

# Designing Hospital Quality Function Around the Value Chain

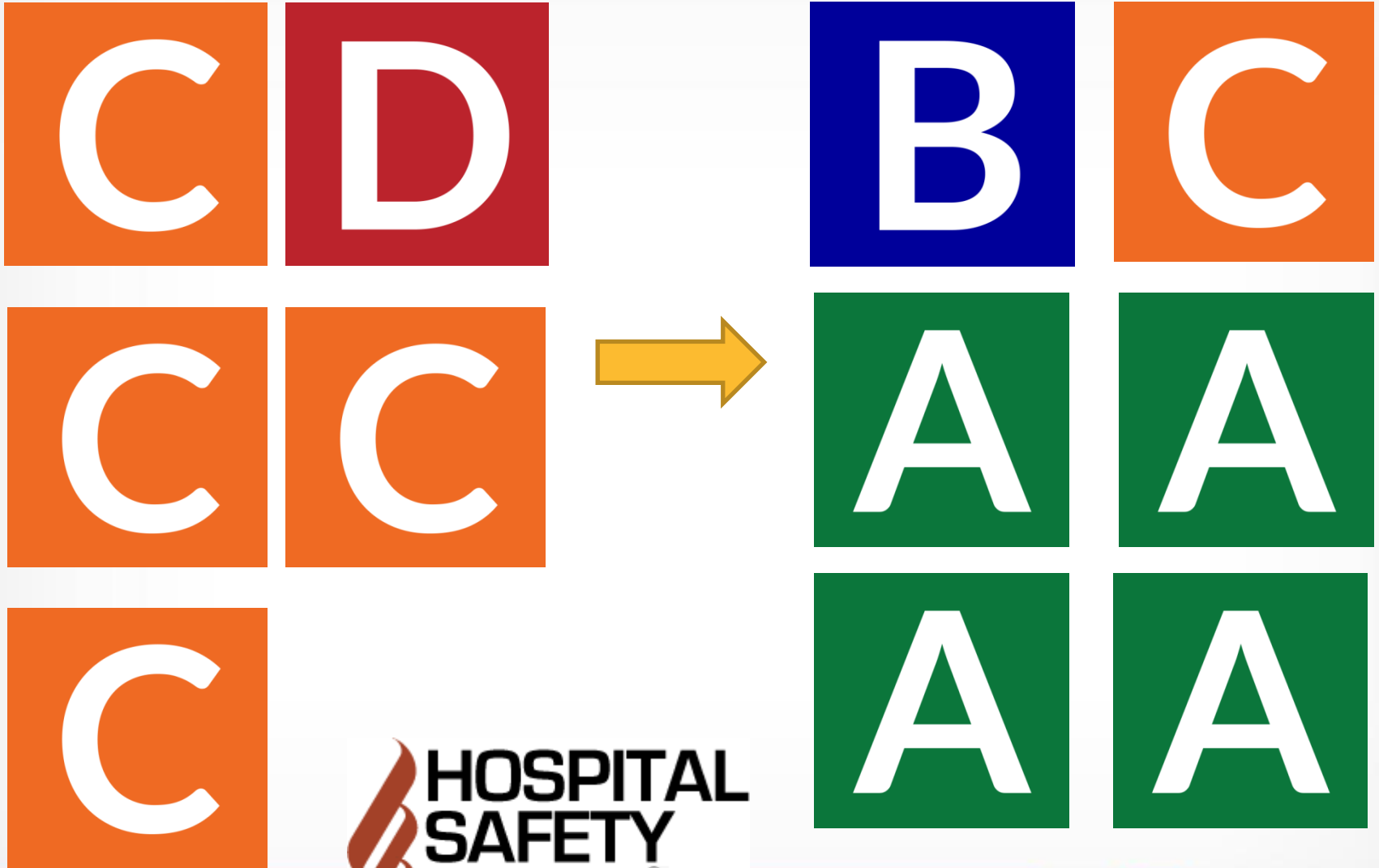
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The Leadership Institute  
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# Fall 2014



2016



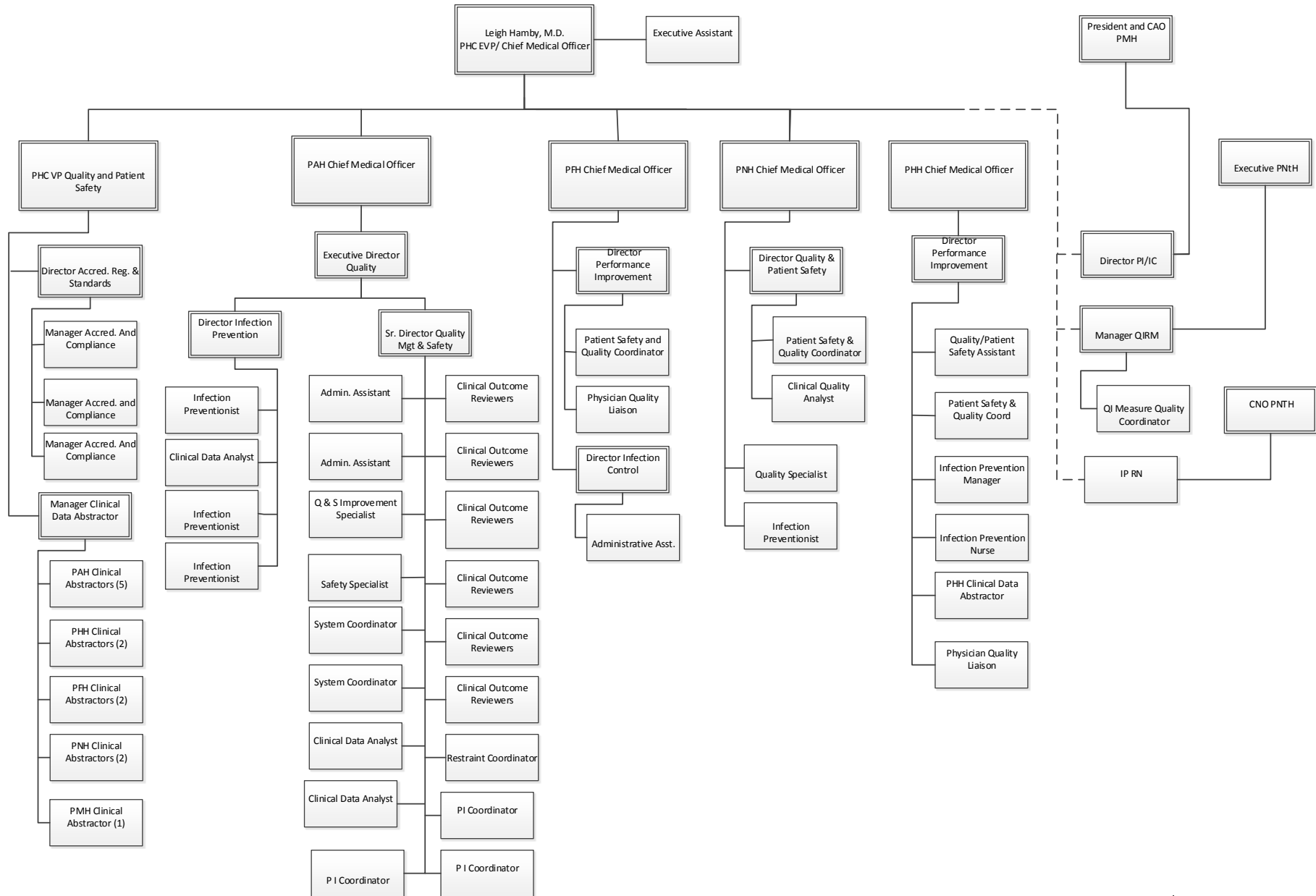
# Our Story of Change

- Structure
- Process
- Outcome\*

\*The Quality of Care: How Can it Be Assessed?

