Eating the Elephant:
Designing and Deploying Continual Improvement in a Multi-Site Environment

Bill D'Innocenzo, Fresenius Medical Care
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Agenda

- ## Welcome

- ## Introduction of MBB Webcast Series
  - Larry Goldman, MoreSteam.com

- ## Today's Session
  - Bill D'Innocenzo, Fresenius Medical Care

- ## Open Discussion and Questions

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- Founded in 2000

- Trained over 350,000 Lean Six Sigma professionals

- Served over 2,000 corporate customers (including 50+% of the F500)

- First firm to offer the complete Black Belt curriculum online and only firm to offer online DfLSS

- Courses reviewed and approved by ASQ and PMI

- Academic Partnership with Ohio State University

Select Customers:

Quest Diagnostics IBM
tyco hp
Nationwide Honeywell lenovo
XEROX Hertz
ROLLS ROYCE CardinalHealth
TEXTRON

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Today's Presenter

Bill D'Innocenzo

Vice President of Global IMPAQ, Fresenius Medical Care

- *Fresenius Medical Care is the world's largest integrated provider of products and services for individuals undergoing dialysis*

- *Network of dialysis clinics in North America, Europe, Latin America, Asia-Pacific and Africa*

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Eating the Elephant

Designing and Deploying Continual Improvement
in a Multi-site Environment

Fresenius Medical Care

- World's leading company devoted to patient-oriented renal therapy

- A highly integrated company
  - Manufacture Medical Devices and Disposable Supplies
  - Manage Logistics and Transportation
  - Deliver Renal Therapy to Patients

- More than 45 Manufacturing Sites

- Own or Manage more than 2,700 Dialysis Clinics

- Serve more than 215,000 ESRD Patients

- Deliver more than 32M life saving treatments per year

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The Challenge... Deploy Continuous Improvement to ALL Clinics... ASAP!

The Approach

- Utilized a structured methodology

- Design for Six Sigma?

- At least some of the tools (DFSS-Lite)

| Voice Of the Customer | Critical Requirements | Create & Evaluate Design Concepts | Build & Optimize Models | Test & Validate Models | Deploy & CI |

Define the Opportunity

- Problem Statement:
  - Rising medical care costs have put pressure on our industry to effectively reduce expenses while maintaining or improving the quality of care to our patients

- Business Case:
  - By deploying CI at the clinic level, FMCNA will be in a position to leverage the collective talent of 45K employees

  - Preliminary workshops focused on clinic organization (5S) has resulted in an averaged medical supply cost per treatment (CPT) savings between $0.25 and $1.50, *averaging 46¢*
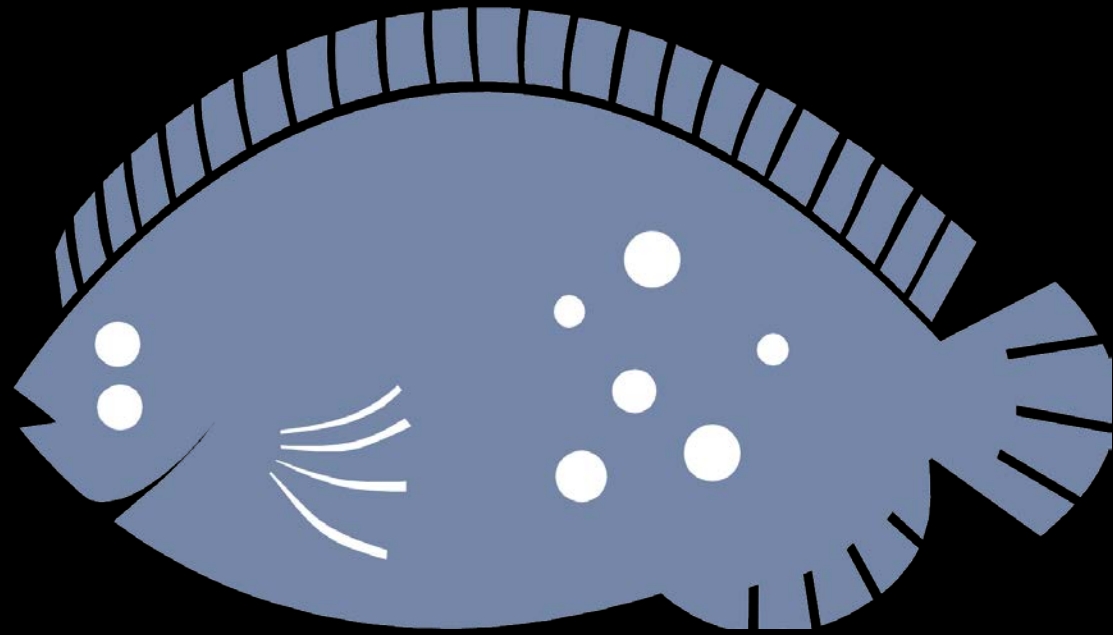
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Engage Senior Leadership...

