Health Services Continuous Improvement Project Summary

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Background Context

◇ University Health Services (UHS) is an on-campus health care provider for students and faculty with non-emergency health concerns and medical questions
  ◆ Their Walk-in-Clinic (WIC) is historically known for long patient wait times, long queues, ect.

◇ With my team, a combined effort was made with the UHS staff in order to optimize the performance of the WIC for patients and staff
  ◆ Our aim was to improve KPIs such as queue length, throughput rate, lead time, wait time


Actual UHS review:

"Wait is always so long you would either get better or die in the **waiting room**"

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Objectives

1. Accurately measure and define the capacity of the UHS Walk In Clinic.

2. Simulate the process flow of patients and discover pain points based on real time data gathered through time studies and supported by additional information provided by the sponsor.

3. Document procedures throughout the semester to ensure this consulting project is reproducible.

4. Present actionable recommendations to UHS leadership in a digestible format.

Process Flow Diagram (WIC):

*All patients are assigned a #, either in advance or during
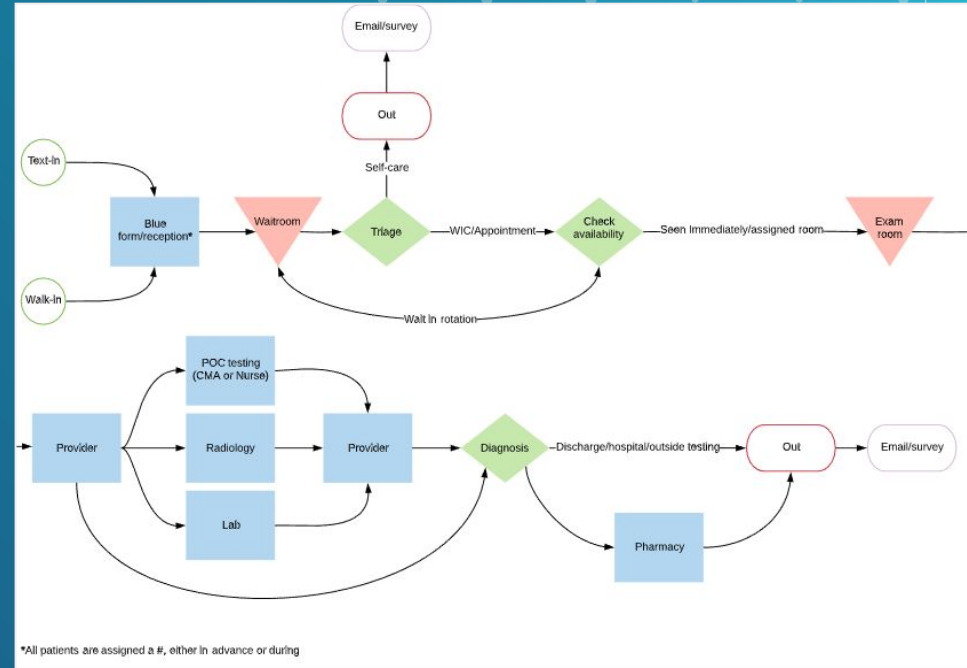
My Role + COVID Concerns

- My roles for this project included:
  - Time Study Lead, Data analysis support, Arena simulation support, House of Quality
- Time Studies were performed in the WIC to gather data for the Arena simulations
  - Needed data for patient arrival rates to WIC
  - Cycle times of patient tasks such as completion of forms, triage, and seen by provider
- As this project took place during the spring of 2020, campus was evacuated for the semester during the middle of our time trials and other necessary on campus activities
  - We were left to only us the minimal data that we had collected to complete the project
  - We decided to focus our efforts on addressing the Trext system (an application that lets patients hold a spot in a virtual queue) and addressing the "bluesheets" (a form that patients filled out that included personal/healthcare info)

Conclusion + Recommendations

- Main recommendations to nursing staff (Including adjustments made due to COVID-19):
  - Increase patients who text-in (using **Trext** application to hold a spot in a virtual queue) to make arrival times more predictable
  - Digitize and eliminate physical "bluesheets" from the system by allowing patients to fill out an online form prior to arrival by sending link using Trext system
    - Implement telehealth where patients can opt to speak with a nurse prior to arrival to the WIC
  - If patients have spoken with a triage nurse and still decide to visit the WIC, they will be notified to arrive at UHS when only 2 patients are ahead in the queue
    - In the case of patients who do not get triaged prior to arrival, they will be notified to arrive at UHS when 4 patients are ahead in the queue.
- Based on our simulations, these recommendations would improve the most important KPIs such as queue length, throughput rate, lead time, and wait time

If you made it this far, thanks for reading/watching!

Credit to my awesome team members:
Jean-Pierre Charles, Gabriela Martinez, Vincent Parlato