EXECUTIVE SUMMARY

Hospitals in the United States spend billions of dollars annually to store and manage medical records – both paper and digital. The fact is the ever expanding wealth of patient information has become an ever increasing strain on the U.S. economy.

The American Reinvestment and Recovery Act of 2009 (ARRA) attempts to rectify this by providing some $36 billion to promote the use of interoperable, certified health information technologies, including $17 billion allocated specifically to Electronic Health Record (EHR) adoption. The Act fundamentally offers the financial assistance and incentives necessary for healthcare providers to begin the transition to electronic records, but cannot alone support the massive investment required to complete this migration. Moreover, the complexity involved in seamlessly integrating an EHR among healthcare facilities while still protecting the privacy of the patient data is inherently challenging.1

The good news is a large portion of the dollars necessary to pay for a truly interoperable EHR already exists in the budgets of hospitals and large health systems. This paper examines how to unlock substantial savings by implementing best practices, and developing a strategic transition plan that addresses workflow as well as technology. Using this approach, healthcare providers can consolidate patient records, clean up duplicate patient identifiers, securely protect the privacy of patient information, streamline records management and develop a cost-effective EHR-ready infrastructure.

THE HIGH COST OF RECORD KEEPING
The healthcare industry currently manages over 500 million health records and billions of financial, claims and business records associated with patient care, making it indisputably one of the most data-intensive industries in the U.S. Yet modern dissemination and control of patient data continues to lag behind other industries such as banking, airlines, insurance and retail. As a result, hospitals in the U.S. spend over $10 billion annually to store and manage medical records.

With the passage of the American Recovery and Reinvestment Act of 2009, President Obama advanced his vision of establishing electronic health records for all Americans by 2014. To accomplish this lofty goal, the Health Information Technology for Economic and Clinical Health (HITECH) Act within the American Recovery and Reinvestment Act of 2009 provides some $36 billion to promote the use of interoperable, certified health information technologies (HIT). This includes $17 billion earmarked to support the adoption of EHR systems. These payments are contingent upon eligible professionals and hospitals that participate in Medicare and Medicaid becoming meaningful users of certified electronic health record technology.

Unfortunately the reality is much more complicated. The funds available through the American Reinvestment and Recovery Act are subject to complex rules, most of which are designed to reward providers who have already made the transition and are using the EHR in a “meaningful” way. Additionally, the federal aid is only available to hospitals paid under the Inpatient Perspective Payment System (IPPS). These conditions and exclusions further limit a hospital’s ability to build the infrastructure necessary to transition to the EHR.

Considering the limited access to federal aid, and the over extended state of hospital budgets and resources, industry analysts predict the savings associated with EHR transition will not be realized until at least 2019, when most hospitals and physicians have actually transitioned to electronic health records. The fact is without a strategic transition plan to identify best practices to manage the transition, hospitals will continue to struggle to support the process of moving to the EHR.

The good news is a large portion of the dollars to pay for a truly interoperable EHR already exists in the budgets of hospitals and large health systems. To understand where these dollars can come from, we need to understand in some depth where and how healthcare facilities are spending money today on medical records and information management.

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WHY ARE HOSPITAL RECORDS SO COSTLY AND CHALLENGING TO MANAGE?

Healthcare providers are required to manage all their patient information at every stage of its life – from creation to storage through destruction – while making that information available when needed and protecting it at all times. Even in the best of circumstances, hospital records and information management presents an enormous challenge. It is an inherently difficult task, with multiple departments and thousands of patients, combined with the dueling requirements of easy access and HIPAA-level security.

The challenge is made even greater because of the laws governing retention of patient records. Currently, state laws dictate how long a patient’s paper and electronic records must be maintained, and these laws differ widely between jurisdictions. In Florida, for example, healthcare providers are required to maintain records for seven years – and it is no coincidence that medical costs there are below the national average. On the other hand, Massachusetts has rules that require healthcare professionals to maintain patient records for 25 years – and again, it is no coincidence that healthcare costs are consistently above the national average. Some states do not have an established retention policy. In practice, healthcare organizations retain records in these jurisdictions in perpetuity. Even in states that do have specific retention laws, it is often common to find healthcare organizations permanently storing patient information. A study by the American Health Information Management Association (AHIMA) found that 50.6 percent and 52.5 percent of hospitals permanently retained adult and minor medical records, respectively.\(^5\)

The cost of all this record-keeping is enormous. A tremendous amount of the current cost of maintaining patient records comes from labor and the rents paid to manage giant file centers – in some cases stretching for acres – regardless of whether an electronic patient record system is in place or not.

