Preparing for Future Standards by Implementing an Electronic Health Record System Now

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An Electronic Health Record System Today

Standards begin with basic definitions. What is an electronic health record (EHR)? The Institute of Medicine (IOM) has defined EHRs as encompassing:

- The longitudinal collection of electronic information pertaining to an individual's health and healthcare;
- Immediate electronic access—by authorized users only—to person- and population-level information;
- Provision of knowledge and decision support to enhance the quality, safety, and efficiency of patient care; and
- Support for efficient processors of healthcare delivery.[1]

The importance of EHR systems to patient safety and quality of care has been well established.[2] Nevertheless the rate of adoption has been slow. Underlying and contributing to the delay is a lack of nationwide standards for the collection, coding, classification, and exchange of clinical and administrative data.[3] Development of these standards is considered a national priority, however, and is well underway through numerous standard-setting organizations. For some behavioral health and human service organizations that do not need a complete EHR the standards may not seem important. For others these standards can serve as a helpful guide.

Section One: The Stage Is Set for Widespread Adoption of EHRs

On April 27, 2004, the White House established the Office of the National Coordinator of Health Information Technology. This put into place a mechanism by which EHRs could become universally implemented and accessible. The Office of the National Coordinator of Health Information Technology (ONC) established a hierarchy that would begin with the implementation of EHRs at a local level and expand ultimately to a nationwide health information infrastructure. Those organizations that had an EHR would be able to coordinate that information through the use of Regional Health Information Organizations (RHIOs). This would allow healthcare providers at the local level to coordinate and communicate about their services. The next level of integration would be a National Health Information Network (NHIN), by which RHIOs could communicate and share information at the national level. To facilitate this, the federal government has proposed the adoption of electronic standards for health record providers and related communications.

These are lofty goals that would certainly improve the quality and efficiency of healthcare across the United States. But true effectiveness of electronic health data systems requires widespread adoption, and if these goals do not provide demonstrable benefits to motivate local providers, the benefits cannot be realized.

At the local level, an EHR provides, among other things, improved communication within a healthcare organization. If one organization serves all of the health needs in that community,

there is little need to go beyond this; however, this is typically not the case as consumers of the healthcare system are usually served by many disparate agencies. Electronic records can provide simultaneous and widespread access to multiple healthcare providers.

Coordination of Care

Once an organization has successfully implemented an EHR, the next step is to enable electronic coordination with other healthcare professionals and organizations. As noted in the document titled, *Value of Health Information Technology* (available on the ONC Web site[4]), "The current practice of using separate paper files for one patient in multiple clinical settings is limiting and can compromise the quality of healthcare received." For referrals between primary and specialty care, this is clearly a problem. One treatment provider cannot know the full suite of information contributed collectively by all of a patient's treatment providers unless, with patient consent, they have access to a comprehensive EHR.

It is much easier to fully implement an EHR in one organization than to assure interoperable systems among different clinical disciplines. A big step towards addressing the challenges of interoperability will be establishment of national standards for common vocabularies and methods of electronic data transmissions. These are substantial tasks that will take time.

Despite the temptation to delay adoption of an EHR or establishment of a RHIO until the standards are developed, waiting is not a good idea. First, the standards are not going to be completely promulgated for several years. Second, the greatest challenges in EHR implementation lie not with technology, but with people. Meeting these challenges early on will position an organization to adopt the standards more quickly once they are published. Third, the development of a RHIO is a complex and time-intensive endeavor due to the interpersonal relationships that must be managed. It is better to start early to build trust and resolve data access issues among the partners.

An important partnership opportunity exists in all this for primary and behavioral healthcare integration. More mental health services in the United States are delivered today by primary care physicians than by mental health professionals. At the same time, community mental health centers are increasingly becoming the *de facto* primary care providers for seriously mentally ill clients under their care. It is easy to see that public health would benefit from EHR data captured at a regional level and aggregated to the national level. As the sources of care increasingly blur, all practitioners would benefit from the ability to communicate/consult electronically with each other about their clients by sharing an electronic record.

