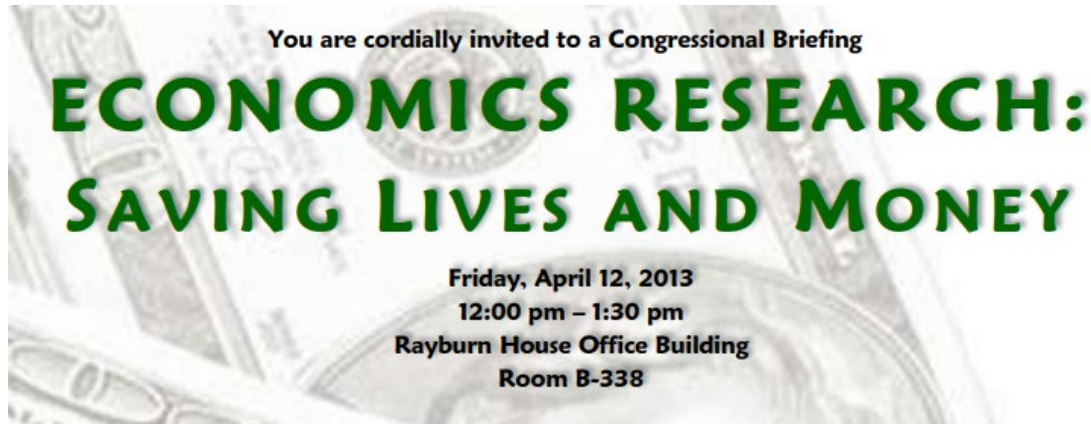


## 2013 Congressional Briefing on Health Economics Research



In 2012, Congress had questioned the value of providing federal funding to support economic research. On April 12, 2013, the American Economic Association held a briefing on the importance of health economics research supported by the National Institutes of Health in the Rayburn House Office Building, Room B-338. The briefing was co-sponsored by AcademyHealth, the Consortium of Social Science Associations, the Council of Professional Associations on Federal Statistics, the Population Association of America, and Research! America.

**Moderator:** Mark McClellan

**Speakers:**

Mark McClellan, Brookings Institution, ["The Contributions of Health Economics to Health in the United States"](#)

Alvin Roth, Stanford University, ["Improving Medical Markets: Kidney Exchange, and the Market for New Doctors"](#)

Kevin Volpp, University of Pennsylvania, ["Behavioral Economics and Health"](#)

Joseph Antos, American Enterprise Institute, "Health Economics Research: Informing Government Policy"

For more information see the [Contribution of Economics Research to the NIH Mission](#) and [Capitol Hill Briefing Discusses the Contributions of Economic Research to Health](#).

Dan Newlon, AEA's Director of Government Relations, wrote the following summary of the presentations.

### **McClellan on the Economics of Improving Population Health**

The panel was moderated by Mark McClellan, of the Brookings Institution and a former administrator for the Centers for Medicare and Medicaid Services, a former commissioner of the Food and Drug Administration, and a former member of the President's Council of Economic Advisers. According to McClellan, the United States leads the world in biomedical research, but economics research is needed to help these advances improve the health of Americans. He noted that health economics research improves health-related behaviors, improves health care delivery, improves our understanding of health care and scientific discovery, and helps create "big team" scientific research.

McClellan indicated that health is much more related to the choices people make about their behavior and their use of health care than medical treatments. He told the audience that the session will describe how economics research identifies innovative and effective policies for helping people make healthier choices. There is a growing health care delivery gap between what can be done and what is done. Economics research can reduce that gap. McClellan illustrated this point by describing how economic analysis of variations in mortality in different treatments of stroke patients improved treatments for strokes. He described how an economic study showed how competition among drug plans under Medicare Plan D significantly lowered the cost of pharmaceuticals.

McClellan explained how economic studies measure more precisely the payoffs and the costs of research. He presented the results of a study of the benefits from changes in technology that improved survival rates from common cancers. He described a recent study that tracked the monetary costs of dementia. This research, he declared, identifies opportunities for getting "more bang for the healthcare buck." He also provided examples of "big team" translational research in which economists work as part of interdisciplinary teams.

### **Nobel Winner Roth on Matching Markets**

Last year's Nobel Prize winner in Economic Sciences, Alvin Roth, Stanford University, distinguished between a commodity market in which the buyer decides what to buy and the more complicated "matching" markets in which you can't simply choose, but also have to be chosen, e.g., jobs, schools, organ transplants and spouses. Roth's Nobel prize-winning research on matching theory led to the creation of clearinghouses for kidney exchanges and improvements in the clearinghouses used to match medical residents with hospitals.

Roth noted that there is an acute and growing shortage of kidney transplants. Almost 100,000 patients are waiting for transplants. Only 15,000 transplants become available each year. A kidney exchange increases the number of transplants by allowing donors who are incompatible with their intended recipients to exchange kidneys with other donors. These exchanges faced legal hurdles that were overcome by amending the National Organ Transplant Act and a simultaneity problem. Kidney exchanges initially had to be simultaneous because potential donors could renege on the exchange if their loved one received a kidney first. This limited the number of kidney exchanges because of the difficulty and cost of simultaneously removing and transplanting kidneys in four patients. Economists, computer scientists and surgeons solved this problem by devising a regional

clearinghouse for non-simultaneous chains of kidney exchange. These chains have been as long as 60 people and resulted in 30 transplants. The next big challenge is to move from regional kidney exchanges to a national exchange and to figure out the optimum mix of patients who are difficult to transplant and those who are relatively easy.

