



Decreasing appointment times at a student ran free clinic in Colorado Springs

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Background

- The Mission Medical Center of Colorado Springs, an established free medical center, recently partnered with the University of Colorado's School of Medicine to put together a student run primary care clinic one Saturday a month.
- Although student run free medical clinics provide a needed service to the community, they often have inappropriately long appointment times and inefficient processes (1).
- During the University of Colorado School of Medicine's Mission Medical Clinic, there is an average of 11 patients seen during a half day clinic with an average of 7 medical student volunteers and 4 MDs.
- If we can maximize the efficiency of patient visits, we can see more patients and have a richer clinical community engagement experience.

Objective

The aim of this project was to define the steps of a typical patient visit, measure the amount of time each step takes, and determine areas where intervention could increase the efficiency of a patient appointment.

Methods

- First, a process flow map of a patient visit at the Mission Medical Center's University of Colorado Saturday Clinic was developed (Figure 1).
- Then, the amount of time each step took was calculated by having the volunteers at the Mission Medical Center record the start and stop time of each step during 5 consecutive clinics.
- In an excel sheet, the average length of each step was calculated and the results are shown in Figure 2.
- There were 3 major changes throughout these clinics including implementing a formal orientation for new volunteers, having a new cohort of student volunteers begin, and changing the schedule to have more appointments front loaded during the clinic day.

Results

Figure 1. Process flow of patient visit

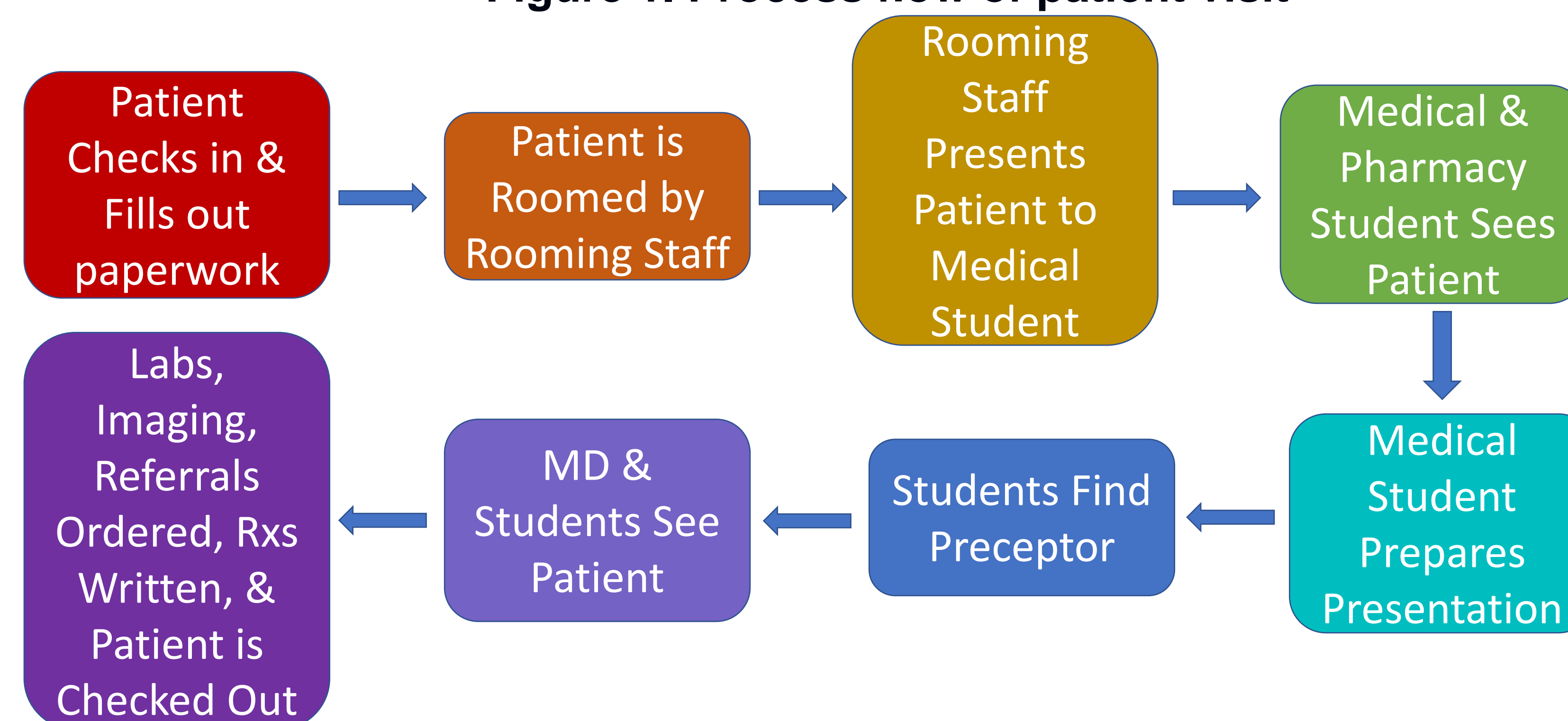
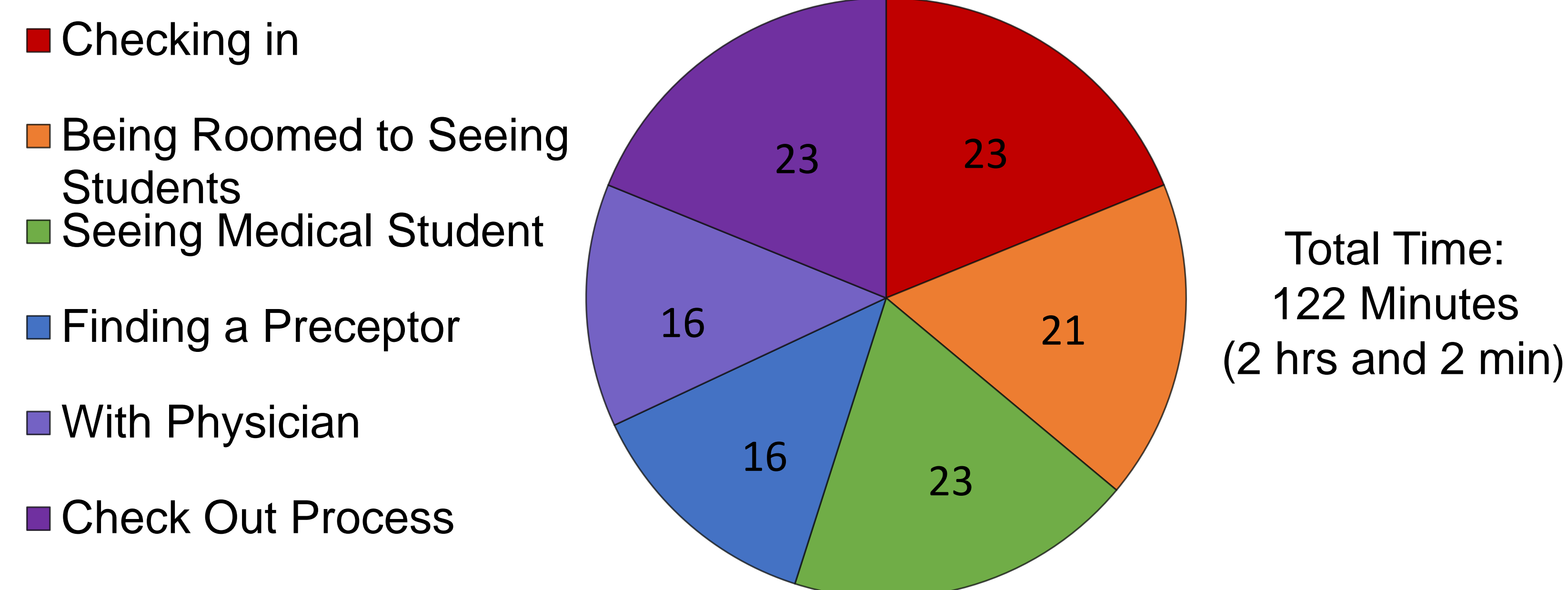


