



*Sutter Medical Network*  
*With You. For Life.*

# **The National Pay for Performance Summit**

**Preconference I: Measuring Resource Use, Efficiency,  
and Total Cost of Care**

***March 19, 2012***

Sponsored by the Integrated Healthcare Association and the National Committee for Quality Assurance



*Sutter Medical Network*  
*With You. For Life.*

***Episode Treatment Groups and  
Clinical Variation Reduction:***

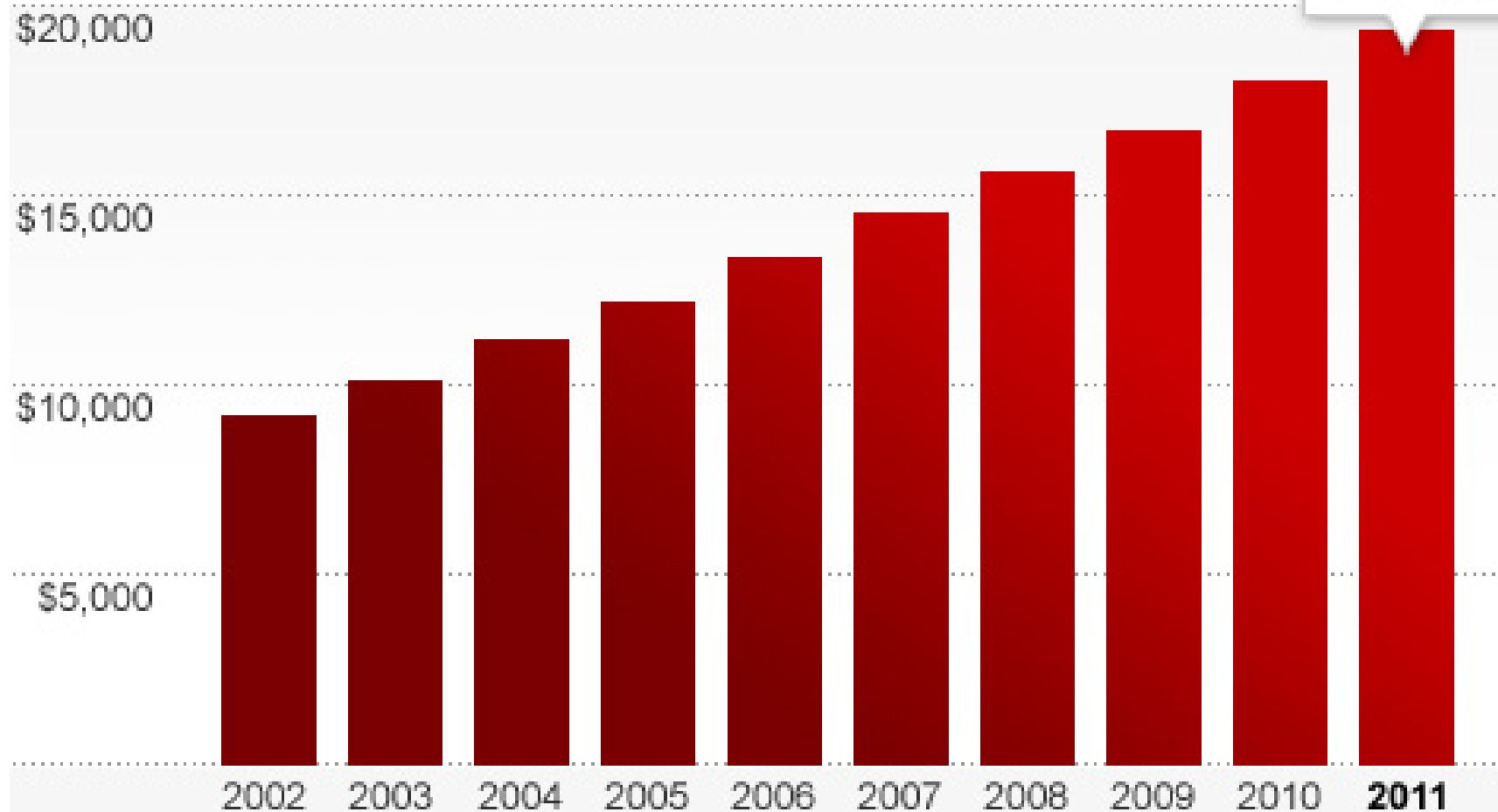
***A Means to an End with  
Shared Savings***

# Agenda

1. Medical Group response to cost concerns: ***Variation Reduction***
2. Does it work? Is it sustainable?
3. How does it work? (demonstration)
4. How can I start this in my organization?

**Health care costs for a family of four have doubled in less than a decade from \$9,235 in 2002 to over \$19,000 in 2011.**

**FAMILY HEALTHCARE COSTS RISING**



SOURCE: 2011 MILLIMAN MEDICAL INDEX, *With You. For Life.*

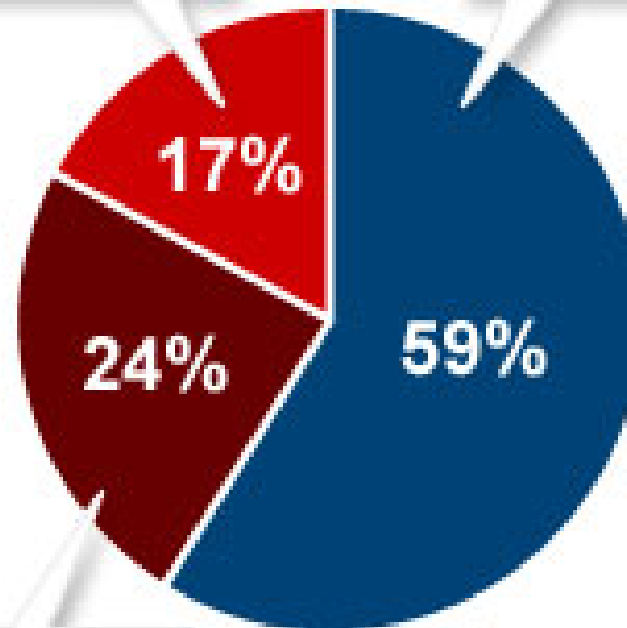
## Relative proportions of medical costs

