White Paper

Patient and Process Flow Considerations in the Consolidation of Healthcare Services

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1.0 PATIENT AND PROCESS FLOW CONSIDERATIONS

Consolidation of clinical services is a prevalent trend in healthcare today. With increasing cost pressures and scarce clinical talent, creative ways must be found to deliver optimum care to the patient. Economies of scale created by a consolidation can include shared staffing, shared equipment, shared business offices and the ability to free up scarce resources to provide more advanced clinical protocols. Many times the pooled clinical expertise provides a depth and breadth of clinical offerings not previously available. This can truly be an example of the “sum being greater than its individual parts.”

When pooling resources and combining services, many challenges present themselves:
1. How does the consolidation appear seamless to the patient?
2. How can clinical patient flow be optimized?
3. How can the business functions such as coding and billing be optimized?
4. How can staff input be obtained to gain consensus in a short period of time?
5. How can multiple staffs from different clinical programs be assimilated and function as one well-run unit?

Concurrent Technologies Corporation (CTC) and its affiliate, Enterprise Ventures Corporation (EVC) has done many projects focused on these types of issues. Through our unique solution model, along with our breadth and depth of experience, CTC brings a structured approach to health service integration. Our team uses a lean/six sigma approach to ensure maximum benefit is garnered for the organization. Our five step approach ensures a consistent and timely approach to measuring process performance and implementing improvements.

2.0 THE CTC APPROACH – LEAN SIX SIGMA PROCESS IMPROVEMENT

Lean and Six Sigma are structured methodologies that provide a set of tools that help ensure successful outcomes of any integration or consolidation project. Their importance and use in the healthcare space has been steadily rising.

2.1 Reducing the Waste (The Lean Approach)

The Lean Approach is based on a concept developed by the automotive manufacturing industry in response to its ongoing struggle with thinning profit margins. The approach, designed mainly by Toyota under the direction of a research group from MIT, attempts to maximize customer value while reducing waste. In this view, the use of resources for tasks unrelated to the final goal (end product) is considered wasteful. These include both hard and soft costs such as:

- Time wasted through non-value added and non-standardized tasks
- Costs related to wasted materials
- Superfluous resources not adding value
- Quality issues that reduce the quality of patient care and patient safety
- Redundant resources, processes or assets
Every organization seeks to operate efficiently, deliver a high quality of care and increase patient safety – especially in these times of increased case complexity. While the final output, for example quality of patient care, is often considered to be a measurement of success or failure for healthcare organizations, it’s also important to evaluate the means in which organizations are achieving their ends. Realized cost savings achieved through the elimination of waste can be reinvested in other areas deemed priorities for the organization. In turn, this reinvestment allows an organization to continue delivering the same, high standard of service while creating an environment that facilitates organizational growth and further improvement. Lean can be a powerful tool in helping organizations ensure that the newly created organization is operating in the most efficient manner.

2.2 Reducing the Variance (The Six Sigma Approach)

The Six Sigma Approach is designed to reduce costs and improve patient outcomes by looking at the different means to achieve the same end. This evaluation is done through statistical analysis and a reduction of variance in the processes. An example of this would be looking at different procedures at different hospitals. Why does one organization take 3 hours to complete a specific procedure while another takes only 2 hours? Does one organization have a better operating model? Is the other organization using methods that can be implemented as best practices across all organizations?

In the above example, identifying the variances between different times provides a clear-cut model for helping select the best practices to be implemented. Anomalies can be reduced, key findings and best practices are identified and shared, changes are made to current processes, which ultimately contribute to creating additional funding for other critical areas.

Similar to The Lean Approach in that these efficiencies offer organizations the ability to maximize the use of hospital funds, ensure resources are being used effectively and offer the potential to reinvest this cost savings in other areas, the Six Sigma approach takes this one step further. Where the Lean Approach promotes the reduction of waste, the Six Sigma approach promotes the enhancement of operations. To reap the most benefits, organizations should consider both types of implementation as one strengthens and solidifies the operational foundation while the other enhances it.

3.0 CTC’S 5 STEP APPROACH

CTC utilizes a custom variation of the DMAIC approach. DMAIC is a Six Sigma approach to problem-solving and continuous improvement. DMAIC involves the following steps: Define, Measure, Analyze, Improve, and Control. This methodology focuses on statistically measuring the performance of a process and implementing improvements to reduce process variation.

