



**USC** Schaeffer

Leonard D. Schaeffer Center  
for Health Policy & Economics

**Report 2014/15**

**A Renewed Focus**

# our goals

## POLICY IMPACT

We shape and effectively communicate evidence-based solutions to measurably improve lives and drive innovation in health care.



## TRANSFORMATIVE RESEARCH

We identify opportunities to increase value in health care markets and delivery; improve health outcomes for an aging society; and foster better pharmaceutical policy and regulation through data-driven, interdisciplinary research.



## ORGANIZATIONAL EXCELLENCE

We excel in data analysis, attract highly skilled scholars, effectively communicate our research and its policy implications to decision makers, and support a collaborative research infrastructure.



## INTERDISCIPLINARY EDUCATION

We develop and educate leaders in higher education, research, government, and health care through interdisciplinary coursework, mentorship, and active engagement in research.



What we demand from the health care system is what we deliver at the Schaeffer Center: value. From the day our Center was founded, we knew we had a distinctive capability in producing rigorous research with long-term consequence. Our research provides an evidence-base for thinking beyond election cycles and over lifetimes, positioning us uniquely in the policy world. As validation, this past year our work was again cited in the Economic Report of the President, influenced analyses of the Congressional Budget Office, and has been featured in over 350 media outlets and high-impact journals.

Furthermore, health policy veteran Paul Ginsburg joined our team, reinforcing our commitment to improving public policy. We've also expanded the depth of our perspective with two economists early in their careers, Alice Chen and Daniella Meeker, and a practicing physician, Steven Fox. Our Center moved to the brand new Dr. Verna and Peter Dauterive Hall, an interdisciplinary, collaborative space on campus which was designed to facilitate research that requires expertise across many fields and connections to translate the work into society.

We spent the last year building on our strategic plan and refining our focus. We honed in on the research areas that we believe will have the most impact on health policy. This annual report showcases the Schaeffer Center's concentration on four initiatives:

1. Improve the performance of health care markets
2. Increase value in health care delivery
3. Improve health outcomes for an aging population
4. Foster better pharmaceutical policy and global regulation

As you will see, our dedication to assembling the nation's best researchers and developing a robust data infrastructure is what feeds our ability to produce research with consequence. We also continue to recruit the most promising students and expand our education programs.

As always, I am indebted to Leonard D. Schaeffer, our Advisory Board chair; the Center's Advisory Board members; Jack Knott, the dean at the Sol Price School of Public Policy; Pete Vanderveen, the dean at the School of Pharmacy; and all of the Schaeffer Center faculty and staff for their commitment to our growth.

Our dedication to relevance and consequence is what has and will always distinguish us. Thank you for taking the time to learn more about our work.

Dana Goldman

Director, Leonard D. Schaeffer Center for Health Policy & Economics



# A gift from Leonard D. Schaeffer

## About the Schaeffer Center

The Leonard D. Schaeffer Center for Health Policy & Economics was established in 2009 at the University of Southern California (USC) with a generous gift from Leonard and Pamela Schaeffer. The Center reflects Mr. Schaeffer's life-long commitment to solving health care issues and transforming the health care system.

Addressing health policy issues requires complex solutions, creative research methods, and expertise in a variety of fields, including medicine, economics and public policy. For this reason, the Schaeffer Center is based on the principle of interdisciplinary research. Resulting from a collaboration between the USC Sol Price School of Public Policy and the USC School of Pharmacy, the Center brings together health policy experts from the School of Public Policy, a seasoned pharmacoeconomics team from the School of Pharmacy, and other affiliated faculty and scholars from across USC and a number of other distinguished universities.

The Center is committed to developing exceptional human and technical capacity to conduct interdisciplinary research, policy analysis and training. More than 30 distinguished scholars and faculty work in the Schaeffer Center to investigate a wide array of topics. The Center's work is supplemented by a visiting scholars program and collaborations with

other universities, allowing outside researchers to take advantage of the Center's research infrastructure and data. The Schaeffer Center is actively engaged in training new investigators with excellent research skills who can be the "innovators of the future." At the same time, the Center is helping the next generation of health care leaders develop strong management, team-building and communication skills as part of this training.

The Center's vision is to be the premier research and educational institution recognized for innovative, independent research, making significant contributions to policy and health improvement. Its mission is to measurably improve value in health through evidence-based policy solutions, research and educational excellence, and private and public sector engagement. With its extraordinary breadth and depth of expertise, the Center will have a vital impact on the transformation of health care.

The Center recently moved to the new Dr. Verna and Peter Dauterive Hall in September 2014. Located near the main entrance of the University Park Campus, this space was designed to foster the type of interdisciplinary collaboration that the Schaeffer Center embodies.

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# Meet the Staff and Faculty

*Back row, from left to right:* Sarah Axeen, Nicole Levy, Kayleigh Barnes, Rocio Ribero, Laura Gascue, Jillian Wallis, Bryan Tysinger.

*Second to back row, from left to right:* Bo Zho, Briana White, Arthur Simons, Sara Geiger, Maria Jose Prados, Sophie Terp, Daniel George.

*Second to front row, from left to right:* Brian Harper, Devin Stambler, Moritz Suppliet, Michael Menchine, Sanjay Arora, Jacklyn Mancilla, Seth Seabury, Neeraj Sood, Tara Knight, Jason Doctor, Cristina Wilson, Duncan Leaf, Grant Lawless, John Romley, Geoffrey Joyce, Daniella Meeker.

*Front row, from left to right:* Alice Chen, Celina Ng, Jeffrey McCombs, Emma Aguila, Joel Freedman, C. Duane Dauner, Leonard D. Schaeffer, Dana Goldman, Alice Liu, Darius Lakdawalla, Julie Zissimopoulos, Etienne Gaudette, Barbara Blaylock.

## Core Leadership

- Dana Goldman**  
Director
- Jason Doctor**  
Director, Health Informatics
- Ann Harada**  
Managing Director
- Geoffrey Joyce**  
Director, Health Policy
- Neeraj Sood**  
Director, Research
- Sadena Thevarajah**  
Director, External Affairs
- Cristina Wilson**  
Director, Finance and Research Administration
- Julie Zissimopoulos**  
Associate Director, Education & Training

## Staff

- Kayleigh Barnes**  
Project Specialist
- Laura Gascue**  
Quantitative Analyst
- Sara Geiger**  
Executive Assistant
- Daniel George**  
MIS Manager
- Katherine Kelsey**  
Program Specialist
- Tara Knight**  
Program Manager
- Duncan Leaf**  
Research Programmer
- Alice Liu**  
Project Specialist
- Rocio Ribero**  
Project Specialist
- Patricia St. Clair**  
Senior Quantitative Analyst, Programmer Manager Director, Data Core
- Devin Stambler**  
Assistant Director of External Affairs
- Michelle Ton**  
Program Assistant
- Bryan Tysinger**  
Research Programmer
- Irene Vidyanti**  
Collaborating Programmer
- Jillian Wallis**  
Research Data Administrator
- Briana White**  
Program Manager, Education and Training
- Joanne Wu**  
Programmer Analyst

## Faculty

- Emma Aguila, Ph.D.**  
Assistant Professor, Sol Price School of Public Policy

- David Agus, M.D.**  
Professor, Keck School of Medicine Director, USC Center for Applied Molecular Medicine Director, USC Westside Prostate Cancer Center
- Alice Chen, Ph.D.**  
Assistant Professor, Sol Price School of Public Policy
- Eileen Crimmins, Ph.D.**  
Associate Dean, Edna M. Jones Professor of Gerontology; Director, USC/UCLA Center on Biodemography and Population Health Ethel Percy Andrus Gerontology Center
- Jason Doctor, Ph.D.**  
Associate Professor, School of Pharmacy
- Steven Fox, M.D.**  
Assistant Professor, School of Pharmacy

- Etienne Gaudette, Ph.D.**  
Assistant Research Professor, School of Pharmacy
- Paul Ginsburg, Ph.D.**  
Norman Topping Chair in Medicine and Public Policy Professor of the Practice of Health Policy and Management Sol Price School of Public Policy
- Dana Goldman, Ph.D.**  
Leonard D. Schaeffer Chair and Director of the Schaeffer Center
- Joel W. Hay, Ph.D.**  
Professor, School of Pharmacy
- Marco D. Huesch, Ph.D.**  
Assistant Professor Sol Price School of Public Policy
- Geoffrey F. Joyce, Ph.D.**  
Associate Professor, School of Pharmacy

- Jack H. Knott, Ph.D.**  
Dean, USC Sol Price School of Public Policy C. Erwin and Ione L. Piper Dean and Professor
- Darius Lakdawalla, Ph.D.**  
Quintiles Chair in Pharmaceutical Development and Regulatory Innovation, School of Pharmacy; Professor, Sol Price School of Public Policy
- Grant Lawless, R.Ph., M.D., FACP**  
Associate Professor, School of Pharmacy and Director, Online Education
- Pat Levitt, Ph.D.**  
Provost Professor, Keck School of Medicine
- Jeffrey S. McCombs, Ph.D.**  
Associate Professor, School of Pharmacy

- Daniel L. McFadden, Ph.D.**  
Presidential Professor, Sol Price School of Public Policy
- Daniella Meeker, Ph.D.**  
Assistant Professor, Keck School of Medicine
- Glenn A. Melnick, Ph.D.**  
Professor, Blue Cross of California Chair in Health Care Finance, Sol Price School of Public Policy
- Michael B. Nichol, Ph.D.**  
Director, Health Programs; Professor, Sol Price School of Public Policy
- John A. Romley, Ph.D.**  
Research Assistant Professor Economics, Sol Price School of Public Policy
- Seth Seabury, Ph.D.**  
Associate Professor of Research Keck School of Medicine

- Neeraj Sood, Ph.D.**  
Associate Professor, School of Pharmacy
- Sophie Terp, M.D., MPH**  
Assistant Professor, Keck School of Medicine
- R. Pete Vanderveen, Ph.D., RPh**  
Dean and John Stauffer Decanal Chair
- Shinyi Wu, Ph.D.**  
Associate Professor, USC School of Social Work, Edward R. Roybal Institute on Aging Viterbi School of Engineering, Industrial and Systems Engineering
- Vivian Wu, Ph.D.**  
Assistant Professor, Sol Price School of Public Policy

- Julie Zissimopoulos, Ph.D.**  
Assistant Professor, Sol Price School of Public Policy
- Quintiles Senior Fellows**
- Jay Bhattacharya, M.D., Ph.D.**  
Associate Professor, Stanford University School of Medicine
- Amitabh Chandra, Ph.D.**  
Area Chair, Social and Urban Policy Professor, Public Policy, Harvard Kennedy School of Government
- Bob Kocher, M.D.**  
Partner, Venrock
- Anup Malani, Ph.D.**  
Lee and Brena Freeman Professor of Law, University of Chicago

- Scott Ramsey, M.D., Ph.D.**  
Full Member, Division of Public Health Sciences at Fred Hutchinson Cancer Research Center; Professor, University of Washington School of Medicine
- Steven Teutsch, M.D., MPH**  
Chief Science Officer, Los Angeles County Health Department; Adjunct Professor, Emory University School of Public Health and UNC School of Public Health
- Quintiles Clinical Fellows**
- Sanjay Arora, M.D.**  
Associate Professor, University of Southern California
- Karen Woo, M.D.**  
Assistant Professor of Surgery, Keck School of Medicine, University of Southern California

- Steve Kim, M.D.**  
Assistant Professor of Clinical, Children's Hospital of Los Angeles, Keck School of Medicine, University of Southern California
- Ashwini Lakshmanan, M.D.**  
Assistant Professor of Clinical, Children's Hospital of Los Angeles, Keck School of Medicine, University of Southern California
- Michael Menchine, M.D.**  
Research Director, Associate Professor of Clinical, Keck School of Medicine, University of Southern California

- Post-Doctoral Scholars**
- María José Prados, Ph.D.**  
Economics, Columbia University; M.Phil. and M.A. Econimcs, Columbia University; B.A. Economics Universidad Nacional de Cuyo
- Erin Trish, Ph.D.**  
Health Policy/Economics, Johns Hopkins University; B.S. Biomedical Engineering, Johns Hopkins University
- Bo Zhou, Ph.D.**  
Economics, University of Southern California; M.S. Mathematical Finance, University of Southern California; M.S. Physics, McMaster University; B.S. Physics, Peking University

# Meet the Schaeffer Center Advisory Board

## Leonard D. Schaeffer, Chair

Leonard D. Schaeffer is the founding Chairman & CEO of WellPoint, Inc. (now Anthem), and was Chairman & CEO of WellPoint's predecessor company, Blue Cross of California. He is currently a senior advisor to TPG Capital and is the Judge Robert Maclay Widney Chair and Professor at USC. In the Federal Government, he served as Administrator of the Health Care Financing Administration (now CMS). He serves on the boards of Quintiles, the RAND Corporation, the Brookings Institution, USC, and the Board of Fellows at Harvard Medical School (HMS). He chairs the advisory board for the Schaeffer Center at USC and is a member of the Institute of Medicine (IOM). He has endowed academic chairs at USC, the Brookings Institution, the University of California (Berkeley), IOM, and HMS.

