



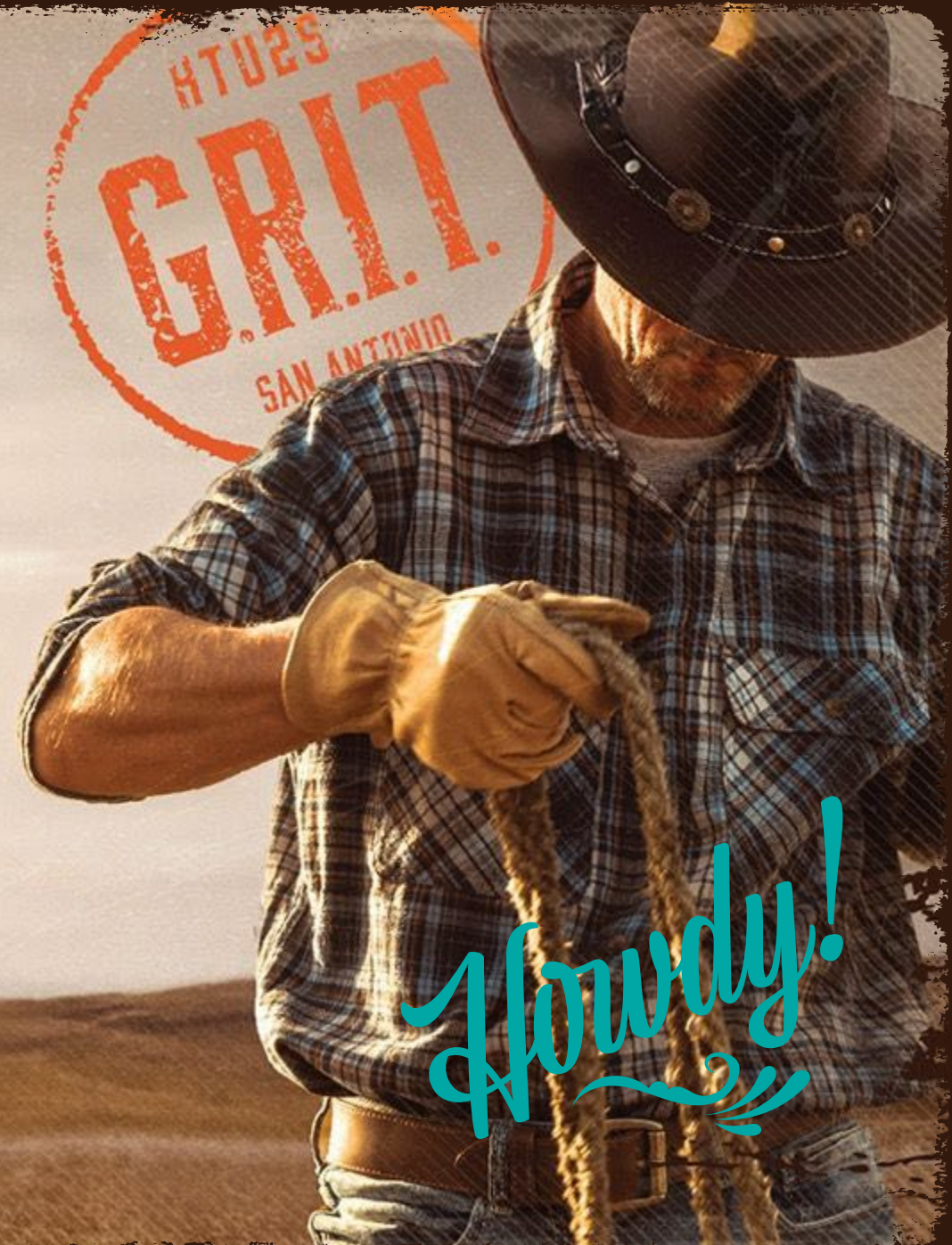
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The Pulse of Efficiency: Kanban for Supply Chain Success

THIS SESSION IS NOT OPEN TO SUPPLIERS

Applying for CE credit or need a Certificate of Participation?
Be sure to snap a pic of the code shown at the end of this session.

