

HEALTH POLICY RESEARCH (HPR)

HPR 501 Economics of Health Care Delivery

This course examines 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. Prerequisite: Course only open to Masters of Science in Health Policy Research students.

Taught by: Dr. Mark Pauly

Course usually offered summer term only

Activity: Lecture

1.0 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. Prerequisite: Permission needed from Instructor.

Taught by: Drs. Frances Barg and Judy Shea

Course usually offered summer term only

Also Offered As: PUBH 538

Activity: Lecture

1.0 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 (Institute of Medicine). 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 healthcare as well address the knowledge, skills and attitudes as defined by the Quality and Safety Education for Nurses (QSEN) guidelines. It will provide a foundation for students or practicing clinicians who are interested in quality improvement and patient safety research, administration, or clinical applications. Content will address the history of the quality improvement process in healthcare, quality databases and improvement process tools and programs. Through the use of case studies and exercises students will become familiar with the use of several quality improvement programs and tools. For example, the Plan-Do-Study- Act (PDSA) cycle, Six Sigma and the Toyota Production System known as Lean Production processes will be addressed. Students can use this course to identify the tools and design the methods that they plan to employ in a quality improvement or patient safety project in their area of interest.

Taught by: Myers, J.; Burke, K.

Course usually offered in fall term

Also Offered As: NURS 612

Activity: Lecture

1.0 Course Unit

HPR 550 Clinical Economics and Clinical Decision Making

This course focuses on the application of decision analysis and economic analysis to clinical and policy research. The course begins with material about the selection, use, and 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. Special emphasis is placed on the assessment and use of utilities in these 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. Prerequisite: Permission of instructor

Taught by: Glick, Williams

Course usually offered in spring term

Also Offered As: EPID 550

Activity: Lecture

1.0 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 health care. 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 measure 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. Prerequisite: Introductory course in statistics including regression methods. Permission of instructor if prerequisite is not met.

Taught by: Silber

Course usually offered in fall term

Also Offered As: EPID 580

Activity: Lecture

1.0 Course Unit

HPR 588 Advanced Leadership Skills in Community Health

Grounded in a social justice perspective, this course aims to provide the student with a foundational overview of the field of community health and leadership skills in public health advocacy. The course encourages critical thinking about health outcomes framed by the broad context of the political and social environment. This course analyzes the range of roles and functions carried out by leaders in healthcare advocacy for marginalized communities; integrates knowledge of health policy and the key influence of government and financing on health outcomes; explores community-based participatory research and interventions as tools for change; and discusses ways to develop respectful partnerships with community organizations. An assets-based approach that draws upon the strengths of communities and their leaders provides a foundation for community-engagement skill building. The course emphasizes the development of skills and techniques to lead effective, collaborative, health-focused interventions for disenfranchised groups, including residents of urban neighborhoods. Prerequisite: Undergraduates with permission of the instructor

Taught by: Klurasitz

Course usually offered in spring term

Also Offered As: NURS 587, PUBH 588

Activity: Lecture

1.0 Course Unit

HPR 600 Health Services Research and Innovation Science

This course will provide students with an introduction to health services and health policy research. First, faculty representing various departments 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. Prerequisite: This course is only open to Masters of Science in Health Policy Research students.

Taught by: Drs. Zachary Meisel and Raina Merchant

Course usually offered summer term only

Activity: Seminar

1.0 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. Prerequisite: Permission needed from Instructor.

Taught by: Drs. Marilyn Schapira and Judy Shea

Course usually offered in fall term

Activity: Lecture

1.0 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. Prerequisite: Permission needed from Instructor.

Taught by: Dr. Kevin Lynch

Course usually offered in fall term

Activity: Lecture

1.0 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.

Prerequisite: Permission needed from Instructor.

Taught by: Dr. David Grande

Course usually offered in fall term

Activity: Lecture

1.0 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. Prerequisite: Permission needed from Instructor.

