

Project Title

Improvise . Adapt . Overcome

Project Lead and Members

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Organisation(s) Involved

KK Women's and Children Hospital

Healthcare Family Group(s) Involved in this Project

Pharmacy

Aim(s)

- Aim to streamline processes in Emergency Pharmacy (EP) and Inpatient Pharmacy Automation Service (IPAS) with the ultimate goal in reduction in man-hours so that staff can focus on the delivery of patient care.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

Singapore Healthcare Management Congress 2022 – Merit Award (Operations category)

Project Category

Care & Process Redesign

Value Based Care, Productivity, Quality Improvement, Workflow Redesign, Lean Methodology

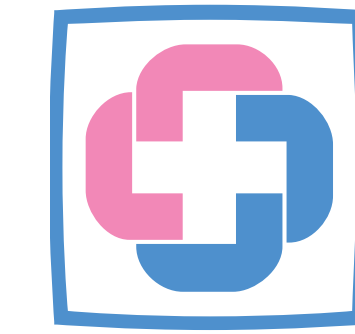
Keywords

Phone Counseling, Streamlining of Workflow

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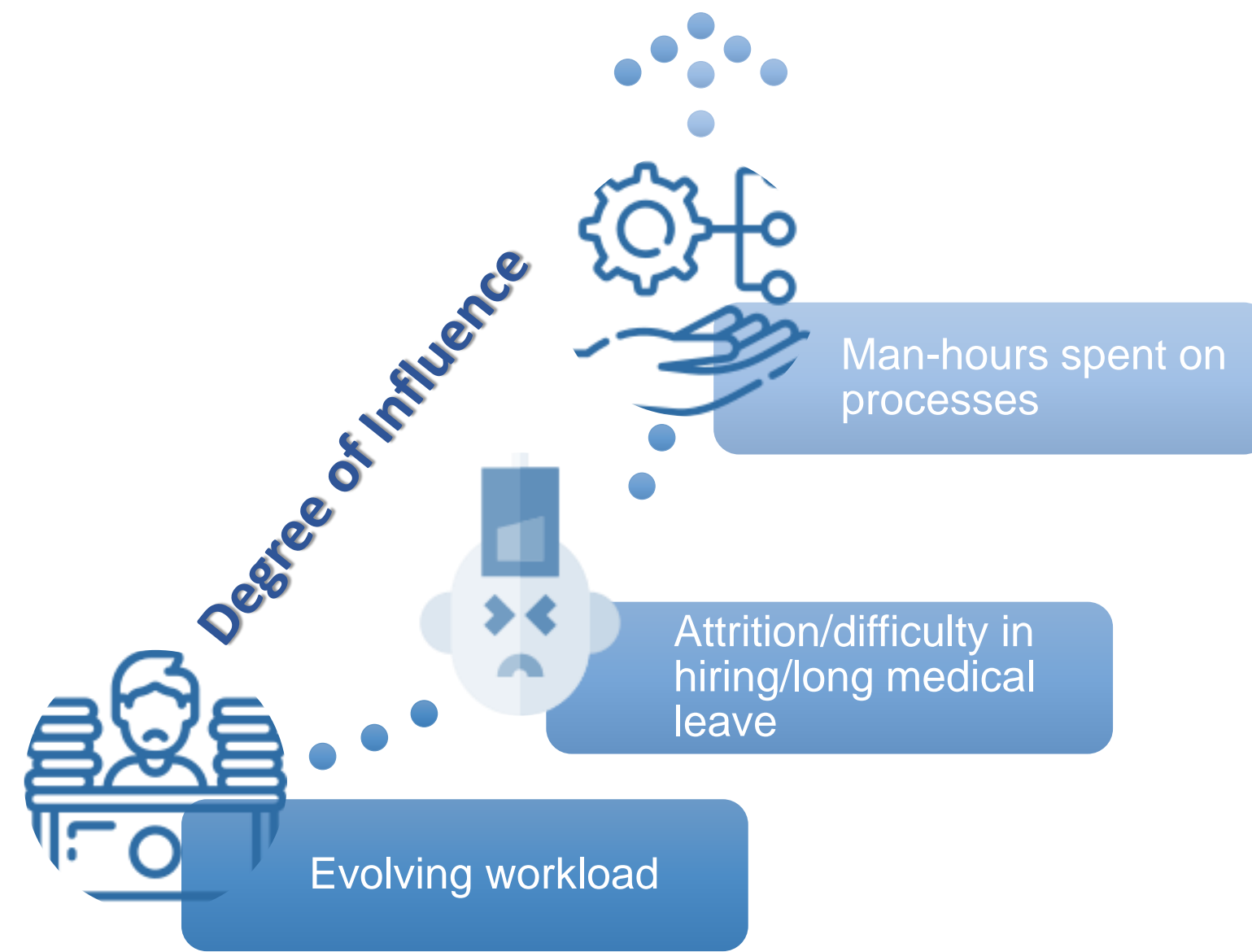


