The Next HIM Frontier: Population Health Information Management Presents a New Opportunity for HIM

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The unsustainable growth of health costs, the growing lack of access to healthcare, and increasing disparities in provided care have forced the US to change how healthcare is delivered. With multiple national initiatives facing the healthcare industry, it is a challenge for healthcare professionals to stay focused and strive for success each day. In the midst of all of the change in the health information management (HIM) profession and overall healthcare industry, population health management (PHM) programs are being discussed in board rooms as a strategic initiative for the future state of healthcare organizations.

As data stewards, HIM professionals are critical to the success of information governance and data analytics in the emerging PHM programs. New population health information management (PHIM) roles and functions that will emerge out of PHM should be explored by HIM professionals as a new professional opportunity.

The goal of PHM is to keep a patient population as healthy as possible and reduce the need for expensive interventions like tests, emergency department visits, hospitalizations, and procedures, according to a report by the Institute for Health Technology Transformation (IHTT). While most healthcare providers see the critical importance of PHM, they do not have the information technology, the required understanding of PHIM, or the data management skills and resources that are required to successfully utilize population health management.

PHM lowers costs by refocusing healthcare on not just the sick but also the well. According to the IHTT report "PHM focuses partly on the high-risk patients who generate the majority of health costs, it systematically addresses the preventive and chronic care needs of every patient. Because the distribution of health risks changes over time, the objective is to modify the factors that make people sick or exacerbate their illnesses."[1]

Defining Population Health Management

PHM has two aims that will help with the challenges presented by healthcare reform: keep the healthy as well as possible through preventative care, and prevent the chronically ill from getting sicker and therefore reducing costs. Population health management is "the discipline of managing the clinical and financial risk of a defined group of individuals."[2] Some of the first things that must be understood when launching a PHM program is what a population of healthy people looks like, how clinical risk is defined, how financial risk is measured, and what will be the metrics used to analyze how sick patients with chronic disease do and do not get sicker. PHM programs also track and trend inpatient, ambulatory, and emergency department patients.

A vital part of PHM is using registries to not just collect and store data, but also connect care gap reports with the ability to alert patients that need to be seen. Without an automated way of notifying patients, people can fall through the cracks. According to population health vendor Phytel's blog, "care managers, too, need automation software to help them perform interventions with the many patients who need different levels of support and attention."[3]

The PHM model helps providers assess their entire population, not just those in need of urgent care, and stratifies it into various stages. While there are currently no IT systems that permit providers across settings and platforms to collect, aggregate, and analyze patient information in defined geographic areas for population health management purposes, this technology will be here soon.

For a PHM program to be effective there is a critical need to focus on the data and information that will increasingly power clinical decisions. Herein lies the critical success factors for PHIM professionals-the right information, on the right population, at the right time.

Complete data integration is the healthcare industry's vision for the future. Getting the right systems in place, and making sure those systems can work together, is just the beginning. The next step will involve using that data to redesign the way providers approach and deliver care. The PHIM professional must use various forms of data to get results when conducting data analysis. This includes using clinical data, claims data, administrative data, and self-reported patient data. PHIM professionals will also increasingly use health information exchange (HIE) data to best track performance measurement information.

"We are beginning to see tremendous pull through from patients, clinicians and hospitals for the kinds of rich informatics and insights enabled by open solutions geared toward keeping patients healthy and reducing overall cost," says Allscripts President and Chief Executive Officer Paul Black in a press release on PHM. "Population Health Management can be viewed in three dimensions: 1. enabling innovation and technology solutions on an open, community-wide platform, 2. partnering with clients to ensure rapid adoption, and 3. supporting the fundamental redesign in care enabled by Population Health Management."

Health systems will need to be able to use IT systems to advance clinical outcomes, improve quality, and lower costs. Ultimately, to achieve competitive advantage in a facility's IT investments, the facility staff must be able to use the wealth of information at their disposal to deliver information-powered care to patients in real time.[4]

Building the Skills for PHIM

The heart of population health information management is the understanding and governance of the sources and uses of the data, and the use of data analytics to tell the story of clinical and financial risk by converting it into quality information.

