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Summary of the Second Annual Empirical Health Law Conference
April 15, 2011

On April 15th, 2011, the O'Neill Institute for National and Global Health Law hosted the second annual Empirical Health Law Conference. O'Neill Faculty Director Lawrence Gostin and Professor Kathy Zeiler welcomed the attendees, stressing the importance of empirical work in guiding policy decisions. The presentations addressed a wide range of timely issues faced by health policy-makers including the unintended effects of hospital and physician payment incentives, the implementation challenges of bundled payment plans, whether existing domestic violence penalties are effective deterrents, the diffusion of high-cost medical technology, and the impact of tort reform on health care costs. The presenters and attendees represented diverse backgrounds—economics, law, medicine, and public policy. Each presentation was followed by a commentator and a question period.

The first two presentations explored the unintended consequences of hospital and physician payment models. Traditional reimbursement models, such as fee-for-service or length-of-stay payments, discourage cost containment and encourage unnecessary care. Accordingly, payers are increasingly redesigning financial incentives to reduce costs and improve quality of care. However, critics of pay-for-performance regimes argue that they exacerbate existing health disparities.

Hospitals serving large low-income populations have smaller financial reserves, due to lower reimbursement rates and the high costs associated with caring for a population with socioeconomic impediments. If limited resources render these hospitals unable to respond to financial incentives, they could lose revenue, further widening the gap between high and low income patients. Ashish Jha (Harvard School of Public Health) compared hospitals under a pay-for-performance scheme with a national sample of hospitals. Initially, the quality in these hospitals was inversely related to the proportion of low-income patients that hospital served (in both samples). However, his data indicated that by the end of three years, the quality of care in low-income hospitals with financial incentives caught up with the quality in hospitals with fewer low-income patients. Jha's results call into question the assumption that financial incentives widen health disparities, and suggest that hospitals with low-income patients will respond robustly to performance incentives.

At the provider level, critics of pay-for-performance regimes are concerned that providers will cream skim the wealthier patients, as low-income patients often have lower compliance rates (for example, failing to fill prescriptions due to their cost, or missing follow-up medical appointments due to an inability to miss work or difficulty taking public transportation to appointments). Laura Peterson (Baylor College of Medicine) addressed the impact of financial incentives in the primary care setting. Her research looked at African American patients with hypertension—the most significant contributor to racial differences in mortality. In this study, providers were financially rewarded for undertaking appropriate medication management, successfully managing blood pressure and, if the blood pressure was not managed, taking actions to remedy this problem. Her results indicated that pay-for-performance payment did not adversely affect minority patients (measured, for example, by the number of physician visits the patient had).

In their comments on the first two presentations, Wally Mullin (George Washington University Department of Economics) and Carole Roan Gresenz (RAND Corporation) highlighted a number of issues. They addressed study design (for example, whether providers knew the study focused on minority patients) and alternate explanations for the findings (for example, if the hospitals that opted into the voluntary pay-for-performance program were representative of hospitals generally, or whether the unique culture of the Veteran's Affairs impacted Peterson's study). These commentators also discussed the generalizability of the results (for example, both studies were limited to particular medical conditions), implementation issues (for example, determining the appropriate size of the financial incentive), and other unintended consequences of payment incentives (for example, providers scheduling more follow up visits in order to maximize the number of financial rewards they receive).

The third presenter, Peter Hussey (RAND Corporation), described a bundled payment pilot project. In contrast to the traditional methods of reimbursement, bundled payments include all of the costs for the care that a patient receives over a defined clinical episode (for example, a knee replacement surgery) or for a pre-determined period of management for a chronic condition (for example, the care provided to a diabetic over the course of a year). In the pilot project, payment bundles were divided into "typical costs" and "potentially avoidable costs", with the latter portion of the payment to decrease over time. Although bundled payments are in their infancy, they could have a number of advantages, such as promoting inter-professional collaboration or stimulating efforts to reduce avoidable complications, but disadvantages could include cream skimming or providers skimping on care to maximize profits. This study was a qualitative analysis of the implementation of the pilot project, obtained from contextual data, telephone interviews and site visits. The results highlighted a number of challenges that bundled payment schemes will have to surmount: questions over the evidence base for the "potentially avoidable" portion of services, difficulty defining the bundle of services, the need for electronic medical records, and the reluctance of payers to allocate shared savings (and the corresponding reluctance of providers to accept payment withholding).

In her comments, Kathy Zeiler (Georgetown University Law Center) commended this work a good preliminary step in exploring the implementation challenges of payment reform. However, she questioned the study's generalizability (it occurred in three sites, with each focusing on between two and five chronic conditions). She also raised questions about the underlying causes of stakeholder behavior (for example, are doctors' concerns with "avoidable costs" related to the scientific validity of the evidence, or are they using this concern to advance their bargaining position?). Zeiler used this example to emphasize the importance of grounding empirical studies in economic theory, arguing, for instance, that study results are more generalizable when one employs theory to predict behavior.

