

REDUCING MANUAL PACKING ERRORS FOR PRESCRIPTIONS PROCESSED AT TTSH B2 PHARMACY

Lim Woan Chyi, Pharmacy Department

Mission Statement

To reduce manual packing errors from 12* per week to zero, for prescriptions processed at TTSH B2 Pharmacy, within 6 months
*Based on Sep 2015 to Feb 2016 median

Team Members

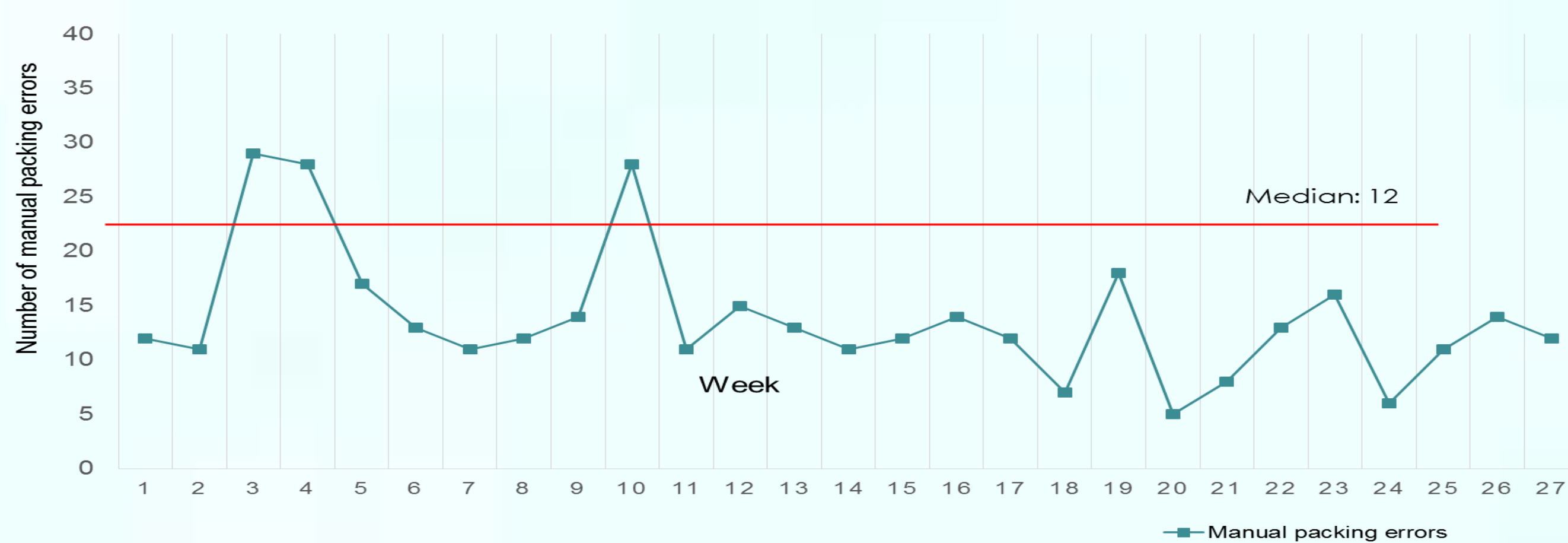
	Name	Designation	Department
Team Leader	Lim Woan Chyi	Principal Pharmacist	Pharmacy
Team Members	Jolyn Seah	Pharmacist	Pharmacy
	Edrei Quek	Pharmacist	Pharmacy
	Ku Han Chen	Pharmacist	Pharmacy
	Rina Fong	Senior Pharmacy Technician	Pharmacy
	See Lin Li	Pre-registration Pharmacist	Pharmacy
	Alice Tay	Health Attendant	Pharmacy
	Sponsor	Susan Niam	Chairperson, AHS & Pharmacy
Mentor	Dr Tan Hui Ling	Assistant Chairman Medical Board (Clinical Quality & Audit)	

