

NATIONAL SKIN CENTRE

Improving Operational Efficiency of Managing Patient Assistance Programmes of Biologic Drugs for Dermatology Outpatients in National Skin Centre

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Adding years of healthy life

Background and Context of Problem

- Monoclonal antibody biologic therapy is initiated for moderate-to-severe psoriasis patients who failed oral immunosuppressant therapy and/or phototherapy. Despite worsening symptoms, patients often refused or are non-compliant to prescribed biologic therapy regimens due to high costs.
- To improve affordability, pharmaceutical companies have initiated patient assistance programmes (PAPs) with co-funding regimens.
- However, PAPs are accompanied by time-consuming, complex, manual processes affecting multiple stakeholders:
 - Complicated manual forms to track patients' PAPs
 - Manual tabulation of stock utilisation and reconciliation
 - Tedious reworks of PAP transaction and inventory errors caused by human errors and complicated processes
 - Long patient waiting time in NSC pharmacy due to complicated documentation process

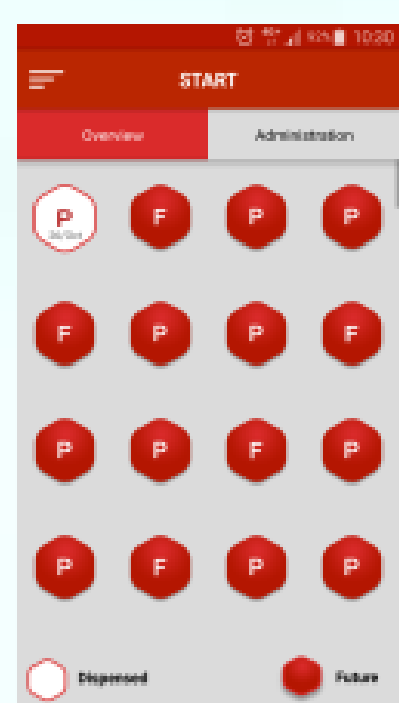
Project Objectives

- To improve the operational efficiency of managing PAPs of biologic drugs for dermatology outpatients in NSC
- To reduce patient waiting time in pharmacy

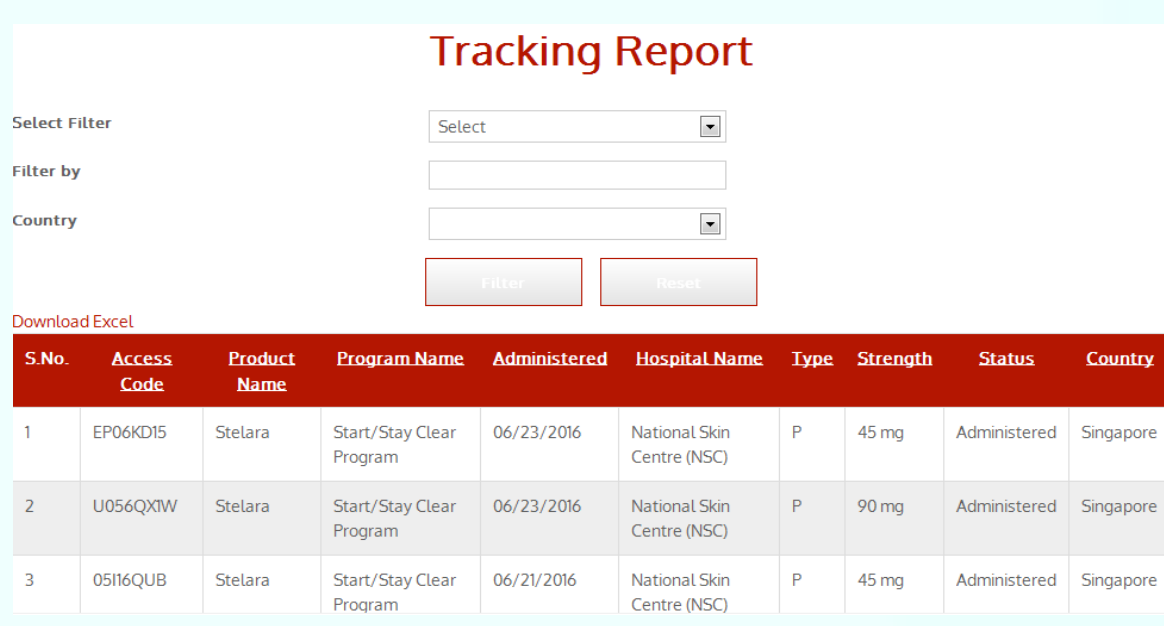
Methodology

- NSC Pharmacy and pharmaceutical companies collaborated to implement PAVE mobile application and web access portal in June 2016

