National Institutes of Health Health Economics Common Fund Program

Health Care Delivery Evaluation and Demonstration Projects as Platforms for Economic Inquiry Webinar—May 25, 2011

Meeting Summary¹

INTRODUCTION AND BACKGROUND

The National Institutes of Health (NIH) Common Fund supports trans-NIH initiatives in important areas of scientific opportunity. The Health Economics Common Fund initiative is one of more than 20 such programs involving collaboration among multiple Institutes and Centers (ICs). It was launched after the President signed the Patient Protection and Affordable Care Act (PPACA) into law in March 2010 to address the evolving needs of the health care sector for economic research. In May 2010, the NIH convened a meeting on Health Economics Research Priorities for Health Care Reform that included leading economists, senior NIH leaders, and policy makers to discuss the current state of knowledge and identify promising areas of research. One theme that emerged was that NIH might have a role in the pilot and demonstration projects outlined in the PPACA.

These demonstrations, including those involving accountable care organizations (ACOs), shared savings programs, bundled global payment systems, and value-based purchasing programs are among myriad projects being conducted by federal and state governments, health plans, and providers, all with the focus of reducing health care costs while also improving health outcomes.

The purpose of the May 25 webinar was to bring together health care delivery innovators with economists, methodologists, and other scientific experts to explore how the research community might design and leverage investments in demonstration projects and other evaluations of strategies intended to improve health care value to enhance the science and knowledge they produce.

¹Members of the NIH Health Economics for Health Care Reform Working Group contributed substantively to the planning of this Webinar. This summary report was prepared by Chandra Keller-Allen, Rose Li and Associates, Inc., under contract to the National Institutes of Health (HHSN263200700991P). The statements, conclusions, and recommendations contained in this document reflect both individual and collective opinions of the meeting participants and are not intended to represent the official position of the National Institutes of Health, or the U.S. Department of Health and Human Services. Comments provided by David Clark, Nakela Cook, Sarah Duffy, Deborah Hirtz, Rose Li, Wendy Nilsen, James Schuttinga, and Tisha Wiley on earlier drafts of this report are gratefully acknowledged.

After welcome remarks from Dr. Sarah Q. Duffy (Division of Epidemiology, Services, and Prevention Research at the National Institute on Drug Abuse [NIDA]), the webinar featured two presentations. Dr. Ashish Jha (Harvard School of Public Health) presented on the Premier Hospital Quality Incentive Demonstration program and an analysis of the impact of pay-for-performance on hospitals that care for the poor. Dr. Timothy Lake (Mathematica Policy Research, Inc.) presented on a recent qualitative study on provider organizations' implementation of care delivery practices and interventions suitable for use in ACOs. These presentations were followed by a facilitated discussion among experts on the practical issues involved in this type of research, advances in research methods that might improve the ability to pursue this type of research, and high-priority research topics in economics that might be particularly suited to this type of investigation. Listening participants were able to submit questions and comments during the meeting through the webinar platform. A summary of highlights from the presentations and discussion follows.

IMPACT OF PAY-FOR-PERFORMANCE ON HOSPITALS THAT CARE FOR THE POOR² *Ashish K. Jha, MD, MPH, Harvard School of Public Health*

Dr. Jha stated that health care quality problems are ubiquitous; data suggest that hospital care is inadequate. There is dramatic variation in mortality rates for common conditions across hospitals, even when severity of illness is taken into account. Some studies suggest that one in ten patients will be injured during hospitalization. Furthermore, research reveals that the basics of hospital care are often inconsistently delivered. There have been different waves of policy responses to this evidence, including a new focus in the 1990s on the systematic measurement of quality and feedback, a focus in the early 2000s on public reporting of quality data, and, more recently, a push to link payments to doctors and hospitals to performance on quality measures (pay-for-performance).