- Average Medical Supply CPT reduction of 46¢

- We Deliver 21,000,000 Treatments per Year*

- 46¢ x 21,000,000 = $9,660,000

Senior Leadership Engaged!

* USA Only

flounder

Engage Middle Management…

- What are the priorities?

- What are the challenges?

- Where are the opportunities?

| Voice Of the Customer | Critical Requirements | Create & Evaluate Design Concepts | Build & Optimize Models | Test & Validate Models | Deploy & CI |

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Gather VOC & Translate Into Process Requirements

- **Surveys and Interviews**
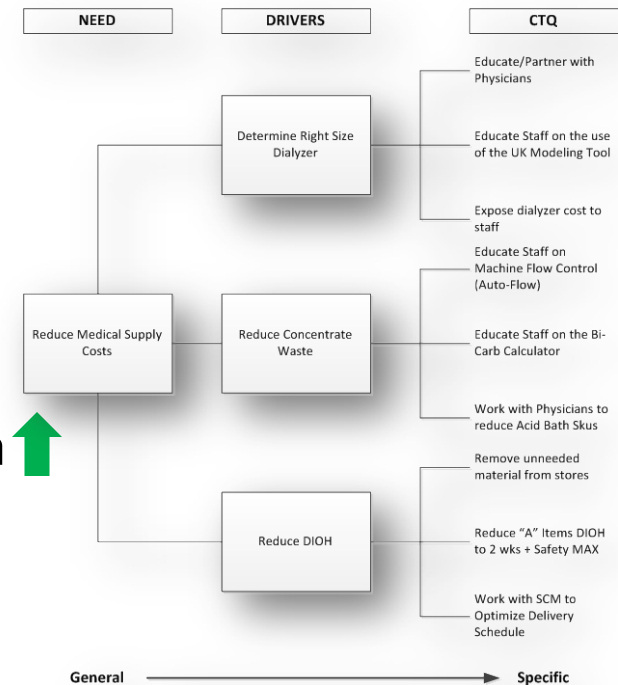 - Mid-Level Managers/Supervisors (100+)
  - Individual Contributors (200+)

- **Organized and Reduced VOC Data**
  - Affinity Diagraming
  - Multi-Voting

Voice Of the Customer

- **Translate into Process Requirements**
  - CTQ Tree
  - Kano Analysis

Critical Requirements

KANO MODEL
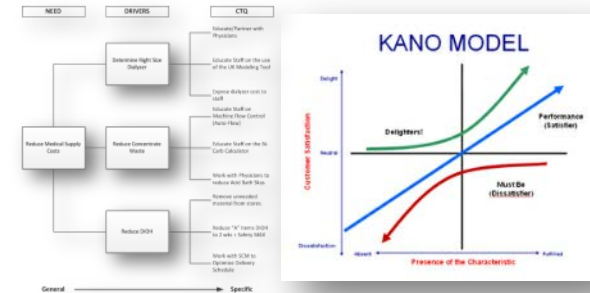
Top 10 CTQ Inputs

1. Patient Outcomes (UltraScore) ⬆
2. Catheter Rate ⬇
3. Hospitalizations ⬇
4. Missed Treatments ⬇
5. Infections ⬇
6. Number of Patients – In Center ⬆
7. Number of Patients – Home Program ⬆
8. Medical Supply Cost ⬇
9. Productivity ⬆
10. Staff Satisfaction ⬆

NEED	DRIVERS	CTQ
	Determine Right Size Dialyzer	Educate/Partner with Physicians
		Educate Staff on the use of the UK Modeling Tool
		Expose dialyzer cost to staff
Reduce Medical Supply Costs	Reduce Concentrate Waste	Educate Staff on Machine Flow Control (Auto-Flow)
		Educate Staff on the Bi-Carb Calculator
		Work with Physicians to reduce Acid Bath Skus
	Reduce DIOH	Remove unneeded material from stores
		Reduce "A" Items DIOH to 2 wks + Safety MAX
		Work with SCM to Optimize Delivery Schedule

