FROM THE EDITORS' DESK

Bending the Arc of the Health Care Universe Through Systems Improvement

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Earlier this year, at the 2012 Society of General Internal Medicine (SGIM) Annual Meeting in Orlando, past society President Steven Schroeder invoked the words of Martin Luther King, Jr., reminding attendees of the considerable progress that has been made toward achieving the American ideal of liberty and justice for all. Do not be disheartened, Schroeder intoned, for (quoting King) “The moral arc of the universe is long, but it bends towards justice.” Much needs to be done. But progress has been made, and sometimes only by looking back can we see how far we’ve come. (Schroeder’s speech is redacted as an editorial in this issue of *JGIM*.)¹ When it comes to the quality, safety, and value of care we provide to our patients, will future generations look back and conclude that the arc of the *health care* universe bends towards *improvement*? There seems little ostensible cause for optimism. Mortality and morbidity statistics place the United States in the middle of the pack of industrialized nations. Since release of the startling Institute of Medicine (IOM) report, “To Err is Human,” the number of Americans dying annually as a result of medical errors has doubled. And as everyone knows, costs have gone up. And yet there has been progress, much of it sustained by new insights into how health care systems actually work.

Robert F. Kennedy, a contemporary of King, famously declared: “There are those who look at things the way they are, and ask why... I dream of things that never were, and ask why not?” Both King and Kennedy were right that improvement in the human condition begins with a dream. But RFK may have discounted the value of being able to describe—richly and in painstaking detail—the world as it is. This approach is the calling card of the phenomenological school of qualitative research, but it is also the essence of engineering, which (as my statistician friend Naihua Duan has pointed out) begins with careful observation of what is known and what is needed, and then tinkers, tailors, and customizes until an intervention, organization, or

system is optimized under pragmatic constraints of time, materiel, and other resources.

In this issue of *JGIM*, five articles and an editorial take on the issue of systems improvement. **O’Malley et al.** surveyed primary care practices and affiliated after-hours care organizations in 16 states.² According to the IOM, primary care should be comprehensive, coordinated, and continuous, but most of all, accessible. However, previous work has shown that 24-h coverage is rare and that patients with after-hours problems often end up in the emergency department. In their survey, O’Malley and colleagues identified five basic models of after-hours care, ranging from 24-h self-coverage by modern-day Marcus Welby’s, to after-hours “carve-outs,” in which responsibility for triage and treatment is fully outsourced. Knowledge of the advantages and disadvantages of each model will be useful to managers and policymakers as they try to construct Accountable Care Organizations and other systems that are theoretically responsible for patients’ health and wellness around the clock, nights and weekends included.

In another paper highlighting systems problems and solutions, **Poon et al.** studied 56 closed malpractice claims involving delayed diagnosis of breast or colorectal cancer.³ Cognitive errors played a role in 95 %, but logistical errors (especially communication problems) were evident in 55 %. The authors suggest that a patient advocate could have averted the error in 48 % of cases.

As the poster child for complex organizations, academic medical centers have their own systems-based problems. Patients seen in resident clinics, for example, lose continuity with their primary care provider at least every 3 years. In an interesting case study, **Pincavage et al.** show how patients whose graduating third year residents sign them out to other (continuing) residents frequently fall through the cracks, either not seeing the assigned resident (44 %) or not seeing any resident at all (20 %).⁴ Finally, a pair of papers by **Fletcher et al.** and **Gonzalo et al.** show how difficult it is to balance quality of care, quality of education, and adherence to Accreditation Council for Graduate Medical Education (ACGME) duty-hours regulations.^{5,6} An accompanying editorial by **Wayne and Hauer** urges less attention to educational inputs such as work hours, and more to outputs such as competencies.⁷

These papers underscore the urgent need for systems-based solutions to systems-based problems. In this arena, there is a strong argument for rapid quality-improvement cycles tied to rigorous evaluation, so that unintended consequences are minimized. We need to bend the arc of the health care universe without breaking it. At the same time, we have to maintain faith in our capacity to repair the world. As Dr. Schroeder reminds us (quoting Carlyle): “Our main business is not to see what lies dimly at a distance, but to do what lies clearly at hand.”

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