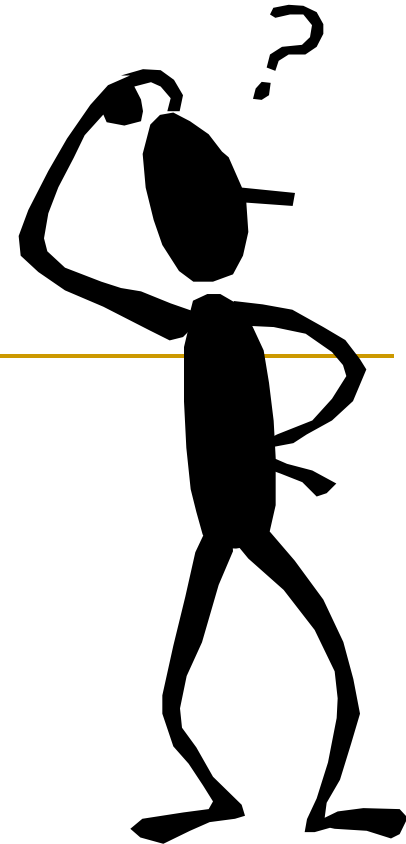

SUCCESSFUL PROJECTS—TAKE THE “GUESS-WORK” OUT OF CHOOSING PERFORMANCE IMPROVEMENT METHODOLOGY

**Presented By:
Lynne Linder
Brian Pfister
VHA Inc.**



AGENDA

n **INTRODUCTIONS**

n **STATEMENT OF PRESENTATION GOALS**

n **OUTLINE OF A SIX-SIGMA PROJECT (INTERACTIVE ANALYSIS OF RESULTS/ISSUES)**

n **DEFINING PERFORMANCE IMPROVEMENT METHODOLOGY SUCCESS STRATEGIES**

INTRODUCTION - VHA

- n 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***

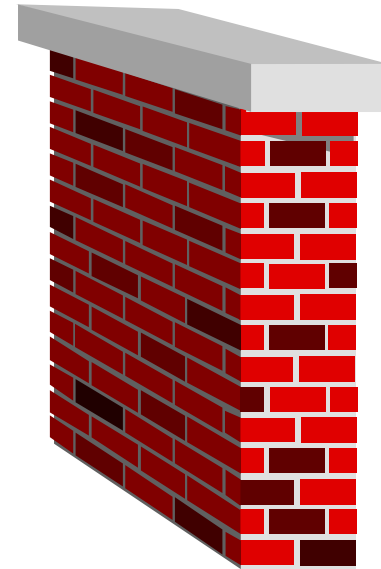
- n LYNNE LINDER AND BRIAN PFISTER ARE PART OF VHA'S INTEGRATED DELIVERY TEAM, PROVIDING ON-SITE MEMBER CLINICAL AND ECONOMIC PROCESS IMPROVEMENT CONSULTING SERVICES***

PRESENTATION GOALS-HOW TO DETERMINE PI METHODOLOGY

- q **Data analysis necessary prior to team formation**
- q **Developing base performance data**
- q **Identifying the stakeholders in the process**
- q **Defining the correct methodology to attain improvement (Six-Sigma, short workshops, management engineering techniques, etc)**
- q **Setting goals, measurement techniques, and a follow-up process**

CAN A PERFORMANCE IMPROVEMENT PROJECT DELIVER LESS-THAN-EXPECTED RESULTS?

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



BACKGROUND

- n **4-Hospital System**
- n **Total system embraces Six-Sigma**
 - q **2 Master Black Belts**
 - q **6 Black Belts**
 - q **45-50 Green Belts**
 - q **120+ CAP Coaches (Change Acceleration Process)**
- n **GE Trained – 1st hospital in country w/Master Black Belts**
- n **Department executives submit requests for projects**

Project Title: Medical/Surgical Supply
Cost Reduction Team

*Project
Charter*

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

- n **Sponsor – VP Nursing**
- n **Master Black Belt**
- n **Green Belts (3)**
- n **Nurse Managers (3)**
- n **Nurse**
- n **OR Supply Manager**
- n **OR Administrative Assistant**
- n **Materials Manager**
- n **Receiving Clerk**
- n **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: Purchasing

