Off-Site Coding Success Story

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by Lynette Kramer, RHIA, and Richard Meeks

If you asked HIM professionals about key success factors that substantially impact timely and accurate coding, three of the most common answers might be:

- availability of the record immediately after the patient visit
- availability of the complete record (e.g., final labs, discharge summary pathology reports)
- appropriate staffing levels

Harborview Medical Center, the major trauma healthcare facility of the Pacific Northwest and Alaska with a multispecialty, ambulatory care clinic system serving more than 400,000 outpatients each year, addressed these three factors when it recently reengineered its coding functions. In doing so, it relocated its coding staff to a separate site and made improvements in performance. Here are some of the key factors in the process.

So Many Requests, So Little Time

Our story began when it became apparent at Harborview that the medical record was not sufficiently accessible to meet the needs of the many requestors who—often simultaneously—needed it. The center's Patient Data Services (PDS) department staff members, providers, researchers, and others all competed for access to the record.

The result? Often, no one could get access to records that were en route to a request, late for a request, or difficult to track. To make matters worse, because the records were so active, filing of loose sheets was often delayed. This made making a complete record available for timely coding even more difficult.

It was also apparent that the work environment was not optimally supporting the coding function. Location was a problem—the coding staff was physically located in a small, noisy room. What's more, the implementation of a recently purchased optical imaging system meant that the department needed even more space to adequately operate as the facility made the transition from paper to electronic records.

As the department assessed its space requirements, it was clear that some functions would have to move to a remote location. Because of the identified process and location problems, it was decided that the coding group would be the first unit to move.

Location, Location, Location

To make sure the project went smoothly, the staff developed a detailed plan that outlined six major phases of the transition. (See "Major Workplan Phases" below.)

major workplan phases

1. Conduct a current state assessment—a baseline from which all changes can be measured
2. Develop a vision of the future state of the coding function—determine implementation objectives
3. Design the future state for the process or function—basic system capabilities are important for this phase
4. Configure system and test procedures
5. Implement system and procedures—includes implementation planning, PC, application, and procedure training

6. Go live and perform ongoing support
7. Revisit objectives

The workplan encompassed a vision of coding processes that were radically different from existing ones. The coding review function would essentially become a review of the electronic record via the imaging system. This change made sense because if coders continued to work on paper records at a remote location, turnaround time would only increase—and the record would be even more inaccessible for other requestors.

The coders' new location was a key factor. The department found a new office space seven miles from the main campus that already housed several affiliated University of Washington Medical Center departments. A major strength of the new location was its network connectivity with the facility-wide area network. An existing T1 line between the main campus and the remote location supported the bandwidth needed to enable 50K images to travel to the coders' workstations without slowing down system responsiveness.

As the coding staff members prepared for the move, they tried in advance to minimize downtime. They implemented the electronic review of the imaged record and learned how to use the system prior to the move. And staff members were able to complete their work day on Friday and started the next week at the remote location on Monday. In the meantime, office space accommodations and systems configuration had been completed over the weekend.

New and Improved

The coding process now moves more smoothly than before, because the new process addresses the issues of immediate availability and completeness. Here's how it works: Today, PDS scans records into the imaging system within 20 hours of receipt. Transcribed reports and other electronically available clinical data are automatically entered into the system at the time the report is created or at the time of discharge. (This extensive use of interfacing eliminates the need to scan or file loose sheets received after the patient visit.)

In this way, the first and second coding success factors are addressed—a more complete record is available for coding immediately after discharge. In addition, coders now spend much less time searching for missing medical record documentation. Instead, they can send e-mail to the imaging staff for follow-up if documentation can't be found.

After the hard copy record is scanned, the imaging application automatically routes the scanned record to several electronic coding work queues. A specific coder is assigned to each queue. The queue sorts the medical records to be coded by oldest date of service, so the coder does not have to manually search for them. This functionality of the application creates an added benefit of the technology—because the records to be coded are assigned automatically by the system, work is assigned and distributed equitably.

For coders to effectively receive and use an image record, they need to have an appropriately configured workstation. When the remote coding process began, the coding workstations deployed were considered "high end"—Pentium I machines with 166 MHz processors and 32 MGs of RAM, operating on Windows 3.1.1. During the last planning year, however, it was determined that the coders' productivity levels could benefit from the decreasing cost of technology. As a result, the workstations were replaced with Pentium IIs with 450 MHz processors and 128 MGs of RAM on a Windows NT operating system. The users are more satisfied with their workstations and they spend less time reviewing each record—all thanks to this minimal technology investment.

The process redesign efforts enabled through technology did not initially address the last coding success factor—staffing levels. Ensuring ongoing and appropriate staffing levels of a coding unit is always challenging. Historically, the PDS department had used contracted coding vendors to ensure coding levels were maintained when staffing or volume levels fluctuated. To take further advantage of available technology, the PDS department has recently created a pilot program to provide remote system access to contractors.

After supplying the vendor with the recommended workstation and access requirements, the vendor connects to a PDS workstation that accesses the imaging and coding and abstracting applications. The record is reviewed online, and coding and

abstracting occurs simultaneously. This strategy will allow the department to quickly deploy resources available in any part of the country while eliminating administrative costs such as travel and medical record copying or mailing.

The transition taught us a lot about using technology to improve performance levels. But technology alone does not improve an organization or department's ability to meet expectations. Instead, it's important to view every technology enhancement as an opportunity to improve performance by evaluating people and process components as well as technology changes. For the Harborview PDS and coding staff, revisiting our project objectives periodically after implementation is just one more step to ensure that we continue to challenge ourselves and evaluate new opportunities for improvement.

a remote coding glossary

Bandwidth—A measurement of transmission capacity. The greater the bandwidth, the greater the information-carrying capability of the transmission medium.

T1 Line—A long-distance, point-to-point circuit providing 24 channels of 64 kilobits per second. It's a building block of digital communications service from a common carrier for voice or data transmission.

Wide Area Network—A collection of long-distance communication links and networks used to connect local area networks and end stations across regional, national, or international distances.

hints for project plan development

- Project plans often fail by making minor changes that are easily implemented.
- Project plans that promise great benefits fail because implementation is incomplete or the project takes too long.
- Always consider "people, process, and technology" when addressing each phase of the workplan

References

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Article Citation:

Kramer, Lynette and Richard Meeks. "An Off-Site Coding Success Story." *Journal of AHIMA* 71, no. 1 (2000): 50-51.