CE Deadline: 09/30/25



Moderator & Panelists



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Abouzahr, MBA**

AVP, Special Operations &
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Performance Group



Panelist

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Supply Chain Operations

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Shared Services
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UCI Health
Irvine, CA

Disclosures



The presenters have no real or perceived conflicts of interest related to this presentation

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Learning Objectives



At the end of this session, participants should be able to:

- Recognize inefficiencies in current inventory processes and innovative tools and techniques to improve stock rotation, accessibility and supply chain resilience.
- Recall methods to improve clinical relationships and staff satisfaction through intuitive and accessible inventory management solutions.
- Identify best practices to create and standardize visual communication tools that enhance team collaboration, reduce disruptions and adapt to evolving operational demands

Pulse Check (Poll #1)



What is the current state of inventory in your procedural spaces?

- A.** Somewhere between “just-in-time” & “just ran out”
- B.** Fully stocked & ready to roll – we could host a surgical Olympics if needed!
- C.** Inventory? Oh, you mean the treasure hunt we play every morning before surgery?
- D.** We're generally well stocked but have fire drills from time-to-time.

What is Kanban?



Origin Story

- Developed in the 1940s by Taiichi Ono at Toyota to eliminate manufacturing waste & overproduction
- Keep inventory lean, while maintain a smooth workflow
- Kanban cards (or bins) signal demand and control production/replenishment flow

Key Concept

- Reduce excess inventory & waste
- Improve throughput & process efficiency
- High visibility across the production chain



Results

- Reduced restocking labor
- Better inventory turnover first-in, first out ("FIFO")
- Streamlined ordering based on true demand

What is Kanban?

- A data-driven two-bin system that uses **visual cues** for replenishment.
- Designed to decrease waste, reduce stockouts, improve lean stocking practices & improve efficiency.



— KANBAN LESSONS LEARNED —

HCA HEALTHONE



Abbi Elzinga, Director Shared Services

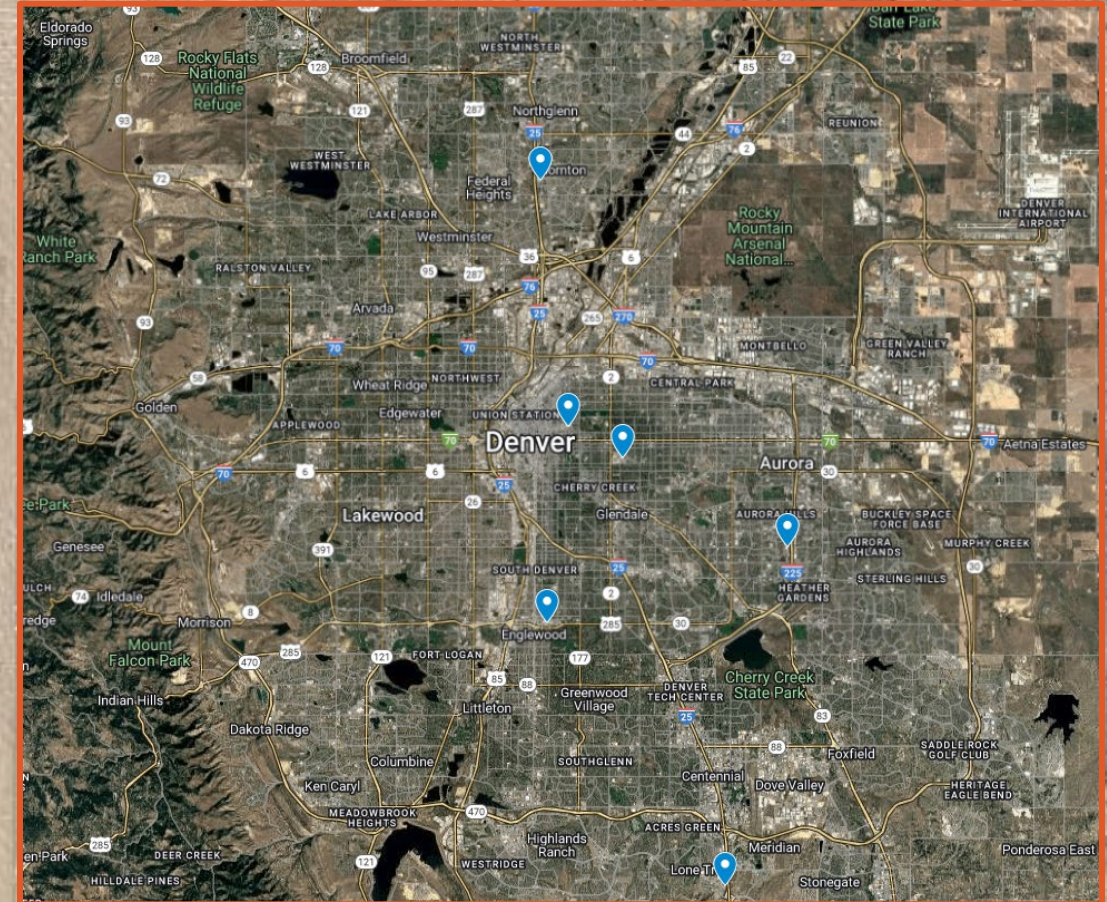


Source: HPE Inc. Not for reuse without permission of HCA Healthcare.