**\$3,280**

Employee  
out-of-pocket

**\$11,385**

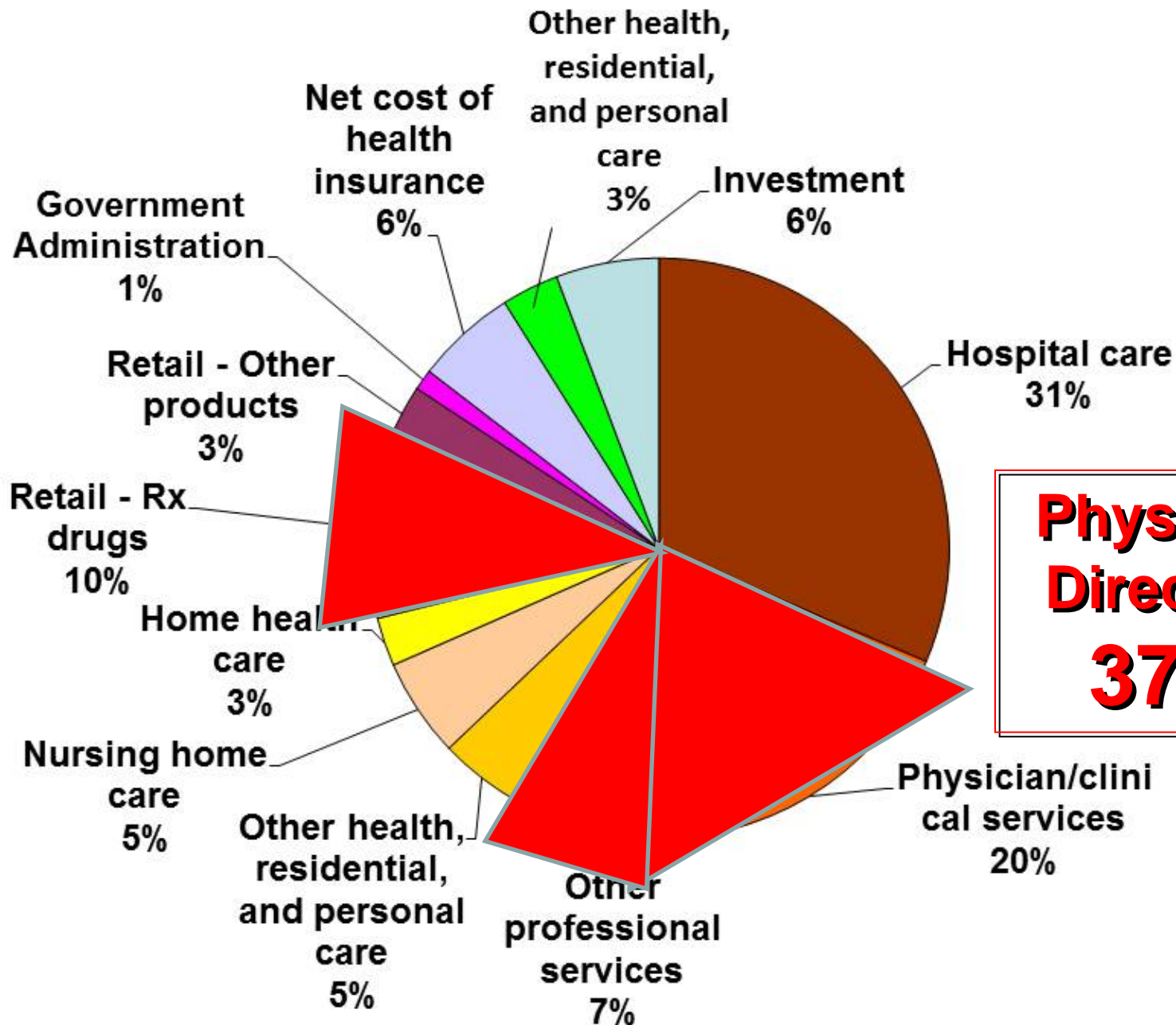
Employer  
contribution



**\$4,728**

Employee  
contribution

SOURCE: 2011 MILLIMAN MEDICAL INDEX



**Physician Directed:  
37%**

# Medical Group opportunities

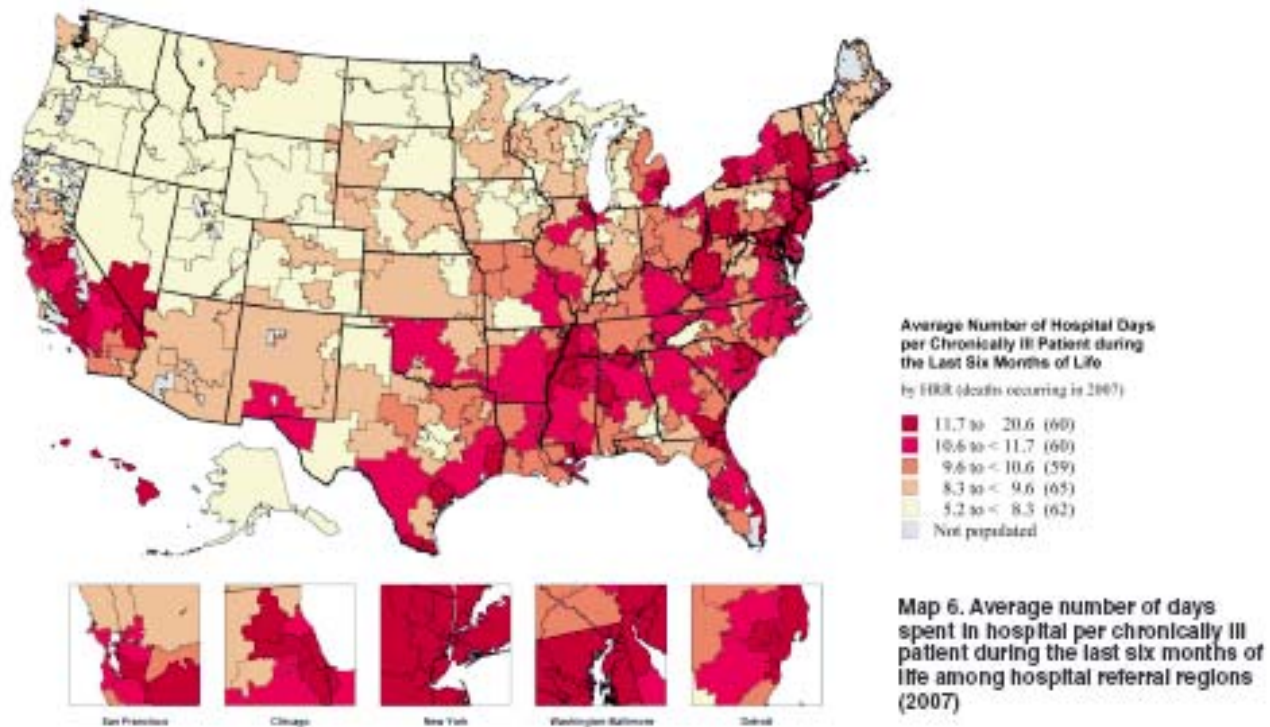
- Hospital days?
- Transitions?
- Disease management?
- Case management?
- **Physician treatment choices?**
  - PDSA : quality improvement
  - Six Sigma
  - Lean
  - **Variation Reduction**

# What is Variation Reduction?

- New Program
- New Methodology
- With Results
  - Physician behavior change
  - Affordability projects
  - Significant savings (waste elimination)
  - Well received by clinicians



# Regional Variation: Dartmouth Atlas



<http://www.dartmouthatlas.org/>

# The Value Equation

$$\text{Value} = \frac{\text{Appropriateness} \times \text{Quality}}{\text{Cost to Patient}}$$

*Quality = Clinical Outcomes + Access + Satisfaction*

Lean: Where is the “waste?”

