Best Practices for Implementing an EHR in Behavioral Healthcare

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Executive Summary:

Little has been written about Electronic Health Record (EHR) implementations in behavioral healthcare agencies. EHR systems are one of the most expensive purchases and high impact projects in which a BH provider will engage. There has been almost no research on behavioral health adoption of EHR's. In the most recent study[1], done in 2006, the National Council found that just under 8% of community behavioral health providers had implemented an EHR system. Most agree that this number has steadily been growing. The number of EHR systems specifically for behavioral health providers has increased. Unfortunately, without proper planning, many of these implementation projects fail.

The main risk factors for EHR failure include:

- Poor communication;
- Lack of involvement in the planning by key stake holders; and
- Lack of sustained top level support and poor implementation planning.

Key factors in successful EHR implementations include:

- Establishing well formed goals and setting benchmarks;
- Excellent communication and project management; and
- A thorough work flow analysis and implementation plan.

In all, twenty-three best practices are explored.

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Data Gathering Methods

The following sources were used in creating this report:

Interviews: In researching this paper the following were interviewed about their implementation processes, best practices, and difficulties they encountered: EHR vendors, agency implementation project managers, senior staff at managed care companies, CIO/MIS directors and staff, and end users.

_Literature Search__:_ An extensive literature search was conducted and the contents of over 25 selected articles are incorporated into this report.

Personal Experience: Throughout the report I have interjected ideas based on my experience implementing several EHR systems over the past 14 years.

Limitations

Articles on EHR and PM implementations are plentiful. Unfortunately, very few of these are specific to behavioral healthcare and the majority come from medical EHR implementations. Although the majority of the issues are the same or similar, the research is limited due to a lack of written resources specific to behavioral healthcare.

Notes on Language

Behavioral Health is used to mean both mental health and substance abuse providers. The terms "agency" and "BH provider" are used interchangeably.

The terms EHR – Electronic Health Record, and EMR – Electronic Medical Record, are used interchangeably in this report.

The terms client, patient, consumer and person served are used interchangeably in this report.

The term CIO refers to the Chief Information Officer, a position found more and more among BH providers.
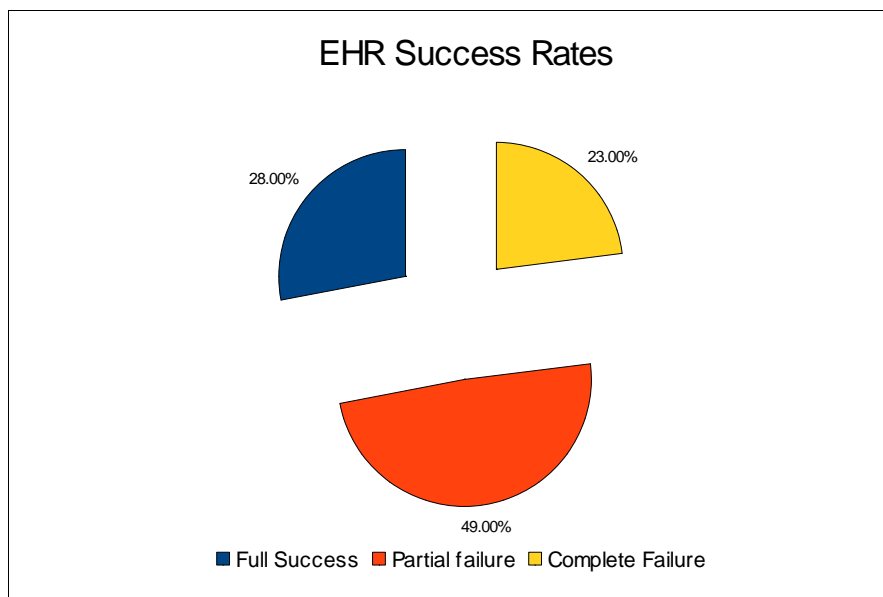
The Main Reasons EHR Implementation Projects Fail

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The literature, interviews and experience revealed a variety of reasons EMR implementations can fail[2,3,4,5,6,7,8]. These include:

- Lack of end user involvement - particularly in planning
- Poor communication
- Lack of attention to people and organizational issues
- Poor project planning
- Computer technical issues (slow computers, lack of training, poor clinician computer skills)
- Clinical issues (loss of productivity, privacy concerns)
- Lack of technical support
- Concerns over loss of autonomy
- Scope creep (inevitably results in implementation delays, increased costs and rework)
- The project supports the values of management and not staff and consumers
- Not the right members on the implementation team

The odds are not good. According to one source, "28% of projects meet full success. 49% of projects are fully completed, but over budget, over schedule and lack full scope of planned functionality. 23% of projects experience complete failure or are canceled.[3]" Other sources list the failure rate between 50% and 70%.   Failure can mean not getting the EHR to work, not having it work as you planned, and/or once implemented, not meeting your goals. Given the time, money and resources dedicated to your implementation, failure is not an option, but almost a quarter of all projects fail completely!

EHR Success Rates

28.00%   23.00%

49.00%

■ Full Success ■ Partial failure ■ Complete Failure

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Best Practices

The vast majority of the literature and interviews yielded very consistent information concerning the best practices for implementing an EHR. Each of the above "reasons for failure" will be addressed. The best practices fall into one of four categories that are represented here as chapters. These are :

1. EHR Goals, Evaluation, and Selection
2. Planning
3. People
4. Process

Chapter 1 - Goals

"A goal is a dream with a deadline"
~ Napoleon Hill

Set Goals:

The basis of every implementation is knowing where you want to get to, before you start out. The majority of the sources emphasized the importance of establishing the goals of the new EHR from the very start[2,3,4,6,7,9,10].   This <u>should</u> be easy in a clinical setting; the work we do relies on helping the people we serve to set goals. Staff, at least on a conceptual level, will understand the importance of setting goals. Some staff may be unfamiliar with some or all of the functionality of EHR systems – what is possible – therefore some education on basic and more advanced functionality may need to be done prior to setting goals.

Goals may include:
- Wide scale or universal usage of the EHR system
- Improving charting of work done, from a compliance perspective
- Creating more complete and legible charting
- Providing better access to data across providers and programs
- Creating a more integrated system
- Improving reporting at the senior management level
- Reducing in house desk top support to users

Common goals can also be used to motivate staff[2] . For example, implementing this new EHR will make us more efficient; we will then be able to serve more people.