HCA Healthcare – HealthONE

Demographics

- ❖ Type: Private health system (part of HCA Healthcare)
- ❖ Profit Status: For-profit
- ❖ Main Hospitals:
 - Swedish Medical Center
 - The Medical Center of Aurora
 - Sky Ridge Medical Center
 - Rose Medical Center
 - North Suburban Medical Center
 - Presbyterian/St. Luke's Medical Center
- ❖ Number of Hospitals: 6
- ❖ Number of Beds: ~2,000+ combined
- ❖ Locations: Denver metro area, Colorado
- ❖ Specialties: Comprehensive care including trauma, cardiac, neuro, ortho & rehab



Source: Google Maps. Not for reuse without permission of HCA Healthcare.

Front-to-Back or Side-to-Side



- Reorder point is triggered when "use first" bin is empty & QR Code label is visible. Stock in "BACK UP" bin is rotated to "USE FIRST" bin
- Reduces risk of expiration due to forced FIFO replenishment
- Data analysis completed to determine bin size to fit the correct par level & safety stock. Lead times & local stocking are considered in periodic automatic replacement ("PAR") level designations
- Nurse friendly labels (right) allow for faster item-finding & improved nurse-to-supply communication

Emergency Department



- 32.8% reduction in total line items due to PAR optimization
- Increased stocking & ordering efficiency using data-driven unit of measure ("UOM") & PAR level improvements
- Improved nursing satisfaction from labeling improvements, product categorization & enhanced organization



Emergency Department, *continued*



Operating Room



- Pre-build, PAR analysis report had 1,772 items. Post-build sequenced list had 1,313 items for a 26% reduction.
- Time study conducted post-implementation. Optimized pick path & inventory organization resulted in 50% less pick time per case.



— KANBAN LESSONS LEARNED —

UCI HEALTH



Sandra Reichle,
Director of Clinical Supply Chain



Source: UCIHealth.org. Not for reuse without permission of UCI Health.

Assessment / Knowledge Check #1



When evaluating Kanban readiness & implementation, Supply Chain should loop in clinical stakeholders at which phase?

- A.** Immediately upon finding out the Kanban methodology exists.
- B.** Once an initial inventory analysis, overstock estimation, preference card review & readiness assessment is complete. Coming prepared with facts & figures will help my clinical teams understand the value.
- C.** After a contract is signed & capital request is placed. We want savings – stakeholder feedback will only slow us down!
- D.** This is a Supply Chain initiative, my clinical teams will be happy with the outcomes. I will surprise them!

Answer: Assessment / Knowledge Check #1



When evaluating Kanban readiness & implementation, Supply Chain should loop in clinical stakeholders at which phase?