# Variation Reduction - Purpose

- Affordability ... and Quality
  - Find the waste, and address it
- How: Change Physician Behavior
  - “*Good luck with that!*”
  - Respectful and welcomed
  - Effective and sustainable

# System Variation Reduction Count of Projects in the “Pipeline”

	SMF/ SMG	SGMF/ GMG	PAMF/ PAFMG <small>Data through 11/30/11</small>	SPMF/ SMGR/ PFMA	SEBMF/ EBPMG	Total
<b>1. In Discussion</b> – <i>meeting</i>						
<b>1a. In Discussion –</b> <i>exploring</i>	3	0		0	2	
<b>1b. In Discussion –</b> <i>narrowing</i>	4	1		2	1	
<b>1c. In Discussion –</b> <i>chartering</i>	0	4		1	0	
<b>1. In Discussion</b> – <i>total</i>	<b>7</b>	<b>5</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>31</b>
<b>2. Active</b> – <i>reporting</i>	<b>1</b>	<b>2</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>15</b>
<b>3. Mature</b> – <i>achieving</i>	<b>7</b>	<b>8</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>37</b>
<b>Total</b>	<b>15</b>	<b>16</b>	<b>44</b>	<b>4</b>	<b>5</b>	<b>84</b>

# Results – through January 2012

- Palo Alto Medical Foundation (started 2008)
  - 31 active/mature projects
  - \$17.1 M savings
- Rest of Sutter Medical Network (started 2010)
  - 21 active/mature projects
  - \$1.2 M savings

# Active/Mature Projects

- Pharmacy Projects
  - Use of generic PPIs
  - Use of generic Statins
  - Use of generic ARBs
  - Use of generic Fibrates
  - Oral Diabetics
  - Gel injections for OA of the knee
  - Asthma Steroids
  - Use of antibiotics for Otitis Media
  - Nasal Steroids
- Procedure/Service Projects
  - Dermatology: Tx of BCC: Nodular BCC, Mohs Surg. and Superficial BCC
  - Urology: Kidney Stones
  - Cardiology: Low Risk Chest Pain & Palpitations
  - OB: Post Menopausal Bleeding
  - Rheumatology: Rheumatoid Arthritis
  - Nephrology: Anemia Management in CKD
  - Ophthalmology: Glaucoma
  - Allergy: Skin Testing and Allergic Rhinitis
  - PMR: # of Epidurals for LBP

# Active/Mature Projects

- Procedure/Service Projects

- Endocrinology: Type II Diabetes
- Neurology: Dementia
- General Surgery: Lap Cholecystectomy
- Podiatry: Bunions
- Plastics: Reduction Mammoplasty; Breast Reconstruction After Mammo
- Pediatrics: Urgent Visits for Asthma
- Pulmonary: CT scans for Pulmonary Nodules
- Orthopedics: Carpal Tunnel; Total Hip Replacement

- Procedure/Service Projects

- Neurosurgery: Lumbar Disc Degeneration
- Sleep: Restless Leg Syndrome; Periodic Limb Movement Disorder
- ENT: Nasal and Sinus Endoscopy
- Sports Medicine: Knee Arthroscopy
- Gastroenterology: Screening Colonoscopy
- Oncology: Use of MGF in Breast Cancer
- HTN Kaizen: Hypertension

# Origins/Evolution

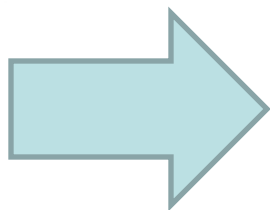
How can we support clinicians in practicing better?

## The Old Way

- Policies
- Guidelines
- Pay for performance
- Counseling outliers
- Utilization review
- Begging



- Frustration
- Resentment



## New Way: Variation Reduction

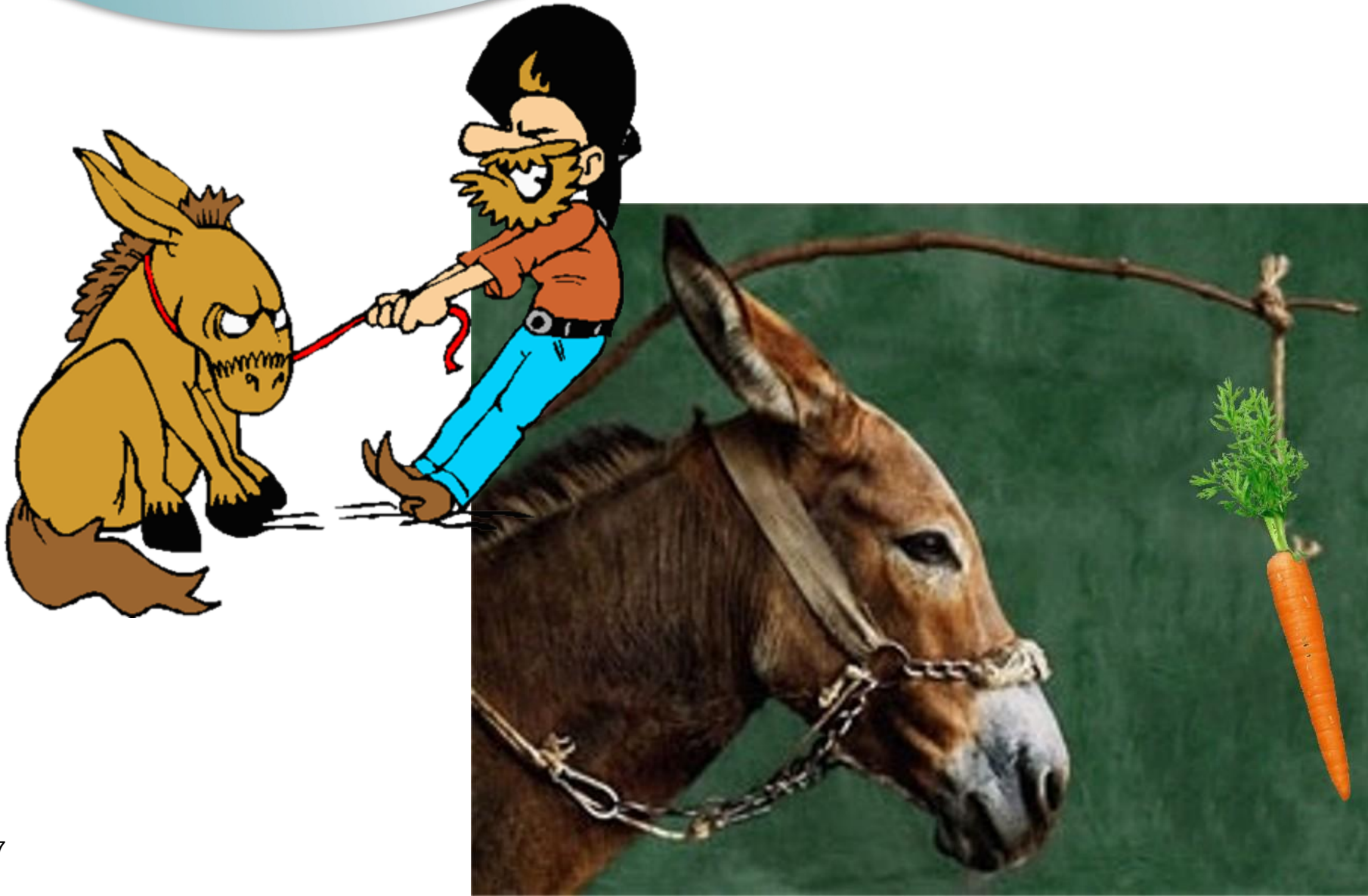
- Curiosity as the driver
- Respectful communication
- Helpful feedback
- Bottom up approach
- Visual impact (right brain)
- Live drill down