Clinical Decision Support

One of the most compelling arguments in support of EHRs in both medical-surgical and behavioral healthcare is the opportunity they provide for use of clinical decision support systems (CDSS). CDSS can be defined as technology assembling disparate data to inform clinicians. The amount of information available to clinicians today and the rate at which that information changes is simply too much to manage without such a tool. It has been posited that 50% of what we know today about psychology will be obsolete six years from now. Electronic systems can

serve as "knowledge extenders" to preserve and facilitate the use of information in patient care. Although some behavioral healthcare providers have implemented a CDSS, these systems are more fully implemented in the medical-surgical environment than in behavioral healthcare at this time.

Successful implementation of a CDSS can yield striking results for improvement of patient safety by substantially decreasing medical errors. For example, the most widespread use of CDSS is in prescription writing software whereby providers are alerted automatically to drug-drug interactions, drug-food interactions, and other pharmaceutical risks for the end user.

CDSS applied to other aspects of care, such as treatment plans and progress notes, can have built-in "intelligence" to remind clinicians of a variety of clinical and administrative issues. Furthermore, CDSS logic and the database that underlies EHRs are essential to evidence based practice (EBP), since effective EBP relies on quantifiable "evidence" of successful treatments and standards. The application of organizational memory to clinical practice can best be achieved through the analytical tools made available by electronic data systems.

Personal Health Records

Another important link in this system lies between providers and consumers through the use of Personal Health Records (PHRs). The relationship most of us enjoy today with our primary care provider is much different than that experienced by our parents and their doctors. Today, much of the discussion in the physician's office involves collaborative decision-making, frequently using information the patient/consumer has learned from the Internet. The next step is for consumers to gain access electronically to some or all of their record. For example, accessing lab reports and x-ray reports could easily be facilitated in a secure messaging environment, thereby allowing the patient/consumer to play a more active role in their own healthcare. An electronic system would simply facilitate what is already occurring in many physicians' offices today.

It's Inevitable

Implementation of EHRs has finally reached critical mass in the United States. It is doubtful that there will be any retreat. Healthcare professionals and organizations that do not participate will be unable to communicate with their peers, unable to transact business, and most importantly, unable to provide the quality of clinical care their consumers will expect. It is now merely a matter of when, not if, a provider will implement an EHR system. The longer the delay in adopting an EHR, the more consumers are denied access to the improved care possible with effective EHR support - yet many still procrastinate.

Section Two: Impediments to Acquiring and Implementing an EHR System

The acquisition and implementation of an EHR System is an extremely complex and expensive endeavor, leading some to delay this major operational task.

Resistance to change is a very powerful force in its own right. CEOs in non-profit entities, whether they are governmental or private non-profit corporations, serve at the will of boards of directors. Large projects that may be perceived as revolutionary rather than evolutionary, that encumber significant financial cost, or that are pervasive in their corporate impact, are not to be entered into lightly. Implementing an EHR system embodies all these elements.

Fear of failure often accompanies resistance to change. Behavioral health provider organizations, for the most part, are not well positioned to tolerate financial risks. Operating margins are slim, balance sheets are lean, access to capital is restricted and the near-term outlook for maintenance (let alone growth) of the business often is clouded. Many CEOs and their boards of directors believe that EHR conversions pose chances of failure beyond tolerable limits.

This section acknowledges some of the risks involved in EHR projects. Sections Three and Four focus particularly on how impending behavioral health-specific standards for EHRs are designed to help mitigate the risks. A more general and in-depth treatment of selecting and implementing an EHR can be found in *Planning Your EHR System: Guidelines for Executive Management.*[5]

Among the legitimate factors that can impede adoption of EHRs are the following:

- Awareness of previous implementation failures
- Lack of confidence in available products
- Security and privacy concerns
- Concern about impending but undefined EHR standards and certification requirements.

