HEALTH POLICY

Academia, Chronic Care, and the Future of Primary Care

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Most proposals to reform health care delivery center on a robust, well-designed primary care sector capable of reducing the health and cost consequences of major chronic illnesses. Ironically, the intensified policy interest in primary care coincides with a steep decline in the proportion of medical students choosing primary care careers. Negativity stemming from the experience of trying to care for chronically ill patients with complex conditions in poorly designed, chaotic primary care teaching settings may be influencing trainees to choose other career paths. Redesigning teaching clinics so that they routinely provide high quality, well-organized chronic care would appear to be a critical early step in addressing the looming primary care workforce crisis. The Chronic Care Model provides a proven framework for such a redesign, and has been, with organizational support and effort, successfully implemented in academic settings.

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A robust, well-designed primary care system is central to most proposals to reform health care delivery and bend cost trends.¹ The emphasis on primary care reform and rejuvenation is based to a large degree on the assumption that effective primary care can reduce the health and cost consequences of chronic illness. Effective primary care provides critical opportunities for cost savings if it can reduce preventable emergency room visits and hospitalizations,² and recent evidence suggests that transformed primary care is capable of reducing costs through these mechanisms.³ Ironically, the intensified policy interest in primary care coincides with a decline in the proportion of medical students choosing careers in primary care. Many of the payment reform ideas being proposed benefit primary care providers in hopes that they will attract trainees back to primary care careers. Whether they will of course depends in part upon the extent to which income differentials and related financial concerns are driving medical students into other specialties.

At the closing session of the California Academic Chronic Care Collaborative (ACCC), a panel of residents from the participating sites was asked why medical students and residents were not choosing primary care careers. The residents expressed concern that many trainees lacked confidence in their ability to deliver high quality care to complex, chronically ill patients, and didn't want to face a career where they couldn't succeed. The residents attributed the self-doubt to clinical experience in hectic, poorly organized teaching clinics. This observation has been made before. Keirns and Bosk state that:

“many residents leave training with the experience of attempting to be an adequate primary care physician and failing.”⁴

The American College of Physician's Education Committee put it this way:

“Since ambulatory training experiences frequently take place in teaching clinics with many dysfunctional components, trainees are immersed in frustrating practice models that discourage rather than excite them.”⁵

Senior leaders of the Association of American Medical Colleges argue:

“During the time they spend in outpatient care settings, few students (or residents) have the opportunity to observe the provision of optimal care for patients with chronic diseases . . . as a consequence, we believe that the clerkships discourage many students from pursuing residency training in a primary care specialty, because they are concerned that they will not be adequately prepared to meet the responsibilities of such a practice.”⁶

The limited evidence available on the clinical care provided by primary care teaching clinics suggests that quality of care in academic clinics is mediocre at best.⁷

What needs to be done? If these observations are correct, then trainees urgently need to have patient care experiences in well functioning primary care settings that provide high quality care to chronically ill patients. Considerable evidence has accrued over the past few decades about interventions that improve the quality of care and outcomes for

patients with a variety of chronic diseases including psychiatric disorders. The successful interventions generally include activities directed at one or more of the following:

- Helping clinicians adhere to evidence-based recommendations;
- Helping patients become better informed and more competent self-managers of their health and illnesses through effective counseling and use of community resources;
- Increasing the involvement of non-physician practice team members in the clinical management of patients;
- Planning and organizing patient interactions and follow-up care so that patient needs and clinical targets are met; and
- Using clinical information systems to plan care for individual patients and populations of patients, provide decision support, and monitor performance.

Interventions in these areas would appear to be complementary, and some evidence indicates that multi-component practice changes result in greater care improvement.^{8,9}

Based on this evidence, and the probable synergy of combining successful interventions, we developed the Chronic Care Model (CCM) as a guide to healthcare organizations wishing to improve their care of the chronically ill.^{10,11}

The CCM recommends changes to the organization and delivery of care in six categories in order to improve health outcomes. Four of the categories: self-management support, delivery system design, decision support and clinical information systems—encompass the successful interventions outlined above. Two additional elements, health care organization and community resources, reflect the fact that practices have relationships to larger healthcare organizations and community resources that can support and enhance high quality chronic illness care.

