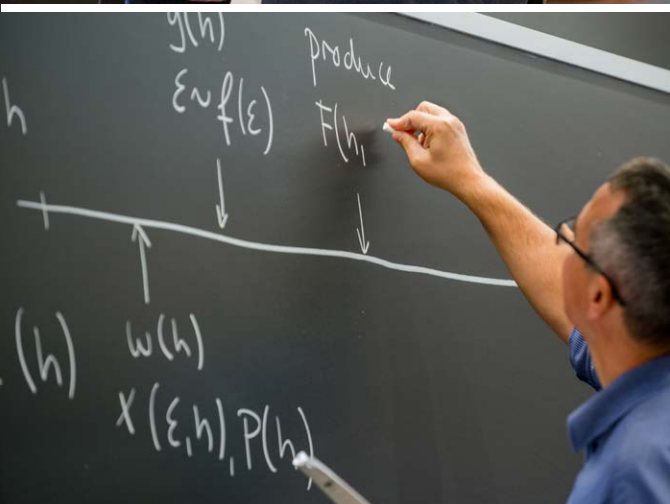


CHICAGO INSIGHTS ON HEALTH CARE

Health Economics Initiative



Inaugural Report 2016

**Program on Foundational Research on Health Care
Markets and Policies**



BECKER FRIEDMAN INSTITUTE
FOR RESEARCH IN ECONOMICS
THE UNIVERSITY OF CHICAGO



About the Initiative

The Becker Friedman Institute's Health Economics Initiative was established in 2016 to broaden and expand rigorous analysis of the economic forces and policies shaping health care costs, coverage, provision, and outcomes. By diversifying and expanding inquiry in the field, the initiative generates findings that inform real-world policy decisions and impact individual lives.

Tomas Philipson and Casey Mulligan launched the initiative's first project, the Program on Foundational Research in Health Care Markets and Policies. The first year was dedicated to building a community of scholars while funding and sharing new research, and the program will continue to grow.

In 2017, the initiative will introduce a new Program on Economics of Health Care Delivery, led by David O. Meltzer, MD, which will explore issues of costs and quality in health care provision.

Plans are underway for a third program that will explore relationships between human capital and health outcomes.





ABOUT THE INITIATIVE

page 2

Director's Letter
Leadership Team



CULTIVATING A RESEARCH COMMUNITY page 5

Affiliated Faculty and Scholars
Funded Fellows
Visiting Scholars



BUILDING A BODY OF RESEARCH

page 11

Working Papers
The Program on Economics of Health Care Delivery
Publications



ENGAGING SCHOLARS

page 15

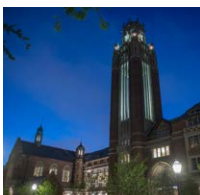
Inaugural Research Conference
Emerging Scholars Roundtable
Open Source Modeling of Public Budgets



SPARKING PUBLIC DISCUSSION

page 18

Financial Innovation in Health Care
Speaking Out
In the Media



HONOR ROLL OF DONORS

page 20

Dear Friends:

As health care becomes an increasingly large share of national economies, economists are paying more attention to issues that are essential to understanding and improving this sector. The Becker Friedman Institute's Health Economics Initiative began in 2016 with a program that seeks to initiate a nationally recognized effort to develop and advance foundational research on health care markets and policies. The initiative works to create a community of on-campus and visiting researchers who are inspiring new ideas and undertaking novel approaches to understanding health care markets.

In our first year, program members have already made valuable contributions, including analysis of financial health economics, novel insights into the effects of the pervasive price controls present in health care, and innovative work on the emerging field of personalized medicine. To foster fundamental research, we have brought visitors to campus, spoken at events as part of our outreach efforts, and hosted an inaugural research conference, "The Health Sector and the Economy."

A key focus of our work is to cultivate the next generation of health economists. We offer funding and learning opportunities to pre- and postdoctoral fellows whose fresh ideas will bring the field forward. By providing fellowships, mentorship, and other forms of support, we hope to create a pipeline of new researchers who bring energy and creative new research to the field.

These activities are just the beginning. We hope that the new conceptual and empirical research produced by the program will continue to yield more insight into this sector.

I'd like to extend our sincere thanks to our inaugural funders. It's your support for our research that produces a better understanding of this vital sector.

Sincerely,

A handwritten signature in black ink, appearing to read "Tomas J. Philipson", with a stylized flourish at the end.

Tomas J. Philipson

Director, Program on Foundational Research in Health Care Markets and Policies
Becker Friedman Institute's Health Economics Initiative

Expertise Driving Inquiry

The Health Economics Initiative was launched under the leadership of Tomas Philipson, a globally recognized health care economist, in consultation with Casey Mulligan, an expert on the labor market effects of health care policies.

