OPTIMAL WORKLOAD/STAFFING RATIO TO IMPROVE OUTPATIENT PHARMACY WAIT TIMES

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INTRODUCTION

The TTSH main outpatient pharmacy experiences consistently high workload throughout a work week, serving up to 1200 outpatient prescriptions per day. Despite the full rollout of Outpatient Automation System (OPAS) in early 2015 and multiple other initiatives, maintaining a waiting time of 20 minutes for most patients remains a huge challenge.

AIM

This study aims to validate the optimal workload (queue tickets) to dispensing staffing ratio, known as the QT:DS ratio, that is needed to achieve "good" wait times. "Good" wait times refer to a waiting time of below 20 minutes for each patient, from the moment they collect a queue ticket.

METHODOLOGY

Two "good days" (Wednesday and Friday) VS **Two "bad days" (Wednesday and Friday)**

Generally good wait times | *Longer wait times*

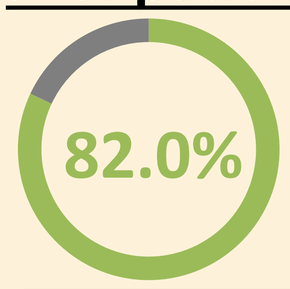
- ☑ **A point sampling approach** - used to analyse data from November 2015
- ☑ **Collect data -** Number of queue tickets issued and dispensing staff deployed throughout the day.
- ☑ **Calculate ratio -** Queue ticket issued: dispensing staff (QT: DS ratio) deployed every half-hour interval.
- ☑ **Compare proportions between groups -** Fisher's exact test using GraphPad QuickCalcs.

CONCLUSION

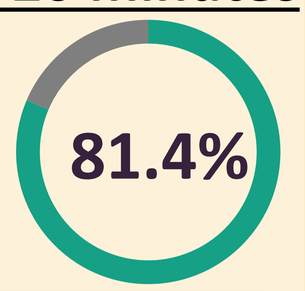
- ✓ Load levelling is essential to maintain "good" wait times.
- ✓ Preliminary observation is that QT:DS should be kept below 3.50 for every half-hour interval.
- ✓ More studies will be required to determine the optimal QT:DS ratio per half-hour interval to achieve zero needless wait.

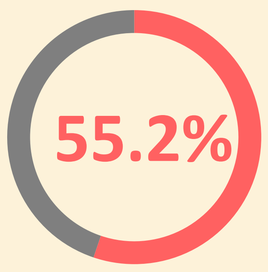
RESULTS

% of patients served within 20 minutes

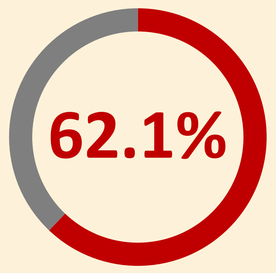


On "good days"



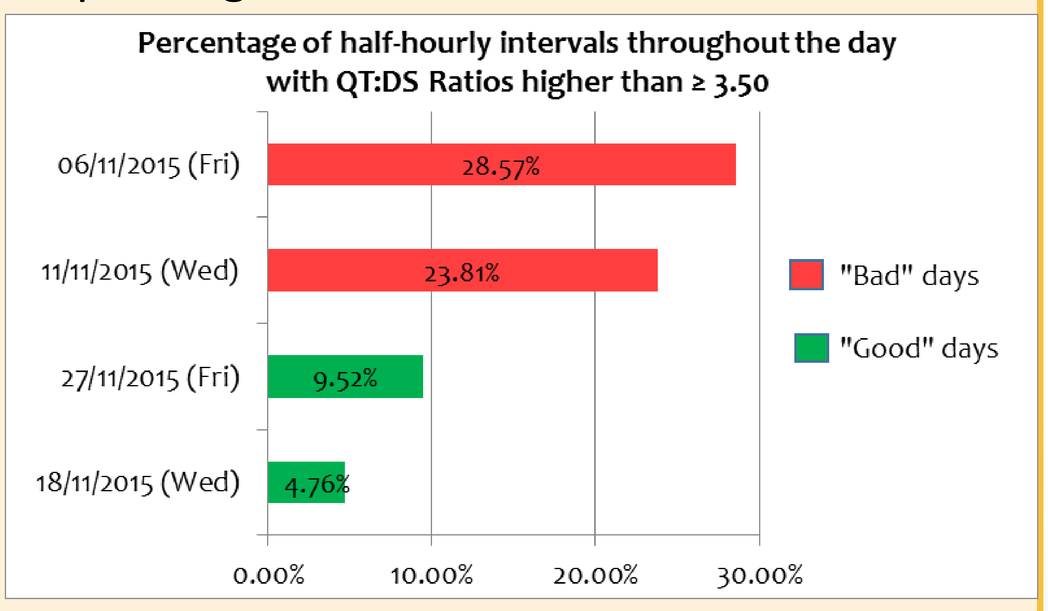


On "bad days"



QT:DS Ratios throughout the day

QT:DS refers to the queue tickets to dispensing staff ratios .



On "good days":

- 3 out of 42 **(7.1%)** half-hourly periods have a QT:DS ratio that is ≥ 3.50
- ≥ 3.50 trend is sustained for at most 0.5 hour

On "bad days":

- 11 out of 42 **(26.2%)** half-hourly periods have a QT:DS ratio that is ≥ 3.50
- ≥ 3.50 trend is sustained for 1 to 2 hours

*Differences are statistically significant (P = 0.02).