

Why is it important to understand what “usability” means as it relates to EHR/EMR systems and whether or not “usability” is enough? Because cost and usability related concerns are the biggest barriers to EHR adoption. According to the Medical Group Management Association 2005 survey on Medical Group’s Adoption of Electronic Health Records and Information Systems¹ the three highest rated barriers to adoption are:

- 1) Lack of capital resources to invest in an EHR
- 2) Concern about the physicians’ ability to input data into the EHR
- 3) Concern about the loss of productivity during the transition to EHR

Essentially, the second and third greatest barriers are fears about the ability to effectively use the EHR. Another term for this issue is usability.

THE FIRST STEP IN INCLUDING AND MEASURING USABILITY IN THE SELECTION PROCESS IS A MORE PRECISE DEFINITION OF WHAT USABILITY IS.

How Traditional EHR Evaluations Miss the Mark

Although most physician practices contemplating implementing an EHR inherently know the importance of usability, most Requests for Proposal (RFPs) and product demonstrations are excessively focused on feature/functionality “check lists”, while ignoring questions and methods to measure usability. Ironically, this focus on specific features can have disastrous consequences. A narrow “feature focus” not only ignores the critical importance of usability but can also clutter the EHR experience when the product with seldom or never used features is selected instead of the product with the best workflow solution. As a result, when choosing an EHR, it is vitally important to measure usability and weigh usability factors equally or even more than specific features or cost. This is similar to the experience of purchasing a car. Like a car, an EHR may cost \$20,000 or more per provider (driver) over 3-5 years. And like a car, while specific features and cost are important, they are meaningless if the car is difficult to drive (lacks usability).

The first step in including and measuring usability in the selection process is a more precise definition of what usability is.

What is EHR Usability?

According to Health and Human Service’s www.usability.gov website, usability “measures the quality of a user’s experience when interacting with a product or system - whether a Web site, a software application, mobile technology, or any user-operated device” and “in general, usability refers to how well users can learn and use a product to achieve their goals and how satisfied they are with that process”.

Another consideration is the oft mentioned adage “a picture is worth a thousand words”. When it comes to learning, this appears to be exactly the case as studies have found that “a message created with words and corresponding images is better retained than a message created with words alone”.² When assessing the graphical EHR interface, however, remember that there is a difference between growth charts and other charts that may be produced by the data in the EHR and graphics useful for learning and using the EHR such as recognizable buttons for calendar/date entries, numerical entries and keyboard or note additions. Graphics that enhance usability may also include input or viewing methods unique to the type of data being entered, such as the following screen for a child’s immunizations:

How can you measure Usability?

www.usability.gov defines the following usability measures:

Ease of learning - How fast can a user who has never seen the user interface before learn it sufficiently well to accomplish basic tasks?

Efficiency of use - Once an experienced user has learned to use the system, how fast can he or she accomplish tasks?

Memorability - If a user has used the system before, can he or she remember enough to use it effectively the next time or does the user have to start over again learning everything?

Error frequency and severity - How often do users make errors while using the system, how serious are these errors, and how do users recover from these errors?

Subjective satisfaction - How much does the user like using the system?”

While it may vary slightly from one organization to another, following are some methods for measuring the EHR usability:

- 1) Develop a short list of common repetitive tasks you expect to perform with the EHR such as finding a patient, opening a chart and opening the major sections of the chart.

- 2) Make vendor demos work for you.

During the demo, ask the vendor to “turn over control” to your physicians so that they can manipulate the software themselves. Note any tasks that your physicians and staff could not figure out.

Look for graphics that enhance the ability to easily learn to use the EHR, such as consistent use of recognizable buttons for dates, numbers and text and other user-orientated graphics.

- 3) Compare the recommended start-up training hours per provider. If there are substantial differences, ask the vendors for more information. Beware of systems that will require extra cost if you need more training than the standard provided.

- 4) Contact 3-5 users of the EHR from each vendor on your short list. If possible, ask to speak to a provider/physician. Ask some of the following questions:

- On a scale of 1 to 10, how do they rate their ability to learn the system?
- What was easiest to learn and what was the most difficult?
- What % of normal productivity were you at 30 days after implementation and 90 days after implementation? What is your current productivity compared to prior to EHR implementation and how long ago did you implement?
- Once you were trained, what remained the most difficult or time consuming task to perform in the EHR?
- What are the most common types of errors users make while using the system? What is the impact of these errors?
- On a scale of 1 to 10 how much do you like using your EHR?

