To Improve Medication Safety in Pharmacy's Unit Dose Packaging (UDP)

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National Healthcare Group

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Adding years of healthy life

Mission Statement

To reduce picking near misses from Unit Dose Packaging (UDP) process in inpatient pharmacy from 8 per month to 0 in 6 months

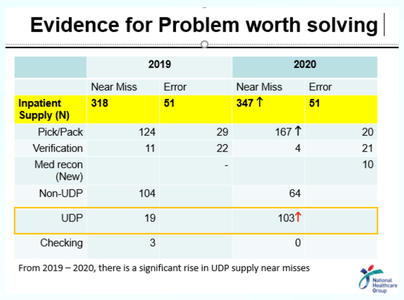
Team Members

	Name	Designation	Department	Role in this project
1.	Tay Hooi Ching	Principal Clinical Pharmacist, Deputy Med Safety i/c	Pharmacy	Leader
2.	Koo Siu Ling	Senior Pharmacist, Unit Dose Packaging i/c	Pharmacy	Member
3.	Elissa Wong	Senior Pharmacist, IP medication safety officer	Pharmacy	Member
4	Ilyana	Senior Pharmacy Technician	Inpatient Pharmacy	Member
5	Camille Neo	Senior Pharmacy Technician	UDP Pharmacy	Member
6	Hanisah	Pharmacy Technician	UDP Pharmacy	Member
7	Amrita	Pharmacy Assistant	Inpatient Pharmacy	Member
8	Clement Look	Senior storekeeper	Store	Member
9	Supadhara	Head, Manager	Pharmacy	Sponsor
10	Claudine Oh	Asst Director	Operation Admin	Facilitator

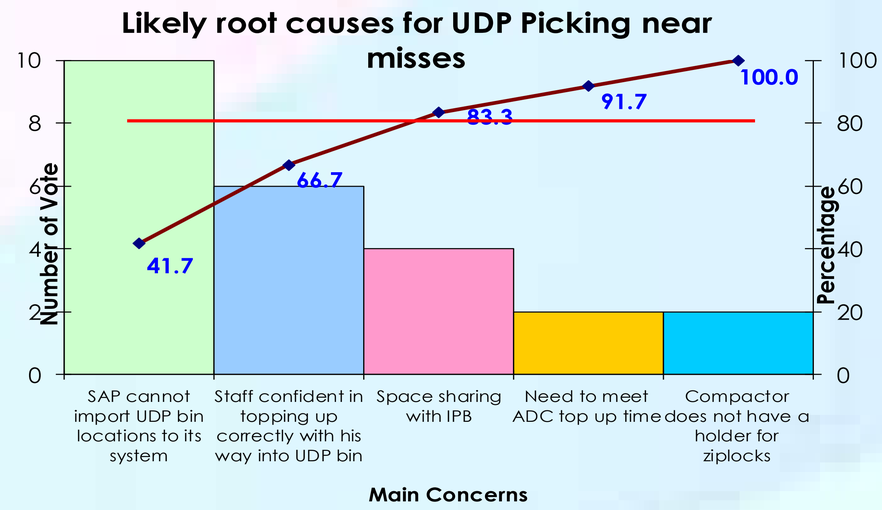
Evidence for a Problem Worth Solving

Extensive money has been channelled into automation over the last 2 years (2019-2020) in KTPH, with automated dispensing cabinets (ADCs) being installed in all wards. The process of topping up the ADCs with unit dose packaging (UDP) drugs is still a human dependent process, which could lead to wrong administration if wrong UDP is put into the ADCs. From 2019 to 2020, there was close to 10 fold rise in UDP picking near miss identified in Pharmacy. This project aims to reduce the picking near miss from 8 per month to 0 over a period of 6 months.

