Project Title

Optimising Stock Management in Podiatry Department

Project Lead and Members

Project lead: Acacia Neo

Project members: Jolene Tai, Arnold HU, Roy Chia Nicolas Mcindoe

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group Involved in this Project

Allied Health

Applicable Specialty or Discipline

Podiatry

Aims

To reduce the total number of man-hours required to complete the stock ordering process from 10 hours to 2 hours every month by June 2019.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Digitalizing the processes is beneficial as it reduces human error and increases efficiency, thereby increasing productivity and allows the department to channel resources to other areas when required.

Conclusion

Automation of stocktake ordering reduces man-hour

Project Category

Care & Process Redesign, Productivity, Manhour Saving

Keywords

Stock Management, Podiatry Department, Digitalisation

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OPTIMISING STOCK MANAGEMENT IN PODIATRY DEPARTMENT

MEMBERS: ACACIA NEO, JOLENE TAI, ARNOLD HU, ROY CHIA NICOLAS MCINDOE

- ☐ **SAFETY**
- ☐ **QUALITY**
- ☐ **PATIENT EXPERIENCE**
- ✔ **PRODUCTIVITY**
- ✔ **COST**
- ☐ **TEAMWORK**
- ☐ **COMMUNICATION**

Define Problem, Set Aim

Opportunity for Improvement
Current stocktake and ordering processes are laborious and time-consuming which lead to delay and shortage of stocks in the Podiatry department
Stocktake process
- Involves a total of 3 Therapy Assistants (TA), 1 from each section to stocktake (Diabetes clinic, Musculoskeletal clinic, Inpatient)
- 3 Podiatrists (Pod), 1 from each section will have a meeting to consolidate stocktake and decide on what to order for the whole department
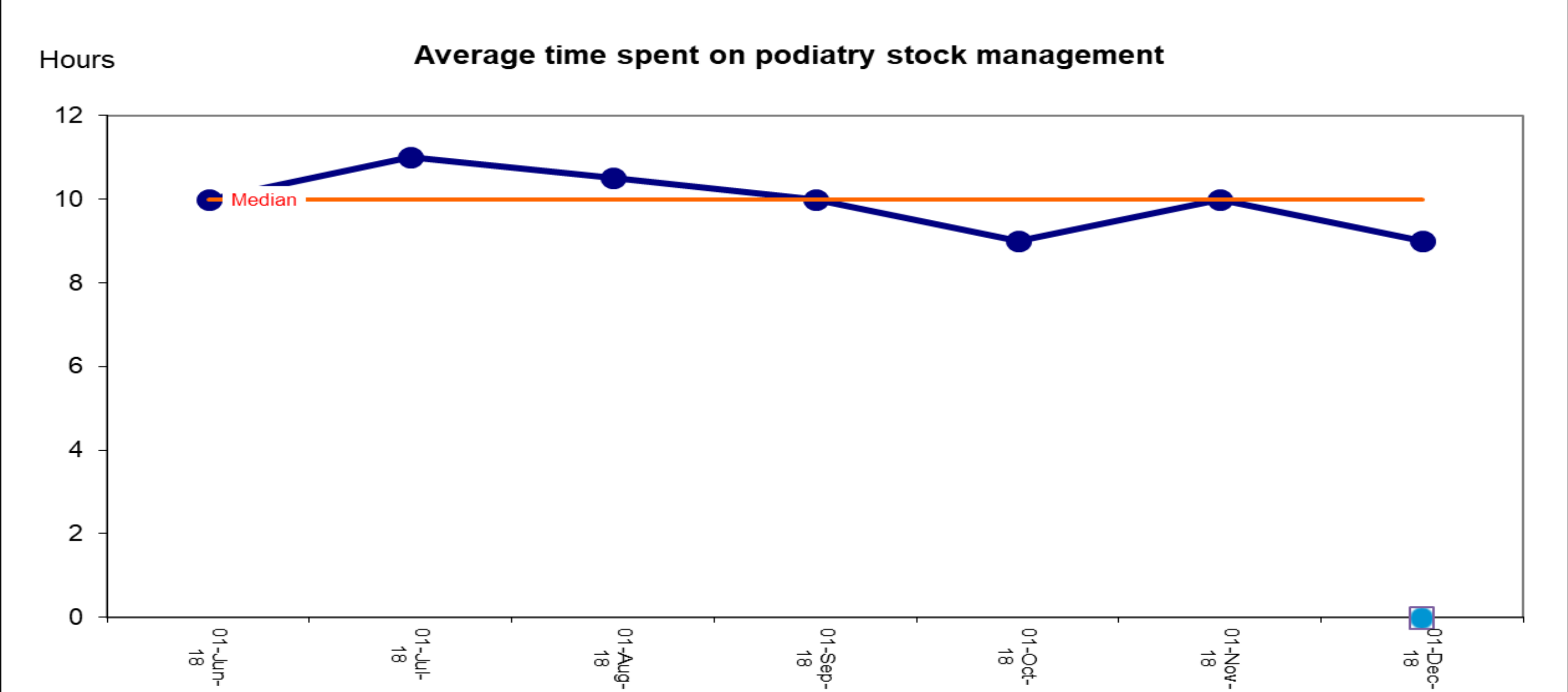
Ordering process
- 1 TA prepares hardcopies of external vendor order forms and manually writes down each item description, item code and tabulates cost for every podiatry consumable
- Podiatry department currently orders consumables from 12 different external vendors
- One form is required for one vendor
- Ensures that each order form does not exceed stipulated budget