It is the last that this paper addresses most specifically, but it is helpful to understand other factors standing in the way of EHR adoption.

Failed Implementations

The complex nature of an EHR implementation, along with many other compounding factors, can and sometimes does result in failed projects. Anecdotal reports of such disasters are common. Therefore, it is understandable that when presented with the large capital investment required of an EHR project, many say, or at least hope, that an expensive failure will not occur on their watch. In an industry where failure can impact the care of patients, caution is reasonable.

However, it is management's responsibility to move beyond the rehashing of failed projects to understanding and learning from them. With these lessons learned, leaders of treatment provider and software organizations alike will pave the way for more successful implementations in the future. Throughout many industries this learning has resulted in significant reductions in failure rates of information technology implementations during the past ten years.[6]

Lack of Confidence in Available Products

During the selection process, an organization purchasing EHR software will want assurances that the EHR products are of high quality and capable of meeting the organization's needs. Many

purchasers lack confidence in the adequacy of currently available EHR software products. The increasingly widespread and successful use of behavioral health software in general and behavioral health EHRs in particular should help mitigate this concern. Software purchasers are becoming more sophisticated in their purchasing criteria and more realistic in their expectations. Simultaneously, market forces are weeding out poor performers and rewarding improvements in the quality of software.

In addition to these positive but gradual developments, representatives of treatment providers and software vendors have worked together concertedly for several years to improve the rate of successful software implementations.   The Mental Health Corporations of America (MHCA) and the Software and Technology Vendors' Association (SATVA) have begun a dialogue to improve the relationship between behavioral health treatment organizations and software vendors. Their efforts have led to conference presentations and the earlier-mentioned white paper addressing issues of EHR selection, implementation and ongoing use.[5] The National Council for Community Behavioral Healthcare (National Council) incorporated the results of this work into two of their annual training conferences and as a posting on their Web site. Subsequently all three trade associations collaborated to develop this paper in an effort to benefit the entire behavioral healthcare industry.

Security and Privacy of Clinical Records

No electronic system is completely immune from malicious meddling. However, an EHR implemented with even very basic security is more secure than paper records that may be left unattended or lost in transport from one facility to another. Amid highly visible and well-publicized security breaches at universities and healthcare institutions, gaining public confidence in electronic security can be difficult. Management must understand and positively communicate the superior security of e-records and related patient data over paper systems.

Many people consider information about their health to be highly sensitive, deserving of the strongest protection under the law. Long-standing laws in many states and the age-old tradition of doctor-patient privilege have been the mainstay of privacy protection for decades.

Assuming proper health information security and privacy standards are created, what sort of technical means are going to be used to implement them? Is each medical office and community behavioral health center going to use some proprietary method of storing the records that makes it almost impossible to share them with other offices? A single set of technical standards is crucial to apply to the diversity of software products for a system of this magnitude to be successful.

"We want uniform widespread adoption of standards, and yet we want to remain current over time," said Dr. David Brailer, while serving as National Coordinator of Health Information Technology. "The approach we're taking is to develop these by contracting with the private sector before turning those ideas over to a federal advisory committee."[7]

In addition, ONC initiated the Health Information Security and Privacy Collaboration to collect and recommend best practices among states for securing the privacy of physical and behavioral health information.

Impending Product Certification

An emerging obstacle to EHR implementation is purchaser hesitation in the face of impending national certification of behavioral health-specific EHRs. In 2006 the Commission for Certification of Health Information Technology (CCHIT) released its first set of EHR certification criteria, which they stated were designed for medical ambulatory settings with medical inpatient settings soon to follow. The security criteria and some of the functional criteria they released appear to be applicable for most specialty settings, but other criteria would have to be revised to be fully applicable. Consequently, CCHIT announced at the end of 2006 that they will soon embark on development of certification for specialties including behavioral health. Although a core set for specialties is embedded in the current criteria, the development of a set that is specific to a given specialty will be a lengthy and painstaking process that will take years to complete (see estimated timeline in Section Three).

