



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. The fundamentals of the HIM field have developed over time, thus becoming less paper based.

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 played a significant role in guaranteeing there is 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.

Significant emphasis on health records and record keeping was apparent during the COVID pandemic, starting in March, 2020. Consistent and accurate data collection was a challenge, as was the increased demand for telemedicine, patient portals, and other electronic means of communicating with providers. Issues with low health literacy among patients become apparent as patient usage of electronic options increases. HIM professionals are equipped to play important roles to assist patients, providers and health systems prepare for and execute plans for public health initiatives including pandemics.

Artificial intelligence and machine learning provide opportunities for HIM professionals in predictive analytics, patient care, and administrative tasks. These roles may require skills in managing big data including knowledge of advanced statistics, data management and project management.

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 coming years regarding aspects such as roles and responsibilities, education, EHR implementation and interoperability, patient-centered care, high quality data, data analysis and connecting HIM professionals across the globe.

I. Objectives:

At the conclusion of this unit the participant should be able to:

- Describe how the HIM professional's roles and responsibilities are changing in the next ten years
- Know what kind of educational program to look for to be prepared for the future HIM profession
- Understand the impact of electronic health records on healthcare
- Understand the importance of patient health literacy in the design of patient centered care models
- Understand the impact of artificial intelligence on health information management
- State the value and uses of the health record together with the requirements for a high quality health record
- Explain why data analysis is important and will be a crucial aspect in the future of healthcare
- Promote the use of health records and information globally

II. 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 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 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 analytical. These evolving roles and responsibilities of the HIM profession will continue to reinforce the value and importance of a HIM professional.

A. Education Requirements and Opportunities

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. Master's degrees in healthcare informatics cover many of the evolving topics and skills needed for future data requirements.

AHIMA, a leading organization in the future of the profession, developed 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.

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 changes will continue within the current HIM programs over the coming years.

Within the workplace, the HIM professional's role as an educator includes education and training. Many of these roles are focused on clinical coding and classification systems as well as clinical documentation improvement. The ability to design, conduct and evaluate training programs for a variety of audiences will be important to continued improvement of data quality. In addition to coding, another educator role is training on electronic health

record usage in the workplace. Working with a variety of stakeholders within a healthcare organization has always been part of the HIM skillset. Using those interpersonal skills to train others on electronic health record usage will provide an important contribution to data integrity and quality for healthcare decision making, treatment and performance (Lee, Boyd & Khalil, 2025). Thus, educator roles should be included as future opportunities within the workplace for health information management 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. Telemedicine, in particular, had increased usage during the COVID pandemic when patients were reluctant to visit a provider's office. Remote patient monitoring also allows patients to be followed in their homes for certain medical conditions, including abnormal heart rhythms. These technologies offer 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.

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. CDS, with improvement in care processes and intermediate disease outcomes, is a prominent feature in electronic health records. E-prescribing capabilities and computerized provider order entry (CPOE) systems use CDS to assist providers in appropriate medication selection, dosage, etc., among other usages/reminders. While many of the CDS prompts are focused on the pharmacy, HIM professionals can be involved with alert monitoring and usage, as well as updates based on regulations and other healthcare parameters.

Interoperability facilitates 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, increased efficiency, reduced miscommunication (leading to malpractice lawsuits and unnecessary/redundant testing) and improved 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 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 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 for remote patient monitoring such as blood pressure monitors, infusion pumps, ventilators, and other vital sign remote monitors will enable 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 with an electronic summary of care document, provider-to-patient

information exchange with electronic access for viewing, downloading or transmitting health information, and provider-to-public health agency information exchange with 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 (AI), block chain and many technologies, hold the potential to dramatically impact care delivery, analytics, and consumer/patient engagement. Sahoo, et al (2025) provide the following perceived advantages associated with AI application in healthcare:

- Increased efficiency, e.g., charting and data entry
- Support for individual autonomy
- Clinical decision making
- Consultation report generation
- Patient history management
- Medication consultations
- High risk patient triage

There are associated disadvantages to consider as we adapt to the changing landscape. Sahoo, et al (2025) state that a lack of transparency in AI outputs resulting in conflict with clinical judgment can impact the value perceived by healthcare professionals. This can, in turn, impact the doctor-patient relationship.