- Positive impact on results
- Positive impact on culture



# Philosophy of Physician Behavior

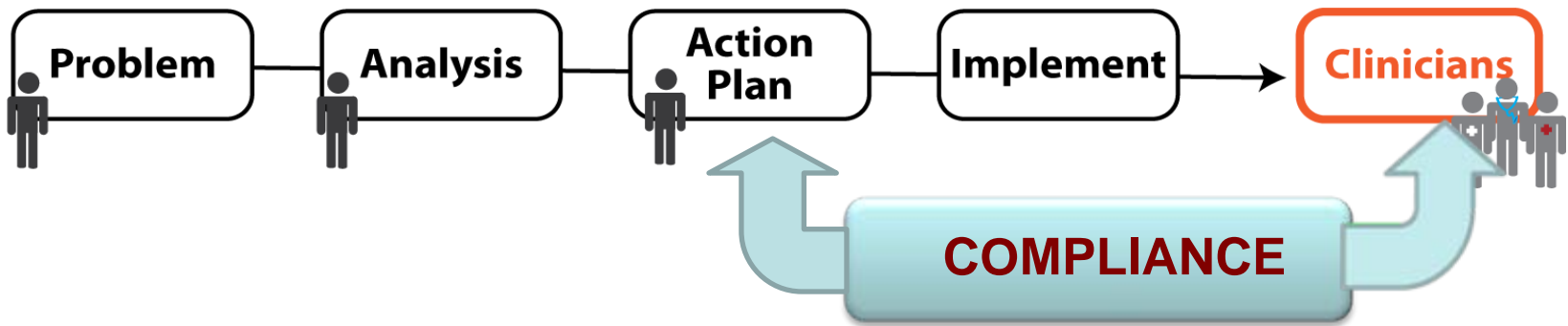


# Philosophy of Physician Behavior

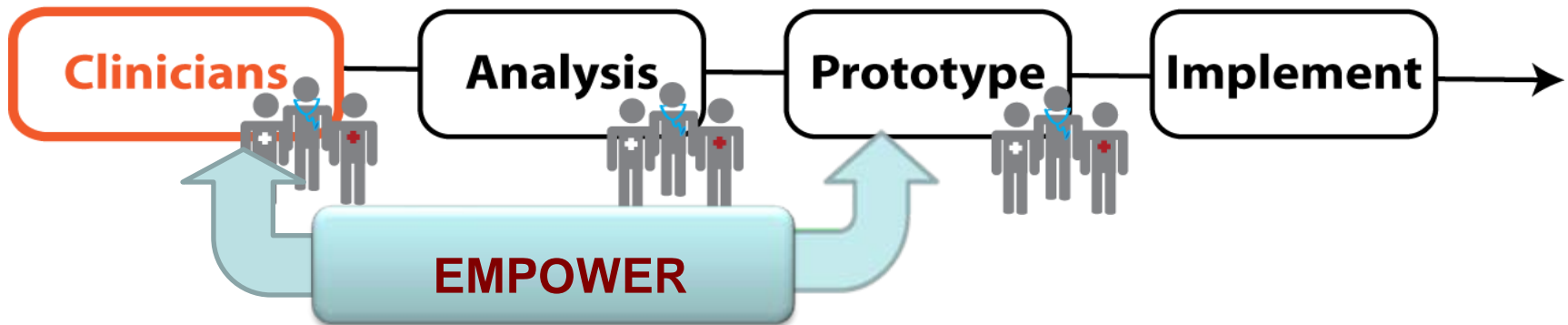


# Contextualist Approach

## Deductive Approach



## Contextualist Approach



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# Variation Reduction Program Components



Which is the most  
important component?

Remove any one and it  
won't work...



# What is different? Why now?

How did variation reduction emerge as a new methodology?

- New technologies



- Old principles



- Serendipitous discoveries
  - (backed up by science)

# New technologies

- Data warehousing
  - Large amounts of data standardized
- Business Intelligence tools
  - Visual data
  - Live drill down
- Electronic Health record
  - Allows clinical and outcomes analysis
- Report Automation
  - Facilitates scale and distribution

# Old Principles

- Curiosity
- Personal feedback
- Competitiveness / peer pressure
- Process Improvement Methodology
  - Demming
  - Toyota
  - IHI

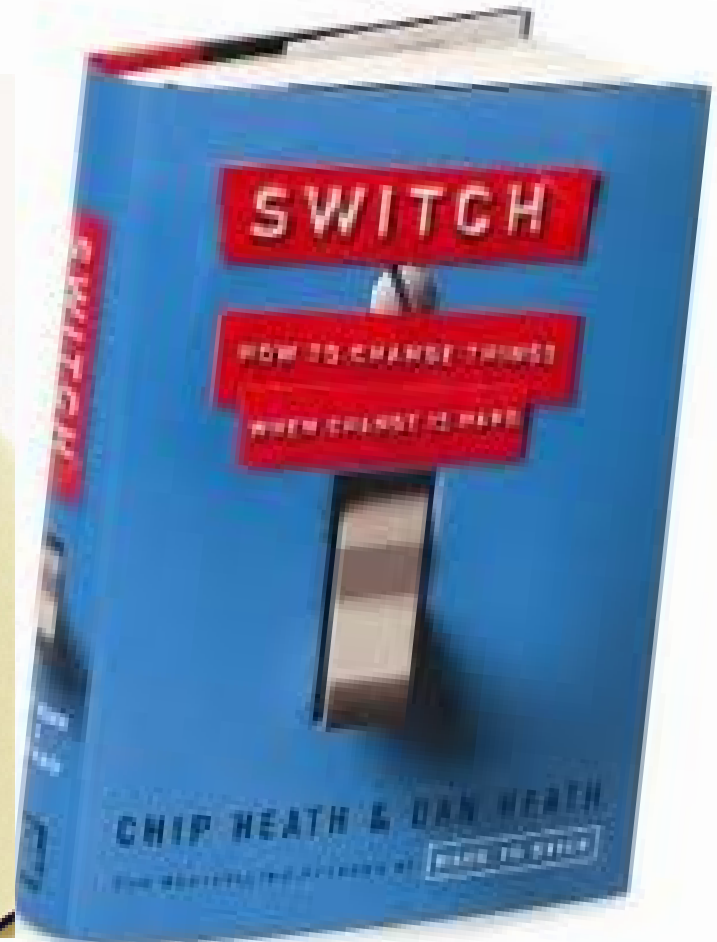
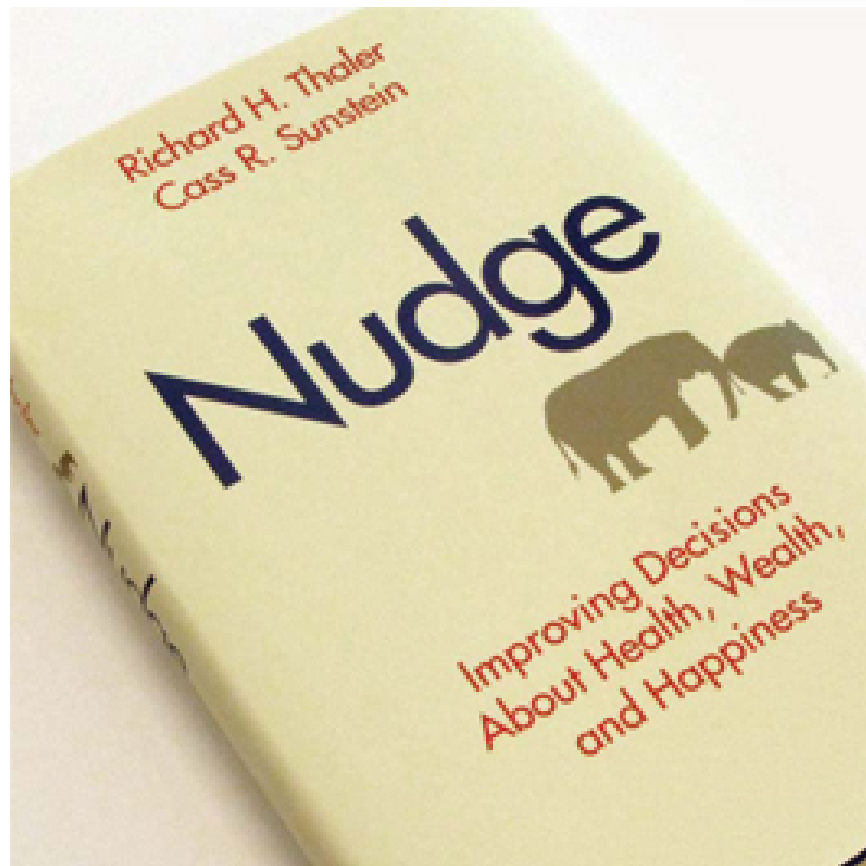
# Serendipitous Discoveries

