Moving from Paper to Electronic Health Records: Optimizing the Transition

WHITE PAPER
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Healthcare providers are currently transforming the way information is handled, with major efforts being initiated to implement the infrastructure and applications needed to provide a fully interconnected, complete electronic health record (EHR). In conjunction with efforts to adopt EHRs, hospitals are actively seeking to convert their paper-based work environments into paperless work environments and transform their health information management (HIM) resources. The reasons for this conversion are many, including more centralized patient records management, the move toward computerized physician order entry (CPOE), and the need for timely access to medical history, improved data privacy and security, regulatory compliance, and, more generally, improved operational effectiveness and reduced costs.

Hospitals need to leverage transformational approaches for supporting the adoption of EHR and achieving the benefits of a strategy for records transition alongside their EHR implementation. Key strategies include:

- Using records transition to provide an on-ramp to EHR by digitizing existing records to provide a single view of the patient's medical history in an efficient manner at the point of care
- Accelerating physician adoption by minimizing the need for providers to use hybrid paper and electronic records systems to deliver care during the transition period
- Leveraging the transition to increase security and ensure patient privacy and compliance with HIPAA regulations, improving records management overall while moving to a more accessible electronic format
- Implementing approaches that deliver near-term value today while creating a sustainable records management and archiving approach for the long term
IN THIS WHITE PAPER

This White Paper is presented by IDC Health Insights and sponsored by Iron Mountain. It is based on briefings from Iron Mountain and existing IDC Health Insights primary and secondary research. This White Paper presents transformational approaches and strategies for moving clinical documentation processes to EHRs, definitions, and an overview of types and stages in the journey to electronic records as well as considerations for provider organizations.

SITUATION OVERVIEW

Introduction

Historically, records management in hospitals centered around the creation and management of the patient's paper chart. However, the benefits to patient safety and the quality of care that come from upgrading to electronic charts and documentation have become clear; and this understanding, coupled with government incentives, has led most U.S. providers toward the adoption of EHRs. EHRs will eventually replace paper charts with electronic records and notes, but the transition period is of much concern as the medical history and data contained in the existing paper chart may be vital to providing safe and appropriate care to patients. For this reason, alongside regulatory requirements for records retention, hospitals are faced with moving forward with electronic charts while needing to manage the information contained in paper charts gathered during the transition so that they can be made available to caregivers. This challenge creates the need for hospitals and practices moving to the EHR to consider and adopt a records transition strategy that allows them to access historical data while moving forward with their EHR.

Approaches to Records Migration

Today, there is an unprecedented amount of pressure in U.S. hospitals. They are converting from a paper records environment to an electronic records environment, and while this process is under way, physicians and HIM staff are challenged to view medical histories, make decisions, and document and accurately bill for care that is represented by hybrid combinations of records, without a single source of information. Providers striving for EHR adoption face severe change management issues and are rooted in a hybrid world that is resistant to change.

In this hybrid state, providers see the potential of EHRs on the horizon, but they have not yet reached the point where they may leave all the paper behind. This leaves them with an incomplete view of the patient and with concerns about continuity of care and billing in this new environment. In addition, a new set of expenses has been layered on
with the purchase and implementation of the EHR, but old paper document management costs persist.

As HIM departments struggle with the transition, legacy systems face staffing challenges as employees move on to support functions related to the EHR deployment, but new staff members are not budgeted for or added to maintain the dual environment. At the same time, major coding and billing changes are on the horizon with the implementation of ICD-10 in 2013, and HIM departments need to prepare to preserve revenue streams and bill accurately under the new coding system.

Providers need to consider optimal strategies to compete in this new environment. Strategies and approaches that should be leveraged include:

- **Records management and conversion.** Providers need to plan, prepare, and budget for records conversion during their EHR deployment. Topics such as cleanup of the master patient database and eliminating duplicate records need to be tackled before the transition to the EHR.

- **Core record approach.** A core record approach can be employed that includes defining the critical records for document imaging, such as active, physical records, incorporating them into the EHR for access by providers and HIM. By archiving these records, providers can redeploy the resources associated with maintaining physical records.

