



Case Study

Leadership change builds foundation for implementation of Lean Six Sigma

Physicians Reference Lab sustains quality in high growth market



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Improving and sustaining quality during peak growth is a formidable challenge. Recognizing this, the leadership at Physicians Reference Laboratory (PRL), Kansas City's largest private reference lab, took a critical look at the organization's strengths and weaknesses. This internal analysis led to improvements in operations, workflow, staffing and—most importantly—attitude.

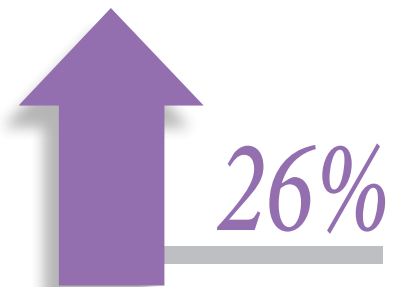
Today, PRL leaders no longer believe growth is daunting. They know it is the natural and welcome result of their organization's journey to high performance. After a year of reflection and reorganization, PRL is primed for implementation of Lean Six Sigma methods as a means to accelerate improvement in quality, productivity, efficiency and patient safety.

I. Background

During 2008 performance reviews for PRL pathologists, a common theme emerged: Quality, work distribution and staff attitude in the histology lab were inconsistent. "As the largest private histology lab in the city, we lacked the internal structure, quality measures and automation necessary for future growth," lamented Paul Munyer, M.D., Ph.D., director of anatomic pathology.

While PRL's quality consistently met or exceeded industry standards, the organization was concerned that they didn't have systems in place to ensure a high level of quality as they grew. Leadership called for change. "We realized we needed to build a stronger infrastructure with greater supervisory capacity to support our growth goals," explained Dr. Munyer.

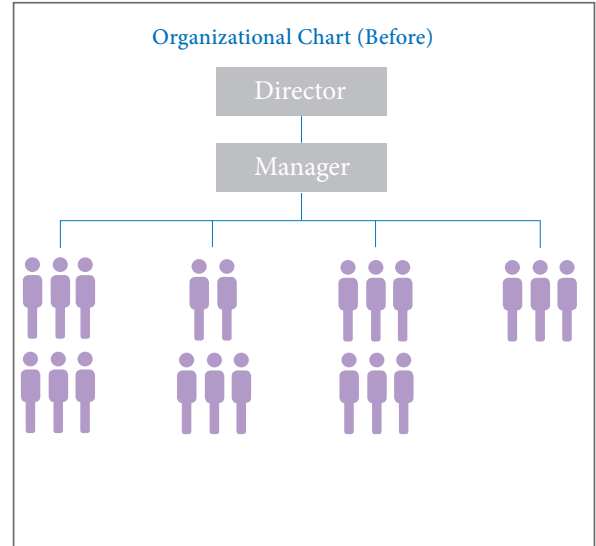
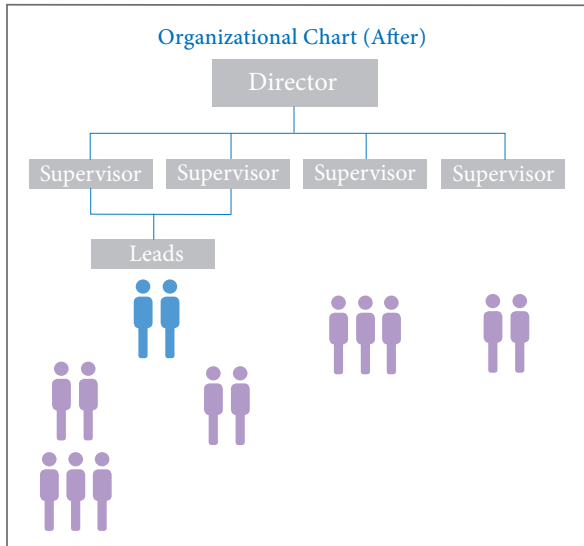
PRL leadership looked to past successes for solutions. In 2006, the PRL clinical testing laboratory had implemented a major Lean Six Sigma re-engineering project, achieving exceptional results. It was clear that a similar change was needed for anatomic pathology. In early 2009, Spencer Kerley, M.D., chief executive officer, empowered the chief operations officer and director of anatomic pathology to begin a re-engineering project for anatomic pathology.



II. Preparing for Lean Six Sigma

Ventana Medical Systems, Inc., was brought in to conduct a comprehensive assessment and identify opportunities for using Lean Six Sigma strategies to improve and standardize laboratory performance. Ventana, with PRL leadership, determined that before a major re-engineering project could be launched, staff morale and productivity needed to improve. PRL leadership made the tough decision to replace the current anatomic pathology manager. "Initially staff and senior pathologists met this decision with a modicum of hostility and bewilderment," admitted Dr. Munyer. "But acceptance mounted as we began to solicit input and established an 'open door' policy to privately discuss issues that otherwise would have been left unaddressed."