In setting goals, it is helpful to ask, "What is expected of the new system?" This question should be addressed at as many levels as possible in the organization, not just from an end user or CEO or CIO perspective.   One resource, the Health Information Technology Evaluation Toolkit[12], offers a worksheet that can be used to facilitate discussions around goals. The questions raised include:

- What does your agency hope to gain from implementing this EHR?
- What are the goals of:
  - The leadership (CEO, CFO, COO, CIO, CMO, etc)
  - The Board
  - Front line staff
  - Consumers

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- What needs to happen for the implementation to be considered a success[12]?

Other Questions to ask about goals:
- Are the goals realistic and well-formed (doable, written in the positive, etc)? See Appendix A for Well-formed goal criteria.
- Are they truly related to the EHR implementation? Implementing an EHR can solve lots of issues and make lots of improvements to your work flow - but it can't solve all of your agency's issues.

Once clearly established, it is vital to the successful implementation that the goals are articulated by the senior management, including the CEO, to the entire organization[9]. The goals should conclusively demonstrate why your agency is adopting a new EHR, the benefits to the organization, staff, and consumers, and outline the implementation plan. This script should be well known and followed by everyone; the senior management team, the implementation team, the vendor, etc. As will be stated several times in this report, clear and consistent communication is vital to the project. The goals should not be written down at the start and then filed away for the reminder of the implementation. Remind staff of the overall goals often; post them in meeting rooms. One CIO[13] stressed the importance of staying on message and not allowing a small minority of staff "off the hook." For example, if one or two psychiatrists decide not to use the EHR, it is important that the team, from the CEO down, hold firm to the goals. Accommodations are encouraged (e.g. voice activated software, dictation, basic computer classes, etc), but the bottom line has to remain true to the agency's goals.

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Dr. McGowan[4] suggests using "formative evaluation, defined here as an iterative assessment of a project's viability through meeting defined benchmarks." She stresses three areas that require goals, and continual assessment: the effectiveness of the implementation of the technology, personal and organizational issues (e.g. managing emotions) and the financial impact.

Horn[11] highly recommends breaking your goals down into at least two large categories:
- Overall goals such as increased productivity. Be sure these are in line with your agency's mission.
- "Specific tasks, goals, driven by the people who actually do each task."[11] Be sure that these improve a current process and avoid, where you can, making completion of the task take longer than it does now, using the current system.

In developing goals, Morton[8] recommends stressing those that benefit the end user. How will it make the front desk staff's job easier, better, more efficient? The front desk staff may care that the EHR will make your agency more productive, in better compliance and reduce

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medication errors, however, his or her more immediate concern is how it impacts the front desk job.

Establishing goals, getting input from lots of stakeholders, can be time consuming; it is worth the effort.

Use the Goals to Establish Benchmarks and Measure Progress:

Allison states, "Each goal for the EMR system has an expected improvement – whether in efficiency, revenue, reduced cost, ease of data access, etc. Before moving too far ahead, establish clear measurements of where the practice is 'pre-EMR' within each of these goal categories so that increments of success can be clearly recognized and celebrated."[3]   In order to measure the improvement, you will need to decide on benchmarks and gather data on the current state of these benchmarks such as productivity level, medication errors, and clean claim rates.

It is also important to establish benchmarks and milestones during the implementation itself to measure progress and improve upon the implementation as it progresses. These could include EHR use adoption rates, percent of notes in a unit written using the EHR, or sites implemented (see the next section for additional benchmarks and milestones).

Create an Evaluation Plan:

The Agency for Healthcare Research and Quality's (AHRQ - part of the U.S. Department of Health and Human Services) National Resource Center's Health IT Evaluation Toolkit[12] is an excellent tool and should be consulted by your EHR project manager.   The AHRQ recommends establishing an Evaluation Plan with goals, benchmarks and measures in the following areas:

- Clinical Outcomes Measure (e.g. number of preventable drug to drug interactions)
- Clinical Processes Measures (e.g. time to complete comprehensive assessment, time to compete progress notes, % of progress notes completed within 24 hours of appointment).
- Provider Adoption and Attitudes Measures (e.g. % of medication orders entered, % of notes done on line, number of sites that are paperless, provider satisfaction, staff turn over rates).
- Patient Knowledge and Attitudes Measures (e.g. consumer satisfaction)
- Work flow Impact Measures (e.g. time spent per intake, per progress note); and
- Financial Impact Measures (e.g. denied claims rate).

The AHRQ report stresses the importance of measuring both qualitative and quantitative aspects of the implementation. This is particularly relevant in a Behavioral Health setting – how the staff and consumers feel about the system may prove to be just as important as the

percentage of progress notes written. Another key measure is the importance of evaluating barriers and facilitators to your agency's implementation. Most project managers key in on the barriers and never tap into the potential benefits of examining and amplifying those actions that facilitate a project such as excellent communication and leadership.

Pick the Right EMR for You:

Many authors stress the importance of picking the EMR that will meet your agency's goals and objectives, and is affordable[6,11,14].   One CIO identified this as one of the most challenging aspects of any implementation[13].   There are many choices of systems and the range in cost and complexity is tremendous. Some practical steps you can take:

1. Start by looking on line at systems and their functions - it is important to know what the possibilities are. Do you need a system with a central intake module? Internal and secure email? A Consumer portal? The ability to customize your forms or adhere to state standards? The list is extensive.
2. Match the software to your goals, not the other way around. Make a clear list of your needs and priorities, then see how the software lines up.
3. Go and visit references – really. Don't just call and ask if an agency is happy with the software and customer service. Go visit a site, take the project manager out to lunch and find out how the implementation went. Ask her what would she do the same and what she would do differently in the implementation.
4. Control the demonstrations. Many of the systems you look at will have the functionality you need; so find out how the system aligns with your work flow. Give the vendor some scenarios – intake a new client, add an authorization, rebill a claim to Medicare and then cross it to a secondary insurance. Transfer a client from one level of care to another. Then evaluate the interface – how intuitive is it?
5. Ask about the relationship the vendor creates with its customers, and its customer service philosophy. How long have other agencies been with the vendor?
6. Ask about upgrades and enhancements. Today's focus is meaningful use. What are the vendor's plans and time tables to meet this new requirement? The next? What is on the "to do" list. This will let you know whether the vendor is on top of the market changes occurring.