Further complicating the issue is the fact that for teaching hospitals and large, multi-facility health systems, patient records management usually consists of a patchwork of legacy systems, processes and decisions made over many years. While most hospitals have rationalized their facilities in terms of services and specialties, they have not rationalized their records. Thus, many healthcare organizations suffer from inefficient workflows, duplication of efforts, and other records and information management challenges.

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\(^5\) “Record Retention Periods for Adult and Minor Records,” Perspectives HIM, June 10, 2008
WHAT’S NEEDED IS A PLAN, NOT JUST TECHNOLOGY

It is important to note that the successful implementation of electronic health records is not the sole solution to these challenges. The success of PACS in radiology has led some to believe that technology will solve patient record keeping as well. However, the two applications are significantly different. Much of radiological imaging is captured digitally from the start, so managing it digitally is a straight-forward process. In addition, general patient records are far more numerous (since every patient has a general record), more frequently used and more widely distributed than PACS images.

Yes, the EHR promises to streamline information handling and ultimately reduce costs and improve care, but it’s important to remember that the EHR is really just automation, not a magic bullet. If a hospital has poor workflow processes, migrating to electronic records will simply automate those poor processes, not solve them. Therefore, re-engineering manual systems and processes represents a major opportunity for reducing costs, improving service and establishing the correct infrastructure to transition to the automated hospital record.

For example, one major issue that workflow re-engineering can address is duplication of information. It is estimated that 8 percent to 12 percent of a hospital’s records consist of duplicates, and that level goes up to 20 percent for larger facilities that have been through mergers and acquisitions.6

In particular, cleaning up the Master Patient Index (MPI) or Enterprise Master Patient Index (EMPI) database is essential to the implementation of an EHR, or any strategic application for that matter. If patients cannot be uniquely identified across a health system, have multiple identifiers within or between facilities, or are otherwise misidentified, a comprehensive EHR will be virtually impossible to achieve. The process must be fixed first.

What’s more, paper records are not going to disappear any time soon. A portion of the physical patient record will continue to exist and grow at least in the near term. Over time, information technology will change how departments handle and use paper records but the paper will continue to exist for many years in a hybrid environment along with electronic information.

Finally, the EHR will not eliminate records management costs. In fact, storing, protecting and managing electronic records carries its own set of challenges and costs, an issue we will examine at the end of this paper.

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THREE PHASES OF TRANSITION

It is also important to remember that all hospitals and departments are not equal. Most labs are highly automated and PACS adoption is widespread and growing. However, few Health Information Management (HIM) Departments have purchased technology and most HIM Departments are still dependent on paper.

A transition plan must take into account these different levels of automation. For example, if the department is paper-based, the records will need to remain close to the hospital. Conversely, a department that has already introduced technology is no longer dependent on where the paper or film records are located and, as a result, the physical records proximity to the hospital is less relevant.

Today, most departments are in transition because they have started or plan to start automating their workflow processes. As a result, these departments are in one of three phases. (Refer to Figure 1)

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little or No Technology</td>
<td>Technology Introduced</td>
<td>All Electronic – No Physical Record</td>
</tr>
<tr>
<td>Paper Records</td>
<td>Hybrid Records</td>
<td>Document Imaging</td>
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<td></td>
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<td>EHR</td>
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<td></td>
<td></td>
<td>Off-site Storage</td>
</tr>
</tbody>
</table>

Figure 1: Three Phases of Transition

**Phase 1** – The department is strictly paper or film-based, has not installed technology, and requires that the records be located close to the hospital in order to support patient care. Currently, most hospitals are in Phase 1. A recent study published in *The New England Journal of Medicine* found that “only 1.5 percent of U.S. hospitals have a comprehensive electronic-records system” and only “7.6 percent have a basic system (i.e., present in at least one clinical unit).”

**Phase 2** – The department has introduced technology but also has a large historical paper and/or film library that must be accessed in order to support patient care. Healthcare organizations that have not made a complete transition to electronic records must manage a “hybrid” record, which includes both paper and digital files. In this case, it is not necessary to store the records in close proximity to the hospital. When required, the historical file can be scanned off-site and transmitted electronically to the hospital.

