



Yakima Valley Memorial Hospital Realizes \$1 million and Dramatically Improves Surgery Flow

Yakima Valley Memorial Hospital significantly improves surgery productivity through the deployment of Lean concepts. YVMH, a 370 bed facility located in Yakima Washington has a need to improve the performance of its perioperative service. The organization exhibited excessive variation in surgical flow, including late first case start times, slow room turnover and lengthy delays in the Pre-Surgical Testing Clinic (PST). This was driving a decline in patient, physician and staff satisfaction. Previous attempts to address these issues were unsuccessful, causing the Chief of Anesthesia to predict publicly that this initiative would also fail.

Yakima Valley Deploys Lean-Six Sigma to Launch a 100-Day Surgery Workout

Yakima Valley engaged Caldwell Butler & Associates to support its initiative through the application of Lean-Six Sigma and its 100-Day Workout Productivity Series. CBA assisted senior management in identifying potential strategies to yield significant improvements in surgical patient flow. The stated goal was to create efficiency and predictability in case scheduling, first case starts and room turnover in order to improve surgeon satisfaction. A secondary goal was to generate gains in financial performance by reducing worked hours per case and creating additional capacity for expanding volumes. During implementation, CBA employed proven methods to validate the effectiveness of each change proposed by the teams.

Process Flow and Statistical Analysis: Caldwell Butler & Associates deployed its expertise in Lean-Six Sigma methodologies to identify and quantify potential opportunities for improving surgery flow and productivity. The statistical analysis revealed that only 33% of 0730 cases were wheeled in by 0735, average room turnover was more than 24 minutes, and fewer than 39% of overall cases started within 15 minutes of their scheduled start time. Research also indicated significant patient dissatisfaction with the pre-operative assessment process and lengthy delays in PACU and Same Day discharges. CBA used its extensive healthcare experience to identify opportunities for improving surgical process flow. Analysis revealed this change would yield significant gains in satisfaction, capacity and financial performance.

Strategy Development: With the support of CBA, Yakima Valley organized three multi-disciplinary, sub-process work teams to identify solutions. Each team focused on different areas including on-time starts, to-follow cases and pre-admission/scheduling. The teams began assessing a multitude of possible improvement strategies. Caldwell Butler & Associates provided the expertise in process flow analysis to assist each team in determining which Change Concepts would produce the most dramatic improvements.

Implementation of Rapid Cycle Testing: Caldwell Butler & Associates provided its expertise to test and implement each of the identified Change Concepts. Methods of Rapid Cycle Testing were utilized to accelerate the achievement of sustainable improvements. The results of each project were analyzed using advanced statistical techniques to quantify effectiveness and ROI.

Yakima Valley's Needs

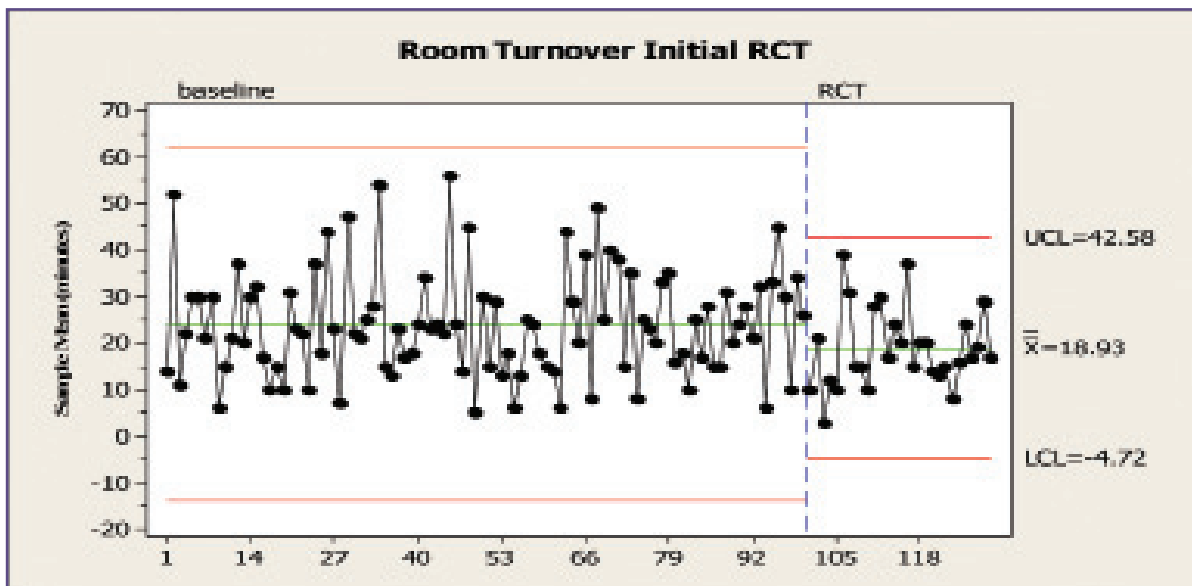
- Improve first case start compliance
- Reduce operating room turnover times
- Improve the accuracy of case scheduling
- Increase capacity and productivity
- Improve surgeon satisfaction