The more you can find out about the relationship the EHR vendor has with its customers the better.

Evaluating each system is a monumental task. Knowing the functionality you require (read: mission critical business functions), that are required by regulation, law, contract, license, desire, or those you would like to explore, is critical.

(**NOTE**: Solutions in Behavioral Healthcare has developed a proprietary selection guide to assist agencies and vendors in the selection process).

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Take Away Points:

- Establish well-formed goals
- Create benchmarks for the EHR and the implementation process itself
- Measure your progress
- Carefully evaluate EHR systems

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Chapter 2 - Plan

"It is not enough to just do your best or work hard. You must know what to work on."
~W. Edwards Deming

Utilize Staff Roles in Planning and Implementing:

Thinking of the implementation in terms of the roles of the staff that will utilize the system can streamline the implementation[3,9]. Role identification can be utilized in work flow analysis, training design and implementation as well as EHR set up for both user access and security. Be sure to include the following roles:

- Clinicians, including interns
- Non-master's level direct care staff
- Front Desk staff
- Supervisors - clinical and administrative
- Program Managers
- Directors
- Outside Auditors

- Funders
- State Licensing Agencies
- Accreditation representatives
- MDT staff
- Quality Assurance/ Quality Management staff
- Compliance staff
- MIS

It is important to evaluate differences within roles. Not all MIS staff need nor should have the same access to the EHR; an outpatient clinician and an emergency service clinician have different needs. Be sure to differentiate these needs within a role and document them.

Conduct a Thorough Work Flow Analysis:

Almost every project manager, research paper, white paper and article written on EHR implementation stresses the importance of the thorough work flow analysis[4,5,9,10,15]. Each process needs to be carefully examined, at the source, and mapped out on paper. One potential barrier to a successful implementation is not getting to the end user; but rather relying on a department manager or supervisor to be the definitive source of information on work flow. It is imperative to talk to the staff actually doing the work to find out how it is done, rather than how it should or is thought to be done. Another key is to talk to the staff at each program and location. It should not be assumed that one outpatient process will be replicated throughout a behavioral healthcare provider system. Case managers who work with adults may have a very different experience compared to those who work with children[13]. Several sources recommend letting the site(s) come to consensus on work flow to establish better buy in and ultimately, higher

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and faster adoption rates.

One source[3] recommends using your established goals to inform your work flow processes. For example, if "consumer-focused practice" is a goal, how does the work flow reflect this goal? How can the work flow be improved to be more "consumer-focused? Another author warns that work flows have to align with clinical processes[5]. For examples, in one implementation, a progress note for a psychiatrist was developed using the Massachusetts Standardized Documentation Project[16] forms as a template. When reviewing several MD notes, it was discovered that only one text block was being used out of many in the EHR progress note. One psychiatrist and several of his residents were copying and pasting a Word Template into the EHR form because they preferred the order of the headings. Clearly the work flow did not take their practice into account.

It is also important to remember the environment in which the work flow is occurring[5]. Mobile Crisis clinicians may at first insist on "net book" computers because they are constantly on the move and the net book provides a light and highly portable solution. However, mobile crisis also requires completing many forms in a short period of time, and the small screen, low power and keyboard size can hinder this process.

Question to ask:
- How well is the current process working?
- How will this process be represented in the EHR?
- What are the areas for improvement within the process? Do they involve the EHR?
- What can we do in the EHR to make the end user's experience better, more productive and/or meet the overall goals of the implementation[13] and our agency?
- What are the requirements we are trying to meet?

As part of the work flow analysis it is important to ask about processes that may operate below the radar. For example, are there small databases, index cards, lists or spreadsheets staff use to assist them in their jobs? These should be incorporated into the work flow. In addition, the Compliance Officer should be involved in the work flow analysis to be certain your agency is meeting all of the payer, regulator requirements, and applicable accreditation requirements.

One component of a thorough work flow analysis is the discovery of areas that are in need of improvement. These can take many forms; an identified training need, an inefficient practice, skipped required processes, etc. Your goal is to discover the current work flow and improve the process by implementing an EHR, not just replicating the current process. You may be very happy with your intake process and the EHR you are considering does it very differently. Do not discount the product before finding out the thought process behind the vendor's decision to create a different work flow for intake. Maybe there are options you can set; maybe they have discovered something better.

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Create an Implementation Plan:

All large projects such as an EHR implementation require a well written and thorough implementation plan[6,15]. The plan should address the best practices specifically mentioned in this report as well as:

- Realistic and flexible timetables.
- "[Assign] resources, schedules, task dependencies and milestones that will be used to manage the total implementation effort."[6]

In her article, <u>The Six Keys to Successful EHR Implementation</u>[3], Adele Allison creates an excellent list of the vital components of a project plan that should be consulted.

The project plan should be treated as a living document; the blue prints of the implementation, with frequent updates, notes, task assignments[3], and when necessary, adjustments. Be sure to include:

- Steering Committee membership and design
  - Lines of communication with the project manager and vendor
  - Project Meetings, status reports, project plan updates, vendor coordination, consumer communications updates, common files area
- Feedback mechanism; e.g. focus groups
  - Engagement strategy and time line
- Roles and responsibilities of the project manager, Implementation Team, EHR help desk function, and IT Director.
- Time lines
  - Transition to EHR from paper
- Key decision points to include:
  - Deployment strategy: functional vs. geographical
  - Server vs. hosted solution
  - Technology acquisition
  - Scanning/paper records strategy
  - Consumer Portal
  - Staff Portal
  - Help desk/ user support design
  - Data Migration
  - Work Flow Analysis design
  - Data transfer strategy
  - Interoperability goals (e.g. labs)
  - Dual system management during implementation
  - Billing transition plan including testing

> The project plan should be treated as a living document; the blue prints of the implementation

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- Issue tracking
- E-prescribing
- Clinical Documentation Plan (See next section)
- Reporting
    - Management
    - Finance
    - Clinical
- Meeting Meaningful Use Criteria
- Interoperability
    - G/L
    - HR
    - Outside systems
- Training Plan
    - Scope (basic computer skills, etc)
    - Methods
        - Webinar based
    - Design
    - Sample records
    - New staff entering your system
- Backup Procedures
- Contingency planning
- Policy and Procedures
- Compliance
- Measurable Outcomes/Measurements of Success
    - Progress note adherence
- Testing Plan
- Site or LOC readiness /implementation assessment tool
- Risk analysis and mitigation strategies
- Spend a lot of time on configuring the software – thinking about how to build out the drop-down tables. The time spent will make the go live phase smoother[11].
- Establish centralized feedback so that issues are communicated to one person or office that tracks the issues and uses their resolution to create a support knowledge base[4].
- Creating a series of test clients
- The implementation plan should include a plan for scanning old chart contents. Based on experience, a few guidelines:
    - If you can't read the writing on the paper version, it won't be any more legible scanned!
    - Clinicians do not typically look at notes more than 3-4 sessions back.
    - Prescribers will need to have more old notes scanned; typically one year's worth.

