Strategy and Governance for Successful Implementation of an Enterprise-Wide Ambulatory EMR

Overcoming the Challenges, Complexities and Culture

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Taking the plunge to select a technology solution to automate and streamline traditional healthcare processes is many times done in haste. Then during planning, the underlying complexities that are involved begin to be uncovered. If you are afforded the time required to be diligent, they may all be addressed or mitigated quickly. However, it is often during the implementation that resistance and an organization’s culture begin to compound these complexities and present barriers that can bring a technology implementation to a complete standstill. This is even a greater challenge to overcome when planning the implementation of a standardized enterprise solution across multiple ambulatory clinical settings and practices. Implementations such as these can serve as a catalyst for systemic change in an organization if managed effectively.

Planning for the work involved with driving and controlling a paradigm shift of this magnitude is often underestimated if not simply overlooked. Many times when implementing an ambulatory EMR, an organization is often pushing their standards and controls into areas of the enterprise and affiliated community.
providers that have been minimally impacted by this type of technology until this point. In some instances, those practices are completely paper based and there are still practices that have staff that require more in-depth basic computing education than one would expect. The organization must commit to the change with strong sponsorship, dedicated resources, and adoption of a flexible implementation approach that can be tailored to the individual practices while maintaining the integrity of the standardized solution and workflow models.

This article will discuss the approach and techniques for optimizing the project’s business, clinical and IT relationships to develop the implementation strategy while keeping the eye on value, how to capture it, and a design based on continuous improvement ideology. This involves the overall project structure; from strong involvement of business and clinical stakeholders, to the governance model and reengineering both business and clinical workflow processes, to consistency in communication and initiative management. Using our pilot practices as a case study, the article will provide a detailed description of the challenges and complexities involved in the Ambulatory EMR implementation project at Continuum Health Partners, Inc. In addition, the ever-evolving strategic approach used will be discussed including the initial governance model, what worked and didn’t work, the required paradigm shift, and why.

**BENEFITS OF IMPLEMENTING AN EMR (CLINICAL, COMMUNITY, BUSINESS)**

There are many benefits expected from the implementation of an Ambulatory EMR. The introduction of ever changing state and federal regulations, in addition to new opportunities related to ARRA- and clinical information exchange-related initiatives, has created a shift in the healthcare industry, stretching organizations to focus not only on their inpatient EMR solutions, but now on their ambulatory services with the same vigor and attention. Some of these benefits within the ambulatory arena are:

- **Automating the scheduling, medical record, and billing processes in the practice**
  - The practice will be able to focus their attentions on the patients and their care rather than shuffling paper through a process fraught with the potential for error and inconsistencies. An EMR solution has the potential to save a great deal of time at each step of the care delivery process from scheduling to billing. There is also an opportunity for enhanced revenue through improved coding and charge capture.

- **Improved Patient Experience**
  - There is greater opportunity for the workflow in the practice or care area to be more efficient and streamlined, which will be noticed by the patients as they experience the services being provided. Schedules are set, reminders are communicated automatically, records are available at the fingertips of their provider for phone interventions or emergencies, and bills are an accurate reflection of the care they received. Denial notifications from their insurance companies are minimized, because billing is more accurate due to more precise documentation and automated coding resulting in accurate claims submissions.

- **Most of the changes we are seeing in the industry are pointed at the desire to have as much applicable information as possible at the point of care. Leveraging EMR technologies in the Ambulatory practice setting creates an entry point for patients into an informed continuum of care that could be available between physicians, specialists and hospitals. Implementing an EMR is the first step toward making it possible for patients to participate in the creation of an Electronic Health Record (EHR) that could be accessed by other care providers in their community. It should be the goal of all providers to help each other have as much information about the patients in each community as possible, so that the most informed decisions can be made regarding their care. The availability of clinical data in consistent formats also creates opportunities for local and state health departments to identify trends and drive informed community awareness and educational agendas with appropriately justified federal funding and support.**

**KEY STEPS IN STRATEGY AND PLANNING**

Project Management, Organizational Development, and Organizational Behavior principals all play a key role in creating the implementation strategy and planning approach. While the approach needs to be flexible to accommodate specific nuances of an individual practice, it is imperative that the core principles of the design and defined processes remain consistent at the core of the roll out across the enterprise.