Evidence for a Problem Worth Solving

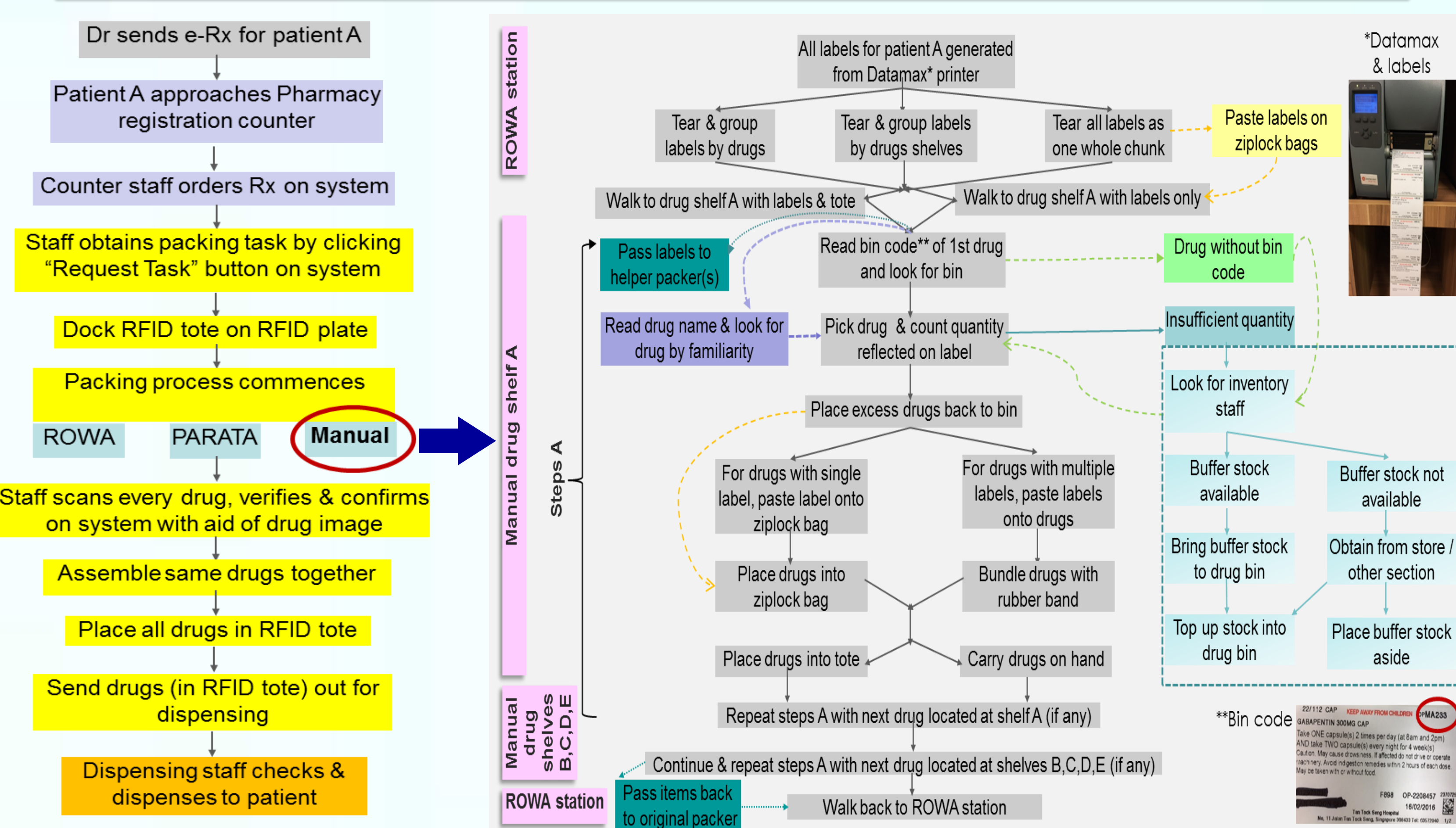
With the rollout of Outpatient Pharmacy Automation System (OPAS) at TTSH B2 Pharmacy, medication packing is now partially automated with zero error rate. However, there was still a significant amount of manual packing involved (average 35,332 line items per month) where the error rate was 1.7 errors per 1000 line items. Though the rate was low, it was still important that we look into the process and improve it further and aim for zero error.

