

Redefining the Roles of Health Information Management Professionals in Health Information Technology

by Xiaoming Zeng, MD, PhD; Rebecca Reynolds, EdD, RHIA; and Marcia Sharp, MBA, RHIA

Health information technology (HIT) is being sought as one of the key elements to streamline the process of providing healthcare to improve quality and harness cost. It is hoped that HIT will lead to a more cost-efficient healthcare system than the current one. Surprisingly, there is no agreed definition of HIT in academic literature or government documentation. The Health Information Technology for Economic and Clinical Health (HITECH) Act (a provision of the American Recovery and Reinvestment Act of 2009 (ARRA)) defines health information technology as “hardware, software, integrated technologies or related licenses, intellectual property, upgrades, or packaged solutions sold as services that are designed for or support the use by health care entities or patients for the electronic creation, maintenance, access, or exchange of health information.” It could refer to a broad base of information technologies used in healthcare from robotics surgery to chronic disease home monitoring devices.¹ However, there is a consensus on the purpose of HIT as the use of devices for the management of information in order to ensure that it is available to the right person at the right time and place.²⁻⁴ HIT is the basis for a more patient-centered and evidence-based medicine with the real-time availability of high-quality information.^{5,6} Despite the various interpretations of the scope of HIT, all healthcare stakeholders agree that it is the premise on which a 21st-century healthcare system in the United States must be based.⁷ HIT experts concur that the U.S healthcare system must widely adopt interoperable electronic health records (EHRs) with important components such as computerized physician/provider order entry (CPOE) and e-prescriptions to build a cost-efficient healthcare system.⁸⁻¹¹

Health Information Management and Health Information Technology

The committee on professional development of AHIMA states that health information management (HIM) professionals are responsible for improving “the quality of healthcare by insuring that the best information is available for making any healthcare decision” by managing healthcare data and information resources.¹² The professionals can be in charge of the services in “planning, collecting, aggregating, analyzing, and disseminating individual patient and aggregate clinical data.”¹³ In summary, HIM professionals are conventionally the business managers and custodians of data and information in healthcare.

An information system consists of four interrelated components—data, information technology, process, and users.¹⁴ HIM professionals' traditional job roles make them the experts in managing data and processes in an information system. With the digitizing of information systems in healthcare organizations, the roles of HIM professionals have expanded into information technology (IT) and user support, which usually are the functions of IT supporting services. HIM professionals' training and experience in the intersection of clinical and management sciences as well as their knowledge about data quality equip them with the capability to maintain the integrity and accessibility of health information, although they may not necessarily have the particular skills to support technical operations of a health information system. For example, HIM educational programs usually do not provide courses in computer science theories such as algorithms or formal methods.¹⁵

In a recent issue of the *Journal of AHIMA*, a practice brief defined the common ground between HIM and HIT in an electronic healthcare environment. The delineating line between traditional HIM and HIT professionals has been blurred by the convergence of their functions and reporting structures in the electronic healthcare environment. Three areas of expertise have become the point of the convergence: 1) maintaining confidentiality and security of patient information, 2) using and maintaining data and information, and 3) terminology asset management.¹⁶

Due to the convergence of the functions between HIM and HIT, professionals from both groups can work together to take a wide range of roles in the electronic healthcare environment. Acker, Adair, and Sweeny list job titles for the merging roles of HIM and HIT.¹⁷ These roles include joint educator or trainer, project manager, work flow analyst for clinical systems, privacy and security officer, EHR program manager, and data management and analytics professional. The authors claim that HIM professionals are no longer found exclusively in the record room as more HIM professionals step up to take information resource management roles in an electronic healthcare environment.¹⁸

The healthcare industry is undertaking a structural change by aligning HIT with the delivery of care to improve quality, control costs, and enhance the efficiency of the system. The strategy is to build a national health information infrastructure that allows health information to be shared between providers, consumers, and payers in a patient-centric manner. The infrastructure change is taking place on three frontiers. First, providers are incentivized to use electronic health records in both inpatient and ambulatory medical practices. Second, local and nationwide health information exchange (HIE) systems are being built for providers, payers, and other health information users to access real-time health information of patients. Third, consumers are being encouraged to adopt personal health records (PHRs) as a tool to manage their longitudinal personal health information and easily share it with their providers and/or others involved in their care.¹⁹

