HEALTH CARE INNOVATION (HCIN)

HCIN 6000 The American Health Care System
This course surveys the historical development of the American health care system from the turn of the Twentieth Century to the present. We examine the logic, economics, and implementation of the system's basic structural components from insurance, to hospitals, to models for compensating physicians and nurses. We review many attempts at reform, and discuss why they failed. We analyze in detail the passage of the Affordable Care Act, the Supreme Court's rulings, and its provisions on access, cost control, quality, workforce, and financing. And we begin to consider some of the directions in which the American health care system may evolve next.
Fall
1 Course Unit

HCIN 6010 Health Care Operations
The word "operations" derives from the Latin "opus," and opus means work. So by definition, operations is about work. This course offers an introduction to operations management: after completing the course, you will be able to use a systematic approach for analyzing and improving your work in health care settings. This will benefit patients, teams of care providers, and staff. The course includes an examination of inefficiencies resulting from the three system inhibitors: waste, variability, and inflexibility. And it provides strategies for engaging in the ongoing process of reducing these negative impacts without sacrificing quality of care. This course offers an introduction to operations management, examining inefficiencies from waste, variability, and inflexibility and providing strategies for engaging in the ongoing process of reducing these negative impacts without sacrificing quality of care. After completing the course, learners will be able to use a systematic approach for analyzing and improving their work in health care settings.
1 Course Unit

HCIN 6020A Behavioral Economics and Decision Making
Behavioral economics is a relatively new field at the intersection of economics and psychology. This course offers an introduction to behavioral economics and its applications to health and health care. In it, we will examine the key conceptual underpinnings of the field. We will discuss in detail the structure of the choice environment and the ways that people are influenced by how choices are structured. We will consider the design of incentives and various approaches used to "supercharge" incentive programs using behavioral economics principles. We will consider the use of social incentives and social comparisons as a way of achieving better physician performance. We will conclude with a description of how behavioral economics is used in public policy, as well as the interesting question of when a "nudge" becomes a shove.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

HCIN 6020B Behavioral Economics and Decision Making
This is the second and final part of the multi-term course, Behavioral Economics and Decision Making. Students must successfully complete HCIN 6020a in the Fall term before taking this course. Students will receive a single letter grade and earn 1 cu total for HCIN 6020a and 6020b. Behavioral economics is a relatively new field at the intersection of economics and psychology. This course offers an introduction to behavioral economics and its applications to health and health care. In it, we will examine the key conceptual underpinnings of the field. We will discuss in detail the structure of the choice environment and the ways that people are influenced by how choices are structured. We will consider the design of incentives and various approaches used to "supercharge" incentive programs using behavioral economics principles. We will consider the use of social incentives and social comparisons as a way of achieving better physician performance. We will conclude with a description of how behavioral economics is used in public policy, as well as the interesting question of when a "nudge" becomes a shove.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HCIN 6020A
0.5 Course Units

HCIN 6030 Evaluating Health Policy and Programs
This course serves as an overview of fundamental concepts and empirical methods in the analysis of health policies and programs. It offers a pragmatic, applied approach to the subject, focusing on how the learner can use evaluation methods in practice. This course surveys key concepts in evaluation, such as confounding, selection bias, non-random assignment, the counterfactual, and matching. It examines the notions of internal versus external validity, and their influence on methodological choice. And it covers empirical methods including randomized controlled trials, regression discontinuity design, difference-in-differences or interrupted time series methods, matching, and instrumental variables. Real-world policies and evaluation examples illustrate concepts and applications of methods.
1 Course Unit

HCIN 6040 Health Economics
Health economics applies economic principles to the health care sector. By recognizing the importance of scarcity and incentives, it focuses on the critical economic issues in producing, delivering, and financing health care. It analyzes determinants of demand for medical care, the unique role of physicians in resource allocation, the role of health insurance, and competition in medical care markets.
1 Course Unit

HCIN 6050 Applying Behavioral Economics
Analyze a case, define a behavioral economics intervention, sketch a behavioral roadmap, and write a proposal for the intervention.
0.5 Course Units

