What Do You Do When ... Your Improvement Project FAILS?

The Path to Sustainable Improvements

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Conflict of Interest

Reza Ziaee, MA, MSE, MBB, PhD, FHIMSS
and
James Bologna BSIE, MBA

Have no real or apparent conflicts of interest to report.
Agenda

1. PI process shortcomings
   ✷ in unstable health care settings

2. Understanding the areas in most need of improvements
   ✷ take a broader view of operations
   ✷ documenting the current state

3. Identification of need/identification of instability
   ✷ three questions that determine the necessity of each task
   ✷ documenting how everyone does the same process …

4. Developing a Stable, Optimized, and Aligned Process
   ✷ input criteria and output requirements for each process
   ✷ align the process
   ✷ develop and communicate

5. Transitioning from the current state to the future state
Learning Objectives

1. Describe a profound understanding of current PI process shortcomings in unstable health care settings by showing results from our research with PI professionals

2. Identify how to take a broader view of operations while identifying the areas in most need of improvements

3. Discuss insights into identification of instability in current tasks, processes, and operations

4. Recognize how to develop and communicate input criteria and output requirements for each process in order to align the process

5. Explain the documentation, training and measurement required to insure sustainability of improvements
Satisfaction: Insuring “What” & “How” is practiced by all reduces variation and errors – improving staff and patient satisfaction (Standardization)

Treatment/Clinical: Building consistent processes aligned with requirements reduces error and enforces best practices (Optimize and Align)

Electronic Secure Data: Only process required data for the individual sanctioned to perform the process is shared (Optimize)

Patient Engagement: Streamlined, consistently followed process fulfills all of the patients’ needs and creates engagement

Savings: FTS provides 15 to 20% cost savings through reduction in variation and effective IT utilization

FTS creates a foundation for PI and a operational environment where IT can be efficiently deployed.
Where PI Projects Go Wrong

What do weight-loss plans and PI programs (Six Sigma, lean manufacturing) have in common?

They start off well - generate excitement and great progress, but then … fail to have a lasting impact

- participants gradually lose motivation and fall back into old habits.

Many companies have embraced Six Sigma and lean, but … success is not guaranteed.

- Recent studies suggest that nearly 60% of all corporate Six Sigma initiatives fail to yield the desired results.
PI Project Success Rate

Half of all process improvement projects are SUCCESSFUL.

Still, half don’t meet their anticipated goals and almost 1 in 6 (16%) are UNSUCCESSFUL.

- Completely successful: 49%
- Unsuccessful: 16%
- Somewhat successful: 34%
• 62% of OI projects hold gains for 6 months …
• And only 51% hold gains for one year
Factors Influencing Failure

Successful organizations:
The lack of administrative governance and support.

Unsuccessful:
The lack of standardization

- Low sustainability of savings
- Backsliding
- Proposed changes that could never be implemented

From: Preparing for Continuous Quality Improvement for Healthcare - Ziaee, R; Bologna, J

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Two Towers – the Difference?

March to Stable Structure
Functional Tree Structure

A pictorial representation that systematically maps out, in increasing detail, the full range of main, secondary and tertiary functions, activities, and tasks that need to be accomplished in order to achieve organizational and departmental goals.

- Gather department leadership/experts to:
  - Identify main department functions
  - Create a list of primary, secondary, and tertiary functions
  - Collect relevant workload volume data by function
  - Review current department workload
  - Create a Pareto chart based on the collected data
  - Prioritize department functions (primary, secondary or tertiary functions) to be flow charted.
What and How

• What
  – Make the process visible for everyone
  – What are the inputs
  – What are the customers’ requirements

• How
  – How are we doing it
Unstable Structures Can’t Be Fixed

You can’t improve an unstable process

First:

Standardize
Optimize
Align the
Process
Overview of the Process

1. **Functional Tree Structure**
   - Make the process visible
   - Identify the biggest opportunities

2. **Reduce variability, standardize, identify unwarranted steps and processes and ...**