Avedis Donabedian MD, MPH, JAMA 1988;260:1743-48

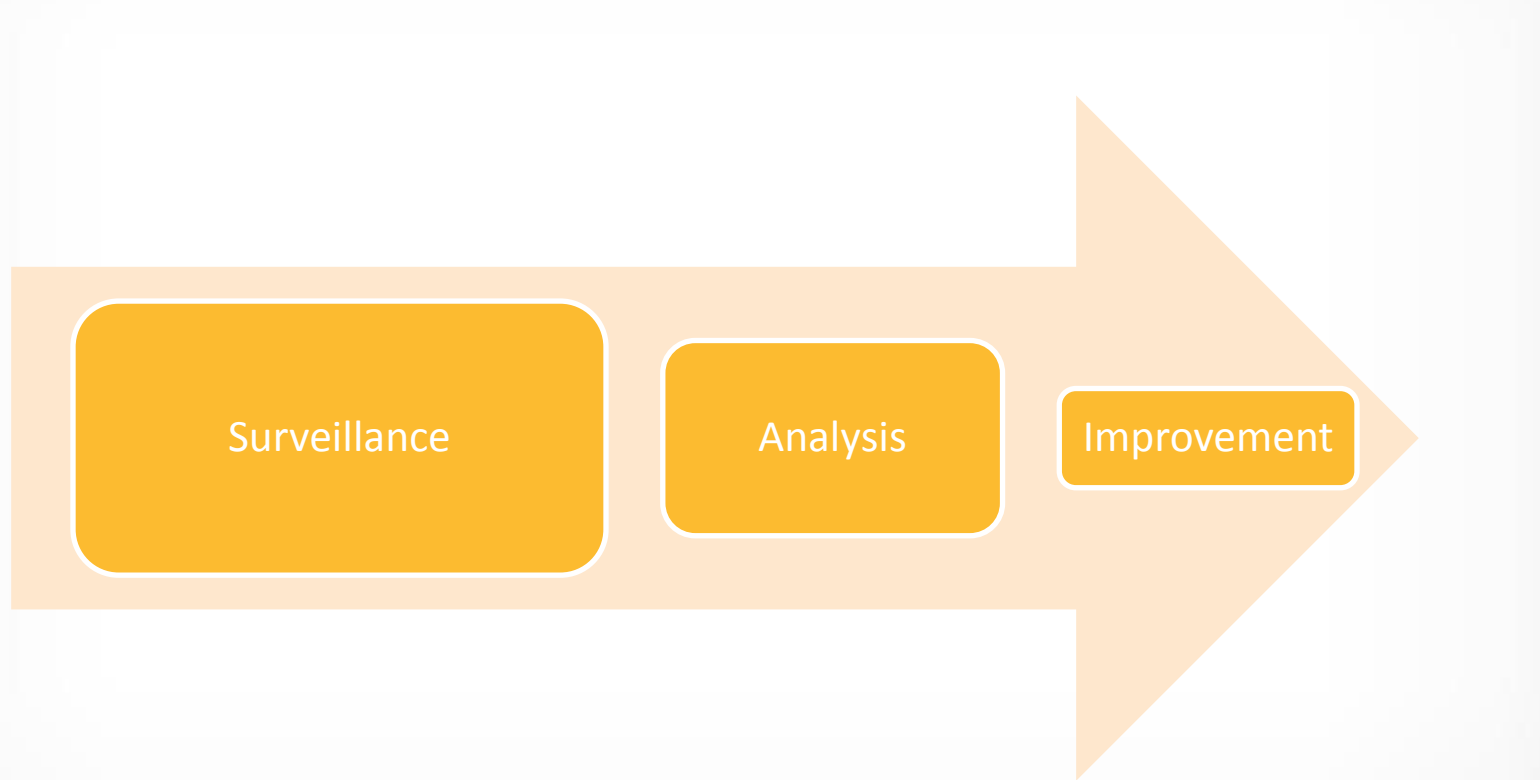
# STRUCTURE - BEFORE



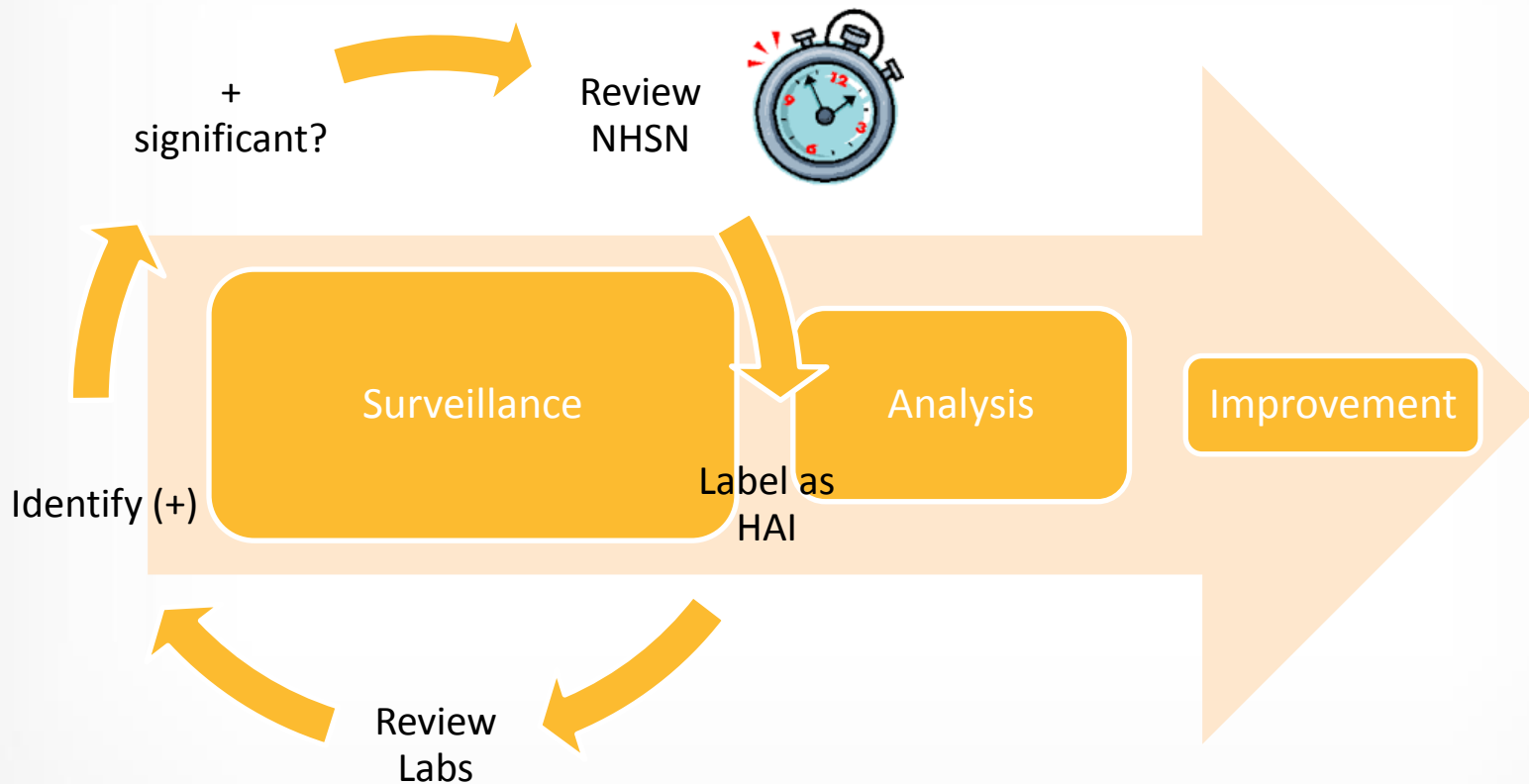
# Structure - BEFORE

- Structure
  - Traditional Hospital based, hospital centric
  - No rational strategy – organic growth over time
    - Add a regulation – add a resource
  - Resource allocation flowed around 5 domains:
    - Accreditation
    - Peer Review
      - Infection
      - Safety
      - External Reporting
  - Each hospital was attempting to develop expertise in every domain