The implementation of interoperable electronic health records (EHRs) and the creation of HIEs transformed the design and operations of traditional HIM departments. This transformation, along with the unquestionable need for accurate data, has had a monumental impact on the HIM profession-challenging HIM professionals to be leaders in the areas of EHR and HIE information governance, clinical documentation integrity, information technology, health informatics, and project management. HIM professionals must once again assume a leadership role in information governance, data stewardship for clinical documentation integrity, and quality data analytics. The time is now to analyze and visualize documented and undocumented intradepartmental and interdepartmental HIM functions and data flow in order to be prepared to take the lead in PHIM.

The current tools organizations use aren't up to the task of PHM because they don't have the ability to store, manage, and distribute comprehensive, timely, and relevant information to the degree needed for PHM. For example, EHRs often don't contain the wealth of information available about the care that patients have received outside an organization, and they aren't designed for interoperability, according to an article in *InformationWeek*. "EHRs usually lack the ability to provide real-time alerts for preventive and chronic care, and do not generate quality and population reporting. Therefore, today's EHRs are not designed to effectively advance PHM. To advance PHM, providers also must develop electronic registries with population-wide databases that aren't limited to patients with specific diseases," the article says.[5]

In anticipation of these accelerating changes, optimal clinical documentation and associated accurate and compliant ICD-10-CM/PCS coding must now be viewed as a strategic asset. This is also a strategic initiative for future clinical and quality care success in PHM. Since the PHM model goes beyond treating only those patients in need of immediate care and instead treats specific populations, data will be a main factor in determining treatment techniques and plans.

Population data that will need to be available for analysis includes those patients who are:

- Well (need health wellness and prevention)
- At risk for health problems (need screening and lifestyle changes)
- Have chronic conditions (need to prevent further complications)

One key element in PHIM will be identifying and capturing the data on the chronic care patients that are not in the hospital. Proactive identification of a patient population requires a new approach to information systems that can capture and collect data from EHRs and physician practice management systems to help manage patient outreach, identify gaps in care, stratify risk, provide care management, and evaluate performance.[6] PHIM professionals must include an infrastructure that collects and stores the right information on the right population for the PHM program. The data analytics skills of those in the PHIM professional practice will include the management of the aggregated data, working collaboratively with other professionals to apply built-in, rules-driven alerts and present it to the care team for more effective preventive care and chronic disease

management. The PHIM professional must have deep knowledge of all the intricacies of the EHR in order to develop recommendations for the care team.

As PHM programs expand, comprehensive and fully interfaced PHM-EHR solutions will emerge as well. PHIM professionals must develop expertise within these systems in order to provide value added recommendations to the care team on the clinical documentation requirements needed for data gathering. According to a *Medpage Today* article, PHM-EHR solutions should include:

- Pre-defined rules-based alerts on specific population levels for preventive care and chronic disease management
- Automated outreach to patients who receive the alerts
- An interactive patient portal that allows patient queries
- Ability for patients to communicate electronically with providers, which drives compliance with care plans
- Ability to generate reports that mine population-based data and to report on patient outcomes[7]

Those excelling in PHIM will be able to innovatively assess and stratify patient demographic and ICD-10 data into existing and emerging categories, such as categories for those that are well, at risk, and living with chronic conditions. The most critical task for PHIM professionals will be to ensure the integrity of clinical information at the point of care. The focus for many national health IT initiatives is on clinical documentation integrity throughout the continuum of care and revenue cycle. This will, in turn, ensure that the clinical documentation is appropriately coded and confidently shared across the continuum of care enterprise. As the data stewards, the HIM professional is in an excellent position to guide providers through every step of the clinical documentation integrity process. This area of responsibility will be expanded to include information privacy and security, and overseeing the rules of the game for documentation in the EHRs and data repositories. As a result of these efforts, the information can be used to measure and prove that a population is getting healthier.

