Storage Solution: A Plan for Paper in the Transition to Electronic Document Management

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For Mercy Health Partners, solving its paper records storage needs was a sound first step in achieving its long-range health IT plans.

Mercy Health Partners, part of the Catholic Healthcare Partners group, knew it couldn't put the electronic cart before the paper horse.

The multifacility healthcare system serving northwest Ohio realized it needed a comprehensive, system-wide HIM solution that would allow staff to access patient records quickly, accurately, and cost-effectively. But before implementing an electronic document management system (EDMS) as part of this comprehensive solution, Mercy's strategic and tactical HIM plan called for addressing its growing volume of paper records.

As Planning Starts, HIM Challenges Grow

Upon beginning project planning, Mercy found itself facing additional challenges to its ability to control the flow, storage, and retrieval of new and existing medical records.

Mercy recognized that arriving at a comprehensive solution would be an intensive time commitment and that additional expertise in electronic document management and record archival techniques would be needed. Mercy Health Partners' senior leadership retained the services of an HIM consultant to serve as prime contractor and supervise the project team.

The computerization of hospital records was increasing the volume of paper documents because forms tracking patient care were printed out to become part of active patient files. Mercy uses approximately 3,000 forms across its hospitals and clinics.

Paper and older archival records were already stored within the facilities and via external outsource firms at approximately 40 locations. An aging warehouse and the lack of a complete inventory of existing paper records in the disparate locations contributed to the complex task of preparing to move into a true electronic record environment. The ongoing creation of paper records was placing even more demands on a storage system overburdened by exceeded on-site storage capacities, outdated on-site equipment, and expensive, cumbersome third-party off-site storage.

As the total number of patients the healthcare system treated increased with passing years, the volume of inactive and active medical records was increasing exponentially. In 2005, Mercy served 253,000 people. In 2006, that number increased to 385,645.

Although state regulations mandate that medical records be kept for seven years, Mercy's records retention policy specified that records be kept 20 years for children and 10 years for adults. This policy added to the anticipated long-term demands on Mercy's HIM system.

In migrating to an EDMS, Mercy needed to find or create workspace where staff could convert paper documents to electronic files. Physical limitations on space and the expense of construction prevented placing EDMS scanning and work- processing areas at individual facilities.

The existing processes and equipment in place as part of the overall migration plan to a full electronic health record system had not met clinician needs for overall documentation, the legal health record output and format, and rapid access from

multiple locations simultaneously. Mercy's record retrieval rate was less than 60 percent in some situations due to the disparate locations of the record and the lack of a digital solution to capture all documents. Accessing multiple systems and working in a hybrid records environment were taking a toll on employee time and morale.

Mercy's IT staff was focused on information flow and access during the patient care process (e.g., bedside terminals and computerized physician order entry) and across longitudinal patient visits. The system lacked the ability to print or display output for a single episode of care, and therefore the system did not support HIM needs as a legal health record.

When Mercy received notice from one third-party storage vendor that annual service fees would increase up to 500 percent over the next year, the healthcare system decided to speed up the timetable for identifying and implementing a comprehensive solution that would address all of its HIM challenges.

Aligning with Long-Term Strategy

Mercy's HIM consultant knew it was important for the project team to develop a solution that was aligned with Mercy's long-term strategy. The solution could not focus only on short-term cost savings or shortcuts in processing that might jeopardize the integrity of the medical record or HIM department processes. The solution had to fit seamlessly with Mercy's overall strategic IT plan and earn the buy-in of the clinical and financial staff.

Developing the right solution also meant bringing in proper mentoring resources and a team that fit the facility. The team would have to be flexible, knowledgeable, and able to work with internal IT and clinical staff, external vendors, and the HIM department so that proper record management principles were upheld and reinforced throughout the project.