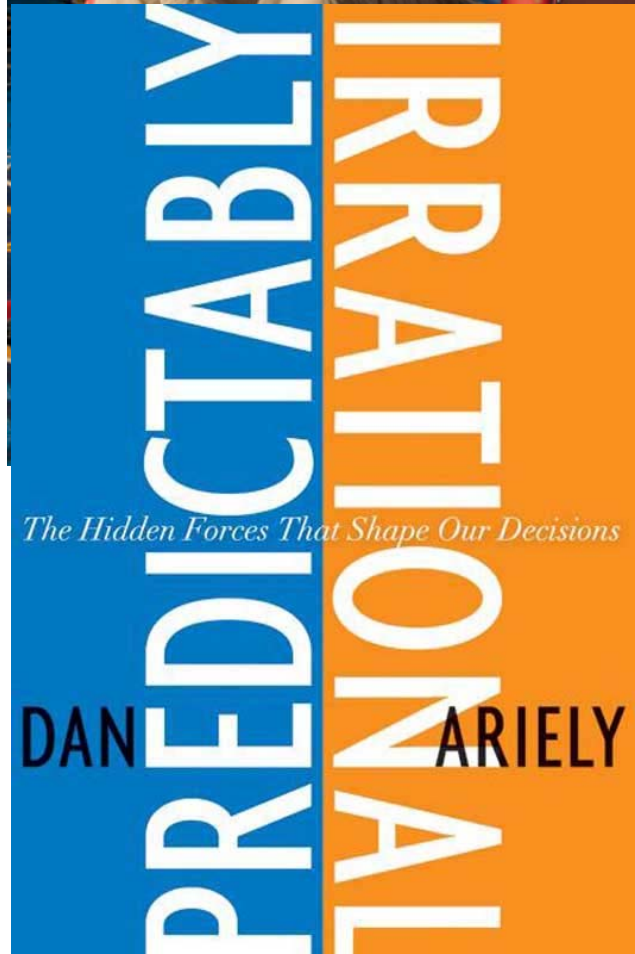
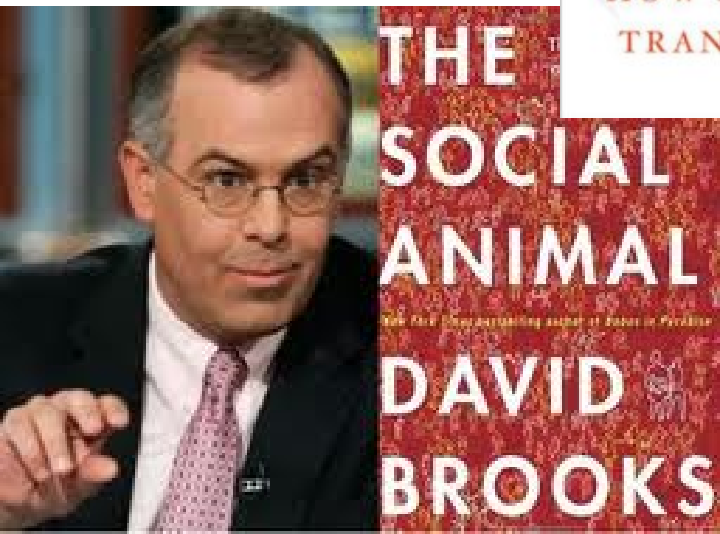
(backed up by science)

- Bottom up methodology
  - choice = ownership
- Respectful, helpful approach
  - non-threatening
- Visual data
  - emotional impact, accuracy is not a distraction
  - choice architecture
- Group process
  - adult learning, positive deviants



# Science behind Data & Emotions:





# Adult Learners

- We are naturally curious
- We like to learn
- We are motivated to improve
- We learn by reflecting on our own experience
- With others



# Magic of the group process



- **We are social beings**
- **We are naturally competitive**
- **We want to look good in front of our peers**
- **We learn from each other**

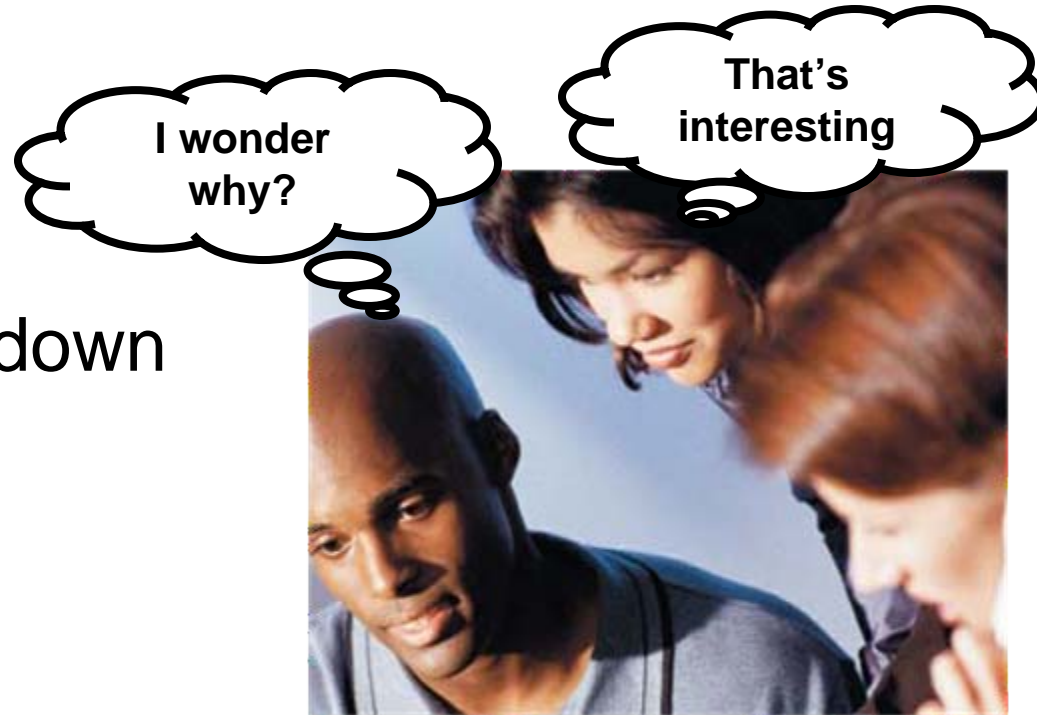
**“Hey! Look what Zog do!”**





# Guiding Principles for VR Facilitation

- Follow Curiosity
- Pull, not push
- Bottom up, not top down
- Safety, fun
- Non-punitive
- Respect – sincere
  - (no agenda other than being helpful)
- Talk about emotions
  - (before talking about the data)



# Change Management

You can't tell  
me what to  
do...



