gests that EHRs are quickly becoming a reality in our teaching practices. While we have benefited from the start-up capital and technologic expertise offered by our large, affiliated health science centers, we are also struggling with the challenges of slow implementation and lack of incorporation of important items such as decision support, registry use, quality indicator reporting, and electronic communication that are hallmarks of the Future of Family Medicine report.

Our departments must take an active role in the redesign of our teaching practices to be patient-centered medical homes (PC-MH), maximally utilizing available technology to aid in this journey. Our parent health systems may not share this vision, and thus, may not be responsive to our needs and requests. Hiring or training faculty members who are technologically savvy will help develop the internal expertise we need to modify our EHRs for more rapid improvement efforts. We must also be strong advocates for, and demonstrate the effectiveness of, a well-designed ambulatory EHR in helping us provide higher quality care at a lower cost to the patient and the health system. This initially may require creating or purchasing our own "add-ons", such as disease registries or secure practice Web sites for e-visits. Ultimately, playing a central leadership role in system-wide EHR implementation or revisions will likely to produce substantially better, and more sustainable, results. Much education remains to be done, and there is a compelling need for us to find ways to sell this vision to our health systems, lest we lose the opportunity to truly model patient-centered practice to our learners.

Elizabeth Baxley, MD, Thomas Campbell, MD and the Association of Departments of Family Medicine

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From the Association of Family Medicine Residency Directors

Ann Fam Med 2008;6:88-89. DOI: 10.1370/afm.809.

FRONTLINE: DIABETES—SUPPLEMENTING EDUCATION AND QUALITY IMPROVEMENT IN FAMILY MEDICINE RESIDENCY TRAINING

In 2004, Frontline: Diabetes was created by the Association of Family Medicine Residency Directors (AFMRD) with an unrestricted educational grant from Novo Nordisk, as an educational forum used to provide family medicine residents the opportunity to expand their knowledge and patient care skills in the area of diabetes mellitus. This program combines resident education and educational research. Frontline: Diabetes is a project that offers residents a novel, integrated approach to the prevention and treatment of diabetes. Participants learn about current standards of diabetes care, nutritional counseling, educational needs, and relevant referral resources from a multidisciplinary team of family physicians, endocrinologists, dieticians, and certified diabetic educators.

To augment this educational experience, participants will be provided instruction regarding the principles of quality improvement and its integration into their medical practice. As an introduction to quality improvement, participants complete an online, interactive primer entitled, "Quality Improvement and Beyond: Achieving Excellence in Health Care."

In addition to attending workshops, residents are asked to participate in a research component of the project to determine the effectiveness of this educational format. Participating residents complete pre- and post-tests as well as conduct a limited chart review using nationally recognized quality indictors of diabetes care before and after attending the workshop.

Since its introduction, 45 individual seminars have been conducted throughout the United States with over 1,811 family medicine residents from 290 different residency programs participating. Overall, the impact of this educational endeavor on participants' knowledge base and practice patterns has been extremely positive. Based on the results to date, the average test score regarding knowledge base about diabetes mellitus has improved by 10% and an evaluation of quality indicators has demonstrated an average improvement of 33% following participation in a workshop. Furthermore, the residents have reported an extremely high level of satisfaction with this program.

The Frontline: Diabetes project can assist family medicine program directors as they incorporate the core competencies of the Accreditation Council for Graduate Medical Education into their residency programs. Besides the acquisition of medical knowledge regarding diabetes mellitus, residents will participate in activities that promote practice-based learning and improvement and system-based learning.

Based upon the preliminary results and the feedback provided by participating family medicine residents, the Frontline: Diabetes project has been a very successful educational program that is significantly impacting a common health care issue.

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Ann Fam Med 2008;6:89-90. DOI: 10.1370/afm. 810.

MAPPING THE FUTURE OF PRIMARY HEALTHCARE RESEARCH IN CANADA

The Issue

Family medicine and primary healthcare research in Canada has long been fragmented, under-appreciated, and under-funded. In contrast to the major primary care reform initiatives unfolding across the country, there has been no commensurate effort to build a knowledge base to support the nature and direction of these reforms. How do electronic health records change practice? How can they be harnessed to improve care? What are the effects of working in teams or of blended capitation instead of fee-for-service reimbursement? Does governance of teams matter? How much new after-hours care is there and what is its impact? Are all these reforms helping to attract and retain physicians in primary care careers? The answer to these questions? We don't know and we have no plan to find out.

How Did We Get Here?

The current level of reform efforts across Canada is unprecedented. Although new models of care are rolling out differently across the country, they all seek to improve access to primary care and they all look to a combination of improved after-hours access, team-based models, new technology, and changes in how physicians are paid. Little is known from other countries about the effects of these innovations, especially whether they result in better patient outcomes. Family medicine has historic strengths in education, especially resident training and continuing professional development, dating at least back to the foundation of the College of Family Physicians of Canada (CFPC) in 1954. Family Medicine research has been a more recent development, at first involving the highly motivated and self-taught, and more recently a cadre of graduate-trained physicians and non-physicians mostly in our academic departments. Nowhere in our country has there been a coordinated plan to build capacity for family medicine or primary healthcare research. Most disappointingly, the formation of the Canadian Institutes for Health Research (CIHR) did not result in an institute for primary healthcare research, nor was there a single special call for primary healthcare grants, teams, research training, or career support during its first 6 years of operation. A large investment in primary healthcare reform, Health Canada's Primary Health Care Transition Fund (PHCTF), ended in 2006, resulting in the formation but later rapid dissolution of research teams. Finally, there is no forum through which researchers in different disciplines and policymakers can even carry on a discussion about what is needed to move primary healthcare research forward.

What Can We Do About It?

One federal agency, the Canadian Health Services Research Foundation (CHSRF), has included primary healthcare research among its priorities. This same agency recently commissioned a report entitled "Mapping the Future of Primary Healthcare Research" which documented the challenges facing primary healthcare research, especially as the PHCTF funding ended. Led by Dr Grant Russell, it found a lack of support for knowledge generation due to the absence of dedicated funding support for primary healthcare research and career development. It found further problems with the availability of and access to relevant data sources. The report documented major initiatives to build primary healthcare research capacity in other jurisdictions including Australia and the United Kingdom. It made 2 key recommendations: the formation of a national coordinating body for primary healthcare research; and targeted research funding for primary healthcare-specific operating grants, research teams and personnel support. The national coordinating body would help to overcome the fragmentation of primary healthcare research in Canada. It would be broadly representative of researchers, disciplines, funders and policymakers and would develop a research strategy