



## Strategy, Action and Outcome in the Deployment of Lean and Six Sigma

### **Patrick Gannon, RPh**

VP & Chief Quality Officer  
Southcoast Health System  
gannonp@southcoast.org  
Tel: 508.679.7015

### **Nidia Williams**

Director, Quality Outcomes  
Southcoast Hospitals Group  
williamsn@southcoast.org  
Tel: 508.679.7397

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## Who We Are



**Charlton Memorial Hospital**  
Fall River



**St. Luke's Hospital**  
New Bedford



**Tobey Hospital**  
Wareham

### **Southcoast Health System**

800+ physicians & 6,000+ employees  
serving 719,000 people in 33 communities  
dating back to 1884.

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## Why & How We Got Started

- Seek sustainable methods & processes — not just cuts
  - A **lifestyle change** — not just a diet
  - Increased focus on “**real-time accountability**”
  - **Use data** to drive decision-making



## Fall 2008: Why & How We Got Started

- Why do **both** Lean & Six Sigma?
  - Improve the way we do things — not just to generate cuts/savings
  - Create immediate savings through elimination of waste & hard-wiring improved processes with Six Sigma





## Action

### Mobilize the *entire* organization



- Board
- Senior Leadership
- Middle Management
- Physicians
- Front line staff



### Activate engagement

- Set targets and deadlines up front – month 1
- Set financial targets – month 2
- **All** levels held accountable
- Include front-line staff
- **Communicate Communicate Communicate**

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## Getting Started / Infrastructure

1. Sr Management Oversight Committee for project selection & overall stewardship of activities
2. Consultant for initial education, teaching materials & coaching
3. Administrative support for scheduling & clerical functions: **Critical Need!**
4. System for tracking projects & results
5. Strong ties to and support from Finance

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## Jan 2009: Initial Improvement Cycle

- 120-day cycle with 30-day check-ins
- Disciplined, focused engagement

### Lean

### Six Sigma

Every director/manager expected to present Waste Walk efforts

Every Six Sigma team presented one DMAIC phase every 30 days

- Built database tracker to promote accountability & adherence to timelines



**Active Project Grid (492 Projects/Tasks)** Current Grid Row is 24

User	Site	Category	Department	Project	Date Initiated	Check In	FY Pot. Savings (H & S)	Fiscal Review
UDT1995	SLH	Lean/Waste Wal...	S-PSYCH INTAKE	Covered weekend gap in schedul...	2/7/2009	Project ...	\$3,150	APPRVD
UBS4643	SHG	Lean/Waste Wal...	SC-CENTRAL AUTH	Eliminate 2nd page of registration ...	2/9/2009	Project ...	\$2,616	APPRVD
UDD0130	CMH	Lean/Waste Wal...	C-RAD DIAG	Eliminate film retrieval for mammog...	2/23/2009	Project ...	\$17,745	APPRVD
UDD0130	CMH	Lean/Waste Wal...	C-M.R.I.	Eliminate printing MR reports for M...	2/9/2009	Project ...	\$2,186	APPRVD
UBC3105	SHG	Lean/Waste Wal...	SC-HLTH INFOR.	Eliminate the distribution of the dic...	1/19/2009	Project ...	\$1,875	APPRVD

Last Grid Refreshed: 1/24/2010 7:22:19 PM

Project Category: 
 Site:

Process Change: 
 Department:

Waste Category: 
 Check In: 
 Director:

Change Concept: 
 Senior Leadership:

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**Project/Task Identifier**  
Unique Id: 84

**Project Dates**  
Identified:   
Initiated:   
Est. Completion:   
Completion:

**Six Sigma Responsibilities**  
Green Belt:   
Executive Champion:   
Process Owner:

**Action Taken/Process Change**  
Eliminate the retrieval of mammography films from off-site storage. Retrieve mammography films only when specifically requested by the radiologist for his/her interpretation.