Institute for Health Technology Transformation Reports on PHM

In the world of healthcare reform, population health management (PHM) must increasingly be a core competency of healthcare organizations, and population health information management must be a core competency for HIM professionals. PHIM will emerge as a subspecialty in the HIM profession. This is evident in an enlightening report from the Institute for Health Technology Transformation (IHTT) that helped lay out a plan for implementing population health management in US healthcare. “Population Health Management: A Roadmap for Provider-Based Automation in a New Era of Healthcare” says that to successfully accomplish PHM goals providers must give preventative and proactive care to well patients before they visit the provider with a health issue:

> This requires providers to maintain regular contact with patients and support their efforts to manage their own health. At the same time, care managers must manage high-risk patients to prevent them from becoming unhealthier and developing complications. The use of evidence-based protocols to diagnose and treat patients in a consistent, cost-effective manner is also part of the provider-based PHM approach.

The first step for hospitals to take on population health management could be into their own data warehouses. By leveraging their existing infrastructures for collecting and analyzing the data, hospitals can determine what additional data they will need. Most of the information in data warehouses comes from hospitals, not ambulatory care clinics or other care settings.

According to the IHTT report:

> Because of the Centers for Medicare and Medicaid Services’ “meaningful use” EHR Incentive Program, however, healthcare providers are increasingly developing the ability to exchange clinical summaries in the form of continuity of care documents (CCDs). Many providers with that capability haven’t yet set up end-to-end solutions for exchanging data. But the time is coming when CCDs will be routinely traded across organizational boundaries. That won’t end the division between inpatient and outpatient databases, but it will reduce the gap significantly. The advent of

> health information exchanges will further increase the interoperability of systems. Mobile health (mHealth), a field that is expanding rapidly, will also have an impact on population health management. mHealth applications will generate an avalanche of new healthcare data. At present, not much of that is going into EHRs, partly because few apps are integrated with EHRs. But when the field becomes more standardized, mHealth could provide a rich source of data to support patient self-management.

It will be essential for HIM professionals practicing in the world of PHIM to not only be knowledgeable about existing data infrastructures but to be highly creative in their work to collect, access, and analyze the information as well. The future state of PHIM will certainly not have endless resources-tremendous effort on detailed planning and pinpointing the data needed for business decision support will be a key role of the PHIM professional. Data analysis is an integral part of PHM, according to the IHTT report:

> Specially designed business intelligence applications are required to measure mortality, health status, disease prevalence, and patient experience. Reports using this data must be available to providers, care managers, and top management. Organizations must also measure costs and patient experience on a population-wide basis. And they may use these reports as the basis for quality reporting to payers and other outside entities. To describe population health at any given time, organizations can use a variety of measures, including those that describe processes (how many patients with diabetes received an appropriate HbA1c test?), intermediate outcomes (HbA1c or blood pressure levels), and long term outcomes. The latter requires a combination of clinical data and patient-reported data, such as functional status and self-perceived health.

It also requires the skills that the PHIM professional brings to the table-knowledge of clinical data, clinical coding and classification systems, and the content of the entire provider and personal healthcare records.

PHIM Offers New Expertise for HIM

PHIM has the potential to become a new area of expertise for HIM professionals looking to develop best practices. PHIM will require accurate ICD-10 coded clinical data as sources and uses for inputs and outputs. PHIM programs will utilize all of the existing data repositories and access/retrieve the clinical data via ICD-10 codes. All care and after care will be monitored, measured, and trended across the continuum. Methodologies leveraged to accomplish this task include ICD-10 codes and other quality measures used to analyze severity of illness, risk of mortality, health risk factors, and various demographic and financial risk metrics.