CTC’s proprietary 5 step approach (The 5C’s) has proven to be successful in providing measurable, timely results in every engagement undertaken. CTC’s Project Management
approach incorporates best practices from various leading Project Management strategies from healthcare and other sectors. The 5C’s takes into account the intricacies of the healthcare industry and ensures the deliverables are of high quality, completed on time and within budget. The 5C’s are: Concept Development, Collaborative Planning, Coordinated Execution, Close Out, and Continuous Monitoring.

3.1 Concept Development
Using Walter Reed’s Cancer Center as an illustration, the Concept Development process involves defining the scope of work for what we are looking to achieve at the newly created Cancer Center. During this phase our team would be on the ground conducting an assessment of the Center. This assessment involves looking at both the clinical and non-clinical areas. The goal of this assessment is to conduct a high level analysis of the Center to determine the areas of strengths and weakness. The assessment will be done with the recently completed consolidation in mind and will be looking at documenting and defining a high level approach to tackling the consolidation issues. During this phase, the business schedule and any deadlines will be incorporated into the schedule and strategy.

3.2 Collaborative Planning
The Collaborative Planning process involves measuring current system performance. The CTC team spends time conducting an analysis of the different procedures across the different organization(s). Our main focus will be twofold: clinical flow and back office flow. With regards to the clinical flow, our team will be investigating both the patient flow as well the flow of internal processes. These flows will be documented by our team through observation, shadowing and exploratory sessions with some of the members of the Cancer Center team. The objective will be to create detailed Value Stream Maps (VSMs) that will outline in detail the various roles, responsibilities and flow through the different clinical areas of the Cancer Center. During this time, the team will also be identifying any bottlenecks or issues in the system. The team will be looking for non-value added tasks, potential waste of resources and any significant process inconsistencies and variances. In addition, using our expertise of clinical patient flow, the team will help to create process benchmarks. These process flows and the associated data will form the basis for the process analysis and improvement.

Once we have gathered this data, the CTC team will work to establish a set of priorities for dealing with the process improvement activities. This usually involves the senior management and is intended to target the highest priority and highest yielding items first. Once the list is established, the process improvement activities will begin in earnest. This is typically done through collaboration exercises (known as Rapid Improvement events) with a small group comprising the various individuals from the different joining organization(s). The intent of these meetings will be to help identify the challenges and work with the team to define the future state processes. Throughout this process the CTC team remains cognizant of the challenges of changing people’s behaviors. These events not only help to define the future state, but also impart a sense of ownership of the
process on the team. This leads to a greater uptake in the adoption of the newly defined processes. The intent of this exercise is to leverage the best processes from the different organizations (Navy, Army, etc.) as well as introducing CTC’s experience and leveraging best practices from other similar facilities. By creating working groups with representatives from each of the participating organizations, each group is given an equal voice in the future state definition process, a key factor from a change management perspective. Upon completion of this phase, we will have a set of optimized processes and associated metrics that will help redefine the new organization in the short term. The introduction of metrics will allow the management of the organization to continue to monitor the effectiveness of the process well beyond the initial exercise and ensure that as the organization continues to grow, that future process corrections can be made using factual data.

3.3 Coordinated Execution

The coordinated execution phase of the project deals with the phased rollout of the new processes and metrics. Using a defined rollout model and schedule, the CTC team will work to ensure that the team is properly educated on any enhanced or new processes including the roles and responsibilities of all the team members. The CTC team will be on the ground to help provide training and education during the rollout and ensure everyone is comfortable with their new job roles and responsibilities. During this phase, our team will also work with any questions, concerns or challenges in implementing this model that may come from the teams as they are asked to change the way they do things. Our team will utilize our change management methodologies which are derived from Prosci’s methodologies. During this time, if there are any issues, concerns or challenges with the implementation of the process, the CTC team will be onsite to take any corrective action and modify the process as required.

In addition to working with the front line staff to optimize the processes, CTC will work with the management team at the Cancer Center to educate them on the new management steps to effectively manage the future state processes. The goal of this exercise is to equip the management team with a set of metrics and metrics dashboard that will empower them to monitor the productivity and results of the center. These metrics can range from daily to annual metrics that are produced.

During this process, our team relies heavily on our change management methodology that is defined further below. This methodology helps the organization deal with any resource challenges with regard to change.