Dr. Jha then reported on an evaluation he and his colleagues undertook of a pay-for-performance demonstration as part of the Centers for Medicare and Medicaid Services (CMS) Premier Hospital Quality Improvement Demonstration (HQID). The CMS Premier program, conducted from 2003 through 2009, is the largest pay-for-performance demonstration project focused on hospitals; of 421 hospitals invited to participate, 261 did. The program rewarded hospitals for performance on a series of process measures related to care for patients with acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia (Pna). Process measures included providing beta-blockers, antibiotics, or the pneumococcal vaccine to eligible patients in a timely manner. The program initially awarded bonuses to hospitals ranked in the top two deciles of performance and it imposed penalties for hospitals in the bottom deciles. The bonuses were relatively small: 1 to 2 percent of Medicare payments for all patients at the hospital with the given condition. The Premier hospitals were matched with a control group of hospitals that did not receive the incentives or penalties. All hospitals in both the control and

²Jha, A. K., Orav, E. J., & Epstein, A. M. (2010). The effect of financial incentives on hospitals that serve poor patients. *Annals of Internal Medicine*, *153*: 299-306. Retrieved June 21, 2011 from http://www.annals.org/content/153/5/299.full.pdf+html.

pay-for-performance groups were required to publicly report the process quality data throughout the study time period.

There have been widely articulated concerns that such pay-for-performance plans would have adverse effects on hospitals that serve a disproportionately high share of poor patients and that the incentives would actually increase the performance gap between wealthy and poor hospitals. Dr. Jha and his colleagues evaluated the impact of pay-for-performance on hospitals that care for the poor and, specifically, the effect of pay-for-performance on achievement and improvements in quality of care. The study used the Disproportionate Share Index (DSH), a federally defined measure used by CMS, to measure the relative wealth of hospitals. DSH is calculated using a combination of elderly patients receiving Supplemental Security Income (SSI) and non-elderly patients receiving Medicaid benefits. Baseline data indicate that poor-serving hospitals (high DSH) have statistically significantly worse performance on the process measures of interest than wealthy-serving hospitals (low DSH) across all three conditions (AMI, CHF, and Pna).

Standard summary scores (i.e., weighted averages of performance on individual process measures) indicated that for all three conditions, the poor-serving hospitals (high DSH) begin with lower performance scores than the wealthy-serving hospitals (low DSH), but under payfor-performance these gaps in scores are completely eliminated. Dr. Jha considered this to be helpful, though indirect, evidence that pay-for-performance programs do not widen the gap between wealthy-serving and poor-serving hospitals. Pay-for-performance is effective among high DSH hospitals and leads to more rapid improvements than what is seen with public reporting alone. Almost all of the benefit of the pay-for-performance program was experienced by the high DSH hospitals.

Dr. Jha noted the limitations of this evaluation: the focus on only three clinical conditions, the possibility that Premier hospitals are atypical, and the lack of outcome measures (e.g., readmission, mortality, and morbidity rates). Some preliminary work has indicated that there may not have been a significant impact on outcomes under pay-for-performance, which may suggest that the relatively modest incentives used in the Premier program, while effective in inducing compliance with well-defined concrete process indicators, may not be sufficient for changing complex care delivery systems to ultimately reduce mortality rates.

This research provides some insight into how pay-for-performance systems might work. They may not function as classic economic incentives in which a hospital might compare the cost of the behavior being incentivized (e.g., \$60,000) and the incentive being offered (e.g., \$80,000) and then decide to undergo the improvement because the benefit is larger than the cost. Rather, a pay-for-performance program may work more as a spotlight on a set of desired behaviors and a signal to hospitals that these behaviors are important, spurring them to make efforts in those areas. As pay-for-performance programs are implemented nationally, it will be important to see if the patterns observed in the Premier program generalize. Ongoing monitoring of pay-for-performance and value-based purchasing programs will be critical.

LESSONS FROM THE FIELD: MAKING ACCOUNTABLE CARE ORGANIZATIONS REAL³

Timothy K. Lake, PhD, Mathematica Policy Research, Inc.

Dr. Lake noted that the CMS recently released <u>proposed regulations for a Medicare ACO program</u> and is inviting comments (see <u>Press Release</u>). There has been conceptual work on defining an ACO and determining how ACOs should be organized to best promote efficiency of care and quality improvement. ACOs generally involve three types of activities for implementation: 1) payers develop new payment and performance measurement approaches that apply to a group of providers; 2) providers join or work together to share accountability for the cost and quality of a population of patients; and 3) providers change how care is delivered to improve quality, increase efficiency, and maximize payments. This study focused on the latter by examining organizational change among diverse provider organizations undergoing this type of transformation.

