Module 9 - Emerging Trends in Health Information Management

Health Information Management (HIM) is a profession that has been focused on the effective management of patient information and health care data essential in the delivery of quality treatment and care to the public. Furthermore, there have been ways to get away from the reactive, doctor-centered types of care to one that is patient-centered and regularly delivering gainful access to high quality data and health care to all. The great usage of the HIM professional has been observed by many decision makers as important to the transformation of the field, therefore, substantial investments are usually made in that area. The fundamentals of the HIM field have persisted to develop over time, thus becoming less paper based
and significantly electronic.

HIM has performed an important role with regards to the successful implementation of electronic health records (EHRs). It has ensured that certain health providers, healthcare companies, and patients themselves have had access
to the appropriate health information when needed whilst sustaining the highest standard of data integrity, security and confidentiality. HIM has evolved from emphasis on the paper medical records to playing a significant role in guaranteeing there has been accessibility to health information which provides real time healthcare delivery and essential health related decision making for several
reasons across numerous organizations. Nonetheless, the precise role continues to be influenced by the adoption of new technology and other adjustments which influence the healthcare system.

This module is designed to educate the reader about future trends in the HIM field. The emerging and anticipated trends in HIM are limitless; this module discusses what the HIM field and professional can expect to see in the next ten years regarding aspects such as roles and responsibilities, education, EHR implementation and interoperability, patient-centered care, privacy, security and confidentiality, high quality data, data analysis and connecting HIM professionals across the globe.

OBJECTIVES:

At the conclusion of this module, the participant should be able to:

1. Describe how the HIM professional's roles and responsibilities are changing in the next ten years
2. Know what kind of educational program to look for to be prepared for the future HIM profession
3. Designate space and design a layout that will promote a healthy, efficient and productive workplace
4. Design an infrastructure and work culture that protects the privacy and security of health information
5. Understand the impact of privacy, security and confidentiality on health information and the expectations of the HIM professional
6. State the value and uses of the health record together with the requirements for a high quality health record
7. Explain why data analysis is important and will be a crucial aspect in the future of healthcare
8. Promote the use of health records and information globally

Evolving Responsibilities:

HIM professionals are beginning to span across all departments in the health care industry. What used to be done in a health records or release of information (ROI) department is beginning to overflow into other parts of the facility. This expansion is making the HIM professional more valuable to the health care environment (AHIMA, 2018). For decades the main responsibilities of the HIM professional have been the collection, storage, coding, processing, analysis, and interpretation of health care records, as well as privacy, security, confidentiality and ROI. HIM professionals have now begun addressing issues in healthcare such as technology changes and patient-centered care initiatives, and are also moving into other departments to handle issues like quality improvement, administration concerns, revenue cycle management and financial strategic planning (AHIMA, 2018).

The fundamentals of HIM are also evolving, from paper to electronic, as technology advances around the globe. The basics of HIM will still be needed in the future (such as security, privacy, data analysis, ROI, etc.), however, the procedures and processes will be changing as technology is able to do more (Dimick, 2012). Future technology advancements, some of which we are experiencing already, will render some HIM functions obsolete, such as filing paper records (electronic health records will not need filing) or releasing information to individuals (patient portals will allow patients to have access to all their information, as well as decide on who to release that information to). Computer-assisted programs will change the way coding and transcription are completed, shifting the task into one that audits or monitors the function of said program (Dimick, 2012).

In the Journal of AHIMA, Dimick predicts that the HIM field will transform into "a set of functions that go on throughout the organization" (2012), being overseen by a Corporate HIM Director, rather than just a department specifically for HIM. For example, a HIM

managerial role will oversee information management processes in an organization's revenue cycle department; they would ensure that the information in the department is used appropriately, that the data is accurate, and that the department is using the information optimally (Dimick, 2012). This prediction of having individuals in many different departments may mean that the HIM professional will not be able to continue with the general blanket of responsibility that one has now (being involved in all functions of information management), and individuals entering the field will need to choose a single aspect to focus on as each area gets larger and larger in the demands of skill, responsibility, and information needed to manage (Dimick, 2012).

