

How can I ensure successful implementation of my EHR?

Joel M. Kaufman, MD, FAAN
Executive Director and CEO
Lifespan/Physicians Professional Services Organization
Clinical Associate Professor of Clinical Neurosciences (Neurology)
Warren Alpert Medical School of Brown University

April 2009

Investing in an EHR is a big step for a practice. Having a clear and defined process that identifies what needs to be done will enhance the chance of success.

The key to success involves setting goals, having a clear planning and implementation process, having clear performance and cooperation expectations for everyone, and ensuring adequate training for everyone. These items, along with others, are reviewed below.

The process will likely take more time and effort than anticipated, may cost more, and will be at least moderately disruptive. However, when you are done, you will have a tool that will help you manage your patients better and will have a return on your investment.

The information below is presented as a high level general guide.

There is also the assumption that the practice has the resources and commitment to proceed. If you are unsure, then consider moving up the Readiness Assessment to just after Step 2: Agree on Process. The questions you will need to answer and review as part of the Readiness Assessment activity will give you a good sense of your ability to begin the process in earnest.

Step 1: Leadership

The first step is to make sure that there is one person who leads the project. It does not matter if you are a solo practice or a large group, someone needs to be identified as the focal point. It certainly makes sense, given the busy lives of physicians, for the person in charge to be a key staff person.

The primary characteristics of the lead person should include:

- Responsible
- Able to communicate to everyone, and everyone able to communicate with this person
- Able to stick with a schedule
- Has the time or can make the time
- Organized
- Feels comfortable asking questions
- Feels comfortable saying “I don’t know”
- Builds consensus when necessary
- Has good attention to detail
- Understands or willing to learn all aspects of the practice

Note: technical expertise need not be a characteristic. Certainly by the go-live date, the leader will know more than they really wanted to about many things.

Step 2: Agree on Process

At this point you do need an agreement on how input will take place and decisions made. As we all know, without an agreed upon process, including a timeline that you hold to, decisions either do not get made, are revisited endlessly by certain individuals, or are poorly thought out. You will save a great deal of time and aggravation by investing in a clear process as early as possible.

- Decision making process – who decides what and how decisions are made.
- Rules of participation (i.e., if someone doesn't participate in the planning, are they allowed to complain later, or worse, insist on personal preference changes).
- How is input going to be received from all the stakeholders.
- If multiple people are involved (mid and larger practices) what are the roles going to be for each participant?

Put all this on paper and review periodically as a group to make sure the process you have agreed upon is working and not being misused or has become a barrier.

Step 3: Set Goals

Once the leader is selected and the process outlined, then everyone in the group, either together or separately, needs to formally sit down, discuss and decide what the goal is. Define your criteria for success.

If the goal of adopting an EMR is only to replace your paper charts, you will likely fail. Consider robust goals. Examples may include:

- Improved patient satisfaction by X%
- All patient calls answered within X minutes
- Generate clinical practice data
- Practice net income increases X%
- Overhead goes down by X%
- Accounts receivables over 90 days reduced by X%

The goal or goals should be clear and have specific measures. For example, if you choose improved patient satisfaction, you need to define what you mean (e.g., pleasant experience overall, would recommend practice), measure this prior to the start of the project and then measure again at 3 months and 6 months after going live.

Step 4: Vendor Selection

If there is a dominant product in use in your community, there is a big advantage of using it. You will have others to show you how to maximize use of the product, and there will be local experts to help with problems, interfaces, and updates.

Hopefully your IPA, hospital or Medical Society has taken a leadership role. Again there is strength in numbers and in using local expertise.

Allow me also to emphasize that the AAN has for the past several years developed wonderful resources, including reviews of a selection of products. Please check out vendor reports and other information at www.aan.com/go/practice/electronic.

Selecting your vendor now will help as you proceed with your readiness assessment, as you will have a better idea of product features and functionalities.

Step 5: Readiness Assessment

It is critical to perform an inventory of where the practice is in terms of staff skills, needs, the IS environment, and current patients flow. There are also outside entities that will help you with this such as any local Quality Improvement Organizations, as well as tools that you can start with yourself. Like a home inspection, the product of the assessment will let you know where you must put effort. **DO NOT SKIP** this step. The Readiness assessment will also give you a work list of tasks that must be done. Once you have selected a product, your vendor should also supply detailed specifications of items that you will need to do.

Although there are tools that you can access to perform this assessment on your own, I would strongly recommend that you engage an experienced outside entity that will take an unbiased approach. They will also be able inform you of solutions that they have seen, and connect you with other practices in your area. Having an outside entity perform this work will also allow a more objective assessment of staff and office political barriers that will need to be addressed.