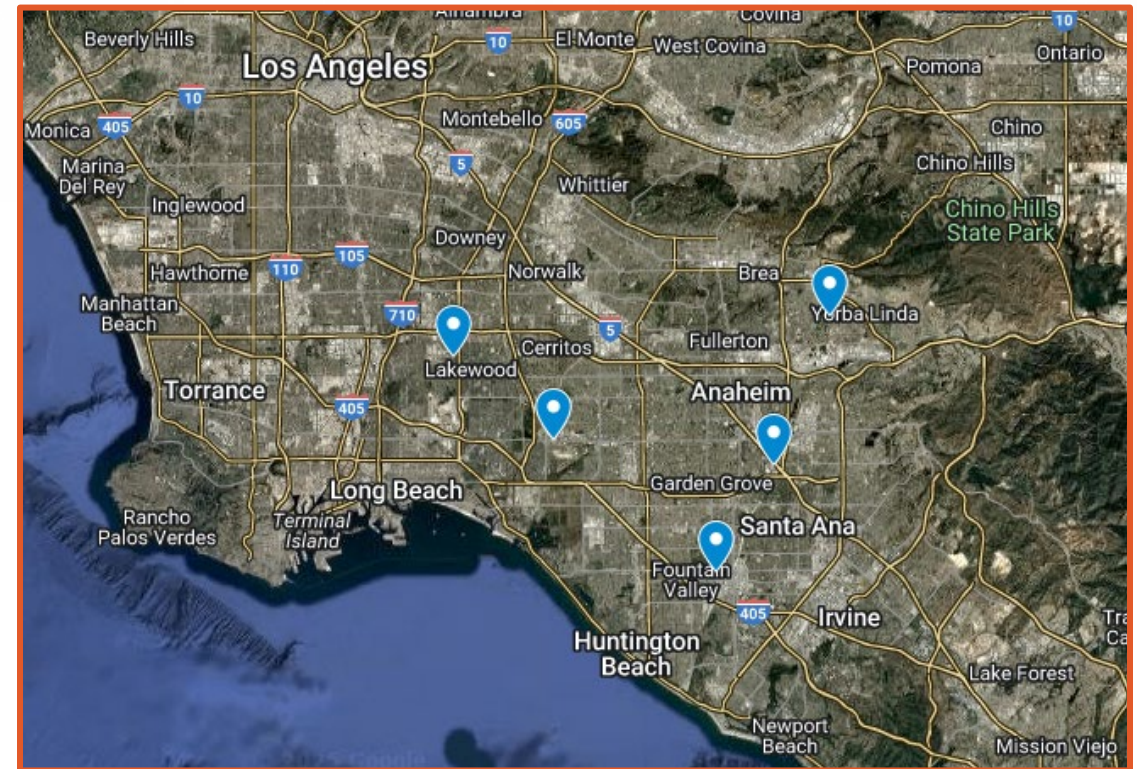
- A. Immediately upon finding out the Kanban methodology exists.
- B. Once an initial inventory analysis, overstock estimation, preference card review & readiness assessment is complete. Coming prepared with facts & figures will help my clinical teams understand the value.**
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University of California, Irvine Health (UCI Health)