- Anticipate resistance
- Focus on winning the hearts and minds of your people



# Why Is Visual Data Display So Important?

**Source =  
information &  
emotion**

**Driver =  
engagement  
& motivation**

**Goal =  
behavior  
change**

- Can not afford distractions:
  - Accuracy
  - Methodology
  - Detailed questions



# Why Is Visual Data Display So Important?

Source =  
information &  
emotion

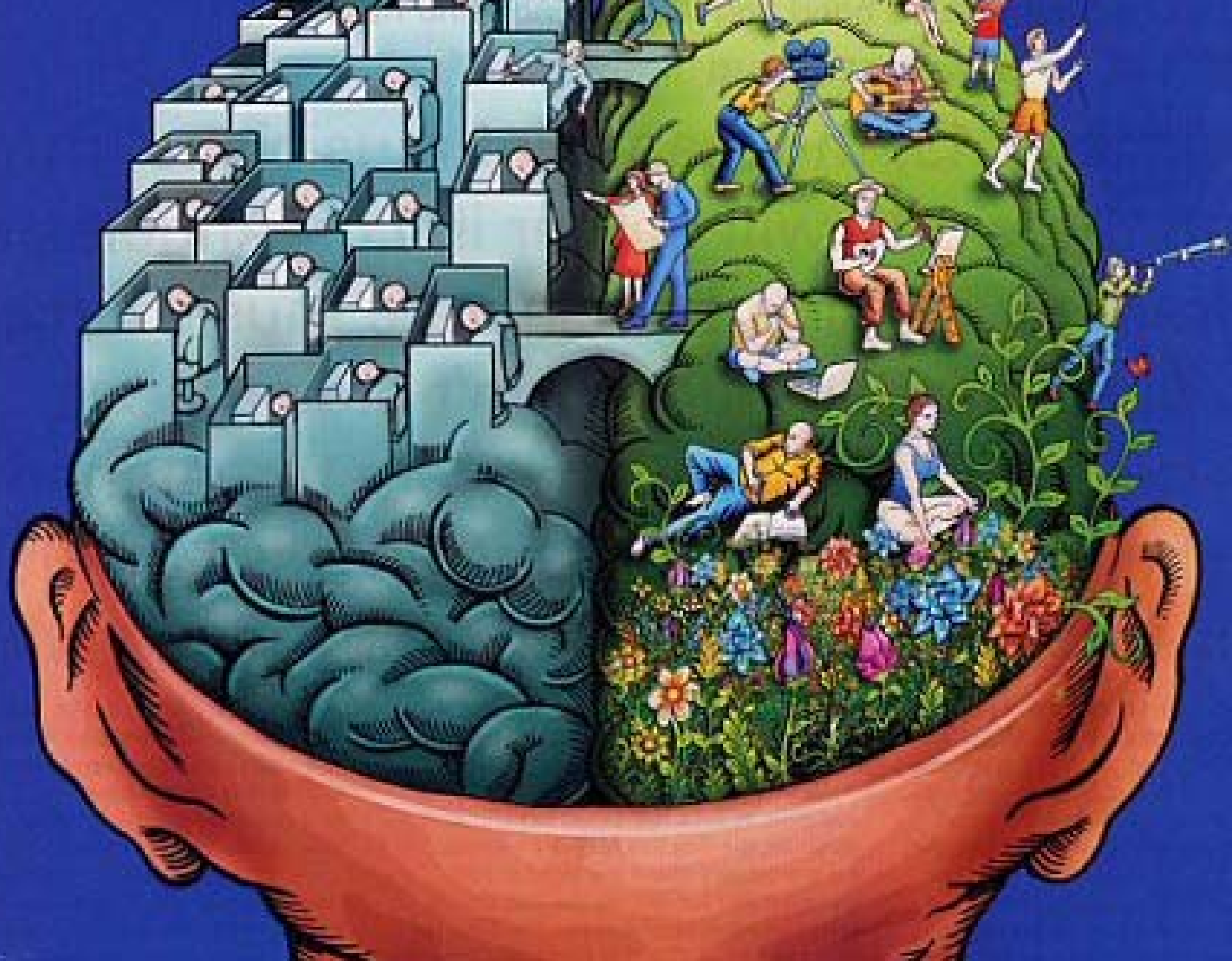
Driver =  
engagement  
& motivation

Goal =  
behavior  
change

- Must be all right brain, gut level, intuitive
  - *“Aha, I see I am an outlier. I know what I should do differently!”*
- Need to achieve this in seconds, without words