An emerging role that will develop as EHRs become more complete is that of the patient advocate. Once patients' information becomes fully accessible online, the HIM professional would be one to help them locate, access and understand their EHR. They would ensure that the EHR is fully accessible by their health care providers and help the individual learn to manage their own information (Dimick, 2012). As technology continues to play a bigger part in the health care environment, roles that specialize in areas such as analytics, EHR optimization, IT security and data science will also become more important (Bresnick, 2017).

The American Health Information Management Association (AHIMA) released a whitepaper in 2017 entitled "HIM Reimagined" which outlined what the future of HIM will look like and how the profession and education will need to evolve and transform over the next decade (Bresnick, 2017). The whitepaper outlines the preventative, predictive, participatory and personalized approach to medicine and healthcare that "demonstrate the shift to patient-driven healthcare" (AHIMA, 2017). This whitepaper can be used as a guideline across the globe as technology advances and healthcare becomes more accessible to individuals.

Similarly, in 2012 the Canadian Health Information Management Association (CHIMA) released a future outlook on the HIM profession which described how the lack of skilled individuals in the field has caused EHR implementation to suffer and what needs to happen to bring individuals in the field, or wanting to enter the field, up to speed with the rapid changes that continue to develop. Their Workforce Transformation project looked at "the evolution of the HIM profession into new roles in the ever-changing electronic information environment" (CHIMA, 2012) and the project outlined a whole list of roles that an HIM professional may currently hold, as well as looked at how those roles will be changing in the future.

The HIM professional has also been seen in other work settings like educational institutions, government agencies and insurance and technology companies (AHIMA, 2018). This trend will continue over the next ten years and become more common as the field advances in education and responsibility. More companies outside of the healthcare field will want to use the abundance of data created through digitizing the health care information and a HIM professional will be needed to help govern it.

Health information will be accessed in many different ways and be utilized across many different environments, from educational to analytic. These evolving roles and responsibilities of the HIM profession will continue to reinforce the value and importance of a HIM professional.

a. **More Education**

As mentioned above, the HIM field and professional is evolving, and will continue to do so at an advanced rate for the foreseeable future. Technology advancements and the abundance of data being created requires even more skilled individuals to be able to handle it as well as change and adapt as quickly as the industry does. Since the HIM profession is beginning to overflow into many different work environments and departments, the education that creates these professionals needs to evolve as well. The next decade will bring a greater need for HIM professionals in the areas of statistics, national quality indicators, electronic data management and data mining (Dimick, 2012) as technology takes over the health care facilities and records are created at a faster rate than ever before.

The HIM professional began as a position in a health information department of a healthcare facility, handling paper records. Now that the industry has shifted from paper to electronic, there is a whole new technological level involved, including learning to work with said technology and also teaching others to use it. What was once only a two-year diploma or certificate that was able to cover all aspects of HIM, is no longer enough as there are many more skills involved and aspects of the job to learn in order to be a valuable asset to the HIM field. Current programs have "a little of everything", which will change in the future to accommodate more specific paths in the fields and create stronger leadership among its students (Dimick, 2012).

Once again, AHIMA, a leading organization in the future of the profession, had begun developing an educational plan to catch up the HIM professional with the advancement of the health care industry. AHIMA stated that HIM has been "one of the nation's fastest-growing health occupations" and has not been able to turn out enough qualified applicants for the field (AHIMA, 2018). This is most likely the case around the globe as the industry has advanced at such a rapid rate with the digitization of health records; data is being created at an alarming speed, and needs to be governed appropriately. AHIMA outlined three 3 key strategic directions to advance the profession which include professional development for the HIM professional, the promotion and enhancement of HIM programs and HIM leadership (AHIMA, 2018).

CHIMA also has a similar requirement of professional development, requiring all certified HIM professionals to participate in some continuing education; this ensures that "HIM professionals maintain their knowledge, awareness of evolving data, new EHR developments, infrastructure innovations, and standards related to eHealth transformations" (Hospital News, 2019). This will be and should be a continued trend around the globe as the future brings more changes to the industry and the profession.