Figure 2. Average Time Each Step Takes (minutes)



References

1. Lee, Jason S., et al. "Improving Efficiency While Improving Patient Care in a Student-Run Free Clinic." *The Journal of the American Board of Family Medicine*, vol. 30, no. 4, 2017, pp. 513–519., doi:10.3122/jabfm.2017.04.170044

Discussion

- There are several time consuming steps in a patient visit at CU's Mission Medical Saturday clinic.
- The most time consuming steps include the check in process, time spent with the medical student, and the check out process, each taking an average of 23 minutes.
- Although not the most time consuming step, it takes an average of 16 minutes for the medical student to prepare their patient presentation and find a preceptor.
- The average length of time a patient is seen by the physician is 16 minutes, which is an appropriate amount of time for this step.
- The 3 changes made throughout the 5 clinic clinics showed no change in how long each step took or average overall appointment time.

Future Directions

- Have our volunteers write down the most time consuming steps and biggest obstacles in each specific patient visit.
- Obtaining a translation service for non-English speaking patients.
- PDSA Cycles with the following interventions for each step (color coded):
 - Less paperwork for patient to fill out or making an electronic check in process.
 - Having more rooming staff or requiring less from rooming staff (ie. Limiting responsibilities to taking vitals).
 - Having more medical students/ volunteers or change schedule to a less staggered and more clustered approach.
 - Limiting time seen by medical student to ~15 minutes, train medical student on how to take a more efficient history, practice communication skills, perform more focused physical exams.
 - Having more preceptors, having preceptors in one location, limiting preceptor responsibility.
 - Transferring to a completely electronic medical chart, having all paperwork needed in one location, having a comprehensive information sheet for common clinical pathways.