## Drew Altman, Ph.D.

Drew Altman is President and Chief Executive Officer of the Henry J. Kaiser Family Foundation, one of the nation's largest private foundations devoted to health. Dr. Altman is a former Commissioner of the New Jersey Department of Human Services. He was also Director of the Health and Human Services program at the Pew Charitable Trusts and Vice President of the Robert Wood Johnson Foundation. Dr. Altman is a member of the Council on Foreign Relations and the Institute of Medicine. He is an innovator in the world of foundations and a leading expert on national health policy.

## Gregg H. Alton

Gregg Alton is the Executive Vice President of Corporate and Medical Affairs at Gilead Sciences and is currently responsible for legal affairs, government affairs, medical affairs, public affairs and emerging market activities. Prior to joining Gilead, Mr. Alton was an attorney at the law firm of Cooley Godward, LLP. Mr. Alton is a member of the boards of the AIDS Institute, BayBio, the Boys and Girls Clubs of Oakland and Celladon Corporation, a member of the U.S. Government's Industry Trade Advisory Committee on Intellectual Property Rights, the advisory boards of UCSF Global Health Group, USC Schaeffer Center for Health Policy and Economics, Pharmozyme, Inc. and the Dean's Advisory Council at Stanford Law School. Mr. Alton received a bachelor's degree from the University of California at Berkeley and a JD from Stanford University.

## Lars Birgerson, M.D., Ph.D.

Lars Birgerson is Senior Vice President, Global Medical at Bristol-Myers Squibb (BMS) and is a member of the BMS Research and Development (R&D) Executive Committee, the company's most senior leadership group in R&D. Dr. Birgerson is also a member of the Brand Development Operating Committee as well as a co-chair of the Medical Review Group and the Commercialization Excellence team. Dr. Birgerson has more than 20 years of biopharmaceutical industry experience in senior positions in Medical Affairs, Drug Development, Business Development and Licensing at BMS, Genentech, Roche, and Pharmacia. Prior to joining BMS, Dr. Birgerson served as the Vice President of Medical Affairs at Genentech. Dr. Birgerson received his M.D., Ph.D. and completed residencies at Uppsala University in Sweden.

## Robert Bradway

Robert Bradway is the Chairman and Chief Executive Officer of Amgen. Mr. Bradway became chairman in January 2013 and Chief Executive Officer in May 2012. He served as the company's President and Chief Operating Officer from May 2010 to May 2012 and was appointed to the Amgen Board of Directors in October 2011. He joined the company in 2006 as Vice President, Operations Strategy, and served as Executive Vice President and Chief Financial Officer from April 2007 to May 2010.

## Cathryn M. Clary, M.D.

Cathryn M. Clary, M.D. is the Head of US Medical and Chief Scientific Officer for US General Medicines, Novartis Pharmaceuticals Corporation. Dr. Clary joined Novartis in 2012 from Ipsen Biopharmaceuticals, Inc., where she was Senior Vice President, North American Medical & Regulatory Affairs. Prior to Ipsen, she was with Pfizer for more than 10 years, serving in different roles of escalating responsibility within US and Global Medical Affairs departments. Dr. Clary received her medical degree from the University of Missouri-Columbia and holds an AB from Bryn Mawr College and an MBA from the University of Delaware. She has published in a number of prominent peer reviewed psychiatry journals.

## C. Duane Dauner

C. Duane Dauner is the President and CEO of the California Hospital Association (CHA), the statewide leader representing the interests of nearly 400 California hospitals and health systems. Mr. Dauner has been active in national hospital and health care issues and has served on many American Hospital Association and American College of Healthcare Executives (ACHE) boards and committees. He has authored numerous articles and a book, and has lectured at several California university graduate programs. In 2002, Mr. Dauner received ACHE's highest honor, the Gold Medal Award, and he has been honored by the Partners in Care Foundation, National Health Foundation, UCLA and HealthCare Executives of Southern California.

## John D. Diekman, Ph.D.

John D. Diekman, Ph.D. is a Founder and Managing Partner of 5AM Ventures, a life sciences investment firm. Previously Dr. Diekman was Chairman and CEO of Affymetrix, and Chairman and Managing Director of Affymax. He is a Charter Trustee of Princeton University and former Trustee of The California Institute of Technology and also of The Scripps Research Institute, where he served as Chairman. He is an Honorary Officer of the Order of Australia. Dr. Diekman received a B.A. in Chemistry from Princeton University and a Ph.D. in Chemistry from Stanford University. Dr. Diekman holds an Honorary Degree of Doctor of Laws from Monash University.

## Joaquin Duato

Joaquin Duato is Worldwide Chairman, Pharmaceuticals, Johnson & Johnson. As a member of the Johnson & Johnson Management Committee, he is responsible for the global pharmaceutical commercial businesses of the Janssen Pharmaceutical Companies of Johnson & Johnson. In this role, Mr. Joaquin also oversees the Operations, Quality, and Compliance functional groups supporting the pharmaceutical commercial and research and development organizations. A native of Valencia, Spain, Mr. Joaquin holds an undergraduate degree in Economics and two Master's degrees—one in Business Administration from ESADE Business School in Barcelona; the other in International Management from Thunderbird School of Global Management in Phoenix, Arizona.

## Joel Freedman

Joel Freedman is President of Paladin Healthcare Capital LLC, makes private equity, structured debt, and real estate investments in the healthcare sector. He previously served as President and co-founder of Avanti Hospitals LLC, which acquired, turned around, and continues to own and operate four highly successful community hospitals in South and East Los Angeles. In 2004, he co-founded CompWest Insurance Company, an innovative California based workers compensation insurance company that was sold in 2007 to Blue Cross and Blue Shield of Michigan. During his career, Joel has completed more than 175 transactions totaling more than \$3 billion, including more than \$800 million of health care transactions. Joel is a founding member of the Healthcare Policy Advisory Council for Harvard Medical School and a National Council Co-Chair for American Enterprise Institute. He also serves on the Boards of Children's Bureau and the Foundation for AltaMed Health Services.



Leonard D. Schaeffer



Drew Altman, Ph.D.



Gregg H. Alton



Lars Birgerson, M.D., Ph.D.



Robert Bradway



Cathryn M. Clary, M.D.



C. Duane Dauner



John Diekman, Ph.D.



Joaquin Duato



Joel Freedman



Dennis Gillings, CBE, Ph.D.



Robert Ingram



Pam Kehaly



Bob Kocher, M.D.



Robert Margolis, M.D.



Michael A. Mussallem



Norman C. Payson, M.D.



Thomas M. Priselac



Robert D. Reischauer, Ph.D.



Judith A. Salerno, M.D., M.S.



David Schlotterbeck



Timothy M. Wright, M.D.

## Dennis Gillings, CBE, Ph.D.

Dennis Gillings is the Executive Chairman and founder of Quintiles. He was appointed World Dementia Envoy in February 2014 by the UK Prime Minister, David Cameron. He began providing statistical consulting and data management service to pharmaceutical clients in 1974 during his tenure as a professor of biostatistics at the University of North Carolina at Chapel Hill. Dr. Gillings was born and educated in the United Kingdom. Today he serves on several boards and councils. He was honored by the Queen as Commander of the Most Excellent Order of the British Empire in 2004 for services to the Pharmaceutical Industry.

## Robert Ingram

Robert Ingram is General Partner of Hatteras Venture Partners, a venture capital firm. Mr. Ingram was the Chairman and CEO of Glaxo Wellcome and co-led the merger that formed GlaxoSmithKline. He serves as Lead Director of Valeant Pharmaceuticals International and Cree, Inc. Mr. Ingram is a member of the Board of Directors of Edwards Lifesciences Corporation, Regeneron Pharmaceuticals, Inc., PhaseBio Pharmaceuticals, Inc., and is Chairman of Viamet, a private company focused on anti-infective research. He serves on the board for the James B. Hunt Jr. Institute for Educational Leadership and Policy, the H. Lee Moffitt Cancer Center, the CEO Roundtable on Cancer, the Research Triangle Institute and is Chairman of the GlaxoSmithKline Foundation and the Research Triangle Foundation of North Carolina, and is on the Advisory Board, Leonard D. Schaeffer Center for Health Policy & Economics, University of Southern California.

## Pamela Kehaly

Pam Kehaly is President of Anthem's West Region and Specialty Businesses. In Pam's role as President of Anthem West Region, she oversees services for approximately 9 million members, delivered through Anthem Blue Cross of California, Anthem Blue Cross Blue Shield of Colorado and Anthem Blue Cross Blue Shield of Nevada. She also leads Anthems Specialty Business, including Dental, Vision, Disability, Life, and Workers' Compensation business. Pam received a Bachelor's degree from California State University, Stanislaus. Pam is on the Board of the Southern California MS Foundation. Additionally, she serves on the Advisory Boards of the Schaeffer Center for Health Policy and Economics at USC and Rand Health, and has served on Governor Brown's "Let's Get Healthy Task Force", to develop a vision and framework to improve the health of all Californians.

## Bob Kocher, M.D.

Bob Kocher, MD is a Partner at Venrock and focuses on early stage healthcare IT and services investments. Also, he is a Consulting Professor at Stanford, Senior Fellow and Advisory Board Member at the Schaeffer Center for Health Policy and Economics at USC, and Guest Scholar at Brookings. Prior to Venrock, Bob served in the Obama Administration as Special Assistant to the President for Healthcare and Economic Policy on the National Economic Council and was a Partner at McKinsey & Company. Bob received undergraduate degrees from University of Washington, medical degree from George Washington University and completed his medicine residency at Beth Israel Deaconess Medical Center.

**Robert Margolis, M.D.**

Robert Margolis is Co-Chairman of the Board of Director for DaVita HealthCare Partners Inc. and CEO Emeritus of HealthCare Partners, LLC. Dr. Margolis serves as a member of the HealthCare Policy Advisory Council for Harvard Medical School and the Executive Management School Advisory Committee of the School of Public Health at the University of California, Los Angeles. He is also on the boards of the National Committee for Quality Assurance, the California Association of Physician Groups, California Hospital Medical Center, Los Angeles, the Council of Accountable Physician Practices, and Martin Luther King, Jr., Hospital.

**Michael A. Mussallem**

Michael A. Mussallem has been chairman and CEO of Edwards Lifesciences since 2000 when the company spun-off from Baxter International. Prior, Mussallem held a variety of positions at Baxter from 1979 until 2000 with increasing responsibility in engineering, product development and general management. Currently, Mussallem serves on the boards and executive committees of the Advanced Medical Technology Association (AdvaMed) and the Healthcare Leadership Council. Mussallem is the former chairman of the board of directors of both AdvaMed and California Healthcare Institute. Mussallem received a bachelor's degree in chemical engineering and also an honorary doctorate from the Rose-Hulman Institute of Technology.

**Norman C. Payson, M.D.**

Norman C. Payson is President of NCP, Incorporated and former Chairman and Chief Executive Officer of Apria Healthcare Group. Dr. Payson was Chairman of Viant Holdings and its predecessor company, Concentra, Inc., Chief Executive Officer of Oxford Health Plans, co-founder and Chief Executive Officer of Healthsource, Inc., and CEO of a 120 physician multispecialty group practice. Dr. Payson is a graduate student lecturer at the Tuck School at Dartmouth and the Columbia University School of Public Health. Dr. Payson is a graduate of the Massachusetts Institute of Technology and received his M.D. at Dartmouth Medical School.