The solution, therefore, had to provide significant improvements in:

- Protection of records with better daily record control and security
- Cost efficiencies through centralized processing and facility space
- Retrieval efficiency for doctors
- Space, staff efficiencies, and cost savings for a future centralized imaging center and EDMS
- Productivity-enhancing work environment and job satisfaction for HIM employees

After identifying key attributes of the solution, the HIM consultant expanded the project team to include additional HIM and technical consultants with relevant expertise. A legal health record inventory started the project, and the team identified potential storage locations. It reviewed the EDMS vendors and equipment for the project's next phase and identified potential suppliers of traditional document storage systems. Recognizing the need to account for new patient records during construction and migration to EDMS, the team specified that the solution allow for a 12-month growth period in traditional records.

The EDMS system had already been selected, and work was able to begin simultaneously on preparation and transition from manual to automated HIM processes. For example, forms were analyzed and redesigned to include bar codes in preparation for the EDMS while the team evaluated the archival record storage solution.

All of this worked through a central contact, the regional HIM director for Mercy Health Partners, who served as a key resource and consistent communication link throughout the project.

An On-site Solution to Meet Multiple Needs

The project team considered three potential paths for the archival records storage solution: an entirely on-site solution staffed by Mercy personnel, an entirely off-site solution, and an off-site solution managed by a third-party records vendor but staffed by Mercy personnel. The team also considered options with combinations of other archive media. Hybrid options such as microfilm and microfiche, as well as the "back scanning" of older records, were considered but quickly discarded after studying their projected costs.

After reviewing project proposals from potential vendors and evaluating the healthcare system's resources, Mercy arrived at a solution that converted a disused, 15,000-square-foot laundry building into a centralized document management center staffed by Mercy personnel.

The center would house the EDMS processing and work areas for receipt of centralized records from multiple facilities as well as a high-density mobile storage system for traditional records. The centralized work area would be staffed with employees transferred from the three core hospitals who had previously staffed file and record-processing areas. A centralized release of information and access-processing area was included in the design.

To ensure Mercy knew where records were at all times during the six months required to ramp up the project and move records, team members visited the various storage locations and conducted a physical inventory of off-site record boxes. They used bar code and label technology, along with matching software, to create a new database of all 10,000 record boxes stored off-site.

This inventory reviewed records from point of documentation through point of archive and purge, enabling the facilities to ensure HIPAA compliance in understanding record location, processing, access, and disclosure activities—something few facilities today are capable of tracking.

Briefed by project leaders on the outdated and complex nature of the healthcare system's record retention policies, Mercy senior management signed off on aligning its policies with current industry guidelines and the shorter timeframes of state requirements for the legal health record.

The new policy enabled the project team to purge records that were within legal limits for potential destruction, freeing up needed space and reducing storage and handling costs.The project team was able to purge a significant volume of records left over from a hospital that had closed many years previously. This reduced the number of boxes that otherwise would have been shipped from off-site storage to the new facility from approximately 3,300 to 300.

The project team brought in experts in record management and storage systems to ensure the right file solutions and equipment were specified and purchased. Project leadership based the storage of traditional records encompassing active and inactive records on a high-density mobile storage system supplied by a national manufacturer.

An Immediate Return on Investment

Mercy christened the Centralized Document Management Center in October 2006. By choosing on-site storage versus third-party vendors, it expects to save approximately $200,000 per year while having created a more pleasant, effective, and efficient work environment for its staff.

As a result of the operational assessment of records practices and the team's strategic plan, Mercy now has a thorough understanding of the role and function of EDMS within the healthcare system's overall electronic health record program. This understanding serves as vital infrastructure for the next phase of work, when EDMS hardware, software, facilities, staffing, and training solutions are aligned for full implementation and everyday use by Mercy caregivers and administrative staff.

By taking the time to evaluate and effectively plan for both a transition to EDMS and the long-term storage of all paper medical record documents, the Mercy project team vigorously protected legal records. It also set the stage for a successful electronic health record implementation that can be rolled out quickly and efficiently.

Mercy achieved more than its goal of simply centralizing archived records. It revised long-standing retention and access policies and procedures, completed an extensive record management inventory of all existing health records across disparate locations, and built a better work environment for staff. Mercy also improved the overall level of excellence in service and support of patient care and the business needs of the facilities. In addition, it saved money it could confidently devote to helping move the healthcare system further closer to a fully electronic health record environment.

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