

# Electronic Medical Records Software Training

Healthcare



## The Client

As the largest secular, not-for-profit healthcare system in the United States, the organization spans eight states and includes 20 hospitals in addition to long-term care facilities and family clinics. Late in 2003, this healthcare system was finalizing plans for their newest facility, a 650-bed, state-of-the-art hospital on Phoenix's growing west side.

The new facility was slated to be the franchise model for the healthcare organization. The processes and infrastructure developed for this new hospital formed the model for the other facilities in the system. That model needed to deliver an exceptional and consistent level of patient care and customer service. Furthermore, the model would make use of the latest in Cerner electronic medical records (EMR) software. The facility would be paper-light; replacing paper with electronic documentation wherever possible.

The transition to a franchise-model, paper-light facility required personnel to be trained in the use of the Cerner system. A wide range of staff, physicians to nurses to support personnel, needed the skills to access information and document medical data in this new format. That need led the healthcare system to TBD Consulting.

## The Issues

The original request was for 26 hours of web-based training. Before moving forward with this specific request, TBD Consulting's staff of skilled performance improvement specialists examined the needs of the organization and the environment. The following are a few of the findings:

- Personnel in the individual hospitals had a vision of themselves as a distinct unit with its own unique processes. The organization was asking healthcare professionals to shift that vision and see themselves as part of a consistently operating, best-in-class system. That shift represented a significant culture change.
- Cerner EMR software was being customized for the organization at the same time TBD was writing training for that software. In several cases, programmers would designate a certain module more than 75% complete only to be faced with the unexpected integration of additional features, thus moving the completion percentage further back. The final phase in the software customization, system integration, was the first time the software would receive a complete "dress rehearsal." That event was scheduled very close to the set opening of the hospital.
- The consequence of error if healthcare professionals did not use the customized software correctly was high. For example, when a nurse correctly records a patient's medications in the chart, the system automatically flags dangerous drug interactions. An incorrect chart compromises the effectiveness of this feature.
- The paper-light environment envisioned by the franchise model did not allow for extensive procedure manuals in the work area. Charting stations were disbursed throughout the hospital – at central nurses' stations and outside of patient rooms. Furthermore, it was not practical to ask a doctor, nurse or technician to carry a complete how-to manual with them.

- More than 700 members of the new hospital's staff needed to be trained in a short period of time. The requirement would challenge training delivery resources, scheduling efforts and financial resources.
- In the past, software training at the organization was conducted by IT staff who would simply, "show them how to use" new systems. This transition called for more systematic and accountable training. Two categories of trainers were scheduled to conduct these courses:
  - Nurse or technician super-users: These subject matter experts were the voice of their department in the software development and testing process. They were not training delivery specialists.
  - Training delivery specialists who worked at other facilities within the organization and were not familiar with this Cerner system.
- It was imperative that training of all staff be completed prior to the opening of the hospital. Senior management insisted that training would not delay the opening.

## **The Solution**

TBD Consulting's up-front analysis indicated that 26 hours of web-based training would not sufficiently address the learning or change management needs of the organization. Instead, TBD's staff of consultants, information developers and instructional designers took a systematic approach, building on a stable foundation of sound processes.

As part of visioning for the future, the healthcare system's senior management had constructed "pie-in-the-sky" process maps of what the "hospital of the future" would look like. TBD's process improvement specialists worked with those managers to translate the conceptual into actionable workflow maps. These maps described key processes and defined Cerner's software touch points within those workflows. TBD and the organization involved deployment managers from multiple facilities to build these workflows. That involvement was critical to the change management process, ensuring multiple perspectives and widespread employee buy-in.

For each of the software touch points defined in the workflow map, TBD worked with organization's software developers to build user-focused IT process maps. Those maps told the doctor, nurse, administrator or other hospital personnel how to use the software to perform the key task. TBD's information developers stayed in close contact with those customizing the software to ensure that the maps were updated along with functionality. After capturing the how-to steps, the subject matter experts rated the difficulty, the importance and the frequency of each process and designated who performed the task. This information was crucial in building the training.

The next phase of building a solution for system implementation was to build the specifications for the training. TBD instructional designers built specific, measurable objectives for the skills required to perform the tasks documented in the IT process maps. TBD then defined the delivery method based on the nature of the objective, the difficulty, the importance and the frequency of the task. TBD also considered the audience – both the roles of those in the audience and the number who would perform a specific task. For basic skills required by virtually everyone in the hospital, it was not practical or cost effective to schedule instructor-led classes. In these cases, web-based training was the answer. While for complex skills with a high consequence of error, personalized, hands-on training was imperative.

Using the specific, measurable objectives TBD instructional designers ensured the training content followed the set objectives. The blended-learning courses focused on what participants would need to know to do their job. Hands-on activities in a training environment replicated the real-world circumstances learners would face on the job. This focus was crucial in keeping the courses short enough to allow all staff to receive training before the hospital opened.

TBD's materials for instructor-led training addressed the needs of those teaching the courses. Facilitator guides were formatted with step-by-step instructions and icons to lead the instructor seamlessly through the materials. TBD training delivery specialists conducted train-the-trainer sessions to explain and demonstrate the use of the materials. The organization's facilitators had an opportunity to conduct a mock training class with TBD observing. TBD's coaching triggered improvements in the delivery skills of the non-professional trainers.

Consistent with the paper-light environment being created, participant materials were limited. TBD instructional designers created one-page, brochure-style tip sheets targeted to each software module. Medical personnel could easily carry these sheets and use them for reference until they were completely comfortable with the software. For tasks that were less frequently performed, brief step-by-step instructions were printed on flip cards attached to computer monitors. These were just some of the tools that transferred learning from the classroom into the hospital.

Because of the high consequence of error in a healthcare environment, TBD knew that accountability had to be tied to the training. TBD consultants built a 3-level evaluation process.

1. The first level measured the learner's reaction to the training and helped the organization react to any deficiencies in the delivery of the materials.
2. The second level measured mastery of the tasks and information through online tests tracked in the organization's learning management system.
3. The third level measured transfer of knowledge in the real world. Competency checklists facilitated management evaluation of on-the-job skills.

### **The Business Impact**

TBD created comprehensive training materials for 12 web-based courses and 21 instructor-led courses that were up and running in time to train more than 700 personnel before the opening of the hospital. Those materials have become part of the healthcare system's corporate franchise model. They will be rolled out with limited modification to other facilities in the future. Post-training assessments show effective transfer of knowledge. The training solution TBD Consulting devised was less expensive than the courses originally requested.

Comments from one senior executive: "The TBD process is so refined and perfected. It is refreshing to work with such experience that produced great work for us."

For details on TBD Consulting's complete range of services, call our corporate office to speak to a performance consultant or visit us at [www.tbdconsulting.com](http://www.tbdconsulting.com).