- Define the scope of the project.
  - Make sure that the scope is clearly defined and that it speaks to the items that are negotiable versus those that are core functionality and process that cannot be tailored.
  - Strong involvement of business and clinical stakeholders
  - Correct Governance model
  - Re-engineering business and clinical workflow processes
  - Consistency in communication and initiative management

- Assessments
  - Develop practice profiles with location demographics
  - Define technical system readiness for an EMR application
  - Resource/Roles, responsibilities, and time commitment
  - Consider the number of practices to roll out before defining the implementation team size
  - Define the need for implementation leads, implementation specialists in areas of business and technical expertise, trainers, and program coordinators

- Cascading roll-out schedule
  - Practice assessments determine the current readiness level of locations and where they may fit into the prioritization schedule of the rollout
  - Timeframes for bringing a site up to a required preparedness level impact where the practice is then placed in the schedule

- Project governance structure
  - Breakdown the governance structure into teams of front office, clinical decisions, technical, integration, training and support.
  - Front load the implementation process with governance definitions.
  - Define the workgroups within each category.
  - Establish weekly meetings for integration and network needs.
• Begin training and support meetings half way through the implementation development period once technical decisions support a timeframe to set go-live dates.

BEST PRACTICES AND SUCCESS DRIVERS

Influencing culture change is a daunting effort in an initiative like implementing an ambulatory EMR. It is imperative that the implementation team understands their role as change agents. It includes how to work with the respective practices and clinical areas to educate them on the application and process impact. The team will facilitate adoption of the solution and related workflow processes that the practice will own. Helping the clinicians and support staff believe in the benefits while they work to overcome the learning curve is essential. There are four key areas to embrace and manage every aspect of the engagement by consistently.

• Know your chosen solution.
  • There is nothing worse that entering a practice to help them move toward adoption if you cannot articulate the benefits of the solution that has been acquired or how it works. The stakeholders are going to look to you and your team to be the subject matter experts in the tools selected and standard processes defined. The first impression is what wins their trust.

• Understand your stakeholders, their needs, and their limitations.
  • Implementing an ambulatory EMR is about streamlining and improving patient care, the availability of information, and bringing efficiencies to operations in a practice or clinical care area. Key stakeholders may have more in mind than an enterprise solution, so know where they are coming from.

• Leverage partnerships.
  • Look at those that have already been successful and learn from their lessons learned. Vendors can be partners, too! Develop a partnership with them, stressing the benefits of a long term relationship and sharing lessons learned for future growth opportunities.

• Respect the culture shift that is involved and maintain awareness.
  • Keep your eye on the goal while helping the clinicians and staff members embrace the change and the model you are implementing. Change Management becomes a critical factor in the success of your implementation. Consider where each staff member falls in the learning curve from day one and offer ways in which they can be more quickly brought up to speed before the application training begins.

CASE STUDY: CONTINUUM HEALTH PARTNERS, INC.—EMR AMBULATORY IMPLEMENTATION

Continuum Health Partners, Inc is a nonprofit hospital system in New York City comprised of five service organizations including Beth Israel Medical Center, Roosevelt Hospital, St. Luke’s Hospital, Long Island College Hospital, and The New York Eye and Ear Infirmary. Combined, these hospitals provide 2,727 certified beds resulting in 1,211,772 Ambulatory visits and 124,348 discharges in 2010. Over 1,800 providers in the NYC metro area have adopted this application.

It was also important to select a product that was already certified by a known certification entity so that meaningful use criteria for practices and physicians from the software perspective would be achieved.