**Thomas M. Priselac**

Thomas M. Priselac is President and Chief Executive Officer of the Cedars-Sinai Health System since January 1994 and has been associated with the organization since 1979. He is a past Chair of the American Hospital Association Board of Trustees, the Association of American Medical Colleges, and the California Hospital Association and a founding board member of the California Health Care Foundation. The holder of the Warsaw/Law Endowed Chair in Healthcare Leadership at Cedars-Sinai Medical Center, Mr. Priselac also serves as an adjunct professor at the UCLA School of Public Health and is an author and invited speaker on a variety of healthcare issues.

**Robert D. Reischauer, Ph.D.**

Robert D. Reischauer is a Distinguished Institute Fellow and former President of the Urban Institute. Between 1989 and 1995, he served as the Director of the Congressional Budget Office. He was also a Senior Fellow at the Brookings Institution. A nationally recognized economist, he frequently contributes to the opinion pages of the nation's major newspapers, comments on public policy developments on radio and television, and testifies before congressional committees. Dr. Reischauer is the Senior Fellow of the Harvard Corporation, one of two public trustees of the Social Security and Medicare trust funds. He was Vice Chair of the Medicare Payment Advisory Commission.

**Judith A. Salerno, M.D., M.S.**

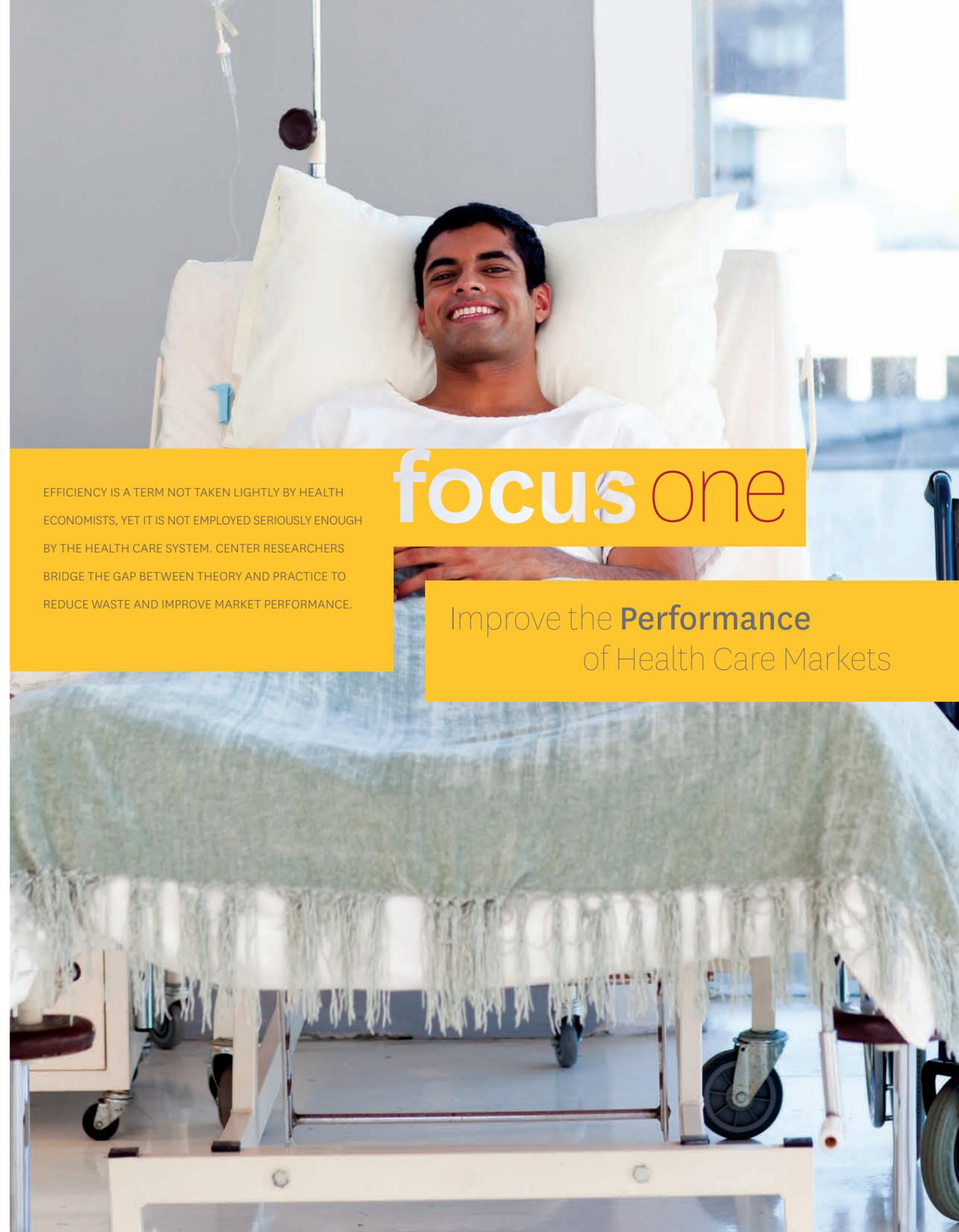
Judith A. Salerno is the President and Chief Executive Officer of Susan G. Komen. Before joining Komen, she was the Leonard D. Schaeffer Executive Officer of the Institute of Medicine (IOM) of the National Academies, serving as Executive Director and Chief Operating Officer of the Institute. In that role, she oversaw the National Cancer Policy Forum—a consortium of government, industry, academic, consumer, and other representatives that identifies and examines emerging high-priority policy issues in cancer. Dr. Salerno was Deputy Director of the National Institute on Aging (NIA), directed the continuum of Geriatrics and Extended Care programs for the U.S. Department of Veterans Affairs (VA), and was Associate Chief of Staff at the VA Medical Center in Washington, D.C.

**David Schlotterbeck**

David Schlotterbeck is a Director of Juniper Networks & Maxwell Technologies, as well as the retired Chairman and Chief Executive Officer of CareFusion. Mr. Schlotterbeck has been in the medical device industry for the past 25 years. In 1999 he began to focus on improving the safe delivery of intravenous drugs while President and CEO of Alaris Medical Systems. After being acquired by Cardinal Health in 2004, as Vice Chairman, he expanded his focus on to hospital medication safety and preventing hospital acquired infections. In February 2011, Mr. Schlotterbeck separated from Cardinal to spin out CareFusion as Chairman and Chief Executive Officer, the fifth largest global medical technology company spun-out from Cardinal Health, until his retirement in February 2011.

**Timothy M. Wright, M.D.**

Timothy M. Wright, M.D. is the Executive Vice President, Translational Sciences at the California Institute for Biomedical Research (Calibr). He is a physician-scientist and trained at the Johns Hopkins University in medicine, rheumatology, and molecular immunology. He held academic faculty positions at Johns Hopkins and the University of Pittsburgh before making the transition to the pharmaceutical industry in 2001. Dr. Wright was previously the Global Head of Development at Novartis Pharmaceuticals. He also serves as a key scientific advisor to several organizations, notably the Bill and Melinda Gates Foundation.



focus one

EFFICIENCY IS A TERM NOT TAKEN LIGHTLY BY HEALTH ECONOMISTS, YET IT IS NOT EMPLOYED SERIOUSLY ENOUGH BY THE HEALTH CARE SYSTEM. CENTER RESEARCHERS BRIDGE THE GAP BETWEEN THEORY AND PRACTICE TO REDUCE WASTE AND IMPROVE MARKET PERFORMANCE.

Improve the **Performance** of Health Care Markets

## White House Annual Economic Report Cites Schaeffer Center Research on Rising Health Care Costs

Each year in February, the White House releases its Economic Report of the President. First submitted by Harry S. Truman in 1947, the annual report outlines the forces driving the economy and as such is an essential tool in setting economic policy.

For the second year, the report cites work by Center scholars.

In a section on the role of the Affordable Care Act (ACA) in reducing health care costs, the report cites **Vivian Wu's** research (with Chapin White) on the spillover to the private sector of Medicare cost reforms. Wu is assistant

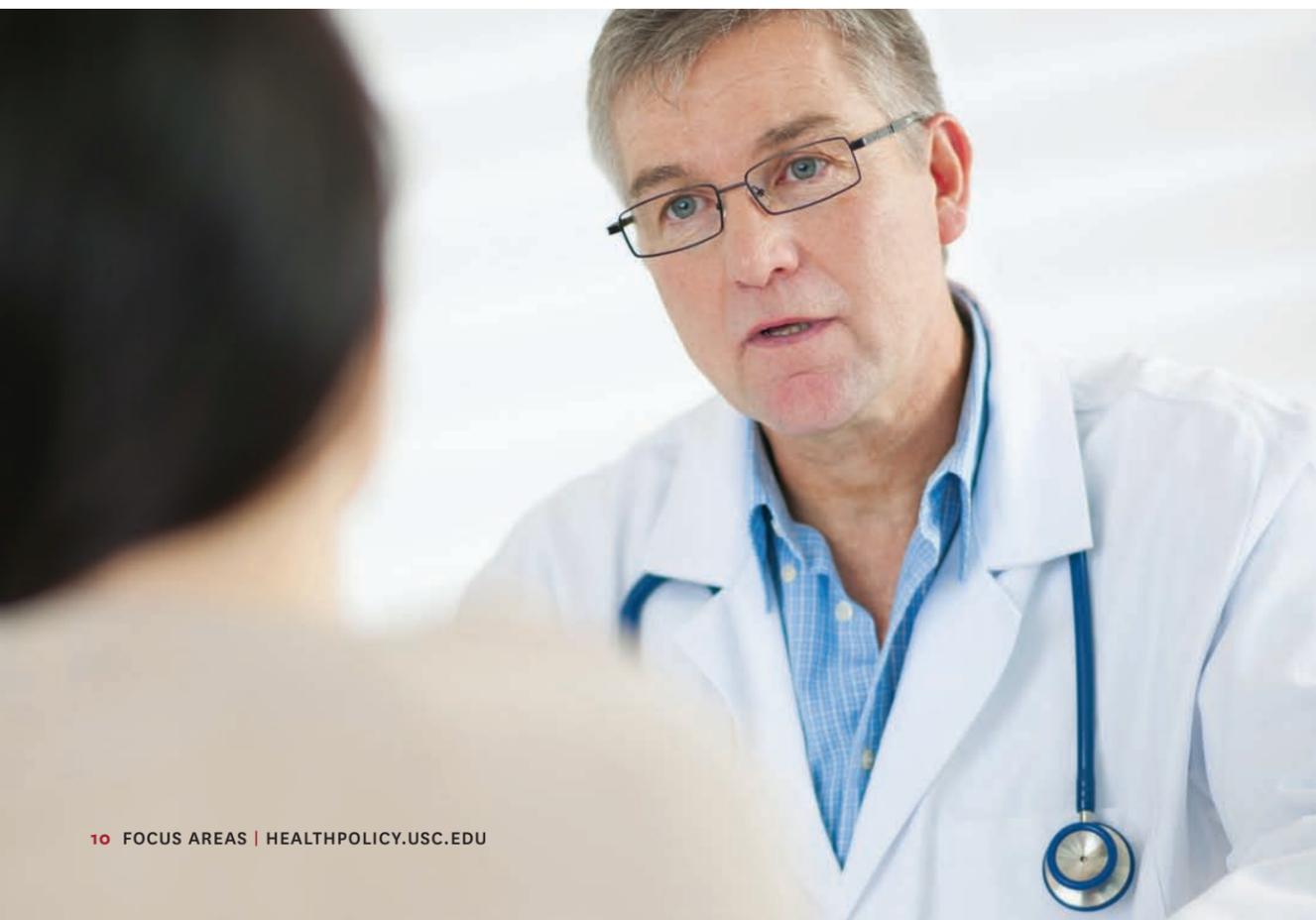
55 cents. "The implications of these estimates are striking," the report notes, in driving down overall health care costs.