CHIMA's Evolve the College project, which was part of their future outlook report, focused on HIM certification, specialization and training changes that would need to happen to get the current and future HIM professionals evolving as fast as the industry (CHIMA, 2012). They determined that once members are certified and working on continuing education that they may choose to specialize in a certain area; these were divided into privacy, leadership, EHR and research and decision support (CHIMA, 2012). This confirms that the next ten years will bring about many changes in the current HIM programs, as well as the creation of more specialized ones.

HIM will begin to (if it hasn't already) be seen as a career choice, and therefore higher levels of education will be needed such as graduate and Master's levels degrees. Not only will we see these different levels of education emerge, but the availability of the education will also be increased, having programs evenly dispersed around countries, or what a few institutions have done already, making them available completely online. Certificates will still be useful in the future, but more as specializations for specific areas of the HIM field, such as EHRs, classifications systems, and patient advocacy.

With the revamping of education in the next ten years, the certification exams will need to be updated as well in order to ensure they "reflect current and future practice" (AHIMA, 2018). Exams may even be separated into specialty in order to cover more in depth specific skills and responsibilities. So far in Canada, CHIMA has created specialty certifications in Terminology Standards, Classification and Coding, and Clinical Documentation Improvement. They have outlined on their website who would be appropriate to write these exams and why they would be beneficial. We can expect to see more of these specialized certifications around the globe for all HIM professionals.

b. **EHR Implementation and Interoperability**

HIM continues to be increasingly impacted by technological advancements, and the trend has been envisioned to completely transform the healthcare landscape in the coming years by enhancing prompt and sufficient healthcare delivery. Numerous software products such as virtualization technologies, mobile networks and telemedicine/telehealth systems have been recently implemented in the healthcare setting for clinical examination and treatment. These technologies provide healthcare providers with fast and secure access to necessary data. With the increased accessibility and efficiency, as well as reduced costs and the transformation effects in healthcare, much is envisioned for HIM to continue shaping the healthcare system.

The emergence of EHRs, a major component of health information technology (HIT) in healthcare provision, has led to improved quality and efficiency of health care delivery when appropriately implemented. Further, they address the issue of health disparities among various populations in terms of access to care and the interoperability as facilitated communication, running of applications and/or transferring of data among multiple units of the healthcare system. However, the current diverged needs of healthcare systems and the swiftly changing healthcare environment necessitate the

development of more flexible component-based EHR systems with the ability to operate seamlessly in the healthcare environment's workflow.

EHRs are digital forms of patient records that include patient information such as personal contact information, medical history, allergies, test results, and treatment plans (Kruse et al., 2018). The implementation of EHRs in healthcare systems expedite the organization and analysis of patient information in large amounts which improve positive patient health outcomes and the efficiency of healthcare delivery. The general productivity of the system realizes greater capacity with processes and procedures becoming more efficient, and EHRs in the future will be even more intricate and effective, such as the application's ability in communicating, interpreting and acting intelligently upon complex healthcare information.

According to Evans (2016), next-generation interfaces for EHRs will use clinical decision support (CDS) to synthesize fragments of evidence documented throughout the entire record to understand the etiology of disease and of its clinical manifestation in individual patients. Disease models and biomedical ontologies will be employed in context-based EHRs as domain knowledge sources in identifying the applicable parts of the record to display. Moreover, the use of more appropriate methodologies to record and manage patient data are projected in built-in EHR applications that are capable of detecting the level of the healthcare provider's usage of EHR features and analyzing of human-computer interaction in the actual healthcare setting.

Data repositories that will be centered on international standards application programming interfaces, is another future fundamental role and purpose of the EHR in retrieving and storing data. This will be coupled with data review and entry user selected applications.

Interoperability is a tool that can help healthcare providers serve patients better by facilitating easier communication among medical practices. With technology advancing faster than ever, the future will see more direct messaging between applications, which will increase communication among all parties. Moreover, increased care coordination, time-saving, reduced risks due to miscommunication leading to malpractice lawsuits, less unnecessary/redundant testing and better research due to more readily available data are some of the future envisioned EHR interoperability benefits. Secure and efficient ways of managing and sharing digital images, as well as linking clinical images and documentation by using mobile devices with high-resolution cameras is a projected trend that EHR interoperability will see in the future (D'Amore et al., 2018).