HCIN 6060 Applying Operations Management
Analyze 2 health care cases; through the process of forecasting, build a KPI tree; and recommend process improvements.
0.5 Course Units
HCIN 6070 Translating Ideas into Outcomes
This course applies state-of-the-art innovation methodologies to improve health care delivery for providers, and outcomes and experience for patients. It begins with an extended discussion of how we might apply principles of analytical and scientific thinking including rhetorical analysis and behavioral economics to operational problems in health care. And it examines strategies for identifying and solving those problems; including ethnographic research to reveal what others have missed; problem reframing to enable high-impact solution directions; intentional divergence to unlock teams from initial, less productive concepts; rapid hypothesis validation to learn quickly at low cost whether and how best to invest in scaling; and designing delightful experiences, which drive word-of-mouth and catalyze the spread of desirable behaviors.
1 Course Unit

HCIN 6080 Strategies for Health Insurance and Benefit Design & Driving Value in Health Care
This is a 6-week, 1 cu, online course that pairs two complementary course topics. In the first 3 weeks, you will study Health Insurance and Benefit Design with David Asch, MD, MBA and Kevin G. Volpp, MD, PhD. In the final 3 weeks, you will study Driving Value in Health Care with Lee Fleisher, MD. Strategies for Health Insurance and Benefit Design: Recent efforts to increase the amount of health produced through health insurance benefits relative to the cost have utilized a number of strategies. These have included high deductible health plans, price transparency, value-based insurance design, simplifying health plan designs, and providing incentives geared to influencing utilization. In this course, we will discuss some of the main challenges facing health insurers, efforts to reduce growth in entitlement spending, and research that uses on the effectiveness of different strategies to modify behavior through the use of incentives embedded within health insurance design. This course will emphasize both understanding and practical applications of this knowledge through a combination of lectures and interviews with expert practitioners. Following completion of this course, students will have a deeper understanding of some of the tradeoffs inherent in the approaches insurers are taking to provide greater value and health improvement for their beneficiaries. Paired with Driving Value in Health Care. We explore methods for analyzing value drivers and survey strategies to improve value (defined as quality over cost) in a health care system. Most policy experts agree that by focusing on value then we will be able to unite the different groups within the health care delivery system to help fix our current issues. Students who successfully complete this course will be able to discuss the payer drivers to increase value, measure quality, measure cost, deliver an elevator speech for resources to improve value, and select tools to implement a project to improve value.
0.5 Course Units

HCIN 6100 Connected Health Care
Technology has allowed firms to fundamentally change how they connect with their customers. Rather than having occasional, episodic interactions—where customers realize they have an unmet need and then look for ways to fill it—firms are striving to be continuously connected to their customers, providing services and products as the needs arise, even before customers become aware of them. There is probably no other industry for which this development will be as transformative as in health care delivery. Wearable devices, smart pill bottles, and digestible sensors—all of these technologies, and many more, are associated with the promise of improving the quality of care while also making efficient use of resources. This course explores the impact of connected strategies in general, and in particular the opportunities associated with them in health care delivery.
Summer Term
1 Course Unit

HCIN 6110 Driving Value in the System
Engage in understanding the current goals of improving value—defined by quality over costs—in the health care system and drivers of improved value. Most policy experts agree that by focusing on value then we will be able to unite the different groups within the health care delivery system to help fix our current issues. Students who successfully complete this course will be able to discuss the payer drivers to increase value, measure quality, measure cost, deliver an elevator speech for resources to improve value, and select tools to implement a project to improve value.
0.5 Course Units

HCIN 6120 Leadership & Legal Issues in Health Care
This course is composed of 2 units, each of which is 3 intensive weeks. In the first unit—Health Care Leadership with Prof. Michael Useem—you will focus on concepts, experience, and skills analysis to develop and synthesize a personal and organizational leadership strategy. In the second unit—Legal Issues in Health Care, with Dean Theodore W. Ruger—you will survey the basic legal rules that govern the provision of medical care in the United States. And you will gain a clear understanding of the various modes of health law formation (cases, statutes, administrative regulations) and the multiple federal, state, and local institutions involved in the creation and application of health law in the United States.
Summer Term
1 Course Unit