Tomas J. Philipson

**Daniel Levin Professor of Public Policy Studies,
University of Chicago**

Tomas J. Philipson's recent work focuses on how health care technology and innovation influence medical care quality, costs, and prices. He also has analyzed the economic forces driving the growth in obesity, the impact of the rise in old-age longevity and long-term care markets, and the economics of terminal care. Recently, he has been a pioneer in the field of financial health economics, which aims to understand the relationships between the health care sector in the real economy and financial markets investing in health care.

Philipson has served as an economic advisor to the head of the Food and Drug Administration, the head of the Centers for Medicaid and Medicare Services, and a senior health care advisor to Senator John McCain during his 2008 presidential campaign, among other policy roles. He is affiliated with the National Bureau of Economic Research, the American Enterprise Institute, the

Manhattan Institute, and the Milken Institute. He writes a monthly column for *Forbes* magazine and is a cofounder of the health care consulting firm Precision Health Economics.

In addition to his professorship with the University of Chicago's Harris Public Policy, Philipson is an associate member of the Department of Economics, an affiliate of the George J. Stigler Center for the Study of the Economy and the State, and a former senior lecturer at the Law School.



“The Chicago approach to economic research is essentially a belief that a better understanding of the economy can be gained from using data and theory together in a complementary way. This leads to superior understanding, compared to relying on only data or theory alone. It’s also about fundamental research that stands the test of time, which we will attempt to stimulate at the Health Economics Initiative.”

Tomas J. Philipson, Director, Program on Foundational Research in Health Care Markets and Policies



Casey B. Mulligan

Professor of Economics, University of Chicago

Casey B. Mulligan's research focuses on the analysis of incentives to save and participate in the workforce. Mulligan summarizes his analysis of the impact of the Affordable Care Act on employees and labor markets in *Side Effects and Complications: The Economic Consequences of Health-Care Reform*. Published in late 2015, the book addresses how health care reform influences incentives to work and estimates impacts on productivity.

Mulligan has also written widely on the labor effects of health care reform and discrepancies between economic analysis and conventional wisdom. His previous books include *The Redistribution Recession: How Labor Market Distortions Contracted the Economy* (2012), and *Parental Priorities and Economic Inequality* (1997).

Currently, Mulligan and his colleagues are analyzing how the Affordable Care Act's taxes, subsidies, and regulations will shift coverage between employer-provided plans and exchanges and how demand for skilled labor will shift. Other research incorporates the monetary value of health into macroeconomic measures such as gross domestic product and finds that this alters the assessed magnitude of economic booms and recessions.

In addition to his professorship, Mulligan is affiliated with the University of Chicago's George J. Stigler Center for the Economy and the State, the Population Research Center, and the National Bureau of Economic Research.

“Significant questions about the provision, coverage, and cost of health care remain at the forefront of policy debates. Solid evidence, rooted in theory-based research, is vital for shaping effective policy. The insights, perspectives, and solutions will come from many fields and perspectives. Through this initiative, the Becker Friedman Institute is committed to building a cross-disciplinary community to pursue inquiry that will yield those insights.”

Lars Peter Hansen, David Rockefeller Distinguished Service Professor of Economics and Statistics, Director and Co-Chair, Becker Friedman Institute

Cultivating a Research Community

This initiative serves as a locus for research that investigates how the health care ecosystem relates to the rest of the economy.

The initiative provides a venue for scholars to collaborate and gain feedback from colleagues across campus, while engaging visitors and emerging investigators. Together they find opportunities for helpful feedback, collaboration, and mentorship in the funding resources and research programming the initiative provides.

These researchers are advancing knowledge that helps policymakers—and the public—understand today's rising health care costs, the impact of our aging population, emerging global health threats, evolving insurance markets, and regulatory environments.

Affiliated Faculty and Scholars

The Health Economics Initiative has partnered with UChicago scholars who contribute original work on a broad range of health care and health policy issues. They benefit from the rigorous environment of inquiry that is a hallmark of the Becker Friedman Institute. The aim is to connect health economics researchers with other faculty and fields in the hope that sharing different perspectives will foster new research that would not necessarily come out of the field of health economics alone.

Anup Malani

Lee and Brena Freeman Professor of Law

Anup Malani is the principal investigator on the Indian Health Insurance Experiment, a 12,000-household study of health insurance in Karnataka, India. He leads a team of researchers in three countries who are conducting a large-scale, randomized control trial to assess the benefits and costs of using India's existing Medicaid-like public health insurance plan as a platform for universal coverage. The study examines the merits of different approaches to ensuring that every household has financial access to necessary health care, with an eye toward the impact of universal coverage on the Indian government's budget. The study includes nearly 60,000 subjects and more than 200 towns and villages in central and southern India.

More broadly, Malani's health economics research focuses on the value of medical innovation and health care insurance, control of infectious diseases, and placebo effects.



David O. Meltzer, MD

Fanny L. Pritzker Professor in Medicine and
Chief of Hospital Medicine



Inspired by Gary Becker’s economic insights into human behavior, David Meltzer applies theories of human capital and the division of labor to the organization of medical practice. His

work focuses on reducing wasteful spending and improving quality of health care by developing new analytic approaches and care models to better match health care to the needs of individual patients.