Technological advancements in the next ten years will enhance the power of smartphones and tablets in assisting healthcare providers to track patient data or test results, empower the patients in tracking their health better and following treatment protocols, and help administrators in handling digital copies of paperwork. More interoperability will facilitate clinical mobility whereby physicians will be able to use mobile devices to access patients' data, through cloud connectivity. In addition, next generation devices such as blood pressure monitors, infusion pumps, ventilators, and

other vital sign remote monitors will enable remote healthcare providers to rely more on data and less on patient interactions and observations. Immobile patients will also be able to get the healthcare they need without the hassle of trying to see a healthcare provider in person. Next generation interoperability will enable effective linking up of healthcare facilities through provider-to-provider information exchange through an electronic summary of care document, provider-to-patient information exchange by providing electronic access for viewing, downloading or transmitting health information, and provider-to-public health agency information exchange through public health reporting. Cloud-based infrastructure and mobile computing will enable healthcare providers armed with only a tablet or smartphone in the field to have the same productivity as they would have in a clinical environment.

Advances in the areas of machine learning, artificial intelligence, block chain and many technologies, hold the potential to dramatically impact care delivery, analytics, and consumer/patient engagement. The data created today (or yesterday) that is managed and stewarded by HIM professionals, will be used by these new technologies. Thus, the HIM's role may broaden even further.

The future of EHR implementation and interoperability will be based on the objective of addressing the current swiftly changing healthcare needs, through secure and efficient recording, storing and managing healthcare information as well as ensuring standardization and interoperability.

c. **Patient-Centered Care**

The ever-advancing technologies have been asserted to improve the patient experience through smooth access to patient data, managing care, and patient activation in care. Patients' expectations are changing in regards to healthcare inconvenience, inconsistency, and its state of not being personalized, thereby wanting more control. The current patient engagement tools like the patient portal (envisioned for more convenient and patient-centered healthcare) are in reality making more work for patients.

The patient-centered approach emphasizes partnerships in delivering quality healthcare between patients and healthcare providers, as well as acknowledging the patients' preferences and values, promoting flexibility in the provision of healthcare, and seeking to move beyond the traditional paternalistic approach of healthcare delivery (Delaney, 2018). Healthcare providers ought to readily acknowledge the key ethical principles of ensuring that the necessary information has been provided to the patients so that they can make informed decisions about their health, and any necessary support is accorded to the patient during decision-making processes. Therefore, with the provision of education and information, the patient will be able to appropriately apply this information for better management of their health and evaluation of their own health status.

Clinical decision support (CDS), with improvement in care processes and intermediate disease outcomes, is another patient-centered care aspect anticipated to change in the

next decade. This will necessitate the availability of sufficient decision-support features in the numerous advanced EHRs available in the healthcare system. In addition, a more collaborative patient-centered health care team is also envisioned. The expectation is that the team will employ changed patterns of specialty referral and real-time specialist consultations: that is, communication capabilities will go beyond notes.

Patients also expect crucial information exchange advancements from in-patient to out-patient in the healthcare system for effective patient-centered care delivery. This will help in ensuring timely monitoring and follow-up visits. To accomplish this care transition, the current in-patient and out-patient EHRs need to be integrated to overcome the present barrier of a highly fragmented environment.

The patients' expectations have also changed in regard to personal health records (PHRs), necessitating improved patient engagement and self-efficacy. The increased desire for real-time patient information has further accelerated this, but numerous challenges such as patients' lack of uptake, low health literacy, and healthcare providers' hesitancy in the provision of patient information continue to hinder its realization.

The future technology advancements will be crucial in both consolidating and utilizing disparate healthcare data in the creation of patient-centered, rather than disease oriented, care plans. According to Salmond & Echevarria (2017), nursing has consistently embraced an approach to care that is holistic, inclusive of patients, families, and communities and oriented toward empowering patients in their care to assume responsibility for self and disease management. The objective of the anticipated patient-centered care should be grounded on the measures of facilitating patient self-management competency in healthcare.

d. **Privacy, Security and Confidentiality**

Privacy

Privacy, as distinct from confidentiality, is viewed as the *right of the individual client or patient* to be left alone and to make decisions about how personal information is shared (Prater, 2014).

