# Essential People Skills for EHR Implementation Success

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For most HIM professionals (as well as nurses, physicians, and IT staff) a successful electronic health record (EHR) implementation is a top priority. AHIMA has provided support for this effort with its various e-HIM â work groups and will continue to do so.[1,2] The majority of these efforts have focused on EHR technology and ensuring that new technology meets the basic requirements of a legal and complete health record. Adequate technology and an understanding of that technology are necessary, but they are not enough for a successful EHR implementation. There have been plenty of well-funded, large-scale implementations that have failed.[3]

Researchers and others involved in EHR implementations have found that people skills such as leadership, communication, and training are absolutely essential. Take for example a computerized physician order entry (CPOE) system. In a consensus statement outlining the considerations for a successful CPOE system, colleagues at a 2001 conference dealing with CPOE only listed technology once. Other considerations included motivation, vision, leadership, personnel, value, workflow, project management, training, support, and evaluation.[4]

In order to successfully implement an EHR system, organizations need effective change management and delineation in the various roles. Nancy Lorenzi, PhD, and Robert Riley, PhD, define change management as "the process by which an organization gets to its future state, its vision."[5] They also outline reasons for contemporary system failures, which include communication, culture, organizational issues, training, and leadership. In an introduction to the issue of change management, Lorenzi identified "managing change among people, process and information technology so that the use of information is optimized" as a cornerstone for "developing a new information management paradigm for health care."[6]

This practice brief examines some of the literature on the success factors for EHR adoption and offers the essential people skills for all professionals involved in an EHR implementation. Tools that can assist in assessing individual and organizational readiness for change are also identified and discussed briefly.

## Leadership

Although details of a successful EHR implementation may differ between case studies and journal articles, they all agree that leadership is important. Stephen Badger states, "If the senior team is united in its commitment to a project's success, that project will almost certainly succeed. If they are divided, then the project will often fail."[7] M.J. van der Meijden and colleagues find that management support and lines of authority must be clearly defined.[8] These conclusions are consistent with works by Joan Ash, Lorenzi, and a report from the American College of Medical Informatics, which all discuss the unwavering commitment of top-level leadership, a shared vision, and ownership of the project as vital to success.[9-11]

One frequently mentioned consideration leaders must make when implementing an EHR is cost. But costs may not be only monetary. Organizations may experience productivity losses and workflow disruptions during implementation.[12] Learning how to use a new technology takes time, and work may slow down. Employees may even refuse to use a system.[13] If senior leaders do not fully understand the costs associated with EHR implementation, they may begin to conclude the project is unsuccessful if productivity drops or employees and processes are unsettled during implementation. In reality, these are natural and expected occurrences.

One report states that "to be successful, health informatics systems need to support--or at least not be in conflict with--the organizational structures of the organization in which the systems are implemented."[14] When the organizational structures and workflows of the system are not taken into account, the results can be devastating, as in the case of a pediatric hospital that experienced increased mortality for a subset of critically ill patients after implementing CPOE (a crucial part of any EHR).[15] In this study, the workflow of the unit accepting the critically ill children was altered and hospital policies were revised to meet

the needs of the software. Although redesigning workflows is often necessary for an EHR implementation, leaders must establish patient care and patient safety as priorities and insist the technology support it.

Almost every piece of the literature mentions one key player for successful EHR implementation teams: the physician champion. This champion must be respected by his or her peers and must be able to communicate the leadership vision of an EHR.[16] Physicians often need to hear from other physicians how this new technology can help them deliver better patient care.

Without a committed leadership in place, EHR implementation is likely to fail. However, leaders cannot do it all. Leaders must consider the issues faced by the individual users.

## Individual Users

Mark Twain once said, "It's not the progress I mind, it's the change I don't like." Change is often the crux of the matter. When implementing an entirely new technology or procedure, people must learn a new skill; however, they don't have to "unlearn," or change, an old skill. The EHR is not just an efficiency enhancement tool, it is also a transformational tool that will change how healthcare is delivered and how everyone, including consumers, think about healthcare.[17]

Research has demonstrated that most people do not necessarily resist change automatically but resist having change imposed upon them.[18] Thus, it is imperative that all types of stakeholders interacting with or affected by the EHR implementation be involved in the implementation planning and execution. More than one implementation has failed because physicians or other important groups were not included in the planning.[19]

EHR implementations are more successful if:

- People skills have the highest priority during all stages of the project. Employees and clinicians must be kept informed and engaged with planning and communication.[20]
- An attempt is made to determine what will motivate people to transition from paper to an EHR.[21]
- Users are involved in any analysis and redesign of their workflow.
- Users participate in the development and specification of the customizable portions of the EHR.
- Training (online, classes, one-on-one) is offered both pre- and post-implementation.[22]
- Extensive, intensive 24/7 support is included at and immediately following go-live.

