

# Techniques to Improve Patient Flow in a Pediatric Street Medicine Clinic.

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# Techniques to Improve Patient Flow in a Pediatric Street Medicine Clinic

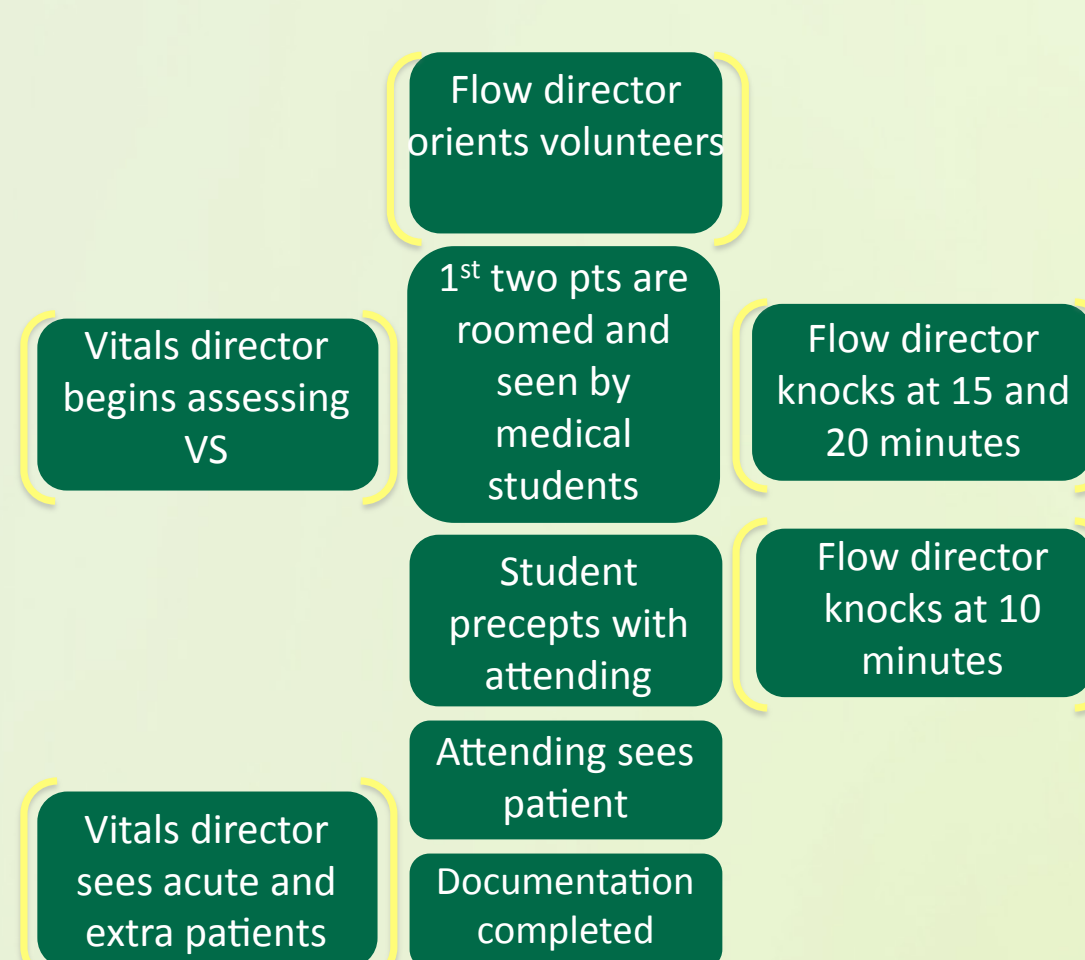
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## BACKGROUND

- Valley Youth House (VYH) is a non-profit organization that acts as a temporary shelter for homeless and displaced teenagers in the local community in Northeastern Pennsylvania.
- The Street Medicine program at LVHN and USF 4th year medical students have created a clinic at VYH to perform state-mandated intake physical exams.
- The unique nature of street medicine does not often lend itself to the typical structure of a clinic. There was no organized approach to patient flow through the clinic, resulting in 0% of the EMR charts being completed by the end of clinic.