**Fiscal Year Savings**  
Soft Potential Savings:   
Soft Savings Achieved:   
Hard Potential Savings:   
Hard Savings Achieved:

**Fiscal Year FTE Savings**  
Potential:  Achieved:

**Annualized Savings**  
Soft Potential Savings:   
Soft Savings Achieved:   
Hard Potential Savings:   
Hard Savings Achieved:

**Annualized FTE Savings**  
Potential:  Achieved:

**Project/Process Change Status**  
Fiscal Review:   
Completion Status:   
Active Status:

**Quantification/Validation Detail**  
Minimizes the cost of retrieving films to only those films that are specifically requested by the radiologists. Film retrieval costs are \$2.30 per file. Average number of files/day = 40. Total clerical time spent on mammography file retrieval per day = 2 hours. Average clerical salary = \$12.50/hour. Calculation: File Retrieval = 40 x 2.30 x 5 days/week x



## Outcome: Lean Waste Walks

- Lean Waste Walks  
(department based)
  - Goal:  
\$3 million
  - Actual:  
**\$7M**  
1% = 6 days
  - In 120 days
- **Change Examples**
  - B/W vs color printing
  - Stop unneeded reports
  - Consolidate deliveries
  - Fax vs mail reports
  - Eliminate face to face meetings: use technology
  - Reduce over time
  - Contracts/supplies: better pricing options
  - Control purchase options

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## Outcome: Waste Walk Pods – Jan 2010

- **Phase 2: Organization-wide** waste walks
- Five Director or VP-led, financially incented pods with 5-6 members each – leadership only
- Assigned categories per pod: Contracts, Supplies, Utilization, Energy, IT, IQS, Lab, Pharmacy, Implants, Benefits
- Goal: \$1M/pod identified within 120 days
- Actual: **\$9.6M**

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## Outcome: In-Quality Staffing

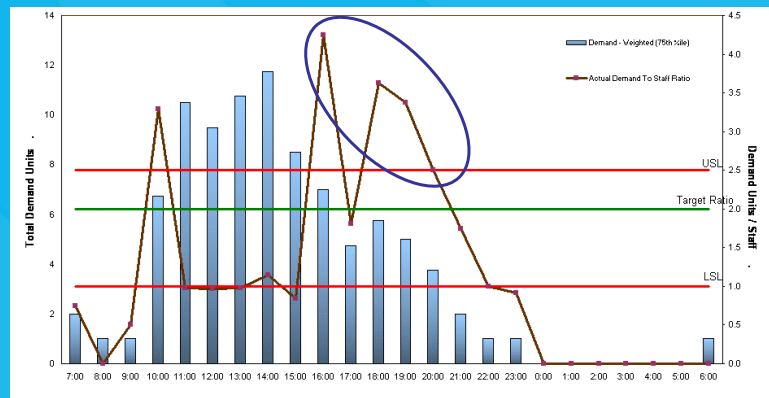
- Tradition: Steady staffing & variable demand
- Now: Flex staff & shape demand
- Outcome: "In-Quality" Staffing
- **\$2M** opportunity identified in 120 days
- Use to prove need for new & replacement FTEs
- Use in 2011 FTE budget to validate:
  - Leadership understanding of the tool
  - Identify possible improvements in FTEs

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## "In-Quality" Staffing / Before



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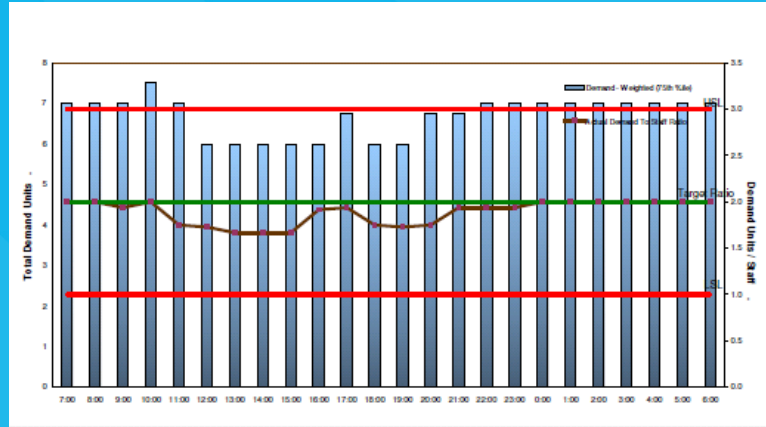
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## "In-Quality" Staffing / After



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## Six Sigma ...