- **Day-forward approach.** A day-forward approach to document imaging can be used to ease the transition to electronic records. This involves integrating scheduling into records transition and scanning the next day's records into the EHR in a just-in-time process that avoids excess resource use.

- **Internal versus service/partner-based approach.** Providers should recognize that existing staff may not be well suited for the transition and can be repurposed and that service-based approaches and partnerships can be used to leverage existing resources while taking advantages of economies of scale resulting from outsourcing.

**Closing the Gap Between Traditional Records and EHR**

Records management presents challenges at various stages of EHR implementation, and providers need to consider:

- **Lessening/avoiding the impact of hybrid records.** The hybrid record presents a problem in itself as providers must access multiple sources and assimilate information without a single view of the patient records. This introduces the potential for errors —
the same types of avoidable errors that EHRs are introduced to help providers avoid. It is also inconvenient and time consuming and can delay care for patients and hurt provider productivity.

- **Keeping billing efficient.** Hybrid records and missing information slow down the billing process by increasing the lag time from discharge to billing, thereby adding to financial burdens for hospitals struggling with declining reimbursement and more self-pay patients. A records management process using a conversion approach can help make records available sooner electronically to allow HIM to compress the revenue cycle and speed chart completion and coding, resulting in better billing and collections processes.

- **Enhancing physician adoption.** Physicians will enhance their use of the EHR when their reliance on paper-based systems is lessened as much-needed information becomes available electronically.

- **Archiving.** As providers move from paper to electronic records, the potential to reclaim space and reduce costs associated with paper records management is a strong opportunity. An appropriate records migration strategy can help providers plan and implement archiving and records destruction policies and take advantage of the opportunity to lower costs.

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**Archiving, Backup, and Disaster Recovery**

As the use and implementation of EHR systems grow, providers are increasingly faced with the challenge of managing hybrid records stored in paper and electronic formats. These large data volumes have led to increased storage costs and data management issues for provider IT organizations as well. However, despite escalating data volumes and storage costs, and the fact that a large proportion of data can be made available for archiving in most organizations, few providers have made use of application and database archiving solutions. In an IDC study conducted in 2010, 53% of providers reported that they did not archive inactive EMR/EHR data to an archive storage tier (see Figure 1).
Providers are even less likely to archive paper records when paper records are disconnected from the electronic record in a hybrid environment. Adding to the need for proper archiving of EHR data are the requirements for retention of this data and confusion about regulatory compliance in this area. Retention requirements for medical data vary from state to state, and provider organizations often choose to adopt their own compliance policies to retain data for longer periods in order to have it available for medical research or legal discovery. A summary of state retention policies is available at http://library.ahima.org/xpedio/groups/public/documents/ahima/book1_012547.pdf.

The data retention policies of individual provider organizations vary widely, but in an IDC study conducted in 2010, the majority of providers, 63%, indicated that their current policy for EMRs/EHRs is to keep them forever and never expire them (see Figure 2). Even among those provider organizations that do have records management strategies in place that would allow for expiration of records and reclamation of storage capacity, many do not have the technology in place to actually perform the archiving.
Given the trend among provider organizations to keep records indefinitely, it is quite clear that current adoption of EHR technology and the quantities of electronic data these new systems are generating will require the adoption of archiving solutions in the future. However, adoption of these systems is hampered by issues concerning organizational compliance policies, data availability, retrieval processes, and the advent of appropriate technology for performing application and database archiving when working with legacy clinical systems.

The hybrid records environment also hinders proper backup and disaster recovery approaches. While backup and disaster recovery in the paper environment were relatively simple and limited, electronic records management presents new opportunities to ensure continuous access to records and care delivery in the event of system failure or outside events. Providers should utilize records migration strategies that allow them to leverage multiple options including the cloud, safeguarding patients and staff in the event of an emergency.
Benefits of Records Migration Strategies for Providers

There are clear benefits for provider organizations that choose to implement a transformation approach to records migration. These benefits will allow providers to:

- Minimize the time spent in inefficient hybrid record states
- Optimize the utilization of staff during the transition
- Reduce record management expenses by instituting record management policies, archiving, and releasing physical space used to store records
- Ease the adoption of EHR by making a complete electronic health record available at all stages, avoiding the inefficiency of accessing information in multiple hybrid forms during the transition
- Ease the adoption of ICD-10 coding via improved availability of medical information and history
- Improve care by ensuring that clinical information is continuously and readily available during the transition to EHR
- Reduce the risk associated with regulatory compliance, HIPAA, and potential security breaches

Considerations

Provider organizations thinking about investing in records conversion capabilities and services should consider:

- **Cost/benefit analysis.** Providers should consider record conversion strategies that fit their organizational road map, budget, and staffing constraints. Outsourced models, including cloud-based solutions, shift costs from capital to operating expenses, and utilizing service-based approaches can save on staffing costs.

- **Smart and effective conversion.** Developing the right strategy for the transition is an important aspect. Providers need to consider strategies for consolidating records from multiple hospitals and archiving onsite records to free up space and resources. Effective outsourcing of open shelf records, with selective scanning on a go-forward basis, can reduce costs and resources. By scanning retrievals from the archive, they can reduce the total amount of scanning required.
● **Legacy document challenges.** Providers must consider the need to retrieve historical data from archives. Historical data may be needed by clinicians delivering care, and retrieval options need to allow for fast, accurate retrieval of information, whether from clinical systems still in use or older paper records, or a combination of the two. Retrieval times should be aligned with the requirements of providers at the organization. In addition, retrieval of archived clinical information may be needed for financial or administrative purposes or in cases of legal discovery, and provisions need to be made for these uses.

● **Transitioning HIM.** As the move toward electronic records and the conversion to ICD-10 coding continue over the next few years, the function of HIM will change dramatically. Staffing the coding and billing functions will continue to present challenges as the requirements for records management change. This transition should be considered by providers planning strategies for records management.

● **Compliance with HIPAA requirements for data privacy and security.** Providers need to ensure that paper, electronic, and archived clinical data, in whatever form, enjoys the security protections required under the HIPAA regulation. Whether archives are onsite or in the cloud, penalties and enforcement for breaches of personal health information (PHI), both economic and in the community, will apply; therefore, appropriate security provisions need to be in place during and after records conversion.

● **Compliance with retention policies.** Providers need to consider HIPAA requirements for patient privacy and data protection, as well as state regulations for medical record retention in the states in which they operate. It is important for providers to implement retention and destruction policies that address these requirements. In addition to federal and state regulatory compliance, individual organizations may have specific legal interpretations and policies in place that affect the archiving strategy. Archiving strategies should be appropriate and in compliance with the organizational, federal, and state requirements.

Additional considerations may apply. An organization should always consider its individual concerns when planning an application and database archiving strategy.

**ESSENTIAL GUIDANCE**

For Provider Organizations Beginning EHR Implementations

Provider organizations that are beginning EHR implementations should consider not only the immediate issues at hand when selecting and implementing EHR applications but also the long-term consequences to
adoption if records conversion is not successful. Along with availability and uptime of the EHR, access to existing medical records in a prompt and workflow-friendly manner will help drive provider adoption and use of the new EHR applications and help organizations more readily arrive at the adoption thresholds and deadlines required to maximize meaningful use incentives. Providers should consider the following:

- **Include records management in the deployment strategy for EHR.** Up-front consideration of the records management strategy during deployment will ensure that historical records are available via the EHR workflow upon go-live and that providers have access to a complete view of the patient record in order to deliver care efficiently and achieve the expected improvements to quality of care and patient safety derived from the EHR.

- **Develop a strategy for what to image and when, alongside a retention policy for paper records.** Providers should plan an imaging and records consolidation strategy to accompany their EHR deployment that also includes an appropriate retention policy. The policy should allow sufficient access to records while controlling storage costs and allowing valuable storage space to be reclaimed.

- **Don't just develop; rather, implement retention policies to realize benefits.** While developing an appropriate retention policy is the first step, benefits come from implementation. Providers should ensure that the tools and resources are available to accurately implement the retention policy.