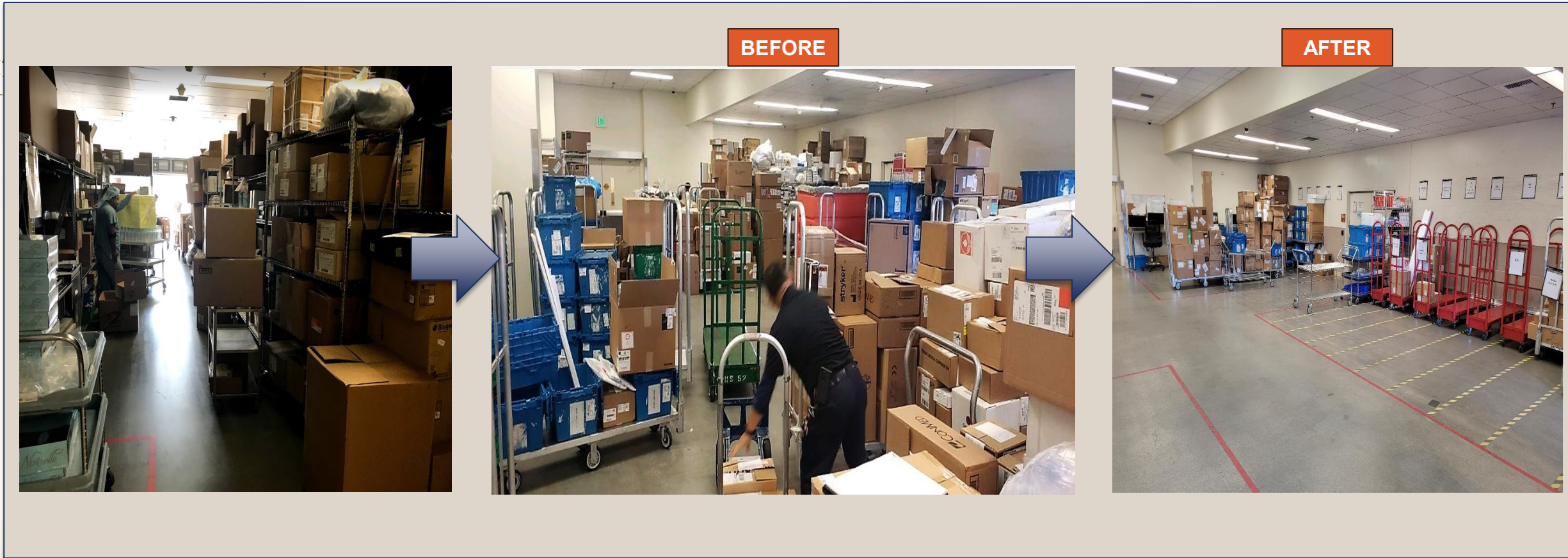
Demographics

- ❖ **Type:** Academic health system
- ❖ **Profit Status:** Non-profit
- ❖ **Main Hospital:** UCI Medical Center (Orange, CA)
- ❖ **Recent Expansion:**
 - In 2024, UCI Health acquired four hospitals from Tenet Healthcare, significantly expanding its footprint in Southern California
- ❖ **Newly Acquired Hospitals:**
 - Fountain Valley Regional Hospital
 - Lakewood Regional Medical Center
 - Los Alamitos Medical Center
 - Placentia-Linda Hospital
- ❖ **Total Number of Hospitals:** 5
- ❖ **Est. Total Beds:** ~1,000+ (combined across all facilities)
- ❖ **Locations:** Orange County & surrounding areas in Southern California
- ❖ **Specialties:** Academic medicine, trauma, cancer, neurosciences, transplant, & now expanded community-based care



Source: Google Maps. Not for reuse without permission of UCI Health.

Operational Excellence was enhanced by the implementation of lowest unit of measure & creating a lean process of supply deliveries.



Source: UCI Health Supply Chain. Not for reuse without permission of UCI Health.

Inventory Management Transformation (Kanban):



**BEFORE - "JUST IN CASE"
ORDERING**



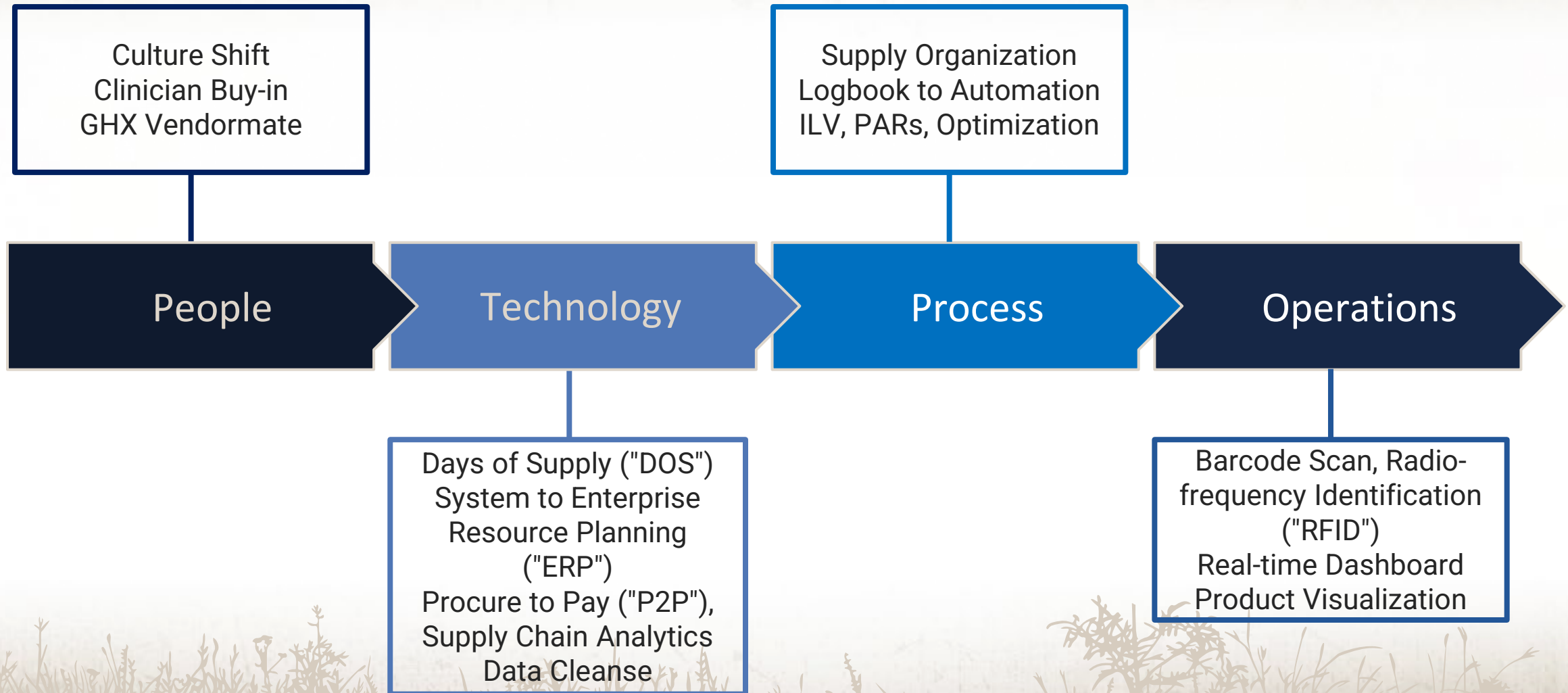
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**AFTER - "JUST IN TIME"
ORDERING**

