Patient Wait Time Reduction
Increasing the Capacity

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Patients Keep Waiting

Office wait time has become a growing concern for both the physician and the patient. Wait times of approximately one hour for a 15 minute appointment seem like common theme and its not that far fetched even to reach two hours.

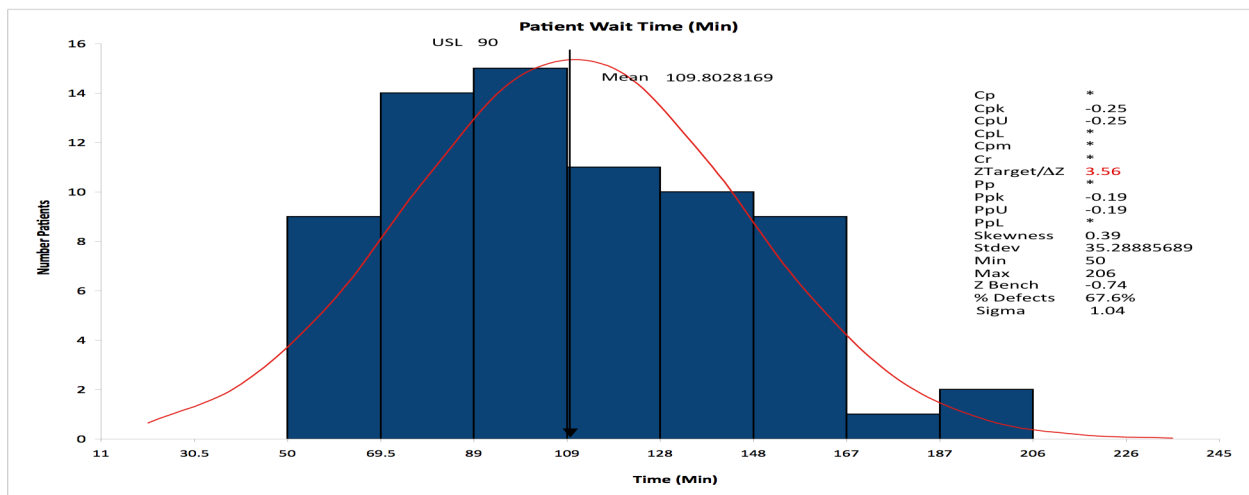These inflated appointment times are causing a negative perception of the experience at a physician's office and leading to a lower patient satisfaction with their appointments. With satisfaction decreasing and the thought of sitting and waiting for a short appointment, patients are more inclined to cancel. The cancellations then leave the physician with empty appointment slots, lost revenue, and wasted employee expenses. To compensate for these cancellations, many offices try to double book appointment to anticipate no-shows, but if all the bookings show, the staff is left with longer work hours. These long works hours eventually hurt employee satisfaction leading to less productivity from the staff. Each problem contributes to the next and it is a continuous cycle that is hurting offices everywhere. What can be done to improve the situation and how can it be done to benefit both the patient and the physician?

A Teaching Moment

The Internal Medicine Clinic at Akron General Hospital is a group of physicians specializing in internal medicine along with a 3 year Residency Programs. Resident students are expected to see 4-7 patients per half day (depending on their residency year) and discuss each case with their Attending Physicians. The wait times and throughput times per patient at the clinic are extremely long. This is leading to a less than desired customer satisfaction and reduced potential revenue. On average patients spend 110 minutes for a 15 minute scheduled appointment. The appointment can reach times upwards of 3-4 hours. The clinic is also seeing high percentage of cancellations, leaving the Resident Physician with less than their expected patient quotas per day. This yields lower satisfaction from physicians because they want numbers to increase their learning opportunity. The following graph represents a full week of patients and their wait times (in minutes) from check-in to check-out. Although these wait times

Patient Wait Time (Min)

USL 90
Mean 109.8028169

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Cp	*
Cpk	-0.25
CpU	-0.25
CpL	*
Cpm	*
Cr	*
ZTarget/ΔZ	3.56
Pp	*
Ppk	-0.19
PpU	-0.19
PpL	*
Skewness	0.39
Stdev	35.28885689
Min	50
Max	206
Z Bench	-0.74
% Defects	67.6%
Sigma	1.04

are extreme for 15-minute appointments, the physician and patients have become accustomed to it. These types of long hours and excessive waits are the norm and staff thinks nothing of it. It appears staff would like to resolve some of the time issues but no one on staff is takes the time to think about the issues. The members of the staff have convinced themselves this is just how a normal day is going to be unless we just work harder.