Current Performance of a Process

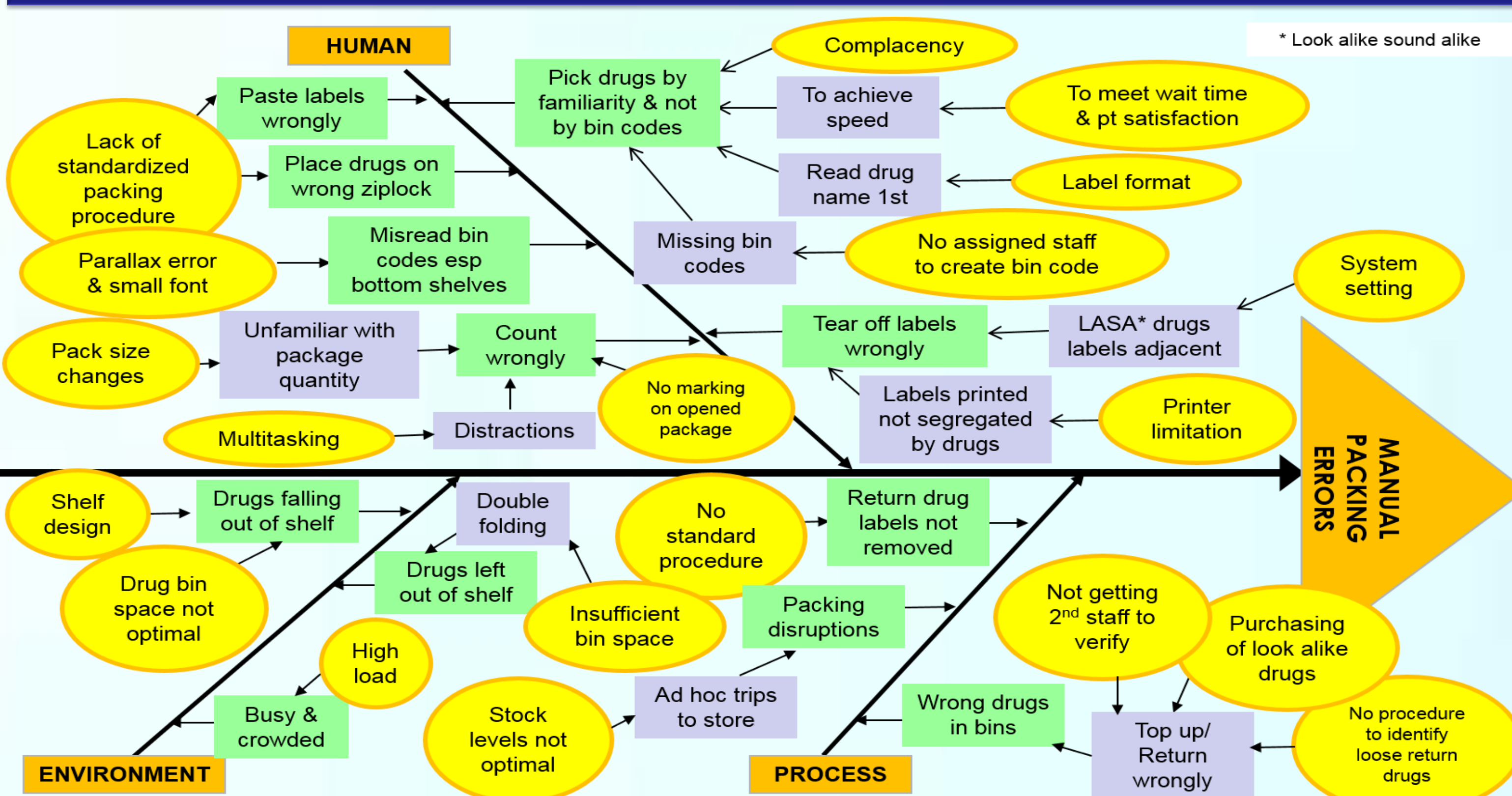
Total Number of Manual Packing Errors by Weeks (Sept 2015 – Feb 2016)



