

Conducting a Lean Laboratory Assessment for a National Contract Laboratory

The client, a leading national contract laboratory specializing in forensic and clinical testing, is known for maintaining rigorous testing protocols and robust accreditation standards. The contract laboratory has served healthcare providers, medical researchers, coroners, and the criminal justice system for decades. With a reputation for excellence and innovation, the client has become a trusted source for high-quality testing services.

In recent years, the organization has experienced steady and sustained growth. To meet rising market demands and reinforce its commitment to continuous improvement, the client is focused on streamlining laboratory operations to enable scalable growth.

Strategic investments were required to position the lab for future growth, reduce inefficiencies, and improve turnaround times (TAT). Clarkston Consulting was engaged to perform a comprehensive operational assessment and deliver actionable recommendations for process improvement. The scope of work included evaluating the client's current operations from work order receipt to results reporting and identifying inefficiencies across people, processes, and technology based on Lean Laboratory principles.

Life Sciences Case Study

PROJECT OVERVIEW

INDUSTRY:



Life Sciences

PRODUCTS AND SERVICES:



Contract laboratory specializing in forensic and clinical testing

PRIMARY OBJECTIVES:

- Identify efficiency opportunities across people, processes, and technology, spanning the entire workflow from sample receipt to result reporting
- Document current-state workflows, including tools and systems used, key activities, decision points, and cross-functional interactions
- Evaluate the client's business strategy to ensure alignment with operational goals
- Propose targeted recommendations and a detailed implementation roadmap to support the future rollout of operational

SOLUTION:

- Conducted lab walkthroughs, "Day in the Life" observations, and time studies from sample receipt through results reporting to capture key activities, decision points, and interactions
- Facilitated interviews with key personnel to gain deeper insights into current processes, challenges, and improvement opportunities
- Reviewed and assessed the existing process flows, standard operating procedures (SOPs), departmental structure, organizational culture, and technical capabilities to build a comprehensive understanding of the current state
- Proposed relevant KPIs and improvement targets focused on reducing TAT, minimizing waste, improving first-time-right metrics, and increasing laboratory throughput
- Analyzed the laboratory's existing business strategy to ensure alignment with operational goals
- Delivered a comprehensive, phased implementation roadmap with short-, mid-, and long-term activities to guide execution

KEY BENEFITS:

- Enhanced productivity and optimized resource utilization by conducting a detailed analysis of task-level time allocation, revealing inefficiencies and pinpointing opportunities to streamline workflows
- Enabled informed decision-making and proactive performance monitoring through the implementation of leading and lagging laboratory metrics aligned with organizational objectives, supporting capacity expansion and continuous operational improvement
- Increased operational efficiency by identifying and eliminating workflow bottlenecks across departments, focusing on high-impact areas for improvement
- Established a sustainable path to long-term efficiency with a phased roadmap of actionable recommendations, providing clear short-, mid-, and long-term implementation steps
- Positioned the organization for scalable growth by developing a strategic roadmap and sustainable execution plan, ensuring readiness for future expansion



KPIs

- Recommended 10 laboratory metrics (both leading and lagging) were fully mapped to support the organization's performance, capacity, and operational improvement goals
- Comprehensive identification of 10 key efficiency pain points and 13 operational efficiencies with corrective actions proposed for issues observed during the assessment
- Defined implementation roadmap with 30 milestone opportunities comprising of 12 short-term (0–3 months), 10 mid-term (3–9 months), and 8 long-term (9–18+ months) objectives

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