The President's report also cites research by **Neeraj Sood**, Director of Research, to bolster its argument for the benefits to the larger economy of ACA. Sood and his colleagues find that rising health care costs can be a drag on hiring. They find that for every 1 percent increase in health insurance premiums in an industry that provides insurance to a large share of its workforce, employment declines by 1.6 percent. Trimming the sails on health insurance premiums, therefore, can be a boost to the economy. The Administration notes Sood's findings that the ACA will increase job growth by 250,000 to 400,000 jobs a year by the second half of this decade.

**THE IMPLICATIONS OF THESE ESTIMATES ARE STRIKING**

professor at the Price School. She finds

that for each dollar of Medicare savings from payment reforms, private insurers realize additional savings of



## EXPANDING HEALTH CARE ACCESS IN INDIA

For people in poverty, the choice between putting food on the table or going to the doctor is an easy one: they put food on the table. For those with complicated medical issues, that decision, however, can be fatal. That's no more apparent than in India, where **Neeraj Sood**, Director of Research at the Schaeffer Center, conducted his recent study of a new social health insurance program there.

The program, Vajpayee Arogyashree Scheme (VAS), provides poor individuals suffering from cancer, heart disease, or neurological diseases free screening and care, as well as transportation to urban hospitals for rural residents. Sood's evaluation of the program included 82,000 households

and found that mortality dropped by 64 percent and out-of-pocket expenses declined by 60 percent.

"The study shows that public policy can play a strong role in reducing disparities in health due to socioeconomic status," he said. "In villages without insurance, the poor had much higher mortality than the rich, but such disparities were completely eliminated in villages with insurance coverage."

Sood's findings ultimately led Karnataka to begin expansion of the program to the entire state, with Indian officials indicating that the entire country will follow suit.

"THE STUDY SHOWS THAT PUBLIC POLICY CAN PLAY A STRONG ROLE IN REDUCING DISPARITIES IN HEALTH DUE TO SOCIOECONOMIC STATUS"

NEERAJ SOOD

## Higher Medical Malpractice Caps

Medical malpractice is always a hotly contested topic—and that was no different leading up to California elections in November 2014 with Proposition 46 on the ballot. At \$250,000, California has one of the lowest caps on noneconomic (pain and suffering) medical malpractice claims in the nation. The measure sought to raise the cap to \$1.1 million. Trial lawyers, for one, wanted the cap raised because, they argued, the current cap discourages them from taking on cases. But others argued that with a higher cap, more lawsuits were sure to follow, along with higher costs for providers—and patients.

**Seth Seabury's** study in October 2014 in *Health Affairs* put the arguments to rest. Seabury is an associate professor of research at the Schaeffer Center. His study

(with Anupam B. Jena) found that caps reduce average payouts by 15 percent. A \$250,000 cap reduced average payments by 20 percent, compared to no cap. But, a less restrictive \$500,000 cap has no significant effect, on average, compared to no cap.

"For the proposed California ballot initiative, our findings suggest that it would lead to about a 20 percent increase in average indemnity payments," said Seabury. The largest increases would be in obstetrics and pediatrics. Pediatrics has the lowest rates of malpractice suits but among the largest average malpractice awards.

Accordingly, voters rejected the reform.

# A Trick to Curb Antibiotic Use— Nudging Physicians

Could a simple pledge by physicians not to overprescribe antibiotics work to cut down their overuse? It seems so. An experiment by **Jason Doctor**, Director of Health Informatics, and **Daniella Meeker**, published in *JAMA Internal Medicine* reveals that when doctors signed a letter agreeing to more judicious use of antibiotics, then hung a pledge on the exam room wall (with their photo), the number of inappropriate prescriptions declined 20 percent in three months. The cost savings could reach \$70 million, the authors calculate.

The study is another in the popular behavioral economics. In this case, the intervention was designed to tap into the power of a public commitment.

Paying doctors not to overprescribe hadn't worked, so "we were interested in some of the psychological factors that may affect what physicians are doing," Doctor told *Mother Jones* in one of the many news stories on the study.

The posters were stealth influences. Outwardly, they looked like they were meant for patients, explaining how overuse of antibiotics can be harmful, and signed by the physician. The researchers didn't tell the doctors that the real purpose of the sign was to remind the doctors of their commitment. It was that visual prompt, the researchers surmised, that worked.



## SOFTWARE THAT HELPS REDUCE HEALTH CARE COSTS FOR U.S. BUSINESS

Will the advent of health care consumerism in America lower costs? For U.S. businesses, health care is one of their top costs. **Neeraj Sood**, Director of Research at the Schaeffer Center, wanted to know whether software that lets employees compare prices for medical services could empower them to make more informed health care decisions—and lower costs in the process.

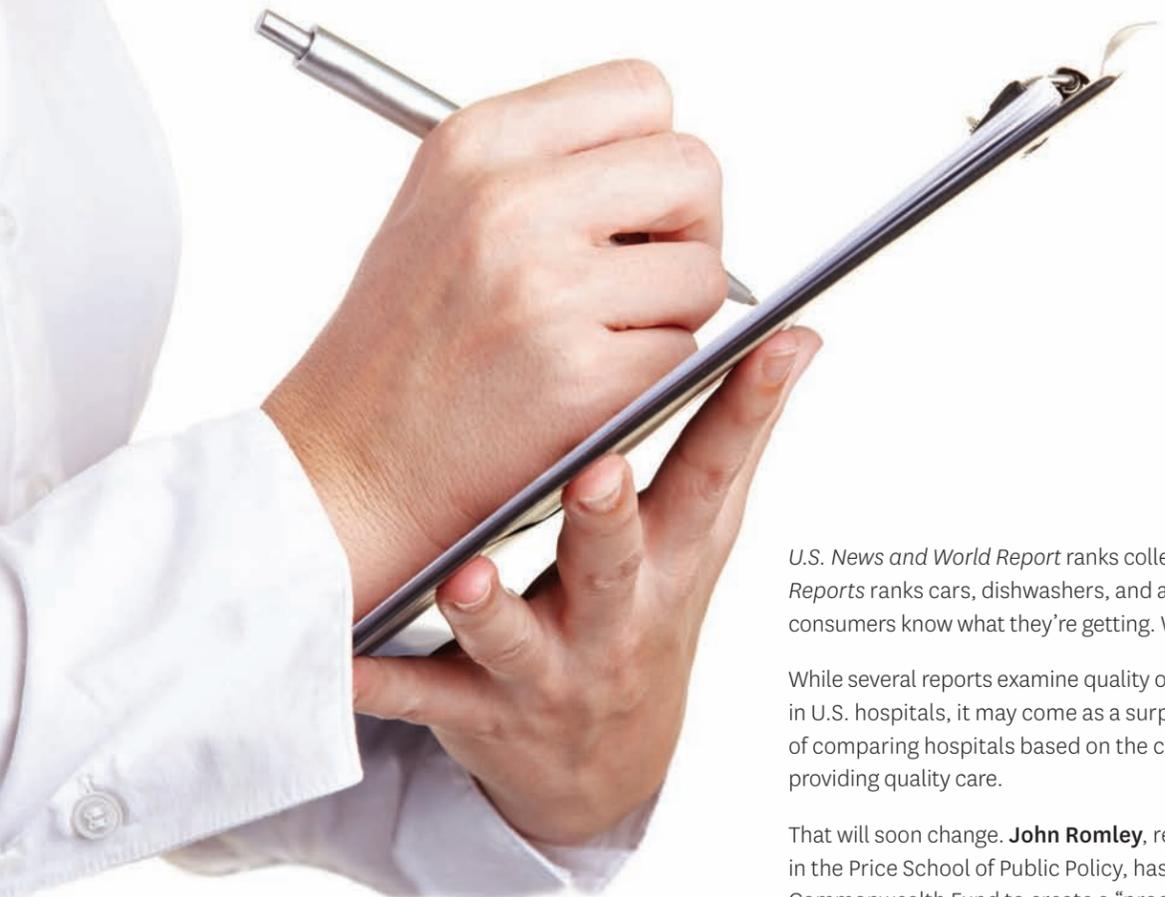
He and his team turned to a software platform designed by Castlight Health, Inc., that allows employees to easily search and compare prices and information on health services, like MRIs and lab tests. They analyzed three years of medical claims for more than half-a-million employees who had access to the Castlight software platform through 18 different employers. Compared to employees who hadn't used the software, claims payments for laboratory tests were 14% lower for users, 13% lower for advanced imaging services, and 1% lower for primary care office visits.

"Price transparency is one of healthcare's biggest innovations," said Sood. "Employer-based platforms that provide cost and quality information are one way that employers, as well as more and more of the estimated 150 million Americans with employer-sponsored insurance, can save money." The results were published in *JAMA*.

**"PRICE TRANSPARENCY IS ONE OF HEALTHCARE'S  
BIGGEST INNOVATIONS"**

**NEERAJ SOOD**

# Ranking Hospitals by Value

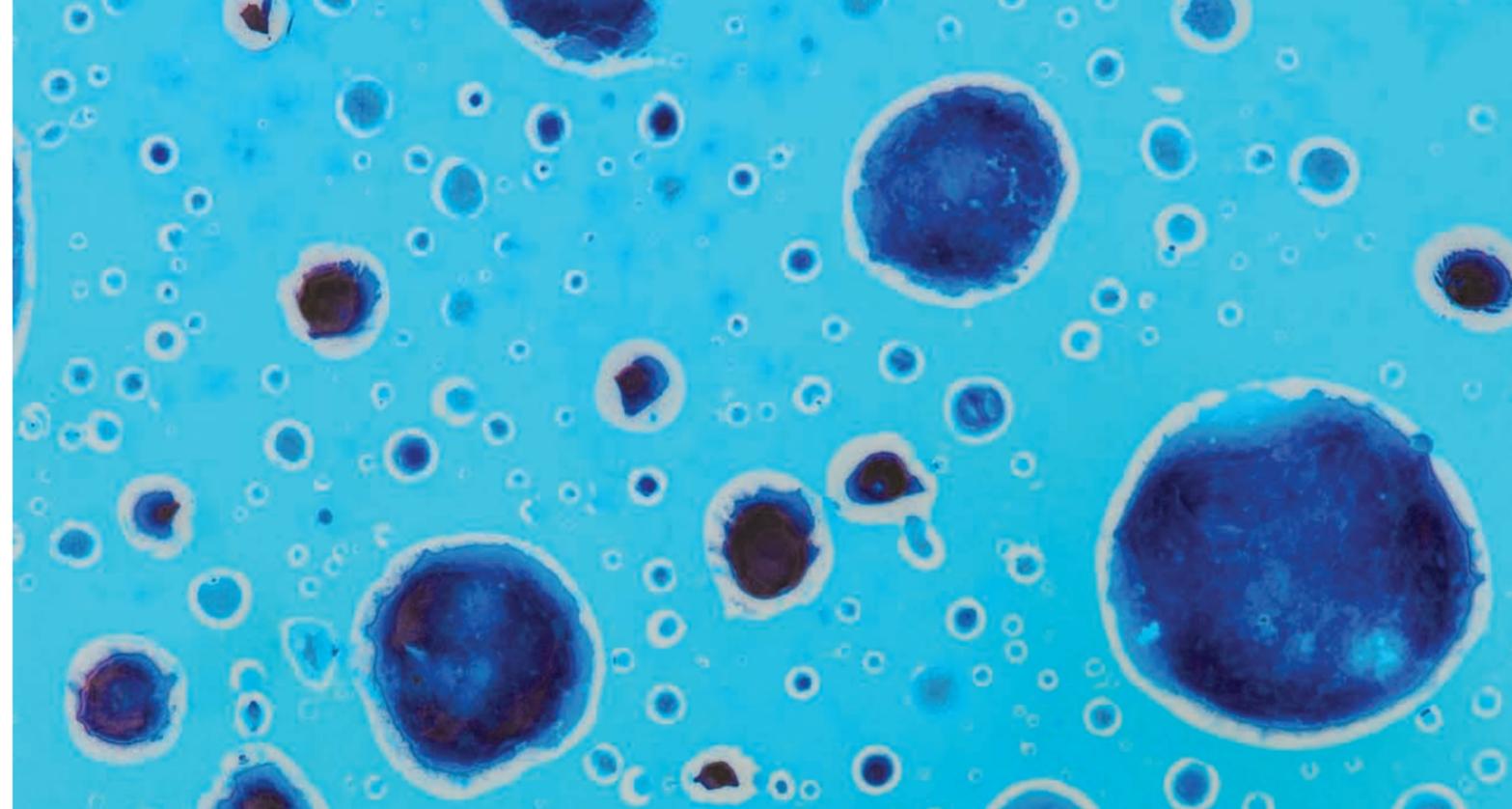


*U.S. News and World Report* ranks colleges by their value. *Consumer Reports* ranks cars, dishwashers, and almost any other product so consumers know what they're getting. Why not hospitals?