**AHA!**





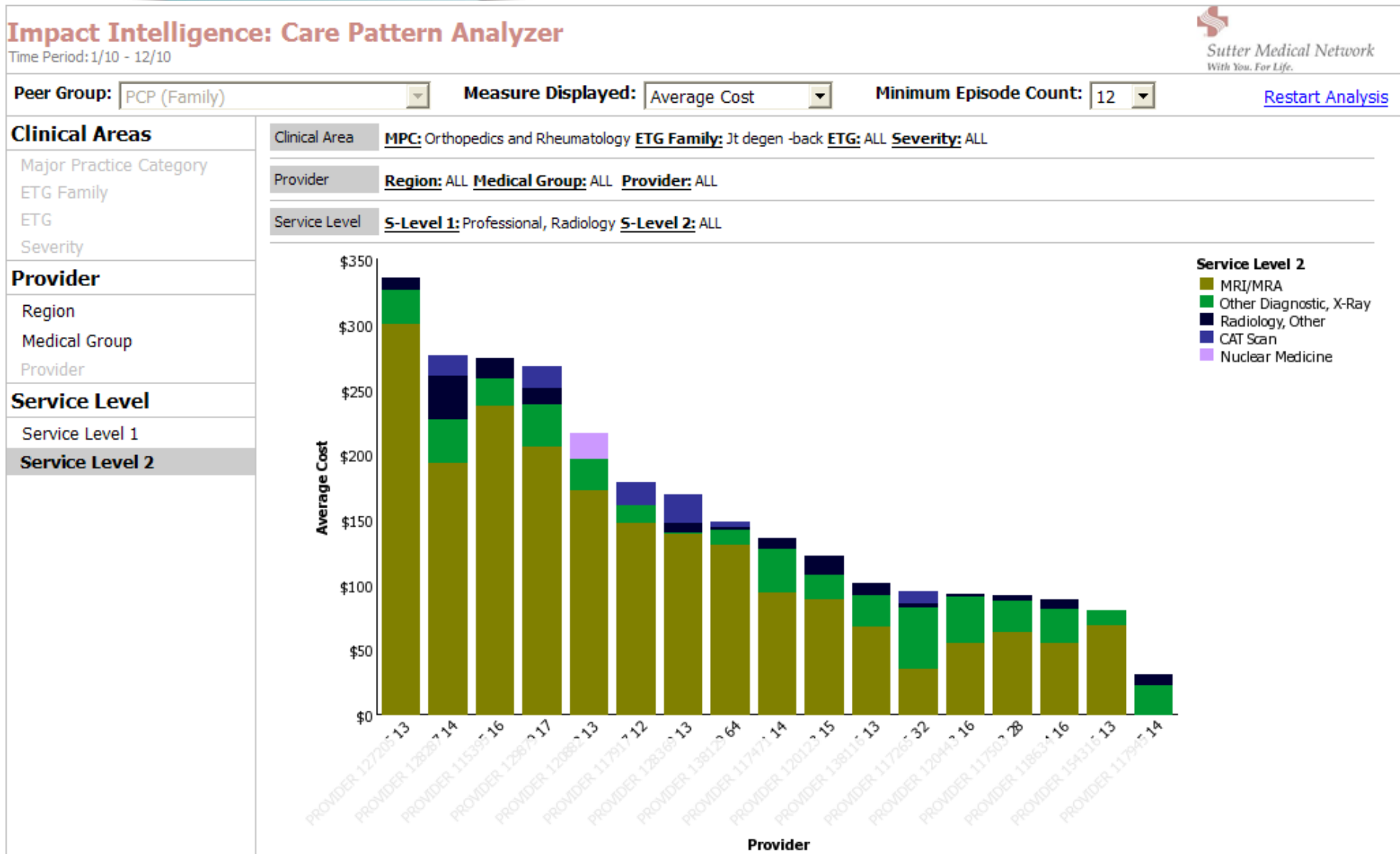


Brain

# How to Speak to the Right Brain?



















- Visual data; not words or numbers
- Message must jump out on its own
- Remove all extraneous text
- Personal impact
- Change needed must be obvious
  - Choice architecture

# Visual Display of Variation



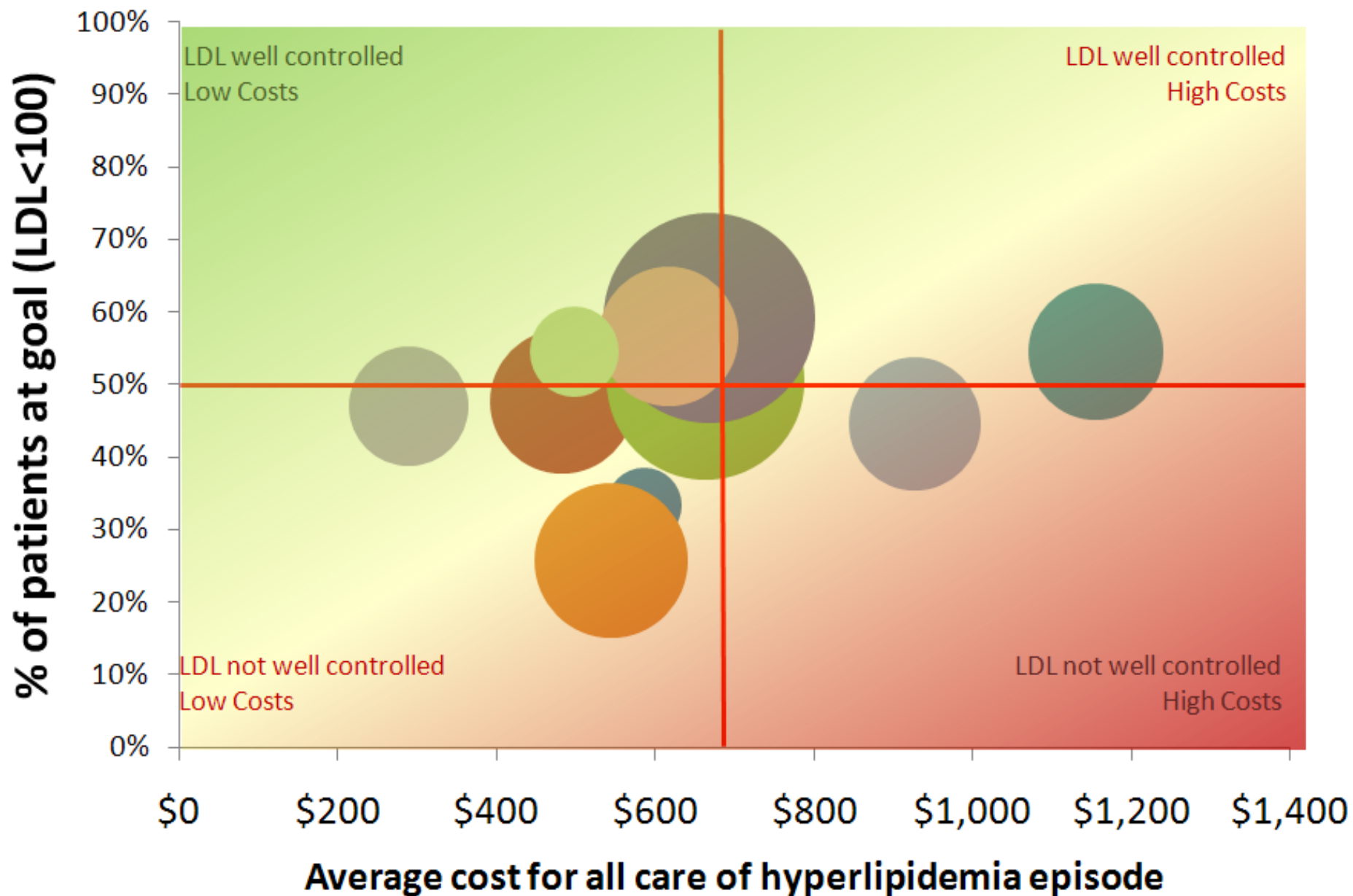
# HMO Statin Prescription Volume

PPO volume not included

Average Cost/30 days	2010 approximate HMO volume	Total Cost
Simvastatin  \$10	 154,788	 \$1,544,784
Lovastatin  \$10	 51,008	 \$523,852
Pravastatin (Pravacol)  \$14	 31,144	 \$436,016
Fluvastatin (Lescol)  \$94	916	\$85,912
Pitavastatin (Livalo)  \$101	64	\$6,465
Niacin-Simvastatin(Simcor)  \$108	960	\$103,853
Rosuvastatin (Crestor)  \$115	 13,948	 \$1,602,207
Atorvastatin (Lipitor)  \$115	 55,896	 \$6,431,953

