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Lean Six Sigma Case Study—CAH Rural Clinic Practice Access and Productivity

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The productivity of providers is increasingly important as reimbursements drop and the caseload from an aging patient population increase. Without increasing access and capacity practices will lose patients to higher functioning practices with greater levels of availability. Enhancing clinic processes to support this higher patient load is also essential to maintain quality of care and prevent process breakdown due to errors.

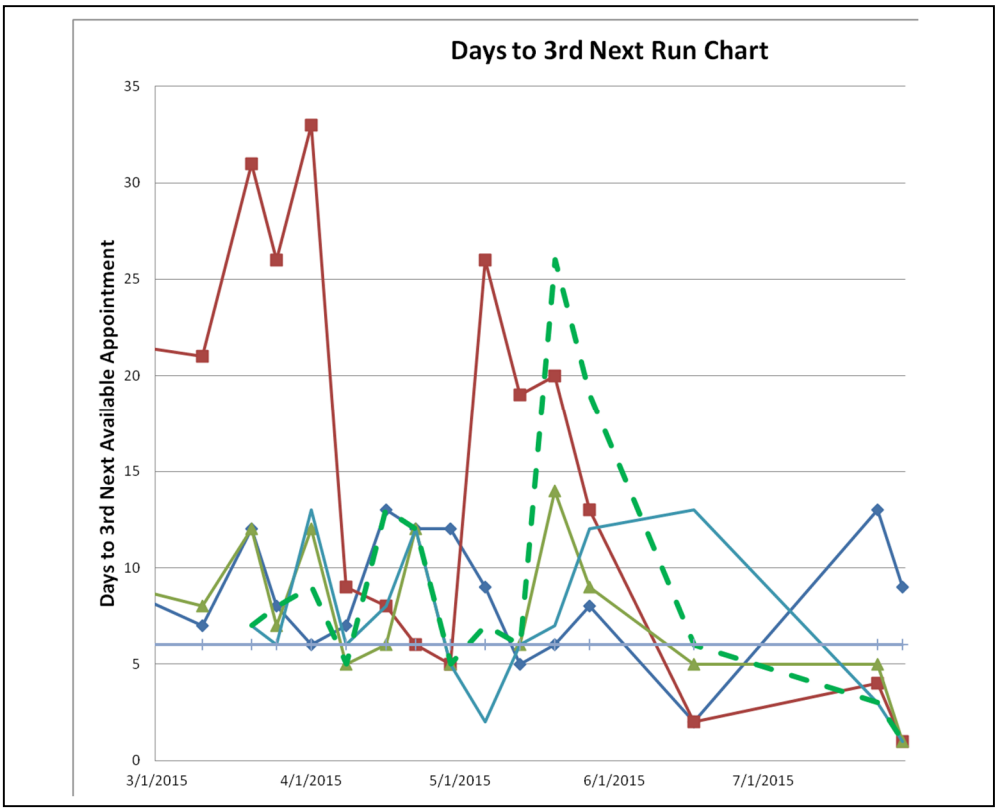
Objectives:

1. Improve Patient Access for Appointments as measured by Days to 3rd Next Available Appointment
2. Improve Provider Productivity as measured by Provider Encounters per Day
3. Assess Practice Operations and Processes vs. the NCQA PCMH 2014 Standard
4. Improve Scheduling and Medical Support Staff processes to support objectives 1-3

Performance to Objectives

Patient Access

The Team improved patient access on the key measure of Days to 3rd Next Available Appointment from a practice range of 8 to 20 days to all but one provider at 1 day. The industry benchmark is 6 days. One day is considered best in class.