Roth then discussed the National Resident Matching Program, a carefully designed labor market clearinghouse through which American doctors get their first jobs. Before this clearinghouse was established, U.S. medical markets were chaotic. Hospitals were offering jobs to students up to two years before they completed their medical degrees to get a jump on the competition. Roth was asked to redesign the National Resident Matching Program in 1995 because of declining rates of participation, particularly among a growing number of married couples. His hypothesis: a good clearinghouse produces stable outcomes. In the case of medical residencies, a match is stable if a doctor and a residency program are not matched to each other, but would prefer to be. He tested this hypothesis using laboratory experiment to study successful and unsuccessful medical clearinghouses. Those medical clearinghouses that adopted Roth's design are stable ones.

Roth's work is an example of basic scientific research on the characteristics of matching markets supported by the National Science Foundation (NSF) that paid off in unanticipated ways. He closed by noting the great admiration he found internationally for U.S. leadership in the social sciences and how it would be a mistake to turn away from the government programs at NSF and the National Institutes of Health (NIH) that have helped make these successes possible. He said he was frequently asked why the U.S. wins so many Nobel prizes and he credits the research support given to young scientists.

### **Volpp on Employer Incentives for Healthier Employees**

Kevin Volpp of the Wharton School at the University of Pennsylvania said employers report poor health habits as the top challenge to maintain affordable benefits. Employers, Volpp noted, are increasingly using incentives to drive better health behaviors with support from public policies that allow penalties and rewards to foster improvement. However, according to Volpp, these financial incentives alone are not effective. For example, a study of patients discharged after myocardial infarction found that only 39 percent of the patients under standard copay and 45 percent with free medication adhered to their medication. Volpp showed how medical adherence can dramatically increase if the incentives are designed to drive engagement by using insights from behavioral economics on how individual decisions are made. These include making rewards for beneficial behavior frequent and immediate, giving patients cash rather than giving them equivalent discounts on their health premiums, using lotteries for rewards, telling people what they would have won if they had been adherent, putting rewards at risk if behavior doesn't change, and taking advantage of the status quo bias.

Volpp described how long-term smoking cessation rates triple in incentive groups if financial payments are tied to cessation. Rates of non-adherence to warfarin, an anti-stroke medication with large benefits but high non-adherence rates, dropped from over 20 percent to less than 5 percent by using lottery-based incentives. Lotteries also proved effective in weight loss programs as did financial deposit contracts. People offered financial incentives to lose weight were five times more likely to reach their weight loss goal than those not offered any incentives. Competition between individuals also increased weight loss. Social incentives can augment the effectiveness of financial

incentives. In one study people with good control of their diabetes were paired with people who still had poor control and each pair was offered financial incentives for improved performance. This resulted in a huge improvement in the health of those with poor control.

Finally, Volpp explained how automated hovering systems utilize wireless technologies and advances in the understanding of behavioral economics to create new opportunities to improve population health. Under automated hovering, devices capture and transmit data about participant behavior to a program that calculates incentives, transmits communications to the participant, and transfers funds electronically to the participant. Automated hovering is being tested for glycemic control, smoking cessation, weight loss, and medication adherence. It is also used to test provider versus patient incentives. This approach, Volpp concluded, will help bring about significant opportunities for improvement in quality and cost of chronic care management using technology and strategies based on behavioral economics.

### **Antos on the Impact of Federally Funded Research on Policy**

Joseph Antos of the American Enterprise Institute (AEI) said there was a natural evolution from basic research to application, but it doesn't always work this way in practice because the information from the research doesn't reach key decision makers or decisions makers are not open to new ideas. A lot of work is necessary to facilitate and improve this process, Antos suggested. Before coming to AEI, Antos was Assistant Director for Health and Human Resources at the Congressional Budget Office, and he described the important role CBO plays in providing estimates of the costs and benefits of different health care policies. These estimates in turn depend critically on economic research on the behavior of individuals and businesses. Unfortunately, policy makers often want specific numbers and are uninterested in the range of uncertainty about the estimates.

Antos pointed out that economic research on health-care control is especially important now. If health-care costs continue to grow more rapidly than the GDP, health-care expenditures will put increasing pressure on other discretionary expenditures including government spending on biomedical research. He also argued, that there is a legitimate concern that research on cost control not provide justifications for health care rationing.

According to Antos, government funding for economic research is necessary because private sources have their own agendas. Profit-making businesses are interested only in research where they can capture the gains from the research. If the federal government does not fund this research, we cannot expect the private sector to pick up the slack, he asserted. It is, however, difficult to find the right balance between competing budget priorities among government agencies supporting health-related research in these times, Antos suggested.

In closing, Antos declared that the government also has a role in collecting important health-related data such as the Agency for Healthcare Research and Quality's Medical Expenditure Panel Survey. In this area of data collection, Antos indicated that we have a lot of information about patients, but not enough concerning the supply side of health care. Information is needed about how businesses act and the government is uniquely positioned to collect these data, he concluded.