An important smart tool that could be utilized for PHIM is the AHIMA Data Quality Management Model (DQM), available online in the AHIMA Body of Knowledge. According to the model, the main outcome of the DQM is knowledge regarding the quality of healthcare data and its fitness for applicable use in the intended purposes. DQM skills and roles are not new to HIM professionals; DQM functions involve continuous quality improvement for data quality throughout all healthcare settings and include data application, collection, analysis, and warehousing.[8]

It is not sufficient for care teams alone to address patients' care gaps during office visits. To effectively provide PHM, "automation tools are required to track the health of all patients continuously, whether or not they visit their physicians," according to an article on PHM vendor Phytel's blog.[9] Patient registries based on clinical and administrative data allow organizations to accomplish this objective in a cost effective manner, along with automated outreach, care management, and patient engagement programs.

New automation tools can facilitate this part of the patient engagement process, helping to ensure outreach is provided for all patients in need of service, according to a white paper from Phytel:[10]

> Using data extracted from a practice management system or an electronic health record, these solutions build patient registries and use clinical protocols to trigger messaging to patients who need to make an appointment with their physician. Frequently, this messaging results in patients getting back in touch with their physicians after a long absence.

The white paper takes note of a study at Prevea Health, a large multispecialty group in Green Bay, WI, which showed that automated outreach to noncompliant patients with diabetes or hypertension increases the likelihood that those patients will make office visits and get the care they need. The conclusion reached in this study indicated that automated identification and outreach programs may offer providers an effective means to supplement existing care practices to ensure patients with chronic conditions receive the care they need.

PHIM professionals need to use current tools on the patient data that is available. This approach will be more effective than creating elaborate new technology systems and hypothesizing on the type of data that should be collected. HIM professionals hold the key to PHIM with their knowledge and execution of the Data Quality Management Model. The characteristics of data quality-accessibility, consistency, currency, granularity, precision, accuracy, comprehensiveness, definition, relevancy, and timeliness-originate in the Data Quality Management Model. The DQM was developed to illustrate the different data quality challenges, but can also now serve as a list of core competencies HIM professionals should hold when they assume roles in PHIM. According to the model:

> Payment reform and quality measure reporting initiatives increase a healthcare organization's data needs for determining achievement of program goals, as well as identifying areas in need of improvement. The introduction of new classification and terminology systems-with their increased specificity and granularity-reinforce the importance of consistency, completeness, and accuracy as key characteristics of data quality. The implementation of ICD-10-CM/PCS will impact anyone using diagnosis or inpatient procedure codes, which are pervasive throughout reimbursement, quality reporting, healthcare research and epidemiology, and public health reporting systems. SNOMED CT, RxNorm, and LOINC terminologies have detailed levels for a variety of healthcare needs, ranging from laboratory to pharmacy, and require awareness of the underlying quality from the data elements.

Data Quality Management Model

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SOURCE: CTG Health Solutions and Clinovations. "Population Health Management: Leveraging Data and Analytics to Achieve Value." 2012.

HIM Must Learn Data Terminology, Best Practices

Designed for input of data, SNOMED CT is being used today as the core terminology in EHR-based problem lists as well as the foundation of many computer-assisted natural language processing engines. All the data collected using SNOMED CT will need to be reported in a classification system such as ICD-9-CM or ICD-10 as ICD is a classification system that is designed for output. ICD-9 and ICD-10 aggregate the details being input into codes designed for reporting. The PHIM professional will be required to excel in all of the terminology, coding, and classification systems, so knowledge of SNOMED CT is a must.

According to the AHIMA DQM, healthcare data serves many purposes across many settings, primarily directed toward patient care. The industry is also moving toward an increased focus on ensuring that collected data is available for many other purposes. The use of new technologies such as telemedicine, remote monitoring, and mobile devices is also changing the nature of access to care and the manner in which patients and their families interact with caregivers. The rates of EHR adoption and development of HIEs continue to rise, which brings attention to assuring the integrity of the data regardless of the practice setting, collection method, or system used to capture, store, and transmit data across the continuum of care.

As healthcare evolves and becomes more dependent on technology, a contemporary view of HIM and the role of the HIM professional must continue to evolve, according to the AHIMA Core Model.[11] Traditionally, health information management has been seen as the practice of collecting, assessing the completeness of, maintaining, and sharing (as authorized) patient information through paper-based and electronic means. It is practiced in provider, payer, research, and governmental settings,

as well as in HIEs and other settings that provide healthcare or maintenance of health records. Those duties still exist and remain largely unchanged, though the roles in which they are performed are evolving.