- Contracts
- Price of raw materials
- Volume

CTQ: Nursing

- Wasting Supplies
- Special orders - wait time

Define

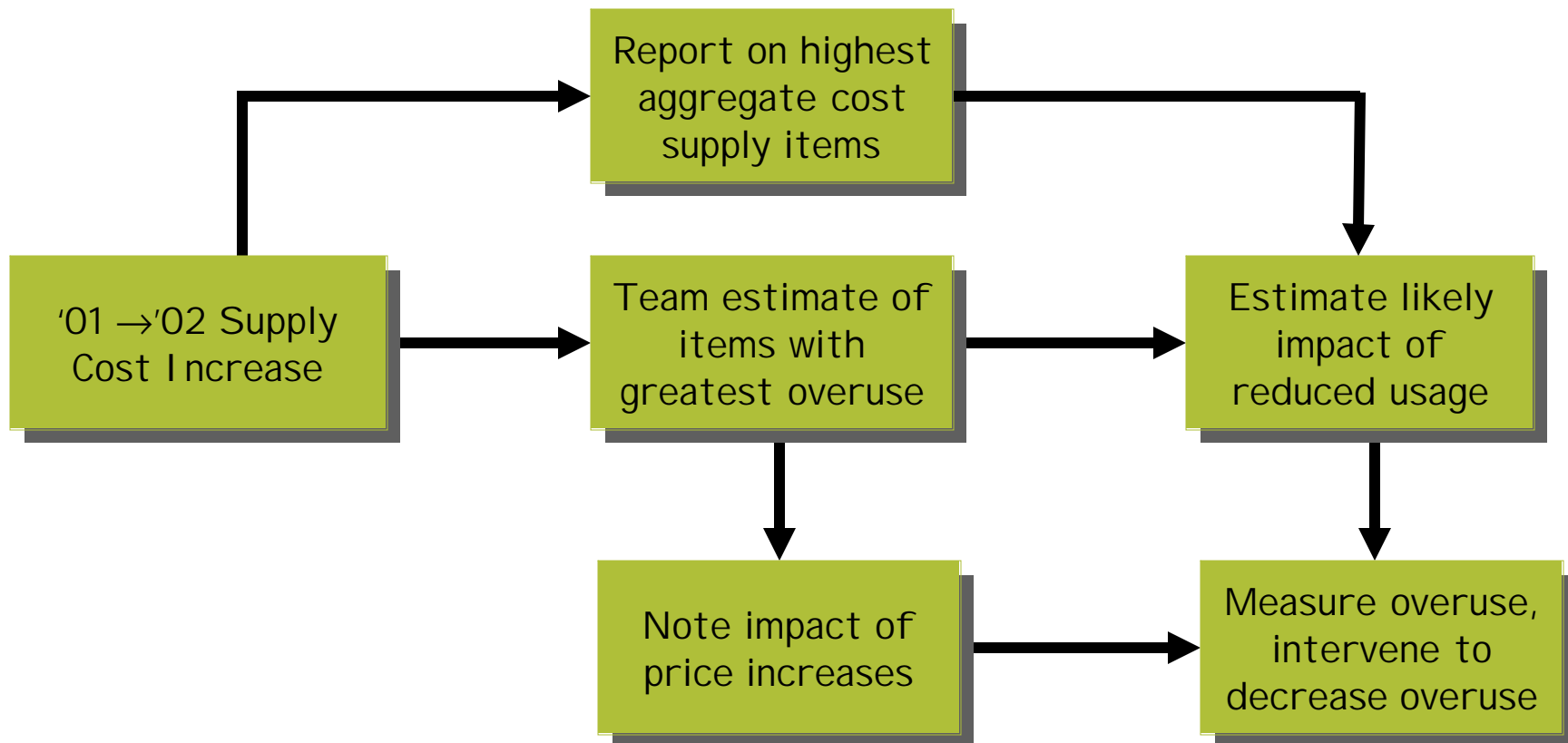
Measure

Analyze

Improve

Control

Define/Measure Plan



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

n	IV Sets	n	\$324,390
n	Angiocaths	n	\$ 53,894
n	Other IV Solutions	n	\$ 51,451
n	Forms	n	\$ 51,381
n	IV Solutions Clave Sys.	n	\$ 28,085
n	Isolation Gowns	n	\$ 21,940
n	Dressings	n	\$ 16,216
n	Batteries	n	\$ 8,815
n	Paper	n	\$ 4,717