Meltzer’s research team has developed and implemented the Comprehensive Care Physician (CCP) Program, in which the patients who are most likely to be hospitalized consistently receive care from the same physician in both the clinic and hospital settings. His team continues to study its efficacy and potential for effective dissemination.

In addition to his professorship, Meltzer is director of the Center for Health and the Social Sciences (ChESS) and of the Urban Health Lab, chair of the Committee on Clinical and Translational Science, and an affiliated faculty member in the Department of Economics and Harris Public Policy at the University of Chicago.

Pietro Tebaldi

Assistant Professor of Economics



Pietro Tebaldi’s work focuses on the impact of public regulations on private health insurance markets. To conduct this work, he develops new empirical methodologies and

uses recent datasets for the evaluation of current programs, which will inform and guide future policy. His most recent work focuses on the Affordable Care Act; one recent paper studies the design of the premium subsidy program, while another explores the interaction of subsidies with age-rating regulations. Ongoing work covers the design of risk-adjustment systems and the effect of policies on insurers’ incentives to participate in government-sponsored insurance programs.

Sonia Jaffe

Postdoctoral Scholar at the Becker
Friedman Institute



Sonia Jaffe’s current research, which she presented at the initiative’s inaugural research conference, studies how technological advances in medicine affect quality-adjusted health care

prices. Medical innovations have improved survival and outcomes for many diseases, but also contributed to the growth in health care spending. An important question is whether the quality of life improves more than the cost increases. Working with Kristopher Hult and Tomas Philipson, Jaffe compared the quality-adjusted prices of 6,000 innovations to existing treatments, and found that two-thirds of the innovations were priced higher. This research assesses the conditions under which innovation prices fall or sometimes rise as they are adopted, and analyzes the impact of breakthrough innovations, production costs, and third-party payment policies.

Additionally, Jaffe is studying how price-linked subsidies weaken price competition, leading to higher markups and subsidy costs for the government.



“Research, like all other intellectual pursuits, is born out of the exchange of contrasting ideas and honed through open and rigorous discussion. The support of the Becker Friedman Institute has afforded me the opportunity to engage in both.”

Luca Maini, Fifth-year Doctoral Student in Economics, Harvard University

Funded Fellows

One major goal of the initiative is to stimulate innovative research in health economics. To do so, it provides annual funding opportunities for emerging scholars in the final stages of their doctoral dissertation or in their early postdoctoral career. In 2016, five fellows were selected from various institutions.

Fellows conduct and collaborate on research on the economics of health and health care and interact with a large network of other economics scholars at the Becker Friedman Institute and throughout the University of Chicago. The financial support they receive encourages original inquiry that will deepen our understanding of health and health care markets and how they relate to the overall economy.

Grant Gannaway

Fourth-year Doctoral Student in Economics
University of Chicago



Grant Gannaway’s research is focused on the intersection of health and urban economics; specifically, he studies the effects and inefficiencies of the Medicaid program and the role of geographic

access in obtaining medical care. He is also interested in spatial factors in the markets for illegal drugs, immigration, and housing.

Gannaway earned a BA in economics and mathematics from Brigham Young University.

“Funding [provided by the Health Economics Initiative] has opened doors to new research opportunities that were previously unavailable. I was able to get access to valuable claims data and travel to another conference to present my work. I continue to benefit from the generosity of the Health Economics Initiative.”

Adam Tejs Jørring

Fifth-year Doctoral Student in Financial Economics
University of Chicago



Adam Jørring studies macroeconomics and household finance in the Department of Economics and Chicago Booth School of Business Joint PhD Program. In one project, he studies how

financial engineering can lower the cost of capital for medical research and development.

Jørring previously worked for Goldman Sachs and the Danish Central Bank. He earned a BS in economics from the University of Copenhagen.

“It was very inspiring to meet and interact with researchers from very different parts of the discipline [at the Emerging Scholars Roundtable and the Health Sector and the Economy research conference].”

Luca Maini

Fifth-year Doctoral Student in Economics
Harvard University



Luca Maini's research focuses on various aspects of the pharmaceutical market, including how regulation affects global launch strategies, the impact of health reform on optimal drug pricing,

and how behavioral incentives affect compliance with prescription drugs. He recently received funding from the NBER-IFS International Network on the Value of Medical Research to study the correlation between outcome-driven measures of quality and drug market outcomes. Previously, Maini was a research assistant at the National Bureau of Economic Research, where he worked on several projects studying household savings behavior and the impact of behavioral interventions on health outcomes.

Maini received his BA in economics and BS in mathematics from the University of Chicago in 2011.

Maria Polyakova

Assistant Professor of Health Research and Policy
Stanford University

Maria Polyakova studies the role of government in the design and financing of health insurance systems. Polyakova is especially interested in the relationships between public policies and individuals' decision-making in health care and health insurance, as well as in the risk protection and redistributive aspects of health insurance systems.