HCIN 6140 Health Law Fundamentals
Examine the legal and regulatory aspects of the United States health care delivery and financing systems. This course explores how statutes, regulations, common law, and market forces help or hinder three major goals of policy makers: increasing access, reducing cost, and improving quality. We will examine the Supreme Court’s rulings on the ACA and other legal aspects of modern health care reform. Casebook readings are supplemented by government publications, academic articles, and policy materials. The course also includes extensive additional readings on the Patient Protection and Affordable Care Act. Students who successfully complete this course will be able to describe the laws, regulations, common law, and market forces that shape our health care system and identify areas where ideas and innovation are needed; explain the malpractice system and how it influences medical practice; and analyze legal aspects of the ACA.
0.5 Course Units
HCIN 6150 Policymaking in Health Care
How is health policy developed, decided, and executed? We are cognizant of legislation in its final, enacted form—but what precedes it, and how is it shaped? This course will take students from the offices of policymakers to the floor of the House and Senate, to the offices of physicians and providers. The course will examine what foundational elements are necessary to pass any piece of legislation and the process through which a law comes to fruition. Key health care legislation—Medicare, “Clinton Care,” CHIP, and the ACA—will all be examined through the lens of policy development. Upon completing the course, students will be able to define the specific decisions, actions, and agendas in order to, ultimately, propel health care policymaking.
0.5 Course Units

HCIN 6160 From Health Disparities to Health Equity & Ethics in Health Care Innovation
This is a 6-week, 1 cu course that pairs two complementary course topics. In the first 3 weeks, you will study health equity and in the final 3 weeks, you will study health ethics—both in the context of innovation. From Health Disparities to Health Equity. This unit will review the causes of and policy approaches for health disparities, and relate them to the specific discipline and interest of each student. We will explore health equity within the context of population health while examining some strategies for improving health equity through case studies and policy analysis. Understanding the role social determinants of health play in improving health status for populations is critical for health equity policies and will be examined in the course. Upon completion of this course, you will be able to identify health disparities and social determinants of health that adversely affect populations’ health due to their social, economic, and environmental conditions, and apply strategies for improving health equity and creating opportunities for all populations to live up to their full health potential. Ethics in Health Care Innovation and Research. This unit explores a framework for conducting research, including process improvement experiments, in health care. We will review the history of research ethics and traditional guidelines and codes, and will describe federal regulations governing biomedical and behavioral research. We will then delineate a commonly accepted framework for evaluating the ethics of research and how this framework applies to several systems research projects. Upon completing this course, learners will be able to critically evaluate the ethics of their specific research proposals, and will be prepared to justify their proposals to participants, funders and institutional review boards or research ethics committees.
Summer Term
1 Course Unit

HCIN 6170 Leading Change in Health Care
There has been no shortage of recommendations from executives, consultants, and self-declared experts on how to improve health care. But the success rate for implementation has been low, and health care systems still struggle with problems of quality, cost, and access—not to mention high employee turnover and provider burnout. However, across the country, there have been pockets of success in improving care delivery. A number of best practices show promise, including open access scheduling, care coordination and standardization, performance measurement and feedback, the expansion of palliative care, community health worker programs, and the integration of behavioral care. Through lectures, case studies presented by multiple expert faculty, and interviews with leaders in the field, you will examine these transformative practices, and the leadership techniques that have led to their success. You will identify organizations that are primed for transformation, potential directions for leading transformation, and ways to direct change within your organization.
1 Course Unit

HCIN 6180 Building a Case for Transformation
Analyze an existing case from a health care setting and identify an opportunity for change in your own professional context that you would develop in the following course. This online lab course is open to Master of Health Care Innovation students only.
0.5 Course Units

HCIN 6190 Pitching Innovation
Further define an innovation project and develop a written proposal and oral pitch geared toward stakeholders.
0.5 Course Units