3. **Input/Outputs**
   - Input specifications
   - Output specifications

   **Micro Process Map**
   - Current State

   **Functional Tree Structure**
   - Review past year's costs
   - FTEs

   **Input/Outputs**
   - Input specifications
   - Output specifications

   **Micro Process Map**
   - Future State

   **SOAP**

From: Preparing for Continuous Quality Improvement for Healthcare - Ziaee, R; Bologna, J
## Possible Outcomes of SOAP

<table>
<thead>
<tr>
<th>Stabilized</th>
<th>Optimized</th>
<th>Aligned</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyone does it the same way</td>
<td>Everyone does it in the same order</td>
<td>Inputs meet my needs and outputs meets customer’s</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Low quality, high costs, poor outcomes, dangerous situation (most prevalent state)</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Organized chaos</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Dangerous product that will not meet the customer’s needs</td>
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<tr>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Costly, dangerous and potentially untimely product</td>
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<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Highly consistent output that will not meet the customers’ needs</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Inconsistent output that infrequently meets customer specifications</td>
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<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Costly and potentially untimely product</td>
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<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>A product that is stable, uniform and meets customers’ needs</td>
</tr>
</tbody>
</table>
Step 1: Identify Department’s Major Functions

Using Environmental Services or “EVS”

Objective of Step 1: Making the Department Visible and Focusing on the Function with the greatest opportunity

Example:

- 1000 hours used in Environmental Services in total
  - 200 hours used for general cleaning
    (120 hrs. offices and nursing area, 80 hrs. public area).
  - 700 hours used for patient care area cleaning (OR 150, Patient Room 450, ED 100).
  - 100 hours used for special projects.
Functional Tree Structure Example

**Department Level**

- Emergency Services

**Primary Level**

- D2D
- Testing/Treatment
- Disposition/Discharge

**Secondary Level**

- Quick Registration
- Triage
- Patient Evaluation
- Tests
- Treatment
- MD Evaluation
- RN D/C Teaching

**Tertiary Level**

- Clinical Evaluation (RN)
- Medical Evaluation (Doctor)
- Laboratory
- Procedures
- Review test results
- D/C Teaching
- Radiology
- Administer medications
- Write Discharge Orders
- Transport
- Dietary/Other
- Pain Reevaluation
Step 2: Create the I/O Diagram of the Process

• Start at the back and work forward (VOC)
  ➢ What are the requirements of customer (the next process)?
  ➢ Do these align with what is currently being provided?

• What are the major process steps?
  ➢ Gather department functional experts
  ➢ Don’t flow chart but identify the major tasks currently involved
    ✓ Don’t try to change anything

• What are the inputs to this process?
  ➢ Review all materials, information and tools provided or used in the process
Process Model

**Inputs**
- Staff Hours
- Supplies
- Equipment

**Process**

**Voice of the Process**

**Results**

**Voice of the Customer**

**Happy Customers**
Step 3: Create the Micro Process Map

• What is a Micro Process Map?
  ➢ Is a means to document work practice and to convey information about a process

• Building and evaluating a micro process map
  ➢ Gather department functional experts.
  ➢ Follow the flow charting guidelines to:
    ✓ Create “As-Is” process detailed flow
    ✓ Evaluate the “As-Is” process
    ✓ Identify none-value added steps.

Flow charting symbols

- Start & End
- Decision
- Activity description
- On Page Connector
- Off Page Connector
- Document
- Stored/system data
- Delay/wait

To show direction of flow from one activity to the next one in a sequence
## Hospital - Unit Name