While several reports examine quality of care and Medicare spending in U.S. hospitals, it may come as a surprise that we have no way of comparing hospitals based on the cost at which hospitals are providing quality care.

That will soon change. **John Romley**, research assistant professor in the Price School of Public Policy, has received a grant from the Commonwealth Fund to create a "proof of concept" hospital value ranking.

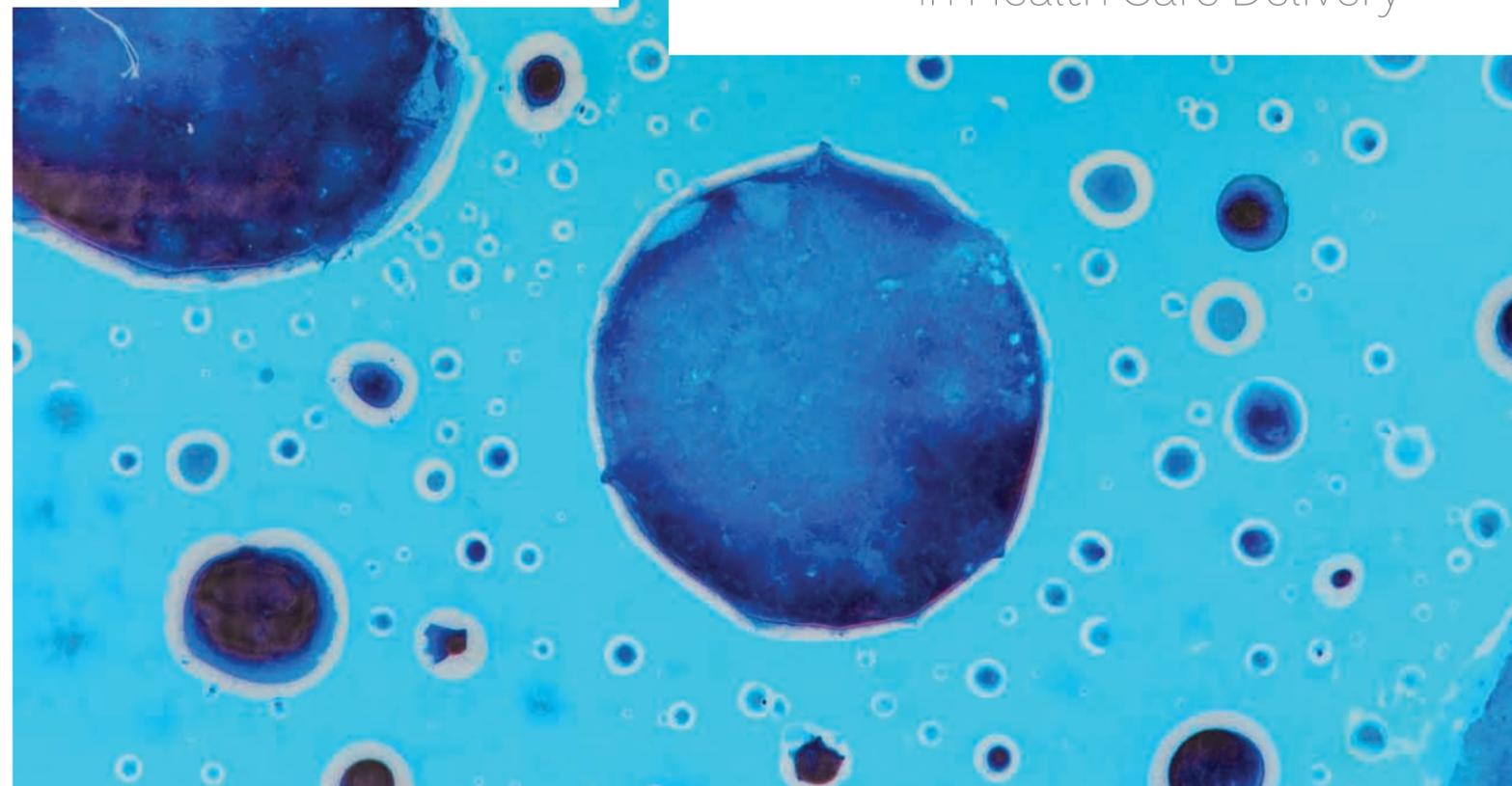
Romley and his team plan to start small (though that's no small feat), analyzing outcomes for three conditions: heart attacks, heart failure, and pneumonia. Patient satisfaction, 30-day survival, treatment costs are among the factors considered as well as severity of illness. The researchers intend to focus first on Medicare beneficiaries who were hospitalized between 2002 and 2013 and assess change in each hospital's value over time.



## focus two

NATIONAL CONVERSATIONS ON HEALTH CARE DELIVERY  
FOCUS ON QUALITY OR ON COSTS, YET THERE IS A  
DEARTH OF INFORMATION ON THE INTERSECTION OF  
THE TWO; THE RESEARCH AT THE CENTER BUILDS A  
CASE FOR VALUE.

Increase **Value**  
in Health Care Delivery



## FIVE MYTHS ABOUT CANCER CARE

In a 2014 *Health Affairs* issue, Schaeffer Center Director **Dana Goldman** and Tomas Philipson debunked five of the most common misconceptions about cancer treatment.

**Myth 1: The War on Cancer has been a failure.** Survival rates for all cancers increased by almost four years during the period 1988–2000.

**Myth 2: Detection, not treatment, accounts for most of the survival gains.** During 1988–2000, almost 80 percent of the survival gains were attributable to improvements in treatment, with the remaining 20 percent attributable to better detection.

**Myth 3: Treatment costs are unsustainable.**

The focus should be on the price of health, not the price of health care services. For example, HAART, which was introduced in the 1990s, dramatically increased longevity for HIV-positive patients, yet at great cost to them. But more than 93 percent of the benefits of developing the new treatment accrued to patients in the form of longer lives, rather than to manufacturers.

**Myth 4: Cancer treatment at the end of life is of low value.** One study estimated that patients with metastatic disease value treatment at levels 23 times higher than the cost of the therapy. Life is more precious when less of it remains.

**Myth 5: Supportive care is overused.** Supportive care allows for more aggressive chemotherapy by avoiding or managing its debilitating effects.

## Were Consumers Prepared for the Affordable Care Act?

Choosing a health plan under the Affordable Care Act (ACA) or Medicare is a labyrinth of complicated decisions—premiums, drug coverage, doctor visit co-pays, and total out-of-pocket costs. Yet so much rides on smart decisions.

That's why the results from a USC online survey were so worrisome.

**"...NUDGING CONSUMERS TOWARD BETTER-CHOICES ARE WAYS POLICYMAKERS CAN DEAL WITH THESE LOW LEVELS OF LITERACY."**  
**SYLVIA BARCELLOS**

**Arie Kapteyn, Sylvia Barcellos, and Dana Goldman** in a broad survey done just months before the ACA rollout, and published in the Proceedings of the National Academy of Sciences, found that 42 percent did not know what a deductible was, and more than half were unfamiliar with the pillar of the reform: the health care exchanges. Those most likely to benefit from the ACA were the least informed, albeit the most optimistic about the plan's benefits to them. Kapteyn is Director of the Dornsife Center for Economic and Social Research and Barcellos is a research scientist at the center.

"The results are worrisome," Barcellos told reporters, "because the success of the Affordable Care Act hinges on competition among insurers... There is no incentive for insurers to offer their best plans if people are not making informed decisions when choosing among those plans."

Nudging consumers toward smarter choices, with default options and other decision aids, could help. Barcellos said research has shown that when people have too many choices, especially complex ones, their tendency is to opt for whatever seems easiest.

"Or," she said, "they may make no choice at all." Neither of these consumer behaviors necessarily lead to the best outcome.

"Simplifying options ... and nudging consumers toward better choices are ways policymakers can deal with these low levels of literacy."

## Can Technology Help Improve Clinical Decisions?

Physicians have long used risk models to help them predict patient outcomes and guide practice. As of yet, however, few of these models incorporate real-time data. But with the advent of new technologies, such as wearable technologies and data from medical devices along with electronic health records, that moment may be near.

In a July article in *Health Affairs*, **Marco Huesch**, assistant professor at the Schaeffer Center, and his colleagues outline some of the hurdles to overcome before this valuable information can make its way into large-scale predictive models. They focus on challenges in applying the enhanced models in real-world settings and scaling up the practices across systems.

These hurdles include:

- Ensuring appropriate oversight.
- Engaging key stakeholders, including hospital staff, clinicians, patients, and their families.
- Establishing appropriate patient privacy and consent policy, including policies for how a patient would be informed when a risk-prediction model did not recommend treatment; or revealing the system-wide resource allocations (for example, ICU capacity) that might affect a physician's patients; and a way for patients to dispute a model's recommendation that no treatment be given.
- Ensuring data quality.

The authors also argue for a health system monitoring team to oversee implementation, and to incorporate predictive analytics into medical education. Finally, they warn against electronic systems replacing decision making by physicians and patients.

## PAUL GINSBURG— EXPERT VOICE ON THE HEALTH CARE SYSTEM

“ALL OF A SUDDEN THEY HAVE A LOT MORE TO WORK WITH,...THIS IS GOING TO BE A VERY IMPORTANT CHANGE”

**Paul Ginsburg** joined the Schaeffer Center in 2014 as Director of Public Policy and the Norman Topping Chair in Medicine and Public Policy in the Sol Price School of Public Policy. Ginsburg, who resides in Washington, D.C., joined the center from the Center for Studying Health System Change, which he founded.

Ginsburg is a noted speaker and consultant on the changes taking place in the health care system and the future outlook of health care in the nation. He has been named to *Modern Healthcare*'s “100 Most Influential Persons in Health Care” eight times, and is a regular point person for media, including the *New York Times*, *Wall Street Journal*, *The National Press Club*, *JAMA*, *Fox News*, *Kaiser Health News*, and many others.

During the Affordable Care Act rollout, *The Hill* turned to him for insights on its sustainability. “There’s still lots of

room for attacks,” he told the publication, but calls for repeal are “no longer politically attractive because of the large number who are now benefitting from the law.”

On reining in costs in the health care system, he told *The New York Times* that the ability of health insurance companies to merge Medicare claims data on individual doctors with their own information will be a revolution. “All of a sudden they have a lot more to work with,” he said, “This is going to be a very important change.”

He has also written and spoken about strategies that institutional health care consumers can use to fight price inflation in the face of provider consolidation; the role of Any Willing Provider laws in pushing costs higher; and the need to rethink Accountable Care Organizations in Medicare, among other topics.

## WILL THE NEXT GENERATION BE HIV/AIDS-FREE?



In little more than three decades, scientific advances have transformed HIV/AIDS from a death sentence to a manageable, chronic disease. With smart, coordinated state and federal policy, the nation could see a generation of Americans free of HIV.

Yet despite treatment advances, hundreds of thousands of Americans still lack optimal HIV/AIDS care. Powerful new research by Schaeffer Center scholars shows how coverage expansion under the Affordable Care Act (ACA) could remove barriers to HIV testing and care critical to treating, preventing, and ultimately eliminating the disease.

Early treatment is key, the research shows. Early treatment means less transmission of the disease and improves patients' prospects. Early treatment, the researchers find, prevented an estimated 188,000 HIV infections—about 13,500 people a year—between 1996 and 2009, and avoided \$128 billion in life expectancy losses. The return on investment for earlier treatment—life expectancy gains valued at \$80 billion—was about 2.2 times greater than the increase in drug manufacturers' profits.