Based on your readiness assessment and vendor selection you can now more accurately work on your budget.

Cost will include:

- Readiness assessment
- Product Software
- Annual software maintenance and support (generally 18-23% of purchase price)
- Training – I would add 50% to what ever the vendor recommends
- Computers – PCs, laptops, tablets, servers
- Servers or ASP hosting
- Wireless equipment
- Network lines, external and internal
- Additional equipment, such as fax or scanners
- Down time estimate during planning, training and implementation
- Technical staff or consultant

Sit down with your local hospital and insurer and see what money is available. Note that the Internal Revenue Service, Centers for Medicare and Medicaid Services and Department of Justice allow hospitals and others to support up to 85% of the non-hardware cost of EHR adoption (the rules for e-prescribing are different). However, the safe harbors do not allow a

hospital to simply reimburse a physician group for monies it already spent on acquiring an EHR or to install an equivalent replacement EHR. Stark, anti-kickback statute and other referral and tax laws also apply to you and/or health entities that may be able to help financially. Given the financial stress that most hospitals find themselves in this year, although worth asking, chances are that hospitals will be unable to provide much support.

Resources:

- Your local Quality Improvement Organization
- Your local Medical Society
- Vendor recommendation
- Consulting organizations with a niche in EMR installs

Step 6: Articulate a Detailed Plan

At this point the leader, working with others – needs to put together a formal, written plan based on the goals, readiness assessment and meetings with staff. For smaller practices this may seem a little much, but it does need to be done. This plan is a dynamic document, so it will change. However, it will include timelines coupled with deliverables.

Your Readiness Assessment report should be the key source document for internal processes. Your software vendor will also supply you with a timeline and task list. Make sure you include an internal communication schedule. Everyone likes to know what is going on! No surprises to staff and colleagues.

Step 7: Office Design and Patient Flow

As part of your readiness assessment you have assessed current patient and information flow. Now is the time to determine how you would like it to be to take advantage of your new tools to meet your goals and improve your office environment. Explore with the vendor or other practices using the same product how they have, or have not, maximized features of the product to enhance office efficiencies and clinical care.

Should there be any structural changes for equipment in the exam rooms or staff areas? Will you add a kiosk for patients to self register, confirm coverage and/or complete forms and questionnaires? What will go into the record storage area as paper chart volume declines? What are the opportunities to enhance patient satisfaction? Are there opportunities to move patients through faster? Are you going to use laptops/tablets or are you going to have desktops in each room? Is your office set up for wireless? Do you have speed connectivity?

Step 8: Ready Office and Technical Environment

The software application can reside either at the practice (Client Server) or hosted elsewhere. Unless you have dedicated IS support or wish to spend time to manage the technical aspects of the implementation, consider having the software hosted by a trusted third party as an Application Service Provider (ASP).

The advantage of having the application on site is that you have direct control of the software and hardware. The disadvantage is that you will require more hardware, a server, and greater technical support.

The advantage of an ASP is that the host does this all-the-time with constantly updated equipment and protocols, and will handle upgrades, security and interfaces well. For small and medium sized practices there are few disadvantages, and the ASP approach is generally less expensive. You will need dedicated network lines to the practice, and should consider back-up systems.

Pay attention to hardware specifications. Make sure your hardware vendor either has some experience with your software vendor, or stands by their recommendations. I have seen several practices that have purchased incompatible fax machines, under powered computers, and/or mismatched firewall systems.

- EMR/Practice Management (PM)

If you choose to purchase an integrated EMR/Practice Management (PM) system (almost always the preferred choice) you need to decide which module to implement first. It is usually better to implement the PM module first. This way you will be able to identify operational issues outside of the exam room. You will also be able to build and review the demographic data at this point which will make the use of the EMR component go more smoothly.

- Templates

Most products allow for the use of templates for specific patient encounters and situations. Also, you can generally set up questionnaires for the Review of Systems, Family History, Medication or certain conditions, such as headache. Many vendors supply templates that can be edited. If there is more than one physician in the group, a decision needs to be made as to how templates will be developed, and the degree that each clinician may personalize them.

- Quality Data

Make sure that the product you are using can capture quality data, such as PQRI or data that your local insurer may desire for a pay-for-performance program. Set up your system so that you may easily get reports. It is between hard and impossible to retroactively capture data from free text, for example.