### OBS Chest Pain Rule-out Process

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<tbody>
<tr>
<td>Provider place Pt. in OBS for Chest pain Rule out</td>
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<tr>
<td>ED provider communicates “TIMI Score, and relevant info” to Hospitalist</td>
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<td></td>
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<tr>
<td>Transfer center assigns bed</td>
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<td>OBS CRC assigns receiving RN and PCA, along with researching Pt.</td>
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<tr>
<td>Prepares room for Pt. arrival and print labels and face-sheet</td>
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<tr>
<td>CRC takes report from ED RN with Tele box number confirm clear liquid and no caffeine diet</td>
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<td>Does Pt. meet the CP R/O criteria?</td>
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<td>Yes</td>
<td>CRC assign Pt. to other room</td>
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<td>No</td>
<td>Pt. fall out of protocol</td>
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<tr>
<td>Report sheet given to primary RN and Tele box paired with room and verify rhythm</td>
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<td>Pt. transported and received at the unit</td>
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| 0:00 | ED Provider to attending provider | Pt in ED or Outside Clinic | 30 mins | 1 | TIMI Score | ED Provider and admitting provide | phone, pager | Point of entry may include, Direct Admit, from urgent care, or PCP. Delays in communication process |
| 0:25 | TC staff | TC | 25 mins | 1 | Place in OBS Order | BED | Computer | question- pos CP unit |
| :30 | CRC | OBS unit | 5 | 1 | Bed assignment and pt info | Computer/ Cerner | | |
| :35 | PCA | Obs unit | 5 | 1 | Pt info | Computer | Labels and printer, scale, VS equip | No Pt. bed; stay in cloths |
| 0:40 | CRC, ED RN | pt in ED or outside clinic | 5 | 1 | pt info, tele box # | computer/Cerner | phone/ paper, tele box, central monitor | Follow if detailed the ED throughput process and capture all required information. Clarify Clear liquids and no caffeine. RN must receive hand-off regulatory |
| 0:42 | CRC, primary RN | pt in ED/ outside clinic | 2 | 1 | primary RN | paper | may be set on primary RN’s computer |
| 0:52 | CRC, Primary RN, PCA | ED--> OBS | 10 | 1 | Bed assigned | transporter | stretcher, blankets | |
Steps in the SOAP process

1: Starting off - Document the Current State:
   A. Create the current state process map
   B. Document the “SMART” metrics that will be used to measure process performance, stability and improvements
   C. Collect historical data using the smart metrics
   D. Test each process in the current state map using the three questions
      - eliminate all non-value added steps (helps stabilize the process and defines “What” you are doing)
   E. Review input from all staff engaged in the process

2: Standardize
   A. Determine how everyone is performing each process - standardize on one process (now you have the “How” the process is suppose to be done)
   B. Create a new Standardized Current State Map and detailed procedures manual that explains the tasks in the process
   C. Educate all employees on the “Hows” showing them the Stabilized process map
   D. Start measuring using the smart metrics – to get a baseline
Steps in the SOAP process
(Continued)

3: Optimize

A. Look for ways to improve the efficiency of the process while not degrading the outputs – they still need to conform to or improve the customers standards

B. Use the PI tools to reduce waste, improve consistency, reduce time, reduce costs

C. Create a new Standardized and Optimized State Map and update the detailed procedures

D. Educate all employees on the new aligned process showing them the Stabilized and Aligned process map

E. Continue measuring process performance and customer satisfaction using SMART metrics
4: Align

A. Obtain process specifications from the customers (internal and external) of our process.

B. Review the standardized process map and look for ways to align the process so that the outputs conform to customer standards (quality)

C. Determine what changes to the inputs are needed to reduce variation in the outputs and communicate them to the upstream producers

D. Create a new Standardized, Optimized and Aligned Process State Map and update the detailed procedures

E. Educate all employees on the new aligned process showing them the Stabilized and Aligned process map

F. Continue measuring using the smart metrics
Step 4: Create Future State Process Map

1. Modify process by eliminating non-value added steps
2. Identify critical process factors
3. Create process measurement system (voice of process)

Identify Value and Non-Value Added Process Steps

Ask the following three questions for each process step:

1. Does this step change the nature of the product or service?
2. Is there a credentialing or governmental agency making us complete this activity?
3. Does my customer want to pay for this step?
**Hospital - Unit Name**