What does it mean to be relevant in HIM? With the widespread adoption of electronic health records and other technology-based information sources-and the use of the electronically available data for healthcare management measurement purposes, research functions, and governmental initiatives-health informatics and health information technology are being increasingly utilized in HIM practices in the healthcare industry. These skills are heavily utilized in PHIM.

Strategic thinking and research brought about the initial development and refinement of the HIM Core Model, which focuses on the current and future state of the HIM profession in all areas, including education, research, public policy advocacy, and the establishment of HIM best practices and standards. This background and framework was essential as the HIM profession identified the urgency and importance of advancing branding and recognition as a key strategic initiative. AHIMA's value proposition must be expanded in order to develop key messages for its stakeholders to use in the workplace.

The HIM Core Model shows that the primary role of the HIM professional does in fact include the primary skills of the PHIM professional. These five main functional areas of health information listed in the model, which are essential for PHIM, include:

- Data capture, validation, and maintenance
- Data/information analysis, transformation, and decision support
- Information dissemination and liaison
- Health information resource management and innovation
- Information governance and stewardship

One of the key HIM guiding principles is to facilitate interdisciplinary collaboration in situations supporting health information practice, according to the AHIMA Code of Ethics. HIM professionals are the primary drivers of raising awareness to the entire enterprise when it comes to the safeguarding of personal health data and information. As such, HIM professionals actively lead, engage, participate in, and contribute to decisions that affect the well-being of patients by drawing on the perspectives, values, and experiences of those involved in patient care decisions. Professional and ethical obligations of the interdisciplinary team as a whole and of its individual members should be clearly established. Data stewardship is not simply a technology solution; it is the term used to define the people, policies, procedures, and technologies necessary to complement the data governance model. As HIM professionals assume new roles in information governance and quality data analytics in PHIM, they can rely on some of the same unique principles that have long guided the HIM profession.

When thinking about the role of an HIM professional serving as the designated data steward of an organization, the AHIMA Code of Ethics should not be overlooked. The role of the data steward, regardless of the setting, is covered by the AHIMA Code of Ethics and serves several purposes. These include:

- Identifies core values on which the HIM mission is based
- Summarizes broad ethical principles that reflect the profession's core values and establishes a set of ethical principles to be used to guide decision-making and actions
- Helps HIM professionals identify relevant considerations when professional obligations conflict or ethical uncertainties arise
- Provides ethical principles by which the general public can hold the HIM professional accountable
- Socializes practitioners new to the field to HIM's mission, values, and ethical principles; articulates a set of guidelines that the HIM professional can use to assess whether they have engaged in unethical conduct.[12]

Each one of these is a data steward responsibility of the HIM professional.