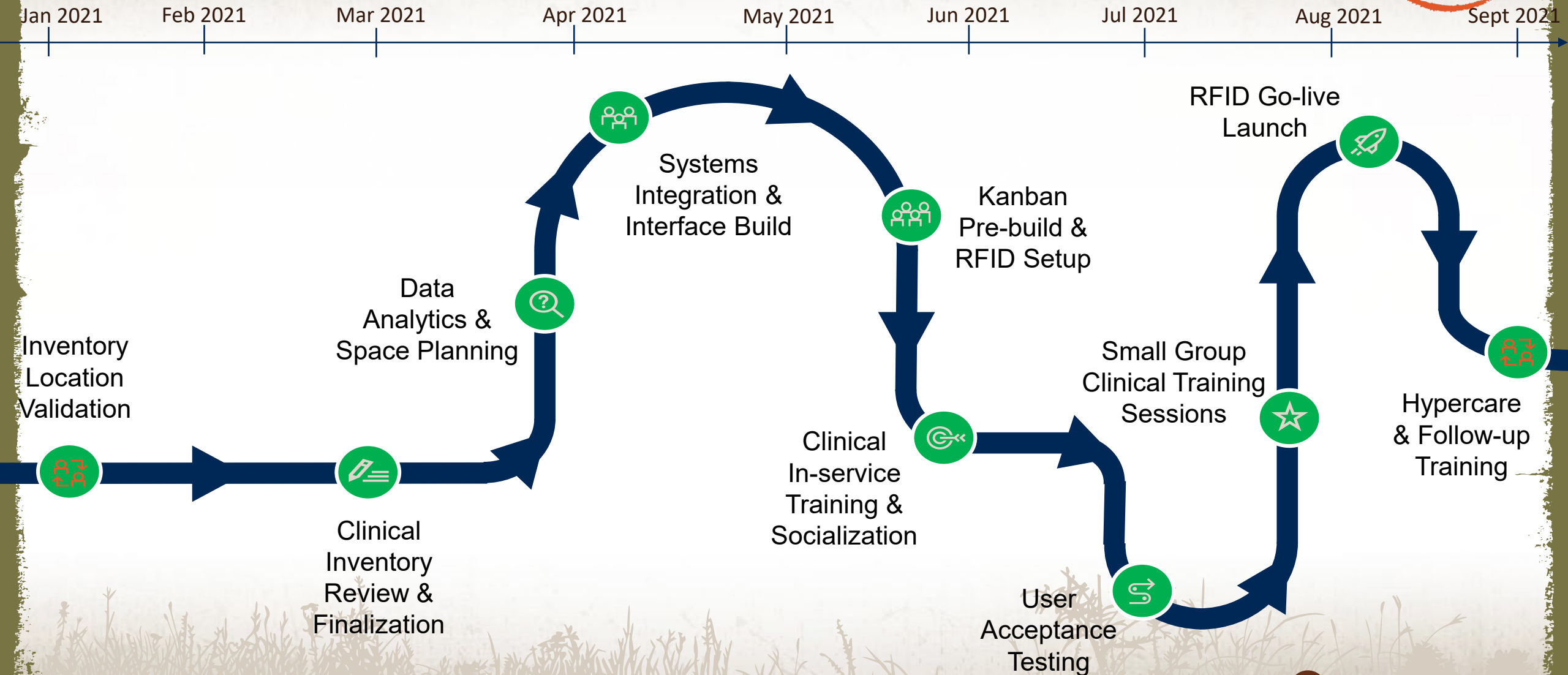


Source: UCI Health Supply Chain. Not for reuse without permission of UCI Health.