INTRODUCTION

The Covid-19 pandemic has presented us with new challenges and uncertainties. The low staffing levels and difficulty in hiring have prompted us to brainstorm on novel ways to **reinstat**e the balance between **workload and staffing**. We reviewed our sphere of influence and decided to focus on areas that we can exert a greater influence on – **reduction of man-hours spent on work processes**.

OBJECTIVES

To streamline processes in Emergency Pharmacy (EP) and Inpatient Pharmacy Automation Service (IPAS) with the ultimate goal in **reduction in man-hours** so that staff can focus on the delivery of patient care.

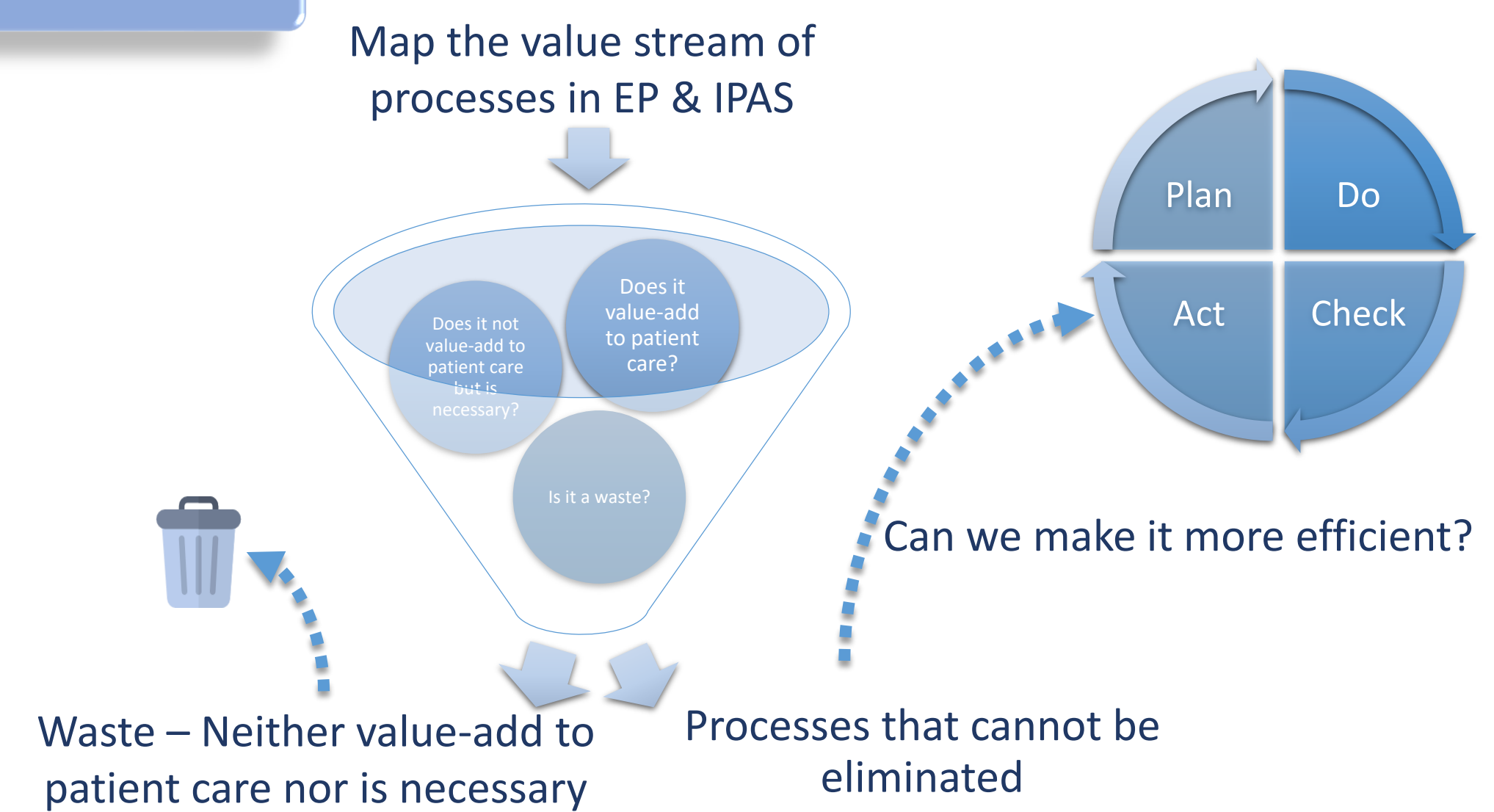


METHODOLOGY

Existing processes in EP and IPAS were analyzed for **redundancy** and **improvement** using Plan-Do-Check-Act (PDCA) and Lean Thinking methodologies¹.

Pre- and post-intervention time studies were conducted to determine the savings in man-hours.

Numerous opportunities were identified for improvement and currently available resources were leveraged as far as possible.



RESULTS

1. Triage of Phone Counselling of Medications for Patients under Isolation

BEFORE Phone counselling of medications for ALL patients under isolation (PUI).

AFTER PUI with **COMPLICATED** medications vs PUI with **SIMPLE** medications. Provide leaflet with drug information, allergy status, weight and contact information for enquiries.

Figure 1: An example of leaflet passed to PUI with simple medications.

Figure 2: Phone counselling load decreased by 72% after triaging phone counselling of medications for PUI.

20.7 man-hours saved monthly!

3. Removal of Manual Counting of Prescriptions

BEFORE Staff spends an average of **30 minutes** a day **counting** prescriptions to tabulate workload from each service.

AFTER Staff **DO NOT** need to perform **manual counting** daily. Staff import data from queue management system into pre-formulated template monthly.

14 man-hours saved monthly!

5. Utilization of SharePoint Views to Streamline Ward Stock Changes

BEFORE Changes in ward stock → Staff update in SharePoint for nurses to order → Staff update summary Excel Database → Staff update Excel topping up form → Staff print topping up form weekly.

AFTER Changes in ward stock → Staff update in SharePoint for nurses to order → SharePoint views auto-populate summary database and topping up form → Staff print topping up form from SharePoint directly.

