Abstract

This is a case study of the evidence-based management practices of a centralized health information management (HIM) department in a large integrated healthcare delivery system. The case study used interviews and focus groups, as well as de-identified dashboards, to explore the impact of reporting on the organization. The dashboards and key performance indicators (KPIs) were initially developed in 2012 and have continued to evolve. The themes that resulted include the following: (1) evidence-based management is integral to the culture of the organization; (2) communicating regularly via dashboards and KPIs is key to transmitting the value of HIM to the entire organization; and (3) staff not only report the required measures for the dashboard but also take pride in it and often develop methods for tracking their individual performance. Most evidence supporting HIM operations management is related to coding and clinical documentation improvement, but even in those areas, national benchmarks are missing. It is important for the HIM profession to develop national and regional benchmarks to assist professionals in managing operations effectively and communicating their value to the healthcare industry.

Keywords: operations management, benchmarks, health information management

Introduction

As a profession, health information management (HIM) has been actively engaged in data management since at least 1998. The last two decades have seen continued growth and use of data in healthcare. However, even today, the use of data to manage health information operations deserves investigation. This case study was undertaken to explore how the centralized HIM department of a large integrated healthcare delivery system uses data to manage its operations.

This integrated healthcare delivery system is a faith-based, nonprofit system that cares for more patients in North Texas than any other provider. The system’s primary service area consists of 16 counties, home to more than 7 million people. The healthcare delivery system was formed in 1997 with the assets of two large existing hospital systems. Later that year, another hospital in the area joined the system. Currently, the system has 27 hospital locations, including 18 acute care hospital locations, five short-stay hospitals, three rehabilitation hospitals, and one transitional care hospital, all owned, operated, joint-ventured, or affiliated with the system. It has more than 4,000 licensed beds, employs more than 25,000 people, and counts more than 6,200 physicians with active staff privileges at its hospitals.

To our knowledge, this is the first case study exploring the use of dashboards and key performance indicators (KPIs), or evidence-based management, in an HIM department. The authors believed this
study was needed to demonstrate how data can be used effectively and to suggest additional areas for HIM operations data analytics.

This case study is important because it begins to build the foundation for evidence-based HIM operations management. Hopefully, this case study will also be used by HIM educational programs.

**Literature Review**

The HIM profession has approached data management from many different perspectives, yet publications related to evidence-based HIM operations management are difficult to find. Both PubMed and the American Health Information Management Association (AHIMA) HIM Library were searched, revealing some research, most often related to patient record coding and clinical documentation improvement.\(^2\)\(^3\) Unfortunately, this focus does not encompass the entire range of HIM operations, leaving out scanning and release of information, at a minimum. Other articles are focused on more broad-based analytics, applicable to the delivery of healthcare rather than the management of HIM operations.\(^4\)\(^5\) While valuable, this information does not assist HIM professionals in managing their day-to-day operations.

Since approximately 2014, AHIMA, as the HIM professional association, has focused on information governance, performing studies and creating many resources for healthcare organizations to implement information governance. In 2017, Houser and colleagues discussed the need for information governance related to support for analytics.\(^6\) This article reviewed several models that can be used when managing the information needed for management, but it did not address the actual use of the data and information for operations management. Likewise, the practice brief for data analytics reporting provides guidance regarding the reporting lifecycle, reporting methods, and tools for reporting; however, no actual example is provided.\(^7\)

The lack of a comprehensive review of evidence-based operations management in a case study or other form of research reveals a gap in the HIM literature. The following case study is expected to provide only a starting point for evidence-based HIM operations management.

**Methods**

This case study is a joint project between a graduate program in health informatics and the large integrated healthcare delivery system. It was approved by the university’s Committee for the Protection of Human Subjects, approval number HSC-SBMI-18-0567.

The methods chosen for conducting the analysis of the health delivery system’s evidence-based HIM operations were interviews and focus groups over a two-day period. All interviewees and focus group participants signed forms indicating their informed consent to participate in the case study.
The questions included a description of the KPIs used, how they are selected and calculated, and how data are collected for each KPI. They were also asked about the evolution of the KPI reporting and what they liked best or least about using and reporting KPIs. The focus group and interview questions were approved by the institutional review board and can be found in Appendix A.

