity in health services research. The Milbank Quarterly 2001; 79:459-477 (<i>read only section on conceptual model, pp 461-463</i>)</p> <p>Stuart B, et al. 2011. Does Medication Adherence Lower Medicare Spending among Beneficiaries with Diabetes? HSR 46(4):1181-1199.</p> <p>Maciejewski ML, et al. 2010 Copayment reductions generate greater medication adherence in targeted patients. Health Affairs. 29(11): 2002-2008.</p>
2	2/3/14	<p>Internal Validity I: Confounding, Endogeneity and Omitted Variables Bias</p> <p>Trochim Section 1-1d</p> <p>Dowd and Town. 2002. Does X really cause Y? Academy Health methods paper.</p> <p>Maciejewski ML, et al. 2011. Synonyms in Health Services Research Methodology. Med Care Res Rev. 68(156):156-176. (<i>Read section on "Specific types of Explanatory Variables"</i>)</p> <p><i>Again....</i></p> <p>Stuart B, et al. 2011. Does Medication Adherence Lower Medicare Spending among Beneficiaries with Diabetes? HSR 46(4):1181-1199.</p> <p>Maciejewski ML, et al. 2010 Copayment reductions generate greater medication adherence in targeted patients. Health Affairs. 29(11):2002-2008.</p>
3	2/10/14	<p>Internal Validity II: Reducing bias by design</p> <p>Trochim Sections 7-2 and 7-3 (pp.172-175)</p>

		<p><i>For the SCC readings, do not get bogged down in all of the names of designs. Rather, pay attention to the rationale, strengths and limitations of different combinations of design elements.</i></p> <p>Shadish, Cook and Campbell (SCC) pp. 156-161 The Elements of Design (<i>Read this first among SCC readings</i>)</p> <p>SCC pp103-110 Quasi-experimental designs that lack a control group or lack pretest observations on the outcome</p> <p>SCC pp 135-144 Quasi-Experimental Designs that Use Both Control Groups and Pretests</p> <p>Bindman AB et al. 2005. The impact of Medicaid managed care on hospitalizations for ambulatory care sensitive conditions. Health Services Research. 40(1): 19-37.</p> <p>DeLeire et al. 2013. Wisconsin experience indicates that expanding public insurance to low-income childless adults has health care impacts. Health Affairs. 32(6):1037-1045.</p>
4	2/17/14	Construct Validity and Measurement
		<p>TEST I, covers weeks 1-3</p> <p>Trochim Sections 3-1a-3-1c; and Sections 3.2-3-3.</p> <p>Cohen et al. 2002. A controlled trial of inpatient and outpatient geriatric evaluation and management. New England Journal of Medicine. 346(12): 906-912.</p> <p>Ware JE; Bayliss MS; Rogers WH; Kosinski M; Tarlov AR. 1996. Differences in 4-Year Health Outcomes for Elderly and Poor, Chronically Ill Patients Treated in HMO and Fee-for-Service Systems: Results from the Medical Outcomes Study. JAMA. 276(13):1039-1047</p>
5	2/24/14	External Validity I: Making generalizable inferences
		<p>SCC pp.83-93 (Section title "External Validity")</p> <p>Burns et al. 2013. Effects of Medicare Part D on guideline-concordant pharmacotherapy for bipolar I disorder among dual beneficiaries. Psychiatric Services.</p> <p>Naylor M., et al. 2004. Transitional care of older adults hospitalized with heart failure: a randomized controlled trial. Journal of the American Geriatric Society. 52:675-684.</p>
6	3/3/14	External Validity II: Sampling
		<p>Trochim Chapter 2 Sampling</p> <p>Zhang Y, et al. 2009. The effect of Medicare Part D on Drug and Medical Spending. New England Journal of Medicine. 361:52-61.</p> <p>Madden J, et al. 2008. Cost-related medication non-adherence and spending on basic needs following implementation of Medicare Part D. JAMA. 299(16):1922-1928.</p>
MODULE II: GREATEST HITS - QUASI-EXPERIMENTAL DESIGNS IN HSR		
7	3/10/14	Introduction and Overview
		<p>TEST II, Covers Week 4-6</p> <p>Majumdar and Soumerai. 2009. The unhealthy state of health policy research. Health Affairs. 28(5):w900-w908.</p> <p><i>Additional readings will be added. Please check UW Learn site.</i></p>
8	3/17/14	SPRING BREAK
9	3/24/14	Interrupted Time Series (ITS)
		<p>SCC Chapter 6</p> <p>Wagner et al. 2002. Segmented regression analysis of interrupted time series studies in medication use research. Journal of Clinical Pharmacy and Therapeutics. 27:299-309.</p> <p>Serumaga et al 2011. Effect of pay for performance on the management and outcomes of</p>