Current Performance of a Process



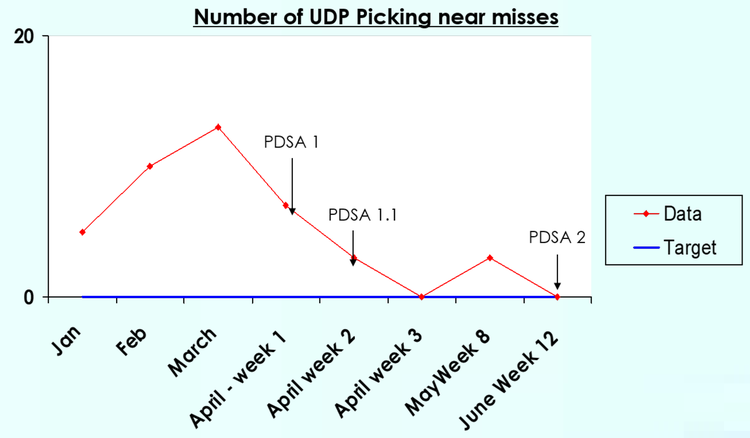
Pareto Chart



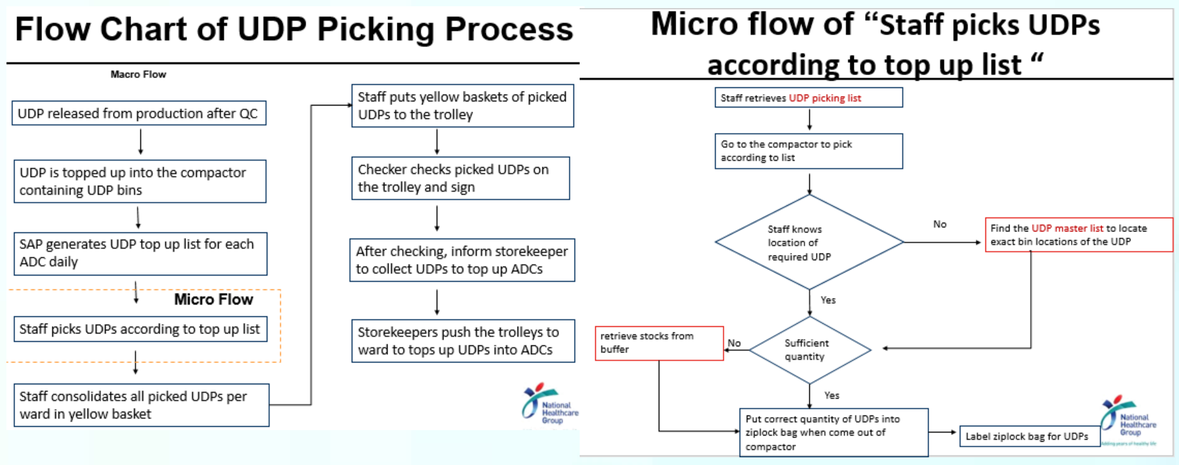
Implementation

CAUSE / PROBLEM (refer to Pareto Chart)	INTERVENTION	DATE OF IMPLEMENTATION
SAP cannot import UDP bin locations to its system	Create a picking list containing drug name, quantity, and bin location	7 April 2021
Staff confident in topping up correctly with his way into UDP bin	Stop staff from picking from a recently topped up bin until it has been checked	1 June 2021
Space sharing with inpatient pharmacy	To consider mobile fixing / renovation to expand UDP operation areas	Target Q3 2023

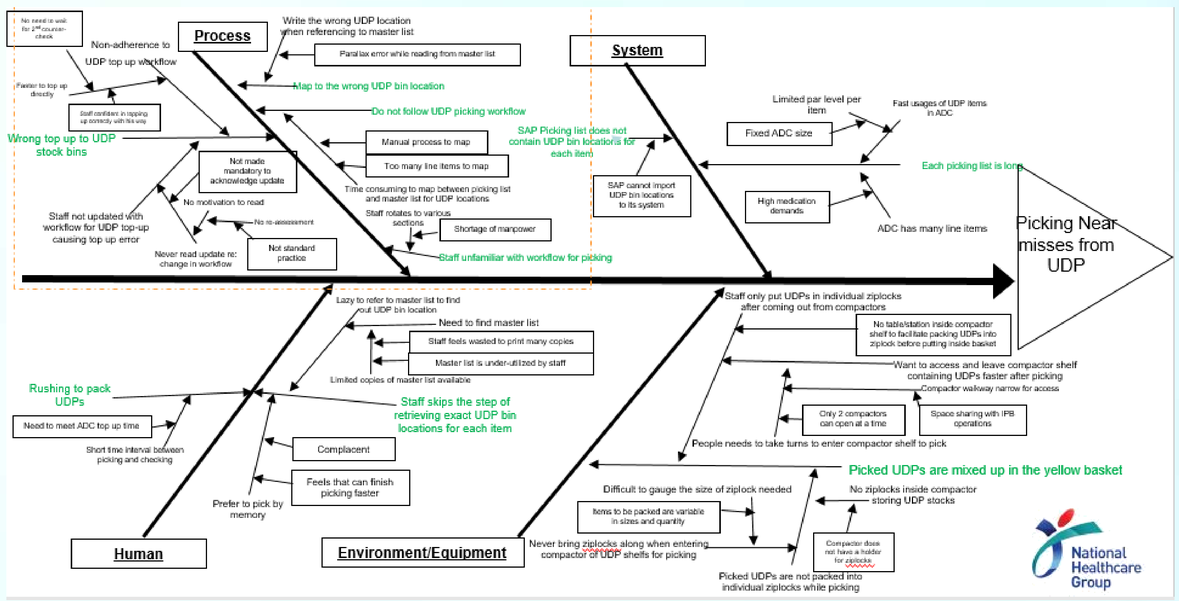
Results



Flow Chart of Process



Cause and Effect Diagram



Cost Savings

Outcomes (Clinical / Non-clinical):
1.Time savings: the time required to pick UDPs have reduced by 50%
2.Reduction in potential medication errors that could be harmful to patients

Problems Encountered

- Need to find experts in Microsoft Excel to make the new UDP picking list
- Unable to reach all ground staff on the changed workflow due to different shifts and COVID, and thus information have to be disseminated via text messages at times.

Strategies to Sustain

- Share near misses data with CPIP team and colleagues on the floor, so that they can see the fruits of improvement from the implementation
- Give protected time to analyse data so that process can be refined with time when guided by data
- Include new implementation as part of SWI as well as training guide on the ground, which include periodic assessment