**OBS Chest Pain Rule-out Process**

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<td></td>
<td></td>
<td>0:00</td>
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<td>PT in ED or Outside Clinic</td>
<td>30 mins</td>
<td>1</td>
<td>TIMI Score</td>
<td>ED Provider and admitting provide</td>
<td>phone, pager</td>
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<td></td>
<td></td>
<td></td>
<td>0:25</td>
<td>TC staff</td>
<td>TC</td>
<td>25 mins</td>
<td>1</td>
<td>Place in OBS Order</td>
<td>BED</td>
<td>Computer</td>
<td>question- pos CP unit</td>
</tr>
<tr>
<td>Transfer center assigns bed</td>
<td></td>
<td></td>
<td></td>
<td>:30</td>
<td>CRC</td>
<td>OBS unit</td>
<td>5</td>
<td>1</td>
<td>Bed assignment and pt info</td>
<td>Computer/ Cerner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OBS CRC assigns receiving RN and PCA, along with researching Pt.</td>
<td></td>
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<td></td>
<td>:35</td>
<td>PCA</td>
<td>Obs unit</td>
<td>5</td>
<td>1</td>
<td>Pt info</td>
<td>Computer</td>
<td>Labels and printer, scale, VS equip</td>
<td>No Pt. bed; stay in cloths</td>
</tr>
<tr>
<td>Prepares room for Pt. arrival and print labels and face-sheet</td>
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<td></td>
<td></td>
<td>0:40</td>
<td>CRC, ED RN</td>
<td>PT in ED or outside clinic</td>
<td>5</td>
<td>1</td>
<td>pt info, tele box #</td>
<td>computer/Cerner</td>
<td>Phone/ paper, tele box, central monitor</td>
<td>Follow if detailed the ED throughout process and capture all required information. Clarify Clear liquids and no caffeine. RN must receive hand-off regulatory</td>
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<td></td>
<td></td>
<td>0:42</td>
<td>CRC, primary RN</td>
<td>PT in ED/ outside clinic</td>
<td>2</td>
<td>1</td>
<td>primary RN</td>
<td>paper</td>
<td>may be set on primary RN's computer</td>
<td></td>
</tr>
<tr>
<td>Does Pt. meet the CP R/O criteria?</td>
<td></td>
<td></td>
<td></td>
<td>0:52</td>
<td>CRC, Primary RN, PCA</td>
<td>ED---&gt; OBS</td>
<td>10 mins</td>
<td>1</td>
<td>Bed assigned</td>
<td>transporter</td>
<td>stretcher, blankets</td>
<td></td>
</tr>
</tbody>
</table>

**Diagram:**

1. **Provider place Pt. in OBS for Chest pain Rule out**
2. **ED provider communicates "TIMI Score, and relevant info" to Hospitalist**
3. **Transfer center assigns bed**
4. **OBS CRC assigns receiving RN and PCA, along with researching Pt.**
5. **Prepares room for Pt. arrival and print labels and face-sheet**
6. **CRC takes report from ED RN with Tele box number confirm clear liquid and no caffeine diet**
7. **Does Pt. meet the CP R/O criteria?**
8. **Pt. transported and received at the unit**

**Diagram Notes:**

- Yes: Pt. meets CP R/O criteria
- No: Pt. does not meet CP R/O criteria

**Remarks:**

- Pt. fall out of protocol
- Report sheet given to primary RN and Tele box paired with room and verify rhythm
- CRC assign Pt. to other room
<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>0:55</td>
<td>RN or PCA</td>
<td>obs unit</td>
<td>3 min</td>
<td>1</td>
<td>pt info</td>
<td></td>
<td>scale, VS equipment</td>
<td></td>
</tr>
<tr>
<td>✅ Obtain VS, Height, Weight, Allergies in Cerner</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>0:58</td>
<td>RN or PCA</td>
<td>obs unit</td>
<td>3 min</td>
<td>1</td>
<td>pt info</td>
<td></td>
<td>computer/</td>
<td>PCA document VS, Weight and RN document other.</td>
</tr>
<tr>
<td>✅ Perform and document assessment along with BMAT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1:01</td>
<td>RN or CRC</td>
<td>obs unit</td>
<td>3 min</td>
<td>1</td>
<td>print q shift, doc rhythm, cardiac rhythm, central monitor</td>
<td>paper, printer</td>
<td>RN must be tele certified. If not CRC is responsible for this. More with Alarms</td>
<td></td>
</tr>
<tr>
<td>✅ Complete AHP, Immunization screening, home meds, “med/surg/ family Hx”, belongings, Document in appropriate forms.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1:31</td>
<td>RN</td>
<td>obs unit</td>
<td>30 min</td>
<td>1</td>
<td>info from pt</td>
<td></td>
<td>computer, stethoscope</td>
<td>Admit RN may do it</td>
</tr>
<tr>
<td>✅ Review orders and verify 2nd troponin within 2 to 4 hours of initial troponin</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>2:16</td>
<td>RN</td>
<td>obs unit</td>
<td>45 min</td>
<td>1</td>
<td>info from pt</td>
<td></td>
<td>arm bands, obs letter computer</td>
<td>During the day shift admitting RN sometime will do this function...family hx should be done by MD not RN, home meds, med &amp; surg hx done in ED, duplication of info here</td>
</tr>
<tr>
<td>✅ Orient Pt. to room, OBS letter/video, precautions “Place indicated arm bands” and clear liquid no caffeine re-enforced</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>2:21</td>
<td>RN</td>
<td>obs unit</td>
<td>5 min</td>
<td>1</td>
<td></td>
<td>computer</td>
<td>1st troponin time</td>
<td>Cerner/ computer</td>
</tr>
<tr>
<td>✅ Clarification of serial troponin</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>2:25</td>
<td>RN</td>
<td>obs unit</td>
<td>5 min</td>
<td>1</td>
<td></td>
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</tbody>
</table>
Step 5: Indoctrinate the New Process