**Phase 3** – The department is completely electronic and no longer retains a historical paper or film record. Additionally, the electronic record is the legal record and storage management is focused on electronic rather than physical records. While this is the ultimate goal, few hospitals have achieved this status.

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HOW TO DEVELOP A SELF-FUNDING TRANSITION PLAN

The first step is to conduct a thorough, system-wide assessment of your records management system. In considering these issues, it’s essential to get input from all the key stakeholders – from IT, HIM and HR to department heads and hospital executives.

The assessment should cover the gamut of records issues, including processes that impact costs, care and your organization’s goals. Among the issues to investigate are:

• Understand what you’re spending, where and why. Do you have multiple records storage vendors duplicating efforts – and costs?

• What are your true, total costs of records across the enterprise? You should factor in real estate, personnel, vendors, etc.

• How will you handle hybrid records? You may want to utilize intelligent scanning where paper is captured as an image and an index is used to locate it.

• How will you manage the workflows and storage of PACS, RIS, HIS, and Lab records in the post-EHR environment to ensure continued cost control and efficiency maximization?

• Are you ready for an aggressive push to the EHR or are you simply aiming at reducing your paper costs for now and laying the foundation for the EHR?

• How will you manage the explosive growth of digital data? Will you purchase capacity in advance of need, buying excess storage to compensate for system configuration and performance issues? Or will you look for a solution that maximizes capacity utilization, allowing you to scale on demand?
DESIGNING THE PATHWAY

Armed with insight into current processes and costs, hospitals can map out a plan of attack to eliminate waste and optimize processes.

The plan should be based on four common pathways:

- The consolidation and integration of health system records.
- The clean-up of MPI duplications and overlap errors to ensure a one-to-one relationship between identifiers and patients across your facility.
- The re-engineering of workflow processes that govern the management of paper and film records.
- The development of a digital storage plan to streamline the cost associated with digital archiving, backup and recovery.

The importance of re-engineering and consolidating the manual processes of paper and film cannot be overstated. First, it reduces the workflow to a single coherent strategy upon which a successful EHR may be built. This provides tremendous savings to large healthcare providers whose service area extends across different regions and different regulations. Secondly, and just as importantly, the savings realized by re-engineering can help pay for the costs of the technology needed to implement an electronic hospital record-keeping system.

A closer look at the current state of MPI clearly demonstrates the value of consolidation. The elimination of duplication is essential to the success of any EHR system. Yet today most hospitals currently range between 8-12 percent duplication despite the two percent best practices recommendation. At these rates a comprehensive EHR will be virtually impossible to achieve. To prepare for EHR transition, hospitals should initially re-engineer workflow to target the two percent range.

Whereas consolidation frees up the capital to support the transition process, centralization builds a highly secure and compliant hybrid environment wherein paper records and film can be easily converted to electronic health records.

Centralization – meaning the transfer of all paper files, films, scanning, and release functions to a single record location – eliminates unnecessary vendor expenses, and strengthens the chain of custody associated records and information management. The ability to retrieve, process, scan and deliver files from one secure location reduces compliance risks and costs often encountered in fragmented systems. Moreover, the consistent application of workflow processes are more easily managed in a centralized system, ensuring continued cost efficiencies in the post EHR-environment.

Finally, it's important to note that technology and the savings associated with an EHR will not on their own pay for the costs of the EHR. As stated earlier, the number one financial drain on the current record systems is inefficient hard copy storage. Similarly the storage of digital files will result in increased storage costs if processes for streamlined digital archiving, reliable backup and recovery, and file retention are not identified and addressed early in the planning process.

CASE STUDY: EXEMPLA HEALTHCARE

Formed in 1998, Exempla Healthcare includes three hospitals and a network of clinics servicing patients in the Denver-metro area. The organization staffs over 7,000 employees and 2,000 physicians.

CHALLENGE

Years of managing multiple records management facilities and systems resulted in lowered retrieval rates and increased operating expenses. In order to improve access to patient information and facilitate their transition to electronic health records, Exempla needed a solution to get its arms around all records – in all forms, at all facilities.

SOLUTION

With the help of an outside expert, Exempla was able to develop a self funding transition plan in a very short timeframe. The plan eliminated existing inefficiencies by re-engineering department workflow and staffing.