Because HIM professionals are accountable for the quality, availability, and timeliness of health information, they have natural roles in the current policy and practice changes on these three frontiers. AHIMA has long recognized the importance of HIM professionals' practicing in an electronic environment by defining the concept of electronic health information management (e-HIM) as one of AHIMA's areas of strategic focus. The goals of e-HIM are threefold: 1) to promote the migration from paper to an electronic health record information structure, 2) to

reinvent how institutional and personal health information and medical records are managed, and 3) to deliver measurable cost and quality results from improved information management.^{20, 21} The AHIMA task force on e-HIM has published guidelines covering many facets of HIM practices in an EHR information infrastructure. Many of the guidelines are aligned with the national priorities of building the capacity of information management and sharing at various levels. For example, the practice guideline “Core Data Sets for the Physician Practice Electronic Health Record” clearly defines the importance of core data sets for the ambulatory environment.²² The article “HIM Principles in Health Information Exchange” offers justification for a list of best practice principles for health information exchange regionally.²³ “PHRs and Physician Practices” explains the importance of integrating PHRs into physician practices by allowing the physicians to manage the information on which they base decisions.²⁴ These guidelines provide domain-specific best-practice principles for HIM professionals to succeed in the transition to an electronic healthcare environment. However, many of the guidelines are just reactive or descriptive, defining the roles of HIM professionals in a wired environment. The roles of HIM professionals should be defined in a more proactive way based on HIT needs in the near future.

Strategic Roles of HIM Professionals for National Health Information Infrastructure

The Office of the National Coordinator (ONC) for Health Information Technology published a strategic plan to outline the roadmap for the federal government to strategically invest in HIT. Two goals were listed in the plan: patient-focused healthcare and population health. Four themes were proposed under these two goals: 1) privacy and security, 2) interoperability, 3) adoption, and 4) collaborative governance.²⁵ The discussion of the future roles of HIM in HIT will revolve around the four objectives defined by the ONC.

It is worth mentioning that the HITECH Act further expands the role of the ONC to develop a nationwide HIT infrastructure that allows for the electronic use and exchange of information. This infrastructure should specifically address 11 focus areas, and the national coordinator should lead policy and standards development in these areas where appropriate. The focus areas include

1. Ensuring that patient information is secure and protected;
2. Improving health care quality, reducing medical errors, reducing health disparities, and advancing delivery of patient-centered medical care;
3. Reducing healthcare costs resulting from inefficiency, medical errors, inappropriate care, duplicative care, and incomplete information;
4. Providing appropriate information to help guide medical decisions at the time and place of care;
5. Ensuring that meaningful public input is included in development of such infrastructure;
6. Improving the coordination of care and information among hospitals, laboratories, physician offices, and other entities for the secure and authorized exchange of healthcare information;
7. Improving public health activities and facilitating the early identification and rapid response to public health threats;
8. Facilitating health and clinical research and healthcare quality;
9. Promoting early detection, prevention, and management of chronic diseases;

10. Promoting a more effective marketplace, increased consumer choice, and improved outcomes in healthcare services; and
11. Improving efforts to reduce health disparities.

HIM Roles in Privacy and Security

HIM professionals must strengthen their roles in facilitating electronic exchange for access and use of health information while protecting the privacy and security of patients' health information. The HIM professional's evolving role as the data steward should be emphasized and expanded. The AHIMA position statement on data stewardship noted that the call for a stewardship entity by the Agency for Healthcare Research and Quality (AHRQ) suggested that there be an entity that establishes "principles and guidelines that ensure the uniform and consistent collection and exchange of data for quality measurement and other purposes."²⁶ The AHIMA position statement further outlines the need for development and implementation of standards for data content, data mapping, and documentation across the healthcare continuum.²⁷ This need is changing and expanding the traditional HIM role of records custodian to a global focus on balancing access, privacy, and security. At the population level, HIM professionals need to advance privacy and security policies, principles, procedures, and protections for information access and use in population health. For example, a patient's privacy can be breached when data are "mined" from several distinct databases containing deidentified patient data. Guidelines and policies are needed for HIM professionals to prevent this scenario from happening.

The success of the information infrastructure at the individual and population levels will enable information flow between different stakeholders in healthcare to maximize the utility of the information. However, such established infrastructure will need a large amount of trust from the users of the infrastructure (e.g., doctors, patients). The ONC plan suggests engaging all stakeholders, particularly consumers, in a coordinated effort to protect personal health information in order to promote public trust. The HITECH Act establishes the new position of chief privacy officer of the Office of the National Coordinator to advise the ONC on privacy, security, and data stewardship of electronic health information.