Dr. Lake and his colleagues conducted a qualitative study on ACOs sponsored by the National Institute of Health Care Reform by synthesizing findings from case studies on organizational change. The goal of the research was to look at how various types of health care organizations are undertaking internal organizational reforms, focusing both on care coordination improvements and investments in infrastructure to support such improvements. The qualitative design of the study allowed for a focus on the process of change that organizations took as they pursued reforms. The study used a purposeful sample of a variety of types of organizations identified as pursuing innovative reforms based on recommendations from key informants and web site and document reviews. The final sample included physician hospital organizations, independent practice associations, integrated delivery systems, and management services organizations of various structures and sizes. Seven organizations were represented: Billings Clinic, Carilion Clinic, Physicians Health Partners, ProHealth Physicians, Sharp Health Care, UniNet, and Westshore Family Medicine. Five respondents per organization were interviewed, including clinical or administrative leaders, practicing clinicians, and representatives from affiliated entities.

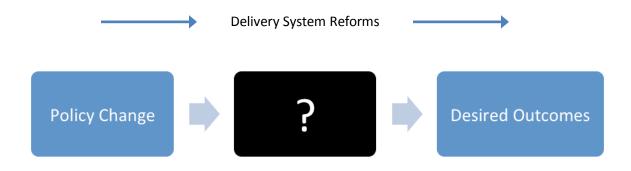
The respondent organizations were pursuing a variety of reforms including case management to reduce heart failure hospitalizations (Sharp Health Care); disease management for asthma and/or diabetes (UniNet and Westshore Family Medicine); and a cancer navigator program (Billings Clinic). Respondent organizations also were pursuing infrastructure improvements with the goal of supporting care delivery improvements including the implementation of electronic medical records and/or registries (Physicians Health Partners); performance measurement and feedback to clinicians (ProHealth Physicians); and changes in payment incentives related to a major restructuring from a hospital-led organization to a physician clinic model (Carilion Clinic). Several of the respondents were pursuing multiple reforms simultaneously.

³Lake, T. K., Stewart, K. A., & Ginsburg, P. B. (2011, January) Lessons from the field: Making accountable care organizations real. National Institute for Health Care Reform Research Brief, 2: 1-8. Retrieved June 21, 2011 from http://www.nihcr.org/Accountable-Care-Organizations.html.

Several types of challenges to pursuing change were reported across the organizations. In order to effect a broad change, these reforms require substantial investment of both financial and human resources. In the current predominantly fee-for-service system, providers typically lack incentives and funding to make the initial investment and to support the ongoing operations required to realize these kinds of reforms. For example, the Billings Clinic was not reimbursed for activities related to the cancer navigator program despite the benefits to patient care. Efforts generally must be funded through reserves or cross-subsidies from more profitable lines of business. Another major challenge is related to human factors. The changes associated with reform in terms of staffing, roles, and responsibilities often led to uncertainty and anxiety among employees. The third challenge most discussed by the organizations involved planning and communication needs. Respondents found that while there was a need for planning, and ambitious yet realistic schedules, there was also a need for flexibility to accommodate disruptions to workflow and resulting reductions in productivity, including those arising from unanticipated outside events. Clear and open communication within the organization about the reforms and changes was also considered essential. Other challenges mentioned included changing divisional roles within larger organizations, data limitations or quality issues, and legal concerns (e.g., privacy, anti-trust). Organizations reported a number of strategies for addressing these challenges, including enhancing leadership and communication, improving incentives, and providing technical assistance.

Dr. Lake identified several policy implications based on the findings of this study. There is a clear need to have flexibility in ACO policies and realistic time frames to accommodate the diversity of organizations pursuing reform. There is a dearth of literature indicating the kinds of reforms or collaborations that work best for specific kinds of organizations. The findings also point to the need to support leadership development, enhanced communication, and infrastructure development.

Moving forward, Dr. Lake considered the need to focus on the "black box" of organizational change. Identifying what exactly is happening within organizations in response to a policy change (e.g., ACOs, bundled payments) to effect desired outcomes will be critical. Qualitative studies can play an important role in helping to elucidate complex interrelated themes and hypotheses for future studies—providing insight into the "why" of outcomes—and the roles, perspectives, and challenges of people within organizations.



Broader studies of these issues, and the measurement of effects, require better data. Adequate organizational sample frames are generally not available, there is little nationwide data on the organizational features likely to matter, and the data that do exist are scattered among many sources. Additional challenges involve isolating the effects of reforms and determining generalizability of findings. For example, many health care organizations pursue multiple changes simultaneously. It also can be difficult to distinguish between effects of market trends and those from new policies.