The collection, storage and analysis of data is the key role in the healthcare field. "The 2017 HIMSS Leadership and Workforce Survey found that 61 percent of vendors/consultants and 53 percent of hospitals had increased the size of their IT workforce in the last year" (University of Illinois at Chicago, n.d.). As health information grows, so does the development of new applications to improve patient care and increase efficiency of health care. To be successful as a HIM professional in a constantly evolving industry, it is imperative that we stay up to date on the changes that are occurring in the field, including the latest developments and priorities.

There is increased amounts of information stored online due to the advancement of healthcare technology, and even with the benefits to patient care, it also makes data vulnerable to attacks from online threats, such as hackers who steal and sell personal information found in EHRs; according to TrapX Security, cyber attacks against healthcare institutions increased by 63 percent in 2016 as compared to 2015 (TrapX Labs, 2016). To answer this growing threat, strategies and technologies that ensure the privacy and security of health data are a growing focus of professionals in the field. In addition to the goal of protecting sensitive information, healthcare organizations also need to be able to build trust with their patients. Patients will not accept the storing of health information online if they feel that their provider is unable to keep it safe and secure.

HIM professionals will continue to be the data custodians and information stewards of health information if the profession strategically positions itself in the face of digital transformation. Three key Health Insurance Portability and Accountability Act (HIPAA) policy initiatives that are being examined by the Office of Civil Rights in the United States are:

1. A request for information on how the agency might distribute to victims a percentage of the funds it collects form HIPAA settlements and civil monetary penalties;
2. A notice of proposed rulemaking for potentially changing or dropping the current HIPAA privacy rule requirement that patients sign — and healthcare organizations keep — forms acknowledging the individuals received the entities' notice of privacy practices; and
3. A notice of proposed rulemaking involving "good faith" disclosures of patient information, clarifying that the health providers in certain circumstances are permitted — without patient authorization — to share information, such as with a patient's family when a patient is incapacitated (McGee, 2018).

These changes are examples of what the HIM professional needs to be aware of and stay up to date on. With technology advancing and more and more threats emerging through that technology, the future holds a lot of stronger policies and procedures for the HIM field.

There have been situations where HIM professionals have been exposed for disclosing patients' information or data to third parties which directly infringes on patients' rights. The future of HIM is expected to address the issue of patients' privacy by safeguarding their data from unauthorized parties.

Privacy will be enhanced by developing the necessary procedures and policies which will be able to predict and handle the above-mentioned risks. Additionally, continuous monitoring and evaluation for compliance on aspects related to privacy is necessary. Further, HIM professionals should constantly be trained on privacy issues. These will form a transformative aspect of HIM as far as privacy is concerned moving into the future.

Staying abreast of global privacy trends became much more important with the European Union's 2018 adoption of the General Data Protection Guidelines (GDPR). GDPR has a very broad reach through all international economic sectors, including healthcare. It has quickly become the benchmark for initial or updated privacy and data protection regulations in many countries, states/provinces and regions. IFHIMA will release a whitepaper "Privacy of Health Information, an IFHIMA Global Perspective" in late 2019 that further discusses global privacy trends. Please visit *ifhima.org* for access to this document.

Security

Security refers directly to *protection*, and specifically to the means used to protect the privacy of health information and support professionals in holding that information in confidence. The concept of security has long applied to health records in paper form (i.e. locked cabinets and offices). The emergence of EHRs and the transmission of health data to support billing has become the norm, therefore, the need for regulatory guidelines specific to electronic health information has become more apparent.

