

Matching Supply and Demand with Lean Six Sigma: A Case Study in the Food Dining Services of a Rural Hospital

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Abstract: The mismatch in supply and demand at the Food and Dining services department of a hospital in St. Lawrence County has led to an estimated monthly scrap rate of 35% of total food purchased since officially noted in September 2016. This scrap comes from patients, dining hall consumers, and kitchen through forms of waste including overproduction, over-processing, rework, motion, and defects. To improve the mismatch in supply and demand we use Lean Six Sigma tools adapted to healthcare for process diagramming, exploratory graph and statistical analyses that allowed us to identify and study the sources of waste for its elimination. Our solution effectiveness is measured by quantifying the amount of food scrap reduced. Our goal is to reduce food scrap from 35% to 25%. Our secondary metrics focus on increasing patient satisfaction, whereas our consequential metrics concentrate on measuring food preparation time and patient feeding times.

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