Strategic Alignment



Implementation Journey Map



Kanban Optimized, Ongoing Continuous Improvement



BEFORE



AFTER



Inpatient 2 Bin Kanban Dashboard



Home

Scan

Order >

Reports >

Analytics >

Smart Tools >

Setup

Search

Sandra Reichle

UCI Med Ctr - Orange, UCI - 2BK

Clinical Alerts

You have no clinical alerts

Products At Risk

0 Missing more than 1 day

0 Items expiring in 7 days

0 Significantly above Par

Product Unavailability

0 Line orders older than expected number of days

0 Line orders without PO

0 Out of stock products

0 Products at Risk of Stockout

237 Out of Stock Bin Set >

303 Hot bins >

212 Unfilled bins >

0 Cabinet Alerts

Orders

Done

Find Items

Done

My Catalog Setup

1

 Products in My Catalog without an Item Master Number

14

 Products in My Catalog without a Cost

Bins Setup

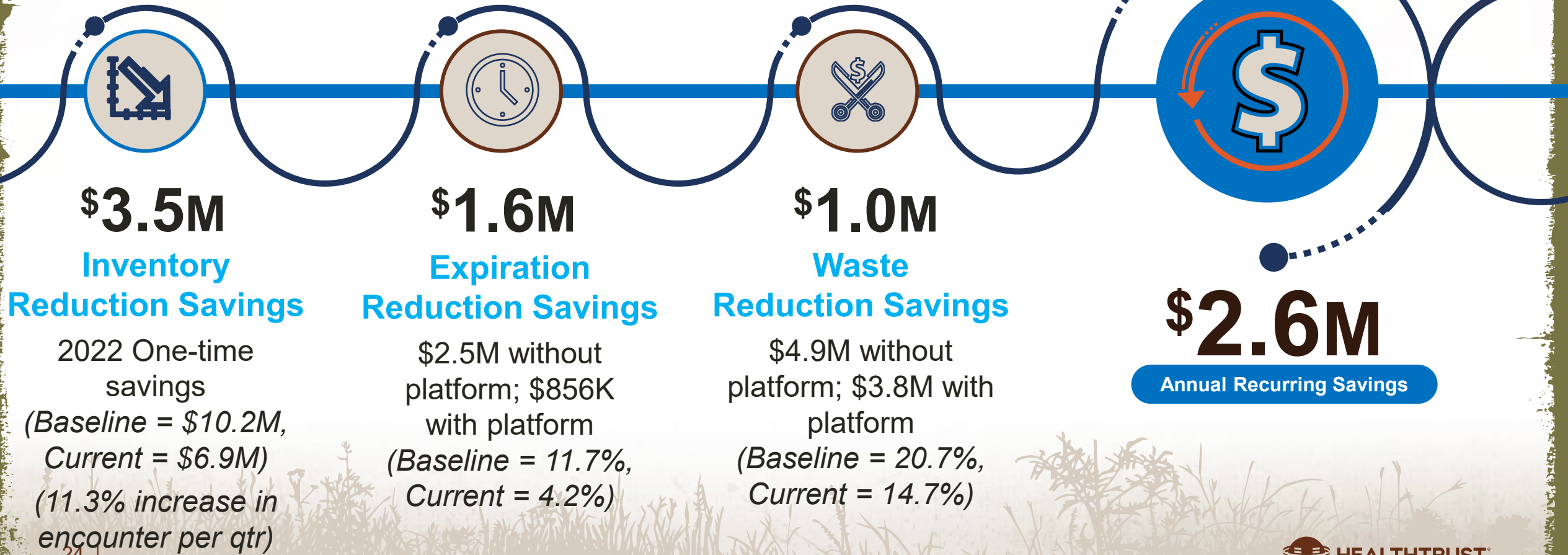
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 Bins that Need Re-Printing Due to Bin Attribute Changes

Supply Chain Optimization at UCI Health



Annual savings (rolling 12-month)



Source: UCI Health data. Not for reuse without permission of UCI Health.