General ———————————➤ Specific

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We know the WHAT, time to figure out the HOW…

- Organization matters
  - 4 Divisions
  - 11 Groups
  - 49 Regions
  - 2,040 Clinics
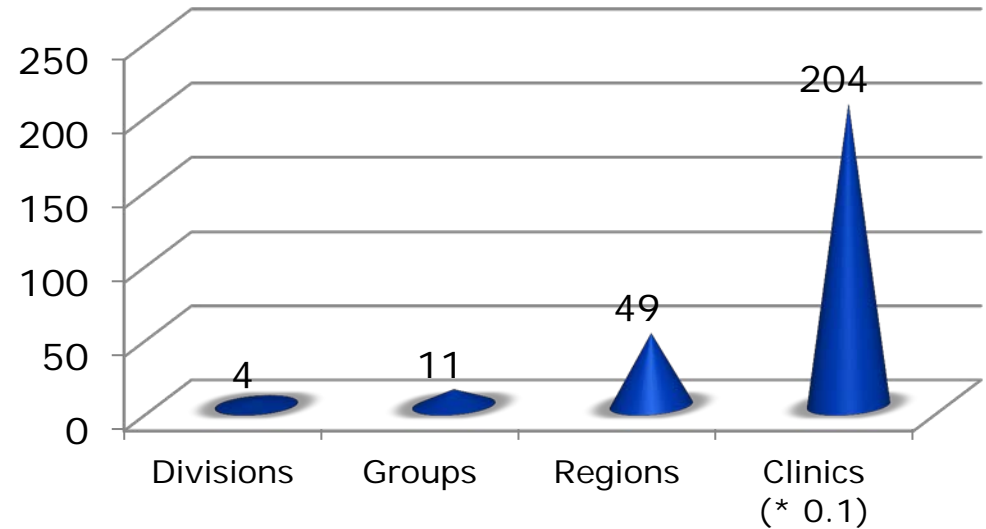
Each Region ~40 Clinics

Create &
Evaluate
Design
Concepts

Brainstorm Ideas on HOW

- Develop a "Regional Franchise Model"

- Adopt the "Take-the-willing" Approach

- Focus on "Lean first" – by design, Lean is *inclusive*

- Utilize an "Apprenticeship Model"

  – See One, Do One, Teach One

- Use our Blended Learning Model to Educate

Create &
Evaluate
Design
Concepts

Pugh Concept Selection Matrix

Build & Optimize Deployment Models

- One Concept was NOT the Solution

- Through Iterative Experimentation…

  – Pieced together an initial working model
  – Pilot Plan for One Region, Two Clinics
  – Gathered Participant Feedback
  – Evaluated Results at 30, 60 & 90-Days Out

Build &
Optimize
Models

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- Deploy at ONE Region, TWO Clinics
  - Establish Baseline metrics
  - Measure Results for 3 Months Post Deployment
  - Has the Staff done more with tools (cultural shift?)

- What have we learned?
  - Active participation?
  - Results meet expectations?

- Adjust Model and Deploy at Next Region
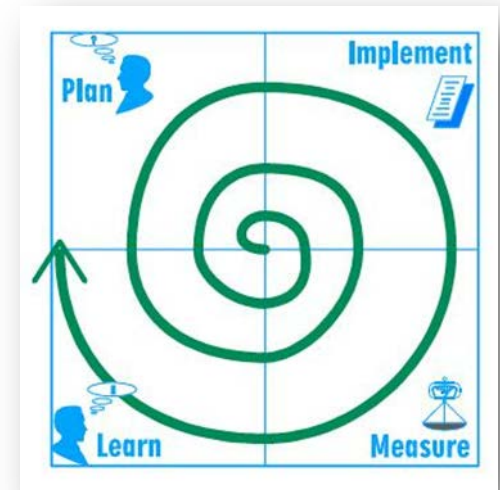 - Lather, Rinse, Repeat...