Polyakova received a BA degree in economics and mathematics from Yale University, and a PhD in economics from Massachusetts Institute of Technology.



"[Attending the Emerging Scholars Roundtable] allowed me to get early insights into the cutting-edge research of graduating PhD economists in a fairly informal setting, which facilitated an open debate about the immediate policy implications of the studies. Graduating PhD students typically work at the very edge of the research frontier, so seeing their research is important in understanding the future direction and questions that will be raised in academic research and policy."

Maria Polyakova, Assistant Professor, Stanford University

Wenjia Zhu

Sixth-year Doctoral Student in Economics
Boston University



Wenjia Zhu uses economic theories and econometric models to analyze health insurance markets and health care through claims and patient encounter data. Her current work focuses

on the US employer-based health insurance market, inferring the breadth of health plan provider choice from insurance claims data and examining demand response to cost-sharing at the service level. She has also studied the effects of the Affordable Care Act on prevention visits and the effects of HIV testing and diagnosis on risky behaviors.

Zhu earned a BA in mathematical economics from Fudan University in China and an MA in economics from Duke University.

"Above all, I took home concrete feedback to facilitate my current work and new ideas for future research."

2016 Visiting Scholars

The Health Economics Initiative brings innovative researchers with various levels of experience to campus to share fresh ideas, perspectives, and expertise with the UChicago economics community. These visits can stimulate new ideas and collaborations. Visiting Scholars pursue their own work while participating in workshops, lectures, or conferences.

Ralph S. J. Koijen

Professor of Finance
New York University



Ralph Koijen conducts research on asset pricing and finance, recently concentrating on the link between financial markets and health care markets. With Tomas Philipson and Harald Uhlig, he

has studied how financial returns drive investment in biomedical research and development (R&D). They document a four to six percent premium in equity returns for firms in the health care sector. This is viewed as compensating investors for risks that medical innovations will not pay off due to government interventions. They estimate the impact that removing this risk will have on R&D and gross domestic product.

His most recent book is *The Economics, Regulation, and Systemic Risk of Insurance Markets* (2016).

Prior to his position on the faculty of New York University, Koijen held positions at London Business School and at the UChicago Booth School of Business as an assistant professor and Neubauer Family Faculty Fellow. He previously taught at Tilburg University in the Netherlands.

Mark Egan

Assistant Professor of Finance
University of Minnesota



Mark Egan, MA'12, PhD'15 (Economics), studies health economics, corporate and household finance, financial intermediaries, and industrial organization.

During his visit, he presented a working paper coauthored with Tomas Philipson, "Health Care Adherence and Personalized Medicine," which addresses the waste in health care spending that results when patients do not comply with prescribed treatments. Recently, Egan partnered with Philipson and Casey Mulligan on the working paper "Adjusting Measures of Economic Output for Health: Is the Business Cycle Countercyclical?" This study examines how depreciation in health of the population impacts the US business cycle.

"Chicago-style economic analysis that considers the role of prices, incentives, and markets in health care can shed light on how to effectively shape health care reform. This initiative is supporting new research and developing a new generation of economists who are working in that powerful Chicago tradition."

Kevin Murphy, Co-chair, Becker Friedman Institute

Gautam Gowrisankaran

Arizona Public Service Professor of Economics
University of Arizona



Gautam Gowrisankaran’s research focuses on industrial organization, health economics, energy and environmental economics, and applied econometrics. One recent research

project explored the impact of hospital mergers on bargaining leverage with managed care organizations.

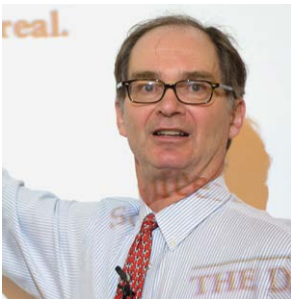
In addition to his position at University of Arizona’s Eller College of Management, Gowrisankaran is a research associate at the National Bureau of Economic Research and an affiliated professor at l’Institut d’économie appliquée, HEC Montréal. He has served as a consultant for a number of offices and organizations, most notably the US Department of Justice, Antitrust Division.

“The declining price of data has led to a substitution toward more data-intensive economic analysis of the health care sector today. However, ...we [may be] missing out on new insights and hypotheses that open new ways of investigating these data. The Health Economics Initiative seeks to foster scholars who will bring deeper insights to this richer data becoming available.”

Tomas J. Philipson, Program Director

Jonathan S. Skinner

James O. Freedman Presidential Professor
in Economics
Dartmouth College



Jonathan Skinner’s research focuses on the economics of health care, Medicare, and personal savings for retirement. His current research centers on technology’s impact on health care and

the dynamics of disability insurance. During his visit, Skinner presented his work in progress, “Overconfidence and the Diffusion of Medical Technology,” in which he analyzes whether the rapid diffusion of newer medical technologies, such as implantable cardioverter-defibrillators (ICDs) used on patients with congestive heart disease, results in lower-than-expected productivity gains due to overconfidence.