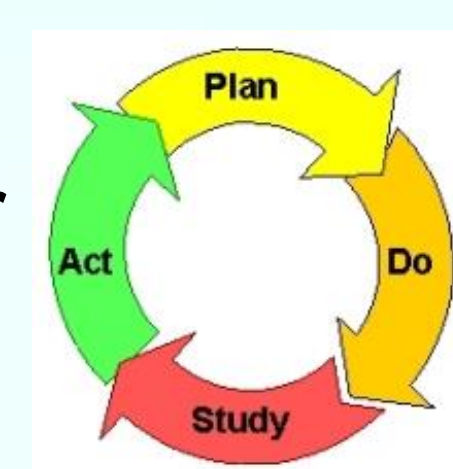
PAVE Mobile Application



PAVE Web Access Portal

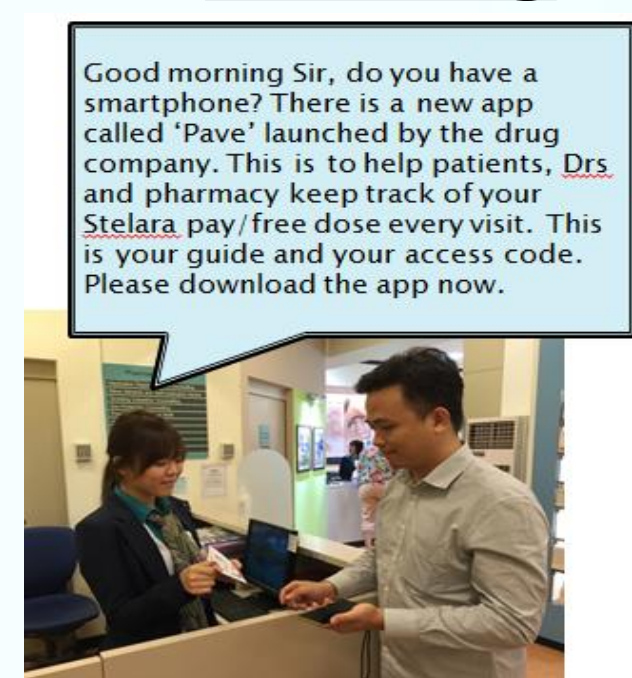


- Plan-Do-Study-Act (PDSA) was used to review PAVE's effectiveness (outcome measures) and identify areas for improvements (qualitative inputs from patients and stakeholders)



- The implementation was complemented with in-house training of staff from NSC Pharmacy and pharmaceutical companies on PAVE and redesigned workflow