The interviews were held with the vice president of health information management services (HIMS) and clinical documentation improvement (CDI), the direct supervisor, and the direct reports to this position. Focus groups were held with the coding, clinical documentation improvement, data integrity, release of information, and operations and regulatory compliance units. Transcripts were made of all sessions, and grounded theory was used as the analysis method. A total of 50 persons took part in the focus groups, with 6 persons interviewed individually.

**Results and Discussion**

This case study explores the evidence-based management of a centralized HIM department. For clarity, this study focuses on the reporting from each department to the VP of HIMS and CDI, as well as to senior-level executives at the system level and executives at the entity level across the healthcare organization.

Themes that emerged from the interviews and focus groups are as follows:

1. The focus on evidence-based management is pervasive across and throughout the organization. Most, if not all, organizational units have dashboards to help them manage their areas using KPIs.
2. Communicating regularly via dashboards and KPIs not only enables more effective management but also ensures that senior management understands the impact of HIM operations on the overall health of the organization.
3. Setting and achieving goals gives the HIM and CDI personnel a sense of pride in doing their job well. The staff report measures beyond those required for the dashboard. More than one person reported having created their own dashboard to track their individual performance.

**Organizational Structure**

The HIM organization is centralized and complex, as might be expected when managing HIM operations for 19 hospitals and related organizations. The organizational structure is found in Figure 1.

The initial organizational structure was established in 2012 after a two-day rapid design session that involved all HIM directors and managers along with representatives from human resources and information technology. Key objectives of the rapid design session were to design and build the enterprise HIM model, identify best practices, create performance specifications, and develop methods of communication. The organization designed a unified system approach to streamline...
operations and achieve excellence, with the long-term expectation of benchmarking operations.

Consistent quality and timeliness of data reporting across the enterprise, with a focus on developing and using leading-edge tools and enablers to consistently support a leveraged enterprise HIM model, was a key initiative. From the beginning, the organization developed standardized KPIs to be included in a reporting matrix for each functional area. Performance baselines were established to enable postimplementation comparisons. Over time, the organizational structure evolved as responsibilities were added under the VP’s leadership.

**Use of Dashboards and KPIs**

The dashboards and KPIs for HIM operations have been in development for six years and continue to evolve. Staff who worked in other healthcare organizations or those who worked at the healthcare delivery system before the centralization of HIM services experienced a period of adjustment related to the extensive reporting and sharing of data. They reported initially feeling that the dashboard reporting would be used as a “gotcha.” However, they discovered that reporting the data allowed them to identify opportunities for improvement, as well as providing evidence that made it possible to celebrate achievements. Not all goals are achieved; this is consistent with the practice of setting “stretch” goals.

Data are gathered in a variety of ways from each staff member. Examples include turnaround times for different types of requests for patient records; physician documentation compliance by documentation type; data integrity, as demonstrated by duplicate accounts; management of record scanning; coding productivity and denials; and financial analysis of HIM operations. The summary HIM dashboard is seen in Figure 2, while Figure 3 shows the CDI dashboard. To preserve confidentiality for the organization, the dashboards show synthetic data. The structure of the dashboards is accurate.

In addition to an overall view of the measures for the integrated healthcare delivery system, each hospital or separate organizational unit receives a dashboard detailing their performance for all of the measures. For example, the integrated health delivery system may be compliant with the standard of 95 percent completion of history and physical update within 24 hours for a given measurement period, while one or more of the hospitals or organizational units may not be in compliance with the standard.

Using a dashboard over a long period does not guarantee problem-free management. During the interviews and focus groups, participants noted issues that had recently been encountered in the reporting for release of information. Over several months, the staff reported that they believed the dashboard numbers for a specific type of release request were incorrect; they contended that the numbers on the dashboard were not consistent with what they witnessed in their day-to-day operations. These reports prompted further investigation into the dashboard data that were automatically extracted from the electronic health record (EHR). It was eventually determined that a
recent upgrade to the EHR had altered the reporting related to the release requests. This anecdote demonstrates that the frontline staff pay attention to the dashboard. Further, they feel empowered to report inconsistencies and discrepancies they discover in the data reported on the dashboard.

**Benchmarks**

As reported by the healthcare organization employees, benchmarks are an essential component of a useful dashboard. However, as seen in Figure 2, 41 of the 55 measures, or approximately 74.5 percent of the HIM operational measures used by this data-driven organization have no comparable industrywide benchmarks. Although the organizational performance data is synthetic, the industry and organizational benchmarks are accurate. This lack of comparable benchmarks was the topic of a recent *Journal of AHIMA* article focused on coding accuracy. It is reasonable to suggest that this lack of comparable industrywide benchmarks applies to a majority of HIM operations.