FACILITATED DISCUSSION

Facilitator

Sarah Q. Duffy, PhD, Division of Epidemiology, Services, and Prevention Research, NIDA

Invited Discussants

Paul Fishman, PhD, Group Health Research Institute
Ashish K. Jha, MD, MPH, Harvard School of Public Health
Timothy K. Lake, PhD, Mathematica Policy Research
Ming Tai-Seale, PhD, MPH, Texas A&M and Palo Alto Medical Foundation

The facilitated discussion centered on several key questions pertaining to strengths and challenges of using demonstration projects, knowledge gaps, building research capacity, and the identification of types of studies or specific topics that could be investigated. Throughout the discussion, participants voiced specific suggestions of current and future research needs.

Advantages and Challenges of Demonstration Projects

Participants discussed a number of advantages and challenges to using demonstration projects as platforms for generating scientific evidence of an innovation's economic effects and/or for advancing the science of health economics. Finding the ideal platform to elicit robust high quality evidence that generalizes to a national sample using a randomized control trial design is not always feasible; thus, policy decisions often are made with less robust evidence. Economic research tied to demonstrations and evaluations, while potentially limited by selection effects, nevertheless can encourage the development of new study designs and yield valuable evidence that provides insights for policymakers. Participants appeared to agree that the benefits of this type of research—in terms of informing policy—outweigh any inherent limitations.

This type of research also affords an opportunity for studying organizational change. Of interest are questions about how organizations are changing, the most prevalent approaches to change, and how these approaches are related to quality and cost outcomes. This focus may encourage researchers comfortable with claims data (or other cleaner, more structured data) to embrace the onerous task of collecting organizational data such as was done in Lake's study. The result could be a richer data universe and a better understanding of what is happening at the organizational level, which could help triangulate what might be learned through quantitative inquiries. It will be important moving forward not just to identify features of hospitals that are

important, such as the DSH, but to identify the organizational features important to aggregate across smaller fragmented organizations. Linking these salient organizational features with more traditional data sources (e.g., claims data) will enable investigations of interest. Participants recognized that a variety of study designs are needed, and that cross-disciplinary collaboration, collaboration with a variety of stakeholders, and opportunities for rapid turnaround funding will strengthen this work.

Study Designs

Using demonstration and evaluation projects as platforms for economic research requires, in many cases, the use of quasi-experimental research designs and/or multiple methods, which may present a challenge for researchers, policy makers, and reviewers who consider randomized control trials to produce the most convincing evidence. Large randomized trials can be unrealistic due to the timeline and features of reform implementation. A challenge for quasi-experimental design may be to find other ways to evaluate the effects of a reform, such as convincing programs to conduct a staged roll-out of the changes so that, for at least short periods of time, the components of intervention can be isolated. Other possibilities include using statistical controls or using comparison groups to infer what would have happened in the absence of the intervention. Rigorous research designs need to be developed that enable researchers to capitalize on natural experiments occurring with numerous health care reform initiatives in order to advance the science and leverage existing efforts.

Collaboration

This type of work may require, or at least be strengthened by, multiple types of collaboration to create study designs that will yield valuable evidence that can inform policy. There are several ways in which collaboration is important. Economists and health scientists might collaborate with methodologists and researchers from other disciplines to improve complex research designs and develop quasi-experimental research designs (e.g., education, social work, engineering); with other health professionals who may hold different and valuable perspectives (e.g., doctors, nurses); with researchers in related areas (e.g., policy, behavioral economics, organizational psychology); and with a variety of stakeholders interested in health care reform and outcomes (e.g., business community, policy makers, providers, insurers, local governments, independent research organizations).

The <u>Clinical and Translational Science Award</u> (CTSA) program is an example of an NIH-supported initiative that promotes meaningful cross-disciplinary collaboration. The CTSA program supports a national consortium of medical research institutions that are transforming the way biomedical research is conducted. Its goals are to accelerate the translation of laboratory discoveries into treatments for patients, to engage communities in clinical research efforts, and to train a new generation of clinical and translational researchers. It offers opportunities and incentives for cross-disciplinary work and public-private partnerships.

Collaboration with multiple entities—independent research institutions, multiple levels of government, insurers and providers, nonprofit coalitions and advocacy groups like Pacific Business Group on Health or AcademyHealth—is important in conducting economic research as a part of demonstrations and evaluations. These projects have multiple stakeholders and will benefit from heightened cooperation throughout the process of designing, executing, and reporting on studies. Smaller markets may have an advantage in efforts to engage all the stakeholders in a region (e.g., Puget Sound Health Alliance). Research that can be done to inform these processes of collaboration for implementing health care reform would be useful.