It usually takes an average of 10 hours (7 Therapy Assistant's man hours and 3 Podiatrist's man hours) to complete the entire stocktake and ordering process every month.

Aim
To reduce the total number of man-hours required to complete the stock ordering process from 10 hours to 2 hours every month by June 2019
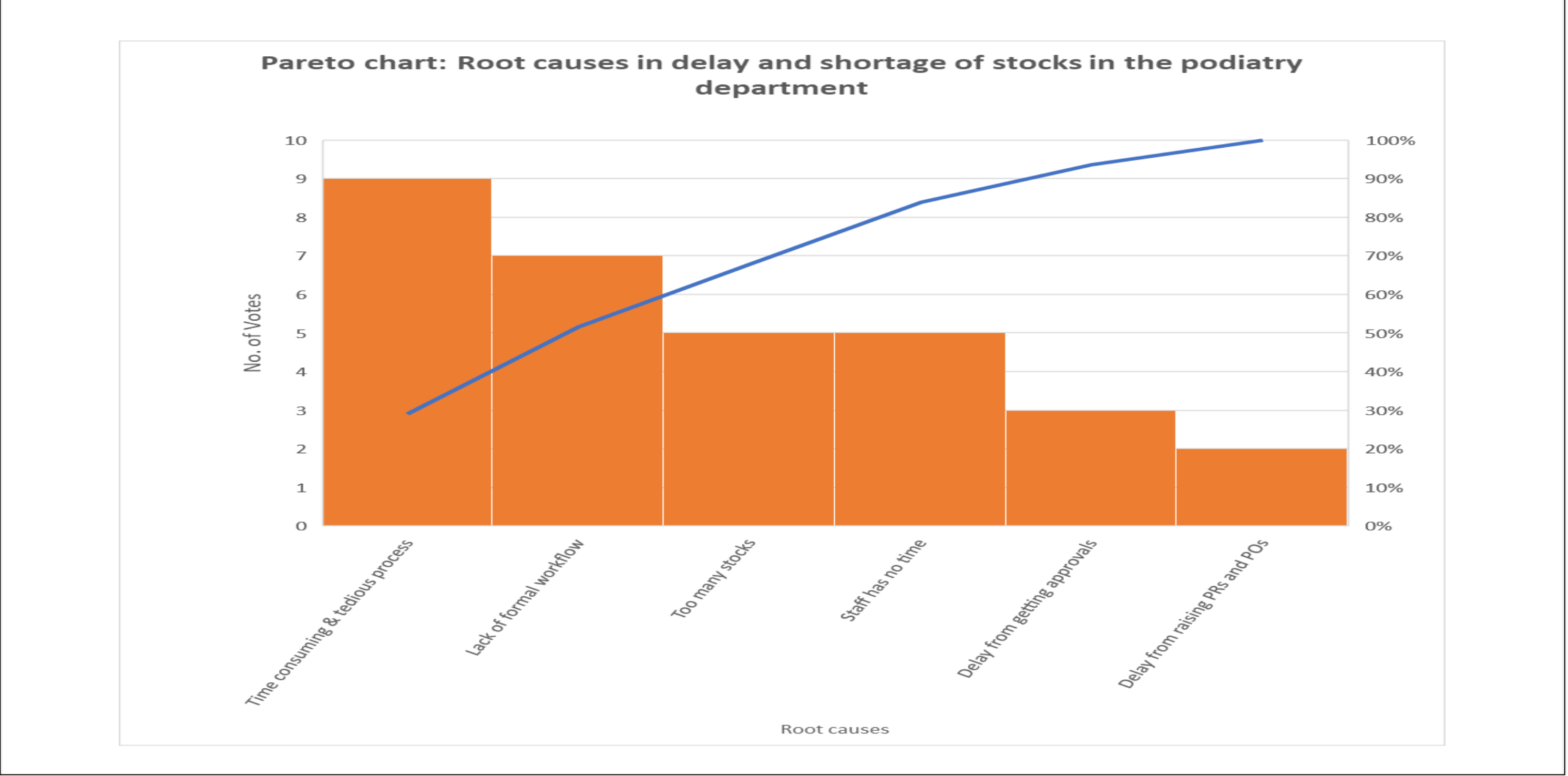
Establish Measures

