A Lean Approach to Weight Loss Operations  
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Introduction  
In November of 2017, Vanderbilt University Medical Center’s Surgical Weight Loss Clinic held a Lean Event. The goal of this event was simple: clinic leadership wanted to reduce waste in the clinic’s processes that led to poor patient satisfaction, experience, and volume. Over the course of three and a half days, team members including front-line associates, clinical providers, administrators and support staff met to review the current state clinic flow. The result of this event was a Vanderbilt record breaking one hundred and six identified problems and sixty-eight process improvement specific solutions to implement over the course of the next twelve months.

METHODS

PATIENT ACCESS

Visits to the clinic were measured by analyzing NEC Navanaugh Pro Link data for Patient Access to the Weight Loss Center pre and post Lean Event. The phone agent data represented was broken into three important categories: Agent Average Speed to Answer (how quickly the agent answers a new phone call), Abandonment Rate (when a patient hangs up a call without an answer after hearing the automated phone tree options) and Total Number of Agent Outbound Calls. The data displayed in the respective graphs cover the timeline of August 1, 2017 to August 1, 2018. Post Lean Event data is represented after the November Lean Event happened on November 1, 2017. All data was a direct report pull from NEC Navanaugh Pro Link by selecting the first and last day of the month for each respective month.

VISIT VOLUMES  
Visits to the clinic were measured by analyzing Epic data for completed visits to the Weight Loss Center pre and post Lean Event. The visits are represented in the graph as falling between 8/1/2017 to 8/1/2018. The post Lean Event data is represented after the November Lean Event that happened on November 1, 2017. Looking at the visit data after the Lean Event, you can see a rise in overall visit volume compared to pre-Lean Event visits. All data was a direct report pull from our Epic EMR system.

PATIENT SATISFACTION  
Patient Satisfaction was measured by analyzing Press Ganey data for average top box scores pre and post Lean Event. Pre-Lean Event data represents surveys from visit dates falling between September 1, 2017 and November 30, 2017. Post Lean Event data represents surveys from visit dates falling between December 1, 2017 and September 30, 2018. To understand the impact the Lean Event had on patient satisfaction, we analyzed the following overall standards: Access, Moving Through Your Visit, Nurse/Assistant, Care Provider, Personal Issues, and Overall Assessment.

Impact  
Average Speed to Answer  
- Log. (Average Speed to Answer)

Total Outbound Calls  
- Total Outbound Calls
- Expon. (Total Outbound Calls)

Abandonment Rate  
- Log. (Abandonment Rate)

Patient Access  
The overall access for patients in the Weight Loss Center improved dramatically following the Lean Event. The data displayed marks increases in outcomes in all three measured areas of Average Speed to Answer (ASA), Abandonment Rate (ABN) and Total Outbound Calls (TOC). Improvements in ASA from pre-Lean to post-Lean can be averaged to 00:03:03 (three minutes and three seconds) pre-Lean Event compared to 00:00:54 (zero minutes and 54 seconds) post-Lean. Improvements in ABN from pre-Lean to post-Lean can be averaged to 30% pre-Lean compared to 9% post-Lean. Improvements in TOC from pre-Lean to post-Lean can be averaged to 2119 pre-Lean compared to 999 post-Lean. These positive metrics as a direct result of the Lean Event have directly correlated to an increase number of new patient volume.

CONCLUSIONS

Nearly a year from the original Lean event date, tangible positive impacts have been realized across all reported/measured areas of patient access, volumes and satisfaction. The VUMC Surgical Weight Loss Clinic has experienced increased new patient and surgical volumes, higher patient satisfaction scores, and improved patient access. As a part of the work surrounding the Lean event and process improvement exercise, more than twenty standard operating procedures were created leading to a cultural shift, higher team engagement and overall improved morale. In review, it is the presenters’ conclusion that the Lean event was an immensely successful method for positively impacting the clinical and administrative workspace. Furthermore, increased positive outcomes could be recognized throughout the enterprise and other organizations by following the methodology highlighted in this report:

- 94% Improvement in Patient Access
- 55% Increase in Visit Volume
- 9% Increase in Patient Satisfaction