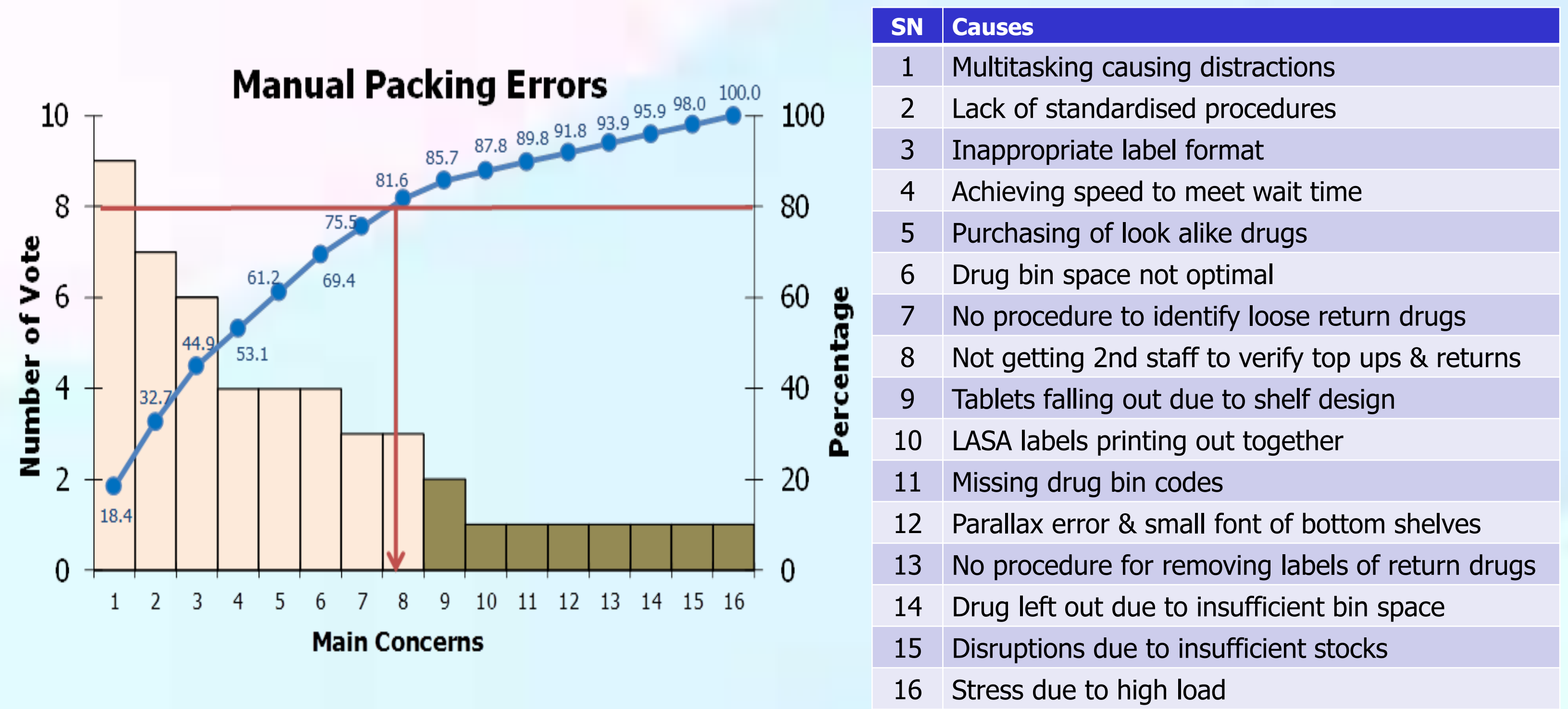
Flow Chart of Process



Cause and Effect Diagram



Pareto Chart



Implementation

Cause/Problem	Intervention	Date of Intervention
Multitasking causing distractions		
Lack of standardized packing procedure	Revamp training materials & revise Work Instruction for manual packing	7 April 2016
Inappropriate label format	Revise label format & drug bin label format	4 April 2016
Achieving speed to meet wait time		
Purchasing of look alike drugs		
Drug bin space not optimal		
No procedure to identify loose return drugs	Create returns bin & procedure for drug returns	17 March 2016
Not getting 2nd staff to verify top ups & returns		