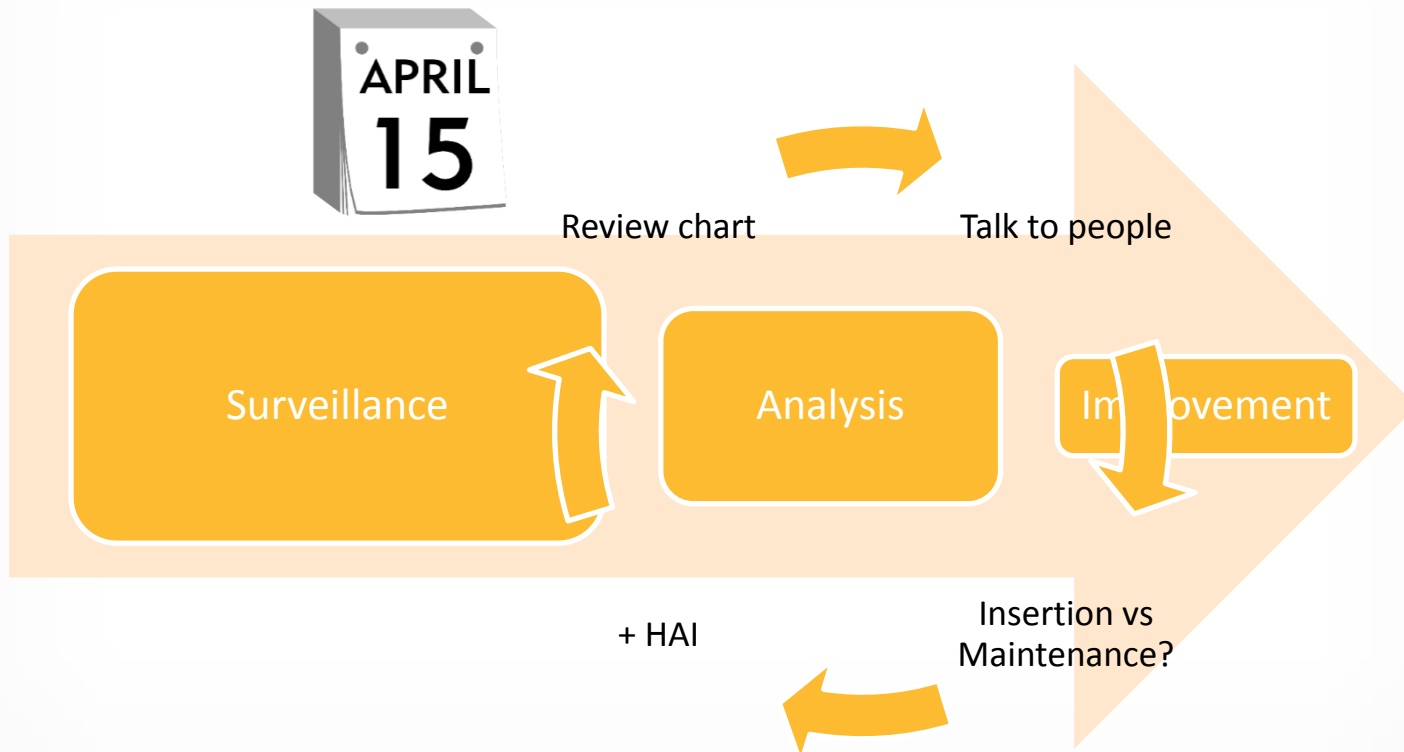
# How do we make it? - Value Chain



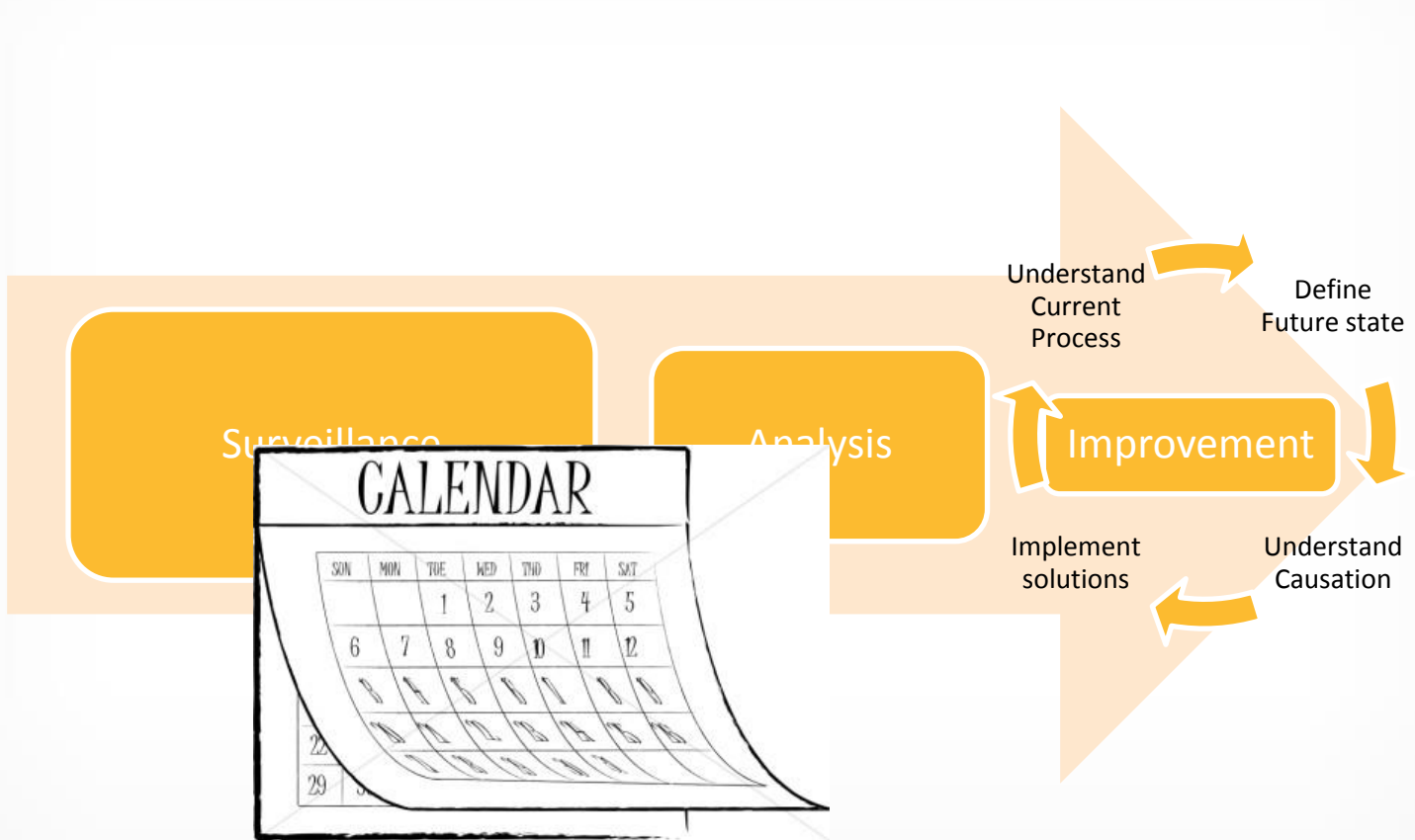
# How do we make it? - Value Chain



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# Simulations

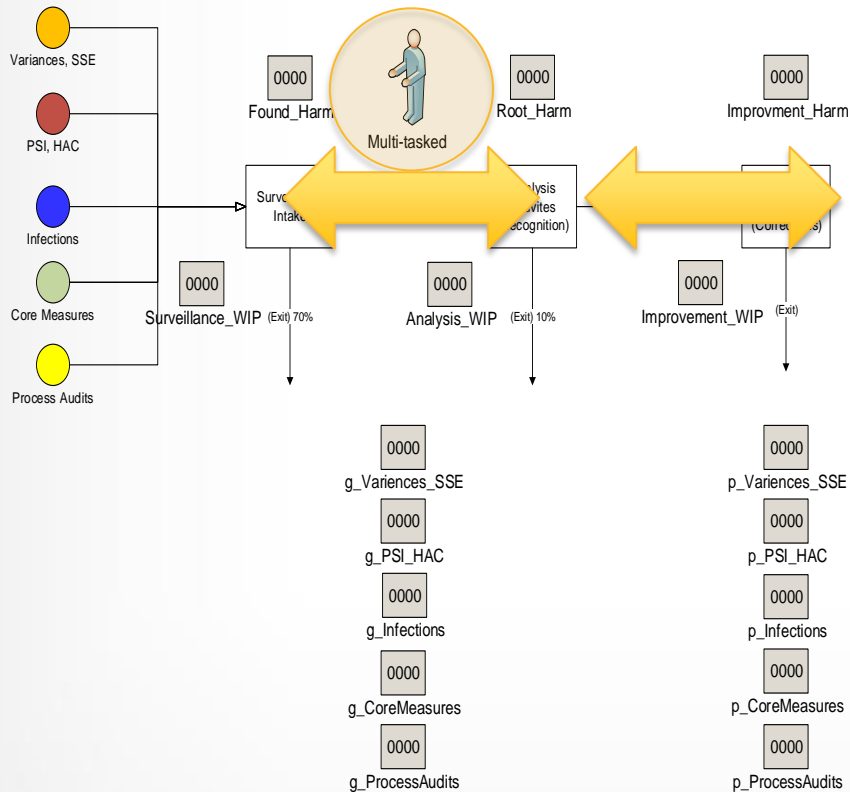
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- Four different scenarios were created in order to determine if a multi-tasked staff member is more/less efficient than a focus-tasked staff member within the value chain...
- The volume, cycle time, WIP, resource utilization and process utilization were collected by variance categories which include;
