Health information technology (IT) has been championed as a way to improve and expand patient communication with the health care team, reduce medical errors, create disease registries, improve provider coordination, empower self-management behaviors, and improve both the quality and efficiency of care.\(^1\)\(^2\) However, as family medicine educators, we must consider two important questions. Is health IT delivering what it promises for practice improvement? And how well are we educating our learners about the use of health IT innovations?

This issue of *Family Medicine* is dedicated to research about health IT. It explores the perils, pitfalls, and triumphs associated with health IT implementation and with teaching our learners to use new health IT tools. We are exploring new territory as we learn about and use health IT innovations. However, many of these new technologies are understudied and can lead to unintended consequences.\(^13\) We need to guide others into these new frontiers, while maintaining family medicine’s core values.

Health IT has certainly been heralded as a way to improve communication between the patient and the health care team. Two of this issue’s articles focus on teaching residents and medical students to communicate electronically with their patients. Heather Paladine, MD, and her colleagues tackled the problem of teaching resident physicians best practices for electronic communication with their patients. They developed a novel curriculum on electronic communication and distributed it online using the STFM Resource Library (www.fmdrl.org). They report the results of their pretest and posttest assessments of resident and faculty physicians at 16 family medicine residencies.

Amber Barnhart, MD, and colleagues also tackled the problem of teaching best practices for electronic communication with patients but at the medical student level. They also developed a curriculum based on best practice guidelines. They sent weekly mock patient e-mails to medical students and graded their responses. They describe the curriculum and results of the final e-mail objective structured clinical exam in their article.

Electronic medical records (EMRs) have been promoted as a way to decrease medical errors. In a detailed analysis of results management and medical errors, Nancy Elder, MD, MSPH, and colleagues examined the handling of test results at eight family medicine offices. She examined the management of abnormal test results in these offices and contrasted the processes and results of those using paper records with those using an EMR.

The EMR may also increase physician efficiency and improve workflow. In an article examining documentation, Angela Davis, MD, and colleagues examined how a structured template might improve both the documentation and quality of asthma care. Customization of the EMR is an important process to improve this workflow. Shortening the time between the visit and documentation likely also improves accuracy. Kevin Bennett, PhD, and Christian Steen, MD, describe the effect of implementing structured templates on chart completion rates.

Perhaps nowhere is it more important to improve efficiency than for our residents, with the restriction of resident duty hours. Karl Kochendorfer, MD, and colleagues describe the development and perceived effects of an inpatient rounding report that pulls needed clinical information directly from the EMR. The family medicine and internal medicine residents they surveyed believed the rounding report saved them an average of 44 minutes a day.

Electronic clinical decision support at the point of care is another promising way that we are using health IT to help us improve patient care. It is critical that these decision support tools be highly usable and well-integrated into clinician workflow.\(^14\) This is also true for student workflow. Scott Strayer, MD, MPH, and his colleagues compared a PDA-based tool to a paper tool, both designed to prompt medical students to counsel patients on smoking cessation. The authors used a randomized controlled trial design with a parallel qualitative analysis, a strong design that can yield valuable insights, especially when an intervention “fails.”

Implementing electronic innovations can certainly be tricky and produce both the intended results and some unexpected ones.\(^13\) R. Lamar Duffy, MD, describes the

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implementation timeline for electronic prescribing and its longitudinal results on telephone calls in a family medicine residency. This article will be a resource to anyone contemplating their own implementation of electronic prescribing.

Finally, William Ventres, MD, MA, provides a commentary on the effect of the EMR on the doctor-patient relationship. This commentary, reflecting on patient-centered care and the EMR, follows 4 years after Dr Ventres and colleagues’ ethnographic analysis of the patient, the doctor, and the EMR.15

After receiving the approval of *Family Medicine*’s editorial board in the spring of 2009, this dedicated issue on health IT was announced. Submissions for the issue were solicited from readers of *Family Medicine*, as well as listserves for NAPCRG and for STFM’s Group on Information Technology. Additionally, experts in the field were notified of the opportunity to submit a manuscript for consideration for the dedicated issue.

Each submitted manuscript was reviewed by two to three members of the *Family Medicine* Editorial Board in fall 2009. I would like to thank the Editorial Board members who each volunteered for up to five reviews over a 2-month period: William Grant, EdD; Andrea Wendling, MD; Diane Harper, MD, MPH; Gregory Herman, MD; Donald Nease, MD; Joseph Scherger, MD, MPH; William Ventres, MD, MA; and Lorraine Wallace, PhD. Additionally, Robin Kruse, MD, reviewed a number of manuscripts. I would also like to thank former *Family Medicine* Editor Barry Weiss, MD, who offered assistance and guidance in assembling this issue. Additionally, two previous dedicated issue editors, Arch “Chip” Mainous, PhD, and Jack Rodnick, MD, set inspiring examples of encouraging and selecting high-quality and interesting manuscripts for their dedicated issues on “The Process of Primary Care” (January 2004) and “Global Family Medicine Education” (October 2007).

We received and accepted more good manuscripts than could fit into a single issue of *Family Medicine*. So, in addition to this dedicated issue, you will see a continuing theme of health IT appearing in upcoming regular issues of the journal. If you enjoy this issue, keep reading, there are more to come!

Our authors are to be commended for collaborating with residents in their research. Adrienne Ables, PharmD, included Dr Davis and Matthew Cannon, DO, with Dr Davis as lead author. Dr Duffy included Shih Shen Angela Yiu, MD, and Robert Walker, MD. Dr Kochendorfer included Laura Morris, MD. Our authors also included students. Dr Strayer included then third-year medical students Salehin Rais and Jon Powell. Dr Elder included graduate student Timothy McEwen, MS. Mentoring the next generation of investigators is a priority for our discipline.

I hope you will enjoy this issue. Health IT systems and customizations can be costly and difficult to implement.16 17 We must continue to investigate whether they are delivering on their promise of improvement and to examine how these systems impact our learners and patients.

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