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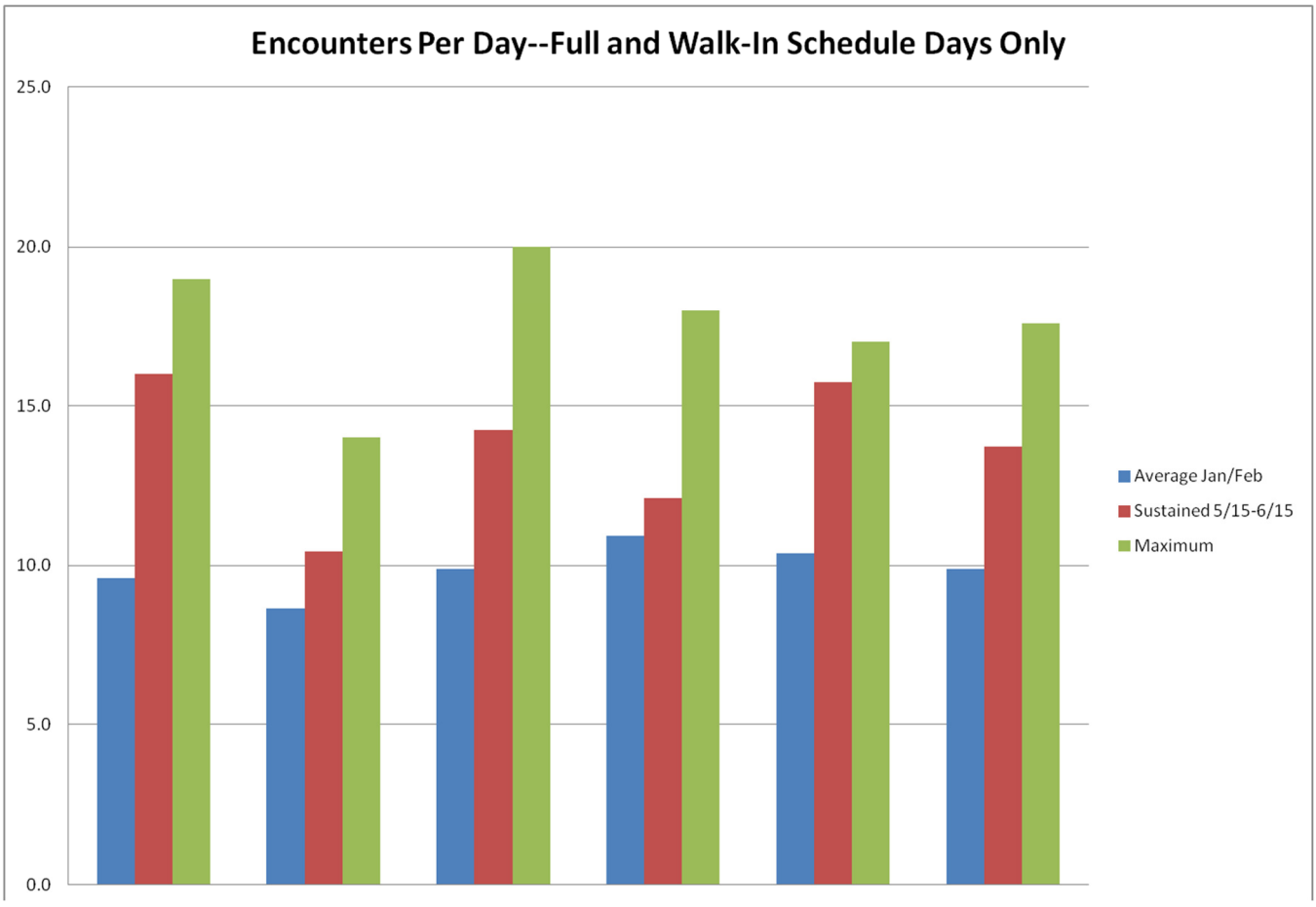
Provider Productivity

The Team improved provider productivity from an average of 9.9 visits per provider per day to sustained performance (5/15/2015 through 6/15/2015) of 13.7 visits per provider per day, an improvement of 39%.

Maximum number of visits per day per provider indicates the practice capacity to see patients. Maximum visits were improved from the range of 11-14 (depending on provider) at the start of the project to an average maximum of 14 to 20 patients. This indicates that the practice is now capable of managing patient flow at the industry benchmark of 18 visits per provider per day, with the exception of Dr. XXX, who did not participate. Note that current patient demand is currently insufficient to consistently schedule 18 visits per day.



Process Improvements

Improvements in scheduling and clinical support processes are required to improve productivity and access. A number of key clinic processes were improved; all improvements were designed in a way that supports PCMH operations and recognition. A partial list of improvements:

Process	Discussion/Impact
Pre-visit preparation	Clinical support staff created a checklist of 15+ items that would prepare the provider for the day's patient load, obtain information such as lab tests or x-rays, and immunization information from registries. A brief provider to MA huddle is held before the start of patient visits. Results were generally positive in improving provider efficiency. Some providers balked at coming in early enough and did not participate in the huddle process.
Scheduling	Time study data showed the average provider time with the patient was ~17 minutes, which is typical for other primary care operations. Typical appointment length at the beginning of the project was 30 minutes, which left, on average, 13 minutes of unusable provider time per visit. Numerous experiments were run with different schedule models. The team selected a 20 minute encounter duration and 3 encounters per hour for most encounter types. NP scheduled hours were increased by one hour per day. Physicians resisted increases in scheduled hours. Patients were told to arrive early for appointments, which reduced the impact of late arrivals. The net effect was to increase productivity and access. The scheduling team also made significant improvements in most of the front desk processes.
Lean Flow	Exam and procedure room stocking were improved with better labeling, stocking procedures, and cabinetry to eliminate wasted time. The sterile instrument flow was improved to eliminate searching for instruments and instruments not being returned from sterile processing.

Conclusions

The Lean Six Sigma Methodology utilized in this project proved highly effective at both increasing access and capacity without causing unanticipated effects from process breakdown. By redesigning core practice processes to efficiently meet the requirements of PCMH recognition, practices may simultaneously fill this additional capacity with high-risk patients and tap into higher patient volumes and reimbursements deriving from population care management. The return on investment in this project was in excess of 700% and warrants serious consideration by clinics struggling with similar issues.