Bin Label Format Change

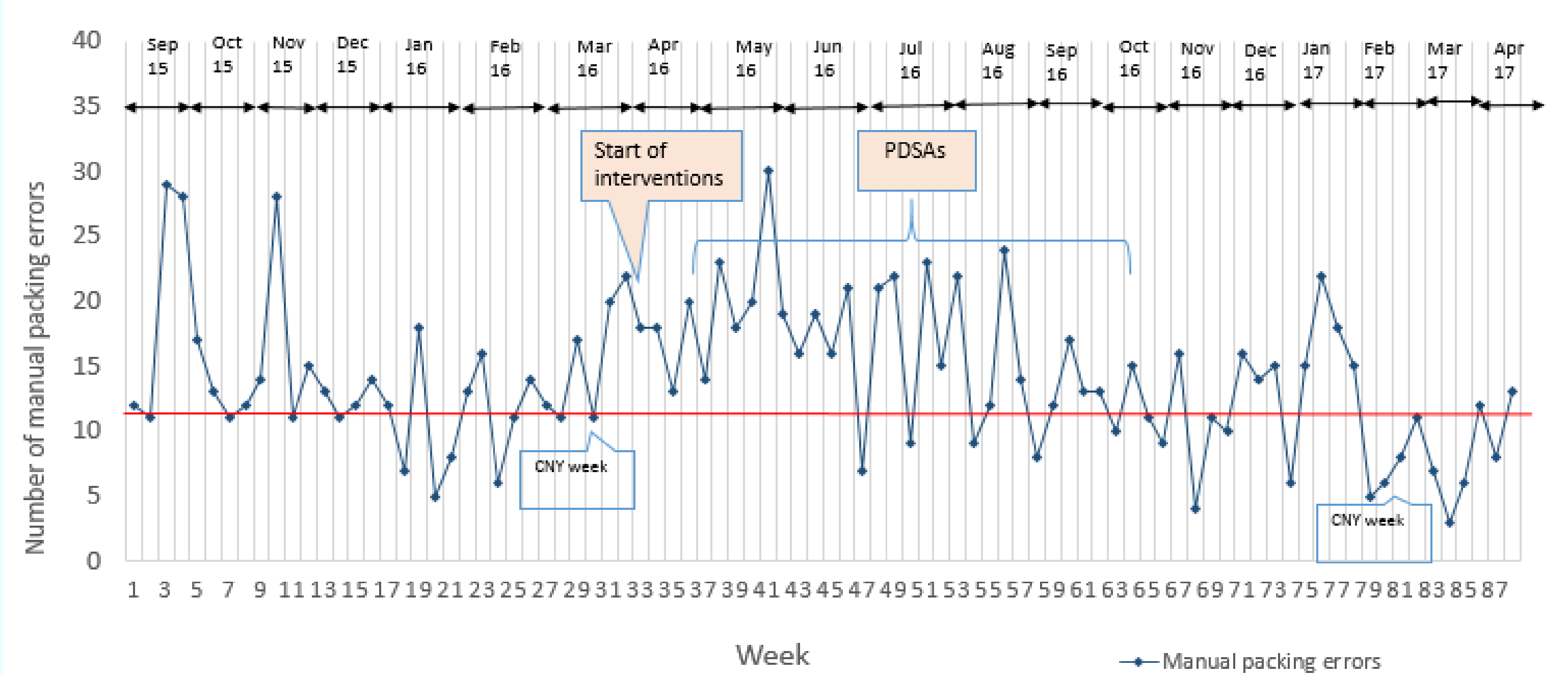
Before After

Drug Returns Bin

High impact & relatively low resource

Results

Total number of manual packing errors by weeks Sep 2015 – Apr 2017



Cost Savings



Lessons Learnt

- While system change can be straight forward & instant, behavioural change is complex & takes time.
- Engaging team members and redesigning sustainable workflows are key success of a project.

Strategies to Sustain

- Continue to review & improve current interventions (if necessary).
- Share results periodically with all staff.
- Celebrate small successes along the way.
- To assign ownership to respective teams eg. Inventory staff, trainers, manual shelves in charges, for continuity and sustainability.