

A photograph of a Dalmatian dog balancing a yellow taxi on its nose. The dog is white with black spots and is looking up. The taxi is yellow and has a 'TAXI' sign on its roof. In the background, there is a tall, modern glass skyscraper. The sky is blue with some light clouds. The overall scene is a metaphor for balancing technology, process, and people.

A Balancing Act: Technology, Process and People

**John Manzo, PharmD, FASHP
Senior Director, Clinical Systems
NYU Langone Health
New York, New York**

A Balancing Act - Technology, Process and People

Learning Objective:

- Discuss the three critical elements for implementing a new technology

Outline:

- The Challenge and Proposed Solution
- The Technology
- The Process
- The People
- The Outcome
- The Next Steps

Disclosure

No conflicts of interest to disclose

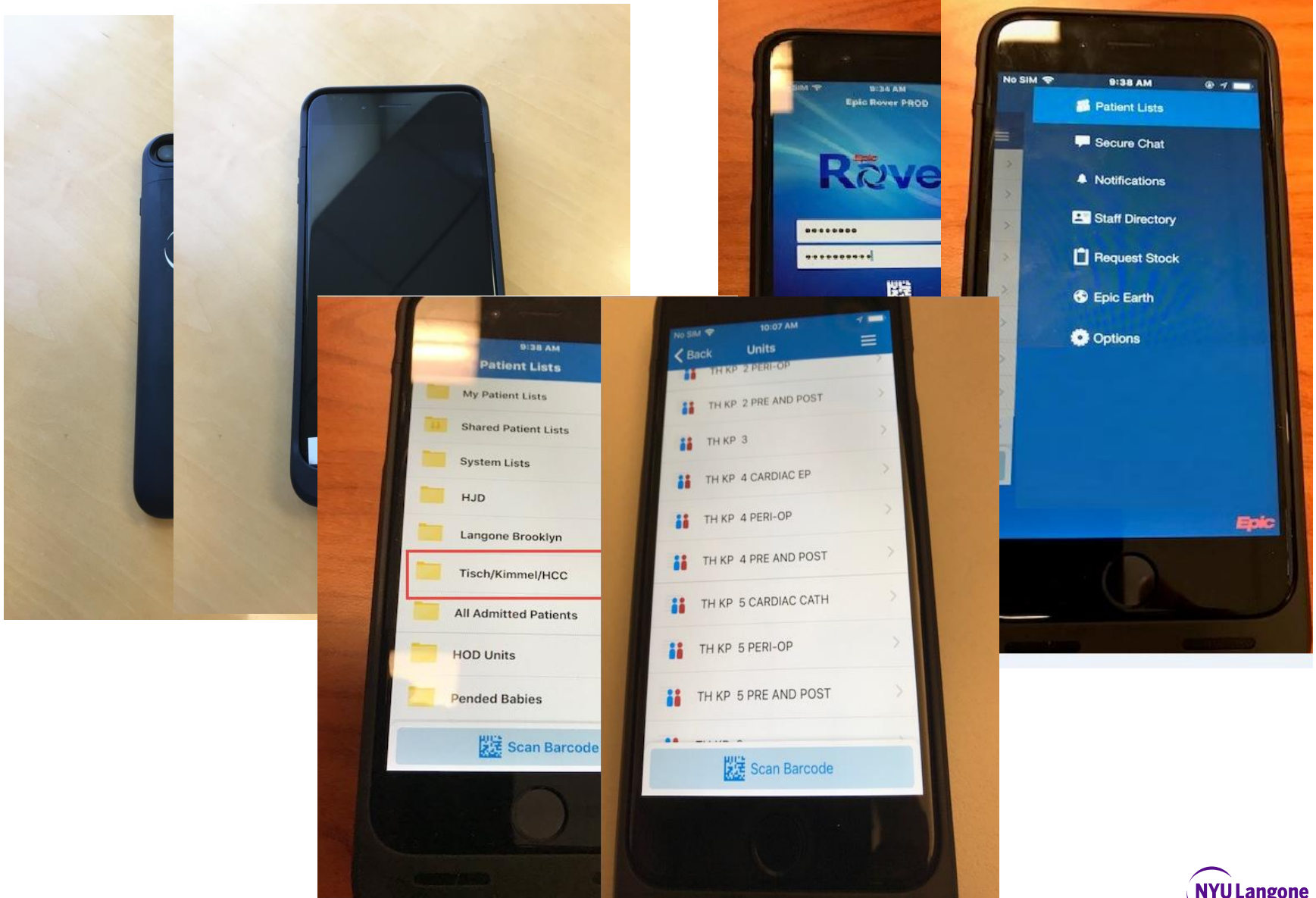


The Challenge

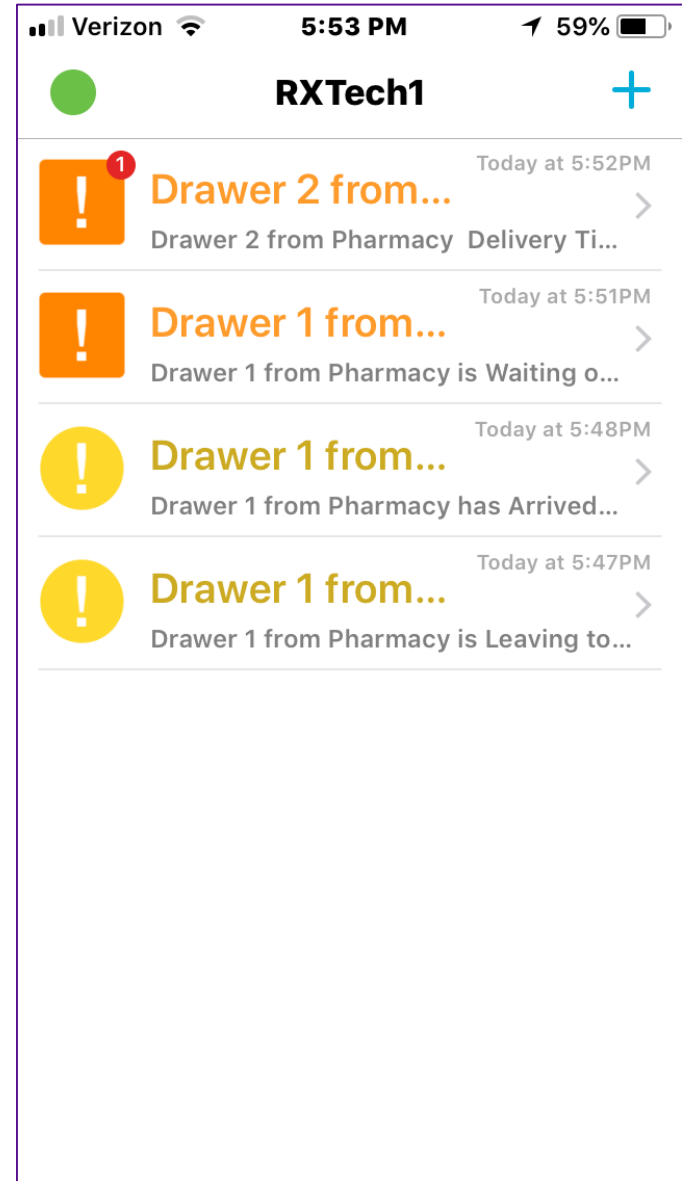
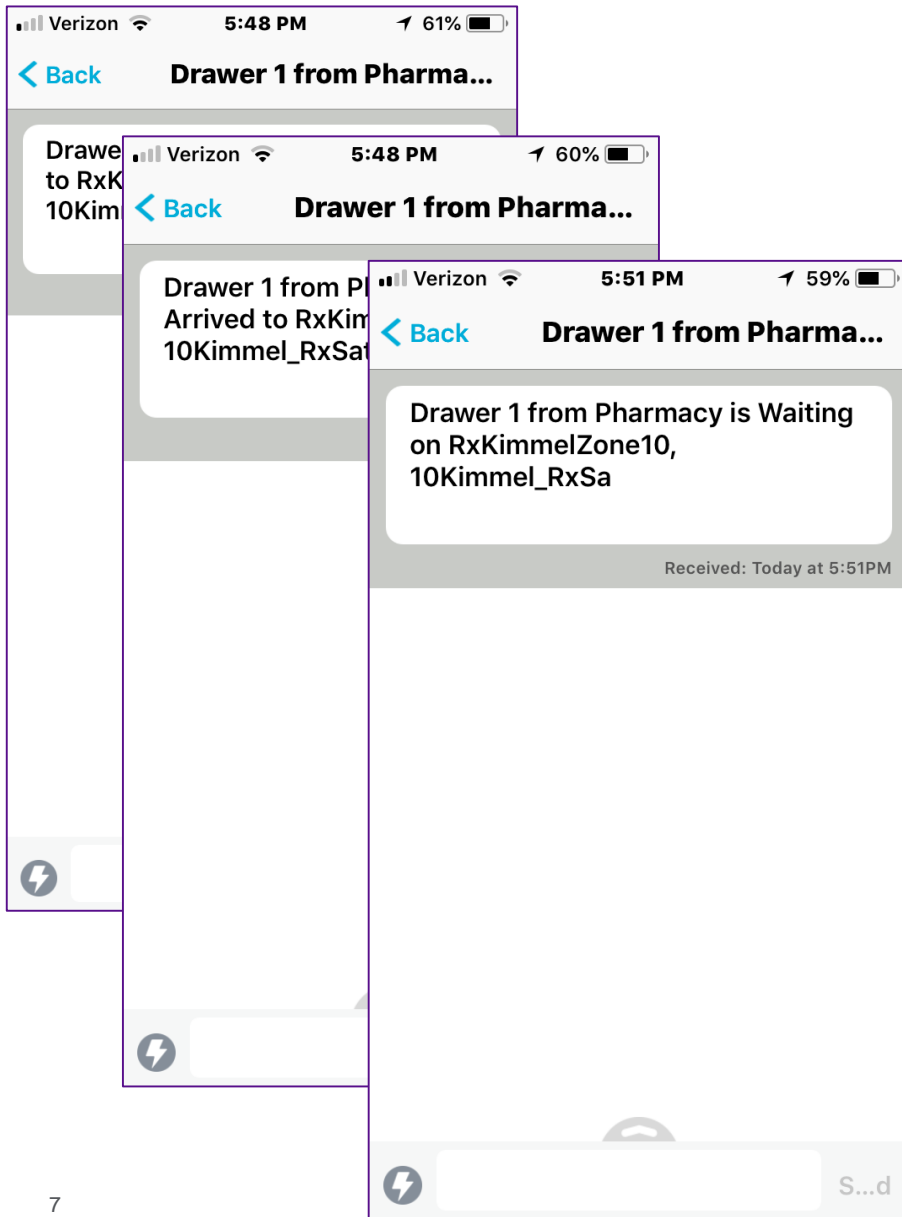
- Decentralized medication distribution model
- Limited pharmacy technician resources
- The need for mobility
- A demand for “just in time” medication availability