On its website home page (www.cchit.org), CCHIT clarifies the scope and limitations of its recently developed certification criteria as:

> *The 2006 Ambulatory EHR Criteria represent basic requirements that the Commission and its Workgroups believe are appropriate for many common ambulatory care settings. CCHIT acknowledges that these Criteria may not be suitable for settings such as behavioral health, emergency departments, or specialty practices and our current certification makes no representation for these. Purchasers should not interpret a lack of CCHIT Certification as being of significance for specialties and domains not yet addressed by CCHIT Criteria.*

Understandably, organizations are taking a very cautious approach to adopting any EHR system until they can be assured that the EHR software they choose will be a fully certified product. Some behavioral health organizations question if they should wait until behavioral health-specific EHR certifications are established.   Others want to move ahead now with a behavioral health specialty vendor who they think would likely become certified once behavioral health-specific criteria are established. This strategic dilemma is at the heart of this paper and is addressed in depth in Sections Three and Four.

Section Three: How Can Standards Help?
Background on Development of Functional Standards for Electronic Health Records (EHRs)[8]

The behavioral healthcare field has specific interests and concerns pertaining to EHRs. Effective advocacy is required to assure that these concerns are addressed adequately by broader healthcare standard-setting initiatives. A national informatics summit in 2005 of more than 150 behavioral healthcare leaders and an IOM study of priority issues for the behavioral healthcare field published in 2006 both underscored the vital importance of EHRs for behavioral healthcare. Both recognized the value of informatics standards, the types of informatics needs and concerns most salient for behavioral health, and consequently the importance to our field of direct participation in national standard-setting efforts.

Establishing EHR Standards through HL7

Health Level Seven (HL7) is a healthcare informatics standards development organization accredited by the American National Standards Institute (ANSI). It develops, disseminates and provides training for a broad range of health informatics standards including messaging, document architecture, vocabulary, and functionality.

Relationship of Four Major Types of EHR Functional Standard Initiatives

HL7 EHR Functional Model
(for all healthcare settings)

⇩

Behavioral Health EHR Conformance Profile
(for all behavioral health settings)

⤴   ⤵

Derived Profiles   CCHIT
(for specific types of behavioral health settings)   (for all behavioral health settings)
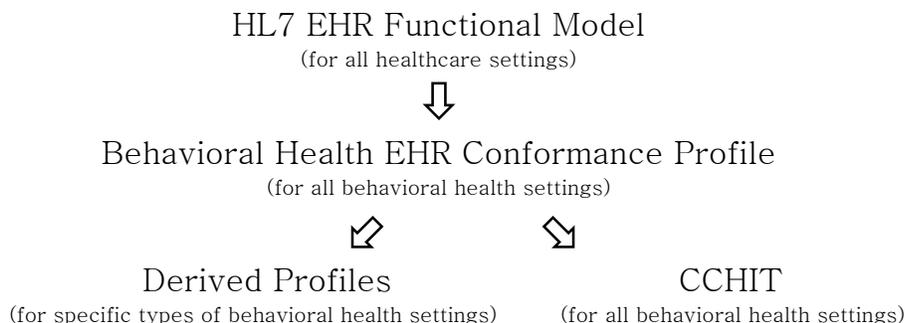
HL7 EHR Functional Model. Of greatest current interest to behavioral health is the EHR Functional Model that HL7 released in draft form in early 2004. It is an all-inclusive superset of functions intended as a foundation from which all healthcare settings and specialty areas can derive their own specific EHR functional requirements. The Model includes over 700 functions, covering such areas as record access, record security, patient history and assessment, treatment plans, medication orders and clinical decision support. A few functions are required and form a core set, while most are optional depending upon the needs of specific specialties and settings.