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- Just because an outside agency sent you a 150 page report, does not mean you need or want to scan the entire thing.
- Scanning always takes longer than people think.
- Include a plan for "maintenance" scanning; new material coming into the system including insurance cards, outside reports, correspondence and parts of the record that require consumer signature.
- Carefully plan out how to transfer medication data. This is a huge time saver for the prescribers. If you are already using an e-prescribing tool, look into the possibility of a data transfer, possibly using an HL7 formatted file. If the prescriptions are hand written, have a nurse load the prescriptions into the system so the prescriber just needs to refill and make other minor adjustments when a consumer is seen for the first time using the EHR system. It is important that a person with medical training, such as a nurse, does the data entry. Nurses are familiar with the medication names, doses, and know when to ask questions. Remember to verify and document drug allergies; a major component of meaningful use adherence.
- Post-implementation and annual reviews are key. No matter how good of a job you do in implementing the new EHR, not every efficiency will be recognized. Patches, new releases coming out, enhancements being developed, new staff being hired, and programs expanding will all require changes to the EHR. It is important to review the use of your system over time and include it in the implementation plan from the start tor maximum efficiency and return on investment.

One CIO highly recommended having the implementation plan on-line allowing all members of the implementation team to contribute to it on an on-going basis, and having a visible plan on a white board in the meeting room[13]. The visible plan should include deadlines and task assignments. This will help to keep tasks and deadlines prominent and hold team members accountable. Consider using a project management software.

Clinical Documentation Plan:

For your direct care staff, the core of the EHR are the medical record forms. Each vendor will have forms available to you right out of the box. Most vendors allow you to create your own, or pay to have the vendor create customized forms (be sure to explore this detail during contract negotiations). Whether you decide to use the vendor' forms, make your own or adhere to a standard set of forms, you can use the clinical forms decision process as an opportunity to enhance your clinical forms. Here are several key elements:

- **Match and support the clinical philosophy of your agency.** Over the past few years I have noticed an increase in number of agencies that are adopting best practices and using established practice guidelines. If your agency or a department within your agency has a "Solution Focused" approach to treatment, and your paperwork is based on a psychodynamic model, the forms will not support the work

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being done.   Make the forms match the work.
- **Meeting medical necessity.** Meeting, or proving, medical necessity, must be one of the results of your clinical documentation process.   One key to meeting medical necessity is the linkage between the major form components; assessments, treatment plans and notes.   Fortunately, there are sophisticated resources available for implementation teams to consult.   The following are standardized documentation projects that have medical necessity at their core:
  - Solutions for Ohio's Quality Improvement and Compliance (SOQIC) - Use your web browser to search for information.
  - The Massachusetts Standardized Documentation Project (MSDP) - http://www.abhmass.org/site/msdp.html.
  - The New York State Clinical Records Initiative (NYSCRI) - http://www.omh.state.ny.us/omhweb/nyscri/.
- **Meet Meaningful Use Criteria.** Simply put, be sure the vendor you are working with is fully certified.
- **Meet Payer Requirements** - Based on your contracts, state regulations and requirements, there may be certain forms you must use. These will need to be added to the system if they do not already exist.

Getting a group of providers within a single clinic of your organization to agree on a set of clinical forms is a monumental task. Getting your entire organization to agree can be daunting.   The implementation of an EHR can be provide the needed impetus for making changes to your clinical documentation.   One method is to collect all of the forms used throughout your organization and begin to standardized as much as possible.

Carefully Plan Training and Support:

Training will be one of the most important parts of the implementation plan and should not be left to the end of the implementation to plan.   Key elements of a training plan include:

- Just in time training[9]. Timing of the training is key. Train too early and staff will not remember the material.   It is ideal for staff to be trained and immediately be able to use what they have learned.

> Don't assume basic computer skills are mastered - ask!

  - Too often trainers assume basic computing skills have already been mastered. Don't assume, ask and test (staff often over estimate their own abilities).   There are several on-line tools for testing typing speed and accuracy, and a survey can be used for self reported skill assessment.
  - Expect Uneven skills. Assessing staff's basic computer skills will allow you to design classes tailored to each individual's needs. More advanced users will learn to log on, move around the system rapidly and want to get to the "meat" of the system as soon as possible. Users unfamiliar with an EHR will

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need more time to master basic skills. Try to have staff learn using the type of computer they currently have and know. Having to adjust to a new keyboard and/or mouse while learning a new EHR will slow down learning and adoption.

- Use adult multi-sensory learning techniques. Trainers in Behavioral Healthcare often assume that clinicians, social workers, residential counselor and the like are auditory learners and use mainly didactic presentation styles. In fact, only approximately 40% will have an auditory lead learning system; 40% will be visual, and 20% kinesthetic. The use of slides, lectures, and hands on practice is vital when teaching to all learning styles.

- Use a Test system. Knowing you are not going to "blow up the system" by trying something will free the new user to experiment and learn faster. Have a demo or test system available to practice on. It is better for clinical and case management staff for the demo system to have realistic case examples that closely resemble the consumers with whom your agency works. Take the time to build these test clients' files.

- Use Learning Labs. Working alone at your desk on a test or live system works for some, but a more efficient use of resources is to create a training or learning lab. A lab allows you to make expert staff available and creates a "learning environment." Another advantage of a training lab is that staff are less likely to get interrupted or distracted in a lab[10].

- Go Slow. Another common error is to pile too much information on new users and hope they will be able to go back and get what they missed from the handouts. They won't. Administer tests to be sure people have the skills at one level before moving onto the next.

