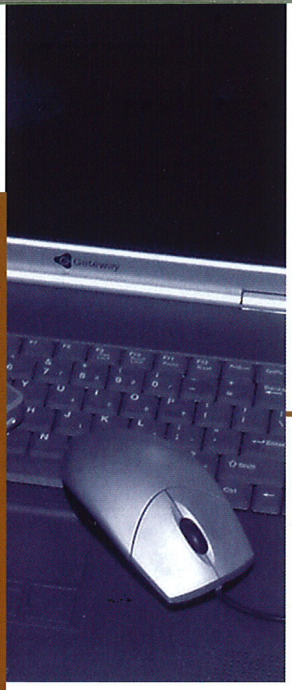
David Hartzband, DSc



Adopting Electronic Claims Calls For Practical Solutions

USABILITY VERSUS USEFULNESS

Community health centers are under increasing pressure to adopt and use new software technology. The necessity of electronic claims submission and the advent of electronic medical records (EMRs) are pushing health centers to make decisions about what software to acquire. Many of these applications are touted by their vendors as being highly usable — as if that should be a major consideration in the decision to buy the product. What does "usability" mean and should we care about it?

Usability is a technical engineering term. It refers to a specific set of design guidelines for the interface that we use to interact with a software application.

The concept was first developed more than 20 years ago to make it possible for engineers — who are not always focused on human interactions — to make software applications easier to learn and use. However, it has come to be almost an impediment to the innovative design of new software. This is perhaps best illustrated by a key paper titled *Usability Evaluation Considered Harmful (Some of the Time)* that was presented at this year's Human Interaction Conference for usability scientists hosted by the Association for Computing Machinery held in April 2008, Florence, Italy.

The paper points out that most usability studies of applications, including health care applications, are more concerned with the 'scientific correctness' of the interface than how an application would be adopted in actual practice. Usability has become distorted and therefore unimportant in our decision-making processes.

Usefulness, however, is not a technical term and has no design rules associated with it. It refers to how well an application matches what the people using it actually do, and how well it fits into the culture of the organization in which it is used. Several influential technologists, including Nathan Myrvold, the former Chief Technology Officer of Microsoft™, have advocated the importance of usefulness. Nathan's favorite example of the distinction between usability and usefulness was Microsoft Word™, an application that is notoriously not usable, but is so useful that the vast majority of computer users rely on it.

Similarly, the usefulness concept has been promoted by Don Norman, a cognitive scientist who has designed many medical devices (and other things), and Hartmut Esslinger, an industrial designer who has also designed medical devices and the interfaces for health care software (as well as many products for Apple™).

So why does this seemingly trivial distinction matter for health centers? Everywhere we turn, we are being told that health information technology (HIT) is the answer to lowering health care costs and providing better care — well, maybe. We do know that adopting technologies like EMRs or Practice Management (PM) is difficult, and that applications that provide these technologies will have to be seen as *useful* by the people who really have to use them in order to commit to the hard work of adopting the software. We also know that applications that are useful are more effective and will produce better results in terms of clinical outcomes and operational improvements. Finally, we know that applications that are not seen as useful will not be adopted — no matter what they cost or how many experts and consultants advocate using them. Applications that are acquired (whether through grants or operational funds) but not used, are wasted money. No health center can afford that.

It is paramount to factor the usefulness of technology into your acquisition process. How can you tell if an application is useful? There are

several tests. Three factors need to be part of how you evaluate products and vendors:

- **Matching Goals and Strategies:** The goals and strategies embodied in the application need to match the goals and strategies of your center. This is not always easy to determine, but if you are testing a software application and it just doesn't seem to match your expectations of what it should allow you to do, it most likely will not be able to be modified to match your expectations.
- **Matching Workflows and Usage Patterns:** The workflows and usage patterns provided by the application should match the way the people in your center actually work. If you have to change the way your people work in order to use an application, and the new patterns are not as effective as the ones you had already developed, then that application is not valuable. In an EMR, if your providers can't structure an encounter in a way that works best for them, but must follow a pattern laid out by the application, that's not useful.
- **Matching Information Sharing Patterns:** The formal and informal mechanisms for information sharing supported by the application should match the existing or planned information flows in your center. Again, if the information sharing patterns provided seem awkward and the right people don't seem to be able to access the right information, then the application is not useful.

Community health centers need to work with vendors that are flexible and have products that can be configured to match the strategies, workflows, and information sharing patterns used by staff. Products that require custom programming to meet these types of needs generally are not designed to be flexible enough to be useful. Once you start adding custom features, or features used by a small number of users, you compromise the integrity of the application and ultimately the product becomes unwieldy.

If possible, the technology acquisition process should include a period of configuration and adjustment for both the vendor and the health center. In any practice setting, workflows may need to be adjusted from time to time to be more effective and to better match expectations, but you should not have to change them just to match what an application offers. This co-evolution of applications and workflow is an important part of the technology acquisition process as it gives both the vendor and the health center an opportunity to optimize the application and the way it is used.

David Hartzband, DSc, is the Director of Technology Research for RCHN Community Health Foundation. Email comments to forum@nachc.com.

Question

When is it appropriate for a Board of Directors to go into executive session?

Answer

Executive session is a segment of a Board meeting where only Board members (and non-Board members that the Board invites or permits to attend) are present. Typically, executive sessions are used to discuss matters such as the CEO's performance and compensation, sensitive personnel issues, litigation, and other issues where candid and confidential communication among Board members is required. Although Boards cannot anticipate every situation that may require an executive session, they should generally define the purposes for which an executive session will be convened, and follow that guideline. Note that the Bureau of Primary Health Care (BPHC) Health Center Program Expectations (PIN 98-23) indicates that a health center's bylaws should include a provision regarding executive session.

While executive sessions can promote thoughtful discussion, they should be used prudently. A Board should be wary of using executive sessions in a manner that promotes a culture of secrecy and suspicion. Indeed, most of the Board's business should be conducted during regular Board meetings. A useful resource on how and when to use executive sessions is *Executive Sessions: How to Use Them Regularly and Wisely*, published by Board Source. It is available for download at *www.boardsource.org.*

E-mail your questions for **Ask the Forum** to ***forum@nachc.com.***