A. Introduction

As we approach the end of the first quarter of 2010, there is a growing perception that practitioners must make EHR vendor selections now. This is largely based on the view that the federal incentives eligibility for practitioners starts on January 1, 2011. While this date is accurate, it skips over a great many facts. Accordingly, there are two objectives for this paper:

• Make it apparent that it is not essential to make vendor selections just yet, and

• Clarify that indeed time is passing and there are a number of planning activities that practitioners should be engaged in very soon

Need a Sense of Urgency But For What?

There is no argument that practitioners would be well advised to start Getting Ready now by preparing for a vendor selection. After all, generally, EMR implementations take between six and 12 months to get fully installed once the selected vendor is ready to begin work. However, there are a number of flexibility features in the federal incentive program regulations that should be pointed out.

• Even if it is essential to a practitioner to qualify for an incentive in 2011, s/he can qualify for the entire year incentive if meaningful use begins by October 1, 2011.

• Under Medicare, the practitioner can remain eligible for the entire incentive amount even if meaningful use is demonstrated (electronically) as late as 2012. Only after that date does the total potential amount begin to decline. Meaningful use reporting must start by October 1, 2012.

• Under Medicaid, the practitioner is eligible for the entire incentive amount even if s/he begins the implementation by as late as 2016.
There is some truth to the assertion that there is a limited EHR installation labor pool, and inordinate product decision delays could mean significant delays in practice EHR projects. However, we are convinced the possibility of such a delay does not warrant the more likely financial risks or opportunity losses that will come from an inappropriate EHR product selection.

Health care practitioners nearly always have a great many administrative challenges on their hands, and will likely receive this information with relief and ponder a delay in taking any action relative to EMRs, Patient Registries, e-Prescribing systems, and the like. However, we strongly advise practitioners against any such procrastination.

The introduction of any EHR technology amounts to a significant change in a practice. It will also mean a significant financial investment. Right now is the time to begin the process of Getting Ready. Indeed, because the EHR products are NOT the same, it is essential to decide what the practice needs from the vendor product (the functions that it performs, its flow, etc). Only with this information in hand can the practice hope to select the right product and be satisfied with its EHR investment.

B. Getting Ready

At its heart, the purpose of Getting Ready must be to decide what the practice wants from its EHR product(s). Because most EHR technologies impact a wide array of practice functions, it will be essential that the entire practice be examined at a general level. The process that we will now outline provides a basis to get that done without requiring an extraordinary amount of work or a major distraction to the practice staff. This process is composed of the following eight elements:

1. Orientation for the Staff
2. Cataloging medium to long termed goals for the practice
3. Systematic review of desired clinical and business improvements for practice functions
4. Selection of the most appropriate technical architecture
5. Potential alignment of practice improvements with desired incentive programs
6. Develop high level plan or sequencing of clinical and business improvements and Health Information Technology (HIT) implementations
7. Assessment of internal and external resources
8. Construct a cost estimate and financing plan

1. Orientation for the Staff

It is important that the practice leadership (both the operational and clinical leadership jointly) formally meet with all staff together to inform them of the analysis effort that is about to get underway. This meeting is valuable even if the practice is not fully convinced of the value of HIT and/or the CMS' EHR Incentive program. The value of this meeting is that it should:

- Create a group understanding of what lies ahead
- Turn staff uneasiness into energy to contribute to the effort
This meeting should cover the following topics:

• The reasons for this assessment and planning effort
• The steps or and tasks that are involved
• The expectations for each staffer as the process goes forward
• The methods that will be used to keep everyone informed

2. Cataloging Medium-to-Long-Termed Goals for the Practice

If the EHR investment is to deliver value to the practice it must be a force for the achievement of the overall goals of the practice. Otherwise, it is a distraction. What are the current medium-to-long-termed goals of the practice? Where do the practitioners see the practice in another 3-5 years? Examples of such goals include the following:

• Becoming certified as a patient centered medical home
• Expanding the use of midlevel practitioners in the delivery of care
• Bringing in-house some patient testing technologies

These goals can sometimes be unspoken. The purpose here is to make them explicit so they can guide subsequent priority decisions regarding the implementation of EHR features.

3. Systematic Review of Desired Clinical and Business Improvements for Practice Functions

First, this review needs to cover the entire range of practice functions. Accordingly, the review should include both business (back-office) and clinical (patient-serving) functions. These functions, when taken as a whole, should encompass the entirety of practice activities. Within the business functions, the review should:

• Start with activities/processing that validates a patient’s insurance carrier and the nature of that coverage, and
• End with claim dispute resolution and receivable closure functions

On the clinical functions side, the review should:

• Start with the visit registration function, and
• End with the
  o Encounter document processing function
  o Discharge instructions generation function
  o Care/service orders processing function
  o Test result processing function

It is important to reflect on whether any of the specified practice goals will require adding new practice functions. For instance, inaugurating a patient centered medical home capability generally involves the addition of a number of business and clinical functions. The needs of these new functions must also be part of this analysis.