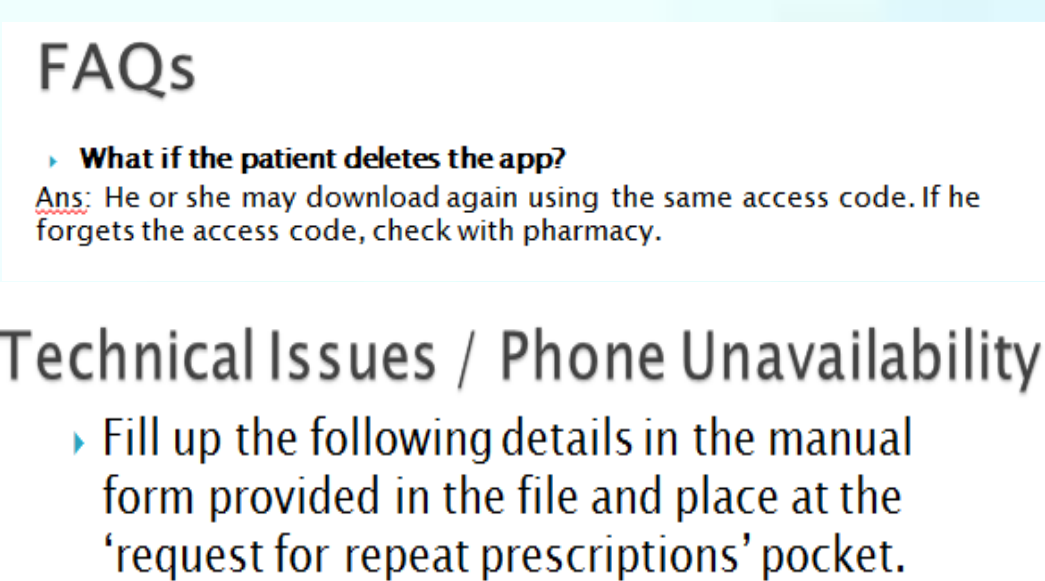
Scenario-based training



Redesigned workflow

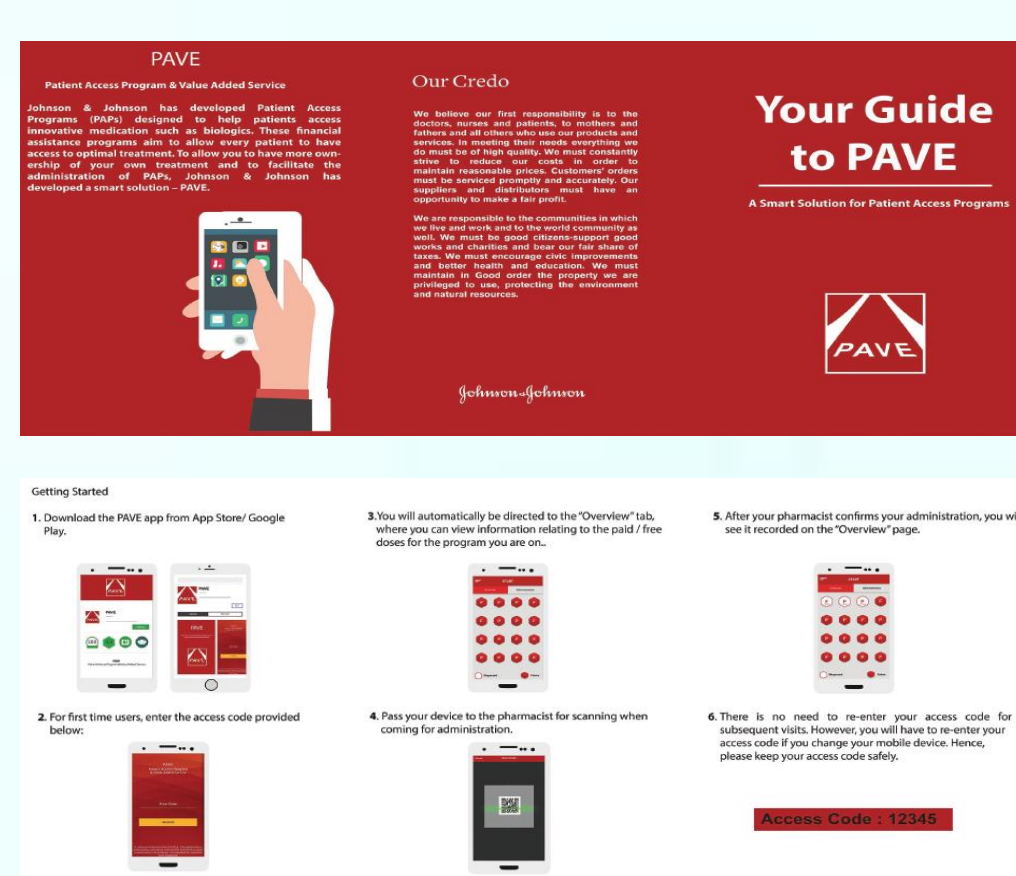


FAQs and Troubleshooting