		hypertension in the United Kingdom: interrupted time series study. <i>British Medical Journal</i> . 342:d108.
10	3/31/14	Difference-in-Difference (DiD)
		Meyer 1995. Natural and quasi-experiments in economics. <i>Journal of Business & Economic Statistics</i> . 13(2):151-161. <i>Read sections 3.2-5.1.</i> Trivedi et al. 2008. Insurance parity and the use of outpatient mental health care following a psychiatric hospitalization. <i>JAMA</i> .300(24)2879-2885. Mulcahy et al. 2013. Insurance coverage of emergency care for young adults under health reform. <i>NEJM</i> . 368:2105-2112.
11	4/7/14	Regression Discontinuity (RD)
		Trochim Section 10-2 Card et al. 2008. The impact of nearly universal insurance coverage on health care utilization: Evidence from Medicare. <i>American Economic Review</i> . 98;5:2242-2258. Meyer and Wherry. August 2012, Revised January 2013. Saving teens: Using a policy discontinuity to estimate the effects of Medicaid eligibility. NBER Working Paper 18309.
MODULE III: PUTTING IT TOGETHER- EVALUATING HEALTH SERVICES & SYSTEMS		
12	4/14/14	Effectiveness
		TEST III, covers weeks 7-11 Aday, Chapter 2 pp. 57-77 and Chapter 3, p. 93- top of p.110 Wennberg et al. 1989. Hospital use and mortality among Medicare beneficiaries in Boston and New Haven. <i>NEJM</i> . 321:1168-1173. Hernandez AF. et al. 2010. Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. <i>JAMA</i> . 303(17):1716-1722. Shahnian VB et al. 2010. Reimbursement policy and androgen deprivation therapy for prostate cancer. <i>NEJM</i> . 363:1822-1832.
13	4/21/14	Equity
		Aday pp. 195-198; Table 7.1 Appendix 7.1 Andersen, R. M. 1995. Revisiting the Behavioral-Model and Access to Medical-Care – Does It Matter. <i>Journal of Health and Social Behavior</i> 36 (1):1-10. Andersen RM. 2008. National Health Surveys and the Behavioral Model of Health Services Use. <i>Medical Care</i> . 46(7):647-653. (<i>Read only p.647 and pages 651-652; and Bring Figure 1 to Class</i>) <i>Additional readings will be assigned for this week. Please check UW Learn site.</i>
14	4/28/14	Efficiency
		Aday pp 121-139 in Chapter 4. Sommers BD, Baicker K, and Epstein AM. 2012. Mortality and access to care among adults after state Medicaid Expansions. <i>New England Journal of Medicine</i> . 367:1025-34. Manning WG, Newhouse JP, et al. 1987. Health insurance and the demand for medical care: evidence from a randomized experiment. <i>American Economic Review</i> . 77:251-277. Review demand curves at: http://ingrimayne.com/econ/DemandSupply/OverviewSD.html . Sections: Overview, Intro to Demand, More about Demand, The Demand Curve, and Demand Terminology. Review elasticity at: http://ingrimayne.com/econ/elasticity/OverviewEl.html . Sections: Overview, Price Elasticity, More Price Elasticity, Computing Price Elasticity, Other Elasticities.
15	5/5/14	HSR, Right Now: Health insurance expansions & experiments

	<p>Gruber J. 2011. The impacts of the Affordable Care Act: How reasonable are the projections? NBER Working Paper 17168. <i>(Read sections I and II only.)</i></p> <p>Baicker et al. 2013. The Oregon Experiment- Effects of Medicaid on Clinical Outcomes. NEJ. 368(18):1713-1722.</p> <p>Finkelstein et al. 2012. The Oregon Health Insurance Experiment: Evidence from the First Year. The Quarterly Journal of Economics. 127(3):1057-1106.</p> <p>Taubman et al. 2014. Medicaid increases emergency department use: Evidence from Oregon's Health Insurance Experiment. Science. January 2, 2014; pp.1-11.</p> <p>Sommers et al. 2013. The Affordable Care Act led to significant gains in health insurance and access to care for young adults. Health Affairs. 32(1):165-174.</p> <p><i>Again...</i></p> <p>DeLeire et al. 2013. Wisconsin experience indicates that expanding public insurance to low-income childless adults has health care impacts. Health Affairs. 32(6):1037-1045.</p>
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Last update: 1/20/14