The data created today (or yesterday) that is managed and stewarded by HIM professionals, will be a part of emerging AI integration into healthcare and the associated documentation. 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 saw an uptick in usage during the COVID pandemic and provided a direct communication method with providers.

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.

While availability of patient portals has increased in the US due to government incentives included in electronic health record adoption initiatives, patient engagement in the use of the portals has been only slowly growing since 2017, but did show a bump after the COVID pandemic. The specific percentage of patients accessing the portal six or more times in 2017 was reported at 10%, while in 2020 it was 18%, and in 2022, it was 29% (Strawley & Richwine, 2023). Patients do 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 across providers to overcome the present highly fragmented environment.

Accessibility of the technology needed for a patient-centered approach comes with its own challenges. Many regions of the world struggle with lack of internet availability. However, even people who do have access may not use the technology, as noted above. In addition, accessibility also refers to the ability of patients to understand information provided to them. Low health literacy is a challenge for most patients meaning they do not

understand the information, and therefore may misinterpret or ignore instructions from their healthcare providers. Serving adults with literacy challenges includes ensuring that health information is understandable (Seitz, et al, 2017). Whereas the generally accepted rule of thumb suggests general, non-medical information be written at an 8th grade level, the Joint Commission (2010) recommends that health-related materials be written in a manner equivalent to a 5th grade education level.

According to Healthy People 2030, organizational health literacy (OHL) is “the degree to which organizations equitably enable individuals to find, understand and use information services to inform health related decisions and actions”. One critical component of the OHL framework is improving accessibility and navigability of patient portals and other systems, including websites that patients can use to manage their health (Farmanova, Bonneville & Bouchard, 2018). HIM professionals can be involved in the updates needed to lower the reading level of websites and documents (including pre-operative and discharge instructions) to improve the assurance needed for patient self-management.

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. In addition, patient portals, smartphone applications and wearables should be included in considerations for consolidating health information. The objective of the anticipated patient-centered care should be grounded on the measures of facilitating patient self-management competency in healthcare.

D. 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.

Implicit within many healthcare systems is the need to use high quality data to improve efficiency and reduce costs. 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. The urgency of the COVID pandemic provided further importance of data collection, including the disease and its spread; the capacity of healthcare facilities to monitor COVID; the ability to follow patient outcomes; and availability of supplies and personal protective equipment (Massoudi & Sobolevskaia, 2021). Data collection was vitally important for responsiveness to the pandemic from local to international levels.

New ICD-10 diagnostic codes were developed to assist with tracking and to allow a mechanism to follow symptoms of long COVID and other late effects. Current Procedural Terminology (CPT) codes and Logical Observation Identifiers Names and Codes (LOINC) codes for laboratory tests were updated as well. However, the lack of timely information during the pandemic led to poor coordination of efforts at all levels resulting in inconsistent supplies, treatments and even quarantines. Massoudi and Sobolevskaia (2021) note that a lack of international coordination was exacerbated by lack of information exchange standards, problems in data collection and quality, and lack of public policies and regulations. Challenges faced during the pandemic forced countries to face the limitations of their health information systems, raising awareness of their preparedness for public health emergencies (Negro-Calduch, et al, 2021).

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. Natural language processing (NLP) is commonly used for physician documentation, including for radiology, pathology and surgical procedures. Scribes are also used for emergency room visits and office visits to capture the physician notes in a templated format during the encounter. A future trend may see these visits being captured through NLP. HIM professionals can fill the scribe roles and should also be involved with auditing medical reports created by NLP. Medical coders will use these documents and may also rely on new technology such as computer assisted coding to screen documents for code selection. Therefore, accuracy of information is essential to ensure code selection is correct.