  - Variance/SSE
  - Ext Reporting Core Measures /PSI/HAC
  - Infections/Labs
  - Peer Review
  - Accreditation
- The same value chain processing times used across all simulations in order to determine which staffing compliments can handle the work across the value chain.

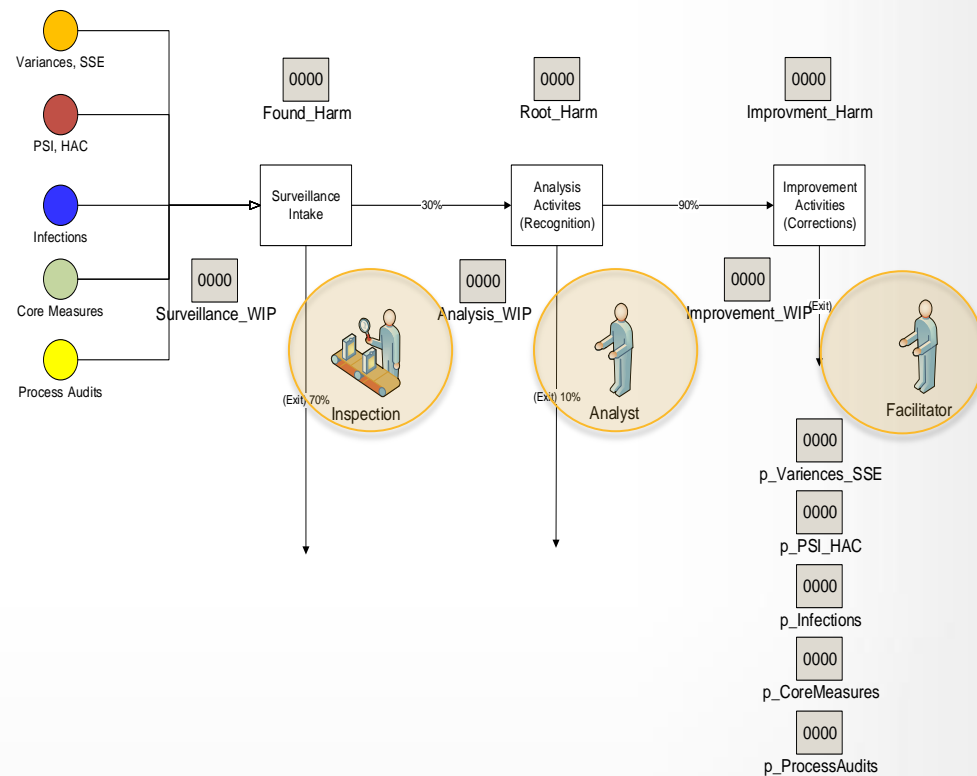
# Staffing Scenarios (Discussion Purposes)

Hypothesis: Moving away from a staffing model that requires a QI person to deliver surveillance, analysis and improvement for every event to a model where teams focus on subsets of the value chain will be more efficient...