The six elements of the CCM have been described in detail elsewhere.^{12,13} To improve outcomes, the CCM posits that a well organized delivery system assures that chronically ill patients routinely receive evidence-based clinical and supportive therapy, effective self-management support, and systematic follow-up tailored to their needs. They do so by developing effective practice teams that are trained and organized to provide the following key functions: population management, planned care, self-management support, medication management, and follow-up. High quality chronic illness care entails more than just providing high quality care to those patients coming in for visits; it also means regularly reviewing key clinical data on one's practice population or subgroups within it to evaluate the quality of their care, and identify patients needing more attention. Population management also means having the capacity to reach out to those patients needing care. Planned care involves the use of patient data from a registry and/or EMR and guidelines to prepare for interactions with patients. Such interactions can be initiated by the practice as a consequence of population management, or initiated by the patient. To plan care for patient-initiated visits, many high performing delivery systems now hold brief meetings or huddles before clinic sessions to make certain that gaps in care are identified and eliminated. Effective self-management support encourages patient involvement in the identification of behavioral or other problems to be addressed, the setting of realistic goals, and the development of plans to tackle the

problems. Increasingly, nurses, medical assistants, or others on a practice team receive training in counseling strategies (e.g., motivational interviewing), and interact regularly with chronically ill patients at visits or by telephone.

Inappropriate management of medications is a major reason for failure to control chronic illnesses. Research has documented the importance of clinical inertia—the failure to intensify treatment when evidence-based goals have not been reached.^{14,15} Stepping up therapy requires careful monitoring of target parameters, relatively frequent patient contact, and scrupulous adherence to stepped-care protocols. This is difficult to accomplish if the process depends upon face-to-face physician visits. Practice-based care managers can effectively monitor patients and use evidence-based protocols to safely help patients reach therapeutic targets.¹⁶ Careful follow-up tailored to the clinical severity and other needs of patients is central to effective chronic disease management. As with medication management, non-physician team members using standardized assessment tools, protocols, and electronic communication with patients greatly expand a practice's capacity to monitor patients over time.

The CCM has influenced chronic disease improvement efforts in many American and international health care systems. It is an integral part of the patient-centered medical home (PCMH) model proposed by the primary care professional societies,¹⁷ which is now the focus of a major CMS demonstration. Considerable evidence from clinical trials, observational studies, and quality improvement evaluations supports the health benefits of implementing the CCM to patients with major chronic diseases.^{2,13}

But will working in a better organized clinical setting that achieves better patient outcomes for chronically ill patients make primary careers more attractive? Anecdotes from non-academic providers who have implemented the CCM or PCMH suggest that the career satisfaction of both clinicians and non-clinician staff improves when practices become better organized, involve the practice team more heavily in patient care, and begin to see clinical performance improve. But more rigorous data have been lacking. Johnson et al. in this issue of JGIM used an innovative data collection strategy to collect the reported chronic care experiences of clinical staff in ACCC sites.¹⁸ They then compared the major themes in the staff reports from sites that made good progress in implementing the CCM with sites that did not. Staff from successful sites more often reported experiences indicating satisfaction or joy with their clinical work, while staff from low performing sites more often reported frustration with their job and their work environment. Several residency training programs involved in the ACCC—two described in this JGIM supplement—successfully implemented the CCM and reported improvements in care and resident satisfaction with their ambulatory care experience.¹⁹⁻²²

But, implementing the CCM requires significant investments in time and infrastructure, and wrenching cultural and system change for most practices.^{13,23} The additional barriers to transformation faced by academic teaching practices mentioned in several papers in this issue appear to be especially daunting. Our experience in the ACCC suggests that there are talented faculty, residents, and other staff in many medical schools ready to take on the task, but they need resources and support. Without wholehearted commitment to and investment in primary care from deans, department chairs, and academic center administrators, it is difficult to

see how primary care faculty will get the time and resources needed to create ambulatory training experiences that deliver high quality, efficient care and that excite trainees ultimately to pursue careers in primary care.

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