"who's who" in the department and the sponsoring organization. Include details of how to work with senior leadership, navigate internal politics and potential land mines, and understand faculty strengths and weaknesses.

AFMRD's motto is "transforming family medicine one leader at a time." Planning for transitions is a prime example of how this motto is role modeled by one generation of program directors to the next.

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References

- Adams T. Founder Transitions: Creating Good Endings and New Beginnings. Executive Monograph Series. Volume 3. Baltimore, MD: The Annie E. Casey Foundation; 2005.
- Cullison A. Bucket List: Planning for your Departure. Presentation. WWAMI Director Development. Dec 2010.



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HEALTH INFORMATION TECHNOLOGY RESEARCH PRESENTATIONS GROWING AT NAPCRG MEETINGS

Almost 15% of the presentations at the 2012 NAPCRG Annual Conference in New Orleans examined the use of health information technology (HIT). This is an increase from nearly 10% at the 2011 conference in Banff. The definition of HIT can be quite broad, but in general it is the use of electronic technologies to improve human health. Annual conference HIT presentations and posters included examinations of electronic health record (EHR) implementation, home tele-monitoring of clinical data, personal health record use, electronic clinical decision support, educational simulations, and use of electronic patient registry data. While the range of research is fairly broad, all explore how we can exploit recent technologic capabilities to improve health. Some investigators even found that these technologies, despite great promise, did not improve health compared to more conventional approaches that did not use new technologies.

What accounts for this growing interest in HIT

research among NAPCRG members? As primary care researchers, our focus on knowledge management is not new.^{1,2} This is an obvious direction for our inquiries because management of knowledge and information is so vitally important to primary care. Primary care clinicians routinely struggle to integrate all possible information to inform shared decision-making with their patients. Assimilating and processing this information is a Herculean task that frequently challenges or exceeds our cognitive capacities.

Many look to information technology to assist us with the important task of managing clinical information. Beasley and colleagues have defined "information chaos" as 5 types of information problems that primary care physicians routinely face: information overload, information underload, information scatter, information conflict, and erroneous information.³ This information chaos decreases clinician situational awareness and takes time to navigate, enabling loss of productivity, decreased patient access, physician burnout, and medical errors. Primary care clinicians are desperate for tools that will lighten this load, and this creates a research imperative to find and test new tools, interfaces, and ways to deliver care.

Much of HIT research is, in fact, implementation science. Researchers and clinicians are trying to use electronic tools to ensure that evidence-based interventions are successfully implemented to the fullest extent possible for patients and populations. As such, examination of the use of HIT in clinical care is a natural target for primary care researchers, who best understand the interface between clinical evidence and successful implementation of recommendations in clinical practice.

Another likely reason that HIT research is becoming more prevalent is that questions about the technologies we use arise so often in the everyday life of clinicians. The EHR has become such a huge factor in our work lives that it naturally provokes reactions and questions. Furthermore, these reactions and questions often center on less-than-expected EHR usability, and less-than-expected clinician satisfaction with many EHR systems.⁴ Frequently, EHR and personal health portal implementations do not go as well as expected,⁵ creating the perfect storm for the generation and examination of research questions: an unhappy clinician user with a passion to find an answer. That these implementations can dramatically affect productivity only heightens our interest. And so we are driven to examine the difference between the reality and the imagined concept, or even between what is and what should be. Our 2012 Annual Conference plenary speaker, Trisha Greenhalgh, and her colleagues, illuminated this "design-reality gap" in their description of abandonment of a personal electronic health record by the English National Health Service.⁶



We can expect a continued focus on HIT research as EHR adoption becomes more widespread and as new technologies and capabilities emerge. Certainly we can expect primary care researchers to continue to be at the vanguard of investigating how to use HIT to deliver better care.

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References

- 1. Covell DG, Uman GC, Manning PR. Information needs in office practice: are they being met? Ann Intern Med. 1985;103(4):596-599.
- Ely JW, Osheroff JA, Ebell MH, et al. Analysis of questions asked by family doctors regarding patient care. BMJ. 1999;319(7206):358-361.
- Beasley JW, Wetterneck TB, Temte J, et al. Information chaos in primary care: implications for physician performance and patient safety. J Am Board Fam Med. 2011;24(6):745-751.
- Edsall RL, Adler KG. The 2011 EHR User Satisfaction Survey: responses from 2,719 family physicians. *Fam Pract Manag.* 2011; 18(4):23-30.
- Wakefield DS, Mehr D, Keplinger L, et al. Issues and questions to consider in implementing secure electronic patient-provider web portal communications systems. *Int J Med Inform.* 2010;79(7):469-477.
- 6. Greenhalgh T, Hinder S, Stramer K, Bratan T, Russell J. Adoption, non-adoption, and abandonment of a personal electronic health record: case study of HealthSpace. *BMJ.* 2010;341:c5814.



Ann Fam Med 2013;11:184-185. doi:10.1370/afm.1526.

RADICAL PRIMARY CARE CHANGES NEEDED TO MEET COMING DEMAND FOR HEALTH CARE

In testimony recently submitted to the Senate's Health, Education, Labor and Pensions (HELP) Subcommittee on Health, the AAFP urged the public and private sectors to work on sustaining and strengthening the nation's primary care physician infrastructure. Policies and programs to support the practice of primary care and increase the supply of primary care physicians are needed, said the AAFP.

"Health delivery reform requires considering how our dysfunctional health care system can become one that serves the patient by coordinating care over time to prevent disease, managing chronic conditions, and providing immediate and targeted care for an acute condition when it arises," said the AAFP in written testimony. "The availability of an adequate primary care physician workforce is essential to achieving these aims." The AAFP identified specific steps the public and private sectors could take to increase the number of primary care physicians, and noted that the need to enact such policies is acute because the Patient Protection and Affordable Care Act will extend health care coverage to millions more individuals during the next few years.

The percentage of primary care physicians in the United States needs to increase from the current 32% of the physician workforce to at least 40%, said the AAFP. "Decreased medical student interest in primary care is caused by multiple factors, including heavy workload, insufficient reimbursement, the subtle persuasion in medical school away from primary care and a lack of strong primary care role models."

To help boost interest in primary care, the average income of physicians actually practicing primary care must increase to at least 70% of the median income of all physicians, an increase of about 20%, said the AAFP. "If primary care physicians are paid differently and better, in the context of the physician-led, patient-centered medical home (PCMH), costs should decline."

Medical schools and academic health centers also can take steps to help increase the primary care physician work force by

- increasing and sustaining the involvement of primary care physicians through all levels of medical training
- supporting primary care student interest groups
- recruiting, developing and supporting community physician faculty members; and
- reforming admission procedures to increase the number of students likely to go into primary care

These institutions also should require student participation in rural, underserved, and global health experiences and require block and longitudinal experiences that demonstrate the essential functions of primary care and the PCMH.

Federal and state governments can support an expansion in primary care by providing increased incentives for physicians who practice primary care or other critical specialties in designated health workforce shortage areas and by increasing funding for scholarship, loan, loan repayment, and tuition waiver programs to lower financial obligations for students who plan and pursue careers in primary care, said the AAFP. Primary care physicians should also receive preferential increases in fee-for-service payments for primary care.

In response to the testimony of the AAFP and other groups, the chair of the HELP Subcommittee on Primary Health and Aging issued a report that noted the growing shortage of primary care physicians has forced millions of Americans to seek care from emergency rooms and to delay or forgo needed care in