- Be prepared for clinical questions. Ideally your training staff should be clinicians or familiar with your clinical procedures and requirements. Using the EHR technologically accounts for some, but no where near all of the skills needed to successfully use an EHR. Knowing how to write a goal statement, that meets medical necessity criteria, is just as important, if not more, than knowing where in the EHR to record these data.

> Be prepared for clinical and procedural questions during training.

- Be prepared for clinical procedure questions. How often do we need to do MDT? Update the client's treatment plan? Are we allowed to cut and paste from a previous document the staff person wrote? Another staff person wrote? A myriad of clinical process questions will be raised during training. If you are not certain, differ to the clinical director.

- Offer as many training opportunities as possible. Staff are worried about productivity as much as management. Work with staff to schedule training times that fit with their schedules and allow them to use what they are learning.

- Be clear what is a change due to technology and what is a change in work flow. Adding a new field because it is a requirement, but not one that was required before, is different than requiring the data because the EHR vendor included a data field on the form.[9]

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- When needed, provide one to one support. In general, group training sessions are more economical. There are times, however, when a valuable staff person needs one on one training; this is worth the investment. The staff person will be more at ease, be able to get focused training and will not slow down other staff in their learning.
- Plan for new staff early. Training plans often only focus on existing staff. A plan for bringing new staff on board should be developed early and tested.

Laying The Ground Work For Concurrent Documentation:

With a well planned EHR system, the use of concurrent documentation – completing documents while meeting with a consumer, can have huge positive effects on an organization. Potential benefits include:
- **Better documentation**. Direct Care staff that are disciplined will take the ten minutes between sessions in outpatient settings to write up their sessions notes. Others will complete the notes at the end of the day, or week. As more time elapses, the quality of the note will diminish. Concurrent documentation captures the salient elements of a session, during the session.
- **More time**. Direct care staff rarely have free time and most can barely keep up with record keeping requirements. Concurrent documentation, particularly of progress notes, can free up time between sessions and at the end of the day to complete the more complex documentation requirements.

> Concurrent documentation can free up time for staff

- **Increased focus on goals and being consumer orientated.** Doing concurrent documentation forces the staff person to include the consumer in the documentation process.   This can increase the focus on goals and measuring progress.
- **Cleaner claims and lower take back risk due to missing documentation.** Having the note completed at the time of the session will decrease the number of lost claims and the risk of take backs for non-existent documentation.
- **Increased staff morale**. Having the feeling of always being behind in work, never being able to say you have competed a task can have a negative impact on staff morale. Concurrent documentation can increase job satisfaction.

Very few staff will have any experience with concurrent documentation. There have been some studies published on the topic within the behavioral healthcare field. Several key aspects to implementing concurrent documentation include:

- The EHR system should allow staff to start a document and save it as a draft to be finished later.   Although some of the work is done with the consumer in the room, it is not always possible to complete the document prior to having to see the next consumer.
- Start with the documents, based on the work flow, that are the easiest to complete with

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the client in the room. A major goal here is to maintain rapport with the consumer. If the staff person is not comfortable with the EHR, and/or not proficient at typing, rapport will suffer.   Dr. Bill Schmelter, considered an expert on concurrent documentation, suggests starting with the progress note. Staff can complete this toward the end of the session[17] so the entire session is not spent typing.   Dr. Schmelter believes that most therapists do a "wrap up" toward the end of a session and doing concurrent documentation in a progress note is a natural extension of this.

- Focus effort on the processes that will give you the most return. Most agencies start with their prescribers; their most expensive staff and typically the scarcest resource. One CIO[13] recommended working closely with the prescribers to decide what equipment, office set up and work flow will best support concurrent documentation.

- When designing the system and work flow, having resources immediately available on the computer will greatly support concurrent documentation. Any information not readily available in help buttons or menus will cause the user to either stop listening or stop talking to the consumer in order to find the information, or skip doing that section of the note concurrently.

- One of the biggest challenges in implementing concurrent documentation is not the consumer or staff person but rather the forms themselves. Too many forms do not support sound clinical documentation that adheres to medical necessity, compliance standards, and logical work flow design. If the underlying tool you are using is flawed, the results, even if done concurrently, will not meet standards.

Linda Rosenberg from the National Council writes that, "The ideal preparation for transition to concurrent documentation involves:

1. Staff training (preferably on-site but can be done via web-ex).

2. Recruitment of volunteers to conduct a pilot (in the present context the pilot staff would be perfect candidates).

3. Implementation of a concurrent documentation pilot that includes minimal collection of data to demonstrate the reduction in documentation to direct service ration as well as to provide support for ongoing improvement in the process."[18]

Another good resource are the writings of Dr. Bill Schmelter[19] and the Midwestern Colorado Mental Health Center[20].

Carefully Plan Transferring Data:

The task of transferring data from older legacy systems to the new EHR can be a serious source of frustration and mistakes.

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- Carefully decide what you really need. "Because we have tracked this for years" is not a valid reason for moving large volumes of data from one system to another. Carefully evaluate the data you will be transferring, and verify the need by going to the source document and seeing the requirement. For example, the claim, "it's a compliance requirement!" should be verified by looking at the regulations.

> Carefully evaluate the data you plan to transfer before and after the conversion.

- Test and validate the data before and after you migrate. Most vendors will have you test the data once it is migrated into the new system. It is also important to validate the data before you migrate it.
  - When was the last time you truly asked consumers to update their contact information?
  - Is the insurance/billing information you have on clients up to date?
  - Are 60% of your clients listed as "unidentified" for race, ethnicity, primary language? Now is the time to complete this data.
- Are all of the providers you are moving into the new system current employees?

One author believes that the lack of information in the EHR at the start is one of the primary reasons for loss of productivity[11]. One suggestion he makes is to allow users to have both the paper and electronic chart available for existing clients during the transition. Each agency will need to decide if it prints the electronic notes for existing consumers and maintain dual records for a time. My experience is that this is necessary until everyone (clinical staff) that comes into contact with the client is up on the electronic record, at a minimum using it in view only mode. In an integrated system, the order of implementing different programs needs to be well thought out as it can impact how soon one department can stop printing and filing in the paper chart.

Create Contingency Plans:

As part of the implementation plan, it is prudent to include provisions for interruptions, delays, and unexpected problems in the EHR implementation. Similar to a disaster recovery plan, contingency planning during the EHR implementation will save time in the event of a delay[15].

Questions to address:
- How will we record notes in the event the system is not available?
- How will we access scheduled appointments?
- How will we prescribe refills/new medications?