• Train all involved staff
• Pilot new process
  ➢ Evaluate results
  ➢ Update the process based on pilot results
  ➢ Standardize the process
• Implement standardize “new” process
• Set up measurement process
Step 6: Completed FTS

Environmental Services

- **Total Req. FTE:** 40.2

  - General Cleaning
    - Req. FTE: 15.8
      - Public Area
        - Req. FTE: 4.2
      - Between Case
        - Req. FTE: 2.8
    - Office / Nursing unit
      - Req. FTE: 6.9
  - Patient Care area Cleaning
    - Req. FTE: 22.4
      - OR
        - Req. FTE: 4.2
      - ED
        - Req. FTE: 5.9
      - Terminal
        - Req. FTE: 2
      - Patient Area
        - Req. FTE: 3.9
      - General Area
        - Req. FTE: 2
      - Discharge / Transfer
        - Req. FTE: 4.9
      - Daily
        - Req. FTE: 7.4
  - Special Projects
    - Req. FTE: 2

Req. FTE: 3.9

FTE: 22.4

FTE: 4.9

FTE: 7.4

North America

#HIMSS16

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FTS Benefits

- Under FTS, everyone knows what is expected of them
- Under FTS, everyone knows how to do the task and why
- FTS creates orders and promotes discipline
- FTS creates a lock step environment
- FTS creates and nurtures a new culture
- FTS creates a supportive environment for workforce
- FTS nurtures pride of workmanship
- FTS creates a profound understanding of systems’ operations by illuminating the intricacies of all its interdependent parts and sub-systems
- FTS creates organization strategic agility to respond to new market demands in a swift manner
- FTS enhances the opportunity for positive impact on operations effectiveness and efficiency by changing exhausting work environments to exhilarating work environments and engaging staff innovative imagination by asking how can I do it better
- FTS creates motivating and engaging work environment by nurturing, skill mastery, fostering team work and team membership, providing meaningful work, and re-alignment of performance and outcome incentives
- FTS reduces conflicts in the work environment by setting clear process boundaries and work domains
- FTS nurtures/enhances/encourages horizontal problem solving
Example

BEFORE AND AFTER COMPARISON
CHEST PAIN LOS
What did we want to know?  
Is After LOS is less than Before LOS?

What did we learn?  
Before LOS is greater than After LOS.
What did we want to know? Is Before LOS different from After project implementation?

What did we learn? The LOS after project implementation is significantly less than Initial LOS.