Research Funding Mechanisms

It may be difficult to identify an appropriate funding mechanism for health economics research that builds upon demonstrations and evaluations, given the complexity of study designs and the time-sensitive nature of health care policy implementation. Provisions in PPACA are being implemented on a specific timeline that may not coalesce with the timeline for the traditional procedure for applying for funding at sponsoring agencies such as NIH. However, there is precedent at NIH for studying policy changes as they are happening. Several individual ICs have a time-sensitive funding mechanism procedure that permits an expedited review. The applicant needs to make a strong case for why the study needs to be completed quickly and submit a compelling application. The Health Economics Common Fund aims to strategically identify a small number of targeted topics not otherwise being addressed and fund them in sync with the PPACA timeline.

In addition to the timeline of research funding, there is a concern among investigators that these complex research designs may require a different type of review, as NIH reviewers may be accustomed to more traditional and straightforward clinical research. Observational research employs complex methods that may involve statistical controls and require drawing inferences from analyses. More effort may be needed to explain these types of observational research designs to colleagues who may be less familiar with them.

Most Pressing Knowledge Gaps

In terms of the most pressing knowledge gaps, participants identified the need to develop better tools to measure organizational change and the need to know much more about incentives. Currently available measures of organizational change are fairly blunt instruments. Especially given the dynamic environments within which changes take place, it is important to be able to more accurately define and quantify how these reforms are taking place within a variety of organizations and more completely understand the features of incentives that are effective in different situations for different entities. Research is needed to identify how much incentive is enough, how powerful the incentive should be, and how much money should be at stake and for what types of organizations to effect what kinds of change. The power of an incentive can be thought of as an amount of money at stake or upside versus downside risk (e.g., as in the Premier demonstration). Specific considerations include how different types of providers respond differentially to different types of incentives, the incentives needed to

induce the mix of quality versus cost desired, and the implicit incentives that already exist and how they shape current behavior. These will interact with explicit incentives provided through demonstration and evaluation projects. For example, in the current environment, a hospital might make a decision based on weighing the competing options of investing in nursing staff for patient care or investing a comparable amount of money in a new catheterization lab, which would generate millions of dollars in new revenue and increase capacity for procedures but not necessarily improve patient care or outcomes.

Leverage Existing Resources to Build Research Capacity

Participants cautioned against building specific research capacity (e.g. supporting a new research center or creating new institutional capacity) without certainty of funding for this type of research in the future. The return on investment may be low if research capacity is expanded but not utilized fully. Instead, participants encouraged the pursuit of goals to enhance existing capacity by building collaborations, synthesizing smaller projects, linking datasets, and tapping existing under-used sources of data.

Recommended ways to build research capacity that leverage current resources include training and mentoring for junior faculty in these areas (e.g., post-docs or fellowships in health policy, health services, or health systems for traditionally trained MDs and PhDs); supporting opportunities for cross-disciplinary collaboration and collaboration across organization types (e.g., academic institutions, provider organizations, research firms); and supporting opportunities to leverage existing data by conducting secondary analyses, linking existing datasets, and tapping data-rich sources that have been under-utilized (e.g., data collected by the CTSAs or the American Medical Group Association).

Types of Ancillary Projects That Could Be Conducted

There are several specific topics that could be studied now or in the near future, alongside demonstration projects and evaluations, without disrupting the main purpose of these activities. Participants recommended developing methods and measures to conduct and synthesize this type of research and identified a number of specific topics they believed deserve consideration.

Methods and Measures

The complex nature of these types of studies may require newly developed methods to maximize researchers' ability to provide evidence to inform policy. Multiple methods, quasi-experimental design, and qualitative research methods may need to be developed further to enhance the nation's capacity to study and attempt to isolate the effects of particular reforms (e.g., gathering and combining information from patients, secondary data sources, and organizational data). Studies to develop and validate better measures for research on organizational change and related constructs also will be helpful. Due to the nature and timing of implementation of multiple provisions, studies that involve simulation are another

possibility. A study that simulates how hospitals will respond to new types of payment arrangements in terms of undertaking care transition approaches to reduce readmissions would be helpful. Incentives can be examined through simulation prior to implementation.

