HEALTH POLICY RESEARCH (HPR)

HPR 501 Economics of Health Care Delivery
How medical care is produced and financed in private and public sectors, economic models of consumer and producer behavior, applications of economic theory to health care. Taught by: Dr. Mark Pauly
Course usually offered summer term only
Prerequisite: Course only open to Masters of Science in Health Policy Research students
Activity: Lecture
1 Course Unit

HPR 503 Qualitative Methods in Health Research
The purpose of this course is to expose students to a variety of qualitative approaches/methodologies that may be used in health services/policy research. In didactics we will discuss the pros and cons of a range of qualitative Methods, how the method is actually implemented (with multiple experts presenting approaches), and pair the presentation with a broader discussion in which students compare and contrast health oriented articles in which the method was used. Students will have the opportunity to apply the theoretical approaches to their own research interests with direct input from the faculty and their peers. Taught by: Drs. Frances Barg and Judy Shea
Course usually offered summer term only
Also Offered As: PUBH 538
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 504 Principles and Practice of Healthcare Quality Improvement
Healthcare delivery is complex and constantly changing. A primary mission of leading healthcare organizations is to advance the quality of patient care by striving to deliver care that is safe, effective, efficient, timely, cost effective, and patient-centered. The goal of this interprofessional course is to provide students with a broad overview of the principles and tools of quality improvement and patient safety in health care while also guiding them through the steps of developing a quality improvement project. It will provide a foundation for students or practicing clinicians who are interested in quality improvement and patient safety research, administration, or clinical applications. As part of this course, students will design and plan for a real quality improvement project in their area of interest within healthcare using the methods and tools taught in the course. Taught by: Jennifer S. Myers and Kathleen G. Burke
Course usually offered in fall term
Also Offered As: NURS 612
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 550 Clinical Economics and Clinical Decision Making
This course focuses on the application of decision analysis and economic analysis of diagnostic tests using two by two tables, likelihood ratios, and ROC curves. The course continues with the introduction of more general tools for decision analysis, including decision trees and other mathematical models. A major focus of the course is the application of economic principles to the evaluation of health outcomes. During seminars, students will carry out practical exercises that include problem solving, critically analyzing published articles, and learning to use computer software that facilitates decision and economic analyses. Taught by: Drs. Sankey Williams and Henry Glick
Course usually offered in spring term
Also Offered As: EPID 550
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 580 Outcomes Research
This course is divided into two main parts. The first part addresses issues related to the measurement of quality in healthcare. Included is a review of the classical-structure-process-outcome quality paradigm. The paradigm's strengths and limitations are addressed. This part especially focuses on outcome measures of quality and examines the validity of alternative measures. The second part deals with observational, or quasi-experimental, research studies. It addresses the advantages and limitations of alternative designs, and covers the role of clinical risk adjustment in observational studies of medical interventions. It focuses on the problem of selection bias, and reviews recent methods for dealing with this bias, such as instrumental variables. Taught by: Dr. Jeffrey Silber
Course usually offered in fall term
Also Offered As: EPID 580
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 600 Introduction to Health Policy and Health Services Research
This course will provide students with an introduction to health services and health policy research. First, faculty representing various departments and and schools at the University of Pennsylvania will introduce students to a number of “hot topics,” including health disparities, medical decision making, neighborhoods and health, quality of care, access to care, behavioral incentives, and cost effectiveness research. Second, the course will offer an introduction to various career paths in the research and policy domains. Third, the course will provide a brief overview of practical issues such as grant opportunities, data options, publishing, and dissemination. Taught by: Drs. Zachary Meisel and Raina Merchant
Course usually offered summer term only
Prerequisites: This course is only open to Masters of Science in Health Policy Research students.
Activity: Seminar
1 Course Unit
HPR 602 Topics in Leadership for Health Policy
In this seminar series, students combine didactic sessions reviewing core leadership concepts and skills with reflective discussions on experiences in leadership through their training and community relationships.
Taught by: Drs. Anthony Rostain and Lucy Tuton
Course usually offered summer term only
Prerequisites: This course is only open to fellows in the National Clinician Scholars Program.
Activity: Seminar
1 Course Unit