ITEMS IDENTIFIED BY TEAM AS LIKELY CAUSE OF WASTE

Unit	Clave Sys- New IV Sets	Old Sys IV Sets	Total YTD IV Sets	Angiocaths	Other IV Solutions	Forms	IV Solutions Clave	Isolation Gowns	Dressings ABD's	Dressings 4X4's	Dressings Clings	Total Dressings	Batteries	Paper	Suture Tray	Disp. Steth
ICU	\$7,385	\$4,025	\$11,410	\$7,023	\$9,449	\$3,532	\$385	\$18,102	\$429	\$2,604	\$3,200	\$6,233	\$52	\$157	\$85	\$0
CCU	\$64,439	-\$2,316	\$62,123	\$108	\$1,260	\$9,344	\$4,460	\$1,156	\$37	\$323	\$25	\$385	\$425	\$801	\$1,081	\$1,281
2N	\$32,104	\$3,315	\$35,419	\$7,585	\$3,129	\$9,127	\$2,557	\$1,861	\$100	\$647	\$376	\$1,123	\$5,845	\$963	\$232	\$93
3NE	\$44,577	\$5,787	\$50,364	\$11,317	\$5,609	\$7,337	\$6,012	\$28	\$96	\$993	\$56	\$1,145	\$731	\$647	\$28	\$448
4NE	\$43,759	\$7,857	\$51,616	\$9,123	\$13,689	\$7,421	\$4,088	\$175	\$761	\$1,085	\$443	\$2,289	\$1,057	\$537	\$1,267	\$12
4NW	\$29,695	\$8,341	\$38,036	\$6,147	\$7,113	\$6,069	\$3,231	\$0	\$336	\$7	\$328	\$671	\$560	\$716	\$236	\$17
5 STOKES	\$26,583	\$2,595	\$29,178	\$3,007	\$4,987	\$3,420	\$3,221	\$259	\$205	\$863	\$148	\$1,216	\$49	\$375	\$569	\$0
7 STOKES	\$41,979	\$4,265	\$46,244	\$9,584	\$6,215	\$5,431	\$4,131	\$359	\$233	\$2,029	\$892	\$3,154	\$96	\$521	\$1,031	\$218
TOTALS	\$290,521	\$33,869	\$324,390	\$53,894	\$51,451	\$51,381	\$28,085	\$21,940	\$2,197	\$8,551	\$5,468	\$16,216	\$8,815	\$4,717	\$4,529	\$2,069
Ranking			1	2	3	4	5	6				7	8	9	10	11
Total \$ Top 12 Items Noted: \$567,851 - 40% of Total																
Item #s Included	26735	20567		23812	20580	23578	27885	22367	688	1059	22317		82	708	1371	1088
	26736	20569		23813	20581	23596	27886			23168	22318		10599	719	22752	
	26737	20573		23815	20582-3	23600				23880	23319			24358		
	27031	20574		23817	20584	23605				24053						
	27033	20575			20594	23610				26132						
	27035	20576			20601	23620				26136						
	27884	20578			20603	23631				26137						
		20587			20604	23663				28499						
		21260			20611	23689										
					20612	23691										
					20616	23706										
Source:					20619	23714										
					20622	23717										
					20623	23718										
					20624	23719										
					20625	23729										
					20628	23732										
					20631	23735										
					20632	23737										
					20634	23753										
					20636	24090										
					20637	24096										
					20638	24129										
					20639	26139										
					20640											
					20642											
					20646											
					21259											

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

Many individual items had to be manually identified and grouped to get meaningful information on supply categories

40% of total Supply Cost for the year is included in these 12 supply categories

12 items made up the "wound dressings" category

WHY DID THE CLAVE VOLUME INCREASE ?