Healthcare Organization
Chest Pain Rule-Out
OBS LOS in Hour

What did we learn? The LOS after project implementation is significantly less than Initial LOS.
One-way ANOVA: OBS LOS against Category

Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>F-Value</th>
<th>P-Value</th>
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<tbody>
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<td>Category</td>
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<td>10020</td>
<td>10020.4</td>
<td>49.95</td>
<td>0.0001</td>
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<tr>
<td>Error</td>
<td>695</td>
<td>139411</td>
<td>200.6</td>
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<tr>
<td>Total</td>
<td>696</td>
<td>149432</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>After</td>
<td>98</td>
<td>11.490</td>
<td>4.931</td>
<td>(8.681, 14.299)</td>
</tr>
<tr>
<td>Before</td>
<td>599</td>
<td>22.397</td>
<td>15.139</td>
<td>(21.261, 23.534)</td>
</tr>
</tbody>
</table>

Pooled StDev = 14.1630
Holistic Approach to Healthcare Transformation

Journey to "Best in Class" Performance and Care Delivery Status

Starting Date: November 2015

ED Redesign

Discharged/Patient Flow Redesign: Duration 3 to 5 months
Expected Outcome: 80% of patients LOS < 150 Minutes
(this will improve ED patient flow for 80% of ED Discharged patients)

ED Admit process Redesign: Duration 3 to 5 months
Expected outcome: Admitted patient LOS for 80% of patients < 220
Duration: 3 to 5 Month depend on available resources

Nursing Unit Redesign

Create Departmental functional structure for each nursing unit based on the last year data
a. Sort patients with respect to admitting diagnosis
b. Create set of independent categorical diagnosis
c. Populate each category with related admitting DRGs
d. Deploy PARETO principle to differentiate vital few from useful many
e. Embark on creating patient ITINARAY for each vital few
f. Establish sound measurement system based on set of SMART metric
g. Train staff and deploy patient itinerary including measurement system

Expected outcome: improve patient, physician, and staff satisfaction, decrease LOS, establish scientific based patient care and provide reliable and timely analytics
Duration: 3 to 5 Month per nursing unit depend on available resources

Pharmacy Redesign

Create departmental functional structure: Start: Jan 2016 End Feb 2016
Identify departmental major functions by deploying PARETO Principle, select dominant function, evaluate performance by mapping current state, eliminate functional waste by redesigning related processes, establish SMART process metrics and create relevant sustainability plan. Start Feb 23rd and continues until all selected departmental functions (Vital Few) are redesigned, End July 2016.

Expected Outcome: 20% improvement in quality, customer satisfaction, and effective and efficiency of the related processes
Duration: 3 to 5 Month per department depend on available resources

Move onto the next Nursing Unit

CQI Journey Continues

Go to the next ancillary and/or Support

***All evaluation, redesign, and deployment are accomplished with the full department staff and leadership engagement/participation plus full support and buy-in of the organizational "Physician and Operational" leadership and Executives
**Project Timeline**

**Phase I**

**Discover:**
Collect past performance data, compile data, complete relevant statistical analysis to create baseline, and share information with team members and other stakeholders.

Identify team members and schedule team meetings.

"Communicate...... Communicate"

**Phase II**

**Define:**
Create project/team charter, develop project plan, document current state to make what and how visible (generate current state map of related processes). Identify pain points and determine critical failure mode of the current processes.

"Communicate...... Communicate"

**Phase III**

**Design:**
Identify critical success factors and design new processes based on established and universally accepted critical to cost and quality characteristics.
Create pictorial presentation (Future State Process Maps), obtain buy-in from all stakeholders, pilot new process, capture critical data points, compile, analyze, and share the results, revise processes based on the results, standardize, align and optimize the processes, create training material, train involve staff.

"Communicate...... Communicate"

**Phase IV**

**Deploy:**
Create implementation plan, develop training materials, complete staff training, establish measurement system based on a set of SMART metrics. Deploy new processes.

"Communicate...... Communicate"

**CQI Journey**
Benefits of FTS

**Satisfaction:** FTS sets a motivating and engaging work environment by nurturing, skill mastery, fostering team work and team membership, providing meaningful work, and re-alignment of performance and outcome incentives.

**Treatment/Clinical:** FTS provides a profound understanding of operations, illuminates the intricacies of all its interdependent parts and sub-systems so that systems can perform better. It makes straight the path of operations.

**Electronic Secure Data:** With better defined operations flow, security of data is easier to manage.

**Patient Engagement:** Reduced variation and errors = less staff turnover. Everyone knows what is expected of them - how to do the task and why. The standardization, Optimization and alignment of the processes creates satisfied patients.

**Savings:** FTS provides 15 to 20% cost savings through reduction in variation and effective IT utilization.
Discussion/Questions
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