Currently, there is a huge cost implication in setting up the infrastructure to accommodate both security and privacy of health Information. Security of health information can be attained through converging HIM and IT roles (HIM professionals should also have a role as a system administrator). This implies that there is a need to effectively utilize the emerging technologies in order to outline effective strategies of the sharing of health information across different continuums of care. The effective collaboration of all departments in healthcare facilities would lead to information safety, higher information quality and improved levels of efficiency. Subsequently, HIM professionals should be involved in security aspects such as having the right HIM security officers to administer adherence to rules and regulations on matters of health; detecting, reporting, and handling security incidences as they occur; promoting data integrity on the transmission of health information; monitoring authorization of system use and access; password management and the associated policies and procedures; and identifying and resolving the vulnerability of security plans and systems. Security issues of HIM involve both the physical and technical aspect of security (Gibson, Abrams & Pletcher, 2016).

HIM professionals should make certain that the practice of handling health information complies with the federal laws and regulations in their area, knowing that these laws and regulations will help to protect patient privacy and safeguard patient health information in an ever-expanding digital age. HIM professionals should participate in the design, development, and implementation of an information platform for managing and sharing health information, keeping privacy and security 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 ways 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 providing care.

Confidentiality

Confidentiality in health care refers to the *obligation of professionals* who have access to patient records or communication to hold that information in confidence, to ensure that personal health information and business information are available only to authorized persons and used only for authorized purposes and that security risks and vulnerabilities are proactively managed; "confidentiality is recognized by law as privileged communication between two parties in a professional relationship, such as with a patient and a physician" (Prater, 2014).

When considering sensitive health information requiring special layers of confidentiality, such as with mental health treatment, state statutes in the United States provide guidance for HIM professionals. In Illinois, for example, the Mental Health and Developmental Disabilities Confidentiality Act offers detailed requirements for access, use and disclosure of confidential patient information including for legal proceedings (Illinois General Assembly, 1997).

Currently, the way health professionals treat patient information remains in question. There has been a lack of professional handling of patients' information by health professionals due to the inability to realign the HIM system (Cherry & Jacob, 2016). Moving into the future, health information departments are looking at embracing the right leadership which involve only the vetted experts handling health records and documentation. The main aim of doing this would be to transform how health information is managed.

Privacy, confidentiality, and security of health information can be achieved when:

- There is a high level of trust between patients and health care providers; health information will be used for the purpose for which it is collected;
- Laws and regulations are thoroughly enforced and penalties given to offenders;
- Individuals will have minimal limits to assessing their health information, and there should also be an awareness to individuals on their privacy rights and individuals should be properly informed on practices concerning their health information, and be able to check for the accuracy of their information;
- Patients should be duly notified on time should there be any breach to their personal information; and

- Certified HIM professionals should be considered the primary custodians of health information and experts in maintaining privacy, confidentiality and security of information in the healthcare industry.

e. **Greater Data Quality**

High quality data is a valuable asset and its gathering, managing, storing and governance is of critical importance, more specifically in a healthcare setting where it impacts people's lives. Transformation of high-quality data into valuable insights in healthcare delivery helps in saving lives, reducing healthcare costs, and improving the general healthcare outcomes through enhanced accessibility and affordability.

Methods for capturing and presenting data with the capability of supporting a healthcare provider's cognitive needs and workflow are necessary for the realization of this future HIM trend. Moreover, high-quality data inclusion in the electronic records for better healthcare outcomes, and EHR documentation use that supports holistic approaches such as multidisciplinary team-based care and enhanced participation by patients in promoting health and treating illness, are futuristic opportunities for physician's documentation (Cusack et al., 2013).

Implicit within many healthcare systems is the need to use greater data quality to improve efficiency and reduce costs. Without a fundamental shift driven by enhanced information use, several healthcare services may become stressed to breaking. Healthcare providers' data quality in terms of accuracy, relevance, validity, consistency, completeness, comparability, integrity, timeliness, conformity and availability are all vital in ensuring clear and efficient digital data documentation.

For greater data quality in physicians' documentation, it will necessitate personal data stores with new platforms that help patients and providers to manage and curate their data across multiple partners. Universally accepted credentials will help to drive greater personalization of health services.

The next generation of EHRs data capture methods will be characterized by improved security and privacy which will significantly reduce healthcare data breaches, telehealth integration to allow remote linking of patients and healthcare providers thereby eliminating the geographical barrier, and adoption of open Application Programming Interfaces (APIs) that will enable patients to better understand and control their own care and assist healthcare providers in making clinical decisions.