- **Certified Belts**
  - 24 Green Belts
  - 4 Black Belts
  - 1 Master Black Belt
  - Yellow Belt training for ALL leadership
  
- Bringing the resources in-house is necessary for expanding and maintaining the Six Sigma culture





## Outcome: Six Sigma

- Initial: Some projects for learning
- Now: Align to strategic plan or annual operations goals
  
- Patient throughput (IP, ED and OP)
- Patient/Staff safety
- Revenue cycle
- Decreased observation hours for OBV admissions
  
- Financial gain: **\$1M+** in 120 days



## Six Sigma Process Improvements

- Reduced elective endoscopy time to discharge; created capacity
- Reduced "door-to-needle-in" time for elective caths
- Improved medication reconciliation process
- Decreased time from decision to admit from ED to time to occupy inpatient bed
- Decreased observation hours for OBV admissions
- Financial gain: **\$1+ million**







## Driving Accountability

- 30-day check-ins
  - VPs, C-suite, Directors, team members
  - Select presenters at random
- “Completed” projects still check in until goals met **or** process turned over to daily department operations **or** project is discontinued for other reasons
- Local, assigned project owner and an executive champion (VP)
- Lean/Six Sigma/IQS Project Tracker

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## Six Sigma Project Tracker

Quality Tracking System

File -> Pending Projects -> Lean Walks -> Six Sigma -> Six Sigma1 -> Lean Walk -> IQS -> Settings

### Six Sigma Project Form

Search On: Make A Choice Criteria: Unknown GO Add Project Edit Project Delete Project Close More

Project Id: 3 - Project Test Fiscal Year(s): All Present Last

Year/Month	Site	Project	Metric	Facilitator	Executive Sponsor	Department
2010-04	CMH	Project Test	Kkkgkkk	DA PONTE, LISA M	BODENMANN, LINDA A	SC.C-AMBULANCE

Define Add1 Define Scope/Business Case Process Changes Control Followup (QDS Only) Reporting (QDS Only)

Project Title: Project Test Project Metric/Measure to be Tracked: Kkkgkkk Start Date: 4/27/2010 3

Team Leader/Facilitator: DA PONTE, LISA M Executive Sponsor: BODENMANN, LINDA A Site: Charlton Memorial Hospital

Team Members: Type Name Here Black Belt: ANDRADE, URSZULA Unit: SC.C-AMBULANCE 50.6953

Green Belt: BARKER, BETH Multi - Units: Make A Choice

Process Owners: ABBOTT, JENNIFER Department: Dept Id: 00000

No Team Members UNK0000  No Departments



## Summary to-date

Waste Walk Activity	Internal Goal	Hard Dollars Realized	Actual Impact on Total Operating Expenses
Department focus	\$3M	\$7.0M	1%
Org-wide focus	\$5M	\$9.6M*	1.4%
Six Sigma		\$1M++	NOTE: Plus several other projects employing Green Belts
Total	\$8M	~\$20M	Over two years

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\* Still tracking some projects for validation



## Current

- **Yellow Belt** 'certification' for Leadership, physician leaders, including office practices and VNAs
- **Kaizen Events:** Four run weeks completed; three more projects to come.
- **Project Management** tools to deploy broad-scope projects across the organization.
  - 40 directors received introductory training in 2011
- **Use Lean tools to meet FY12 budget goals:**
  - Find \$25M between April 22 and June 10
    - Implement by Sept 30
  - Each director to identify cost improvements:
    - Excellence: 3%
    - Target: 2.5%
    - Base: 2.0%

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