RESULTS

As a result, Exempla has improved patient care – retrieving requested records with 100 percent accuracy – while reducing operation costs by 20 percent and positioning itself for a smooth transition to the EHR.

GETTING OUTSIDE HELP

Considering the risks involved (technology purchases and patient protection issues, to name a few) and the importance of medical records to the core mission of healthcare, most hospitals will find it beneficial to partner with an outside expert to help plan, guide and manage the transition.

It is essential to select a partner with specific expertise in healthcare records and information management who knows how to build an accurate financial model, and manage its implementation with a full and detailed understanding of hospital requirements and compliance regulations. This will free up internal resources, and allow you to set goals and guide the project at an appropriate level – letting the experts manage the myriad of details.

Not only can an outside vendor help implement EHR transition planning more quickly than most hospitals can on their own, but their expertise will save money as well, due to better planning, avoidance of costly missteps, best practice knowledge and technology proficiency.
MEASURING THE RESULTS

The savings that a hospital can realize from a planned EHR transition will depend on its individual circumstances. Therefore, the plan should spell out the specific savings to be expected so decision-makers will know exactly what to expect in terms of return of investment.

Correctly done, the process can fund itself based on the “hard savings” that are realized by optimizing records management. By hard savings, we mean real operational dollars spent on labor, storage vendors, purging costs, etc. The plan should be designed so that these direct savings are sufficient to undertake records optimization.

In practice, there are many “soft savings” that are realized as well, such as space savings, opportunity savings, cost avoidance and so on. These savings make the case even better than it seems at first analysis. For example, if you replace an unneeded file room with a CT scanner that generates revenue, you have achieved serious “soft savings.” However, a sound records plan does not have to depend on such savings, only direct, bottom-line cost reductions.

In virtually every hospital, based on hard savings alone, the aggregate cost of a new, optimized records system is less than the current cost of a dysfunctional records system. And remember, we have not even touched on the issue of patient care, which is invariably improved by optimized records management. Typically, savings range from $500,000 for a smaller hospital system, to well over $1 million for larger, multi-hospital systems. Furthermore, a hospital can expect the optimized system to be in place, and returning hard savings, within about six weeks. In addition to the savings, the hospital will have an “EHR-ready” workflow for its records, ready to support the hybrid environment of the next several years, as well as the eventual move to a full EHR system.

The transition plan focuses on reducing operational costs by changing workflow and centralizing or eliminating processes. The numbers in the text and table (Table 1) below are based on health systems that have adopted the transition model described in this paper and illustrate the average percentage of costs reduced in each of the major cost centers.

<table>
<thead>
<tr>
<th>OPERATIONAL COSTS</th>
<th>TRANSITION STRATEGY COST REDUCTIONS</th>
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</thead>
<tbody>
<tr>
<td><strong>LABOR TO:</strong></td>
<td></td>
</tr>
<tr>
<td>• Manage active file rooms onsite</td>
<td>39%</td>
</tr>
<tr>
<td>• Correct database issue to allow for scanning to EHR</td>
<td>100%</td>
</tr>
<tr>
<td>• Release information and bill for services</td>
<td>47%</td>
</tr>
<tr>
<td>• Code and abstract a patient visit</td>
<td>18%</td>
</tr>
<tr>
<td>• Purge to secondary file rooms</td>
<td>100%</td>
</tr>
<tr>
<td>• Assemble and complete records</td>
<td>37%</td>
</tr>
<tr>
<td><strong>STORAGE:</strong></td>
<td></td>
</tr>
<tr>
<td>• Labor and storage for the hospital records</td>
<td>32%</td>
</tr>
<tr>
<td><strong>DESTRUCTION:</strong></td>
<td></td>
</tr>
<tr>
<td>• Labor and costs to destroy records over retention</td>
<td>29%</td>
</tr>
<tr>
<td><strong>COST OF SUPPLIES:</strong></td>
<td></td>
</tr>
<tr>
<td>• Folders for visits, labels, etc.</td>
<td>97%</td>
</tr>
</tbody>
</table>
LABOR TO MANAGE ONSITE ACTIVE FILE ROOMS
Consolidating active records to a single file room location will reduce management and storage costs. Twenty of the largest health systems in the U.S. reduced their total active fileroom labor costs, on average, by 39 percent. Centralizing the records to a single fileroom location eliminated the need for an onsite fileroom supervisors at each hospital and eliminated 90 percent of the staff required to provide after hour and weekend coverage. Consolidation further reduced the redundant tasks, assigned responsibilities for the fileroom functions and monitored performance for each fileroom staff member.