The Technology



The Technology



The Process

- Various modalities for medication delivery - Central or Satellite Pharmacy to patient unit
 - Pneumatic tube stations
 - Delivery “robots”
 - Humans
- Patient specific medication “smart drawers”
- Nurses driven to mobile communication device for decentralized alerts, alarms and interdisciplinary communication
- Medication Turnaround time a focus of concern for Nursing, Pharmacy and the organization
- Exploitation of novel technologies and devices to minimize need for people related processes

The People

CHALLENGES

- New facility with technologies and equipment not yet deployed within the organization
- New and existing Nursing and Pharmacy staff orienting to the technologies, equipment and new spaces
- Various stages of technology literacy, adoption and acceptance

MITIGATION

- Engage early and often
- Staff were oriented and trained before the opening date
- Identification and leveraging key champions and stakeholders in all project phases
- IT and Operational Partnership

The Outcome

- Pharmacy technicians and Nurses embraced the use of the mobile devices
- Alerts and notifications enabled more efficient medication delivery and accessibility
- Key Performance Indicators (KPIs) yet to be measured
 - Turn around time
 - Missing medication requests and rates
 - Nursing satisfaction
 - Pharmacy satisfaction

The Next Steps

- Measure KPIs for continuous improvement
- Address pharmacy technician staffing challenges related to the technology driven workflows
- Fully leverage the annunciation of the arrival of the medications via delivery “robots”
- Leverage the communication technology to inform nurses when medications have been sent via the pneumatic tube
- Design/Deploy additional alert options

Assessment Question #1

TRUE of FALSE

Technology is always the most important component of any IT project.

Answer: FALSE

Assessment Question #2

All of the following represent strategies to mitigate some of the people and cultural challenges associated with implementing new technologies EXCEPT:

- 1) Engage champions and end users early and often
- 2) Provide orientation and staffing in advance of the planned implementation date
- 3) Ensure all end users work in the same department
- 4) Identify and leverage key champions and stakeholders in all phases of the project
- 5) Stress the importance of IT and Operational Partnership

Answer: #3