- n **More patients**
- n **More pump use**
 - q **Safety ?**
 - q **Nursing convenience ?**
- n **Was there a realistic opportunity to decrease pump use ?**

ITEMS IDENTIFIED BY TEAM AS LIKELY CAUSE OF WASTE – ROUND #2

Unit	Gloves (Kimclck Only)	Sleeve S/M/L (Owens)	Cleanser (Owens)	4 Oz. Skin Protectant (Owens)	Dressing S-C Tray (Trihos)	Elec-trodes (Owens)	Needle (SIMS)	Urine Meters (Owens)	Germicid. Cloth (Echolab)	Suction (Owens)	Holder (Hollis)
ICU	\$21,287	\$22,861	\$7,531	\$4,275	\$5,210	\$5,159	\$3,104	\$6,315	\$2,934	\$3,196	\$3,942
CCU	\$2,340	\$1,480	\$730	\$582	\$547	\$644	\$239	\$1,015	\$17	\$601	\$429
2N	\$8,894	\$1,444	\$6,180	\$2,820	\$678	\$3,440	\$874	\$0	\$516	\$480	\$0
3NE	\$711	\$939	\$234	\$0	\$46	\$356	\$3,648	\$0	\$1,729	\$65	\$102
4NE	\$12,981	\$8,052	\$5,815	\$3,086	\$1,630	\$894	\$476	\$129	\$907	\$545	\$0
4NW	\$9,612	\$3,292	\$5,827	\$5,810	\$474	\$1,091	\$77	\$0	\$586	\$397	\$0
5 STOKES	\$6,141	\$1,092	\$3,150	\$2,067	\$1,738	\$105	\$1,785	\$92	\$253	\$92	\$0
7 STOKES	\$9,521	\$2,361	\$6,525	\$5,912	\$3,429	\$283	\$1,717	\$0	\$236	\$277	\$0
TOTALS	\$71,487	\$41,521	\$35,992	\$24,552	\$13,752	\$11,972	\$11,920	\$7,551	\$7,178	\$5,653	\$4,473
Ranking	1	2	3	4	5	6	7	8	9	10	11
Total \$ Additional 11 Items Noted: \$236,051 - 16.5% of Total											

RESULTS

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

AUDIENCE RESPONSE

n **WHY WAS THIS PROJECT
BY ITSELF UNABLE TO
IDENTIFY HARD SAVINGS?**



WHAT WERE THE CONTRIBUTORS TO NON-SUCCESS?

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

STRATEGY FOR MAKING SUCCESSFUL PI METHODOLOGY CHOICES

**n DO YOUR
HOMEWORK FIRST**

**n THEN CHOOSE PI
METHODOLOGY**



THE ABSOLUTE “MUST’S”

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

Financial Analysis

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

Benchmarking Purpose/Value:

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

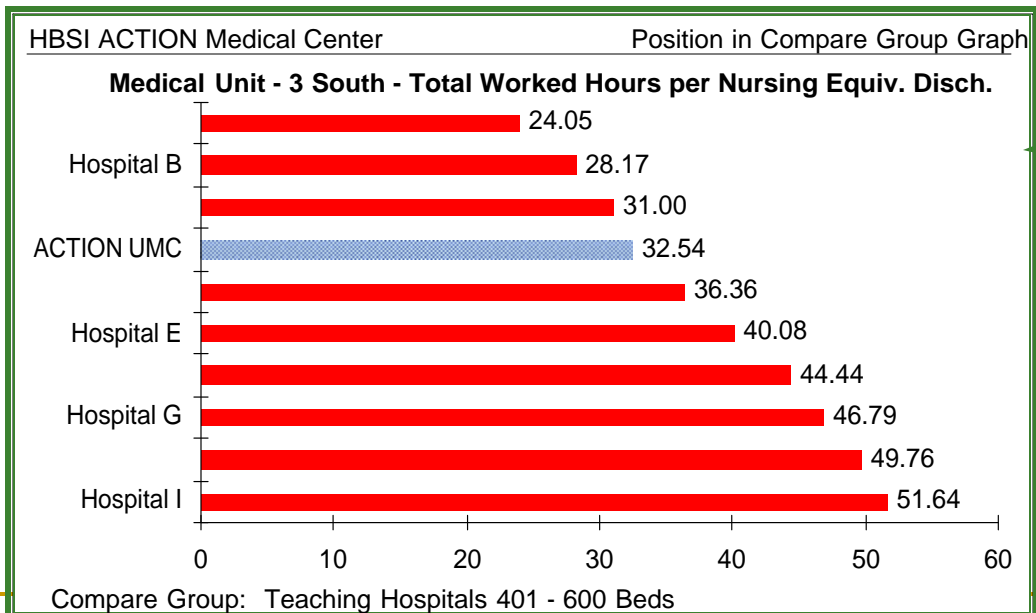
Definition of Benchmarking:

- n It is learning how to adapt better and best practices learned through the benchmarking process, to promote breakthroughs in process improvements.
- n 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:

- n **L.O.S. (Length of Stay)**
- n **Productivity**
- n **Supplies**
- n **Operational Efficiencies**

HBSI ACTION Medical Center							Trend / Compare Group Report				
Quarterly Trend							Comparison				
Annual Average							Group Name	Percentiles			
4Q97-3Q98	3Q97	4Q97	1Q98	2Q98	3Q98	Percentile / n		25th	50th	75th	
Medical Unit - 3 South											
Supply Cost per Nursing Equivalent Discharge							TEACHING 401 - 600	60-65 / 60	19.00	29.03	46.46
	34.92	46.67	34.61	22.02	47.86	35.17	ALL HOSPITALS	70-75 / 150	17.65	26.24	36.60
Total Direct Cost per Nursing Equivalent Discharge							TEACHING 401 - 600	55-60 / 64	575.23	721.45	889.57
	770.95	905.89	803.25	687.53	826.59	766.44	ALL HOSPITALS	65-70 / 155	517.54	650.53	815.72
Total Salary Cost per Nursing Equivalent Discharge							TEACHING 401 - 600	50-55 / 64	535.29	646.41	818.68
	687.74	811.99	733.93	618.79	728.05	670.18	ALL HOSPITALS	60-65 / 155	493.00	596.59	754.73
Total Worked Hours per Nursing Equivalent Discharge							TEACHING 401 - 600	35-40 / 64	30.65	34.30	45.49
	34.87	39.06	37.53	31.5	37.9	32.54	ALL HOSPITALS	45-50 / 155	28.21	32.83	40.78



- u Select comparison percentiles for custom performance goals
- u Identify data elements to compare with other facilities

