

## Overcoming the Challenges imposed by the Idea of having a Central Registration Process in a Healthcare Facility



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### **Abstract**

Making changes to a process, once it has been established and accepted by the staff, is not an easy task. However, it is a common challenge that process improvement teams have to overcome to achieve better outcomes and in healthcare facilities, particularly, to achieve patient satisfaction. Process improvement in service industries, like the registration in a hospital, can be achieved with the use of Industrial Engineering tools and Lean principles. In this case, they were used to analyze and improve the service level in a rural hospital in Montana. The clinics whose service processes were studied consisted of Pediatrics (PEDS), Internal Medicine, Cardiology/Pulmonary, and Centralized Registration (CR). The purpose of this study was to improve patient satisfaction concerning the registration process while maintaining and improving staff assignment and economic efficiency. Observation and work sampling were initially used to understand the underlying cause of dissatisfaction and deficiencies in the processes. A Value Stream Map was used to understand the complexity of the patient flow which in this case depended on the clinic the patient is visiting. To understand where the dissatisfaction of the patients was coming from a Concept Map was used. A Fish-Bone Diagram was developed to identify the root cause of the dissatisfaction with the registration process. After all the tools and the statistical data analysis was completed and the improvement recommendations were put in place, the hospital was able to reduce by 30% the

patient's time spent in the system and the number of patient's complaints by 40%.

### **Speaker Biography**

Valentina Nino is from Venezuela. She is an Industrial Engineering graduate from Montana State University with a Master of Science. Currently, she is doing her Ph.D. in Industrial Engineering with focus on improving the healthcare system. She has more than 9 years of work experience in diversified Industrial companies including healthcare, exploration and production oil industry, steel industry, education, and consulting companies. Her research interests are healthcare engineering, applied operations research, optimization under uncertainty, user-experience, human-machine interactions, and decision making.

### **Website**

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