

ENGAGE WITH QUALITY IMPROVEMENT AND PATIENT SAFETY (E-QIPS)

Using Lean Methodology to Increase Clinic Efficiency



American
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Association

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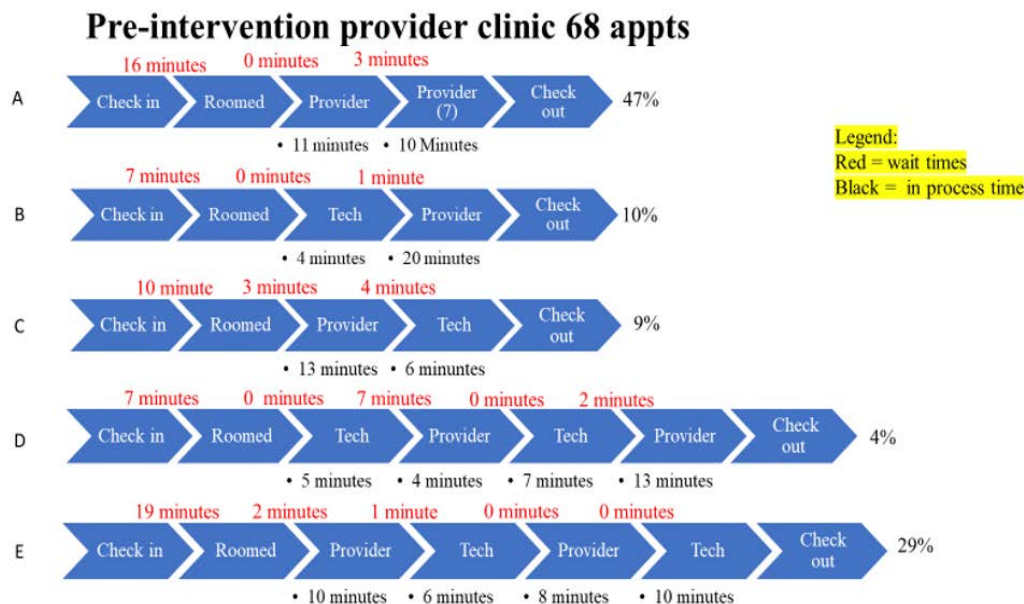
QUALITY OR SAFETY PROBLEM

The urology clinic at this location has erratic workflows leading to inefficient patient visits and longer than necessary visit and wait times. This leads to agitated patients and likely hurried visits which introduce the possibility of decreased quality of the patient encounter.

BACKGROUND

5 different workflows were found. The most inefficient workflows were D and E on the figure below. These flows involved multiple technician (medical assistant) and provider encounters with the patient during one visit. For example, a patient is seen with lower urinary tract symptoms, the technician gets a urinalysis and then rooms the patient, provider request PVR/IPSS, patient goes with technician to do this and returns to the provider, flow D. A patient is seen with dysuria, gets roomed by the technician, provider request urinalysis, patient goes with technician to do this and returns to the provider, and then sees the tech on the way out of the clinic for a PVR, flow E.

Lean methodology has been used in multiple fields including medicine to map processes, identify waste, and implement improvements to decrease waste. This work was guided by process mapping and waste identification in order to develop Plan, Do, Study, Act cycles to improve upon identified parameters.



PROJECT OBJECTIVES

To use process mapping to identify waste in the current clinic flows to devise improvements in order to improve upon identified waste.

Specific aims:

- To identify and process map clinic workflows.
- Use process maps to identify areas of lost efficiency.
- Develop improvements in identified areas to increase visit efficiency.