HPR 603 Health Services and Policy Research Methods I: Primary Data Design and Collection
This course will introduce students to commonly used primary data collection methods and provide multiple examples of how they have been used in health services research. Through the course students will define a primary data collection research project and develop the methods necessary to conduct the project. To get the full benefit of this course, students should use this course to develop the methods they plan to employ in their primary data collection project.
Taught by: Drs. Marilyn Schapira and Judy Shea
Course usually offered in fall term
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 604 Introduction to Statistics for Health Policy
This is the first semester of a two-semester sequence. It is an introductory statistics course covering descriptive statistics, probability, random variables, estimation, hypothesis testing, and confidence intervals for normally distributed and binary data. The second semester stresses regression models.
Taught by: Dr. Andrew Spieker
Course usually offered in fall term
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 605 Multidisciplinary Perspectives on Health
In this seminar series, students select topics for in-depth discussion with visiting speakers from a wide range of disciplines. The discussions are led by core National Clinician Scholars Program faculty. Each topic involves 5 to 6 sessions with the initial session focusing on critical appraisal of relevant literature.
Taught by: Dr. Joanne Wood
Course usually offered in spring term
Prerequisites: This course is only open to fellows in the National Clinician Scholars Program.
Activity: Seminar
1 Course Unit

HPR 606 Fundamentals of Health Policy
While academic researchers often think of health policy in terms of research evidence and outcomes, politics and political processes also play important roles. The purpose of this course is to provide those pursuing careers in health services research and health policy with an understanding of the political context from which U.S. health policy emerges. This understanding is important for researchers who hope to ask and answer questions relevant to health policy and position their findings for policy translation. This understanding is important as well to policy leaders seeking to use evidence to create change. The class provides an overview of the U.S. health care system and then moves on to more comprehensive understanding of politics and government, including the economics of the public sector, the nature of persuasion, and techniques and formats for communication. The course emphasizes reading, discussion and applied policy analysis skills in both written and oral forms. Concepts will be reinforced with case studies, written assignments and a final policy simulation exercise where students will be placed in the position of political advisors and policy researchers.
Taught by: Dr. David Grande
Course usually offered in fall term
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 607 Health Services and Policy Research Methods II: Causal Inference Using Secondary Data
Empirical research for health care policy frequently involves the analysis of observational data--information that is not primarily collected for research purposes. With the rapid increase in U.S. health information technology capacity, future opportunities for research using these "secondary data" appear promising. The objective of this course is to teach the skills necessary to conduct quality health policy research using secondary data. These skills include formulating research aims and applying appropriate study designs for achieving these aims. The course will also include a survey of the content and structure of several commonly used administrative and public databases available to researchers and workshops to develop the skills to access and manipulate these valuable resources.
Taught by: Dr. Rachel M. Werner
Course usually offered in spring term
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit

HPR 608 Applied Regression Analysis for Health Policy Research
This course deals with the workhorse of quantitative research in health policy research—the single outcome, multiple predictor regression model. Students will learn how to 1) select an appropriate regression model for a given set of research questions/hypotheses, 2) assess how adequately a given model fits a particular set of observed data, and 3) how to correctly interpret the results from the model fitting procedure. After a brief review of fundamental statistical concepts, we will cover analysis of variance, ordinary least squares, and regression models for categorical outcomes, time to event data, longitudinal and clustered data. We will also introduce the concepts of mediation, interaction, confounding and causal inference.
Taught by: Dr. Nandita Mitra
Course usually offered in spring term
Prerequisite: Permission needed from Instructor
Activity: Lecture
1 Course Unit
**HPR 610 Achieving Evidence-Based Health Policy**
Achieving Evidence-Based Health Policy examines how research can influence health policy. The course teaches students practical tools for developing communications that effectively leverage policy impact. Sessions will examine: the dialectical relationship between research and policy; how selection of research methods may influence usefulness of results for the policy sphere; the implementation of research findings in real-world settings; the translation of research for a policy audience; and the role of various (the media; foundations; local, state, and federal government; advocates) in both research and policy debates. The instructors will draw on their work in pediatric health services research. The class will feature guest research and policy experts from the public and private sectors, who will explore core concepts using case studies from their expertise in topics like health care reform, immigrant health, mental health, and early childhood home visitation. These didactic topical presentations will be followed by discussions, seminar discussion examining how research findings impacted policy, and writing exercises aimed at honing skills for a policy audience.