## Current State – Expert Multitasker



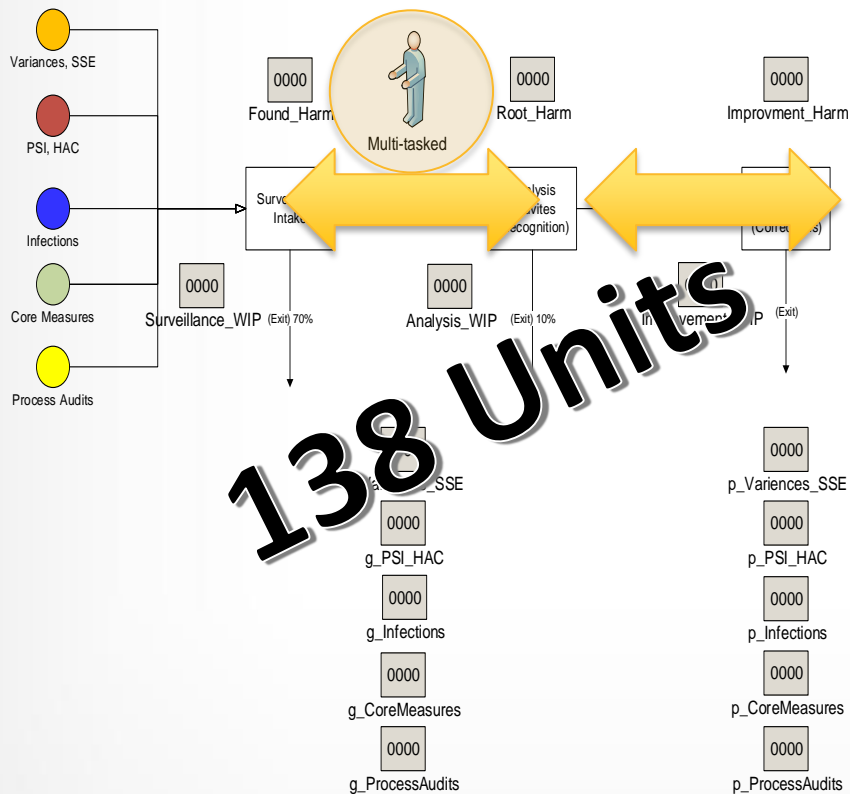
## Future State – Value Chain



# Staffing Scenarios (Discussion Purposes)

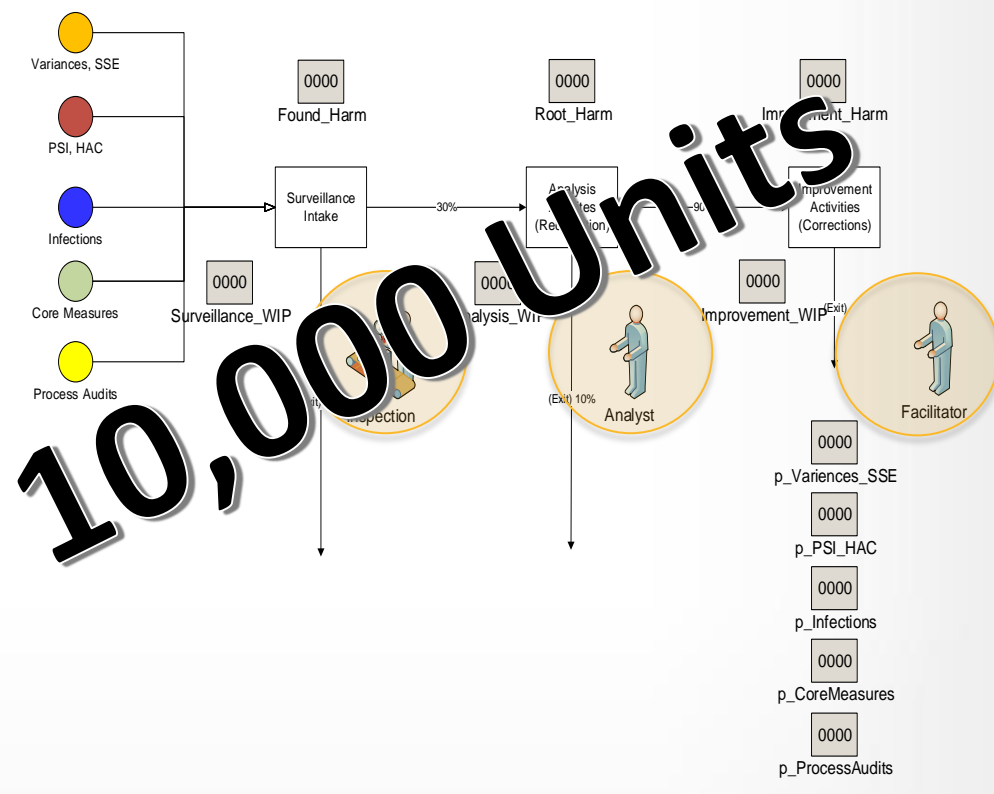
Hypothesis: Moving away from a staffing model that requires a QI person to deliver surveillance, analysis and improvement for every event to a model where teams focus on subsets of the value chain will be more efficient...

Current State – Expert Multitasker



**138 Units**

Future State – Value Chain

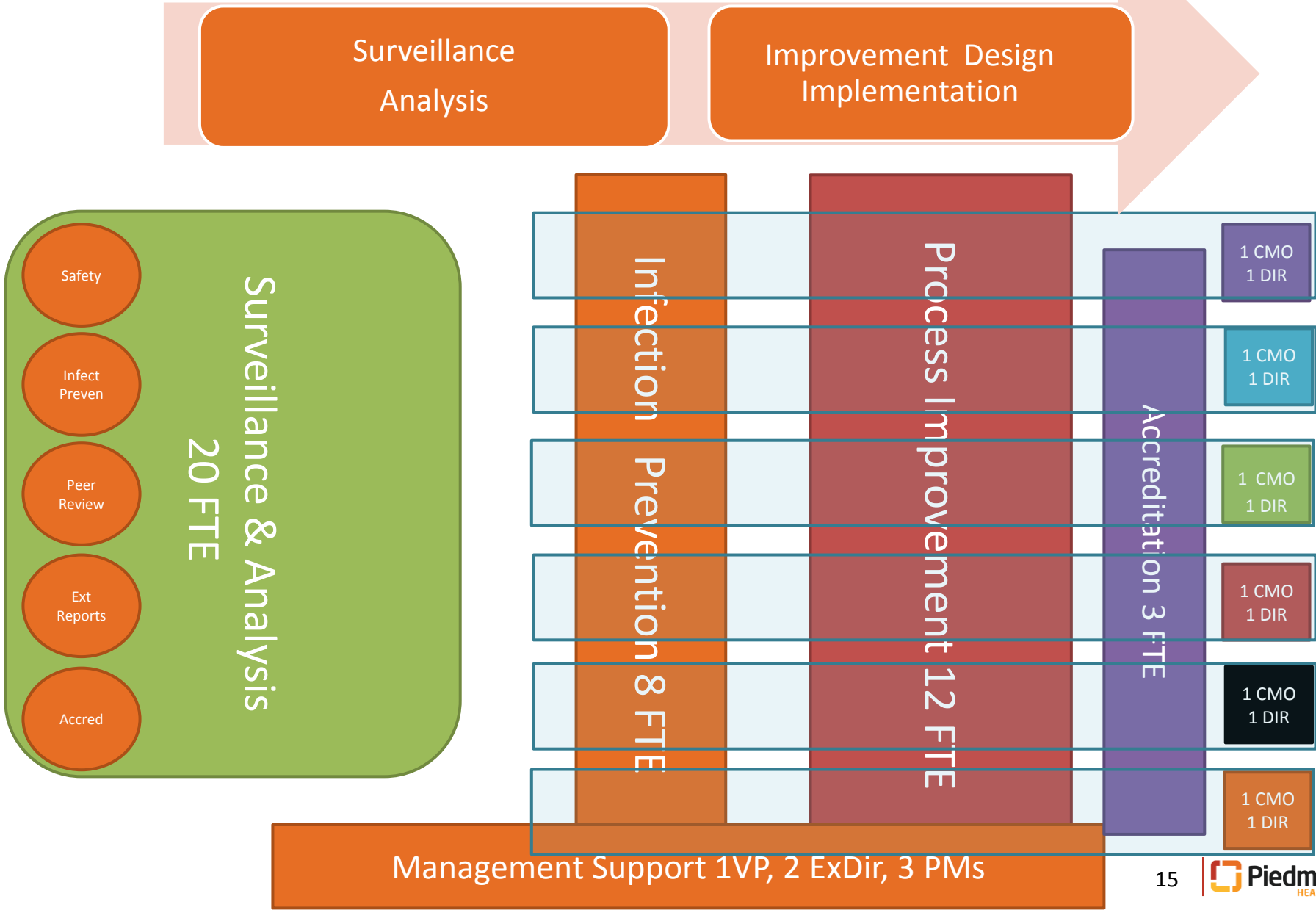


**10,000 Units**

# Lessons Learned

- Every System is Designed for the Results it Gets
  - We were designed to review charts
  - Never able to move to “improvement” work
    - Current skill set developed through “natural selection”
- Our Structure is not conducive to sharing across facilities; every thing actually prevented that.
- No STD work process for Quality Function
- Many Manual Processes
- Outcomes unreliable, unsustainable