HIM Core Model

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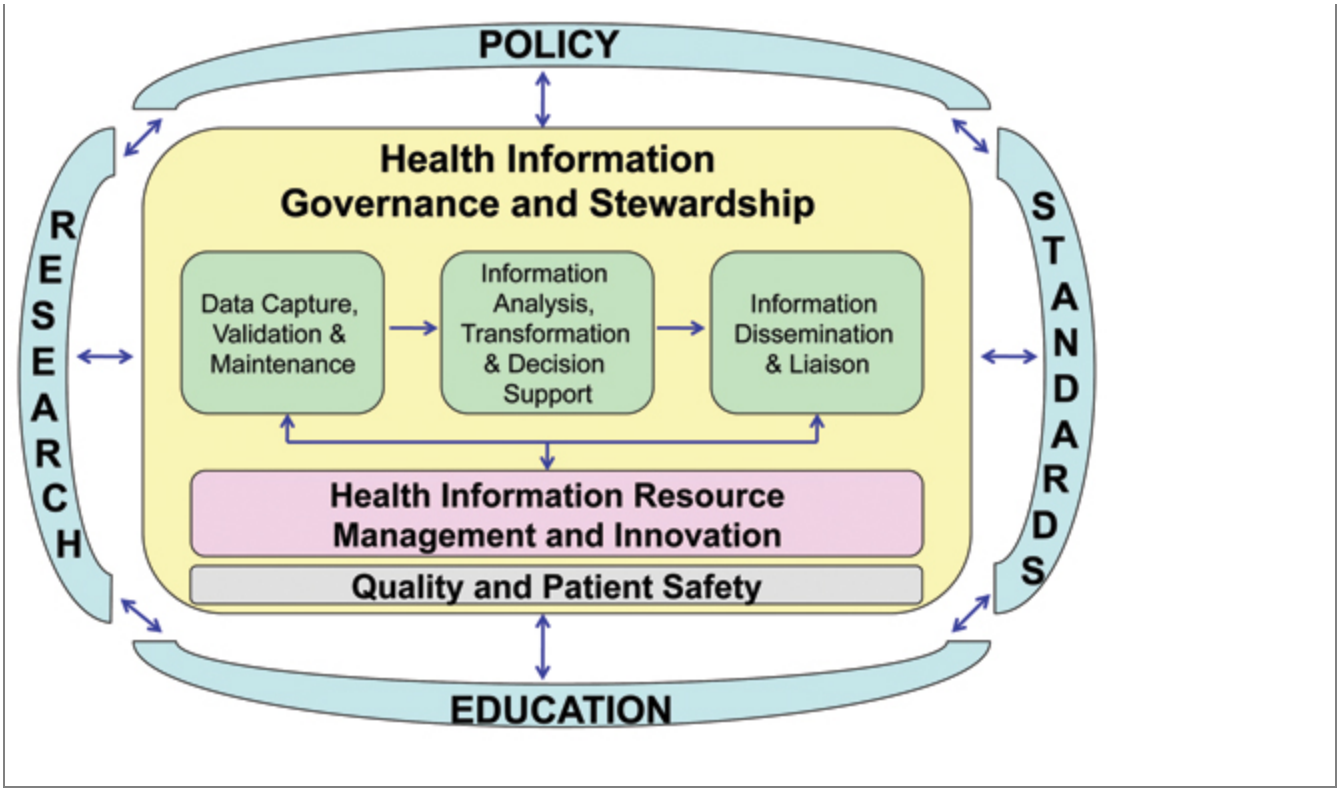

Crossroads Ahead for PHIM, HIM

In choosing a career in health information management, HIM professionals make a commitment to lifelong learning-continuously developing new skills and expertise to ensure that the HIM profession maintains a pivotal role in providing quality healthcare through quality information. HIM professionals are in the midst of the greatest transformation in the history of the US healthcare system. HIM leadership is imperative to the success of this transformation, as is the ability to develop and excel in PHM programs.

Why is there going to be a demand for PHIM? The answer lies in the data. According to a MedPage Today article, "As reimbursement methods continue to evolve and accountable care organizations develop, shared population health management will drive larger organizations to aggregate data across the entire delivery system."[13]

HIM professionals have a brilliant history in understanding the content of clinical information and striving for accuracy in clinical documentation and associated coding. It is the HIM professional's role and responsibity to renew their commitment to focusing on clinical documentation integrity and its importance to emerging healthcare reform initiatives such as PHM. It is the application of the HIM principles that are the key differentiators that enable an HIM professional to thrive in the emerging PHIM role.

For the past 85 years, the HIM profession has been in the pivotal role of highlighting the importance of clinical documentation integrity and compliance, whether the information was on index cards, paper medical records, dictation and transcription, hybrid or electronic patient records. Current and future HIM professionals should aim to lead the healthcare industry into the next generation of health informatics and data analytics. Embracing PHM and creatively developing new analytic tools and techniques will enable a new generation of PHIM professionals to be successful.

Organizations are preparing now for PHM. The time is now for the PHIM professional to set the bar for the next generation of HIM professionals and embrace the education and research requirements that will enable them to excel in the area of PHM data analytics and information management.

Notes

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