CAHIIM®

Call to Action

Create a Model of Multiple, Coordinated Career Paths for Informatics Professionals in Healthcare

Summary

The Commission on Accreditation of Health Informatics and Health Information Management Education (CAHIIM) calls for the development of a stakeholder-endorsed career paths model that incorporates multiple, coordinated career paths for informatics professionals in healthcare. That model will be of use to academic programs in designing curricula, to students in making career choices, to informatics professionals to advance their careers, and to CAHIIM for the purpose of accrediting programs.

Background

There is an increasing need for skilled professionals who work at the intersection of information technology and healthcare. Electronic health record (EHR) systems that depend on standard coding systems, clinical informaticians, and proper information governance are becoming critical drivers of healthcare systems' financial and patient care activities. Over the years several professional roles have emerged: those who are responsible for documentation integrity, the accurate coding and management of the many different forms of health information; those who design, implement and operate these systems; those who create and evaluate innovative uses of new and existing systems; and those who take advantage of the growing body of data within those systems by applying advanced analytics methods for the purpose of better understanding and improving human health. In the recent past, these categories may have constituted distinct career paths; however, changes in healthcare are leading to an increased confluence of these paths.

This confluence, in no small measure, is due to factors acting in the healthcare and technology landscapes including:

- Unparalleled growth in the quantity and types of health-related information as well as the technologies used to manage them. The advent of precision medicine with its emphasis on the human genome and associated information, the increasing recognition of the social and environmental factors affecting human health, and new technologies for observing the human organism all are generating large quantities of new types of information.
- The rapid deployment of computer science methodologies such as machine learning and artificial intelligence, and the vast collections of new data about patients available from the internet services and applications.
- The critical roles Informatics professionals play in coping with this growth, helping to make it useful for patient care and designing and implementing systems for managing and learning from it.

- The role of the patient as a consumer of healthcare and their responsibility for accessing and releasing their protected health information contributing to the integrity of their health records.

These factors have created a strong need for an expanded workforce of skilled, knowledgeable informatics professionals in healthcare.

Workforce demands dramatically illustrate the need for education programs that not only provide a solid foundation in existing professional responsibilities, but that also help students adapt to new realities in healthcare. In addition, it is important to recognize that there are a variety of specific roles that present-day informatics professionals undertake that require different levels of knowledge and skills. In the past, these have been associated with health information management programs at the associate, bachelors and masters levels and health informatics masters and doctoral programs. We are also seeing the emergence of health information technology programs at the associate and bachelors levels and data science programs at the bachelor and masters levels. Some of these academic programs are requirements for professional certification and others are not. Yet, despite the differences in focus and level, there are commonalities in the required skills and knowledge that form a consistent thread through and across all of these education programs. Furthermore, all informatics professionals, regardless of specific knowledge and skills, share a common goal in using their knowledge and skills to support the delivery of the best possible care in order to improve human health.

The current multiplicity of overlapping career paths and formal education programs that support them presents a confusing picture to those interested in becoming informatics professionals in health care. Current career paths are often restricted to a specific set of workforce roles. Potential informatics professionals would be better served by a set of clear, flexible career paths covering a range of workforce requirements. This would support multiple specific roles, individual growth and development and, where appropriate, recognition of skills beyond the traditional degree programs. These career paths should take into account the entire range of workforce roles and set out the means and criteria by which individuals can transition from role to role as they grow in skills and abilities. The education programs that support them need to be structured, coordinated, and articulated to prepare students for these career paths and transitions among them.

CAHIIM is the accreditation organization recognized by the Council for Higher Education and Accreditation (CHEA) that is responsible for reviewing academic healthcare-related informatics degree programs to determine if they meet public standards for program quality. CAHIIM currently focuses on Health Information Management programs at the associate, bachelors and masters level as well as masters level Health Informatics programs. Currently there are over 350 accredited programs with 56 applications for accreditation in progress. As the organization responsible for initial and continuing accreditation of these programs, CAHIIM is obligated to consider if these programs' students are being properly prepared for the careers they intend to undertake. That obligation requires a clear understanding of those career paths, including the competencies required of the practitioners in those careers. However, it is evident that clear, consistent and widely stakeholder-endorsed descriptions of those career paths do not yet exist in a form that can be used by CAHIIM in its evaluation of how well current academic programs are preparing their students. Accordingly, CAHIIM calls on these stakeholders—including its Member organizations AMIA and AHIMA, as well as employers, professional organizations and others—to develop a model that defines and coordinates these career paths for informatics professionals in healthcare. This will benefit both CAHIIM in its assigned responsibility of accrediting educational programs and will provide much-needed assistance for students and professionals as they pursue their careers.

For such a model to have real world impact, it has to be much more than the result of an intellectual exercise conducted by a small group of educators. A broad range of stakeholder involvement is a prerequisite for widespread adoption. Employers must agree that the specified career paths properly describe the roles of their healthcare informatics employees. Informatics professional organizations must agree that the model represents the practice of their members and is complete in terms of expected skills and knowledge. State and federal agencies involved with healthcare informatics must agree that the model can support the goals of their agencies. Only with the endorsement of all relevant stakeholders can the value of such a model be realized.

What is being suggested is far from a *de novo* effort because substantial work has already been undertaken. In 2006, AHIMA and AMIA developed and published a joint statement on Health Information Management and Health Informatics describing a set of core competencies for individuals working with electronic health records. AHIMA has developed several sets of competencies over the years for associate, bachelors, and masters degree programs in Health Information Management that are referenced by the corresponding CAHIIM standards for accreditation. AMIA developed a competency model for a masters degree in Health Informatics which has been incorporated into the CAHIIM standards for accrediting Masters programs in Health Informatics. The International Medical Informatics Association developed and published a set of recommendations on Biomedical and Health Informatics education in 2010. The EU*US EHealthWork Project, a partnership involving European educational institutions and the Healthcare Information and Management Systems Society, is focusing on eHealth workforce education and has compiled a database of relevant competencies at hitcomp.org.

All of these efforts represent important contributions to our understanding of the knowledge, skills and attitudes/attributes relevant to informatics professionals working in healthcare. They are all valuable resources that need to be carefully considered and incorporated where appropriate into the career paths model discussed in this paper.

The Call

Create a stakeholder-endorsed, coordinated career paths model that can be used by academic programs to design their curricula, by students to make informed career choices, and by CAHIIM to accredit those programs. That model should:

- Specify the various academic levels of education with their associated degrees, and the workforce roles for which students at various levels are qualified.
- Recognize existing and relevant work.
- Allow for and encourage flexibility and innovation.
- Be modifiable by consensus.
- Provide articulation with certification programs of various groups.

> CAHIIM supports the collaboration of its member organizations AHIMA and AMIA to initiate broad stakeholder participation in creating this career paths model.