Behavioral health organizations began joining HL7 in 2005 and became increasingly involved in the intensive and ongoing effort to finalize the EHR Functional Model. They worked to ensure there was nothing included or omitted that might prevent the behavioral health field from eventually customizing the Functional Model to its own needs. The Model was completed and fully approved in February 2007 by ANSI as a set of general standards for all healthcare.

Behavioral Health EHR Conformance Profile. The HL7 EHR Functional Model provides a structure, list of functions and set of rules for specialties such as behavioral health to use in developing their own set of EHR standards, called a Conformance Profile. Through funding from SAMHSA, over 50 behavioral health professionals representing a broad range of stakeholders began work in early 2006 to develop a Behavioral Health Conformance Profile for EHRs that could be applied across most behavioral health settings. SAMHSA representatives expect this initial work will likely be completed by the summer of 2007 and presented to HL7 for balloting. They predict the Profile will be approved by HL7 soon thereafter and available for widespread adoption in 2008.

The behavioral healthcare field has an enormous diversity of treatment settings with widely varying EHR needs. The Behavioral Health Conformance Profile will indicate two kinds of

functions from the EHR Functional Model - those that are essential for all behavioral health settings, and other functions from the Model that are optional because they apply to some types of behavioral health settings but not others.

EHR Derived Profiles for Specific Settings. Once the Behavioral Health Conformance Profile is completed, groups representing specific types of behavioral health settings can work to develop EHR standards more targeted to their particular needs. These sets of standards are called Derived Profiles. Examples of some of the types of behavioral health settings that might each develop their own Derived Profile are community mental health centers, psychiatric hospitals, and structured outpatient substance abuse treatment programs.

Both the EHR Functional Model and the Behavioral Health Conformance Profile must include many functions, but will designate most of them as optional because the settings for which they are intended are so diverse. In contrast, Derived Profiles will include fewer functions, but designate a higher percentage of them as essential for the particular settings targeted by the Profile. Some of those who develop Derived Profiles will have been involved in the development of the broader Conformance Profile and will bring their knowledge and experience from that standard-setting exercise to this new, but related task. For all these reasons, the work on most Derived Profiles is likely to move ahead more quickly and easily than the previous work on the Behavioral Health Conformance Profile and the EHR Functional Model.

If the timetable projected by some SAMHSA representatives is accurate and the Behavioral Health Conformance Profile is completed and approved by HL7 as early as the end of 2007, then it is possible that several setting-specific groups might begin work on Derived Profiles in 2008. It is conceivable that we may have some Derived Profiles ready for use as early as 2009.

Timeline for EHR Functional Standards

1. HL7 released a first draft standard for test use of the EHR Functional Model in early 2004.
2. Behavioral health organizations began participating in HL7's EHR standards development process in 2005.
3. CCHIT completed its first set of EHR certification criteria, designed for ambulatory and for inpatient medical settings, and began certifying EHR software vendors who meet the criteria.
4. HL7's EHR Functional Model was completed and approved in February 2007.
5. Initial work on Behavioral Health EHR Conformance Profile began in early 2006 and SAMHSA leaders estimate a draft may be completed and submitted for approval to HL7 in Summer 2007.
6. CCHIT tentatively plans to begin work on certification criteria for behavioral health in Summer 2007, drawing on work done on the BH Conformance Profile.
7. SAMHSA leaders estimate the BH-EHR Conformance Profile may be approved by HL7 in late 20007 and available for use in 2008.
8. Setting-specific groups may begin work on Derived Profiles in 2008.
9. CCHIT predicts it will complete the development of certification criteria for interoperability of many medication, imaging and lab transactions in May 2007, and the remaining transactions on or after May 2008.
10. CCHIT predicts it will complete the development of the certification criteria for interoperability of patient administration, scheduling and referrals on or after May 2008.
11. Derived Profiles may be ready for use in early 2009.
12. CCHIT predicts it will complete the development of certification criteria for BH-EHRs in late 2008/early 2009 and will begin then to certify BH-EHR software.