LABOR TO PURGE TO SECONDARY FILE ROOMS
Moving the active file rooms to a single fileroom location eliminates 100 percent of the cost to purge the active files to a secondary fileroom. On a daily basis, staff sends the completed patient records to the central fileroom, eliminating the costly monthly, quarterly or annual purges. When the EHR scanning systems are installed, staff sends the newly scanned records to the central fileroom for temporary storage. When the electronic record is audited and retakes are completed, destruction of the scanned records is managed from the centralized record center.

RECORDS STORAGE FOR THE HOSPITAL DEPARTMENTS
Most hospitals store more records than they are legally required to retain. Over a period of years the typical health system builds an ever increasing library of inactive records stored in various onsite and off-site locations. This fact – and the significant costs associated with storing these records – is often overlooked by hospital administrators. Establishing a retention policy for each record created at the hospital will, on average, reduce the volume of records stored by 32 percent.

LABOR TO ASSEMBLE AND COMPLETE RECORDS
Centralization of the patient records will allow each department to re-engineer and streamline their workflow to process and complete a patient visit. Re-engineering will remove the restrictions of a serial process that limits access and adds processing time to complete the documentation for a patient visit. It also eliminates the need to assemble a record, create a folder for the visit and manage the incomplete chart room, reducing the labor, on average, by 37 percent.

LABOR AND COSTS TO DESTROY RECORDS EXCEEDING RETENTION
Most hospitals have been unable to purge their file systems because the records are filed in multiple locations, making it virtually impossible to identify if a patient record qualifies for destruction. Consolidation of records reduces the cost to identify, purge, destroy and shred the paper and/or film-based record by 29 percent. Centralization of the records provides access to all the patient records, access that is necessary to identify that a patient record has exceeded the legal retention policy and is eligible for destruction.
LABOR TO SCAN RECORDS TO A COMPLETE EHR (HYBRID)

Consolidation of the records provides access to the patient’s physical records and to the hospital’s electronic Master Patient Index. Having access to both is essential when transitioning to the EHR. Today, most hospitals have audited their Master Patient Index databases for errors. It is very common that an electronic audit will find that 5 percent to 15 percent of the patients registered in the Master Patient database have been entered incorrectly. The most common mistake is made at the time of registration when the returning patient is mistakenly registered as a new patient and provided a duplicate number. Finding the duplicates electronically is not difficult; software uses a probabilistic algorithm to identify those patients with duplicate numbers. However, because hospitals store the patient records in multiple locations, it is logistically difficult and expensive to locate, correct and re-file the patient records that have been identified as duplicates. It is not unusual for a hospital to have to pay a million dollars just to merge and correct the physical records. Consolidation eliminates 100 percent of the labor required to correct and merge the physical record. Centralizing the records to a single location also allows access to the patient historical visits and gives staff the ability, on a day forward basis, to retrieve the physical chart and correct the duplicates before scanning the records into the department’s automated workflow technology.

LABOR TO RELEASE INFORMATION AND BILL FOR SERVICES (ROI)

In addition to centralizing records, the centralization of core processes is also essential to drive down costs. Each year the HIM and Radiology Departments are required to fulfill thousands of requests for copies of the patient records from patients, insurance companies, attorneys and auditors. Centralizing the Release of Information process from multiple sites to a single location will reduce the number of staff required to process the release requests and will reduce the amount of oversight required. Scanning and automating ROI requests will further reduce the labor required to release the records. Centralizing and automating ROI workflow reduces the cost to release records and bill for the release services by an average of 47 percent.

LABOR TO CODE AND ABSTRACT A PATIENT VISIT

Centralizing coding will improve quality and reduce the cost to perform the coding of the patient visits. Coding is key to the financial health of the hospital. Poor coding can reduce revenue and increase the chance of audits and penalties. Consolidation of the coding and abstracting process improves the scanning of core documents, and provides a higher level of supervision and oversight, thereby reducing labor and management costs by an average of 18 percent.
COST OF SUPPLIES (E.G., FOLDERS, LABELS, ETC.)
Automation will eliminate the need to create file folders and the purchase of equipment to retain the patient folders. Once technology is implemented, the budget for paper and film supplies will decline by 97 percent.