— KANBAN LESSONS LEARNED —

USA HEALTH



Matthew Berg, Distribution Manager



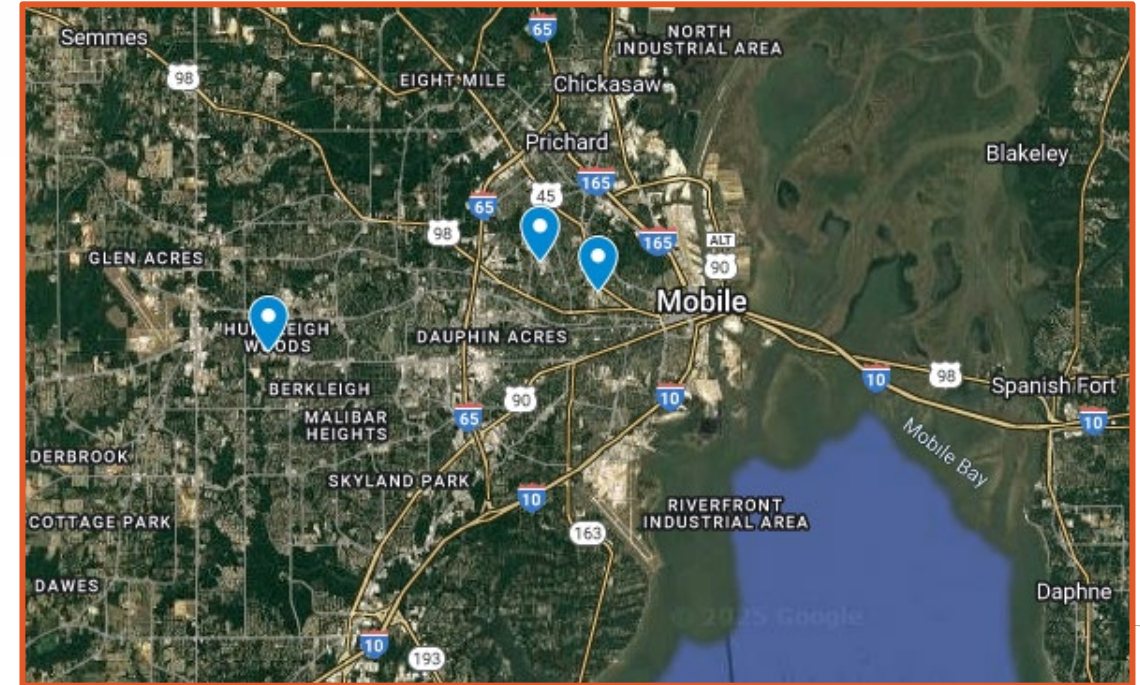
Source: www.SouthAlabama.edu. Not for reuse without permission.

University of South Alabama Health System (USA Health)



Demographics

- ❖ **Type:** Academic health system
- ❖ **Profit Status:** Non-profit
- ❖ **Main Hospitals:**
 - USA Health University Hospital
 - USA Health Children's & Women's Hospital
 - USA Health Providence Hospital (acquired in 2023)
- ❖ **Number of Hospitals:** 3
- ❖ **Number of Beds:** ~680 total (approximate)
- ❖ **Locations:** Mobile, AL & surrounding areas
- ❖ **Specialties:** Trauma, pediatrics, women's health, cancer care



Source: Google Maps. Not for reuse without permission of USA Health.

USA Health – Savings Analysis



Kanban conversion six-month evaluation example:

- Savings were evaluated by comparing pre-implementation cost-per-case per day, inventorying expired items found, & removing slow & non-moving inventory from the PAR.
- Children's & Women's Hospital & University Hospital Pediatric Intensive Care Unit
 - ✓ \$2.10 savings per procedure day
 - \$5,416 six-month savings
 - \$10,832 annual savings
 - ✓ \$3,100 expired product removed
 - ✓ \$7,355 non-used product removed

Pulse Check / Poll Question #2



How does your organization currently manage demand planning for critical supplies?

- A. We use our ERP system, which utilizes clinical usage data to predict needs.
- B. We regularly check in with nursing staff & rely on their feedback to increase our orders. Sometimes, we have empty bins as a result.
- C. We use a highly advanced system called “panic ordering.”
- D. We use a perpetual inventory system that regularly updates our average usage, cluing us into appropriate PAR levels.







Dashboards



Less than .2% stock out rate according to RFID scan data



99% item availability due to increased demand planning & two-bin supply visibility

Conclusion & Next Steps



Kanban is more than a system; it's a mindset.

By embracing visual management & lean principles, healthcare organizations can transform inventory chaos into clarity

- **Proven Results Across Institutions:**

- Up to 50% reduction in pick time, validated through post-implementation time studies
- Millions in annual savings through waste reduction & optimized stock levels
- Improved clinical satisfaction & communication

- **Sustainable Change Requires Collaboration:**

- Success hinges on clinical engagement, data-driven decisions & ongoing refinement
- Kanban is not a one-time fix; it's a continuous improvement journey

- **Your Next Step:**

Evaluate your current processes, engage your stakeholders & explore how Kanban can pulse new life into your supply chain.

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Thanks y'all!



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