The following systems and operations should have contingency plans in place as they are being implemented and beyond implementation:

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Billing - Running parallel billing systems is very challenging at best and impossible at worst. However, at the point of switching over, it may be prudent to load the claims into both the old and new systems, plan and bill from the new, but be prepared to submit from the old. Another approach is to create a mechanism for loading the claims data into the old system for billing, in the event a problem occurs and a billing deadline is rapidly approaching. Having a paper form available (or at a minimum a hard copy master of a service activity log - SAL) for staff to complete as services are being rendered is important.

Front Desk Functions: It is vital to know who is coming in when and where for services, being able to collect co-pays and set next appointments and remind staff when treatment plans are due. Running parallel systems for these functions should be considered until there is confidence that the new system is working properly. If switching over systems or down time is anticipated, printing schedules or moving them to a searchable spread sheet is recommended.

Medications: It is highly recommended that your agency maintain a supply of compliant paper prescription pads. If switching over systems or down time is anticipated, printing current medication lists or creating a searchable spreadsheet is recommended.

Back up power plans. Whether in implementation or live, power outages can cause huge issues. Having internet connectivity available via tethered cell phones or other means (such as the Virgin myfi) and a system for accessing these tools in the needed location is recommend. Mission critical locations should consider power backup systems.

Back up systems: Test your back up system before a major change. Many agencies have back ups in place, but few actually try to restore information from a back up tape. I known of several agencies that discovered their back-up tapes were useless only after it was too late. Consider switching to a cloud based back up system.

A good guide on contingency planning has been compiled by Cheryl Fahrenholz[21] that is worth reading.

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<u>Take Away Points:</u>

- A thorough work flow analysis is essential - take the time to do it right.
- Create a thorough Implementation Plan.
- Carefully plan training and data transfer.
- Create a contingency plan.
- Back up your data!

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Chapter 3 - People

"Feedback is the breakfast of champions."
~Ken Blanchard

Assembling the Right Implementation Team:

The vast majority of sources rate the composition of your implementation team as one, if not the, most important factor to a successful EHR implementation[2,3,6,7,15,22]. It is vital to get representation from all of the key areas of your business that will interact with the EHR. These include:

- CEO
- CFO
- CIO
- EHR Implementation Project Manager
- Senior Management
- Direct Care staff – including representation from different programs (adult and child, outpatient vs. mobile crisis, etc.): Case Managers, Psychiatrists, Nurses, Staff, Intake staff, etc.
- Clinical Champions
- Billing / Patient Accounts

- Data Entry
- Credentialing
- Front Desk
- MIS
- Medical Records
- Quality Management/ Quality Assurance
- Compliance
- Training
- Finance
- Payroll
- Human Resources

It is important to clearly define each person's role and tasks for the team. It is not necessary for each person to be involved in every task – utilize the team members' strengths and area of expertise and empower the members to solicit input from their colleagues not on the team as as way to get increased input.

Several project managers emphasized the importance of clearing space in the team members' schedules to devote the necessary time and energy to the implementation project. Many agencies will just add more work to already overstressed staff. Consider back-filling certain roles to allow adequate time for the implementation.   The CEO of an IT firm that specializes in Behavioral Healthcare systems urges customers to think of the EHR implementation as adding a big new clinical program[23].   Staff will need time to devote to planning and implementing. When adding new clinical programs we tend to remember to balance our staff's workload; it is just as important during an EHR implementation.

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A project manager is essential to a successful implementation. Given the time commitments necessary in larger organizations, the project manager will need to have few if any other responsibilities. Serious consideration should be given to hiring an outside project manager with experience in implementing technology projects.

Prioritize Excellent Communication:

Many of the articles stressed communication as a priority for any successful EHR implementation.[9,15,24] A communications strategy with a standardized methodology[15] will allow your agency to maintain a consistent message. Communication between the following groups is vital:

> **Excellent Communication between all players involved in the implementation is vital.**

- The EMR Implementation team and end users (Management Team, Board, clinicians, including MD's; Billing staff; front desk staff; case managers). End users should know what the plan is and when events are happening. This will go a long way in managing end users' "fear."
- EMH Implementation team and the vendor.
- Management team and consumers.

Different methods of communication can be used, depending on the audience and include: newsletter, internet and intranet sites, payroll messages, posters at mailboxes, emails, and direct mailings. It is important in aiding a successful implementation to continue stressing the benefits of adopting the EHR.

Find a Clinical Champion:

Another key to successful implementation in medical EMR studies is the strong leadership of a Clinical Champion.[3,6,10 25,26] Champions for Medical EHR implementations are typically MD's. For your behavioral health organization, I would recommend several champions in a variety of disciplines. The champion provides:

- An on site, knowledgeable presence to serve as a resource and role model.
- A trusted staff person others work with all the time.
- Additional leadership to reinforce the big picture goals.[3]
- A sounding board for clinical set-up issues.[6]
- Feedback mechanism to the implementation team.

Clinical champions can include clinicians, case managers, front desk staff, billing staff, nurses, and clinical managers.

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Manage the Vendor - Agency Relationship:

All of the EHR vendors interviewed stressed the importance of the relationship between vendor and agency as one of the most important aspects of a successful implementation. Successful implementations are supported by excellent communication between the EHR vendor and agency, as well as careful monitoring and frequent check-ins on the quality of the relationship. Agencies and vendors sometimes lose sight of the fact that the vendor-agency relationship is very long term, sometimes lasting 10-20 years, and the implementation is only a very small part of the whole. Most of the vendors recommended putting monitoring mechanisms in place early on and framing the relationship as a partnership from the very start.

One key factor that greatly influences the long-term relationship between vendor and agency is the quality and timeliness of support from the vendor. It is vital to thoroughly evaluate the vendor's support function and be clear with the vendor what expectations you have. Another area that can greatly enhance or harm the relationship is the vendor's ability to complete enhancements to their system; whether customized specifically for your agency, or industry driven (e.g. Meaningful Use), in the time frames your agency requires.

One author suggests getting a detailed list of known bugs and time lines for fixing them from the vendor as you begin to implement[10]. This will save time and lower frustration levels for both you and the vendor.