Test &
Validate
Models
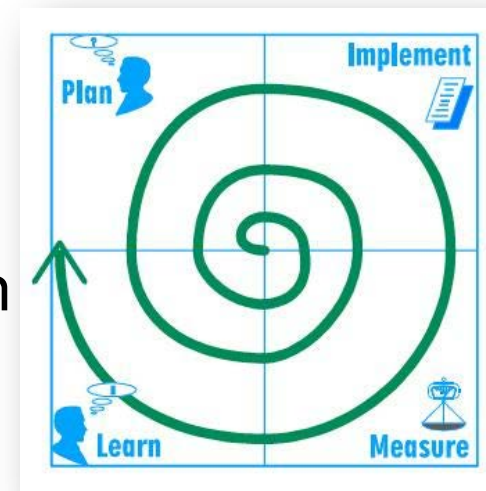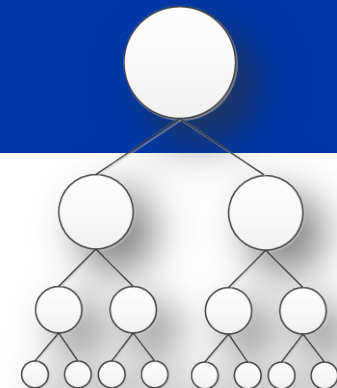
The Journey Continues…

- Practice what we preach…Continuous Improvement

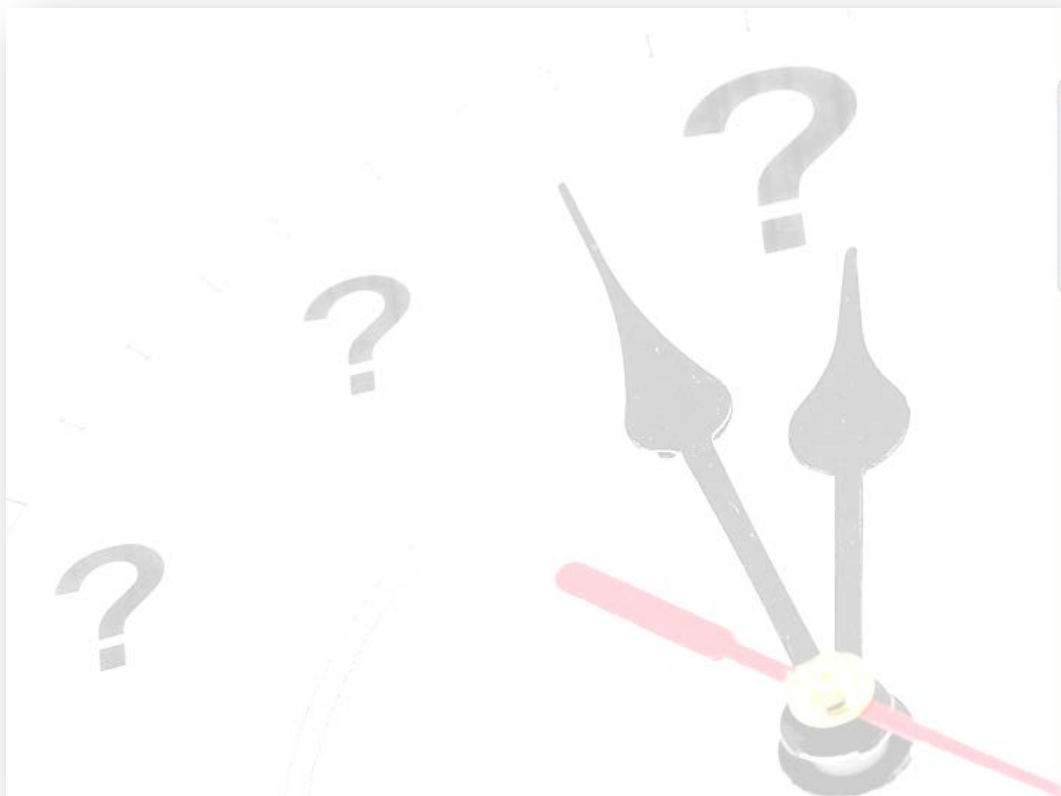- Plan, Deploy, Measure, Learn, Adjust, Continue…

Obrigado!

Gracias

Grazie

THANK YOU

Merci

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Vielen Dank

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Thank you for joining us

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- Offered in partnership with Fisher College of Business at The Ohio State University

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- Covers the MBB Body of Knowledge, topics ranging from advanced *DOE* to *Leading Change* to *Finance for MBBs*

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Resource Links and Contacts

Questions? Comments? We'd love to hear from you.

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Join us for our next Webcast:

"Begin with the End in Mind: Creating & Sustaining Change"–
Kirby James, The K James Group

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