### Clinic Flow Map



## AIM STATEMENT

To increase the number of completed patient charts within 1 day from March 2015 to December 2016 to 75%.

## PROJECT DESIGN

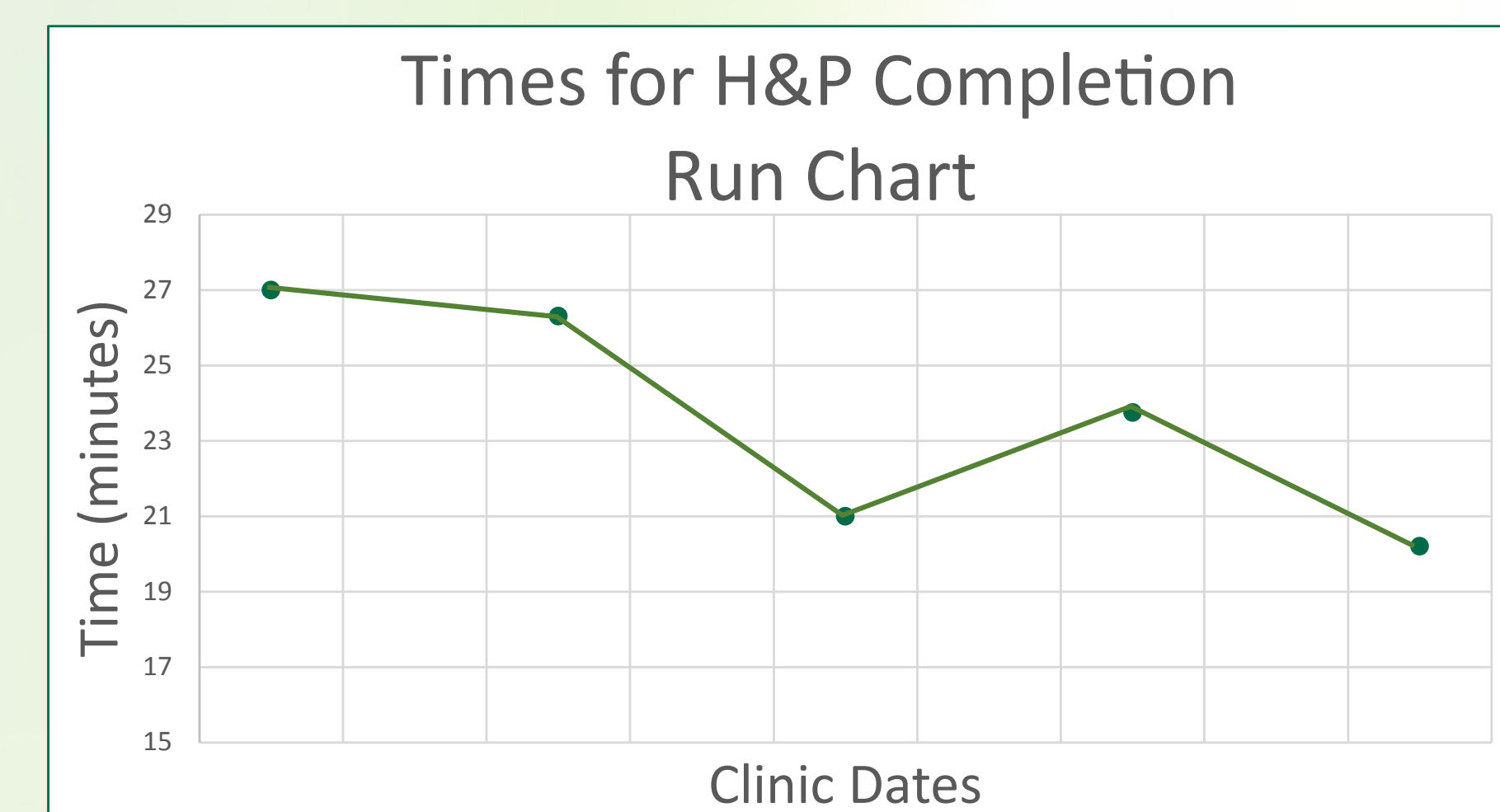
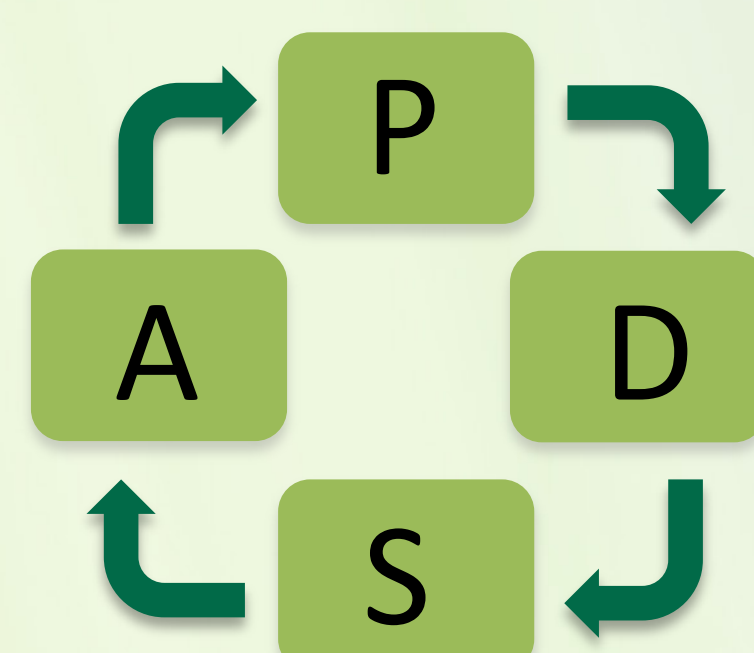
This quality improvement (QI) project follows kaizen principles, with many changes impacting patient flow executed over the past year (implementation of the clinic in March 2015). A multidisciplinary team worked together to design the changes, including medical students, a variety of specialists (Emergency Medicine, Ob/Gyn, Pediatrics, Internal Med), VYH leadership, patients, and staff.