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. Large language models use NLP to analyze big data and make sense of the contents, resulting in faster diagnoses and ultimately earlier and more targeted interventions

(Johnson, et al, 2021). 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.

E. Data Analysis

An important trend for the HIM field continues to be 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 and pandemics that have occurred around the world and are predicted to continue. 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.

F. 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).

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 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 in Canada, Cabrini Health in Melbourne Australia and the Hospital Corporation of America 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.

III. 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 to improve 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). Artificial intelligence will continue to be on the forefront of healthcare innovations. Other trends which have been discussed include patient-centered care, data quality, data analytics, and globally connecting HIM.

IV. 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 patient portals be increased among patients with low health literacy?
5. In what ways can access to EHR systems use artificial intelligence?
6. How can countries prepare for global pandemics?
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?

V. References

1. American Health Information Management Association (AHIMA). (2017). HIM Reimagined; Transformation starts with you (Whitepaper). Retrieved from https://www.ahima.org/about/him-reimagined/himr?tabid=whitepaper_

2. American Health Information Management Association (AHIMA). (2018). Embracing the Future: New Times, New Opportunities for Health Information Managers. Retrieved from http://bok.ahima.org/doc?oid=58258_
3. Bresnick, J. (July 9, 2015). HIM, Healthcare Big Data Analytics Skills Increase in Demand). Retrieved from https://healthitanalytics.com/news/him-healthcare-big-data-analytics-skills-increase-in-demand_
4. Bresnick, J. (May 18, 2017). HIM Pros Must Shift from Coding to Health Informatics, Analytics. Retrieved from <https://healthitanalytics.com/news/him-pros-must-shift-from-coding-to-health-informatics-analytics>.
5. Canadian Health Information Management Association (CHIMA). (2012). Transforming Health Information Management: The Evolution of the HIM Professional. Retrieved from https://www.echima.ca/uploaded/pdf/Workforce%20Transformation_FINAL_WEB.pdf.
6. D'Amore, J., Bouhaddou, O., Mitchell, S., Li, C., Leftwich, R., Turner, T., ... Nebeker, J. (2018). Interoperability Progress and Remaining Data Quality Barriers of Certified Health Information Technologies. *AMIA ... Annual Symposium proceedings. AMIA Symposium, 2018*, 358–367. Retrieved from <https://www.intersystems.com/resources/detail/interoperability-progress-and-remaining-data-quality-barriers-of-certified-health-information-technologies/>.
7. Delaney, L. (2018). Patient-centered Care as an Approach to Improving Health Care in Australia. *Collegian*, 25(1), 119-123. Retrieved from <https://doi.org/10.1016/j.colegn.2017.02.005>.
8. Dimick, C. (August 2012). Health Information Management 2025: Current “Health IT Revolution” Drastically Changes HIM in the Near Future. *Journal of AHIMA*, 83(8): 24-31. Retrieved from <https://library.ahima.org/doc?oid=106207>.
9. Evans, R. (2016). Electronic Health Records: Then, Now, and in the Future. *Yearbook Of Medical Informatics*, 25(S 01), S48-S61. Retrieved from <https://doi.org/10.15265/iys-2016-s006>.
10. Farmanova, E., Bonneville, L., & Bouchard, L. (2018). Organizational Health Literacy. *Inquiry*, 55, 1-17.
11. Fenton, S. H., Low, S., Abrams, K. J. & Butler-Henderson, K. (August 2017). Health Information Management: Changing with Time. *Yearbook of Medical Informatics*, 26(1): 72-77. Retrieved from <https://doi.org/10.15265/IY-2017-021>.