A major barrier to treatment is lack of insurance. ACA could extend coverage to 115,000 people, the analysis shows—if states expand Medicaid, which many have not. Unfortunately, more than half who could benefit from ACA live in states not expanding Medicaid, and 70 percent are too poor to qualify for subsidies to buy private insurance through the new exchanges. Medicaid expansions will also affect how many are tested and receive early treatment, so critical to stopping the spread of the disease. The research finds that if all 50 states committed to Medicaid expansions, 603,204 more people would be tested and 3,300 new diagnoses would be made by 2017.

The findings were published in *Health Affairs* and summarized seven separate studies by Schaeffer Center researchers, including **Dana Goldman**, **Neeraj Sood**, and **John Romley**. A Schaeffer Center issue brief is also available at [healthpolicy.usc.edu](http://healthpolicy.usc.edu).

## Cost-Saving Restrictions on Prescription Drugs Might be Short-Sighted

Many state Medicaid programs have implemented policies designed to reduce spending on prescription drugs by restricting access to nongeneric drugs and creating a “preferred drug” list (also known as formulary restrictions) for physicians. Other policies require prior authorization before prescribing second-generation antipsychotics.

In several robust studies by Schaeffer Center researchers **Dana Goldman, Darius Lakdawalla, Seth Seabury** and colleagues, the results suggest that for patients with major psychiatric disorders, these restrictions could severely limit access to therapies and disrupt care.

The researchers find that formulary restrictions on antidepressants, for example, increased the probability of hospitalization by 16.6 percent and resulted in no savings for Medicaid. Requirements to use certain drugs actually resulted in higher total medical spending for patients with schizophrenia and bipolar disorder.

Likewise, requiring prior authorization for atypical antipsychotics in prison populations may be short-sighted, the researchers find. Among prisoners, such restrictions are associated with a nearly 3 percent increase in the likelihood that an inmate displays psychotic symptoms. Prior authorization requirements for patients with schizophrenia can also lead to higher arrest and incarceration rates. Given the high cost of incarceration, these increased costs could easily offset any savings created by prior authorization requirements.

Combined with the other social costs, such as an increase in incarceration rates, one study found that these formulary restrictions could increase state costs by \$1 billion annually, enough to offset any savings in pharmaceutical costs.

## Glenn Melnick Provides Expert Voice on Hospital Pricing

The Affordable Care Act comes with a lot of political baggage. Yet, politics aside, as the Act is implemented, questions turn to its nuts and bolts and whether its underlying assumptions will hold.

But that’s no simple prospect. As one doctor told the *New York Times*, “You need a Ph.D. in health economics” to understand medical pricing and other considerations.

The Schaeffer Center’s **Glenn Melnick** has that Ph.D., and he has become a go-to source for many journalists delving into the complexities of the law. Melnick, who holds the Blue Cross of California Chair in Health Care Finance, for example, provided insights to the *The New York Times* in two lengthy articles on why stitches can cost \$3,000 at one hospital and \$500 at another. “How do hospitals set prices?” he told the Times, “They set prices to maximize revenue, and they raise prices as much as they can... There are no market constraints.”

Melnick was also consulted by journalists at the *San Jose Mercury News* and the *Los Angeles Times* for background on whether a shortage of doctors might derail the assumptions behind the Affordable Care Act.

Reporters from KQED public radio called Melnick after the California Hospitals Association and Service Employees International Union reached agreement behind closed doors over a cap on hospital charges and CEO compensation. Melnick told the reporter that the deal, which would have regulated nonprofit hospital prices, was “the nuclear option...it was tying hospital pricing to cost. That’s a tremendously powerful threat.”

## focus three

BY UTILIZING A DYNAMIC MICROSIMULATION, THE CENTER’S RESEARCHERS ARE ABLE TO TAKE THE LONG-VIEW ON MAJOR HEALTH CONDITIONS AND PROVIDE AN EVIDENCE-BASE FOR POLICIES THAT CAN IMPROVE OUTCOMES FOR A GENERATION.

Improve Health Outcomes  
for an Aging Society

# Age is Just a Number



Dr. Ezekiel Emanuel famously told *The Atlantic Monthly* that he wants to die at age 75 while he can still “celebrate my life while I am still in my prime.” He wants his children and grandchildren to remember him at his best, before all the ailments, loss of creativity, and frailty of old age set in.

However, Emanuel might want to consider new evidence by Schaeffer Center Director **Dana Goldman** and his colleagues.

“For a surprisingly large segment of the older population,” they write in a recent journal article, “chronological age is not a relevant marker for understanding, measuring, or experiencing healthy aging.”

They find that many older Americans in all the age brackets are quite healthy, including those over 85. Nearly half of those aged 51–54 and 28 percent of those aged 85+ have excellent or very good self-reported health status, they find. Nine in ten of those aged 51–54 and 56 percent of those aged 85+ report no health-based limitations in work or housework. Quality of life is high as well. The findings suggest that older Americans today may be experiencing aging quite differently than their predecessors.

Too many people experience vastly different health at the same age today to use chronological age as a marker, Goldman and colleagues argue. Further, including the positive aspects of health into studies reveals a relatively large proportion of the population that is functionally indistinguishable from people 20 or 30 years their junior.

## Schaeffer Center Advises Congressional Diabetes Caucus

“THE BEST THING I COULD DO FOR THIS PATIENT IS TAKE HIM FOR A WALK, BUT I DON’T GET PAID TO DO THAT.”

**Dana Goldman** spoke at a briefing on Capitol Hill hosted by the Congressional Diabetes Caucus. The caucus is the largest and one of the most influential member organizations on Capitol Hill. Its goal is to educate members of Congress and staff about diabetes and to support legislative activities that improve diabetes research, education and treatment.

The briefing focused on the health and economic value of comprehensive diabetes management, and given the importance of quality health care to the long-term success of the Affordable Care Act, the briefing was packed.

Goldman reminded the attendees that prevention is sometimes the most cost-effective treatment, but until the incentives change, prevention will get second billing. As one doctor told Goldman, “The best thing I could do for this patient is take him for a walk, but I don’t get paid to do that.” Instead, “he gets paid to treat,” Goldman said.

Goldman discussed other misaligned incentives for payers of services. “Diabetes is patient-specific, while payers make product-specific decisions,” Goldman said. “So there’s natural tension.” Diabetes patients will be hurt, if the ultimate effect is insurance payers “steering patients to the cheaper drug because of CER,” he said, referring to “comparative effectiveness research,” the process of choosing which regimens work best for most patients. In this case, value can too often be divorced from cost.

Rep. Xavier Becerra, D-Calif., vice chairman of the Diabetes Caucus, praised USC as “a real champion” in diabetes research. Other speakers included Griffin Rodgers, Director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), and Judith Fradkin, Director of Diabetes, Endocrinology and Metabolic Diseases at NIDDK.

## THE COMING BOOM IN ALZHEIMER'S DISEASE



It is one of the most dreaded diseases among the quickly aging Baby Boom generation. Alzheimer's disease strikes 43 million Americans over age 65 today, and is projected to add another 6 million to its grim roster by 2050. Medicare and Medicaid, which today foot three-fourths of the bill for care, are far from ready.

Research by **Julie Zissimopoulos, Patricia St. Clair,** and **Eileen Crimmins** shows that costs associated with Alzheimer's care will nearly quintuple by 2050 unless something is done. Zissimopoulos is associate director of the Schaeffer Center and St. Clair is senior quantitative analyst.

As Robert Perkins reported in USC News, the "financial burden of Alzheimer's disease on the United States will skyrocket from \$307 billion annually to \$1.5 trillion."

It's an expensive disease because "people don't get better," Zissimopoulos told Perkins. "Individuals with Alzheimer's disease need extensive help with daily activities provided by paid caregivers or by family members who may be taking time off work to care for them, which has a double impact on the economy."

However, there is some good news. The research team finds that delaying the onset of Alzheimer's even a little can yield major benefits—both in quality of life and in overall costs. By 2050, a five-year delay in onset results in a 41 percent lower prevalence of the disease and lowers the overall costs to society by 40 percent.

"FINANCIAL BURDEN OF ALZHEIMER'S DISEASE ON THE UNITED STATES WILL SKYROCKET FROM \$307 BILLION ANNUALLY TO \$1.5 TRILLION."

## focus four

THE U.S. HEALTHCARE SYSTEM EXISTS WITHIN A GLOBAL MARKETPLACE, AND AS SUCH, THE CENTER'S WORK EXAMINES WORLDWIDE CONSEQUENCES OF POLICY AFFECTING PHARMACEUTICAL AND MEDICAL DEVICE INNOVATION.

Foster **Better** Pharmaceutical Policy and Global Regulation

## MANAGING HIGH-RISK PATIENTS

### IN SAFETY-NET CLINICS

“Taking your meds” is a cornerstone of treating a disease, yet forgetting to take medications, skipping doses to save money, or taking the wrong dose, is extremely common, and costly, particularly among low-income patients.

**Geoffrey Joyce**, Director of Health Policy along with other researchers at the USC School of Pharmacy wondered if embedding clinical pharmacists into low-income primary care settings could help. The pharmacists could educate patients about their conditions and help them manage drug therapies, as well as better coordinate their care. To test the idea, they gave 5,000 high-cost, low-income patients with hypertension or diabetes access to on-site pharmacists and more coordinated care in eight safety

net clinics in Los Angeles. At nearly the end of their study, the results are encouraging. Average blood pressure readings among those with uncontrolled hypertension dropped significantly, and among those with uncontrolled diabetes, blood sugar levels improved. Hospitalizations also declined.

The trick, the researchers say, will be sustaining these gains after the program ends. To improve the odds, they are turning to technology and “virtual pharmacists” as one possible solution, following examples such as the avatars that U.S. veterans turn to when struggling with post-traumatic stress disorder.

**THE PHARMACISTS COULD EDUCATE PATIENTS ABOUT THEIR CONDITIONS AND HELP THEM MANAGE DRUG THERAPIES, AS WELL AS BETTER COORDINATE THEIR CARE.**



## PRICE VS VALUE:

### Is a \$1,000 Pill Worth It?

The release of Sovaldi, the new Hepatitis C treatment by pharmaceutical company Gilead priced at \$1,000 a pill, was met with media maelstrom. As Sarah Kliff reports in Vox, “four in five Americans think the price is too high.”

But is that price too high? Or is it, as **Dana Goldman** asked Kliff, a fair price for innovation? Sovaldi, Goldman noted, is a cure, not a treatment. “Would I rather be spending \$600,000 for a liver transplant and living a restricted life afterwards, or would I rather pay \$80,000

pharmaceutical company earned \$63 billion, but the health benefits totaled \$1.4 trillion, Goldman calculated. In this case, only about 5 percent of the social value went to innovators. That, says Goldman, seems worth it. Goldman was joined by **Darius Lakdawalla** and Tomas Philipson, who presented their work on these and other cost-benefit analyses.

In the case of Gilead, Goldman told Kliff, “They’re developing a product that is a cure that will essentially put their own treatments out of business. We’d love for pharmaceutical

companies to come up with a treatment that cures diabetes rather than just treats it. I want to pay them enough so it’s possible they’ll start working on cures rather than treatments.”

up front and guarantee I never have to go through that? In that context, it doesn’t look like such a bad deal.”

“You have to be willing to reward the innovators,” Goldman later told an audience at the Brookings Institution during a discussion on the value of biomedical innovation. “Paying for value means you have to pay when something is valuable.”

There’s no better example than HAART drugs for HIV/AIDS. They too, Goldman said, were met with outrage over the price. But HAART was a breakthrough, ensuring hundreds of thousands are alive today as a result. The

**“PAYING FOR VALUE MEANS YOU HAVE TO PAY WHEN SOMETHING IS VALUABLE.” DANA GOLDMAN**

# Sustaining Success in the California Biotech Industry

Silicon Valley gets a lot of press for its revolutions in technology. But another California tech industry is as important to the state, and the globe. That industry is biotechnology, or the process of modifying genetics to create new products and medical therapies. We can thank California biotech for a device that bypasses biopsies and detects oral cancer from a single drop of saliva; or battery-free pacemakers; or smart contact lenses that continuously monitor pressure and fluid flow within the eyes of people at risk of glaucoma. Or microchips the size of a grain of sand that monitor when a person takes a prescription drug.