## MEASURES

- Patients were timed moving through different parts of the clinic: vitals acquisition, history & physical with medical student, precepting time between attending and student, history & physical with attending, and documentation time.
- Outcome measures included the number of charts completed and the time after clinic that they were closed (the same night, within 1 day, within 1 week)
- Flow of clinic was observed subjectively to assess successes and areas of improvement

## CHANGES MADE

- A standardized work process was implemented to maximize efficiency in training leadership and volunteers
- A manual was constructed for transition of student leadership
- Positions with specific job indications were created
  - Flow and Vitals Student Director
- Time limits for certain areas of the clinic were implemented
- Standardized work tools were used
- Based on spaghetti maps and process analysis, a third room was added
- A board with patient locators was made to direct volunteers
- MS4 teaching role was established



## OUTCOMES

The number of EMR charts completed by the end of clinic increased from 0% to 100%. The time for completing histories and physicals by students decreased from an average of 27 minutes to 20.2 minutes, a reduction of 25%.

Clinic Date	# Charts	Same Day	1 Day	1 Week
9/3/15	7	0	3	0
9/17/15	3	0	0	0
10/1/15	5	0	0	5
12/17/15	4	0	4	0
9/1/16	5	5	0	0
10/6/16	6	6	0	0

## CONCLUSIONS

- This project has ended in a sustainable model for both street medicine and student-run clinics.
- Transition of leadership successfully took place in August 2016.
- There is not a breadth of data regarding how to maintain a street medicine or student-run clinic, therefore others who are interested in improving their clinics may benefit from our model.
- These improvements allowed practitioners to more efficiently see patients, likely improving the experience patients have and allowing for more time for education and discussion among learners.

## FUTURE STEPS

As this is a PDSA project, there are still changes being implemented in the current model of the clinic. After each clinic day, time is taken to “check out” and discuss successes and available areas for improvement. We anticipate that as the new student directors and volunteers become accustomed to their roles, the flow of patients will continue to improve.



## LESSONS LEARNED

A street medicine and student clinic is unlike other environments that have been more traditionally studied. Improving the flow of this clinic has taken many reiterations of the process and involves feedback from all of those involved. Our current structure has allowed for more efficient flow of patients, concentration on education during the visit, and improved use of physician’s and students’ time.

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