DETERMINE YOUR METHODOLOGY

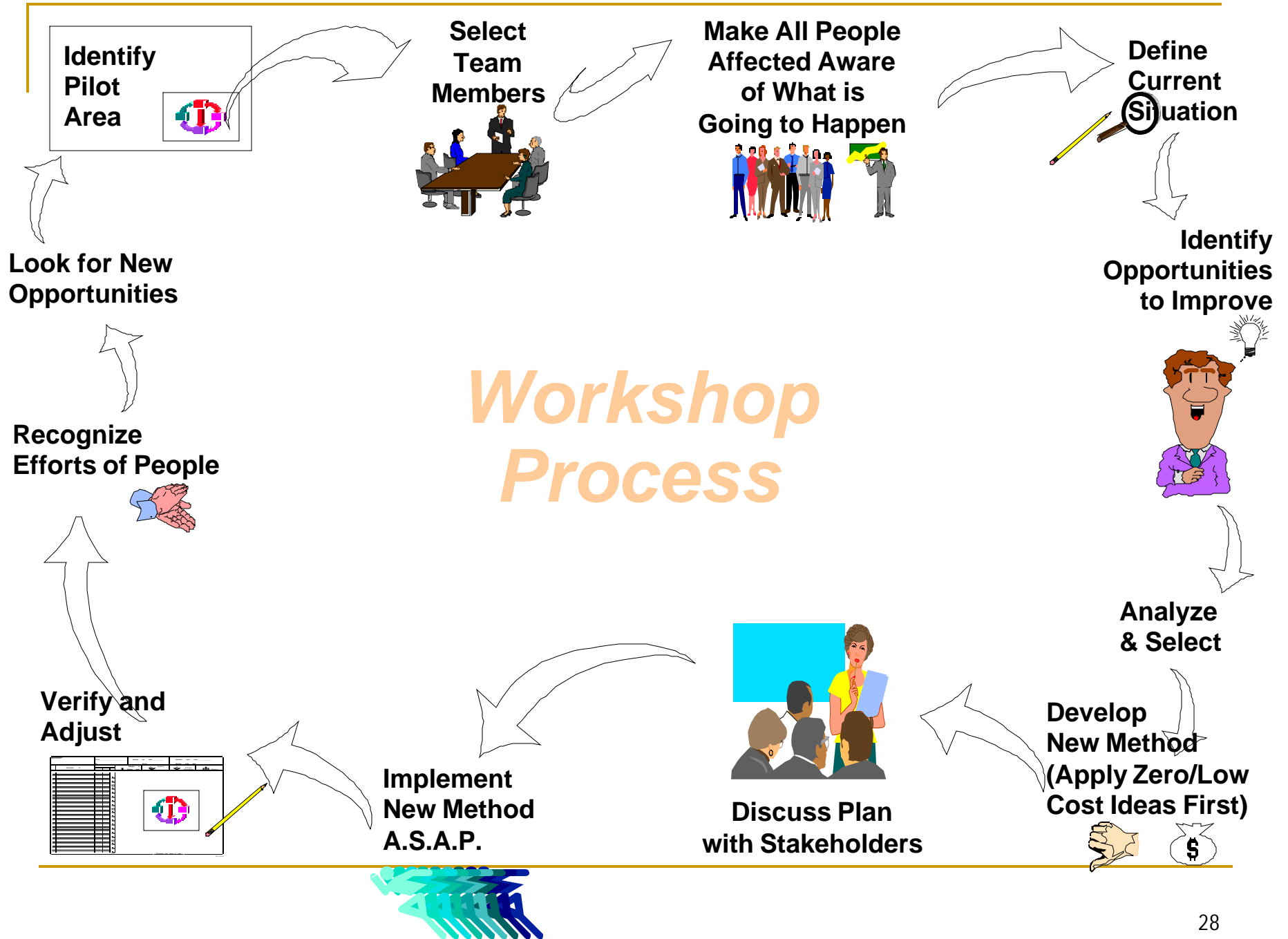
- n Six-Sigma Project**
- n Focused Workshops**
- n Management Engineering Studies**
- n Top Management Directive to Change**

(“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**

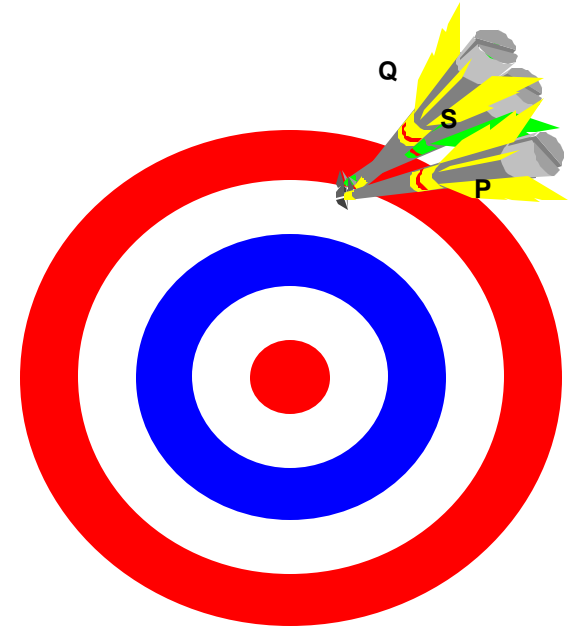
Workshop Process



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)



MANAGEMENT ENGINEERING STUDIES

- n Recommend at minimum a walk-through of process to be improved by PI leader
- n PI leader/key stakeholders should “shadow” staff to identify processes, non-value added tasks, system barriers, educational needs
- n Timed studies should be conducted where applicable
- n All process paperwork should be collected, automated systems analyzed, and communication systems identified

n **CHOOSING THE CORRECT
COMBINATION OF
PERFORMANCE
IMPROVEMENT
METHODOLOGIES WILL
DEFINITELY YIELD
SUCCESS!**

n (Copies of Workshop
Timelines/Tools in Handouts)