# NEW STRUCTURE

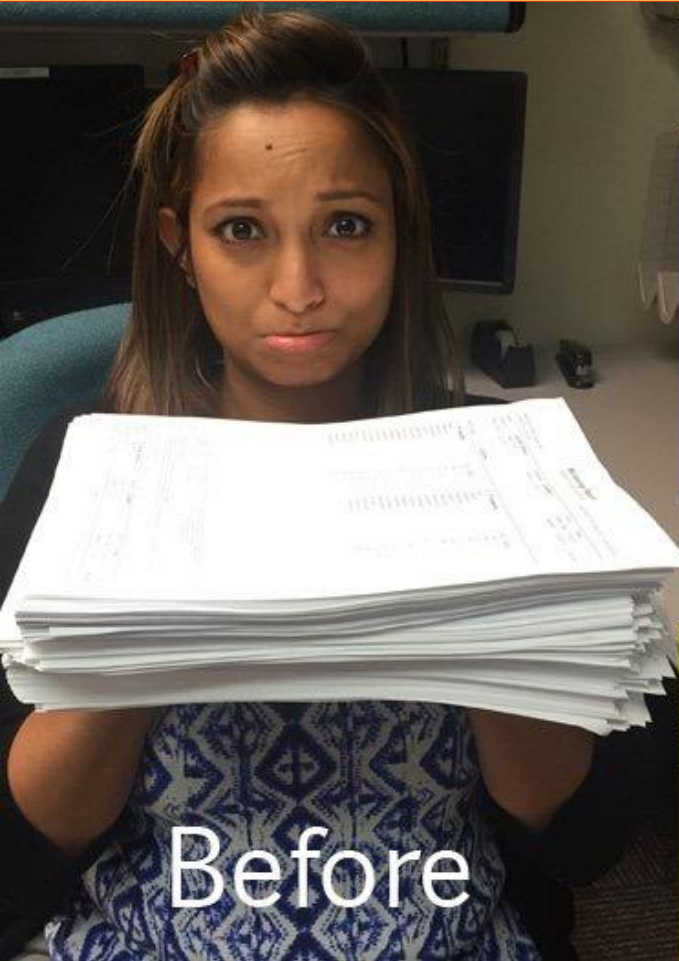


# Process - Transformation

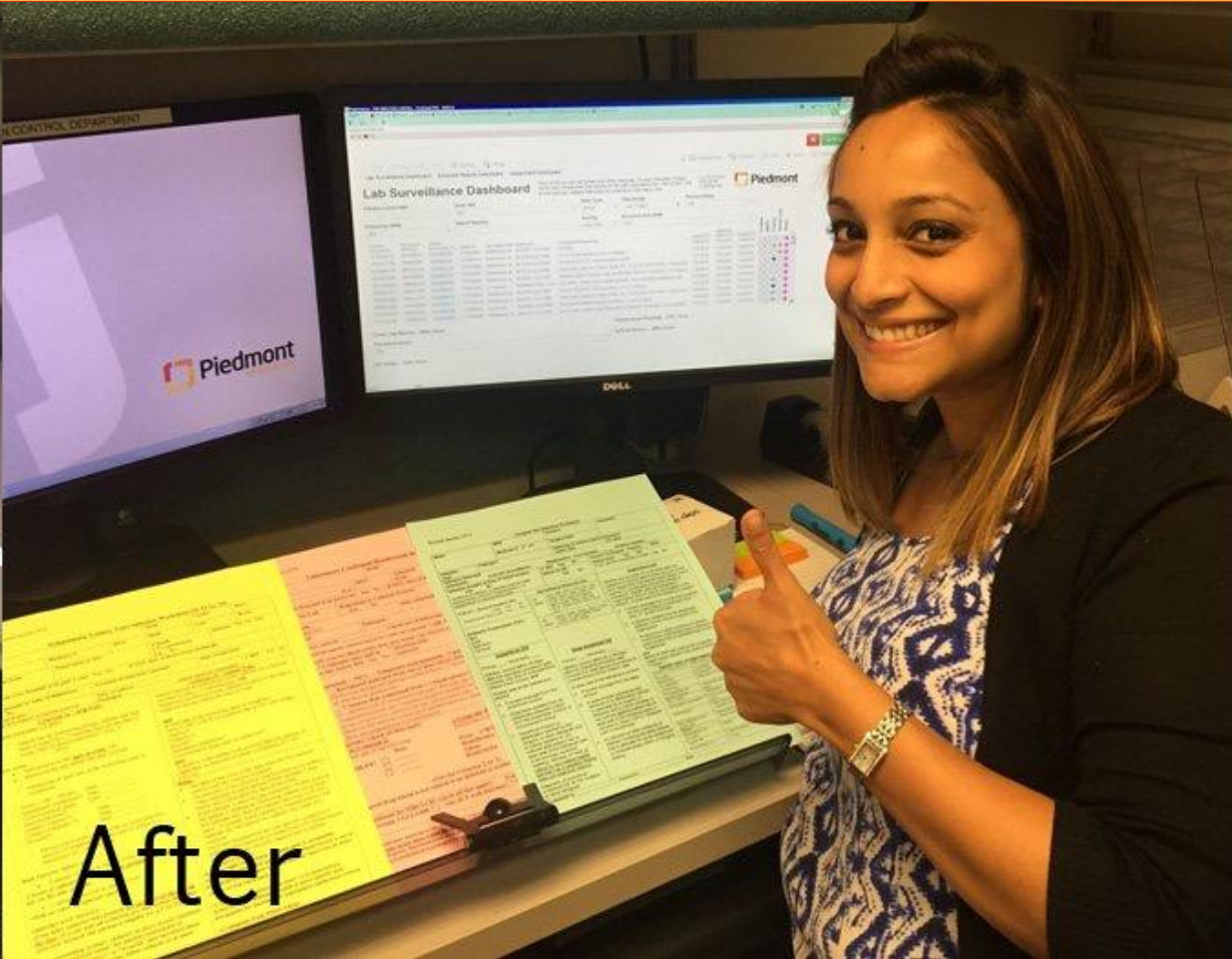
- Designed S&A work flows starting with a blank piece of paper
  - Infection
  - Peer review
  - Safety
  - Accreditation
  - External Reporting
- Targeted Automation