The PRL leadership team re-grouped staff into three areas: histology, transcription and cytology. They scheduled informal town hall meetings with each group to gather ideas and garner support for the re-engineering project. "We created



a safe environment for information sharing and developed cohesion among the staff", said Dr. Munyer. "A sense of trust emerged. Although some staff remained skeptical, the majority seemed eager to move forward."

Leadership accelerated the project with quick initial wins. Small victories, such as installation of computer accessories and upgrades, increased communication, and re-definition of job descriptions, became a springboard to acceptance of the more critical task of re-aligning staff.

III. Staffing for Success

During these early changes, the daily workload continued to increase. The histology lab operated for approximately four months without direct supervision, although the anatomic pathology director assumed some supervisory responsibilities.

As PRL worked to recruit a new histology supervisor, leadership shadowed various positions within the histology lab, observing day-to-day operations, staffing, workload and workflow. PRL leaders quickly determined that staffing levels and workload were mismatched. Industry benchmarks and internal peak/valley workload patterns revealed that the lab was over-staffed. PRL eliminated part-time lab assistant positions, creating a lab staffed entirely with histotechnologists.

Staffing-to-workload ratios were subsequently presented to histology staff at a town hall meeting. Based on the data, leadership asked histology staff to re-apply for their current positions. This was to encourage tenured techs to emerge

as potential lead techs and create a more streamlined staffing model. In addition, leadership wanted the right number of full-time employees in the right roles with true performance accountability.

The director of human resources created a comprehensive and impartial scoring system for evaluating staff. Each employee within the histology section re-interviewed for his or her position. PRL leadership assessed educational background, technical experience, trainability, team attitude and interpersonal skills. Candidates were then compared to one another based on the performance measures. "The result was somewhat surprising. Some technically gifted employees scored low on team attitude. We had concluded that poor attitude was contributing to inefficiencies, so we rewarded team players and released some of our highly skilled staff," explained Dr. Munyer.

IV. Lessons Learned from Staffing Re-alignment

Staffing re-alignment is both difficult and rewarding. It came as no surprise to PRL leadership that staff changes were often met with resistance. However, acceptance sometimes came in unexpected situations.

For example, after one long-tenured employee's position was eliminated, she actually thanked leadership. "She told us the process had been fair and impartial; it allowed her to see that she was not comfortable working with automated technologies," said Dr. Munyer. "She acknowledged that she was no longer the 'right person' in a role she had held for many years. That was a true testament to the process we had engaged."


Candidate Evaluation and Comparison Forms

Candidate Evaluation Criteria
370HT - Histotechnologist

Candidate Name: _____
Interviewer: _____

	Below Average 1	Average 2	Above Average 3	Exceptional 4	Weight	Total
Experience					x ____ =	
Performance Assessment					x ____ =	
Trainability					x ____ =	
Teamwork Skills					x ____ =	
Interpersonal Skills					x ____ =	
					Grand Total	out of


Comments _____



Candidate Comparison
370HT - Histotechnologist

Employee	Experience	Performance Assessment	Trainability	Teamwork	Interpersonal Skills	Total
						0.0
						0.0
						0.0
						0.0
						0.0
						0.0
						0.0
						0.0

Interviewers _____



Doing the same amount of work with a smaller staff is never easy, but employees rally together to fill gaps when negative influences are removed. After the histology supervisor and the employees exhibiting poor attitudes were dismissed, the lab became a more cohesive unit. "We learned that the culture shock that comes with staffing change needs to be tempered with individuals who are enthusiastically committed to seeing it through,"

explained Marty Mroz, director of human resources. Human Resources purposefully filled gaps with workers who had a positive outlook on the changes that were occurring. In addition, leadership scheduled frequent meetings to give staff a venue to connect and share, reinforcing newfound unity. Attitudes and the overall atmosphere of the lab changed drastically.

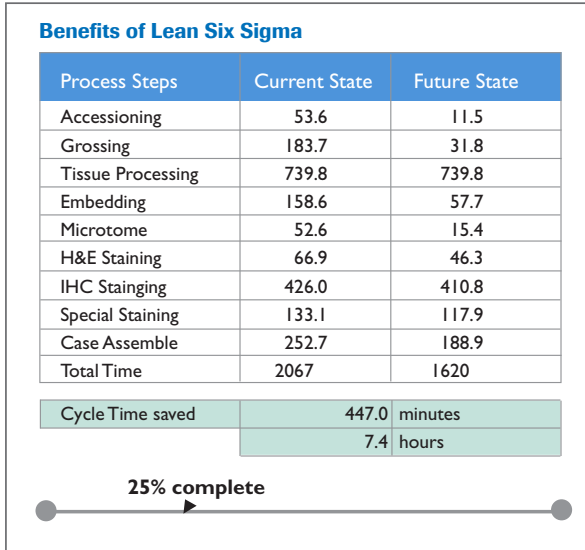
Empowering frontline staff to participate in decisions and make improvements is critical to successful re-alignment. During the hiring process, PRL leadership asked staff to help define the future role and responsibilities of the soon-to-be recruited histology supervisor. The team insisted that their new leader be an experienced histotechnologist who could provide a fresh perspective on PRL operations. Staff envisioned a histology supervisor who had the skills to fill in when needed and could also be an effective leader, coach and mentor. "We recognized it would not be easy to find someone who could simply step into a busy lab and hit the ground running. But we were determined to take the necessary time to find the right individual," explained Dr. Munyer.