Continuum Health Partners’ goal is to install this product in approximately 100 employed practices which consist of approximately 1,000 employed providers throughout its network, as well as reaching out to over 1,000 voluntary providers in the local areas. The purpose of partnering with voluntary providers is to create a network of health information exchange among voluntary and employed providers, while creating coordination of patient care and leveraging the electronic medical record throughout the community.

IMPLEMENTATION LESSONS LEARNED—PILOT SITES

Initial Project Planning/Set-up. Once the task of the selection was made, several things immediately had to be put into motion. A scope, project charter and statement of work per practice were considered crucial deliverables prior to any work beginning in earnest at any site.

Understanding the nature and complexities of enterprise decisions needed to be recognized by stakeholders very early in the process. This was considered essential due to anticipated challenges that the team expected to receive at each of the unique practices and specialty areas having their own very specific requirements and priorities.

Creating the right governance structure to support the multi-layered enterprise decisions that needed to be agreed on and supported was one of the top priorities. Identifying the correct stakeholders and receiving 100% commitment to the responsibilities of their roles was considered of the utmost importance. The team recognized the overlapping priorities for the practices, as well as the office disruption of work and large commitment to implementation goals, while still caring for patients. Risk plans were identified as key in assisting the practices to mitigate as many of their issues as possible without impacting the roll-out schedule once established.

The scope and project charter proved very difficult to develop. Practices and priorities were coming from individual hospitals, which proved very difficult to create an agreed upon initial roll-out schedule. This took multiple iterations until a compromise schedule was created and accepted. Site stakeholders did not take into account the value of selecting similar practices at the different hospitals, decisions were made based on practices escalating their own needs to management at the expense of having a coordinated effort among similar practices.

Culture plays a large role in planning and it is important that there is strong and consistent sponsorship from the enterprise and the site/facilities represented. Maneuvering the political landscape can be a challenge and if this sponsorship is in place,
it will help the team steer the project ship through those waters. Decisions have to be made in a timely way and then supported going forward with checkpoints in predefined places to allow for adjustments due to the minutia of the project or needs of the organization. The goal of providing better patient care in the populations that need it the most always has been the focus of decision making.

**CREATING THE COMMITTEE STRUCTURE**

Continuum spent a lot of project time creating the correct governance structure and identifying key members for its Executive Project Committee. After many iterations of the teams, Continuum’s first proposed structure while it looked good on paper, created “meeting fatigue”. Too many committees with too many overlapping team members created an impossible scheduling task for the project and its team members. After about three months of further discussion and repurposing the committees, a more efficient and streamlined structure was put into place that had each of the teams perform a few more functions than initially designed, but seemed to be a better fit and use of the limited resources.

There is always the ongoing process of determining if a team is truly a committee or a working team, having the right setting for the right goals also became a challenge. Having too many people on a team makes the decision-making process more arduous than necessary. Taking the approach of making an enterprise decision and sticking by it, and then having the governance structure support it, we found to be a key success factor. A lesson learned is to start with less committees and teams and let it naturally transform throughout the implementation, rather than trying to create the perfect structure in the early stages.

As we learned later, after initial roll-outs occurred, the need to restructure again became evident. It wasn’t so much the governance and committee structure that needed revisiting, but the initial work teams needed to be re-established, so ongoing enterprise clinical and business build decisions would be fluid among both the pilot sites and the next wave of practices just beginning the implementation phase. The goal was to preserve pilot decisions so they could be used as the starting point of design for the next practices of similar specialties.

**KNOW YOUR STAKEHOLDERS**

Proper identification of all your stakeholders is an important first step in properly creating the scope and breadth of your project. The key stakeholders we identified throughout the institution were: providers, hospital administration, IT, patient, practice office managers, finance, and supply chain.

This was another area where the initial project planning could have gone more smoothly if more time was spent finding the right resources with their time commitments, creating the governance structure and agreeing on the priorities of the roll-out.

**IDENTIFY KEY PROJECT CHAMPIONS PER PRACTICE**

Continuum felt that the following roles needed to be identified at each practice. These would be the people that the project team could count on throughout that practice’s implementation schedule.