HIPAA, as a "first-line" federal regulation that defines the rules for health information privacy and security, mandates policies and guidelines to ensure the confidentiality, integrity, and accessibility of health information to providers and consumers. However, with the expansion of the domain of health information technology from EHRs to PHRs as well as HIE, gaps of information privacy and confidentiality have started to appear on the map of HIT. For example, because the content of PHRs is controlled by consumers themselves, who are not included in HIPAA's original definition of entities responsible for the privacy of patient information, individual patients are actually in a vulnerable position in regard to protecting their own privacy. A majority of consumers rank privacy and security as the most concerning reason for why they are not considering a PHR platform for personal health information management. On the other hand, the information shared within different HIE organizations may not be covered by HIPAA as well. Although there might be other federal laws that cover the domain of managing health information for consumers or exchanges, the definitions and applications of these laws are ambiguous to consumers.

Additionally, telemedicine technologies and technologies that provide home health monitoring of patients expand the landscape of privacy and security concerns. The potential for the use of new aging services technology to assist the aging and disabled population will continuously change the demands on HIM professionals to adapt privacy and security protections for patient information. Patient information is often collected off-site from the facility and electronically transmitted to the facility and incorporated into the facility EHR system. These changes in healthcare delivery challenge the HIM professional to adapt privacy and security policies and procedures to a rapidly changing healthcare system.

HIM professionals can adopt two strategies to overcome these challenges to the privacy and security of health information. First, HIM professionals should make certain that the practice of health information management complies with the federal laws that cover the various involved domains. Whenever they have a chance to participate in the design, development, or implementation of an information platform for managing and sharing health information, privacy and security should always be the top priority. Without such a mindset and persistence, privacy and security will be a second thought during the process of design and development. On the other hand, HIM professionals should act as educators to consumers by showing them the proper way to access their health information while also maintaining the confidentiality of their records. Consumers need to recognize the advantages of information security from the perspectives of authentication, authorization, and auditing in a digitized environment as compared to a paper environment. They need to understand there is always a tradeoff between confidentiality and accessibility. The essential requirement is that the information be kept integrated and made available to the right person in a timely manner for the purpose of providing care.

HIM Roles in Interoperability

Information interoperability enables the movement of electronic health information to where and when it is needed to support individual healthcare needs and population-oriented uses. Population-oriented uses include disaster management, bioterrorism surveillance, and community healthcare tracking. The key to achieving interoperability is to have various information systems use a common set of standards for data nomenclature, terminology, content, structure, and messaging of health information. There are currently several different approaches, such as regional health information organizations (RHIOs) or health data banks, to connect various healthcare organizations to share health information. Although AHIMA is not an organization that develops standards, the unique role of HIM professionals as the stewards of health data make them the natural choice for developing interoperability in healthcare. Because HIM professionals often are on the neutral side when different stakeholders are negotiating the framework of HIE, they can play the role of “broker” between different stakeholders. There are many examples of HIM professionals who have taken leadership roles or actively participate in building HIEs at a variety of levels.²⁸⁻³¹

HIM professionals should also become leaders in adopting health information standards for interoperability of health information. Currently a daunting task in front of HIM professionals, as well as other healthcare professionals, is the transition of the national health transaction code set from ICD-9 to ICD-10 over the next three years. Although the tremendous benefit that ICD-10 will bring is indisputable, the short transition period along with the fragmented nature of health information systems requires extreme caution during the implementation process. For example, moving to the next generation of HIPAA transaction (version 5010) is a prerequisite for the transition to ICD-10. Can we deal with two significant changes in a short three years? AHIMA

needs to closely work with other health professional organizations during this transitional period and voice concerns as well priorities for ensuring that the process goes smoothly and avoids missteps.

HIM Roles in Adoption of HIT

The Department of Health and Human Services (HHS) will promote nationwide deployment of electronic health records and personal records that put information to use in support of both individual and population health. There have been many surveys reporting on the slow adoption rate of EHRs and PHRs in the United States. According to a 2008 survey by the Centers for Disease Control and Prevention (CDC), 38.4 percent of doctors reported they were using full or partial electronic medical record (EMR) systems, and 20.4 percent said they were using minimally functional EMRs, including e-prescribing, ordering and viewing lab results, and generating electronic notes.³² In a 2006 CDC survey, the corresponding figures were 29.2 percent and 12.4 percent, respectively.³³ Optimists might cite these figures as showing that physicians are really starting to embrace EMRs as compared to previous similar studies, yet it is still far behind the pace to the goal of making EHRs universally available to the public. The adoption rate for PHRs among consumers is also dismally low.³⁴

There are many reasons for the low adoption rate of EHRs in healthcare organizations and PHRs among consumers. To cite a few, there is no incentive for healthcare organizations to adopt EHRs if the payers (e.g., insurance companies) reap the major part of the benefits. The initial cost of implementing an information system is also persistently reported as a factor hindering providers from acquiring such systems. On the consumer side, in addition to the concern of privacy and security of different PHR systems, the difficulties of initializing and maintaining the PHR as well as the unproved benefits are also reported by consumers as barriers to adoption of such technologies.