Solving the Unthinkable

To have a full understanding of the causes behind the excessive wait times everyone must be aware of the entire process. Developing the understanding of the drivers of the process can be seen by laying out each step of the process from patient check-in to check-out. Value Stream Mapping allows all staff to recognize each step then eliminate the steps that are not providing any value to the patient. At the Internal Medicine Clinic, Capital Marketing Services was able to advise staff on how to map out the process and help them find the wasted steps. After completion of the current state process map the staff was able to see that Resident physicians were moving from the patient, in the exam room, to the Attending Physician and back to the

patient in the exam room. After the Resident completed the case he/she would then enter documentation into the EMR, order scripts and labs while the patient waited in the discharge area. The Capital Marketing leaders analyzed the process map, asking the staff questions about value gained in each step. Unnecessary steps were eliminated. The new process map revealed that Residents could enter all documentation into the EMR while they were in the exam room with the patient, let the patient know the treatment plan, order scripts and labs, and then see the Attending Physician to concur on treatment. The patient is released to discharge when the
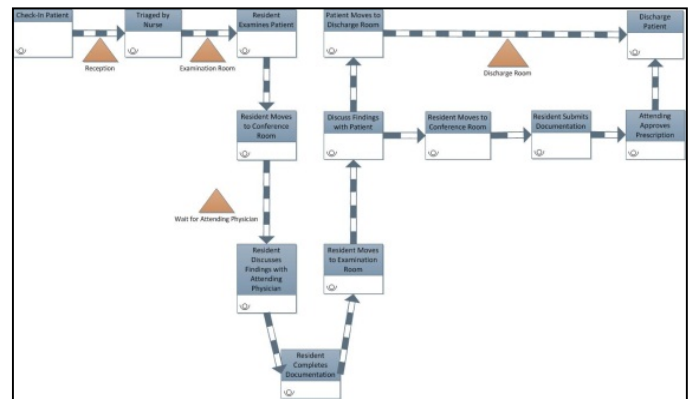
Resident leaves the exam room. One click on ENTER after seeing the Attending and the case is closed into the EMR. Orders are delivered to the discharge area for complete instruction to the patient. The Resident Physician is off to the next exam room. Discharge administrators have an opportunity for questions

between patients vs. interrupting the next exam. The patient feels the efficiency in a much shorter duration. This small elimination of wasted steps benefited the clinic with a significant reduction in wait times for patients. Preliminary testing with the new process returned results of patient throughput time being reduced to less than 80 minutes with an average time of 61.5 minutes. Time reduction of 35 minutes plus per patient will allow Residents to see at least one or more patient per half day, increasing their learning experience opportunity. In the prior method patients waited in a room by themselves. This changed to more time with their doctor. The physician and patient both had additional opportunity to think of other important ideas or clarify previous communication. This increased patient satisfaction.
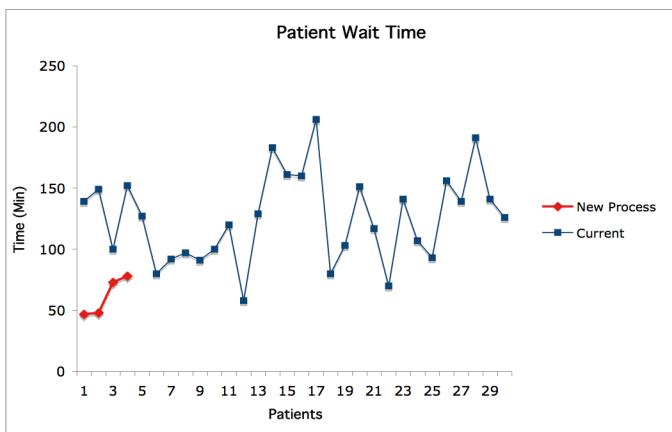
Owning the Process

Reducing patient wait times is a complex issue, but at times solution are not complex. Having understanding of each step within the entire process will help pinpoint waste, making solutions much easier to implement. In every process a staff member must be responsible for the entire process. In the Internal Medicine Clinic case no one was evaluating the entire process. Physicians concentrate on helping patients feel better. They usually are not thinking about how the organization operates. When staff members go about their work believing this is the best the process will be because someone did their best to design it, the process will not change. Once outside eyes looked at the process and asked some questions about value the clinic staff, with some coaching was able to acknowledge the wasted effort and improve a problem that previously seemed impossible to reduce. The next step will be controlling the new behavior to maintain the gains. Those next step methods will also build into the culture the idea to Improve Everyday with Everyone.

Consider the Following:

1) Take ownership of the entire process

2) Define the project goal and voice of the customer

3) Measure the baseline of the current process

4) Analyze the current process and identify the critical root causes

5) Have a bias for action and improve the process

6) Monitor the improved process with metrics