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Process Engineering and Design: Timely Patient Meal Process with Lean Six Sigma at Canton-Potsdam Hospital

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Author Note: Bryanna Welch and Nicholas Zapotoski are Engineering and Management senior students at Clarkson University and are currently working towards their Lean Six Sigma certification. Bryanna is taking her experience in continuous improvement and starting a career in Process Engineering with Anheuser-Busch. Nick has industry experience in Quality & Process Engineering. The authors would like to thank their Professor, Dr. Cecilia Martinez, for creating this project opportunity for us. We would also like to thank Clarkson University's Engineering and Management Department and the Career Center for providing the funding to take our Lean Six Sigma training.

Abstract: Provision of food to patients is a major undertaking to hospitals that requires good management practice. In particular, patients receiving treatment at meal times require a flexible service to avoid storage of food on wards. A hospital operating within the St. Lawrence Health System spends $45,000 per month on incoming food with 35% of purchased food wasted. With this in mind, this work is based on the assumption that the meal serving times influences food consumption and food waste. Accordingly, the goal of this project is to focus on identifying and eliminating time-based inefficiencies in the meal preparation and delivery processes. This was done by using the Lean Six Sigma problem-solving methodology. The rate of compliance with required process start and end times measures the process performance. With a baseline of 74% and an entitlement of 98%, success is measured by improving the process performance to at least 90% compliance.

Keywords: Lean Six Sigma, Process improvement, Process waste reduction, Healthcare, Food services