- 5) Request a trial period from your final vendor

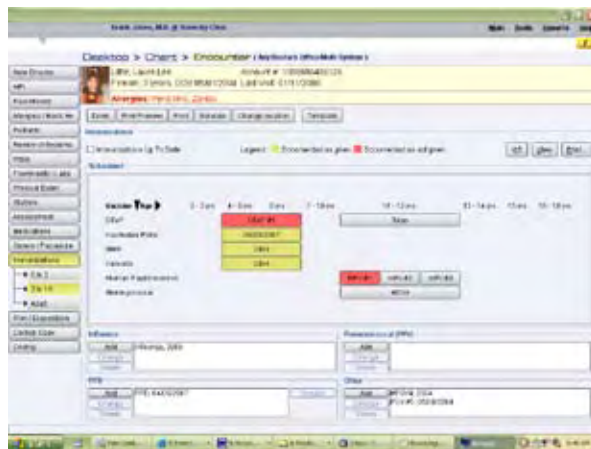
Do you need more than usability?

Webster’s defines usability as “capable of being used” and “convenient and practicable for use.” An EHR is such a major

change in the practice of medicine and these definitions don’t exactly inspire confidence with such a major change. This may be at the root of why so many physicians have yet to adopt EHRs. Usability alone may not be enough to get excited about such a major change. Do you need more than “usability” for your EHR?

Perhaps you are looking for an EHR to go beyond “usable” and be “embraceable”. Webster’s defines Embrace as “to take up especially readily or gladly” and “to take in or include as a part, item, or element of a more inclusive whole.” These definitions imply a system or process that is enjoyable and rewarding; not merely “serviceable.”

How do you find an EHR that your practice can truly embrace?



There are two key elements missing from the measures of “usability” that make an EHR “embraceable”: (1) outstanding support and (2) an EHR that will grow with your practice.

Support

An EHR is such a major transition that no matter how intuitive the system is, you will probably need to call for help on many occasions. When this happens you may in the middle of seeing a patient, taking a

phone call from a patient at home on the weekend or on hospital rounds at night. Will your EHR vendor be there for you and quickly? Will they have some clinical knowledge to adequately understand your needs?

Support is critical. Try calling the support number for each of your final vendors.

- How long does it take them to answer?
- Ask a few questions with clinical terms. Do they understand your questions? Can you understand their answers?

Ask about hours and weekend support availability. Is support available 24 hours a day, 365 days a year? After hours how long will it take them to answer or return your call? Does it cost extra?

An EHR that will Grow with Your Practice

Even though EHRs have been around for several years, they

are still evolving dramatically.

- When a product problem is identified, will it be addressed now or in the next release (and what are typical resolution times)?
- Will your selected EHR grow with you and in the direction you want to grow?
- How many enhancement or upgrades did they deliver last year and the prior year?
- Are upgrades included in the fees you pay?
- How does the vendor gather information on which new enhancements to make and how to make them?

Support and growth plans are yet another area you should talk with the vendor’s existing customers about.

The Quest for the Embraceable EHR

As you travel toward selecting and implementing an EHR remember the last time you bought a car. Would you dream of buying a new model without taking it for a test drive? Did you care more about how many gauges there were on the dashboard or other “bells and whistles” than you did about how easy and fun the car was to drive? Would you have purchased the car if you could only take it in for service from 8am to 5pm Monday through Friday and would not have a loaner and have to wait days if your car died? An EHR can cost as much or more than a car and is a lot more difficult to

trade. Make sure your EHR is not only usable but that it is “embraceable” because it is easy to use, fun to “drive”, well supported and will grow with your practice.

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Sevocity empowers physician practices to embrace EHRs by providing an easy-to-use, Internet-based electronic health record system. Because Sevocity EHR is an ASP product, healthcare providers avoid the expensive up-front expenditure and ongoing maintenance costs associated with client/server offerings. For more information, visit <http://www.sevocity.com> or call (877) 777-2298.

References

- 1 MGMA, University of Minnesota School of Public Health. 2005. *Assessing Adoption of Health Information Technology*. Colorado: MGMA.
- 2 Rebetez, Cyril. 2006. Control and collaboration in multimedia learning: Is there a split-interaction? MA Thesis, Université de Genève.

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