These reviews need to cover the following questions on each function examined:

• How does this function get performed currently?
[Note: Full process flow diagramming is not needed at this point.]

- Is HIT used in some fashion with this function at the present time?
- Are there desires to make improvements on this function?
  - Are there external incentives or obstacles?
- Will the desired change:
  - Require any changes to how “upstream” work is performed?
  - Alter the nature of work that is “downstream” from this task?
- What kind of priority should be assigned to this improvement?
  - How does this improvement relate to the practice goal(s) specified earlier?
- What is the range of HIT solutions that might enable or enhance the desired improvement(s)?
  - [Note: This task will require outside consultation for most practices]
  - Another option would be to visit some practices that have implemented some EHR technologies to confirm what they have gained from the investment

4. Selection of the Most Appropriate Technical Architecture

There are a number of technical alternatives for operating the implemented EHR solution. See the MSMS HIT Alert on Selecting an HIT/EHR Vendor That Will Meet the Needs of Your Practice. Our purpose here is to simply summarize those technical architecture alternatives.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>General Characteristics</th>
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<tbody>
<tr>
<td>Software is locally hosted at the practice</td>
<td>Software runs on a server purchased by and located at the practice</td>
</tr>
<tr>
<td>Remote hosting service</td>
<td>An external supplier provides all hosting services that are HIPAA and ISO compliant, including network access. The practice retains software ownership.</td>
</tr>
<tr>
<td>Application Service Provider; Software as a Service (SaaS) vendor</td>
<td>This is when the external party owns the software and the hardware and charges the practice a monthly services fee(s).</td>
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This is an area within the Getting Ready process that often benefits from external consultation.

5. Potential Alignment of Practice Improvements with Desired Incentive Programs

At this point, there should be a prioritized compendium of the desired improvements for the practice. This compendium should align with the listing of the functions that have been examined. Because the analysis (and the related compendium of changes) are functionally organized, it will now be possible to directly relate the practice's desired improvements with the operational expectations of any relevant incentive programs.
The range of incentive programs can include:

- Pay for Performance Programs
- Quality Reporting Programs
- Payer-Sponsored Care Enhancement Programs
- Medical Research Programs
- HIT/EHR Implementation Programs
- Other programs

The decision as to what is a relevant incentive program for the practice will vary by such considerations as:

- The specialty of the practice
- The payer mix of the practice
- The state in which the practice is located
- The goals of the practice
- Other factors

Whichever incentive(s) the practice selects, it now has a very straightforward vehicle with which to determine whether that incentive truly aligns with its goals and the needed improvements that it has identified. It is also possible that the potential gains from an incentive program warrants some further adjustment to the priorities.

6. Develop High Level Plan or Sequencing of Clinical & Business Improvements with HIT Implementations

In many ways, the above steps brings the practice to a point where it can readily perceive the relationships between the desired individual changes, how those changes will contribute to the goals of the practice, and how the HIT technologies might knit them together. Like any construction project, one must start with the foundation and work up. HIT initiatives that are focused on the business are no different. The logical sequencing of the EHR feature implementations, including relevant alternatives, should be plainly laid out.

A key planning decision is whether the entire vendor solution, with all its features, will be implemented as a “big bang” or incrementally. This decision has more to do with the personality of the leadership than anything else. However, there are a couple of factors that need to be weighed as offsets to the natural inclinations of the leadership.

1. The more comprehensive the change, the greater the disruption potential
   a. This will require a greater reduction of patients scheduled during the go-live period and commensurate reduction of practice revenue
   b. The go-live period will be longer

2. There is a greater probability that patients will experience negative impacts
   a. Access to all practitioners will be reduced
   b. Staff competency will appear diminished for a while
   c. Processing mistakes will be more likely

Like everything else, the plan must always reflect what is needed to achieve the business/
clinical goals of the practice. The plan will set the sequence of what is done as well as the pace of the initiative.

The sequencing part of the plan that is developed, at this point, needs to be seen as preliminary. The final plan must also reflect the inherent relationships amongst the chosen vendor’s product features.

7. Assessment of Internal & External Resources

It is axiomatic that the pace and success of any initiative is substantially affected by the resources that are available. This is especially the case with initiatives that focus on the introduction of advanced business-altering information technology (IT).