HIM professionals, with training in both information technology and information management, could tackle the task of promoting the adoption of EHRs and PHRs. Many surveys have found the existence of a “digital divide” in the adoption of EHRs. Small physician offices and healthcare organizations in underserved areas are struggling with the adoption of EHRs with limited resources and experience. Consumers in underserved areas also are in a disadvantaged position when it comes to managing their health information electronically because of the gap in information accessibility and health literacy. HIM professionals, with sufficient training in HIT, should reach out to these disadvantaged areas to help them adopt EHRs. The involvement could be in the forms of consulting, providing student interns, collaboration, grant writing, negotiating with vendors, training, or simply working as motivators. Without the majority of healthcare organizations willing to adopt EHRs for their daily transactions, it will be impossible to build a national health information infrastructure. AHIMA, with its 51,000 members working in different healthcare organizations, should exert some power to help reshape the landscape of health information systems in the United States.

HIM Roles in Collaborative Governance

HHS is aiming to establish mechanisms for multi-stakeholder priority setting and decision making to guide development of the nation's HIT infrastructure and establish coordinated organizational processes—at the federal, state, local, and tribal levels—supporting information use for population health. Several strategies were proposed in the HHS report to promote the collaborative governance. One specific strategy is to establish a public-private governance entity to advance interoperability and sustainable exchange of health information nationwide as well as at state, local, and tribal levels.³⁵

At the federal level, the governance entity is the AHIC Successor, which is “version 2.0” of the AHIC (American Health Information Community) chartered in 2005. AHIC is a federal advisory body to make recommendations to the Secretary of HHS on how to accelerate the development and adoption of HIT. Although not represented in the AHIC senior membership committee, AHIMA, as the national organization for 51,000 HIM professionals, has been contributing prominently to the formation of the AHIC Successor. In September 2007, Linda Kloss, the CEO of AHIMA, sent an open response letter to the National Coordinator for Health Information Technology, Robert M. Kolodner, commenting on the governance structure and responsibilities of the AHIC Successor in leading coordinated progress toward achieving a national health information infrastructure.³⁶ AHIMA also served as a member of the AHIC Successor Membership Planning Group. Such involvement is important not only for the large policy footprint of AHIMA but also for the success of the national health information infrastructure by providing unique contributions from AHIMA professionals.

It is predictable that with the change of administration and the realigned priorities in HIT, many collaborative governance bodies will be formed at the state, local, and community levels. HIM professionals must take advantage of such opportunities to assume a more active representation in decision making regarding HIT. For example, AHIMA has proposed to make the master's degree the terminal degree in HIM. This is a necessary move to give HIM professionals more power to take leadership roles in HIT governance.³⁷

Conclusions

With the national healthcare system in a crisis and the Obama administration's emphasis on change, reform of the U.S. healthcare system is in the foreseeable future. One key component that needs to be incorporated into any reform is the use of HIT as a strategically enabling factor to unify the fragmented healthcare systems. However, it must be pointed out that HIT is fundamentally a technical platform for information to be managed and shared. As Nicholas Carr said, “IT doesn't matter.”³⁸ What matters are the improved business processes, enhanced transactions, and strong leadership that hopefully will flow from the implementation of a new technological infrastructure. We must realize that HIT is the mechanism to transform healthcare delivery and is not the end goal.³⁹ HIM professionals must define new professional roles in the transition to a new, nationwide, interoperable health information system that include responsibility for privacy and security, interoperability, adoption of electronic records, and collaborative governance related to HIT.

Xiaoming Zeng, MD, PhD, is an assistant professor of health services and information management at East Carolina University in Greenville, NC.

Rebecca Reynolds, EdD, RHIA, is an associate professor of health informatics and information management at the University of Tennessee Health Science Center in Memphis, TN.

Marcia Sharp, MBA, RHIA, is an assistant professor of health informatics and information management at the University of Tennessee Health Science Center in Memphis, TN.

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