Change Concepts Deployed

- Eliminating non-value added steps in Day Surgery pre-op flow
- Creating turnover teams with standardized roles
- Computer-based scheduling grounded on historical data
- Matching staffing to demand in post-operative care

Demonstrated Statistically Significant Results of Yakima Valley Implementation

- First case start compliance increased from 33% to 64%
- Average room turnover time fell from 24.4 minutes to 15.9 minutes
- Scheduling accuracy (case started \pm 15 minutes of scheduled time) improved from 38.7% to 58.2%
- The % of case cancellations due to an unavailable H&P declined from 3.3% to 0.7%
- The pre-op assessment clinic shaved 4.7 minutes off the RN assessment time and 6.2 minutes off the EKG/lab time
- A rapid cycle test reduced the average Day Surgery discharge time by 18.6 minutes



Financial Benefits Verified by the CFO

- Cost savings from improved first case starts and reduced room turnover equal \$975,438 per year
- Net revenue opportunity from increased case capacity equals \$1,335,600 per year



**Caldwell Butler
& Associates**

For additional
information, contact:

Greg Butler
832.372.2465

gregb@CaldwellButler.com

or visit:

CaldwellButler.com

Caldwell Butler & Associates, LLC

Caldwell Butler & Associates is an innovative firm specializing in strategic deployment of Lean-Six Sigma resulting in cost position improvement, financial turnarounds, and patient throughput optimization. Caldwell Butler & Associates has assisted hundreds of clients increase productivity, maximize patient throughput, and improve patient satisfaction.

Our team is exclusively dedicated to healthcare and brings extensive practical experience in hospital operations to each project. Our knowledge of the healthcare environment allows us to implement effective performance improvement programs tailored to the specific needs of your organization. Caldwell Butler & Associates is the trainer of choice for both the American College of Healthcare Executives and the American Society of Quality. During the past decade, Caldwell Butler has personally trained thousands of senior hospital executives in the effective healthcare application of Lean-Six Sigma.

Unlike traditional consulting firms, Caldwell Butler & Associates believes on-site mentoring and apprenticeship are the most effective methods for achieving sustainable gains in performance. Our on-site programs empower your employees by providing them with the tools to attain new levels of performance. We offer proven techniques and methods for enhancing personal accountability, monitoring progress of initiatives and tracking your ROI on each project. Where most consulting firms are satisfied with finding "identified savings," Caldwell Butler & Associates works along side your team throughout implementation thus providing you with a sustainable process for managing the entire productivity improvement cycle.

Caldwell Butler & Associates apprenticeship and mentoring programs include:

- Effective use of aggressive benchmarking data
- Proven techniques for non-negotiable goal-setting
- Methods of identifying waste and generating cost savings strategies
- Creation of implementable 100-Day Action Plans
- Flawless execution of performance improvement projects
- Creation of internal tracking methods for enhancing personal accountability