- **Transition HIM to focus on strategic activities that compress the revenue cycle.** Simply changing the workflow and job description of HIM will not yield the efficiencies expected from the EHR or allow an organization to compete better by compressing its revenue cycle. HIM should be addressed strategically and resources should be leveraged to focus on high-value tasks associated with compressing the revenue cycle.

- **Prepare for ICD-10.** The conversion to ICD-10 represents a massive change to the billing and coding functions of HIM and will place demands on the availability, access, and completeness of electronic health records. Organizations should consider the requirements of ICD-10 in planning their records conversion strategy to prepare for business continuity during the transition and avoid protracted revenue cycles at the time of ICD-10 conversion.

- **Move costs associated with document conversion from capital to operating expense by leveraging partner services.** A full cost/benefit analysis during records conversion can allow provider organizations to realize savings from outsourcing some processes and thereby moving expenses from capital to operating. This should be considered when planning records conversion.
For Provider Organizations with EHR Implementations Under Way

It's not too late — provider organizations can realize benefits even if records conversion strategies are instituted later in the EHR implementation. While provider organizations will ideally consider records conversion when planning EHR implementations, there are still benefits to be had from considering strategies for EHR implementations that are already underway. If records conversion policies are not meeting the needs of providers, or costs are higher than expected, implementing additional services can help minimize hybrid record time and optimize resources at all stages of implementation.

Archiving, retention, cost, disaster recovery, cloud, and compliance benefits can be seen by all EHR implementers. Planning and executing a records conversion strategy is a critical step to ensuring the maximum return on investment. By implementing this strategy as part of their EHR implementation, providers can increase satisfaction, address regulatory compliance, improve the quality of care, and increase patient safety.

Iron Mountain Solution Description

Iron Mountain is a global provider of information management services that serves over 150,000 organizations, including over 2,000 hospitals and 45,000 healthcare accounts. Iron Mountain is a publicly traded (NYSE: IRM) S&P 500 company ranked #643 in the Fortune 1000. Iron Mountain's assets include more than 1,000 facilities, 10 datacenters, and 3,500 vehicles. According to the company, healthcare is the second largest vertical serviced by Iron Mountain, and the company manages 800 million medical records, accounting for approximately one-third of all U.S. medical records. Iron Mountain has over 60 years of domain experience, scans 44 million images per month, and has several petabytes of data under protection. Iron Mountain's core competencies lie in records management, data backup and recovery, information destruction, and information management services. Key services Iron Mountain offers to the healthcare industry include:

- **Electronic records conversion services.** Management and services for the conversion of health records from paper to electronic including relocating and consolidating records, implementing record retention policies and a storage hierarchy, scanning, archiving and preparing records and workflow for access via the EHR. Scanning services include day-forward conversion, backfile conversion, and document hosting services. A cost analysis can be used to determine the effectiveness of services when compared with internal scanning programs.
● **Cloud storage.** Cloud storage employs networked, online storage on multiple, virtual servers, hosted in Iron Mountain's highly secure underground data bunkers. It can offer advantageous pricing, flexibility, and scalability for provider storage environments. In addition, cloud storage can be employed for medical images, for unstructured data such as medical records, as part of a permanent storage plan, or during records transition.

● **Vendor-neutral archive.** Cloud and on-premise vendor-neutral archive solution for the creation of an archive to aggregate images and data from multiple PACS, EHR, and other clinical and administrative systems.

● **Records retention, compliance, and destruction policy consulting.** Consulting services that use a business case approach to assist healthcare organizations in the development, implementation, and maintenance of retention policies for health records. These services are offered independently or in combination with appropriate workflow, storage, and services from Iron Mountain.

● **Records management and archiving services.** Secure, regulatory compliant storage for business records.

**FUTURE OUTLOOK**

EHR conversion is inevitable and the impact on workflow and provider efficiency in care delivery remains a significant obstacle to cost-effective, successful EHR adoption. Records management strategies during EHR implementation have the potential to reduce this impact, drive adoption by providers, and improve care delivery during periods of records transition. Providers need to look for ways to lessen the impact of EHR implementation and records conversion, make data available to providers, and control costs while maintaining regulatory compliance. Appropriate document conversion strategies, both at the outset of EHR implementation and during subsequent stages, will help providers realize the benefits of EHR.