

# METHODS TO ASSESS PROCESS FLOW AND WAIT-TIMES

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## ABSTRACT

**Objective:** The aim of this study is to suggest a methodology for Student Run Free Clinics (SRFC) to collect and analyze data in order to derive recommendations that improve clinic operations and the value of care.

**Background:** SRFC play an important role in healthcare, yet research into improving their effectiveness is largely absent. The use of business process management (BPM) and Quality Improvement (QI) tools are effective ways to identify inefficiencies and make workflows capable of adapting in changing environments. We leveraged these tools to employ a methodology at MedZou Community Health Clinic to better understand and improve our patient flow.

**Methods:** Through timecards and volunteers we collected process data comprising of the patient ID, name of the service and its timestamp. The data was then collected and analyzed through the Disco process mining software to give us a graphical representation of clinical flow and statistical data. We then developed a Value Stream Map and executive and QI focused Tableau dashboards. Data collection period was from May 2015 to December 2015.

**Results:** Through this process, we collected 66 patient timecards allowing us to understand our clinic flow and its utilization and duration of services. We were also able to determine the time it takes from arrival to physician as 114 minutes, of which 47.9% was value added steps and the rest was attributed to wait time.

**Implication:** Our study allowed us to understand our processes within the Clinic and suggest measurable recommendations to improve efficiency, reduce wait-times and increase value.