In This Issue

DEPENDING ON ONE'S PERSPECTIVE, HEALTH CARE can appear to be rapidly changing or stubbornly resistant to change. Reflective policymakers, policy entrepreneurs, and leaders of health care organizations have occasion to consider how to make change happen, a question that also engages researchers.

This issue of the *Milbank Quarterly* begins with "Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations," by Trisha Greenhalgh, Glenn Robert, Fraser Macfarlane, Paul Bate, and Olivia Kyriakidou. They focus on methodologically rigorous studies of the adoption and spread of innovations in service delivery and organization that are "implemented by planned and coordinated actions." The article grew out of a project for the Department of Health in the United Kingdom that was aimed at informing the modernization agenda for the National Health Service.

Using a technique that they call "meta-narrative review," the authors describe the "storyline" of 11 research traditions, basing the article on almost 500 illustrative articles drawn from a review of more than 1,000 articles and book chapters. Organized around their own conceptual model of the determinants of the diffusion and implementation of innovations, their summary of findings relates to (1) the attributes of innovations that help explain adoption rates, (2) the characteristics of those who adopt innovations, (3) organizational factors that influence diffusion and dissemination, (4) system antecedents for innovation, (5) system readiness for innovation, (6) factors external to organizations that affect adoption, and (7) the implementation process. After concisely summarizing what is already known, the authors conclude by identifying topics that do and do not merit additional research.

The next article examines a specific instance of the diffusion problem regarding improvements in medical care. Amy Kilbourne and her colleagues focus on the failure of evidence-based treatment for depression to gain usage in the primary care context in the United States. There is considerable evidence that depression is common, associated with significant morbidity and lost productivity, and underdiagnosed and undertreated (Davidson and Meltzer-Brody 1999). It can also be

successfully treated using evidence-based protocols. In "Translating Evidence-Based Depression Management Services to Community-Based Primary Care Practices," Kilbourne and colleagues describe a treatment approach based on the Chronic Care Model (Wagner, Austin, and Von Korff 1996; Wagner et al. 2001) that is applicable to depression care in primary care settings. Using experiences derived from the Robert Wood Johnson Foundation's program on Depression in Primary Care, they discuss the barriers to the use of evidence-based primary care treatment, and they suggest organizational and financial policy changes needed to overcome those barriers.

In "Evidence-Based Medicine, Heterogeneity of Treatment Effects, and the Trouble with Averages," Richard Kravitz, Naihua Duan, and Joel Braslow offer some cautionary notes regarding the systematic application of scientific knowledge to clinical practice. They are specifically concerned about the heterogeneity of treatment effects that can result from differences among patients regarding health status, genetics, environmental factors, and preferences. These differences can affect patients' risk without treatment, responsiveness to particular treatments, and vulnerability to adverse effects.

The authors observe that even when a clinical trial uses an excellent experimental design, the sample may not be representative of the population to which the results will be applied, and thus the trial may have low external validity. When applied to clinical practice, the results may precipitate the overtreatment, undertreatment, or mistreatment of some patients. The authors recognize that evidence-based medicine is far preferable to decision making based on intuition or habit, but they argue that the heterogeneity of treatment effects should be taken seriously by clinicians, developers and users of practice guidelines, researchers, and regulatory agencies such as the U.S. Food and Drug Administration.

The workers' compensation system in the United States provides income to injured workers and pays medical providers. How does this system handle chronic disease resulting from occupational exposures? That is the subject of Paul Leigh and John Robbins's article, "Occupational Disease and Workers' Compensation: Coverage, Costs, and Consequences." They provide the first estimates of the numbers of deaths and the costs of occupational diseases that are and are not covered by the workers' compensation system.

The article provides information and a range of estimates regarding three topics. The first is the prevalence of chronic diseases that may result from occupational exposures. The three occupational diseases causing the greatest number of deaths (as many as 94,000 in 1999) are cancer, chronic respiratory disease, and circulatory disease. Second, they estimate the cost of health care and productivity losses attributable to occupational disease. Third, based on their own survey of state workers' compensation offices, they provide estimates of the extent (number of cases and deaths for which compensation was provided, as well as dollar costs) of workers' compensation for occupational diseases. The authors use these estimates to measure the extent to which victims of occupational disease receive benefits from the workers' compensation system. They estimate that workers' compensation misses from 91.1 to 99.9 percent of deaths and from 80 to 93.8 percent of medical costs.

These findings raise two policy concerns. First, workers' compensation insurance premiums that reflect little of the cost of occupational diseases may attenuate the incentives for employers to address the causes of such diseases. More disease may be the result. Second, much of the cost is shifted from workers' compensation to other payers. Leigh and Robbins also explore possible public policy solutions. They analyze policies that have been developed to address similar problems, including the Black Lung Trust, the nuclear weapons tests compensation programs, and the tobacco settlement. They also examine the issues raised by policies to address potentially fatal occupational diseases, considering federal versus state programs, tax or premium support, and integration with other sources of payment for medical care, such as Medicare. They conclude with the observation that theoretical solutions are much simpler than practical policy changes.

The final article in this issue analyzes the implementation of California's Proposition 36, which mandates that adults convicted of drug possession be offered treatment in lieu of incarceration. "Incorporating a Public Health Approach in Drug Law: Lessons from Local Expansion of Treatment Capacity and Access under California's Proposition 36," by Dorie Klein, Robin Miller, Amanda Noble, and Richard Speiglmán, is based on interviews with key informants in the criminal justice and drug treatment systems in eight counties. Many of the details concerning Proposition 36's implementation were decided at the county level. Klein and her colleagues describe the resulting variations

in decisions regarding the creation of treatment capacity and paths to treatment. The fact that Proposition 36 created many local programs both complicates and enriches the potential for drawing lessons from the California experience.

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