# Using Technology for S&A



Before

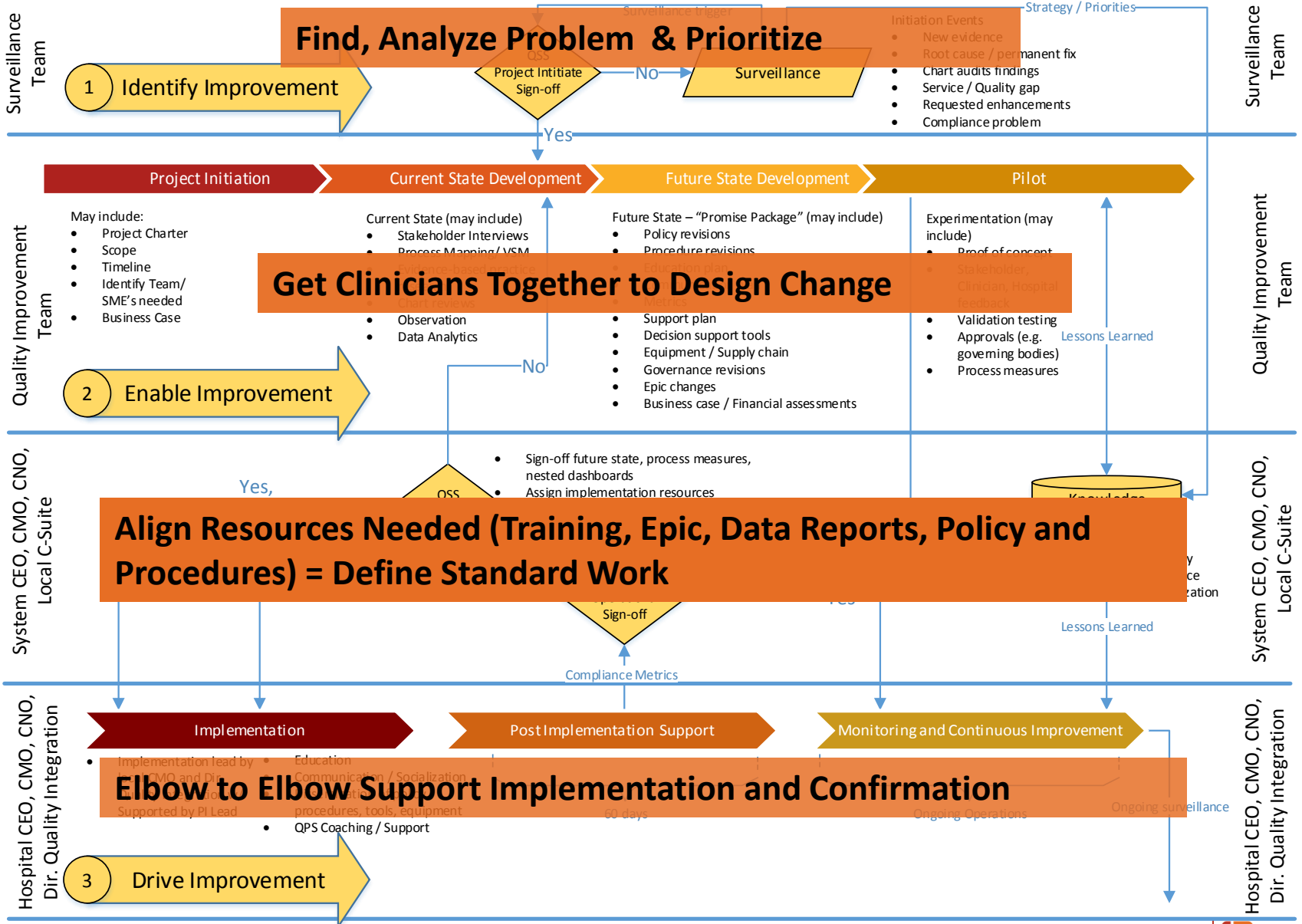


After

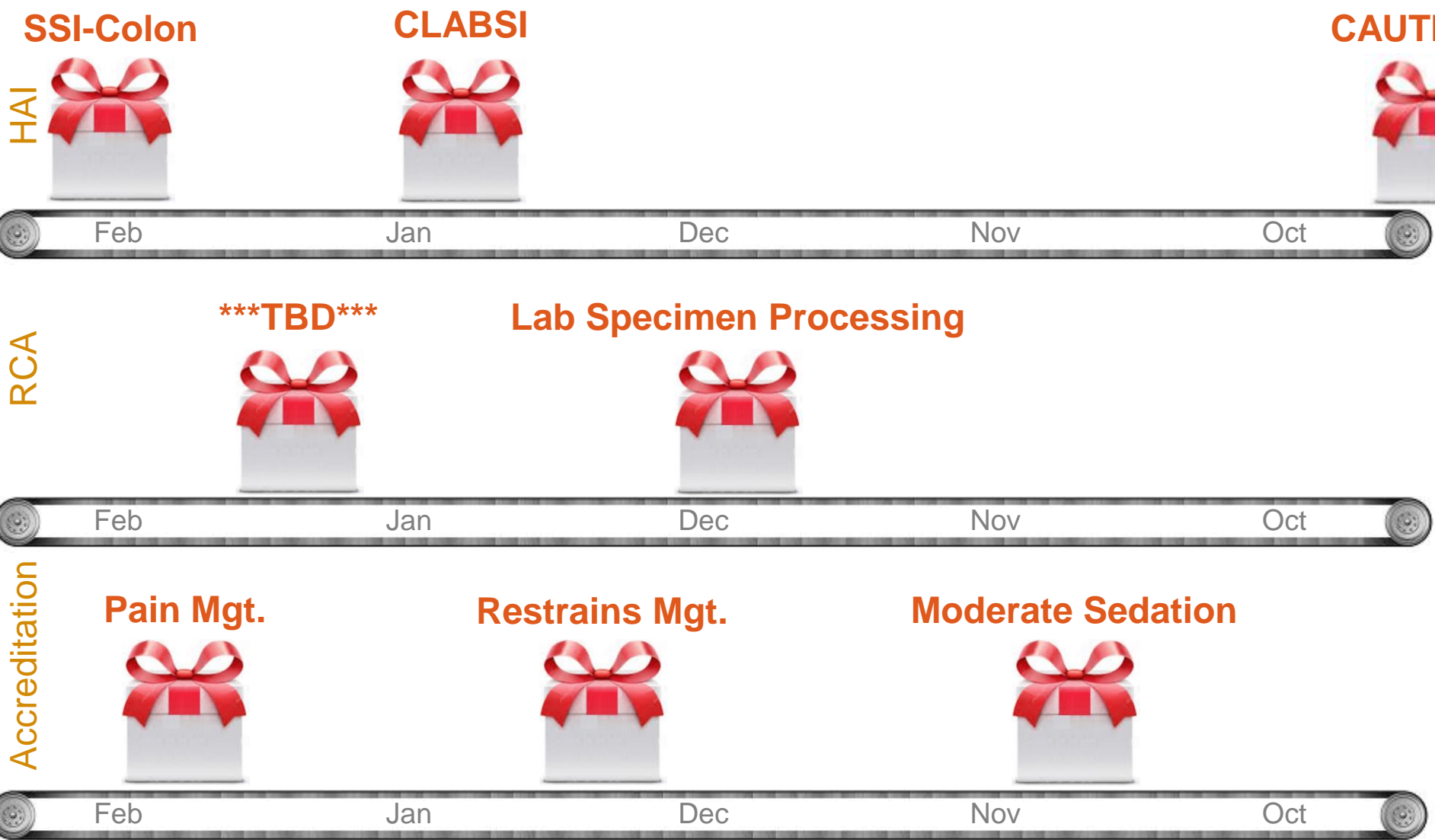
# Improvement - Transformation

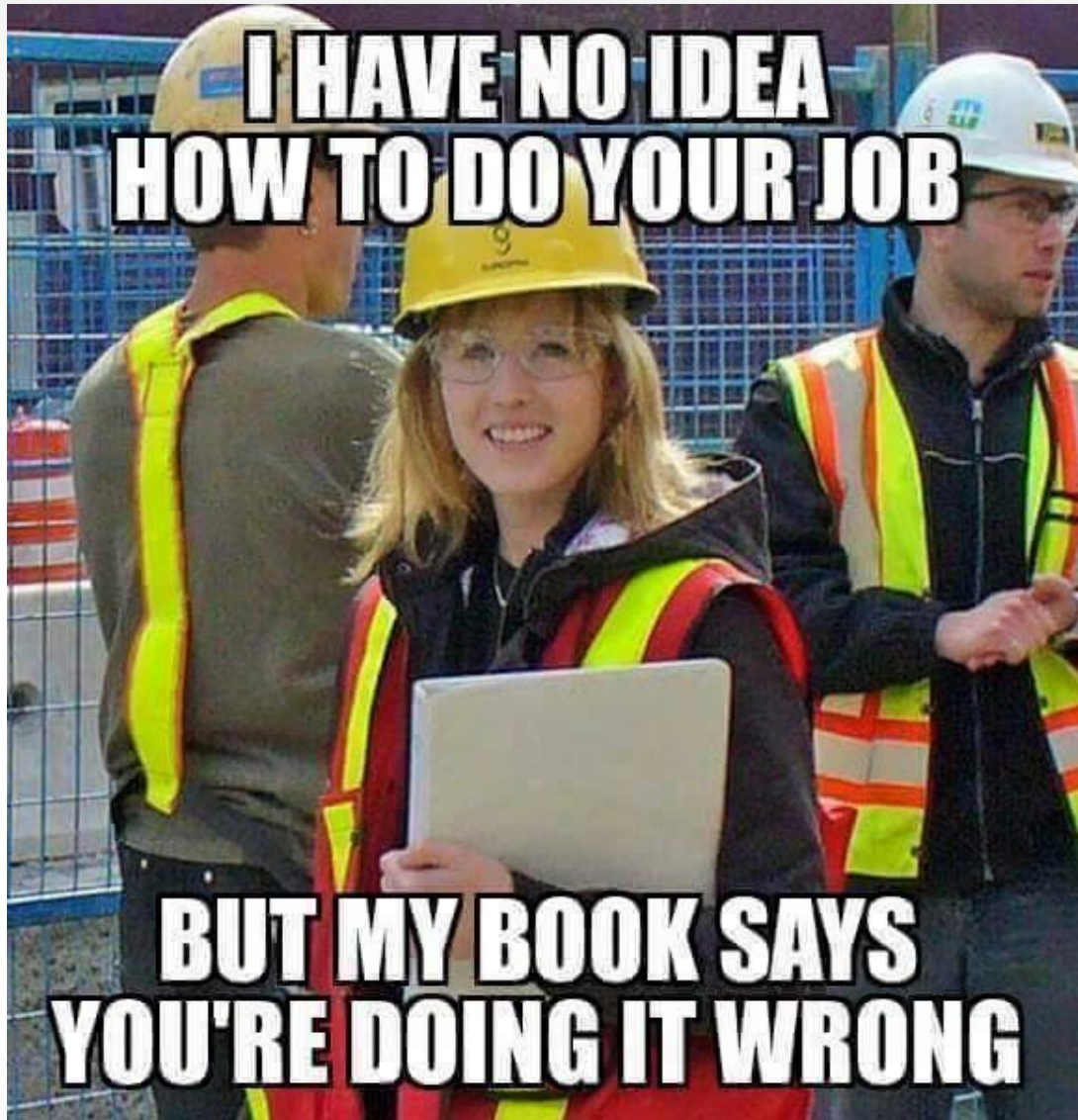
- Design
  - Create Standard Work vs Improve Standard Work
  - Gemba Walks
  - Typically perpetual design – team never stops
  - Over reliance on technology changes
- Implementation
  - Currently “nobody’s job”
  - Needed a Model – we used Epic CPOE implementation
  - Involves creating standard work for care givers AND managers
  - MUST account for the context of end users