Future technological advancements in healthcare documentation will continually emerge to facilitate the inclusion of progressively sophisticated data, such as genomic information capturing and integration into the EHR to help propel personalized medicine. The objective of greater data quality in physician documentation should be centered on collecting, using, generating, and automatically tracking clinically relevant information while delivering healthcare services. However, the value that is embedded in the future access to data is the underlying concern in forthcoming data marketplaces.

This is because healthcare data marketplaces will have a representation of both clinical and personal data. Additionally, the emerging issue of data sovereignty is also of great concern in data sharing as more countries have sought restrictive measures on health data sharing beyond their borders.

f. **Data Analysis**

A very important future trend for the HIM field is data analysis. Data analysis refers to the processes and techniques used to examine data and information in order to find ways to benefit the organization or business in some way (University of Illinois at Chicago, n.d.). With technology advancements and healthcare becoming more accessible around the globe, "the rate at which data is being produced, collected and analyzed is greater than ever before" (University of Illinois at Chicago, n.d.), and therefore requiring a greater need for HIM professionals with strong data analysis skills.

Healthcare facilities, government agencies and ultimately, the public, all benefit from health data analysis. It is used in decision making, resource management (of governments and facilities), disease prevention, health promotion and much more. HIM professionals analyze health data to ensure and increase patient safety, provide indicators and recommendations from incidents in facilities and infection control databases and help assess safety and risk (Hospital News, 2019).

Data analysis gives us an incredible amount of knowledge and information. It helps accomplish the following things:

- Ensure patient information is secure and protected;
- Improve the quality of health care (for example by reducing medical errors);
- Reduce health care costs (through finding inefficiencies, errors, duplicate care, incomplete information, etc.);
- Guide medical decisions in real time;
- Improve the coordination of care and information among various health care providers and institutions;
- Improve public health activities and initiatives;
- Facilitate health and clinical research;
- Promote early detection, prevention and management of disease (Hospital News, 2019); and
- Provide outcomes on service quality.

Data analysis has never been more important with the outbreaks of preventable diseases that have been occurring around the world and are predicated to continue. In the next ten years, with the digitization of even more health records as more facilities update to EHRs, data analysis will be at the forefront of the HIM field. Health data analysis will help to modify important policies and procedures in the healthcare system to reflect the advancement of technology and create the most efficient and effective facilities as well as improve health care quality (Fenton et al., 2017).

A survey published in the Journal of AHIMA stated that data analysis and informatics skills will be among the most sought after competencies in the next few years; "10 years from now job competencies such as analytical thinking, research capabilities, and risk management will be significantly more important to the HIM professional than they are today" (Bresnick, 2015). This is no surprise as the rate of data being produced is overwhelming, and once the majority of healthcare facilities have upgraded to electronic, there will be a never-ending stream of health information to analyze. The HIM professional will need to be able to create meaningful information at a quick rate that physicians, institutions, stakeholders and government agencies will be able to benefit and make decisions from.

g. **Globally Connecting HIM**

The current state of HIM, when viewed against global associations, is that there is still much to be done to acquire connections across the world. However, HIM in the future is geared towards attaining the global interoperability of systems amongst member countries, and ensuring patient health records are accurate and of high quality. All HIM professionals act in the best way to ensure that security and privacy is upheld, making sure member countries adhere to the HIM trainings and educational programs; also with the introduction of ICD 11, ensuring all member countries have access to and use the updated information.

An important item in connecting HIM professionals around the world is the International Federation of Health Information Management Associations' (IFHIMA) congress held every three years to connect the many HIM associations and discuss successes and issues in the field. This should continue and possibly even happen biannually or annually since this global connection of HIM professionals would offer crucial insights and professional ethics for health specialists in healthcare facilities (Wager, Lee & Glaser, 2017).