Taught by: Dr. Rachel M. Werner

Course usually offered in spring term

Activity: Lecture

1.0 Course Unit

HPR 608 Applied Regression Analysis for Health Policy Research

This course deals with the work-horse 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.

Prerequisite: Permission needed from Instructor.

Taught by: Dr. Nandita Mitra

Course usually offered in spring term

Activity: Lecture

1.0 Course Unit

HPR 611 Implementation Science in Health and Health Care

This course presents a survey of the field of implementation science in health. The structure of the course will include two parts. In the first part, we will introduce the field of implementation science, with an emphasis on theory, design and measurement. In the second part, we will focus on applied implementation science which will include examples of research programs in implementation science as well as applying insights of implementation science to practical implementation. An emphasis on qualitative and mixed methods approaches is included. Prerequisite: permission needed from Instructor.

Taught by: Drs. Rinad Beidas and Meghan Lane-Fall

Course usually offered in fall term

Activity: Lecture

1.0 Course Unit

HPR 612 Advanced Topics in Implementation Science in Health

This seminar course offers an opportunity for students to advance their understanding of the thorniest methodological challenges in implementation science. Broadly, topics include study design, study execution, and tensions in the field. The intention will be for attendees to directly apply their learnings to their ongoing or proposed implementation research. This half credit course is intended for those who have already been exposed to the foundational content of implementation science. This can be achieved via HPR 611, the Penn Implementation Science Institute, or other training opportunities such as the NIH TIDIRH/TIDIRC or mentored K awards. Instructor permission is required for enrollment. Additional prerequisites: the Penn Implementation Science Institute, or other training opportunities such as the NIH TIDIRH/TIDIRC or mentored K awards.

Taught by: Rinad Beidas, Meghan Lane-Fall

Course usually offered summer term only

Prerequisite: HPR 611

Activity: Seminar

0.5 Course Units

HPR 625 Pragmatic Clinical Trials in Healthcare

This seminar course offers an opportunity for students to understand what a pragmatic randomized controlled trial (RCT) is, how it differs from explanatory RCTs, why it is relevant, and key methodological and analytic issues that arise in the conduct of pragmatic trials. The student will also learn about ethical issues in pragmatic trials, nesting relevant studies within a trial, and trial reporting requirements. The intention will be for attendees to be able to directly apply their learnings to their ongoing or future clinical research.

Taught by: Katherine R. Courtright

Activity: Seminar

0.5 Course Units

HPR 637 Advocacy & Public Health

This course is designed to provide the foundational context and practical skills necessary to effectively advocate for evidence-based policy change in furtherance of public health objectives. The class will be interactive in nature and will require participation in public health advocacy exercises in order to hone advocacy skills. There will also be a focus on persuasive communication, both oral and written. We will explore the entire advocacy process from the identification of a problem and evaluation of possible policy solutions to utilizing the full range of advocacy tools to promote policy change.

Course usually offered in spring term

Also Offered As: PUBH 637

Prerequisite: PUBH 505 OR PUBH 507

Activity: Lecture

1.0 Course Unit

HPR 640 Coaching in Quality Improvement Work

The purpose of this course is to provide participants with the skills and tools to successfully guide learners in experiential quality improvement (QI) work in healthcare while developing a network of educators with similar roles. Faculty will be placed into groups based upon their level of experience and confidence in teaching and advising learners in this field. Both groups will discuss topics such as QI project selection, using QI frameworks to structure teaching sessions, key organizational and team factors, providing feedback, common teacher and learner pitfalls in QI, and many others. This will be a blended course with two in-person workshops and monthly asynchronous online educational components with assignments. Prerequisite: Prior knowledge and/or experience in Quality Improvement is required to enroll in this course. Examples of prior knowledge and/or experience include completion of: (1) one or more years of practical experience leading and/or advising a QI project team, (2) a local, regional, or national course in which QI methods and skills were taught (minimum of 4 hours), (3) Completion of the Institute for Healthcare Improvement's Open School Certificate Program, (4) CHOP's Improvement Leader Course, (5) Penn's performance Improvement in Action (PIIA) Course, (6) HPR 504: Principles and Practice of Quality Improvement Course. Faculty who wish to enroll who do not meet 1 or more of the above criteria should contact one of the course directors for discussion and guidance.