# Develop Sustainable Implementation Model

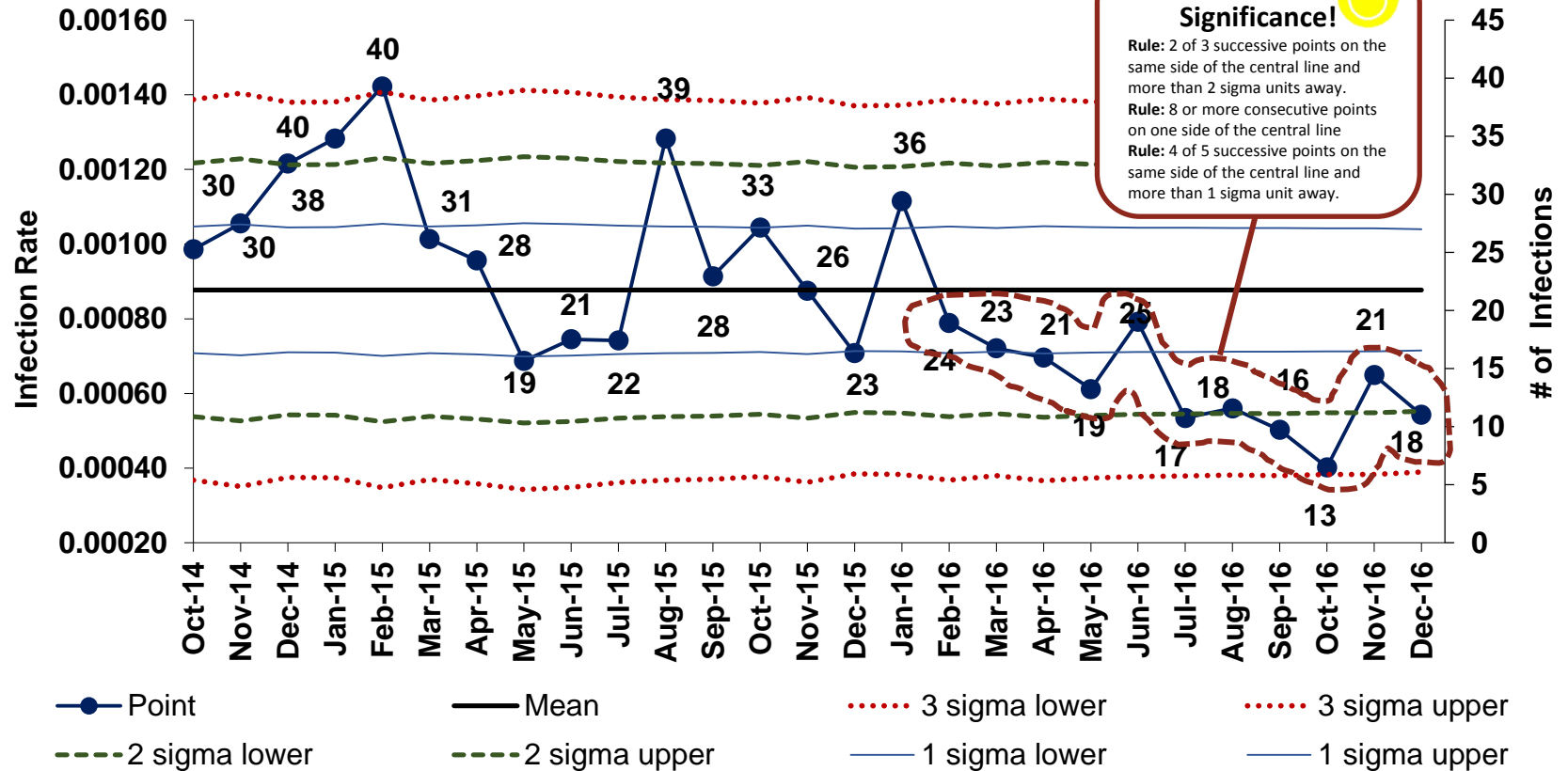


# Implementation Work Release Schedule





## Control Chart (P Chart) Healthcare Facility Acquired Infections per Patient Day at PHC



# Learnings / Remaining ?

- Process engineers working with clinicians can accelerate improvement
- MOST of what is thought to be “quality” work doesn’t improve care at the bedside
- ?How do we compress the “design” part of improvement work without missing key pieces?
- ?How to make “simplification” the goal rather than “complication”