All of these innovations were created by researchers at California universities. In fact, as **Darius Lakdawalla** told the California Assembly's Select Committee on Biotechnology, 40 percent of all public U.S. biotech companies are in California, and about half of all venture-backed biotech startups were launched by academics. At \$3 billion flowing to the state's universities, California is also the biggest draw of National Institutes of Health funding.

Yet, as Lakdawalla warned, state funding for higher education declined through 2004 before regaining some lost ground. Sustaining the quality of California's research institutions, he argues, is critical not only to the state economy but to people across the globe.

To continue these important advances, Lakdawalla believes the nation should increase the subsidies for prescription drugs. Pharmaceutical demand is a significant driver of innovation, and the United States accounts for about one-half of the global market for prescription medications. Lakdawalla calculates that if out-of-pocket costs were reduced by 20 percent from expanded public subsidies for prescription drug insurance, it would not only make drugs more affordable, but preserve revenue and profits for innovators, and ultimately continue to stimulate new discoveries.

# THE AFFORDABLE CARE ACT IS HELPING SENIORS WITH HIGH-COST PRESCRIPTIONS

**"SPECIALTY DRUGS OFFER CONSIDERABLE VALUE TO A SMALL GROUP OF ELDERLY MEDICARE BENEFICIARIES WHO HAVE COMPLEX CONDITIONS"**  
ERIN TRISH, GEOFFREY JOYCE, AND DANA GOLDMAN

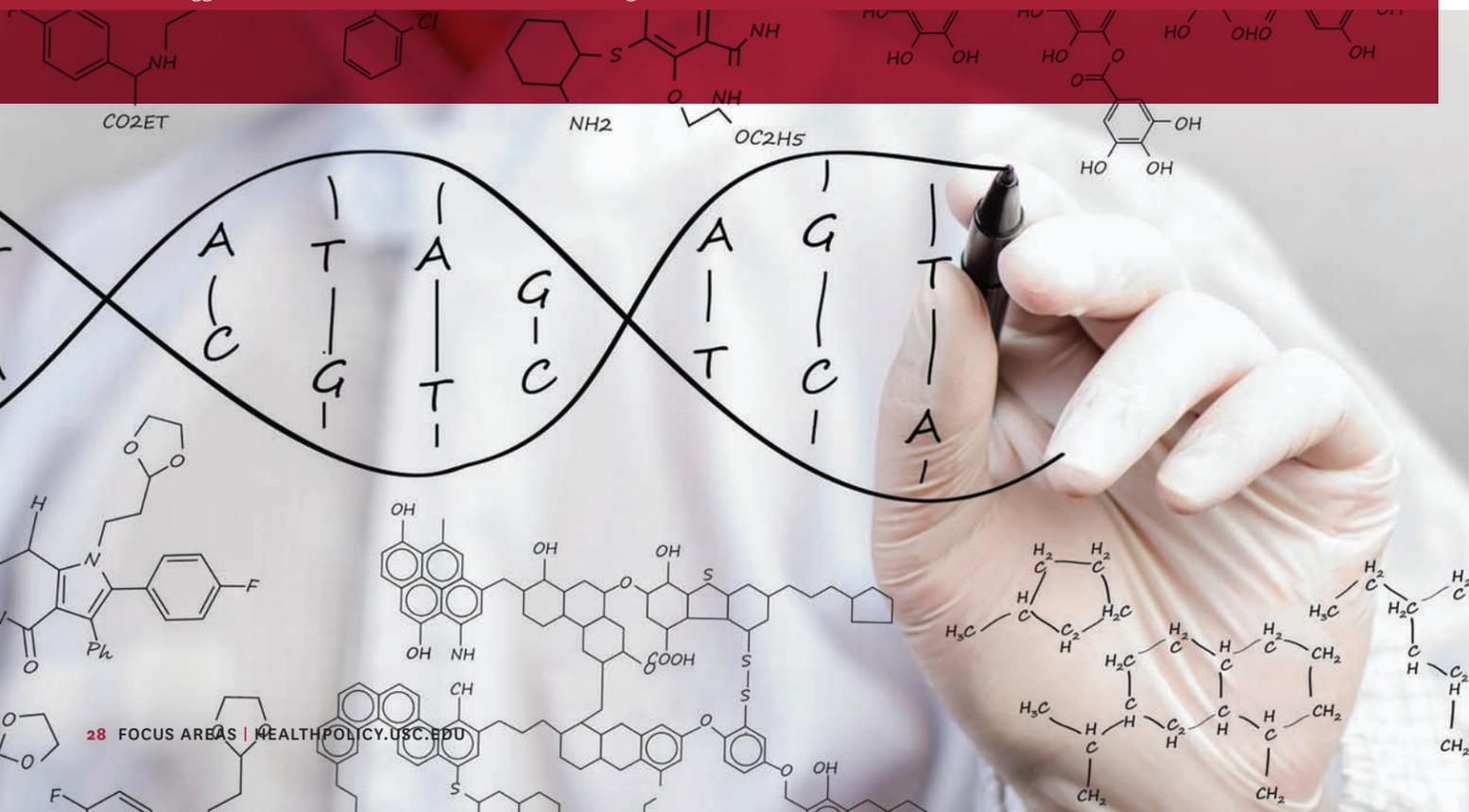
Specialty drugs, like those for Hepatitis C or cancer, are extremely expensive—and have been the target of calls to exclude them from Medicare coverage. But, as the authors of a recent paper in *Health Affairs* argue, for those who need them, specialty drugs are a lifeline, and are often a significant improvement over alternatives. Excluding these drugs from coverage, they believe, would harm those who benefit from them, not to mention run counter to the point of insurance—to spread the risk of low-probability but high cost health issues.

The costs of specialty drugs had been rising quickly since 2007. Schaeffer Center researchers **Erin Trish, Geoffrey Joyce, and Dana Goldman** analyzed the spending on these specialty drugs among Medicare beneficiaries, and found that annual costs had more than tripled between 2007 and 2010 to \$8,563. Although costs of drugs were rising across the board, oral cancer agents like Gleevec and Tarceva and immunomodulators were the primary drivers of the rise in spending. However, because those

who need specialty drugs also often take a bevy of other prescriptions, specialty drugs accounted for only 9.1 percent of total drug spending per beneficiary in 2011.

But the next year, after passage of ACA, out-of-pocket costs for these drugs declined by 26 percent. The decline is likely the result of ACA cost-sharing provisions for those in the so-called "doughnut hole" in Medicare—the gap in coverage when prescription drug costs are shifted more heavily to beneficiaries.

"Specialty drugs offer considerable value to a small group of elderly Medicare beneficiaries who have complex conditions," the authors write. "Limiting coverage of these drugs may render treatment options unavailable to these seniors, who stand to gain significant clinical benefit from their use."



## Academic Programs and Scholars

### MASTERS PROGRAMS

#### Master of Health Administration (MHA)

The USC Master of Health Administration (MHA) program has been training leaders in health management and policy for more than 35 years. Features of the USC MHA include a focused health management and policy degree that offers students breadth and depth in areas of specialization, and an MHA faculty who are renowned experts in their field. The USC MHA has strong ties to the healthcare community, provides access to numerous employment opportunities and is accredited by the Commission on Accreditation of Healthcare Management Education (CAHME). The MHA program is led by Schaeffer Center professor Mike Nichol, Director of Graduate Programs in Health, Sol Price School of Public Policy.

#### Master of Science in Healthcare Decision Analysis (HCDA)

The Master of Science program in Healthcare Decision Analysis (HCDA) is an intensive, interdisciplinary program designed to attract and train graduates from across the globe seeking to improve their technical skills and analytical abilities related to product value, access and reimbursement. Healthcare Decision Analysis is a newly emerging branch of applied healthcare research that focuses on the intersection of health economics, applied international health policy, insurance design, competitive business intelligence and pricing. The program provides an opportunity for mid-career working professionals, along with new graduates to enter a field in which managed markets payers, pharmaceutical/biotech and devices industry, healthcare systems and government cannot find sufficient qualified individuals and formally trained leaders to meet demand. The MS in HCDA is led by Schaeffer Center professor Grant D. Lawless RPH, MD, Program Director, USC School of Pharmacy.

#### Master of Science in Health Economics (Pharmaceutical Economics and Policy Emphasis)

The USC graduate program in Health Economics offers a Master of Science with an emphasis on Pharmaceutical Economics and Policy. Master's students are trained to use pharmaceutical economics and assessment techniques in practical decision-making environments such as managed-care pharmacies, third-party payers and government agencies. A distinguishing characteristic of the USC Master's Program emphasizing Pharmaceutical Economics and Policy is the degree to which students are actively engaged in publishable research, either as the lead author or as a secondary author in collaboration with a faculty member. The MS in Health Economics is led by Schaeffer Center professor Jeffrey McCombs, Director of Graduate Studies, Titus Family Department of Clinical Pharmacy and Pharmaceutical Economics and Policy, USC School of Pharmacy.

### PREDOCTORAL FELLOWSHIP IN HEALTH ECONOMICS

This past year, the Schaeffer Center announced a new predoctoral two-year fellowship as part of the new USC Graduate Certificate Program in Health Economics. Beginning in 2015, fellows will be afforded the opportunity to conduct research under the guidance of a faculty mentor at the Schaeffer Center during their 3rd and 4th year of study. To complete the graduate certificate program in health economics, students must complete all requirements for the Ph.D. in economics including two advanced fields one of them being health economics. Successful completion of the program will be acknowledged by a certificate awarded by USC.

### INTERNATIONAL VISITING SCHOLARS

The Schaeffer Center, in collaboration with the Evidence-Based Economics (EBE) doctoral program in Germany, has formed a visiting scholar program focused on health economics and healthcare systems research. The program, directed by Julie Zissimopoulos, Associate Director of the Schaeffer Center, accepted Ph.D. candidates Moritz Suppliet and Maximilane Hoerl, as the first cohort of visiting scholars.

**Maximilane Hoerl** is a second-year Ph.D. Student at the Seminar for Empirical Economic Research at the University of Munich in Germany. Maximilane's research interests lie in empirical economic research and especially in the area of health and education economics.

**Moritz Suppliet** is an Economics Ph.D. candidate at the Dusseldorf Institute for Competition Economics (DICE), Heinrich Heine University Dusseldorf (Germany). Moritz's research focuses on the interface of Empirical Industrial Organization, Health Economics, and Competition Economics.

"The Schaeffer Center is home to a prestigious faculty that focuses in their research on recent trends in health economics and policy. In particular, the mission to improve value in health through research based policy advice makes the Schaeffer Center an interesting institute for a visiting scholar."

### PH.D. IN HEALTH ECONOMICS

USC's Ph.D. program in Health Economics is housed at the Schaeffer Center. The program integrates the curricula from the departments of economics, preventive medicine and pharmaceutical economics and policy. Students receive training in microeconomics, econometrics, cost-effectiveness analysis, health economics, public finance, epidemiology and health status measurement. Graduates of this program are highly sought for their interdisciplinary background in theoretical and empirical research.

This program offers two distinct Ph.D. tracks:

- (1) Microeconomics:** students in microeconomics complete the microeconomic theory and economic sequence and take two advanced courses in health economics.
- (2) Pharmaceutical Economics and Policy:** Students in pharmaceutical economics and policy specialize in areas such as cost-effectiveness, comparative effectiveness and health outcomes research.

### POSTDOCTORAL SCHOLARS

The Schaeffer Center continues to grow its postdoctoral fellows program:

**Étienne Gaudette** joined the Schaeffer Center at the conclusion of his fellowship, as Director of USC's Roybal Center for Health Policy Simulation. Dr. Gaudette earned his Ph.D. in economics from the Université du Québec à Montréal (UQAM) in 2013. This past year he has presented at national and international conferences on the *Medical Innovation and the Changing Health and Health Care Costs of Obesity*.

