SUCCESSFUL PROJECTS—TAKE THE "GUESS-WORK" OUT OF CHOOSING PERFORMANCE IMPROVEMENT METHODOLOGY

Presented By:
Lynne Linder
Brian Pfister
VHA Inc.
AGENDA

- INTRODUCTIONS
- STATEMENT OF PRESENTATION GOALS
- OUTLINE OF A SIX-SIGMA PROJECT (INTERACTIVE ANALYSIS OF RESULTS/ISSUES)
- DEFINING PERFORMANCE IMPROVEMENT METHODOLOGY SUCCESS STRATEGIES
INTRODUCTION - VHA

VHA IS A HEALTHCARE PROVIDER ALLIANCE THAT DELIVERS INDUSTRY-LEADING SUPPLY CHAIN MANAGEMENT SERVICES TO ENABLE OVER 2200 NOT-FOR-PROFIT MEMBER ORGANIZATIONS TO DRIVE SUSTAINABLE RESULTS

LYNNE LINDER AND BRIAN PFISTER ARE PART OF VHA’S INTEGRATED DELIVERY TEAM, PROVIDING ON-SITE MEMBER CLINICAL AND ECONOMIC PROCESS IMPROVEMENT CONSULTING SERVICES
PRESENTATION GOALS-HOW TO DETERMINE PI METHODOLOGY

- Data analysis necessary prior to team formation
- Developing base performance data
- Identifying the stakeholders in the process
- Defining the correct methodology to attain improvement (Six-Sigma, short workshops, management engineering techniques, etc)
- Setting goals, measurement techniques, and a follow-up process
CAN A PERFORMANCE IMPROVEMENT PROJECT DELIVER LESS-THAN-EXPECTED RESULTS?

- Have you ever put together a performance improvement team, spent hours of their time attempting to analyze a process, only to end up with little or no positive results?

- What went wrong? Let’s analyze an example of a Six-Sigma project that illustrates this point.......
BACKGROUND

- 4-Hospital System
- Total system embraces Six-Sigma
  - 2 Master Black Belts
  - 6 Black Belts
  - 45-50 Green Belts
  - 120+ CAP Coaches (Change Acceleration Process)
- GE Trained – 1st hospital in country w/Master Black Belts
- Department executives submit requests for projects
Project Title: Medical/Surgical Supply Cost Reduction Team

Problem/Opportunity Statement:
Acute Care Medical/Surgical Supply expense had increased 31.7% from January - June 2002 when compared to 2001, while patient days increased by only 3.3%

Goal Statement
Reduce expense of Medical/Surgical supplies on Medical/Surgical units

Added Business Case
Benchmarking data confirmed Supply Cost/Patient Discharge was in the 95th Percentile

Stakeholders:
- Nursing
- Purchasing
- VP/COO
- Director of Finance

Define
Measure
Analyze
Improve
Control
TEAM MEMBERS - TOTAL 14

- Sponsor – VP Nursing
- Master Black Belt
- Green Belts (3)
- Nurse Managers (3)
- Nurse
- OR Supply Manager
- OR Administrative Assistant
- Materials Manager
- Receiving Clerk
- Assistant Director Finance
Customer CTQs

Customer Need

Voice of the Customer:
What drives supply costs?
What is responsible supply usage?

CTQ: VP/COO
- Par levels
- Usage
- Security

CTQ: DOF
- Use/habits
- Multiple locations for supplies on the nursing units

CTQ: Nursing
- Wasting Supplies
- Special orders - wait time

CTQ: Purchasing
- Contracts
- Price of raw materials
- Volume

Define Measure Analyze Improve Control
Define/Measure Plan

- '01 '02 Supply Cost Increase
- Team estimate of items with greatest overuse
- Note impact of price increases
- Report on highest aggregate cost supply items
- Estimate likely impact of reduced usage
- Measure overuse, intervene to decrease overuse
Overuse Brainstorming
Round 1