A prime example of globally connecting the HIM world is the work done on Information Governance (IG). IG is essential to delivering data and meeting the diverse and sometimes conflicting expectations (Journal of AHIMA, 2018). Illustrating the global importance of IG, Gartner defines IG as "the specification of decision rights and an accountability framework to ensure appropriate behavior in the valuation, creation, storage, use, archiving and deletion of information. It includes the processes, roles and policies, standards and metrics that ensure the effective and efficient use of information in enabling an organization to achieve its goals" (Gartner, Inc., 2019). AHIMA defines IG as "an organisation wide framework for managing information throughout its lifecycle and for supporting the organisation's strategy, operations, regulatory, legal, risk and environmental requirements" (AHIMA, 2019). IFHIMA is a powerful network of HIM professionals from around the world, sharing best practices for IG and the day-to-day challenges of managing patient information and other important health information resources. In the face of health system change and transformation, this network has never been more important. Learning from one another is the surest way to advance at the pace that is required today.

In the Journal of AHIMA (2019), Fernandes (President-Elect of IFHIMA) describes IG as an integral part of HIM. The core of HIM practice is centred on ensuring sound policy and practice for the integrity, lifecycle management and access and disclosure management. Due to the growth of the HIM profession, responsibility has also grown since information is mostly digital and still growing. HIM professionals have the unique opportunity to execute and promote IG, since HIM professionals understand how data is created and have long embraced the core tenants of IG through the years of paper-based records, and now the use of digital data. HIM professionals have long been very vocal proponents of the need to safeguard and use data based upon law, consumer expectations, and advancement of health and wellness. HIM professionals are information curators managing the lifecycle of data (Journal of AHIMA, 2018).

In the appendix of the October 2017 whitepaper of the IFHIMA publication entitled "Advancing Health Information Governance: a Global Imperative", three international case summaries that described IG journeys (Alberta Health Services (AHS) in Canada, Cabrini Health (Cabrini) in Melbourne Australia and the Hospital Corporation of America (HCA) headquartered in Nashville Tennessee, USA) were included to support the translation of HIM practice and knowledge, to demonstrate the importance of IG, and teach lessons that can be adapted and adopted by other organisations. These lessons fall into three general categories of Purposeful Organizing for IG, Careful Priority Setting, and Adaptation (IFHIMA, 2017). It is lessons such as these that the global community of HIM will benefit and learn from in the future.

SUMMARY

Based on the discussion above, HIM is the profession which has been dedicated to effectively manage patient data and healthcare data which is essential in the delivery of quality treatment and care for the public. HIM has continued to evolve every day and it has become paperless based on increases in technology advancements and usage. As described throughout this module, there are a number of future trends in HIM which the field and professionals will see in the coming decade.

This module has discussed the evolving responsibilities of the HIM professional and how they are spanning across the entire healthcare facility unlike before where they were centralized. Another trend in the field is regarding education; with the HIM responsibilities and roles becoming larger, educational programs will become more detailed and specialized. EHR implementation and interoperability has also been a major concern and the healthcare industry landscape will continue to be impacted in the coming years through enhancements and presence of the sufficient delivery of care. There have been various software products which have been implemented in the healthcare set up and this has helped in the improvement of the provision of healthcare. It is expected that the application of technology in HIM would improve efficiency, effectiveness as well as standardized platforms for sharing patient information or health information (Gibson, Abrams & Pletcher, 2016). Other trends which have been

discussed include patient-centered care, privacy, security and confidentiality, greater data quality, data analytics, and globally connecting HIM.

REVIEW QUESTIONS

1. List three ways a current role/responsibility of a HIM professional will change in the next ten years and why.
2. Research two current HIM programs and describe how they may (or should) change in the next ten years.
3. How will time-consuming issues be addressed during the teaching/training of users on using the EHR and data-entry? Will the training/teaching take healthcare providers away from other duties?
4. How will the use of PHRs be increased among patients with low health literacy?
5. In what ways can access to EHR systems be prevented from unauthorized access?
6. Which data will be accessed publicly, privately and for commercial purposes? And how will the global health goals/ambitions be achieved?
7. Explain why data analysis will become more important in the future; list 5 ways data analysis improves health care institutions.
8. What is required to promote the connection of HIM on a global scale?

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