**ABSTRACT**

**Introduction**
Now in our 3rd year of the Henry Ford Production System LEAN Quality Initiative, we have extended our LEAN work culture to improve the outpatient clinical laboratory testing environment in the 26 regional medical centers that span across 40 miles wide with a courier service to the core laboratory. We began LEAN-ing out the Fairlane Medical Center laboratory that is the most complex testing center supporting the largest free-standing emergency room in the USA. Our goal was to improve the laboratory's interaction with the patient and service to the clinician by identifying opportunities for improvement as we follow the processes for real time defect and waste detection.

**Materials & Methods**
Alter careful observation, we developed standardized processes and a template approach to redesign by focusing on the following streams:
1. Standardization and work simplification of phlebotomy processes; 2. Patient throughput to eliminate waste; 3. Specimen streams from clinic to local and remote core lab test result; 4. Specimen batch reduction, load leveling & courier route redesign

**Results & Conclusion**
1. Patient waiting for phlebotomy down from 31 minutes to 16 minutes by redesigning and incorporating LEAN techniques for calling patients to the lab. 2. Courier schedules redesigned to halve routine test processing time aligning courier pick-up times with the patient flow levels the loads of processed specimens cutting routine CBC result reporting in half from 10 to 5 hrs and Chemistry from 10 to 6 hrs. 3. Introduction of specimen boxes recessed in outer clinic walls to eliminate ‘missed’ specimens collected by streamlining specimen pick up.

**BIBLIOGRAPHY**


"Every well thought-out process is simple. We can at least save the waste of human labour in handing and transportation.”  
- Henry Ford