Domestic violence is a significant public health issue, in terms of the numbers of victims injured or killed, and in terms of the long-term physical and emotional effects on its victims and other family members. The economic costs of domestic violence—due to lost productivity and the cost of medical care—are also significant. Recognizing the magnitude of this issue, various states have implemented policies including mandatory arrests, minimum sentences, limits on the district attorney's discretion to drop cases, and specialty courts. In the fourth presentation, Frank Sloan (Duke University Department of Economics) addressed domestic violence conviction rates and recidivism. His research explores whether current penalties effectively deter and, if not, whether deterrence would be increased by either increasing existing penalties (fines and incarceration) or through alternatives such as substance abuse treatment. Sloan's data, obtained from the North Carolina Administrative Office of the Courts, showed very low conviction rates. For example, of those charged with most common felony charge, assault by strangulation, only 5% were convicted. The recidivism rate was also high, with 21.8% of convicted

offenders charged with another domestic violence offence in the subsequent two years. This combination of low penalties and high recidivism indicate that the current approach to domestic violence is failing to effectively deter prospective offenders. This conclusion is bolstered by Sloan's data, which found that recidivism was actually higher for those who had been incarcerated for a previous offense.

Nora Gordon (Georgetown University Public Policy Institute) commented on the importance of this work, as there is little empirical literature addressing domestic violence deterrence. She made suggestions for overcoming data limitations—for example addressing underreporting of domestic violence through hospital admissions data, which would capture the most serious unreported injuries. Gordon also discussed the methodological difficulties of studying domestic violence—for example the inability to randomly assign offenders to various penalty categories to overcome the effect of offender characteristics on the results.

The diffusion of high-cost, increasingly sophisticated medical technology presents a number of concerns for policy-makers. As medical need is not completely inelastic (particularly, for example, with diagnostic testing), a high concentration of technology could increase costs with a limited corresponding benefit for patients. In addition, high concentration could lead to lower quality of care, as evidence suggests that providers who do not perform specialized procedures with a certain level of frequency have inferior patient outcomes. The fifth presenter, Jill Horwitz, (University of Michigan Law School) presented evidence on the adoption of high-cost, specialized cardiac technology. Controlling for hospital characteristics, she found that the uptake of cardiac technology was more closely correlated with geography (whether a hospital's nearby competitors have the technology) than with medical need or other medical characteristics. Horwitz also discussed some of the comparative advantages and disadvantages of controlling technology diffusion by regulation, rather than through competition. For example, she highlighted the enforcement limits of Certificate of Need laws, and questioned whether these laws are effective in controlling medical costs, although she did acknowledge that they may improve quality.

In his comments, Ron Borzekowski (Federal Reserve Board) discussed a similar phenomenon observed in the context of social credit unions. He highlighted a number of variables which this study could explore, including who is responsible in a hospital for making the choice to adopt cardiac technology, the effects of managerial comfort (when managers see another facility successfully implementing a technology), the impact of regulatory differences, and the effect of reimbursement models on the uptake of technology. Borzekowski also raised models which may aid in the interpretation of study results, including the product diffusion curve and learning spillover.

Critics of the medical malpractice system argue that it imposes significant costs on the health care system, pointing to increasing medical malpractice premiums, large jury awards, and the unnecessary costs of defensive medicine. In order to contain the costs of the "malpractice crisis", legislatures have experimented with a variety of tort reforms. In the final session, Max Schanzenbach (Northwestern University Law School) presented evidence on the relationship between tort reforms and the costs of health care. This study uses health insurance plan premiums as an indicator of aggregate costs, on the assumption that to the extent that insurers pass on cost savings associated with reforms, premiums will reflect the impact of reforms. The data indicated that tort reforms reduced the premiums of employer-sponsored self-insured health plans by 2.1%. Caps on non-economic damages and collateral source rule modifications had the most robust effect on premiums. However, the data showed no reduction in premiums for fully-insured plans (almost exclusively HMOs) or self-insured

HMOs. Schanzenbach argued that this reflects the monitoring of medical practices by HMOs (including services undertaken primarily for defensive purposes). He concluded that HMOs reduce defensive medicine, regardless of the presence of tort reforms.

In his comments, Billy Jack (Georgetown University Department of Economics) highlighted a number of questions for future research. For example, he suggested that studies could explore the relationship between tort reform (and its affect on premiums) and insurance company profits, particularly in more concentrated markets. He also addressed causality, asking whether tort reform laws were passed in response to premium increases or whether they were meant to address the costs of defensive medicine.