Health informatics: our domain, our challenge

Douglas B Fridsma, MD, PhD, FACP, FACMI, President and CEO, AMIA

With November comes the AMIA Annual Symposium, a chance to reconnect with colleagues and friends and an opportunity to look back over the past year and see just how much progress has been made. It has been a remarkable year to be part of the informatics community. AMIA and our members have continued to make significant contributions to improving health and health care.

The appointment of Patricia Flatley Brennan, RN, PhD, FACMI, as the new National Library of Medicine (NLM) director marks a new era in the health informatics community. Under the leadership of the previous director, Donald A.B. Lindberg, MD, FACMI, the NLM was a longstanding advocate for biomedical informatics training and basic biomedical informatics research. In the era of precision medicine, data scientists, and widespread availability of electronic health records, the NLM now has an opportunity to reshape itself to address the new challenges facing health and health care. As a longstanding AMIA member, Dr. Brennan will be able to tap into the resources of the informatics community to support her new vision for the NLM.

The need for health informatics expertise has never been greater. While informatics professionals have always contributed to the development of health IT, the real driving force within health informatics is now the data. With the near ubiquitous adoption of electronic records and the availability of personal technology to track and collect health data, attention is rapidly shifting from a focus on implementing and managing information technology to a focus on the data that health IT collects and shares. In the next 10 years, the need for experts in informatics who understand how to collect, analyze, and use health and health care data will continue to grow exponentially.

We see this in the research activities of the precision medicine initiative, with its goal of recruiting a million-person cohort of patients interested in contributing their data to better understand how genetic and environmental factors affect the progression and treatment of disease. We see this at the policy level, with the Centers for Medicare and Medicaid Services changing the way health care in the United States is paid for. As more people move into alternative payment models, the difference between profit and loss will depend less on the accuracy of transactions and bills and more on the sophistication of data analytics to identify high-risk populations and evaluate cost-effective interventions. And we see this in the rest of the community, as patients have more access to their health information and use this to support patient-powered research and access to better care.

What is clear is that health informatics is becoming more central to the effective and safe delivery of health care, into improving and accelerating research activities. We have also noted that more organizations are using the term “health informatics” as a way of getting into this acceleration and increase recognition of health informatics. We in the informatics community must be vigilant. Our community has spent years establishing the science of health informatics, developing the clinical informatics subspecialty in medicine, and describing competencies for accreditation of training programs. Other organizations have attempted to redefine health informatics to reflect competencies in health information management, or health IT. It is up to us in the health informatics community to maintain the integrity of the science—the study and application of health informatics, both research and practice. We have done too much, and come too far, to cede this to other organizations that see the growing need for informatics only as another business opportunity. Health informatics is a legitimate professional field supported by a robust body of research, distinct from health information management and health IT. The informatics community has defined the field and, with input from informatics community leaders, will set the standard core competencies leading to future certification and accreditation guidelines.

Now that the accessibility of health information technology is ubiquitous, the sheer volume of data generated demands greater innovation and professional skill to optimize its use. In the next 10 years, the real innovation will occur in how we use that data and apply the knowledge gained from it to real-world health care problems. This is the challenge for the informatics community going forward, and I am optimistic that, as a community, we are up to the task.

The purpose of the Messages from AMIA section is to provide a forum for AMIA to inform and involve its current and potential members about the goals and the directions of the association. These messages, which reflect the directions and opinions of AMIA leaders only, are intended to inspire members and readers to connect with the association on strategic objectives and activities. See also http://www.amia.org/presidents-page.