OTHER BENEFITS
In addition to the direct savings listed above, hospitals typically enjoy many “soft” savings that can be quite significant. These include:

- Faster billing due to improved workflow; drop time can often be reduced to two or three days
- Reduction of lost revenue from missing information
- Higher find rates for information requests (hospitals often have a find rate of only 75 percent or less)
- Elimination of duplicate testing, thanks to a consolidated system
- Improved care resulting from better information
BEYOND THE TRANSITION: MANAGING RECORDS IN AN ELECTRONIC WORLD.

Most of the discussion surrounding medical records today is focused on the transition to the EHR, and rightly so. However, it would be a mistake to assume that electronic records will end the issues of cost and services. Digital archiving, like paper storage, encompasses its own unique challenges and cost drivers. Without a predetermined, strategic transition plan, health systems and hospitals will face increasing IT labor costs, frequent software and hardware upgrades and, most importantly, increased data security risks.

One challenge is cost. It is often assumed that electronic storage costs are decreasing. While this is true in the abstract, for the hospital trying to archive increasingly large volumes of data, costs can spiral upward, not down. Simply put, storage volumes are growing faster than hardware prices are declining. Administrative costs go up too as the information volume grows.

Another issue is integration, as hospitals seek to merge EHR, PACS, HIS, RIS and Scheduling into a coherent system. As one healthcare executive stated, EHR files are often “detached in terms of process. They sit in their own archive and they’re not easy for the clinician to access.” Achieving this integration is less a technology challenge than it is a workflow challenge. Hospitals must design their workflow so that departments can share and access records efficiently. This will enable the implementation of an underlying technology solution.

Fortunately, once effective workflows are in place, the technology for handling the large volumes of electronic records is well developed and available today. One approach that is proving successful is cloud storage. At the very heart of cloud storage is the fact that storage is delivered as a service via Internet access. There are no hardware or software purchases, and payment is on a usage basis with costs funded through operating budgets not capital expenses. Cloud storage offers access to an “inherently scalable, flexible, infrastructure that allows capacity to be consumed on as-needed basis,” in turn eliminating the wastefulness of acquiring capacity in advance of need.

What’s more, enterprise-class cloud storage includes a host of management services that essentially eliminate the customer from management responsibility.

Ultimately cloud storage enables providers to take advantage of advancements in technology while lowering total cost of ownership. In addition to eliminating upfront capital purchases, the healthcare provider achieves better backup and recoverability, reduces complexity, and frees up resources to focus on core missions, instead of spending time and resources on secondary storage management and technology.

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CONCLUSION
The challenges of moving to the EHR are great, but so are the opportunities. By addressing core issues such as workflow and duplicate information as well as technology, healthcare providers can develop a pathway to the EHR that is essentially self-funding. Further, by working with an expert partner, providers can look forward to a full digital solution that combines all forms of medical records in a practical clinical solution that controls costs while unburdening healthcare providers to focus more of their scarce resources on the mission of patient care.

ABOUT THE AUTHOR
Ed Santangelo
Ed Santangelo is the Senior Vice President of Healthcare at Iron Mountain. He is a visionary leader with over 30 years of experience in designing innovative solutions that solve the complex records and information management challenges faced by large health systems and teaching hospitals.

Prior to assuming his current role as head of Iron Mountain’s Healthcare Division, Mr. Santangelo was the President and CEO of RMS Services – USA, Inc., a company that he founded in 1974 that and was acquired by Iron Mountain in 2007. Mr. Santangelo provided the vision for continued growth and expansion, and evolved the company to meet the ever-changing needs of healthcare records management.

For example, RMS Services introduced the first EMR to healthcare in 1986. The EMR software changed the medical record department’s workflow from a serial manual process to a parallel automated process. In addition, RMS worked with Grumman Data Systems to develop optical disk scanning software and high speed scanning. Such pioneering efforts enabled RMS to become the leader transitioning large health systems from paper and film medical records to an enterprise EHR program.

Before founding RMS Services, Mr. Santangelo was with the Business Management Division of Burroughs Corporation. He brings a wealth of knowledge, leadership capabilities and experience in information management to the Iron Mountain team.