Average time spent on podiatry stock management

Analyse Problem

Process *before* interventions?
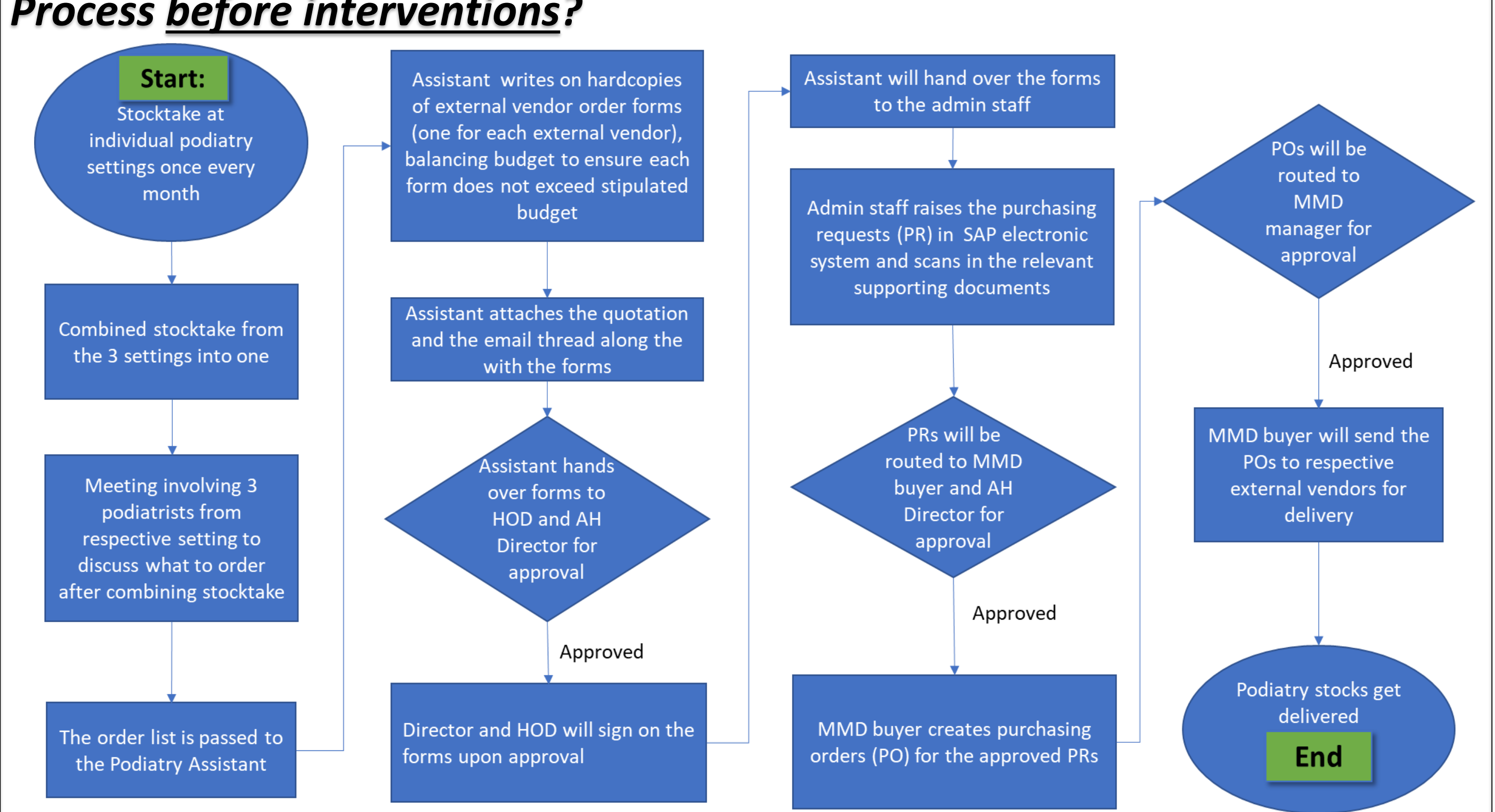
What are the probable *root causes*?