- Transfer and loading of data

If you are moving demographic and insurance data from one system to another, make sure that the person doing this is experienced. Very often, the vendor will do this for you for a fee. This is not a do-it-yourself project, no matter how technically competent you feel you are. This is also a good time to “clean” your existing data.

- Patient Communication

Patients are generally support of these types of changes, especially if they are made aware of how their interactions with your practice or their care will be improved. Consider notifying them of the upcoming changes, particularly since during the first couple of weeks things may be a little slower than in the past for you and your staff as you learn and get comfortable using your new system. You should also have information regarding the safeguards you have adopted to ensure security and confidentiality.

- Old records

There are many ways to handle old records. Your decision will be based on the number of new and old patients that you have and your commitment to improve work flow (best if all electronic). Note that many practices find that they can transition staff so that the time spent in the past pulling charts and filing is initially spent the first 6 – 12 months scanning information into the EMR. Once charts and messaging are electronic that position can often be eliminated.

Options include:

- Scan all records in their entirety into the EMR
- Scan all records for patients seen in the last 2 years into the EMR
- Scan all of a patient's record when the patient schedules an appointment
- Scan only recent and key data for scheduled patients
- New patients only into EMR
- Have parallel records (old paper, new electronic) and phase out over time

Step 9: Training

Training of all clinicians and staff is key. Because of the cost and time commitment, practices tend to under budget. This, along with the lack of a readiness assessment are the two predominant reasons for failure. Training must be mandatory for everyone. It needs to be done by competent people who are very familiar with the product and should be done during dedicated time. Physicians who leave the training every 15 minutes to take a call will not retain information, and will waste hours later trying to catch up during patient visits. If done off-hours, especially evenings, sessions need to be of short duration, to account for tiredness and attention lapses.

In general, front end and back office staff will need 3 to 8 hours of training. Physicians should receive at least 10-16 hours prior to implementation. No matter how intuitive and easy a product looks, there are features that need to be learned.

Having one physician become a “super user” works well as a resource for others. Consider having one line staff become a super user as well.

There is a difference between being cheap and frugal. Frugal is using your resources wisely. Investing in training will pay off considerably. Not budgeting adequate and dedicated time and funds for training is just plain stupid.

Step 10: Testing

This sounds obvious, but you should not assume that the system will work perfectly the moment it is plugged in. Several weeks prior to your go-live dates, you and your staff should use the entire system as you plan to do. This includes registering patients, creating a bill, sending a bill to your intermediary (they will help with this), following a pretend patient through the office, sending messages back and forth, receiving outside reports, sending faxes, creating patient records, and other functions. You should try out new equipment in a no-stress situation. Not everything will work as planned. If you are using wireless tablets, speed may be slow, or there may be unplanned dead spots. Forms may not be received. Reports may not print. Or all the above and much more. Allow at least several weeks to correct these items.

Step 11: Going Live

At this point all should be set. Many practices find it useful to have a trainer/support person on-site for at least several hours for each of the first few initial days. It is also important to go-live at a relatively quiet time for your practice, and when everyone is there. For example, going live the first week of September or when your office manager is on vacation is not a good idea.

Step 12: Reassess Against Goals

You thought you were all done. As the practice settles down, and then 3, 6 and 12 months out, loop back and measure against your goals. Also look at productivity. If not back to where you had budgeted, find out why. Having a session with your trainer four to eight weeks out is also worthwhile, as users will benefit from specific pointers on features that they may not recall.

Step 13: Additional Training and Updates

Vendors will update periodically. Keeping up with these updates is important, and should not be a passive activity as features may be added that will contribute to practice efficiency or revenue. Participating in on-line forums or even attending user group meetings is a good way to stay up-to-date on enhancements.

Resources and References

- **American Medical Association**
www.ama-assn.org
Enter “HIT Tools” in the Search area
- **American Academy of Family Physicians**
AAFP’s Center for Health Information Technology
<http://www.centerforhit.org/>
- **EMRs: Knowing your needs. American Medical News; July 14 2008: p.12**

- **Health Canada**
www.emrtoolkit.ca
- **Kleavelan B. Making it to that EHR promised land. MGMA Connection. May/June 2008: p.42**
- **Lowes, R. Keys to a successful EHR rollout. Medical Economics. July 2008**
Accessed on web site Aug. 2008
- **QualityNet, EHR Roadmap**
www.qualitynet.org
- **Vermont Information Technology Leaders**
<http://www.vitl.net>

Acknowledgment

My thanks to Don Michaels, Ph.D., for his insights, comments and suggestions.