Skinner has published research on numerous health care topics, including the efficiency of the US health care system, geographical variation in health care, and racial disparities in health. He has also published extensively on savings behavior, including on issues such as precautionary saving, the adequacy of retirement savings, and the effect of tax incentives on retirement savings.

Prior to beginning his tenure at Dartmouth College, Skinner worked as a professor at the University of Virginia. He was a research fellow in the National Bureau of Economic Research’s Economics of Aging Program, where he continues to work as a research associate.

Building a Body of Research

Faculty and students across campus studying key issues in health economics, along with fellows and visitors, are merging economic theory with empirical analysis and generating important insights on the economic forces and governing policies that shape health care.

Working Papers

The initiative established this series to promote new work and reflect the breadth of research underway.

“Regulated Age-Based Pricing under the Affordable Care Act”

Joe Orsini and Pietro Tebaldi

The Affordable Care Act regulation that fixes the ratio between health insurance premiums charged to consumers of different ages raises premiums for younger buyers while reducing them for older buyers, this paper finds. Because subsidies are tied to coverage pricing, this regulation decreased federal subsidy outlays by approximately \$2.3 billion. The authors discuss possible implications of tailoring the age-rating regulations to state populations.

“How Does Technological Change Affect Quality-Adjusted Prices in Health Care? Systematic Evidence from Thousands of Innovations”

Kristopher Hult, Sonia Jaffe, and Tomas Philipson

This paper examines whether increased spending on health care raises health benefits more than it increases the cost of care. Whether quality-adjusted prices rise or fall with new innovations is central to this debate. The main finding is that an innovation's quality-adjusted price is higher than the existing technology's price for about two-thirds of innovations.

“Is the Focus on Food Deserts Fruitless? Retail Access and Food Purchases across the Socioeconomic Spectrum”

Molly Schnell, Jessie Handbury, and Ilya Rahkovsky

This paper measures the role of access to supermarkets in explaining why wealthier and more educated households purchase healthier foods. The results indicate that access-improving policies alone will eliminate less than one third of existing socioeconomic disparities in nutritional consumption.

“Analyzing the Effects of Insuring Health Risks”

Harold L. Cole, Soojin Kim, and Dirk Krueger

This paper evaluates the trade-off between providing social insurance aimed at reducing a household's exposure to health care risk and setting incentives for individuals to maintain good health by requiring them to invest in their health coverage. The study evaluates the effects of two federal policies that limit discrimination against workers with poor health, both in wages and in higher health insurance premiums.

“The Upside-down Economics of Regulated and Otherwise Rigid Prices”

Casey Mulligan and Kevin Tsui

This research uses a series of preliminary models to understand how price ceilings function in competitive health care markets when producers are forced to compete in ways other than price. This work, which is highly relevant to the many price-controlled markets in health care, shows that traditional effects of price controls are not present when quality responds to such controls.

“Health Care Adherence and Personalized Medicine”

Mark Egan and Tomas Philipson

Patients don't always start or continue medical care as prescribed, and this nonadherence has been identified as a major source of waste in health care. This study analyzes patients' non-compliance as an outcome of learning from the treatment experience and judging the value of the treatment. The authors estimate the effects of under- and over-adherence on spending and health outcomes.



“Estimating Equilibrium in Health Insurance Exchanges: Price Competition and Subsidy Design under the ACA”

Pietro Tebaldi

Designing effective premium subsidy structures in health care markets requires good estimates of consumer demand and how subsidies affect insurers' incentives. Using data from the Californian Affordable Care Act marketplace, Tebaldi studies alternative subsidy designs and finds that vouchers are less distortionary than subsidies calculated from market premiums. Tailoring subsidies to age leads to lower public spending per person, with all buyers better off.

“The Unaccounted Insurance Value of Medical Innovation”

Anushree Subramaniam

For the same reasons people buy and value life insurance, individuals who never get a disease value knowing a treatment is available. This paper estimates the value of new medical innovations with a model that includes the value to people who prefer to insure against uncertainty in future health outcomes. Without accounting for this additional value, the private biopharmaceutical market will develop fewer innovations than optimal.

“Labor Markets in Statistics: The Subject Supply Effect in Medical R&D”

Anup Malani and Tomas Philipson

Medical research and development differs from other R&D because potential consumers of existing medical products are also potential subjects in clinical trials required to develop new products. Releasing a better or cheaper drug reduces the incentive for patients to participate in trials of new treatments. This paper explores the implications of this subject supply effect on the rate of medical R&D, how trials should be designed, and whether subjects ought to be compensated for enrolling in clinical trials.

“The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured”

Zack Cooper, Stuart Craig, Martin Gaynor, and John Van Reenen

This study used a large dataset of insurance claims representing 27.6 percent of individuals with private employer-sponsored insurance in the United States between 2007 and 2011 to examine the variation in health spending and in hospitals' transaction prices. The findings detail substantial variation in pricing within and across regions; the price variation across hospitals is driven by factors such as market structures, technologies, quality, size, Medicare payments, and Medicaid shares.