Taught by: Jennifer Myers, Neha Patel, Elena Huang

Course usually offered in fall term

Activity: Online Course

0.5 Course Units

HPR 650 Systems Thinking in 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 preventive systems. Lessons learned from the science of safety are utilized in developing strategies to enhance safe system redesign. Core competencies for all healthcare professionals are emphasized, content is applicable for all healthcare providers including, but not limited to, nurses, pharmacists, physicians, social workers and healthcare administrators, and may be taken as an elective by non-majors.

Taught by: Susan Keim

Course usually offered in spring term

Also Offered As: NURS 650

Activity: Lecture

1.0 Course Unit

HPR 660 Applied Predictive Modeling for Health Services Research

The course offers an introduction to the principles and applications of predictive modeling. It is geared toward health services researchers with an emphasis on clinical and policy scenarios and the use of electronic health record and administrative claims data. The primary goals of this course are to help each student understand (1) the fundamental concepts of predictive modeling and what distinguishes it from traditional causal inference approaches in statistics, (2) the different evaluation metrics for model performance and their appropriate use and (3) the role of domain knowledge in developing a statistical plan for model development with the end-user in mind. Students will be building their own predictive models by the end of the course and may elect to use R, STATA or Python for coding exercises. No prior programming experience is required. A background in basic statistical principles would be helpful. Prerequisite: Permission needed from Instructor.

Taught by: Dr. Gary Weissman
Course usually offered summer term only
Activity: Lecture
1.0 Course Unit

HPR 670 Health Care Strategic Leadership and Business Acumen

The weeklong intensive course aims at developing essential business acumen and leadership skills required to thrive in a constantly changing health care ecosystem. Taught by invited faculty who have experience working with health care leaders, this course will focus on actionable knowledge in financial acumen, strategic decision making, innovation and building high-performance teams. Through interactive mixed-mode delivery methods, faculty will share tools and frameworks, always with a focus on how to apply them, both personally and within an organizational context. Prerequisite: Permission needed from Instructor.

Taught by: Drs. Guy David and David Grande
Course usually offered summer term only
Activity: Lecture
1.0 Course Unit

HPR 714 Grant Writing/Review

This course will assist students in the design of an NIH grant (F-32, K, R21 or R01) for submission by enhancing their appreciation of the specifics of the grant writing process and in understanding the grant review process. This course is designed to provide background, training, and practice with the writing and submitting of NIH style grants. As a minimum all students who enroll will be expected to write and submit a reasonable draft of a full NIH style grant proposal by the end of the term. During the process, the portions of each proposal will be reviewed as a group by the other students in the course. In response to each review, students are expected to revise their grant sections. Prerequisite: If course requirement not met, permission of instructor required.

Taught by: Farrar, Gerber
Course usually offered summer term only
Also Offered As: EPID 714
Prerequisite: EPID 510 AND EPID 526 AND EPID 560 AND EPID 570
Activity: Seminar
0.5 Course Units

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. Prerequisite: Permission of Program Director and Faculty Member.

Taught by: Faculty
Course offered summer, fall and spring terms
Activity: Independent Study
1.0 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. Prerequisite: Course only open to Masters of Science in Health Policy Research students.

Taught by: Faculty
One-term course offered either term
Activity: Masters Thesis
1.0 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. Prerequisite: Course only open to Masters of Science in Health Policy Research students.

Taught by: Faculty
One-term course offered either term
Activity: Independent Study
1.0 Course Unit