Manage the Fear/Anxiety/Resistance:

Implementing an EHR will evoke strong emotions in staff; these should not be underestimated and are listed as a top reason for EHR implementation failure[10,11,25,26,27,28,29]. There are a myriad of concerns and emotions staff may have about the EHR including:

- Will the EHR slow me down? Will I meet productivity?
- Will it get in the way of the staff-consumer relationship? Harm consumers?
- Is the EHR system secure?

> Manage the fear and other strong emotions staff will have about the EHR.

- Will management now be watching[11]/criticizing/micro-managing everything I write in the record?
- Do I have a say in this?
- Will the EMR disrupt our revenue cycle[11]?
- Will my job be eliminated once the new system is up and running[10]?

Many of these are based in reality and it is important to address them directly.

Remedies to combat these concerns and the strong emotions associate with them include:

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- Excellent communication (see above);
- Anticipating these challenges for the staff in advance in order to normalize them and allow opportunities to address them ("typical reactions to EMR implementation include...");
- Consider relaxing some of the rules (productivity); and
- Engaging staff in direct discussions about their concerns on a regular basis.

Managing the process for staff gathering input is also important to monitor. There should be a balance struck between respectfully eliciting staff input, acknowledging their contribution and implementing staff suggestions. Not all of the ideas staff have will be implemented – some will not be possible, some will not be good ideas. Regardless, acknowledging their concerns, thoughts and suggestions is key.

Another phenomenon often heard from staff during implementation, particularly when replacing one system with another, is staff comparing the old and new systems[25]. "The old system did this better." "Why can't the new system do XYZ?" Staff can also carry-over their implementation experience from the first system to the second – for better or worse. Anticipating these effects and being prepared to address them can lessen the potential negative impact on the implementation.   One clinical technique that some staff will recognize can be used to address these issues – prediction. Being very direct with staff and saying, "During an EHR implementation some staff experience anxiety, fear, etc." By labeling their reaction as normal, the staff may be more willing to be open with the implementation team and work with you to resolve these issues.

Manage the Cultural Shift:

Change can be hard. A common error is to assume the people who work in mental health and substance abuse, who help others make substantial changes in their lives every day, are comfortable with change. Experience suggests just the opposite. Clinical staff are intensely attached to their forms and clinical work flow processes; no matter how flawed or outdated they may be. Front desk staff will continue to rely on their index cards years after an electronic system has been implemented. Implementing a new EHR will require changes in work flow and a cultural shift for staff. This should be anticipated and planned for and clearly communicated[15] to staff. Giving well thought out rationales for systemic changes, talking about them in the planning stage, and genuinely gathering staff input can make these transitions easier.

Many organizations also use the implementation of an EHR to "raise the bar" on expectations, increase adherence to standards, and monitor the work flow and processes more closely, given the enhanced monitoring tools that often come with an EHR. Not all staff will perceive these changes as positive. Including staff in the development of goals that include these changes and clearly communicating expectations are essential steps[22] .

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Involving Other Stakeholders:

<u>The End User:</u> It can not be emphasized enough that consistent inquires of the end users is vital to the success of the EHR implementation. Frequent comments heard from agencies' staff include:

- *The system is so slow!* Many organizations forget to test the speed of the system at remote locations and after there is a large volume of concurrent users.
- *What goes in this field again?* Some of the form/clinical training will need to occur several times until staff "get it."
- *"I can't get in! It keeps saying 'User licenses exceeded.'"* After implementation, monitor how often you exceed the concurrent user licenses. It is common to under estimate and as usage increases, limits can be exceeded. If this happens, and before purchasing more licenses, ask (and check) if any staff are logging in more than once and utilizing more than one license. Billing staff are notorious for having two or three sessions open on their computer at one time.

- *How do I do the discharge summary again?* For those processes that do not occur with great frequency, users may need "refreshers" and cheat sheets.

- *It stopped working.* Even minor glitches in the system implementation can provide an excuse for the more resistant adopters to merely stop using the system. Monitoring and communication are key.
- *Why can't it (the EMR) do this?* Sometimes the simplest improvements can have a profound impact on an organization and on the use of an EMR. Listen to suggestions and seriously consider them.

Many agencies make the mistake of limiting their resources for input to their own staff. There are others that have a vested interest in the success of your implementation that can provide vital advise assistance and guidance. These include:

<u>Payers – auditors:</u> Often the auditors from payers you work with have tremendous experience and insight with various EMR's across providers. Ask their opinion. Auditors can also be instrumental in helping you to ensure that the EMR you are implementing will meet their compliance standards for medical necessity. One auditor[30] gave the following advice:

- Review the payer's audit tool – does the EHR capture, in a logical and easy to find manner, all of the data elements?
- Allowing reviewers to log in as a manager with a manager's access privileges, is a serious compliance issue. Your EHR should have the capability to allow for the creation of a unique log in for the reviewer, limited in duration (expires when the review is over or can be "shut off"), that only allows access to the clients and services the specific funding source paid for. In addition, the system must be able to track where the reviewer moves in the system (all documents viewed, printed, etc).

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Consumers - I would also recommend involving consumers in the EHR implementation. Hoyt[6] suggests newsletters, posters and other communication tools to keep your consumers informed of the changes in your practice and reinforce that the changes will improve care, are secure, etc. I would also suggest surveys and/or a focus group to better understand any concerns consumers have, and how best to address these. It is also important to build in as many opportunities for informed consent into the work flow as possible.

Consumer advocates – Another stake holder group are the consumer advocate groups such as NAMI. They may have experience with other agencies implementing an EHR and have good advice for you.

Top Referral sources – Involving those individuals, Primary Care practices, state agencies and others that make up your top referral sources will enhance an atmosphere of collaboration around the adoption of a new EHR system.

State Agencies - Involving those that license your facility will also enhance an atmosphere of collaboration around the adoption of a new EHR system.

Take Away Points:

- Put together a great implementation team.
- Pay attention to all levels of communication.
- Manage the vendor - agency relationship.
- Manage the cultural shift and staff reactions.
- Involve all your stakeholders.

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Chapter 4 - Process

"We should work on our process, not the outcome of our processes."
~ W. Edwards Deming

Document the Agreed Strategy and Scope:

Outlook Associates, Inc. suggests in Project Management for a Successful Electronic Health Record[24], "Recording the reasoning and decisions in establishing the strategy and scope as a reference and reminder when temptation for 'scope creep' threatens implementation success." Given the complexity and breadth of an EHR implementation, it will be important to keep a detailed written account of all decisions and scope to avoid being pulled off course. Detailed meeting minutes with a section that articulates decisions made will be very helpful as the implementation progresses and in the future as a reference guide.