“Adjusting Measures of Economic Output for Health: Is the Business Cycle Countercyclical?”

Mark Egan, Casey Mulligan, and Tomas Philipson

This paper proposes new measures of the business cycle that incorporates the value of changes in the health of the population into gross domestic

product. When the authors examine macro-economic fluctuations in the United States and globally during the past 50 years and account for depreciation in health, they find that US business cycle fluctuations appear milder than commonly measured; the majority of “recessions” may even be reversed after accounting for health.

The Program on Economics of Health Care Delivery

The United States spends more per person on health care than any other country, yet the value produced is questionable. The provision of health care services accounts for almost all of health spending. Understanding the determinants of the cost and effectiveness of health care delivery is essential to improving the efficiency and outcomes of care.

Health care delivery is highly complex, driven by biology and biomedical science, by the human beings and organizations that produce and apply biomedical knowledge, by the economic and organizational incentives and public policies that shape their behavior, and by the patients and social context in which they live. Effective solutions must recognize these complexities.

In 2017, the Becker Friedman Institute will launch the Program on Economics of Health Care Delivery, which aims to use economic theory to understand how to improve health outcomes and the efficiency of health care. The program will also partner with health care organizations to increase researchers’ access to electronic health records, claims, and patient-reported data.

Large teams and hyper-specialization often produce health care that is fragmented and poorly coordinated. Economic theories of efficient resource allocation, human capital investment,



information economics, and mechanism design are central to streamlining health systems. Modern economic analysis also provides insights into the importance of education, income, family, and community in health behaviors.

This program will be directed by David Meltzer MD, PhD, whose research uses economic theory to assess the value of medical technologies and improve the division of labor in health care. Meltzer’s research team developed and implemented the Comprehensive Care Physician (CCP) Program, in which patients at high risk of hospitalization receive care from the same physician in the clinic and hospital. A 2,000-patient study of the effects on patient care, outcomes, and costs is nearing completion. Preliminary results have motivated dissemination nationally and internationally.

Publications

With the following publications, researchers affiliated with the Health Economics Initiative are contributing pivotal ideas to the growing collection of literature on the subject.

“Financial Health Economics”

Ralph S. J. Koijen, Tomas J. Philipson, and Harald Uhlig. 2016, *Econometrica*: 84 (1): 95–242.

This paper provides the first quantitative analysis of real and financial health care markets by examining the joint determination of the financial returns of firms that invest in medical R&D and the resulting growth of the health care sector.

“The Insurance Value of Medical Innovation”

Darius Lakdawalla, Anup Malani, and Julian Reif. 2017, *Journal of Public Economics*: 145: 94–102.



Economists think of medical innovation as a valuable but risky good, producing health benefits but increasing financial risk for consumers and health care payers. This paper presents an alternative framework that

also accounts for the benefits of lowering the physical risk of diseases a patient may face in the future, and links these risks to the value of health care insurance. These calculations suggest that conventional methods meaningfully understate the value of historical health gains and disproportionately undervalue treatments for the most severe illnesses.

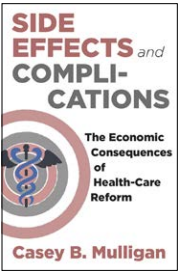
“The New Full-Time Employment Taxes”

Casey B. Mulligan. 2015, *Tax Policy and the Economy* 29 (1): 89–132, released April 2016.

The Affordable Care Act introduced or expanded taxes on incomes and full-time employment, beginning in 2014. This paper characterizes the new full-time employment taxes from the perspective of a household budget constraint, measures their magnitude, and assesses their likely consequences for employee work schedules.

Side Effects and Complications: The Economic Consequences of Health-Care Reform

Casey Mulligan. 2015, University of Chicago Press.



This book offers a comprehensive market analysis of the effects of the Affordable Care Act (ACA) on work hours, productivity, and national income. It shows what the ACA means for economic performance in the years ahead, and explains why forecasters have yet to acknowledge many of the economic forces that have been put in motion.

Engaging Scholars

An integral part of the Health Economics Initiative's platform is a program of events designed to complement ongoing projects, broaden intellectual dialogue, and create valuable connections. Fostering direct exchanges among scholars, these meetings can spark new avenues of inquiry and provide thought leadership not only to scholars, but also the public and policymakers.

In 2016, the schedule of activities included an inaugural research conference, a research roundtable for students and new researchers, and a graduate student lecture.

The Health Sector and the Economy

The Health Economics Initiative's first research conference, "The Health Sector and the Economy," drew approximately 80 researchers to Saieh Hall for Economics on the Chicago campus on September 30, 2016.

Co-organized by initiative leaders Tomas Philipson and Casey Mulligan, the conference provided a forum for scholars and professionals from diverse backgrounds and institutions to discuss work in

progress. It focused on using price theory to better understand health-related decision-making and the function of health care markets and policies within the complex health sector.