Pareto chart: Root causes in delay and shortage of stocks in the podiatry department
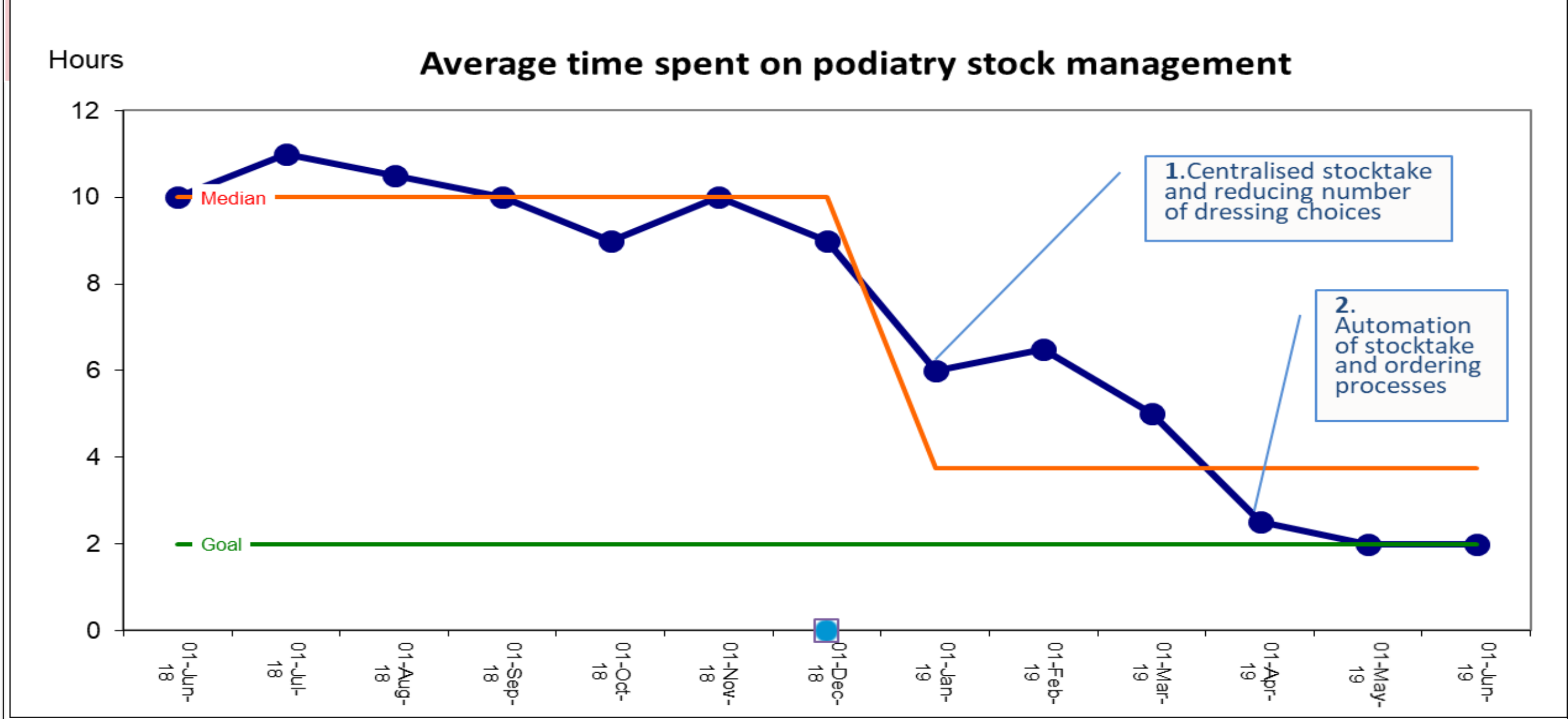
Select Changes

