Improving colorectal cancer screening through clinical systems redesign

The model for the delivery of ambulatory health care has remained fairly consistent throughout the 20th century. The current model was developed and organized around the diagnosis and treatment of acute conditions and symptoms. Hence, it is not optimal for the delivery of preventive services. The chronic care model has been proposed as an alternative framework to improve the delivery of both chronic disease management and preventive services by providing evidence-based, population-based, patient-centered care (1).

The interactions between patients and clinicians that are required for improving the delivery of preventive services are similar to those required for improving the management of chronic diseases. In the chronic care model, “productive interactions” lead to patients receiving interventions that are effective and patients and families receiving the information, behavioral support, and continuity of care that they need. Before these interactions can be productive, however, patients must be informed and “activated.” That is, they must be able to manage their health confidently and know how to use the health care system. Similarly, clinicians and their practice teams must be prepared and “proactive.” That is, they must have the information, resources, and time to provide interventions that are effective (1, 2).

The model is divided into community and health system interventions because social-environmental factors influence lifestyle. Community interventions include the use of resources to remove barriers that prevent members of the community from receiving preventive care and to influence the long-term success of preventive care programs by changing social-environmental factors. Health system interventions include several elements: 1) “self-management support,” helping patients understand that their participation is crucial in establishing attainable, worthwhile goals; 2) clinical information systems, which give members of the practice team access to patient-specific information; 3) “decision support,” or relevant clinical knowledge; 4) “delivery system design,” since a practice team must work within a system that is designed to improve, for example, the appointment system and the mechanisms for ensuring continuity of care; and 5) the support of the health care organization’s leadership (1, 2).

In the present study, Stroud and colleagues successfully utilized the principles of total quality management and the chronic care model framework to improve the colon cancer screening rates in their 8-physician group from 47% to 86%. They deserve to be commended for their efforts. As part of a plan, do, study, act cycle, they assessed data to identify opportunities for improvement, organized a multidisciplinary team, and reorganized their clinical practice to facilitate delivery of adult preventive services. Their success can be attributed not only to the vigor of a physician champion but also to their willingness to utilize health sys-

tem interventions consisting of self-management support, decision support, delivery system redesign, and leadership support.

Similar approaches can be utilized to improve the delivery of all adult preventive services. When the first author was practicing at Austin Medical Center-Mayo Health System in Austin, Minnesota, his group was able to deliver 94% of all eligible adult preventive services—namely, colorectal, breast, and cervical cancer screening; pneumococcal, influenza, and diphtheria-tetanus vaccinations; lipid and hypertension screening; and tobacco use screening and cessation advice—for a community of 22,000 patients (2).

Improving the delivery of preventive services is not only beneficial to the patients but can also be financially rewarding to the providers and health systems, as noted by Stroud and colleagues. We too have reported that even busy physicians can deliver high rates of eligible preventive services if they utilize protocols and involve their office staff in the assessment and delivery of adult preventive services (3).

Dr. Donald Berwick recently wrote of disseminating innovations in health care (4). He observed that even when an evidence-based innovation is implemented in one part of the hospital or clinic, it may spread slowly or not at all to other parts of the organization. Clearly, the challenge in front of Dr. Stroud and all of us is to disseminate our effective intervention strategies so that all Americans can receive all of the preventive services recommended by the US Preventive Services Task Force. Achieving that goal would create a win-win situation for all of us.

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