- Dressing Materials
- Angiocaths
- Forms and Paper
- Disposable (Stethoscopes & BP cuffs)
- IV Materials
- Non-Latex Gloves
- Isolation Gowns
### TOP 9 SUPPLY ITEMS - PROJECTED ANNUAL EXPENDITURES

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>IV Sets</td>
<td>$324,390</td>
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<tr>
<td>Angiocaths</td>
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<td>Other IV Solutions</td>
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<td>Batteries</td>
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<td>Paper</td>
<td>$4,717</td>
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ITEMS IDENTIFIED BY TEAM AS LIKELY CAUSE OF WASTE

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<tr>
<th>Unit</th>
<th>Clave Sys-</th>
<th>Old Sys</th>
<th>Total YTD</th>
<th>Angiocaths</th>
<th>Other IV</th>
<th>IV Forms</th>
<th>Isolation</th>
<th>Dressings</th>
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<th>Total Dressings</th>
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<td>New IV Sets</td>
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**Ranking:**

1. 12 items made up the “wound dressings” category
2. 40% of total Supply Cost for the year is included in these 12 supply categories
3. Many individual items had to be manually identified and grouped to get meaningful information on supply categories

**Total $ Top 12 Items Noted:** $567,851 - 40% of Total

**Source:**

Data provided by Purchasing
WHY DID THE CLAVE VOLUME INCREASE?

- More patients
- More pump use
  - Safety?
  - Nursing convenience?
- Was there a realistic opportunity to decrease pump use?
ITEMS IDENTIFIED BY TEAM AS LIKELY CAUSE OF WASTE - ROUND #2

<table>
<thead>
<tr>
<th>Unit</th>
<th>Gloves (Kimclik Only)</th>
<th>Sleeve S/M/L (Owens)</th>
<th>Cleanser (Owens)</th>
<th>4 Oz. Skin Protectant (Owens)</th>
<th>Dressing S-C Tray (Trihos)</th>
<th>Electrodes (SIMS)</th>
<th>Needle (Owens)</th>
<th>Urine Meters (Owens)</th>
<th>Germicid. Cloth (Echolab)</th>
<th>Suction (Owens)</th>
<th>Holder (Hollis)</th>
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<th>Ranking</th>
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<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<tbody>
<tr>
<td>Total $ Additional 11 Items Noted:</td>
<td>$236,051 - 16.5% of Total</td>
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</table>
RESULTS

- 56% of total supply items had been examined
- Six-Sigma team disbanded
- No savings identified
- Next steps - small teams to:
  - Work with Finance to group like items
  - Examine par levels on units and staff usage patterns
  - Challenge # of like items purchased and number of items/package
AUDIENCE RESPONSE

WHY WAS THIS PROJECT BY ITSELF UNABLE TO IDENTIFY HARD SAVINGS?
WHAT WERE THE CONTRIBUTORS TO NON-SUCCESS?

- Scope was too large
- Utilized inappropriate PI methodology
- Needed up-front analysis prior to team formation
- Key problem identified as a “non-issue”
- Balancing financial issues vs. improvement in quality and service
- Only one front-line stakeholder on team
- No way to measure success-too many items to track
- Team members’ time was not valued
STRATEGY FOR MAKING SUCCESSFUL PI METHODOLOGY CHOICES

- DO YOUR HOMEWORK FIRST
- THEN CHOOSE PI METHODOLOGY
THE ABSOLUTE “MUST’S”

- Clarify the issues/scope with project sponsors
- Conduct “sensing sessions” w/key stakeholders to identify barriers to success
- Perform up-front data analysis of financials, benchmarking data
- Determine if current/future performance can be measured
Financial Analysis

- Obtain YTD Budget Variance Reports by department
- Extrapolate the year-end run rate at current variance
- Review by category of variance—Productivity, Supplies, Purchased Services
- Compare variances to changes in volume
- Identify circumstances affecting performance—new program costs, unexpected price increases
- Carve out areas of potential improvement based on financials – verify against benchmarks
Benchmarking Purpose/Value:

- Self comparison - “variances over time”
- Peer comparison – hospitals within same system
- External comparison - “best practice”
- Realistic evaluation of performance
- Process improvement opportunities identified
- Comparative Analysis - metrics to monitor improvement efforts
- Provides data for the budgeting and planning process
Definition of Benchmarking:

- It is learning how to adapt better and best practices learned through the benchmarking process, to promote breakthroughs in process improvements.
- The objective of benchmarking is to identify better and best practices so that an organization can set higher goals and improve performance.
Benchmarking Areas of Opportunity:

- L.O.S. (Length of Stay)
- Productivity
- Supplies
- Operational Efficiencies
<table>
<thead>
<tr>
<th></th>
<th>Quarterly Trend</th>
<th>Trend / Compare Group Report</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4Q97-3Q98</td>
<td>3Q97</td>
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<tr>
<td>Medical Unit - 3 South</td>
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<tr>
<td>Supply Cost per Nursing Equivalent Discharge</td>
<td>34.92</td>
<td>46.67</td>
</tr>
<tr>
<td>Total Direct Cost per Nursing Equivalent Discharge</td>
<td>770.95</td>
<td>905.89</td>
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<tr>
<td>Total Salary Cost per Nursing Equivalent Discharge</td>
<td>687.74</td>
<td>811.99</td>
</tr>
<tr>
<td>Total Worked Hours per Nursing Equivalent Discharge</td>
<td>34.87</td>
<td>39.06</td>
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</tbody>
</table>

**Select comparison percentiles for custom performance goals**

**Identify data elements to compare with other facilities**
DETERMINE YOUR METHODOLOGY

- Six-Sigma Project
- Focused Workshops
- Management Engineering Studies
- Top Management Directive to Change

(“Lean Management Techniques” can be utilized in all processes)
Preferred Six-Sigma Project Characteristics

1. Clearly connected to business priorities
2. Linked to strategic and annual operating plans
3. Is of major importance to the organization
4. Will make a major improvement in performance
5. Represents high financial impact
6. Reasonable scope (3-6 months)
7. Defines qualitative measures of success
8. Baseline goals are well defined
9. Importance clear to all members of organization
10. Support and approval of management
Workshop Process

1. Identify Pilot Area
2. Look for New Opportunities
3. Recognize Efforts of People
4. Verify and Adjust
5. Select Team Members
6. Make All People Affected Aware of What is Going to Happen
7. Define Current Situation
8. Identify Opportunities to Improve
9. Analyze & Select
10. Develop New Method (Apply Zero/Low Cost Ideas First)
11. Discuss Plan with Stakeholders
12. Implement New Method A.S.A.P.
13. Operation:
   - From: _____________________________
   - Quantity per shift:______________
   - Customer cycle time:__________________
   - To: _____________________________
   - Shift:________
   - Operator cycle time:__________________
   - Description of Element time
     - Standard in - Quality Critical No.
     - Operation
     - Hand work
     - Machine
     - Walk
     - Process stock
     - Check
     - Operation
     - Safety
     - Workstation area drawn to scale

03/23/94 Workshop Process
Workshop Goals

Ø Transfer knowledge
Ø Redefine an existing process
Ø Involve team members
Ø Implement the change
Ø Identify future process improvements
Ø Demonstrate the magnitude of improvement potential

(This and previous chart from presentation by Dr. Robert Waller of the Mayo Clinic)
Recommend at minimum a walk-through of process to be improved by PI leader
PI leader/key stakeholders should “shadow” staff to identify processes, non-value added tasks, system barriers, educational needs
Timed studies should be conducted where applicable
All process paperwork should be collected, automated systems analyzed, and communication systems identified
CHOOSING THE CORRECT COMBINATION OF PERFORMANCE IMPROVEMENT METHODOLOGIES WILL DEFINITELY YIELD SUCCESS!

(Copies of Workshop Timelines/Tools in Handouts)