Careful attention to Figure 2 reveals multiple measures where the organization's standard is much stricter than the industry standard or there is an organizational standard without an industry standard. For example, in the release of information category, the organizational standard for continued care request turnaround time is 7 days, whereas the Texas requirement is 15 days. The organizational standard for stat request turnaround time is 30 minutes; there is no industry standard. Similarly, the organization’s standard for medical record delinquency rate is 25 percent, as opposed to the Joint Commission standard of 50 percent. Both management and staff report that the use of the dashboard and KPIs has resulted in an overall lowering of the organizational targets over time, demonstrating performance improvement.

Use of the dashboard over time can also assist the HIM department with compliance and external audits. In this organization, the transcription section was required to undergo an external audit of the data reported in the dashboard. (This is a standard practice at many large organizations. External auditors examine different practices and processes in the organization to ensure accuracy and compliance with regulations.) All of the transcription data were reviewed for accuracy. The data collection sources were examined, as were the numbers reported. Because of the documentation supporting the processes and the data collected, the audit resulted in no recommendations for improvement.

**Additional Considerations**

The current dashboard used by this healthcare delivery system has evolved over several years to meet the business needs of the organization and to align with strategic goals of the enterprise. The dashboard not only contains data from a system perspective; it also contains data at the hospital level, allowing transparency and benchmarking. It was important to the organization to create a culture of transparency that demonstrates the value of a centralized HIM model. Leaders across the enterprise use the dashboard data to identify patterns or trends and to perform internal comparisons with hospitals of similar size. This level of transparency has created a true partnership for
improvement on specific measures between HIM and other departments within the organization. The dashboard has allowed improvement in HIM operations and in quality outcomes through collaborative efforts across the enterprise. More than one person reported that stakeholders look for the monthly dashboard and appreciate the level of transparency.

HIM professionals wishing to initiate a dashboard should choose a starting point. This starting point could be a single measure or a single organizational unit. For example, coding might be reasonable because HIM departments commonly track their coding productivity. Once this reporting is standardized and everyone is comfortable with the reporting, additional units such as release of information or documentation compliance can be added until all operations under HIM supervision have KPIs included on the dashboard.

**Limitations**

As with all case studies, one of the limitations of this study is the examination of a single organization. Other HIM departments in other healthcare delivery organizations are likely to have different needs for their reports and/or dashboards, so these results cannot be generalized. Additionally, the subjective nature of the case study method may influence the results, a case study can be difficult to replicate, and case studies are time consuming.

**Conclusion**

This case study is the first thorough examination of evidence-based HIM operations management. As such, it exposes both challenges and benefits of using data to manage operations. Initial challenges include securing employee cooperation for a new management process, efficiently collecting the data, and producing the dashboard in a timely fashion. Benefits include substantiation of HIM operations effectiveness, HIM professionals’ pride in their jobs, and validation of HIM reporting under internal or external review.

This study especially noted a lack of industrywide benchmarks that would be useful for HIM operations management. This deficiency should be concerning for the HIM profession as data become ever more ubiquitous and important in all aspects of healthcare delivery. AHIMA is the logical organization to lead the effort to collect HIM operations management data that its members can use for analytics and evidence to support operations. AHIMA could become a source of benchmarks and a resource for the healthcare industry.

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Appendix A

Focus Group and Interview Questions Outline

1. Can everyone please introduce yourself, including your position at XXX, the unit and how long you have worked in your position?
2. Tell me about the KPIs you either use for your job or your unit uses to report performance. How many KPIs do you use? How were they chosen? Can you give me details about their calculation? How do you collect data for these KPIs?
3. Are these the same KPIs you have always used or has there been an evolution? If there has been an evolution can you walk me through that process? Where did you begin with the KPIs? How have they been changed or modified over time?
4. Can you tell me about any reports or other documents that you would believe helpful to the case study? All documents will be cleared by the XXX co-investigator for appropriateness.
5. How has using/reporting the KPIs changed how you do your job or how you view your job or the requirements of your job?
6. What do you like best about using and reporting KPIs? What would you change about it if you could?
7. Is there anything else you would like to share with me about your job, your unit, and performance monitoring at XXX?
8. Can I answer any questions for you?

Notes


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