Root cause: Time consuming, tedious stocktake and ordering processes
Possible solutions:
1) Stocktake at 1 centralised location instead of 3 different locations
2) Reduce number of dressings choices available by eliminating dressings that are not frequently used
3) Automate manual process by building stocktake and ordering forms into Excel sheets

Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
	What is the aim of this cycle? What do you need to do before you execute the test change? (Who, What, Where, When)	*Was the test change carried out as planned? What are the feedback & observations from participants?*	*What are the results? Use run charts to illustrate. What did you learn from this cycle?*	*What is the conclusion from "Study"? What is your plan for the next cycle (adopt / adapt / abandon)?*
1	• Solution 1: Centralise stocktake at Level 6 Podiatry workshop • Solution 2: Reduce number of dressings choices available and eliminate not frequently used dressings	• Diabetic clinics and Inpatient will maintain their own stock and top up whenever it is depleted • Clinic and Inpatient Podiatry leads will determine the minimum level of stock required in their area • Only 1 TA will do stocktake at Level 6 workshop • Difficult to reach consensus for dressing choices due to preferences	• Number of man hours was reduced from 10 to 5 hours after implementation • Dressing choices was reduced after much deliberation • Productivity was introduced as Podiatrists could spend lesser time on counting stock and focus on clinical work	• Successful test in centralising stocktake and reducing dressing choices • Incorporate automation into our ordering process next cycle
2	• Solution 3: Automation of process by building stocktake and ordering forms into excel sheets	• Train TA to use excel sheets for stocktake and ordering • TA finds it hard to navigate excel sheet due to lack of technical knowledge • TA overwrites formula accidentally • Updated cost not reflected as quotation is revised in the new year	• Number of man hours gradually reduced to 2 hour after implementation as TA learns how to use excel sheets • Technology is advantageous in aiding administrative paperwork	• Successful test in incorporating automation into workflow • Continue to fine-tune workflow processes by constantly updating and improving the excel sheets

Average time spent on podiatry stock management

1. Centralised stocktake and reducing number of dressing choices
2. Automation of stocktake and ordering processes

A total of 96 of man-hours per year was reduced after implementation of this QI project which translates to the saving of an average of 2 hours per week. Podiatrists can use this time to run clinics and attend continuing education trainings while Therapy Assistants will be able to use this time to assist Podiatrists with clinical work and run Diabetic Foot Screening clinics.

Spread Changes, Learning Points

What are/were the strategies to spread change after implementation?
Potential sharing of automated excel sheet process to other Allied Health departments during HoD meetings to spread best stock management practices, especially benefiting those with numerous consumables and currently still using physical ordering forms for external vendors.

What are the key learnings from this project?
Digitalizing the processes is beneficial as it reduces human error and increases efficiency, thereby increasing productivity and allows the department to channel resources to other areas when required.
We hope to further refine the automation process and adapt this to other processes and workflows within the Podiatry department.

Ng Teng Fong General Hospital

Jurong Community Hospital