The conference was designed in part to demonstrate the value of complementary analytical investigations and rigorous discussion of emerging research from multiple perspectives—both hallmarks of the Chicago economic tradition. Several of the papers presented combined theory with analysis of important new datasets to understand issues such as pricing differences, the impact of competition, and the benefits of costly medical innovations.

Papers presented and further details can be found on the Health Economics website, <http://bfi.uchicago.edu/healthecon>.



The Emerging Scholars Roundtable

Health economists of tomorrow convened for a discussion of their research at the inaugural Emerging Scholars Roundtable, organized in conjunction with “The Health Sector and the Economy” conference.

The day before the conference, PhD students and early-career researchers from various institutions gathered to present their work in progress on the economics of health care markets.

Eight presenters fielded questions from their peers and faculty experts on hand, including Tomas Philipson, Casey Mulligan, and Anup Malani. The next day, all presenters attended the conference to gain exposure to a wider range of research in progress and access to leading experts in the field.

“I found it extremely useful to present my paper—the short time slot forces one to distill the paper down to its core questions and findings—and get feedback from an external audience of health economists.”

Atul Gupta, Stanford University, Fifth-year Doctoral Student in Economics



“As a fifth-year PhD student focusing on health economics, the roundtable provided me with the unique opportunity to develop relationships with both emerging and established scholars at the cutting edge of the field. At the roundtable, the subsequent conference, and discussions that continued over dinner and around campus, I was challenged to approach my research from new and interesting angles, and shortly after the roundtable, I submitted one of my other research projects as a BFI working paper.”

Molly Schnell, Princeton University, Fifth-year Doctoral Student in Economics

“The comments I received from Professors Pietro Tebaldi and Maria Polyakova emphasized the importance of discussing in more depth two issues that are central to my paper: the incentives for firms to game the Medicaid Part D program design, and the recent changes in regulations for the exit of plans from the market.”

Sebastian Fleitas, University of Arizona, Sixth-year
Doctoral Student in Economics



Open Source Modeling of Public Budgets

Graduate students in economics got a good look at alternative approaches to economic modeling and policy evaluation at a guest lecture with Kevin Hassett of the American Enterprise Institute.

In his talk, “The Open Source Modeling Revolution: Democratizing Budget Scoring,” Hassett described the intent of the AEI’s Open Source Policy Center, which has developed the first fully open-source modeling suite for tax analytics. The tool can simulate the implications of users’ tax models to show the trade-offs between policies. Hassett, director of domestic policy at AEI, demonstrated the model and described how the program facilitates a competition of ideas by making the US fiscal policy debate more transparent, fact-driven, and accessible.

Sparkling Public Discussion

Cutting-edge academic thinking can help address issues in the health care industry—but only if those ideas are broadly circulated and shared. In 2016, initiative scholars and special guests shared their research and perspectives with the public and the greater academic community, in Chicago and around the world.

Financial Innovation in Health Care

Andrew Lo discusses ideas on financing medical research

Medical breakthroughs can produce drugs and devices that save lives or make diseases manageable. But the risks and expense of developing such therapies lead to enormous price tags for patients and can discourage drug development.

The mismatch between costs of developing medical breakthroughs and their potentially large health benefits can limit access to potentially life-saving therapies, according to Andrew W. Lo of the Massachusetts Institute of Technology's Sloan School of Management.

Lo explored solutions to this problem at “Buying Cures vs. Renting Health: How Financial Engineering Can Expedite Medical Breakthroughs,” an informal public talk sponsored by the Health Economics Initiative as part of the Becker Friedman Institute's Cocktails and Conversation series.

Lo, the Charles E. and Susan T. Harris Professor and director of the Laboratory for Financial Engineering at MIT, described how novel applications of well-known financial engineering techniques to health care contexts can overcome these challenges. By using portfolio theory, securitization, credit default swaps, and other standard tools of the financial industry, we can reinvent the biopharmaceutical industry so it yields many more transformative therapies at a lower cost, with less risk, and in less time, he argued.

The event was supported in part by Mesirow Financial.



Speaking Out

Initiative scholars regularly interact with the larger research community through speaking engagements and special events. They have participated in national and international conferences, multidisciplinary panels, and smaller working groups, with institutions such as the National Bureau of Economic Research (NBER), the American Enterprise Institute, the London School of Business, and the IDC School of Economics. Their travels have taken them from Kalamazoo to Cambridge, San Francisco to St. Louis, and Israel to Oslo, all in an effort to advance thinking and fuel dialogue around the economics of health.

Highlights

Tomas Philipson participated in the panel, “Is the Cure Worth the Cost? The Debate over the Price of Specialty Drugs,” hosted by the American Enterprise Institute in Washington, DC. In the discussion, he challenged the claim that prices in health care are rising, arguing that the price of

health is plummeting. He noted potential flaws in value-based pricing and a one-size-fits-all approach to global drug development and argued for more robust credit markets in health care.