**Site Support Lead.** The lead is usually an Office Manager or Nurse/Practice Manager who should attend super-user training, and help identify more super-users in that practice at all levels, meet regularly with the staff and providers to prepare them for the upcoming changes and identify potential challenges, as well as provide status reports on the progress of the project from the practice’s perspective. This person should be the project team’s main contact at the practice and be able to answer all project related questions.

The Pilot sites that had this person identified at the beginning stages and was fully engaged had the more successful go lives in the first few weeks. The sites that did not have a strong site support lead definitely had more challenges during the go lives and depended on the project team much more, which proved to be very difficult.

**Clinical Champion.** A provider at each location should be identified to become the project advocate and should partner with the Site Support Lead to provide a united front for communication at the practice. This provider would also be expected to be an enterprise project spokesperson/clinical decision maker as the roll-out continued to other practices.

Our lesson learned here was identical to the site support lead. Having a strong clinical person at these sites was also a contributing factor in the initial success of the practice go live. The governance structure has to support the ability of the Project Team to recommend change when required in the assigned leads to ensure that a strong champion is in place to drive success.

Our intention is to make sure that these site clinical champions continue on the project roll-out to ensure and endorse the importance of enterprise decisions as we move forward. Letting providers be part of the decision-making and the creation of the system proved to be invaluable to the team. It also allowed the provider to know that their input was always considered.

**COORDINATING AN ENTERPRISE-WIDE IMPLEMENTATION**

Once the initial roll-out schedule became a reality and was planned with definitive tasks, the obvious challenge was how to standardize enterprise workflow and content build across so many disparate practices with specialties that have their own uniqueness and requirements. The team immediately hit roadblocks with the pilot practices, as they were more interested in creating an electronic medical record specific to their practice vs. trying to create one for the enterprise, which would have standards for data entry and workflows across the specialties.
This continues to be one of the more difficult factors; to create that acceptable level of customization vs. standardization. To be able to fully leverage the clinical healthcare exchange, clinical outcomes reporting and meaningful use criteria, standardization is an absolute requirement. How to allow individual needs to be met, while maintaining a standard is something that must be a standard stream throughout and supported by governance. It is imperative that the team is leveraged efficiently to ensure that evidenced base practice and standards remain at the core of the configuration. This is when the need for a proper governance structure in place helps to support the utilization of resources and prioritization of requested customizations. The team can refer to decisions for execution that have been made by the governance committee and are not negotiable at any other level.

**DISPARATE SYSTEMS**

A thorough inventory of current applications that were currently being used in the practices for registration and billing had to be identified. While striving for single solutions, Continuum has multiple legacy systems deployed in the practices. This requires a very detailed and thought out integration plan and/or migration from these systems to the new ambulatory EMR. Years of scheduling and billing data reside on multiple platforms throughout Continuum. Key decisions as to how much data would be migrated to a new system, as well as the retention of data on old systems, were some of the very first enterprise decisions that were vital to the successful initial use of the system.

A major lesson learned here was to identify the portfolio at the practice level early in the readiness assessment process, so the project team could create initial workflows for the practice to analyze and comment upon, instead of creating those initial workflows with providers and support staff. We found it more productive when the project team came with some initial assumption documents, so that discussions and brainstorming could start from an informed-decision standpoint.

If the goal of the EMR implementation is to provide the providers the tool to begin documenting electronically, do not try and solve all of the enterprise integration issues all at once. Take the time to phase those tasks in at appropriate times, as the initial scope and budget most likely did not incorporate those goals. This will avoid scope creep, as far as integration is concerned.
RESOURCE TEAMS AND AVAILABILITY

Continuum immediately created an initial IT project team that consisted of a program manager, two implementation specialists and a project coordinator. Three additional team members were identified to attend a very intensive training course that was meant to create a pool of internal talent for Continuum to have its own trainers and super-users on the project team. Continuum then found some supplemental consulting services that specialized in ambulatory EMR implementations for this product and also sought out the local New York City government departments for their implementation assistance.