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INTERVENTION

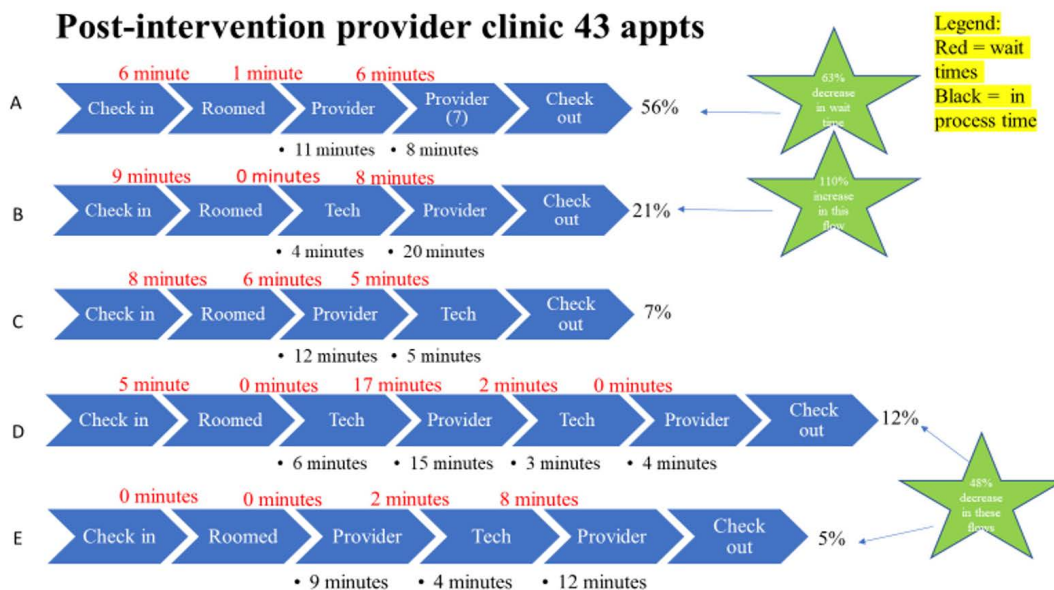
- The major need was someone to do time studies and map the workflow process. After this, poor chart preparation, lack of technician assignments, and poor teamwork between providers and technicians were identified as areas introducing waste into the workflows. This led to 33% of the patient visits following the most inefficient workflows, D and E.
- We implemented day prior chart checks by the technicians, one-to-one technician-to provider-assignments, and daily am huddle between assigned provider and technician to review the chart checks and plan needs for each patient for the day.
- We met quite a bit of resistance to change by the technician staff. This changed by empowering them to lead the change rather than the providers dictating the change. The technicians were empowered to design the implementation plan. The more they saw this process work, the more excited and engaged they became. This was by far the most challenging element of the project.
- Timeline: 3 months

MEASURES OF SUCCESS

Wait times and percentage of efficient workflows.

OUTCOMES

- 53% decrease in wait times
- Increase in most efficient flows (A, B, C) from 66% to 84%
- 48% decrease in most inefficient flows (D, E), See below Figure.
- Unintended consequences: Initially the technicians were not supportive and somewhat dismissive which negatively affected the work environment.



POTENTIAL IMPACT AND SCALABILITY

- Leads to 22% savings of time per appointment or nearly 2 hours per day.
- Leads to more efficient movement by technicians and less stress during the day compared to pre-implementation.
- We are currently working on standardized protocols to roll out to other clinics at this location which could then be implemented nationally.

SUSTAINING THE CHANGES

- The biggest obstruction to success, by far, was the pre-implementation culture. No one thought it would work and thought it was a waste of time.
 - This was overcome by presenting data and empowering front-line stakeholders to develop implementation plans. We also started small. We chose changeable, low work, high reward targets. When the staff saw these changes, they were eager to continue to build.
 - Our interventions have now become standard practice. We will monitor for drift as time goes on.
- In retrospect, we should have considered an attitudes/culture study to be done pre and post as I believe it would have spoken volumes to the success of the project. The frontline stakeholders have a dramatically different attitude than prior to the intervention.

KEY SUMMARY

- Process flow mapping helps identify areas of waste
- 50% decrease in wasteful clinic workflows
- 53% decrease in wait times.

PROJECT LEAD CONTACT INFORMATION

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