Philipson also took part in the panel, “How Will Policy and Market Dynamics Impact Patient Value and Access in the US,” for the BIO 2016 International Conference in San Francisco.



Casey Mulligan testified at a hearing on “How Welfare Benefits Can Discourage Work,” ordered by the US Congressional Joint Economic Committee.

His address, “The New Employment and Earnings Taxes Created by Social Programs,” was presented to the Ways and Means Subcommittee on Human Resources and the Agriculture Subcommittee on Nutrition. Mulligan explained that many programs intended to help people get back on their feet have inadvertently been designed to make work more costly as Americans strive to improve the livelihoods of themselves and their families. “Another way of putting it,” Mulligan noted, “is that taking away benefits has the same effect as a direct tax, so lower-income workers are discouraged from climbing the income ladder by working harder, logging extra hours, taking a promotion, or investing in their future earnings through job training or education.”

David Meltzer organized the Cost-Effectiveness session of the 6th Biennial Conference of the American Society of Health Economists, “New Frontiers in Health Policy and Health Care.” Three presentations covered topics ranging from the cost-effectiveness of high-dose versus standard-dose inactivated influenza vaccine, a cost-utility analysis of a novel pharmacist-guided warfarin pharmacogenetic service, and a national population-based study of the incremental costs of rheumatoid arthritis treatment. The conference was held at the University of Pennsylvania.

Pietro Tebaldi conducted a speaking tour to discuss his current research, “Estimating Equilibrium in Health Insurance Exchanges: Price Competition and Subsidy Design under the ACA,” at several locations around the world, including Columbia University, the Collegio Carlo Alberto in Torino, Italy, the University of Oslo, and the London School of Economics.

Sonia Jaffe presented her work in progress, “Price-linked Subsidies and Health Insurance Markups,” at an NBER Health Care Program Workshop in Cambridge, Massachusetts. She and coauthor Mark Shepard show that price-linked subsidies encourage higher prices, increasing the markups due to imperfect competition and raising subsidy costs for the government.

In the Media

Beyond academic literature, the work and expert opinions of the initiative’s affiliated faculty and scholars is featured regularly in the media.

In addition, Tomas Philipson contributes a monthly column on health care economics to *Forbes* magazine. His articles cover topics such as “Value In Healthcare—Time To Stop Scratching The Surface,” and “Who Gains More From Medical Innovation: Patients Or Drug Manufacturers?” His editorials are available at: <http://www.forbes.com/sites/tomasphilipson>. Philipson also contributed an article titled, “Economic Nonsense From the U.N. on Drugs,” to *The Wall Street Journal* in 2016.

Honor Roll of Donors

The Health Economics Institute gratefully acknowledges generous support provided by its inaugural funders:

The Charles Koch Foundation

The Kilts Family Foundation

The Thomas W. Smith Foundation

Pfizer Inc.

James H. Schloemer, MBA '83

Anonymous

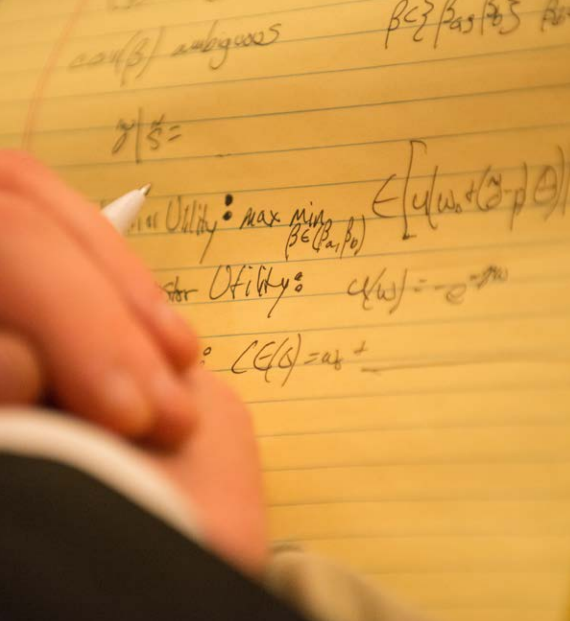


Support for this initiative promotes inquiry that will enhance fundamental knowledge of the economic forces that influence health care policies and the systems in which they are implemented.

Donations provide vital support for our core activities:

- conferences
- visiting scholars
- programming for students and young researchers
- direct research support, and
- the dissemination of powerful new ideas

If you are interested in supporting our ongoing work, contact Blake Davis at 773.702.7175 or blake2@uchicago.edu.



For more information about the Health Economics Initiative, contact Samantha Loo, Assistant Director, at 773.702.2652 or healthecon@uchicago.edu.

<http://bfi.uchicago.edu/healthecon>



BECKER FRIEDMAN INSTITUTE
FOR RESEARCH IN ECONOMICS
THE UNIVERSITY OF CHICAGO

The Becker Friedman Institute
Saieh Hall for Economics
1126 East 59th Street
Chicago, Illinois 60637
773.702.5599
bfi@uchicago.edu