Other EHR Standards. The EHR Functional Model and its derivative Profiles focus upon EHR functions within the treatment provider organizations that use them and, therefore, provide a reasonable place to begin. However, there are many other aspects of EHRs that require standards. Among them are standards that address interoperability - how EHR systems from different settings and software can exchange information with one another and with payers and regulators. HL7 and several other standard-setting organizations are working on these standards. Some efforts have begun to address behavioral health-specific needs and concerns related to these standards.

Certifying EHR Software through CCHIT

The Certification Commission for Healthcare Information Technology (CCHIT) was established in 2004 to develop certification criteria for EHR software. Initial funding came from several national trade associations and was then supplemented with substantial federal funding. One of the driving needs behind CCHIT's initial formation was the expressed intent by the Center for Medicare and Medicaid Services to reward use of EHRs in its Pay for Performance initiatives. For that to work, some method was needed to determine what qualifies as an EHR.

CCHIT generated widespread anticipation of criteria and procedures for EHR software certification, raising the stakes dramatically for EHR standards. CCHIT first focused on developing criteria for EHR applications in medical ambulatory and inpatient settings. It drew primarily from HL7's EHR Functional Model for the criteria it developed. Many of the Model's functions are generic to all settings, such as those pertaining to scheduling, progress notes, security, document scanning/imaging, workflow, medication management and decision support. For its ambulatory care standards, CCHIT used those elements within the Model that were designated as most essential for primary care medical settings and most easily testable. Understandably, many of the test scenarios used to further define these functions pertain to those settings, and many that are essential for behavioral health are not considered. To date, more than 50 software companies have attained CCHIT certification for their products under the current medical ambulatory care standards.

In 2007, CCHIT received federal funding to begin work focused explicitly on selected specialty areas. They stipulated criteria they will use to select a few specialties for focus and invited specialties to respond to a request for information regarding the extent to which they might meet that criteria. Organizations from 14 specialty areas responded, including several organizations from behavioral health. CCHIT selected four specialties in their preliminary decision, with one being behavioral health. They will make their final decision in late March 2007, shortly after this paper is released.

It appears likely that behavioral health EHRs will be among the first few specialty EHRs selected by CCHIT for development of certification criteria. CCHIT projects it will probably begin work on certification criteria for behavioral health EHRs in 2007, complete that work in late 2008, and begin certifying behavioral health EHRs sometime in 2009. CCHIT will probably draw heavily upon the work done on the Behavioral Health Conformance Profile, focusing upon those functions that were deemed in the Profile to be most essential and selecting from those the ones that are most easily testable.

Anticipated Impact

When completed, the impact of these profiles on behavioral health consumers, providers, services, and software will be profound. They will likely be used by:
- Treatment provider organizations in their RFPs when selecting EHR software;
- EHR software developers to guide their future product development efforts;
- Certification and accreditation organizations to certify EHR software; and
- Healthcare payers as part of their criteria for pay-for-performance and other incentives.

In fact, CCHIT certification has already been included as a requirement in several state-level RFPs.

Standards evolve to meet the changing needs of the healthcare field. As an example, some of those working on EHR standards in HL7 are already considering improvements for a next-generation EHR Functional Model. As a second example, CCHIT is making refinements to its first round of certification criteria for medical settings. Standards and criteria provide useful guidance but will continue to evolve and not provide a final, fixed answer to what should constitute an EHR.

Coordinating the Standard-Setting Efforts

There are far fewer standard-setting efforts in behavioral healthcare than in general healthcare, but they are increasing dramatically. While this is positive, it creates the need for coordination of efforts and for a central information resource. To that end, SAMHSA funded a multi-stakeholder entity called the Behavioral Health Treatment Standards Workgroup. The group convenes monthly by conference call and semi-annually for two-day, in-person meetings. The Workgroup provides a forum for review and coordination of nationwide efforts to promote widespread adoption of EHRs and related standard-setting efforts for the behavioral healthcare field. The three trade associations co-authoring this paper are each members of that Workgroup.