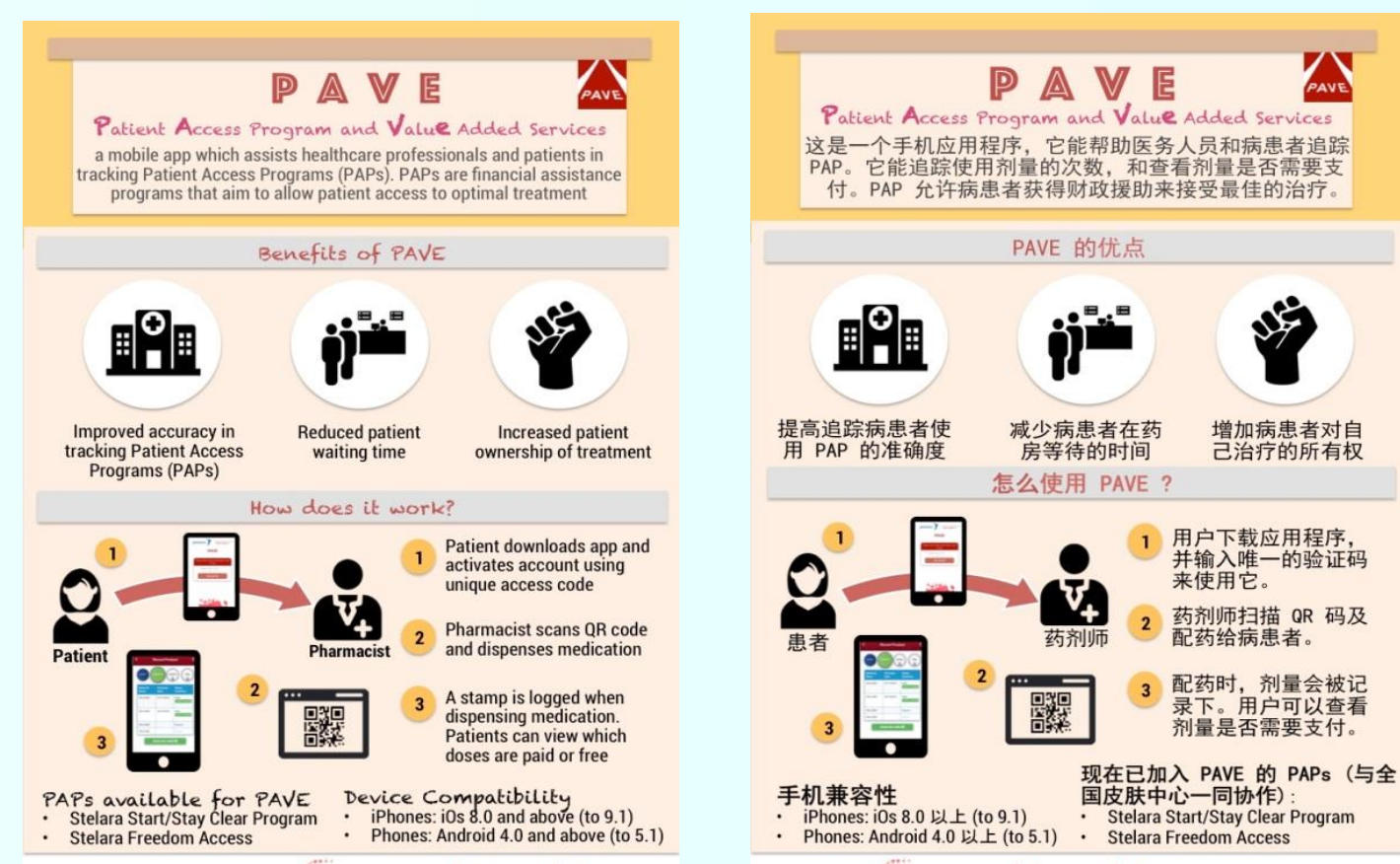


- Patient education material were developed and improved collaboratively by NSC Pharmacy and pharmaceutical companies using PDSA cycles