A lesson learned here is to identify and request additional team members before a full roll-out begins. We found our resources extremely stretched even during the pilot rollout. A lot of that has to do with the practices feeling the need to have more on-site support post go-live than was initially thought. The logistics and location of the practices made it difficult to visit more than 2 practices in one day.

Implementation work plans to address the expertise and number of resources to comprise the IT implementation team are reviewed periodically as more practices come through the project in 2010 and 2011. A lesson learned is to have the implementation specialists be able to handle multiple practices at different junctures of the project. What we are trying to develop is a consistency for each specialist, so that each will have 1 – 2 practices in the beginning stages of implementation, 1 – 2 in design and test, and 1 – 2 in final go live preparation. The realization is that there is also a need for a more operational arm of your team that can circle back to the practices for further refinement of workflows and customizations. Ongoing support and required FTE count remains a challenge that we’re managing so we can be successful at supporting the ongoing improvement of the system and the practice processes.

Other areas of internal IT team members were also brought on board as needed and came from areas such as Networking, Integration, Desktop Support and Technical Infrastructure support, as well as the PMO Governance team. As the schedule grows, the project team will be requesting dedicated resources from all these areas vs. the sharing of these resources, as was done during the initial sites.

TECHNICAL CHALLENGES

Remote Access. Remote access was a key factor that needed standard rules and policies set. Concerns included the ability to support personal home computers for practitioners that we had no control over for security, maintenance, memory, etc. Another challenge that we face is deploying the application out to the non-ambulatory sites in the enterprise. The in-house and ED providers are going to want to have viewing access to patient data when available in the ambulatory EMR.

Practice Offices—Hardware. Current physical space constraints in practice areas were a concern for the placement of desktops in exam rooms and for printers and scanners in the front-desk areas. These concerns then led us to identifying budget constraints about a practice’s desire to be in a wireless environment. That requirement then leads one down the path of the more expensive tablet solution vs. a laptop solution. Tablets and their adoption are still mixed. Some practitioners use them in the way that they are meant to be used, point and click, while others choose to use the keyboard the majority of the time.

Expectations need to be level-set in the beginning as to the decisions of when wireless and tablets would be introduced into practice areas, and what that cost would mean to the overall project. This is the area where we became very dependent on the executive committee to assist in supporting the decisions made for these standards. Again, by adhering to decisions at practice levels, the IT project team was always being challenged as to why certain sites received tablets and wireless and why some didn’t. A big lesson learned is to have that clearly documented and stated for an enterprise approach in a very objective manner, so that every team member can simply reference the same material and communicate the same message.

MANAGING THE PRIORITY OF THE ROLL-OUT SCHEDULE

This was one of the biggest challenges where the project team heavily leveraged the Executive committee to assist in setting the right priorities and practice order for roll-out. Many external issues affect those decisions: how ready is a practice to adopt and commit their time, what practices are threatening to choose a “boutique” EMR if they aren’t at the top of the list, specialties vs. primary practices, rolling out in a consistent manner so team members are not stretched too thin, and satisfying management with a consistent roll-out schedule that is being met and adhered to.

Getting the written signoff for the order of the practice rollout was always hard to get and continues to be, as we create the 2010 schedule to include both employed physicians and voluntary physicians into the mix.

We also realized that we needed to take into account the physical locations of these practices, as local travel within the NYC area is time intensive. We identified the need to ensure that the roll-out takes location into consideration, due to the use of a small team supporting the sites. Achieving even more economies of scale could be attained if also working with similar specialties during the same period of time to reduce some of the build time and decisions.