Section Four: Getting Ahead of the Curve
Proceeding with Minimal Risk While Standards Develop

There was a time when many of us believed we could wait to enter the digital age until all the glitches were worked out. Some thought personal computers, the Internet and e-mail were passing fads, or at least quirky systems that would have to settle down before becoming useful. We know better now. These tools have become essential to our operations, and we adjust to their upgrades if not happily, then at least with appreciative resignation. Resisting adoption of EHRs until all standards are adopted and certified is similar in many ways and means forgoing many benefits available in the interim. Choosing whether to purchase an EHR system today or wait until preliminary or even final behavioral health certification is available is making an expensive risk/benefit decision.

Key Elements in the Standards/Certification Process

To gain an appreciation (and tolerance) for the development phases of behavioral health EHR standards and certification, it is helpful to understand a few key elements. CCHIT selects from and evaluates only the "realistic, testable"[9] criteria from the HL7 EHR functionality standards. For some of these criteria to become realistic and testable depends partially on the development and adoption of related standards. For example, there are no current certification requirements for interoperability as "there are no testable criteria for interoperability at this point"[10] in large part due to lack of interoperability standards. CCHIT deals with this, in part, by developing a roadmap from the HL7 EHR Functional Model of some criteria that can be tested today plus some other criteria that are not expected to be testable until 2007, some not until 2008, and some even later. This means that final certification of EHR systems may not be achievable for several years and may be a never-ending process.

The currently established medical certification criteria include a subset of security criteria and some functions that appear to be applicable across many types of specialty settings including behavioral health. However, most of the details and examples used were clearly designed for medical ambulatory and inpatient settings. For instance, regarding workflow functions, one of the three functionality test scenarios involves a pregnant woman with gestational diabetes presenting for "a routine maternity visit to her Obstetrician".[11] The other two involve a visit to an internist and to a PCP. A vendor who has passed this certification may be seen as possessing the functionality mentioned above and attentive to the evolving requirements of EHRs in general, but not necessarily seen as focused on functionality specific to behavioral health settings. The Commission expects to begin developing certification criteria for specialty-oriented EHRs in 2007 and has prioritized behavioral health as one of the first specialties to be addressed.

As we ponder the intricacies of this process, it is informative to consider another major standard-setting process with its own implicit certification process, the adoption of the HIPAA Transaction Standards. HIPAA has defined Transaction Standards for claims, electronic remittance advices, claim status requests and responses, eligibility requests and responses, and enrollments/disenrollments in a health plan. Very few, if any, state Medicaid systems or other payers currently support all these standard HIPAA Transactions or have even announced plans to do so in the future. After more than ten years, HIPAA Transactions are only partially adopted, and it could well be another decade until all HIPAA Transaction standards are completely implemented nationwide. Yet we have come to accept the fact that we must operate under HIPAA, fluid though it still is.

Appreciating the Benefits

The benefits of a properly designed and implemented EHR system are significant. A Return on Investment (ROI) measured purely in terms of reduced staff costs may not always be realized. However, a successful ROI measured in terms of improved clinical documentation that is more accurate, timely and complete is certainly realistic. If an organization improves its ability to evaluate the effectiveness of treatment, it can then improve its ability to respond to the needs of its clients. Improvements in quality of care are difficult to evaluate but very achievable given real-time oversight tools. An improved capability to support accreditation and fiscal audits often

results in reduced risk of lost revenue. EHR benefits are increasingly recognized, federal and state policy initiatives encourage their adoption, and advances in technology make their purchase and implementation easier.

Product Lifespan

No purchaser wants to invest in an EHR without assurances of an extended lifespan for the chosen product. Selection of EHR software has become as much a matter of evaluating the vendor's ability to adopt new standards as it is an evaluation of a product's current features and functionality. However, past history is probably the best predictor of future performance; the breadth of the vendor's current features and functionality is instructive in that they demonstrate the vendor's ability to develop new capabilities and meet emerging certification requirements.