3.4 Close Out

The final process of the CTC Methodology is Close Out. During this phase all deliverables are handed over and key findings are realized from the project. A roadmap is created that will allow the organization to continue to monitor progress and set forth a program for continuous improvement that guide the growth for future years. The work completed along with the roadmap will serve as the basis for moving the Cancer Center towards obtaining a Center of Excellence status. As part of this process, the CTC team will work with the management team to define the strategy for the future and identify
individuals in the organization that can take leadership roles to carry on the improvement initiatives.

3.5 Continuous Monitoring
Throughout the project, the Continuous Monitoring process is conducted, which includes status reporting, scope assessment, change control, quality assurance, and risk management. With the stakeholders and executive team of the Cancer Center, the CTC team will define methods and frequency of communication of required information as part of a communication plan. This plan can include weekly status reports, bi-weekly meetings, monthly newsletters as well as any other mode of communication currently used by the Cancer Center to disseminate information.

4.0 SOURCE CHANGE MANAGEMENT METHODOLOGY
In addition to the Project Management methodology, CTC has a comprehensive Change Management Methodology. Our Change Management Methodology is based on the Prosci Change Management Methodology which is recognized as the gold standard in the industry. Given the transformational nature of consolidation projects, Change Management is a very large component of what we do. Often times, our team is challenged with dealing with organizations and individuals who may be reluctant to change. Our Change Management Methodology (shown above at a high level) allows us to work with these individuals and organizations to strive to achieve the best outcomes. Our proven change management methodology and techniques,
which work hand in hand with our 5 C’s approach to process improvement projects, are a crucial component of any successful consolidation project.

As change management is one of the biggest challenges in any process change initiative, our change management methodology is composed of five steps.

### 4.1 Preparing for Change

The first phase, which involves preparing for the eventual change, deals with conducting an assessment of the current organization and setting up the organization to deal with the change. During this phase the key leaders are identified including the Change Champion(s). We also conduct a situational assessment to determine the current climate and culture which includes determining the organization’s propensity to change. This information will serve as the basis for developing the goals and expectations for the change aspect of the program. Similar to the project charter, the change charter will include how we will manage communications, training and other human resource (HR) issues as well as how we will be working with the change leadership. Finally we will conduct a readiness assessment which will help determine which steps need to be taken in the coming phases.

### 4.2 Planning for Change

The next phase of the change management methodology involves organizational planning for the changes to come. During this phase the CTC team will be conducting job impact analyses on the various roles that will see changes to their roles. The team will also determine the path from where they currently are to where they need to be (the change management plan), including any training, technology and HR-related changes. Parts of this exercise will be conducted in consultation with the employees who will be experiencing the change to ensure their buy-in with the change plan. Finally, our team will begin to prepare the employees for the actual change that will be occurring which will include answering any questions they have and dealing with any issues that may arise.

### 4.3 Executing Change

During this phase the change with employees actually occurs. The CTC team will be engaged in working with the employees to execute on their individual change plans. This includes providing training, on-site mentoring, issue resolution and coaching. The team will work with the employees to ensure that their individual change plans are being executed in a timely manner and coincides with the execution of the overall project. During this phase the CTC team will also monitor the execution and make any changes to the plan as necessary to accommodate the changes and ensure the utmost success in the change execution.

### 4.4 Sustaining Change

Finally, the last step involves creating a roadmap for the future of the change. During the change process, there may be staff that require additional time or new employees that are hired that will need to be taught the new processes. Our goal during this phase is to
transition and impart our knowledge on the cancer care team to ensure that the organization is left with enough tools to ensure that those individuals are taken care of. In addition, the CTC team will create a roadmap for sustaining the change and continuing to improve on the organizational culture. This roadmap will be defined with the original goals, objectives and vision in mind.

4.5 Managing Change
Throughout the change management process, our team will be monitoring the overall process to ensure that it is proceeding as scheduled. We will be conducting regular status meetings with the change management team and providing weekly status reports around the change management. We will also be monitoring the overall resistance level we encounter as well as the effectiveness of the team. We will also be managing any change risk and determining effective mitigation strategies.

5.0 CONCLUSION
In summary, CTC can help the Walter Reed Breast Cancer Center achieve the best results resulting from the consolidation of multiple centers. We can utilize our tools and expertise to ensure that your organization can get the maximum return from all of the assets, people and processes that the individual cancer centers bring to the table. As you contemplate and execute on your organizational changes, let CTC be your partner to maximize the return on your organizational consolidation.