Taught by: Dr. Marsha Gerdes  
Course usually offered in spring term  
Also Offered As: PUBH 537  
Prerequisite: Permission needed from Instructor  
Activity: Lecture  
1 Course Unit

**HPR 620 Community Based Participatory Research and Action**
Community engagement is essential for interventional efforts, project development, as well as asking and answering health questions in a variety of settings. As in the use of any tool, community engagement requires both knowledge and skill. This class will focus on the use of community engagement to achieve community health goals through three integrated opportunities: collaboration/partnership, evidence-based principles and organizational development. The objectives of the course are to increase knowledge and skills in the following areas: delineating the types of methods used to establish and enhance collaboration/partnership with community stakeholders, learning the theories, principles, methods and best practices of collaborating with community stakeholders, developing and applying the skills needed to participate in community based collaborative activities and gaining an understanding of organizational development and infrastructure in the non-profit sector.

Taught by: Dr. Charmaine Smith-Wright  
Course usually offered in fall term  
Prerequisite: Permission needed from Instructor  
Activity: Lecture  
1 Course Unit

**HPR 611 Implementation Science in Health and Health Care**
In this course, we will highlight a suite of qualitative, quantitative and mixed research methods that address the features of implementation science. The course will include an introduction to the foundational aspects of implementation science, followed by guest speakers who describe their implementation science research. The structure of the course will focus on 3 successive stages: (1) introduction to the foundation/theory of implementation science, (2) exposure to researchers conducting implementation research, and (3) and learning how to critically evaluate and design implementation science studies. An emphasis on specific tools in qualitative and mixed methods approaches is included.

Taught by: Drs. Fran Barg, Rinad Beidas and Meghan Lane-Fall  
Course usually offered in spring term  
Prerequisite: Permission needed from Instructor  
Activity: Lecture  
1 Course Unit

**HPR 650 Systems Thinking and Patient Safety**
This blended online/in-classroom graduate level course integrates principles of systems thinking with foundational concepts in patient safety. Utilizing complexity theories, students assess healthcare practices and identify factors that contribute to medical errors and impact patient safety. Using a clinical microsystem framework, learners assess a potential patient safety issue and create preventative systems. Lessons learned from the science of safety are utilized in developing strategies to enhance safe system redesign.

Taught by: Drs. Kathleen Burke, Susan Keim and Catherine Wildenberg  
Course usually offered in spring term  
Also Offered As: NURS 650  
Activity: Lecture  
1 Course Unit

**HPR 799 Independent Study**
This course is designed to provide the student with an opportunity to gain or enhance knowledge and to explore an area of interest related to health policy research under the guidance of a faculty member.

Taught by: Faculty  
Course offered summer, fall and spring terms  
Prerequisites: Permission of Program Director and Faculty Member  
Activity: Independent Study  
1 Course Unit

**HPR 951 Health Policy Research Thesis I**
Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product.

Taught by: Faculty  
Prerequisite: Course only open to Masters of Science in Health Policy Research students  
Activity: Masters Thesis  
1 Course Unit
HPR 952 Health Policy Research Thesis II
Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product.
Taught by: Faculty
Prerequisite: Course only open to Masters of Science in Health Policy Research students
Activity: Independent Study
1 Course Unit

HPR 954 QUALITY CAPSTONE PROJECT
The purpose of the quality capstone project is to provide students with the opportunity to lead and experience each of the 5 phases of quality improvement work: Define - Measure - Analyze - Improve - Control (DMAIC). A quality improvement mentor will be assigned to each student completing this course. Preparation and submission of the quality capstone project as an abstract to a local, regional or national meeting is a requirement for completion of this course.
Taught by: Drs. Kathleen Burke and Jennifer S. Myers
Course offered summer, fall and spring terms
Prerequisite: This course is only open to CHIPS Concentration fellows in the Masters of Science in Health Policy Research
Activity: Masters Thesis
1 Course Unit