Behavioral health certification based on agreed-upon standards will soon become paramount to software vendors as a matter of survival. Certainly, vendors will commit contractually to become certified and continue re-certification as needed once behavioral health certification is available. However, an informed purchaser will insist that the vendor's infrastructure provide for adaptation of its software to new and evolving standards. A vendor that is able to develop new capabilities rapidly will be more readily able to adapt to new standards, and vice versa.

Another predictor to consider is whether the vendor has already become certified, even though current certification applies only to medical settings. Such certification indicates the vendor made a good faith and successful effort for that type of functionality. If behavioral health settings are important to their business, it is likely they will make a similar effort for behavioral health software certification when those certification standards become available.

One method to assess behavioral health software vendors' likelihood of being able to successfully address eventual behavioral health software certification requirements is to evaluate their approach to and success in adopting HIPAA requirements for Transactions, Privacy and Security:
- Check references and ask each of them for the list of HIPAA Transactions supported by Medicaid and other major payers, verifying that the vendor supports all the Transactions your organization would need.
- Ask the references if they have need of HL7-supported or proprietary transactions for communicating with other entities and/or state data warehouse transactions, verifying the extent to which the vendor supports them.
- Ask the vendor for full documentation of HIPAA Privacy and Security capabilities and determine how well-considered and robust is the vendor's ability to support these standards.

Be diligent in evaluating the extent to which there is substance behind the vendors' contractual commitment to continue developing EHR software that meets evolving standards on an ongoing basis and to both becoming certified and continuing re-certification.
- Ask the vendor about its policies for committing ongoing funds to Research and Development.

- Ask for documentation indicating the percentage of funds devoted to R&D for the past few years and compare this to their policies.
- Ask for a report of the percentage of R&D devoted to initial development of or enhancements to functions that comply with HIPAA, HL7, or other federal or state specific standards for transactions or related functionality.
- Ask how they monitor and plan to meet emerging EHR standards specific to behavioral health and if their product mix impelled them to apply for certification under the current medical EHR criteria.
- Finally, allow the vendor to explain in their own terms how ongoing developmental infrastructure is maintained to rapidly adopt evolutions in technology and technology-related standards. This will provide insight into the vendor's business philosophy and customer responsiveness.

Successful evaluations will focus less on a vendor's approach to adoption of current standards and certification and more on their ability to respond to the changing standards environment.

Conclusion

Consider a possible scenario wherein the Centers for Medicare and Medicaid Services uses behavioral health certification in its Pay for Performance initiatives. Knowing that the selection and implementation of an EHR system can take three or more years, the best-positioned provider will be one that already has an EHR successfully implemented by a reputable vendor having a strong commitment and ability to become behavioral health certified.

Certification of behavioral health software, then, is one element of a larger consideration. The primary concern for a provider selecting software has been and will continue to be ameliorating risk and improving the risk/benefit equation to the fullest extent possible. The method we have recommended in this section for how providers can best evaluate a vendor's ability to continuously adopt new standards and retain certification also will reveal whether the vendor likely can continue to meet the needs of its customers, and therefore survive in the marketplace. Extending this evaluation method to all risk concerns improves the provider's risk/benefit equation and motivates vendors to structure their services to meet the fundamental needs of their customers.

For behavioral healthcare providers, the change to EHRs is as profound as the transition to new reimbursement models in the 1970s and 1980s. Prior to that time, community behavioral health centers relied largely on grant funding. With the evolution of mental healthcare into a fee for service/insurance/reimbursement system came the need for more nimble and business-savvy leadership. The same thing is happening today as we move from a paper-centric world to a computer-centric world, from simple records to relational information. The industry may debate whether it was easier to understand the nuances of new financing structures then, or the intricacies of HL7 and interoperability today. Nevertheless, this change is occurring inexorably, and organizations must evolve accordingly to remain effective - in fact, to survive.

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