Figure 4: An example of SharePoint View.

4.2 man-hours saved monthly!

2. Tracking of Phone Counselling Replaced with Issuance of New Queue Series

BEFORE Queue series were issued based on clinic locations even if they are PUI. Staff spends an average of 30 seconds to fill up one phone counselling record in tracking form. Tracking could not be eliminated.

AFTER Many fields in the tracking form were of little value → **Removed!** **New queue series** was created using our current queue management system to facilitate tracking instead.

4. Substitution of Manual Recording of Drug Returns with Photo taking

BEFORE Staff spends an average of **1.5 minutes** to record 10 drugs on drug returns form.

AFTER Staff spends an average of **7 seconds** to capture and upload 10 drug returns in a dedicated muted secure chat group.

Figure 3: An example of capturing drug returns and uploading in a dedicated secure chat group.

4.3 man-hours saved monthly!
↓ Paper waste!
↑ Ease of investigating inventory discrepancies!

6. Pre-formulated PivotTable for Drug Costing

BEFORE Stock adjust in billing system/record drips in tracking form. **Manually** enter each drug into costing form. Submit costing report & turnaround time report.

AFTER Stock adjust in billing system/records drips in tracking form. **Pre-formulated Costing Report using PivotTable**. Submit costing report & turnaround time report.

4.8 man-hours saved monthly!
↓ Transcription errors!

Solutions implementation costs = **\$0**

Total of **232.8** man-hours savings per month!

2794 man-hours savings per annum!

\$135,411 cost savings per annum!

CONCLUSION

- This study demonstrates that seemingly insignificant differences in how we carry out our work can accumulate to significant time and cost savings, allowing staff to focus on their core responsibilities of delivering quality patient care.
- Change is an inevitable constant and resources are often limited - we will continue to review, improve and adapt our processes to overcome the evolving challenges.

ACKNOWLEDGEMENTS

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REFERENCES

- Arnout Orelio (2020). Lean Thinking for Emerging Healthcare Leaders. Business Express Press.
- Our illustration of tardigrade, a microscopic animal that is renowned for its ability to survive extreme conditions. This symbolizes the spirit of improvement and adaptability in order to overcome the challenges.