Time the Implementation:

There is no good time to implement an EHR[31]. Given the large scale of an EHR implementation for any agency, there will always be important tasks occurring at the same time (moves, Requests for Proposals, new programs). It is possible to take known large and small scale projects into consideration and be certain to communicate time tables with all levels of the organization and the EHR project management team in an effort to minimize conflicts. Several IT vendors highly recommended not implementing another IT system at the same time as the EHR if at all possible, as this will draw on many of the same resources.

Decide on a Roll out/Gradual vs Big Bang Implementation:

In making the decision to implement a pilot site, or one level of care, or start day one with the entire system up and running system wide, several factors have to be considered[3,10,25]:

- EHR System needs: If the EHR will be providing mission critical support that currently is not available to the agency, then implementing as much of the EHR at one time is a viable option.
- Do the resources (IT, training, project management) exist to support a "Big Bang" implementation?
- What is the agency's tolerance level for change? A Big Bang approach requires a higher level of tolerance.

Several of the journals, all of the vendors and provider organizations I discussed this with agreed that a gradual approach, including a designated "pilot" site, was the preferred

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approach assuming the system implementation did not include any mission critical components that were currently not being met. The advantages to this Roll Out approach include:

- The ability to utilize a test or pilot site. Pilot site usage allows the "bugs" of a system implementation to be worked out and the work flow design to be tested in a contained environment.
- Allows the implementation team to fine tune the teaching tools and on-site implementation plan, and receive and incorporate feedback from end users.
- Some have found that if a Big Bang approached is used, you still end up with a stratification of users from early adopters, to middle and late adopters[2]. Anticipating this distribution and picking your pilot site based on the one you deem to be most prepared allows you to take advantage of this phenomenon.
- Staff at a pilot site should understand the need for patience and flexibility during the initial phase of implementation[15].   It is important to pick a site with staff that can tolerate this level of change and uncertainty.

> Rank ordering all of the sites in terms of readiness and willingness to adopt the EHR, then pick your pilot site.

In evaluating the sites to decide on the pilot location, Fullerton[15] suggests rank ordering all of the sites in terms of readiness and willingness to adopt the EHR. Fullerton also suggests that you can use this ranking to set an implementation site schedule by categorizing the sites as pilot, early, mid or late adopters. It will be important to mitigate some of the factors that create a mid or late adoption categorization such as "resistance to change," and insufficient IT support or infrastructure.

A readiness assessment should also be considered based on IT infrastructure and basic computer and typing skills of the staff. In addition, does every staff person who is expected to enter information into the new EHR have access to a computer[26]?

Lorenzi[2] suggests that after implementation of the initial group of "enthusiastic" users there is a "chasm" and the challenge is to anticipate this and muster the necessary resources to begin implementation with a larger, less enthusiastic group of staff, using the momentum established.   The second "chasm" comes when the majority of the staff have been implemented and only a few "Laggards" remain. This group may require more intense training, cajoling and/or more punitive measures.

Deal With Problems and Errors in the System:

Staff and vendor support staff can spend long hours trying to replicate an error or "bug" in the system. One method to make this process more efficient is to train staff from the beginning to carefully document any errors they encounter, and decide who the point person will be at your

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agency to collect, track and forward these to the EHR vendor. Creating an on-line form that captures the date, time, user, client number (if applicable), exact screen(s) and key strokes that lead up to the error can prove to be extremely helpful to the vendor in tracking down a problem. When possible, provide screen shots to the support department; which may require a special program to be loaded onto your computer system.

Manage Setbacks:

Setbacks, mistakes, problems and minor failures will occur. It is important to pay close attention to these, analyze them for root causes when possible, and learn from them[6]. In one implementation an entire clinic site decided Dragon NaturallySpeaking® did not work with the newly implemented EHR. When the problem was analyzed it was discovered that one clinician had a faulty headset, stated at a staff meeting that Dragon was not working with the EHR, and the others just assumed it was a universal problem. Strategies to address setbacks include:

- Have a central point of data collection - all bugs, problems and other mistakes are collected and analysis is controlled by one individual or team. Centralizing these issues insures consistent response and analysis.
- Let others know. Too often errors and mistakes are buried. In the short run this may save a staff person embarrassment, but in the long run, not sharing the issues with other staff increases the likelihood of another making the same mistake or not having to reinvent a solution.
- Get creative. Sometimes a creative solution is needed as a work around.
- Go back to the goals. Problems and subsequently, the effort we put into fixing them, can sometimes pull us off our project goals. Before spending large amounts of time addressing a problem, ask if the fix is crucial to the goals of the project.

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<u>Take Away Points:</u>
- Document you strategies and scope.
- Monitor your resources.
- Use pilot sites.
- Manage set backs.

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Conclusions

Successful implementation of an EHR, particularly in a large and complex system, will require diligent attention to both macro and micro issues. Based on the twenty-three best practices detailed in this report, strong leadership, communication, work flow analysis and an implementation plan are the keys areas that will require on-going monitoring. In addition, developing a communication plan that builds in continual feedback from all areas of your agency will help to ensure a successful EHR implementation.

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Appendix A Well Formed Goal Criteria

Well formed Goals[32] are defined as those that are:

Salient to your agency, the staff and consumers: Important, Within your/their control.
>   Example: Increase productivity.

Smaller rather than larger: Break it down as far as you can
>   Questions: What would be the first step in doing that?
>   Example: Measure productivity in the outpatient clinic.

Realistic, Doable and Achievable:
>   Question: How will this be helpful? (Don't assume to know).
>   Example: Move from 56% productivity to 60%.

The start of something and the presence of something: Very hard to measure not doing something.
>   Example: Increase show rate (not, decrease no shows).

Concrete and Specific: The more specific the goal, the easier it is to measure your successes.

Interactional: Goals interact with each other and the system as a whole.

Contextual: Where and when will this goal happen.

Measurable: Numbers are better than percentages.

Source: Tohn, S., & Oshlag, J. (1995, 1997, 2000, 2005). *Crossing the Bridge: Integrating Solution Focused Therapy into Clinical Practice*. Sudbury: Solutions Press. Used with permission from the authors.

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Acknowledgments

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Input Welcome

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