Workshop #14: Principles of Lean Six Sigma and Their Application to Forensic Toxicology Laboratories Date: Tuesday, October 31 Time: 1:30-5:30 PM

### Cost

MEMBER RATES		
Early Bird Registration	Late Registration	On-site Registration
June 1 – Aug 31	Begins Sept 1	Begins October 11
\$150	\$175	\$200
NON – MEMBER AND DAILY RATES		
Early Bird Registration	Late Registration	On-site Registration
June 1 – Aug 31	Begins Sept 1	Begins October 11
\$200	\$225	\$250

# Chairs

Marissa Finkelstein, M.S., D-ABFT-FT Toxicologist 2 Miami-Dade Medical Examiner Department Toxicology Laboratory Marissa.Finkelstein@miamidade.gov

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# Abstract

Lean Six Sigma is a proven methodology that assists in process improvements to ensure products and services are cost-effective and meet customers' needs, employees are well-trained and motivated, and government regulations are met. Lean Six Sigma is two approaches in one; "Lean" focuses on increased speed with no wasted effort, whereas "Six Sigma" focuses on increased quality with fewer defects and less variation. One of the main tools used in Lean Six Sigma is the five-step process known as DMAIC (define, measure, analyze, improve, and control), which helps identify and solve problems that may be present. Additional tools utilized by Lean Six Sigma and will be discussed in this workshop are spreadsheets, line graphs, flow charts, histograms, Pareto charts, single case bore, root cause analysis, fishbone diagrams, and brainstorming techniques. Some examples where these tools may be used in a forensic laboratory include workflow improvements by eliminating non-value-adding work that reduces turnaround time, pre-analytical errors, and consumable use. The successful implementation of Lean Six Sigma principles in forensic laboratories can lead to improved safety measures, the accuracy of results, and more satisfied customers.

# Learning Objectives

- **1.** To understand the basic Lean Six Sigma principles and apply the DMAIC problem-solving methodology to real-world laboratory examples.
- **2.** To become familiar with key Lean Six Sigma tools and techniques used to identify opportunities for process and quality improvements.
- **3.** To apply Lean Six Sigma methodologies in a forensic toxicology laboratory to facilitate operational improvements.

# Faculty

Amy Horton-Tavera, MPA, Lean Six Sigma Black Belt OMB Coordinator Miami-Dade County Office of Management and Budget

Marissa Finkelstein, M.S., D-ABFT-FT Toxicologist 2 Miami-Dade Medical Examiner Department Toxicology Laboratory

Joe Kahl, M.S., D-ABFT-FT, NRCC-TC Toxicologist 3 Miami-Dade Medical Examiner Department Toxicology Laboratory

# Audience Knowledge Level

Basic - suitable for individuals new to the field, requires little prior knowledge of the subject matter.

# Workshop Agenda

Time	Торіс	Speaker
1:30 – 1:40 PM	Welcome and Introduction	Marissa Finkelstein and Joe Kahl
1:40 – 3:00 PM	Lean Six Sigma Background & DMAIC Problem Solving Process	Amy Horton-Tavera
3:00 – 3:30 PM	Review of Basic Tools	Amy Horton-Tavera
3:30 – 4:00 PM	Break	
4:00 – 5:15 PM	Basic Tools, Breakout Groups, & Group Presentations	Amy Horton-Tavera
5:15 – 5:30 PM	Wrap-Up, Q&A	Marissa Finkelstein and Joe Kahl