12. Gibson, C., Abrams, K. & Pletcher, T. (2016). Health Information Exchange as a Profession. *Health Information Exchange Academic Press*: 21-38. Retrieved from <https://doi.org/10.1016/B978-0-12-803135-3.00002-5>.
13. Hospital News. (2019). Health Information Management Professionals Role in Patient Safety. Retrieved from <https://hospitalnews.com/health-information-management-professionals-role-in-patient-safety/>.
14. International Federation of Health Information Management Associations (IFHIMA). (October 2017). Advancing Health Information Governance: A Global Imperative. Whitepaper. Retrieved from <https://ifhima.files.wordpress.com/2017/10/ifhima-ig-whitepaper-final.pdf>.
15. Johnson, K. B., Wei, W. Q., Weeraratne, D., Frisse, M. E., Misulis, K., Rhee, K., ... & Snowdon, J. L. (2021). Precision medicine, AI, and the future of personalized health care. *Clinical and translational science*, 14(1), 86-93.
16. Kruse, C., Stein, A., Thomas, H., & Kaur, H. (2018). The use of Electronic Health Records to Support Population Health: A Systematic Review of the Literature. *Journal Of Medical Systems*, 42(11):214. Retrieved from <https://doi.org/10.1007/s10916-018-1075-6>.
17. Lee, J., Boyd, J., & Khalil, H. (2024). A scoping review of the educator role performed by Health Information Managers in health workplace-based education: The practitioner Health Information Manager-educator. *Health Information Management Journal*, 18333583241263989.
18. Massoudi, B. L., & Sobolevskaia, D. (2021). Keep moving forward: health informatics and information management beyond the COVID-19 pandemic. *Yearbook of medical informatics*, 30(01), 075-083.
19. Negro-Calduch, E., Azzopardi-Muscat, N., Nitzan, D., Pebody, R., Jorgensen, P., & Novillo-Ortiz, D. (2021). Health information systems in the COVID-19 pandemic: a short survey of experiences and lessons learned from the European region. *Frontiers in public health*, 9, 676838.
20. Office of Disease Prevention and Health Promotion. Health Literacy in Healthy People 2030. U.S. Department of Health and Human Services. Retrieved from <https://health.gov/our-work/national-health-initiatives/healthy-people/healthy-people-2030/health-literacy-healthy-people-2030>
21. Sahoo, R. K., Sahoo, K.C., Negi, S., Baliarsingh, S. K., Panda, B., & Pati, S. (2025). Health Professionals' Perspectives on the Use of Artificial

Intelligence in Healthcare: A Systematic Review. *Patient Education and Counseling*, 108680.

22. Seitz, C. M., Shiplo, S., Filippini, T., Kabir, Z., Lennon, J. L., & Fowler, D. (2017). The reading level of government and voluntary health organization smoking cessation websites: a descriptive analysis. *American Journal of Health Education*, 48(6), 392-399.
23. Strawley, C., Richwine, C. (2023). Individuals' Access and Use of Patient Portals and Smartphone Health Apps, 2022. Office of the National Coordinator for Health Information Technology. Data Brief: 69. 2023.
24. The Joint Commission. Advancing effective communication, cultural competence, and patient- and family-centered care: A roadmap for hospitals. 2010. Retrieved from <https://www.jointcommission.org/assets/1/6/ARoadmapforHospitalsfinalversion727.pdf>.
25. University of Illinois at Chicago. (n.d.). Current Trends in the Health Information Management Field. Retrieved from <https://healthinformatics.uic.edu/blog/current-trends-in-the-health-information-management-field/>.
26. Wager, K., Lee, F., & Glaser, J. (2017). *Health Care Information Systems: A Practical Approach for Health Care Management*, 4th Edition. San Francisco, CA: John Wiley & Sons.

Copyright © 2026 by the International Federation of Health Information Management Associations.

The compilation of information contained in these modules is the property of IFHIMA, which reserves all rights thereto, including copyrights. Neither the modules nor any parts thereof may be altered, republished, resold, or duplicated, for commercial or any other purposes.