"For me, the postdoctoral fellowship at the Schaeffer Center is an unparalleled opportunity to further my specialization in health economics and publish with acclaimed researchers. I view my time at the Center as the perfect stepping stone to a successful career in academia."



Maximilane Hoerl



Moritz Suppliet

**Maria Jose Prados** is a postdoctoral fellow who finished her Ph.D. in Economics at Columbia University in 2013. Before coming to the US, she studied Economics in Argentina, where she did postgraduate studies at Universidad Torcuato Di Tella. Her fields of specialization are Macroeconomics and Labor. Her current research focuses on the macroeconomic effects of different aspects of the health care system and the health care reform.

**Erin Trish** is a joint postdoctoral fellow at the Schaeffer Center and the Fielding School of Public Health at the University of California Los Angeles. She graduated from the Johns Hopkins Bloomberg School of Public Health in 2013 with a doctorate in Health Policy and Economics. Her research focuses on private health insurance markets in the US, including how the Affordable Care Act may affect how these markets function. In 2014, Erin published a paper in *Health Affairs* on “Specialty Drug Spending Trends Among Medicare And Medicare Advantage Enrollees, 2007-11” which was later highlighted by Deloitte. She has presented her work at multiple national venues.

**Bo Zhou** is one of the Center’s newest postdoctoral fellows. She graduated with a Ph.D. in economics from the University of Southern California in 2014. Before pursuing her Ph.D., she obtained her M.S. in physics at McMaster University in Canada. Dr. Zhou’s research focuses on health economics and econometrics. Dr. Zhou has presented at national and international conferences on decision-making in Medicare Part D and on a mixture model for stock prices.

**Jeremy Barofsky** also completed his postdoctoral fellowship this past year and accepted a job at the Brookings Institution as a Research Fellow.

#### SUMMER INTERNSHIP PROGRAM

The summer of 2014 marked the Schaeffer Center’s inaugural internship program, a highly-individualized program designed to offer students the opportunity to gain experience in health policy and economics. Housed at USC, students from a variety of backgrounds and educational experiences worked closely with faculty and staff over the course of a month.

This past year, eight interns at various stages of their academic careers participated in the program: three high school students, two undergraduate students, two graduate students, and a pre-doctoral student.



Eager high school, undergrad and graduate student interns, in the inaugural summer orientation.

#### Prestigious Annual Investigators Meeting Hosted by the Schaeffer Center

The Resource Center for Minority Aging Research (RCMAR) Annual Investigators Meeting brings together the best and latest findings in minority aging research from RCMAR Scholars across the nation.

This year, the Schaeffer Center and the UCLA Center for Health Policy Research partnered to host the two-day event which featured Leonard D. Schaeffer, Schaeffer Center Advisory Board Chair, and Woodrow Myers, CEO of Corizon Healthcare. The Schaeffer Center is on its fourth year of its NIH-funded training program, co-directed by **Julie Zissimopoulos** and **Dana Goldman**. Goldman and Zissimopoulos co-emceed the meeting to an audience of scientific researchers, community activists, senior faculty and RCMAR junior scholars. Through plenary presentations, breakout sessions, conversations with experts and networking and workgroup meetings, attendees began to bridge the research gaps between health economics and minority aging research, and initiated the infrastructure to support long-term mentoring relationships.

The all-day meeting was enhanced by two expert panel discussions led by members of the USC RCMAR Executive Committee Board: Eileen Crimmins, USC’s AARP Professor of Gerontology in the Davis School of Gerontology, and William Vega, USC’s Provost Professor of Social Work.

The Schaeffer Center’s scholars for 2014-2015 are:

- Jennifer Ailshire, Assistant Professor, USC School of Gerontology.
- Robynn Cox, Assistant Professor, Spelman College Department of Economics.
- Ryon Cobb, Postdoctoral Scholar, USC Roybal Institute on Aging.
- Karen Woo, Assistant Professor, USC Keck School of Medicine.



Schaeffer faculty Cohost 2014 RCMAR Annual Investigator Meeting – “Health Economics in Minority Aging Research”



(from l to r) Melinda Buntin, Woodrow Meyers, and Dana Goldman enjoy the event’s opening reception.

# Events

## American Society for Health Economics (ASHEcon)

June 22-25, 2014

The Schaeffer Center was selected to host The Fifth Biannual American Society for Health Economists (ASHEcon) conference, the premiere conference in health economics. Dedicated to promoting excellence in health economics research, ASHEcon is a professional organization that provides a forum for emerging ideas and empirical research results. ASHEcon aims to achieve widespread recognition for the field of health economics and to enhance individual and societal health by providing evidence and expertise for the development of private and public policies.

800 health economists from across the country attended the four-day event which included 16 concurrent daily sessions, plenaries, and poster sessions where over 900 papers were presented. The opening plenary featured Sarah Kliff, Peter Orszag, and Casey Mulligan discussing the Affordable Care Act. Session topics ranged from healthcare to cost-effectiveness, behavioral economics to Medicare Part D. Schaeffer Center faculty and staff contributed to 61 presentations throughout the conference.



The Leonard D. Schaeffer chairs with Leonard D. Schaeffer at the American Society for Health Economists conference (ASHEcon) (from l to r) Michael Chernew, Dana P. Goldman, Alice Rivlin, Leonard D. Schaeffer, and James Robinson.



Leonard D. Schaeffer speaks at an event discussing the *Impacts of the Affordable Care Act and the Future Direction of US Health Care*.



Sarah Kliff (center) moderates the opening plenary at ASHEcon with Casey Mulligan (l) and Peter R. Orszag (r).

## Congressional Diabetes Caucus: The Health and Economic Value of Comprehensive Diabetes Management

July 15, 2014

The Schaeffer Center co-hosted a congressional briefing in Washington D.C. focused on the value of economic and health outcomes through comprehensive diabetes management. The American Academy of Family Physicians co-hosted the briefing. New research by the Schaeffer Center was unveiled which focuses on the value of better prevention and diabetes management, including adherence to treatment and the effect of cost-sharing on adherence.

Schaeffer Center Director Dana Goldman spoke at the event. Other panelists included Griffin Rodgers, the Director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Judith Fradkin, the Director of NIDDK's Division of Diabetes, Endocrinology and Metabolic Diseases; and Julie Wood, the American Academy of Family Physicians' Vice President for Health of the Public and Interprofessional Activities. The information shared in this briefing helps congressional offices understand the changing diabetes care landscape and what role policymakers can have in the process.



(from l to r) Griffin Rodgers, Judith Fradkin, Julie Wood, and Dana Goldman at the Congressional Diabetes Caucus.



Dana Goldman (above) and John Romley (below) present at a Health Affairs joint event.



## Brookings Event – The Cost and Value of Biomedical Innovation: Implications for Health Policy

October 1, 2014

The Schaeffer Center partnered with The Brookings Institution's Engelberg Center for Health Care Reform to hold a half-day forum about the economic challenges that accompany breakthrough medical treatments, including cost-coverage and the financing of biomedical innovation.

Schaeffer Center Director **Dana Goldman** lead a panel discussion titled: "Are New Breakthrough Treatments worth their Price? Assessing the Social Costs and Benefits of Biomedical Innovation." Also featured was the panel discussion "What Can We Learn from Recent Hepatitis C Treatments? Understanding the Pricing Process and Spending Consequences for Breakthrough Therapies" with Schaeffer faculty **Darius Lakdawalla**. The forum took place at the Brookings Institution's Washington D.C. location and the event livestream broke Brookings' record for longest online viewer engagement of an event.

## Wall Street Comes to Washington

November 21, 2014

Schaeffer Center director of Public Policy, **Paul Ginsburg**, led a panel of bond and equity analysts in a wide-ranging discussion of the Affordable Care Act's impact on health care providers and insurers at the Annual Wall Street Comes to Washington Conference in Washington D.C., on November 21.

Ginsburg, who also holds the Norman Topping Chair at the Sol Price School of Public Policy, founded the conference almost 20 years ago to bridge the information gap between the policy world inside the Beltway and the world of Wall Street analysts. The panelists for this year's conference were Ralph Giacobbe, director at Credit Suisse; James LeBuhn, senior director at Fitch Ratings; Carl McDonald, director and senior analyst at Citi Investment Research; and Nick Leventis, a private investor.



Paul Ginsburg presents at the Wall Street Comes to Washington event.



David Leonhardt leads a Quintiles Seminar on The Paradox of 2014: The United States has never been more equal – or less equal. So what happens now?

## Quintiles Seminar Series

January – December, 2014

The biweekly Quintiles Seminar Series features prominent academics, researchers, policy makers, and industry leaders discussing timely themes in health policy and economics. The seminars provide topical and relevant presentations of the speakers' choosing and prioritize intimate discussions with the audience.

This past year's speakers have included academics such as Han Bleichrod, Ph.D., of the Erasmus School of Economics, Rotterdam; medical professionals such as Brennan Spiegel, M.D., of UCLA; regulators such as Ken Thomas, legislative attorney with the Congressional Research Service; journalists such as David Leonhardt, managing editor of The Upshot, of *The New York Times*; and industry leaders such as Bill Crown, Chief Scientific Officer of Optum Labs.

# Publications

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The new home of the **Schaeffer Center:**  
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# LEONARD D. SCHAEFFER, A THOUGHT LEADER IN END-OF-LIFE CARE

Leonard D. Schaeffer, Schaeffer Center Advisory Board Chair and professor at the University of Southern California, serves on the Institute of Medicine's Committee on Addressing End of Life Issues and leads the conversation around necessary reforms to the current end-of-life healthcare framework.

In September 2014, the panel released their report entitled, "Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life." The report highlighted the challenges of the fragmented and inefficient healthcare system that seriously ill patients must work within and called for leadership across the health care industry to engage in reform.

Consistent with the Schaeffer Center mission of achieving policy impact, the panel's findings have begun setting a policy agenda and attaining high visibility. Quoted in *The New York Times*, Schaeffer spoke to the need for policy changes that would shift the payment structure away from fee-for-service and towards quality and complete care. Writing in *The American Journal of Managed Care*, Schaeffer challenged physicians to take ownership for developing standards and organizational norms that prioritize patients' needs at the end of life, including integrating services and improving physician-patient communication.

The many stakeholders involved in the healthcare sector makes a paradigm shift seem unattainable. But, as the population continues to age, a restructuring of the end-of-life care system has never been more necessary.



**"...THE COMBINED WEIGHT OF PROVIDERS AND PAYERS (ESPECIALLY MEDICARE) CAN GO FAR IN INFLUENCING NOT JUST MEDICAL PRACTICE BUT CULTURAL NORMS."  
LEONARD D. SCHAEFFER IN AJMC**



## School of Pharmacy

Ranked by *U.S. News & World Report* as a top ten pharmacy school nationwide and #1 among private schools, the USC School of Pharmacy is recognized for its century-old reputation for innovation in pharmaceutical education, practice and research. The School uniquely spans the entire spectrum of pharmaceutical development and clinical care — from drug discovery to regulatory approaches that promote safety and innovation, from delivery of patient care services to evaluating the impact of care on patient outcomes and costs. With a history of "firsts" that includes the nation's first PharmD program (1950), first clinical clerkship program (1968), first Ph.D. in pharmaceutical economics (1990), and first professional doctorate in regulatory science (2008), the School holds an essential leadership role in the safe, efficient and optimal use of medication therapy that can save lives and improve the human condition.

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## Sol Price School of Public Policy

Since 1929, the USC Sol Price School of Public Policy has defined excellence and innovation in public affairs education. Ranked 6th nationwide among 266 schools of public affairs, the Price School is dedicated to teaching and research that advances society through better democratic governance, more effective social policy, and sustainable urban development. The school's faculty and 12 research centers tackle critical societal issues involving health policy and economics, collaborative governance, environment and sustainability, housing policy, nonprofits and philanthropy, mass emergencies and terrorism, economic development, inequality and equity, transportation, immigration, and globalization, among others. The school's graduates shape our world as leaders in government, nonprofit agencies, and the private sector. Through a time-honored commitment to public service, a legacy of strong connections to professional leaders, and a world-renowned research portfolio, the mission of the Price School is to improve the quality of life for people and their communities, here and abroad.

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