Understanding the organizational change that results from health care reform will require enhanced capacity to examine the decision-making process. Providing evidence to decision-makers on how and when decisions are made, what actionable information is useful at what point, and how to discern useful evidence will be helpful as organizations move forward with implementation.

In addition to the large, federally organized demonstration and evaluation projects, there are multiple smaller initiatives occurring around the country (e.g., medical home, primary care redesign, hot spotting, and other efforts). These are diverse efforts among various types of organizations of different sizes, structures, timelines, and sources of funding, which may include formal evaluations. Efforts to collect information across multiple initiatives and synthesize or catalog data would be helpful. This could be done in two possible ways: 1) researchers could examine common datasets and common populations that are perhaps affected by multiple initiatives (e.g., Medicare). It may be a logistical challenge to access and collect claims or other patient data across multiple projects, but it would be a worthwhile project. 2) Common elements of smaller evaluations of projects could be synthesized in an attempt to draw broader conclusions. In general, projects that help to collate the knowledge base, including small and large demonstrations and initiatives, would be helpful to inform implementation efforts.

Specific Topics

The PPACA includes a wide variety of major policy interventions that will be rolled out on a particular timeline and with related demonstration and evaluation projects. Several of these projects have Congressionally-mandated evaluation components; however, often the evaluations are limited in scope and focus on process rather than outcomes. A potential role for NIH is to support evaluation research that will examine the effects of these interventions on the outcomes of interest (e.g., how organizations changed, how the market and individuals responded, the impact on costs and quality of care). While it is difficult to isolate the effect of any one policy or change, it is still possible to measure the effect to some extent. For example, in 2014, hospitals will be paid less when they have high readmission rates. There needs to be a programmatic evaluation to determine the impact of that change (e.g., who is penalized, does it lead to lower readmission rates, and are there unintended consequences in terms of longer length of stay in the hospital or access to care). The challenge for researchers will be to create study designs that sufficiently isolate effects for a particular program to be persuasive to policy makers.

Participants saw merit in conducting ancillary projects and/or enhanced evaluation studies in a number of health care reform areas. Specific programs or topics of study that are recommended for ancillary economic research or enhanced evaluation of outcomes include

health information technology (HIT) and the electronic health records (EHR) demonstration, pay-for-performance, value-based purchasing, ACOs, and primary care redesign. There are many opportunities to identify areas that are not included in the mandated process-oriented evaluations conducted through CMS, such as particular outcomes of interest or the impact of a program on health disparities. For example, whether the funds for HIT and the EHR demonstration lead to improvement of care in the health system is a high priority question, but may not be adequately addressed in the Congressionally-mandated evaluation. Another example is that while Dr. Jha's research evaluated the Premier pay-for-performance program in terms of its impact on poor-serving hospitals, the evaluation did not include an assessment of impact on disparities (i.e., there is more work that can be done).

Value-based purchasing (i.e., paying hospitals based on quality of care) will be implemented for the first time in the near future; studies should be in place to enhance mandated evaluations to assess whether this shift improves quality of care and reduces costs, who benefits, and the various responses to it. ACOs will be a voluntary program scheduled to start in 2012. There are several key empirical questions about ACOs that need to be answered so the challenges will be understood and they can be better designed from the start. Much of the preparatory work in developing the empirical basis for how these programs will function needs to be done before or in the early stages of implementation.

Many provider organizations are experimenting with primary care redesign, which could have implications for input costs and patient outcomes, and may be influenced as provisions of PPACA are implemented (e.g., the opportunity to organize as an ACO, shared savings programs). Examples include "hot spotting" (highlighted in a New Yorker article by Atul Gawande) and work by Arnold Milstein (Stanford) on ambulatory intensive care units. These types of projects are ongoing and present opportunities for evaluation and economic research.

CONCLUSION

The webinar concluded with remarks from NIH staff highlighting that most of the funding NIH provides is for investigator-initiated ideas. Members of the Health Economics Common Fund Working Group expressed their belief that the webinar successfully stimulated discussion among participants, and encouraged investigators to visit the Health Economics Common Fund website often to check for Funding Opportunity Announcements. They also stressed that anyone considering applying should contact one of the program officers affiliated with this Common Fund initiative for input prior to submission. Names of the Working Group members can be found at the Health Economics Common Fund website at https://commonfund.nih.gov/healtheconomics/.