Pocket-size Patient Information Booklet



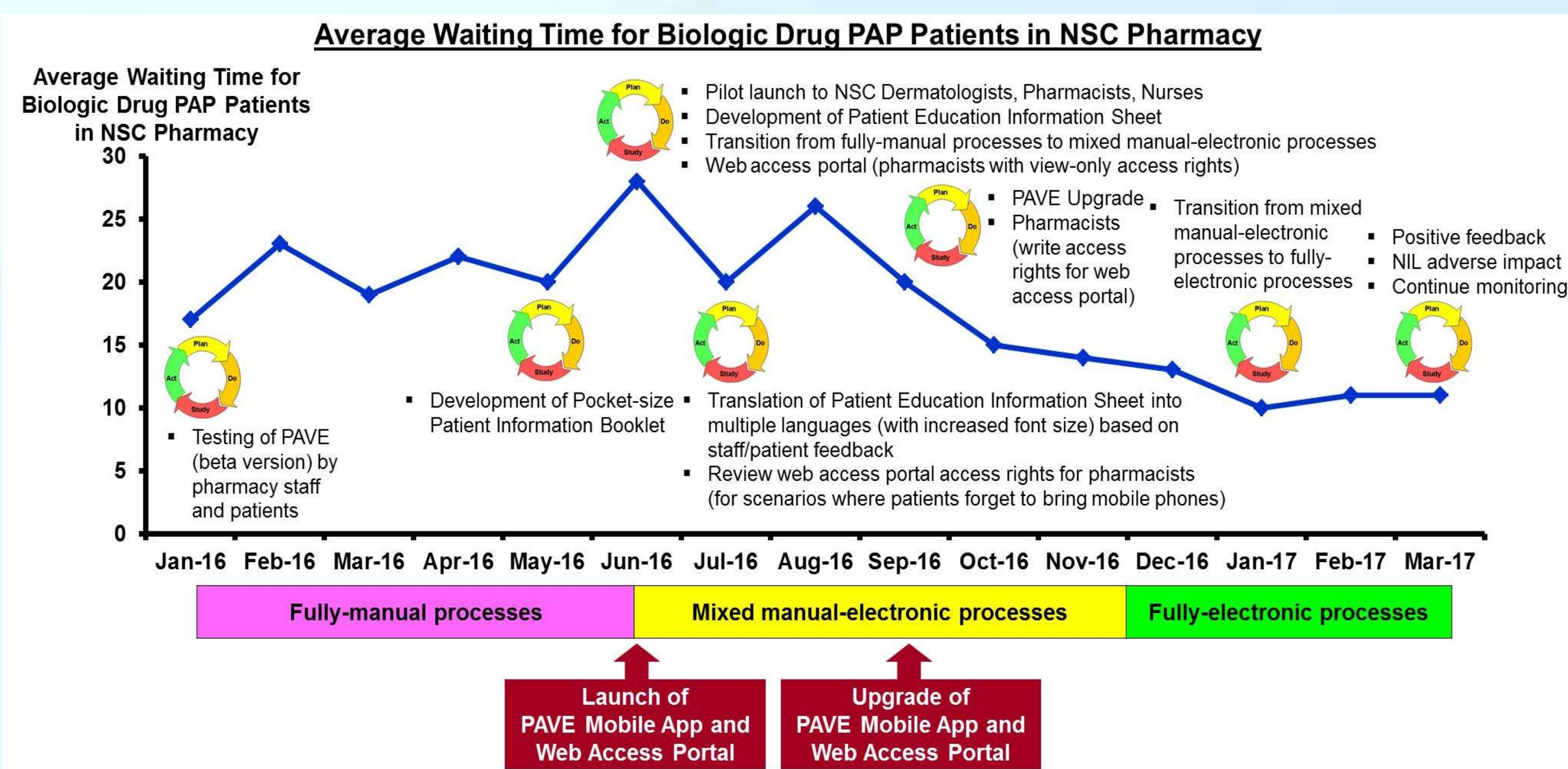
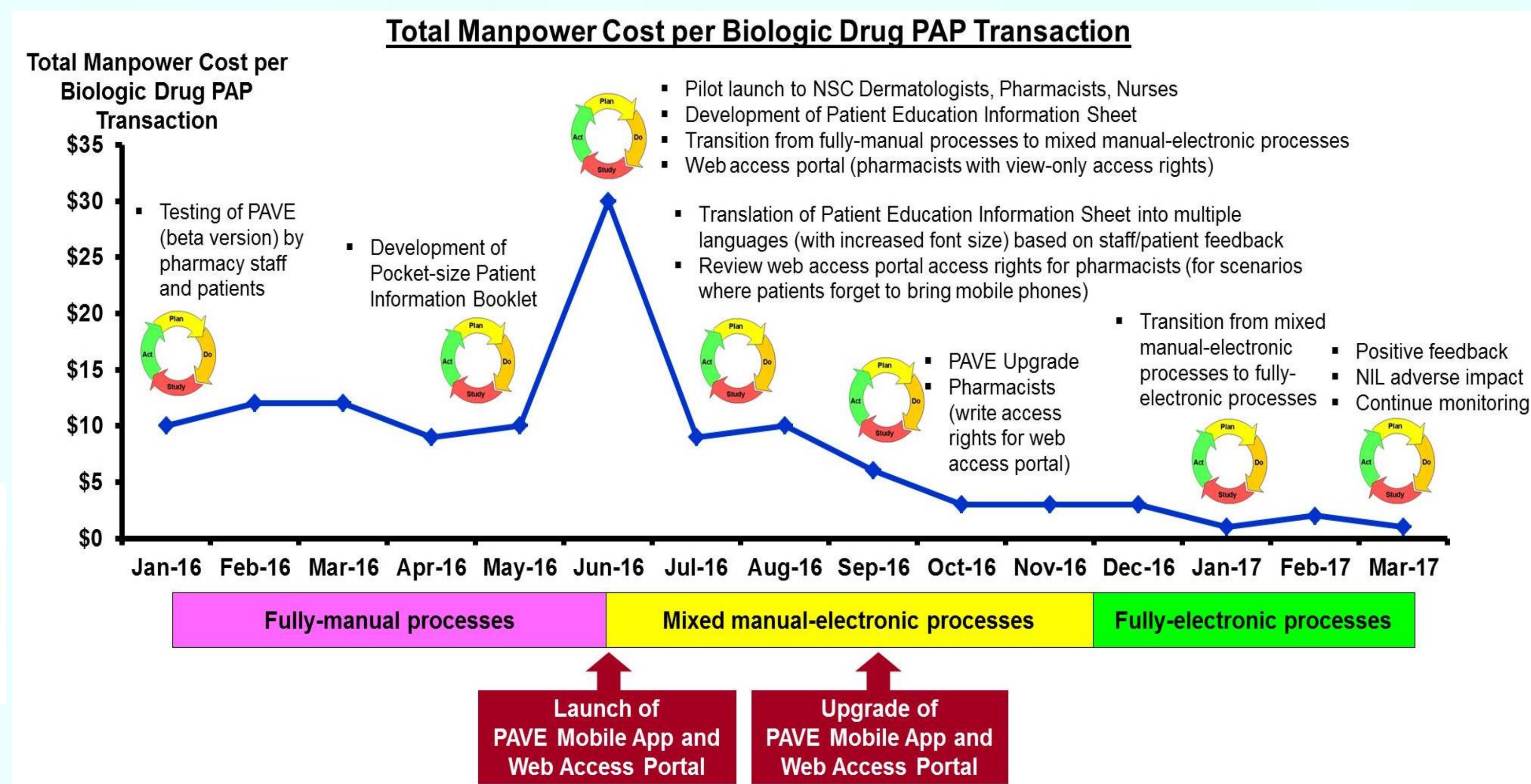
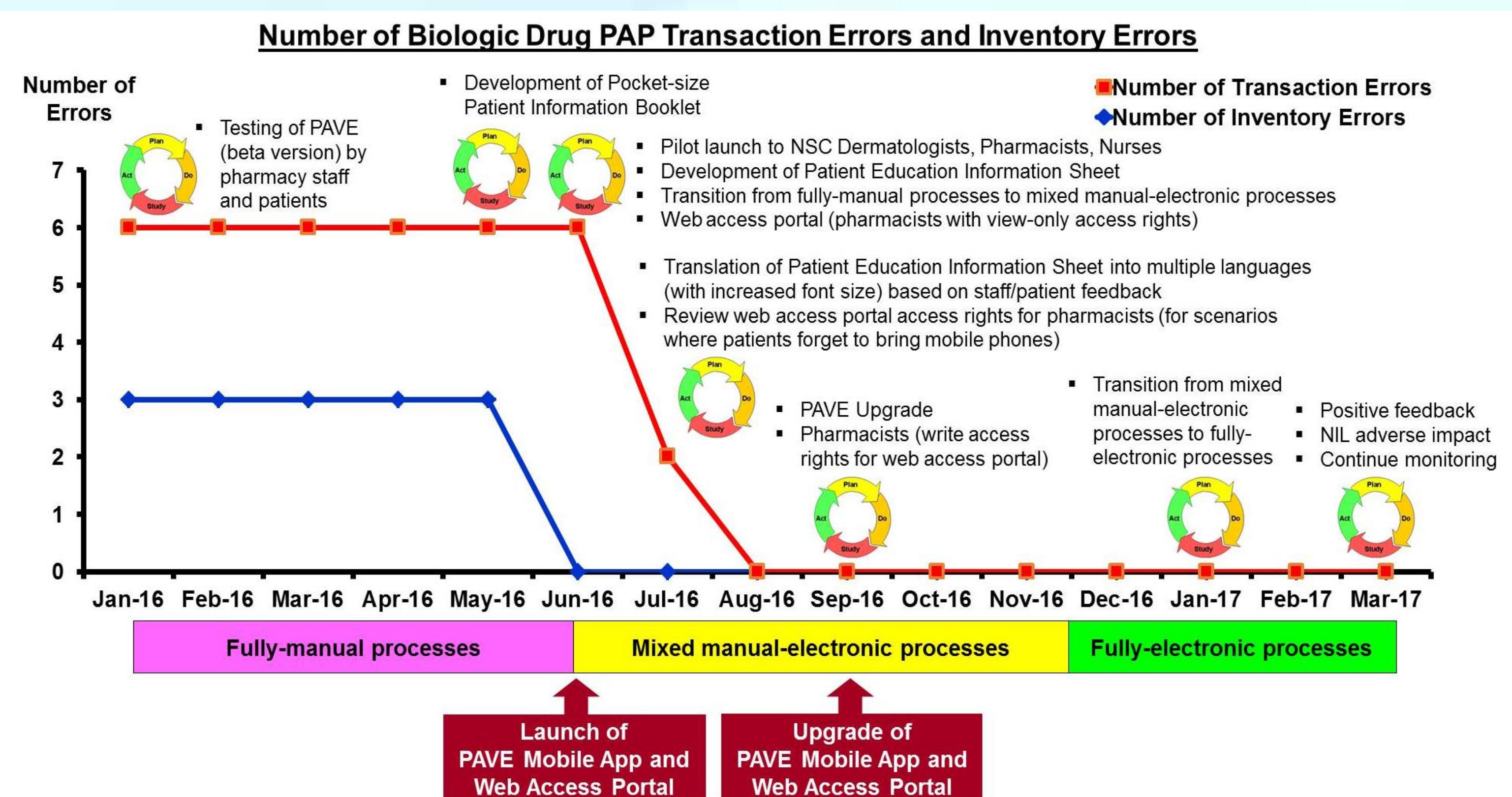
Multi-lingual Patient Information Sheet



Results

- From June 2016 to March 2017, a total of 72 NSC outpatients (100% eligible patients) adopted PAVE successfully.

Outcome Measures	Baseline	PAVE Upgrade	Fully-electronic
Number of Inventory and Transaction Errors	6 Per Month	0 Per Month	0 Per Month
Total Manpower Cost per transaction	SGD 10.44	SGD 2.26 (↓78%)	SGD 1.28 (↓88%)
Average patient waiting time in pharmacy	20 Minutes	13 Minutes (↓35%)	10 Minutes (↓50%)



Conclusion

- PAVE mobile application and web access portal improved the operational efficiency of managing PAPs of biologic drugs by 88% reduction of total manpower costs per biologic drug PAP transaction, and reduced average patient waiting time in pharmacy by 50%.
- It eliminated biologic drug PAP inventory and transaction errors.