LESSONS LEARNED FROM THE PILOT SITES

During the first few months, many adjustments were made to the process to improve overall efficiencies regarding the use of the project team and communication between the all of the stakeholders. Here are a few important guidelines to keep in mind:

- Makes sense to start with Primary Care practices
- Enterprise decisions for the initial application build seemed to go more smoothly and with more of an ability to stay on schedule when we were dealing with primary care sites vs. specialty sites. Taking the time to customize for the specialty practices was time consuming and did not create a big bang for the time spent, while spending the same build time at a primary care practice created immediate use of the application for more providers.
- Readiness Assessments are critical
- Knowing the site preparedness and willingness to commit their time was a key component is selecting the right practices at the right time.
- Workflow Design
In order to design the Future State Workflow of each practice, it is imperative to fully understand the Current State. A system matrix should be used to define the systems used within the practice by Front Desk, Mid-office and Providers. Workflows should then be designed to include all aspects of each area’s responsibilities and then used during the training process.

Formalized Implementation Plans and signoffs are very important. The signoff on all major milestones from the implementation plan for the project at the practices is very important, so that there is a clear audit of all of these decisions. The more practices that you roll out to, the better off you will be and will have the right initial decisions properly documented.

Importance of Governance Authority

- Having that authority created in the planning stages of the project gives the project team the support it needs to have for success.
- Must distinguish between “Customization” and “Personalization” of the EMR application
- Don’t spend too much time customizing the initial build of the system. Let the providers use the system for at least three months, then circle back to discuss what needs to be further addressed. Any gross inaccuracies potentially resulting in non-compliant documentation needs to be addressed immediately.
- Commitment to purposeful reduction in patient load
  - Providers need to understand that they cannot see the same amount of patients during the first few weeks using the EMR until they get accustomed to documenting within the application. They will decrease their income, or increase the work hours in a day.
- Ongoing Training for Residents
  - The challenge that Continuum faces is the immediate need for a web-based training program for its residents that the vendor currently does not offer. This became evident that the classroom training would be overwhelming for the amount of residents that Continuum has in its network.
- Flexibility and Change!
  - Have a plan and stick to it, but listen as you move through the implementation. Be transparent, share the concerns or opportunity presented back through committees to see if a course correction is warranted.

**WHAT’S NEXT**

The structure is now in place that allows Continuum to leverage a multi-layered approach to strategic planning and decision-making. However, as with any significant change or restructuring, CHP’s story has not ended. There is continuous review of roll-out schedule, the challenge of training thousands of providers in the next 12 – 18 months, the drive to stimulus dollars, and implementing the health information exchange requirements necessary for full qualification of meeting meaningful use criteria.

CHP is committed to their community, their providers, and most importantly to the patients they serve. The organization continues to address enhancing help desk support, ongoing training programs for the office staff, new providers and rotating residents, and planning upgrades with the vendor. In addition, efforts continue to improving the integration of this new electronic data with existing systems and external information exchange opportunities in the community. With the structures in place and continuing to mature, the EMR implementations will continue based on the lessons learned from their pilot practice rollouts as well as those going forward. The goal remains the same, providing excellent patient care consistently by providing useful and accurate information at the fingertips of the providers so they can make the best decisions possible. **JHIM**

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Colleen M. Lyons is currently a Corporate Director at Continuum Health Partners, Inc. and has been there for 20 years. Her main focus during her tenure has been in clinical applications, both from a support and implementation perspective. Colleen has held various roles at Continuum starting out as an Applications programmer and progressing to Project Manager, Applications Manager and her current role of Corporate Director. Colleen was a recent presenter of the session topic “Coordinating the Implementation of an Enterprise-wide EMR” at the 2009 eClinicalworks National User’s Conference.

Julie Tomkinson is currently an Implementation Specialist at Continuum Health Partners, Inc. As a part of Continuum’s Corporate IS team, Julie’s current focus is the enterprise-wide EMR Implementation Project, which encompasses 200+ Ambulatory Provider Practices across New York City. Julie has worked with a variety of healthcare enterprises nationwide for clinical and financial services to advise and facilitate processes for work flow documentation, process flow analyses for hospital care management, medical record reviews to identify lost revenue opportunities, detailed patient account reviews to identify and resolve issues via systems analyses to uncover potential IT intervention opportunities.