Anna Marie Hostgaard and Christian Nohr showed that employee resistance to change is related to the way they experience the following conditions:

- Pressure about developing new skills
- Fear of looking stupid or incompetent in these new skill sets
- Fear of losing professional status
- Pressure connected with management expectations for improved performance and effectiveness
- Pressure connected with a perception of more control by management resulting in an expectation of fewer errors
- Fear of job loss due to the new technology[23]

Users at all levels of the organization need to feel that they are a part of the process and have at least a modicum of control over what is happening with their jobs. As Robert Braude noted, "acceptance of an information system by its intended users is the final stage in successful information systems implementation."[24]

| **Sample Tactics and Processes for Implementing Change** | |
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| **Tactics and Processes** | **Positive Impacts** |
| Communication and involvement | More involved staff<br>Better understanding of how the changes will impact the organization<br>Better knowledge of the changes<br>Better ability to cope with the changes |

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| Design process<br>• Process reengineering<br>• Quality management efforts<br>• Responsibility modeling<br>• Site visits<br>• Vendor demonstrations | Better systems design<br>More effective work processes |
| Change management<br>• Design of the change structure and process | Less stressful organizational change<br>Smoother implementation<br>Better acceptance of the changes<br>Better management of the altered organization |
| Project management | Better implementation of systems |
| Training<br>• Demonstrations<br>• One-on-one<br>• Classes<br>• Discipline-specific examples | Better use of the new system<br>Better management of the altered organization |
| Evaluation<br>• Surveys<br>• Interviews<br>• Observations | Determination of actual vs. expected system outcomes<br>Input data for process improvements in future implementation |

Lorenzi, Nancy M., et al. "Antecedents of the People and Organizational Aspects of Medical Informatics: A Literature Review." *Journal of the American Medical Informatics Association* 4, no. 2 (1997): 79-93.

These are some of the benefits organizations can expect when they emphasize people, as well as technology, during an EHR implementation.

## Communication

At the root of all people skills is communication at every level, whether it's from leadership to the organization about the vision, mission, plans, and support for the EHR implementation; between the project manager and leadership ensuring that leadership is aware of the status of the project and is not caught by surprise when problems arise; or between trainers and users regarding how the EHR fits into the users' work.

Richard Dykstra found that the implementation of CPOE had an impact on communication and that communication had an impact on the implementation of CPOE. Specific negative impacts were found in the following areas:

- The illusion of complete dependability--users have an unwarranted reliance on the computer system.
- A substitute for interpersonal communication. Person-to-person interaction builds team camaraderie. People now separate to work on the computer.
- Increased volume of communication due to rework.[25]

The physician-nurse relationship can also be affected negatively. Effective communication can require learning new methods and making a special effort. This effect was also reported in the Yong Han article reporting increased mortality.[26]

The research did not describe strong negative or positive impacts on communication between the medical care team and the patient. However, the nature of the communication was different. Some medical teams even found that CPOE increased their efficiency and productivity.[27] Over time, as people become familiar with CPOE and rearrange their workflow in a manner consistent with it, many of these problems will be forgotten. The important thing to keep in mind is that these and other communication problems are likely to occur during EHR implementation.

## Training

Part of the communication plan is training. Ongoing training should be a part of an organization's EHR maintenance plan. Adequate training, from basic to advanced, is essential for EHR implementation success. Training should start from the time

the plan is conceived. It should be ongoing because changes will be made to the software, employees will change jobs, and new employees will join the organization.

Organizations can incorporate a variety of strategies for training. AHIMA e-HIM practice briefs describe communication methods including letters, posters, videos, Intranet sites or pages, brown-bag sessions, demonstrations in physician and clinical lounges, fliers, and e-mail.[28,29] Other methods to consider are group sessions in a technology lab and even one-on-one with particularly recalcitrant users.

### Tools

When preparing for an EHR implementation, it may be helpful to evaluate an organization's readiness for change and its acceptance of that change, both in its clinical and business units. Lorenzi and her colleagues have developed a success factor profile to assess units for implementation of a clinical computing innovation. In addition to the usual factors such as level of activity and technology infrastructure, they evaluated what they called "peopleware" and innovation prospects. Peopleware includes the staff experience with technology, previous responses to change, and current and potential technology change champions, among other factors. Innovation prospects included a department's desire to be a pilot site, its interpretation of the largest benefits and drawbacks, its technology wish list, and resources it could bring to the change.[30] When dealing with a complex implementation in a complex environment, there are few guarantees. However, simply evaluating for these criteria is likely to sensitize everyone, including the potential end users, to their importance.

Finally, when implementing the EHR it is important to get feedback from the end users to determine their acceptance and use of the system, as well as find out what they are looking for in the future. Reed Gardner and Henry Lundsgaarde performed this type of an evaluation using question categories that included user computer experience, attitudes about the impact of the system upon practice, opinions about the functionality, and desired future functionality.[31] Their article includes a list of the questions used in their research--a handy resource for building an evaluation.

### Conclusion

Technology is necessary, but not sufficient, for a successful EHR implementation. This has been shown repeatedly. Lorenzi and Riley outline a number of reasons why people skills are important to EHR implementations, all with essentially the same message: dealing with complex human beings can be much more difficult than dealing with the new technology. However, the rewards can be well worth it, as the selection of positive impacts in the table at left illustrates. All HIM professionals are encouraged to make people issues a priority when implementing the EHR and its components.

## Notes


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