With internal resources, it is important to determine:

- Who will be impacted by the desired changes
  - This requires a simple review and consolidation of the business impact information gathered in the earlier functional assessment activity
- Individual emotional capacity to adapt to expected changes
- Individual experiences/training or certification to perform envisioned new tasks
- Individual IT experiences and skills
- Past experiences with changes in office technologies
- Training or certifications that may be required
- Other factors as applicable

The following are important considerations regarding external resources:

- Abilities or plans of current business partners to adapt to the envisioned changes
  - Like a lab’s ability to accept an electronic order from the practice
- Plans and schedule for the launching of new health care actors such as a regional Health Information Exchange
- Abilities or plans by the payers to handle electronic eligibility and claims transactions
- Identifying technical and other consultative resources for aspects of the initiative for which the practice believes it needs additional expertise
- Availability of supplemental staffing to organize or carry out implementation tasks as needed

8. Construct a Cost Estimate & Financing Plan

There have been enough years of experience in implementing Patient Management (PM) and Electronic Medical Record (EMR) systems, that there is now a growing body of wisdom on what goes into a successful project of this type. Like any major investment for a practice, an EHR initiative needs careful financial planning.

One rule of thumb is that the vendor’s software cost is a relatively small part of the cost of these initiatives – generally between 15 – 30%. Even when the cost of the related hardware is included, generally such technology costs are below 50% of the total cost.

So what other kinds of costs are there? The following list of cost items should be included in any estimate that hopes to be in the ball park of the final costs (ASP refers to an Application Service Provider “software as a service” option).
<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Consideration</th>
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<tbody>
<tr>
<td>Product</td>
<td>Software purchase vs. Service. Individual user licenses based on numbers of administrative and practitioner user staff</td>
</tr>
<tr>
<td>Monthly Service Fees</td>
<td>Only applies if ASP service is chosen</td>
</tr>
<tr>
<td>Hardware</td>
<td>PCs, tablets, servers, routers, wiring or wireless, etc.</td>
</tr>
<tr>
<td>Local Technology Support</td>
<td>Number of staff; Local IT service company charges; Special arrangements for mobile devices support</td>
</tr>
<tr>
<td>External Connection(s)</td>
<td>Web ASP or graphics usually require high bandwidth; Generally existing web connection requires upgrading. Pre-built interfaces are additional costs. New interfaces generally cost 3X pre-built interfaces</td>
</tr>
<tr>
<td>Product Configuration</td>
<td>All products require configuration effort on the part of both the vendor (separately charged) and the practice. Product customizations will mean additional costs. Any customization will mean additional costs whenever a vendor upgrade must be completed.</td>
</tr>
<tr>
<td>Data Conversion</td>
<td>Depth of history will increase cost; Can include document scanning</td>
</tr>
<tr>
<td>Process Adaptation</td>
<td>Scope of functions impacted by the solution(s) implemented. Generally, these costs are out-of-pocket (overtime or supplemental staff)</td>
</tr>
<tr>
<td>Training &amp; Go-live Support</td>
<td>Extent of features implemented and scope of practice functions impacted by the solution(s) will determine scale of costs here.</td>
</tr>
<tr>
<td>Project Consultation</td>
<td>ASP service option generally requires less extensive consultation, but does not eliminate it.</td>
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<tr>
<td>Period of Reduced Income</td>
<td>Directly related to extent of training and scope of features implemented</td>
</tr>
<tr>
<td>Ongoing Support</td>
<td>Daily/weekly support and upgrade implementations if solution is purchased and locally hosted</td>
</tr>
<tr>
<td>Various annual fees</td>
<td>License maintenance; vendor help desk service for users</td>
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</table>
The development of these costs is a task that would typically benefit from some outside expertise.

The planning that has been performed in the earlier Getting Ready tasks will allow the practice to determine the approximate timing for the costs listed above.

This is also the most appropriate point for the practice to determine if its practitioners are authorized as well as eligible under the Medicare and Medicaid EHR Incentive provisions. If eligible, then the determination turns primarily to the question of:

- Regarding Medicare, what is the total value of the Medicare claim payments during the most recent 12 months?
- Regarding Medicaid, will the number of a pediatrician’s Medicaid patients exceed 20% of the total patient encounters, or, in the case of all other eligible practitioners, will the number of their Medicaid patients exceed 30% of the total number of encounters?
- If a practitioner is eligible for both programs, which program will yield the greater incentive? Eligible practitioners can only receive one incentive at a time.

Most practices will be faced with the need to secure external financing to adequately fund their EHR initiative. Even those who will be receiving either the Medicare and/or Medicaid EHR Incentive funds will likely need external funding.

At this point, the practice has reached the point of knowing (1) what it wants from a potential EHR vendor, (2) the technical approach that will best meet its needs and resources, (3) a logically sequenced implementation plan, and (4) the anticipated costs to achieve its business and HIT vision for the practice.

The next step is to select the vendor(s) with the most responsive product(s) and a clear willingness to engage in a mutually-beneficial relationship with the practice.