V. Cross-trained Technicians Create a More Flexible Lab

Historically, most techs at PRL were confined to performing a single task. With the new, leaner staffing model, techs were cross-trained in all areas of the lab to fill gaps and remove bottlenecks. The techs quickly adapted to the new mindset. "We monitor the lab to identify where flex staffing is needed," said Donna Millard, histology supervisor. For example, if a backlog of trays are waiting to be sectioned, an embedder moves to sectioning, even though there may still be blocks left to embed. If sectioning catches up, that same person may move back to embedding. Techs performing special stains are expected to multi-task and may section, embed or help with case assembly while waiting on a stain. When absences occur, any tech can fill in at any station.

VI. Hands-on Supervisors Improve Workflow and Morale

Successful organizations have supervisors who are able to step in and perform work and solve problems in real time. The addition of a new histology supervisor who had a solid understanding of operations and staffing provided an immediate benefit. "I was able to step in at critical times and work side-by-side with the staff which helped establish trust and credibility," explained Millard. "Quite simply, watching a task does not yield the same level of understanding that performing the task does," she added.



A new attitude toward questioning evolved. Staff began to ask, "Why do we do it this way?" For example, staff used to write instructions on the side of cassettes. The PA supervisor questioned the practice and discovered that this practice was originally established to accommodate an employee who no longer worked for the company.

Staff also generated solutions to inefficiencies in specimen storage. The PA supervisor, along with the help of the gross room staff, streamlined storage that drastically reduced time spent looking for specimens.

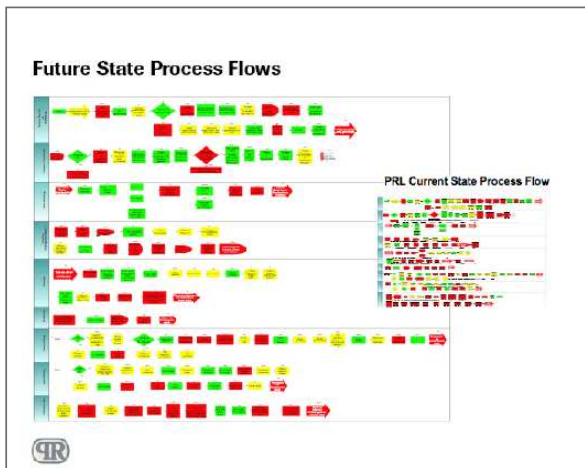
VII. Next Steps

PRL realizes that the reorganization of staff and a change in attitude are just the first steps toward Lean Six Sigma improvements. Creating a Lean lab is an on-going project, with multiple phases. Next phases will address lab design and equipment needs. PRL is currently evaluating ways to increase productivity with bar-coding and improved labeling and staining processes. Lab layout re-design is a core component of Ventana's recommendations for improvement and growth.

PRL is on the path to becoming and maintaining a highly efficient and productive, metrics-driven, state-of-the-art laboratory focused on patient care and the core values of the organization.

VIII. Summary

In the midst of growth, PRL, in partnership with Ventana Medical Systems, Inc., conducted a comprehensive Lean Six Sigma evaluation and identified realistic opportunities for re-engineering their histology lab to improve and standardize performance. A first step was to address staff morale. A qualified histology supervisor was hired and an array of changes—many initiated by staff—were put into action. Improvements were made in internal structure, staffing, organizational culture and workflow. As a result, the lab is performing more work with fewer employees, and PRL now has a strong foundation in place on which to introduce Lean Six Sigma strategies that will further streamline processes and improve patient safety.



The solution is improving communication, not hiring more people. In the past, when problems arose or workflow seemed overwhelming, the PRL solution was to hire more people. Throughout the re-alignment, techs were re-trained to offer solutions to workflow problems. Studies show that the people who are closest to a problem have the greatest insight for an effective solution. "We learned that good ideas get better with team input and bad ones often spur others to think creatively," said Millard.

As cross-trained techs worked throughout the lab, new ideas emerged. Even small ideas made an impact on the workflow and improved execution time.



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