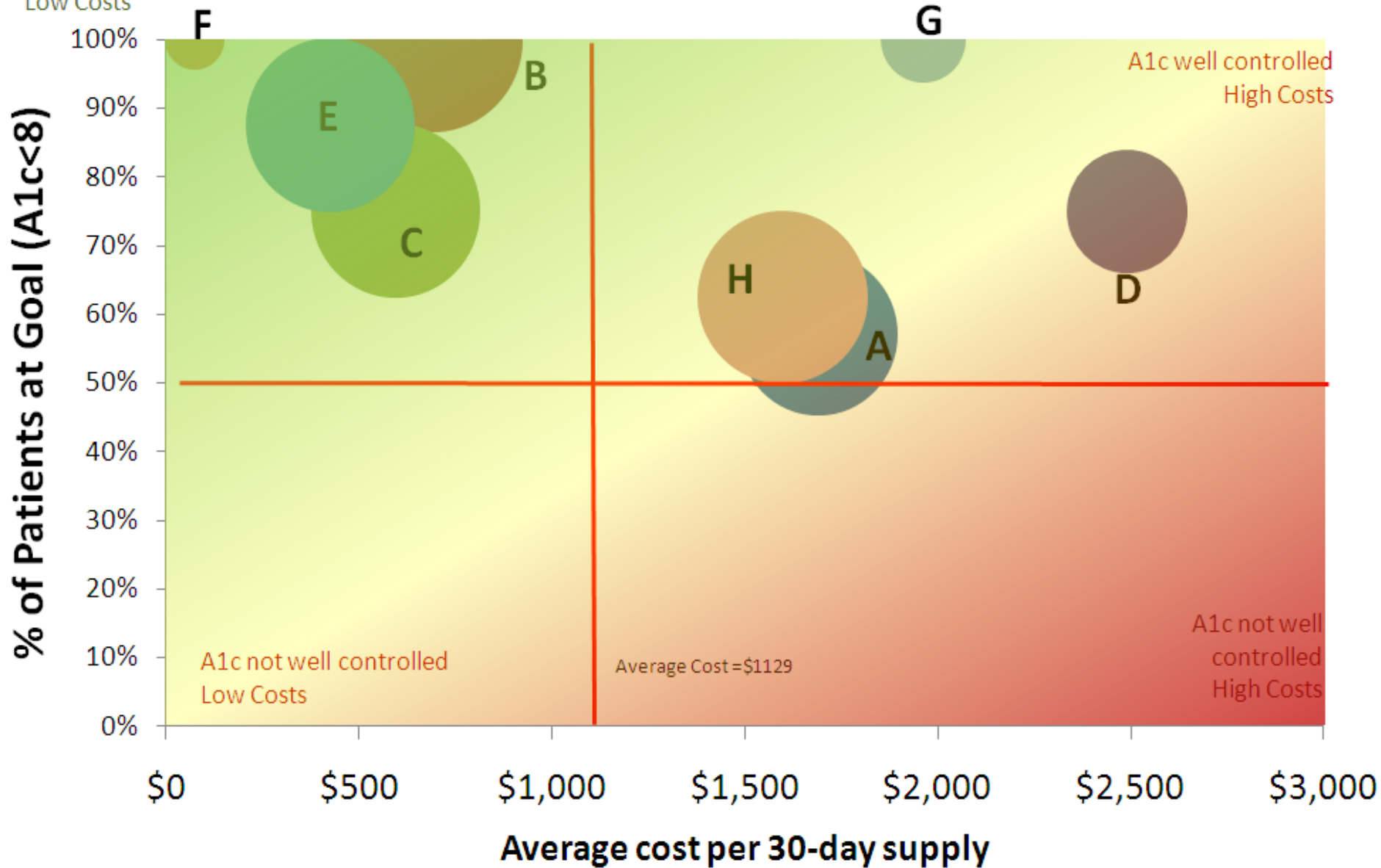


# Hyperlipidemia Control: Cost vs. Outcome



# 2nd Line Diabetes Drugs: Cost vs. Outcome

A1c well controlled  
Low Costs



A1c well controlled  
High Costs

% of Patients at Goal (A1c < 8)

A1c not well controlled  
Low Costs

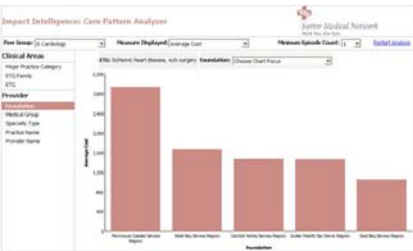
Average Cost = \$1129

A1c not well controlled  
High Costs

# How it works

1. Face to face meeting of 5 -15 clinicians
  - Explore visual data as a group
  - Personal feedback on variation
  - Stimulates curiosity and learning
2. Select focus area
  - Agree on new clinical standard
  - Define performance metrics
3. Monthly metrics
  - Measure & report ongoing improvement efforts

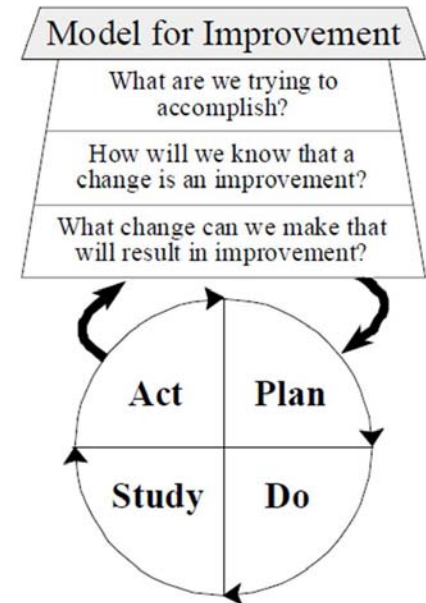
# Improvement Project Sequence



Use SCPA to identify variation reduction opportunities



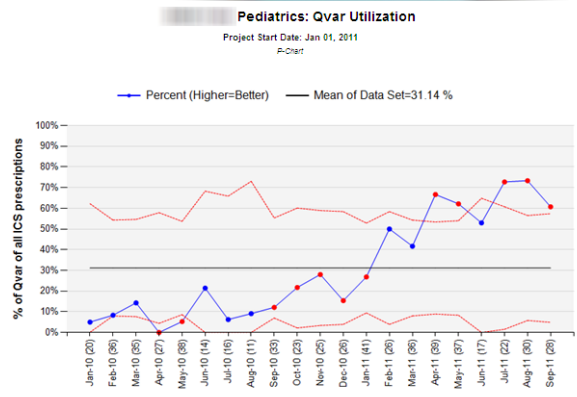
Clinicians agree on a standard and define performance metrics



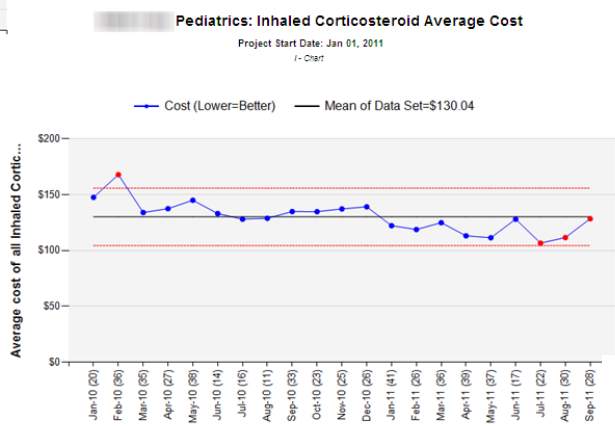
Clinicians agree to launch an improvement project

# Highlighted Project: Asthma Steroids

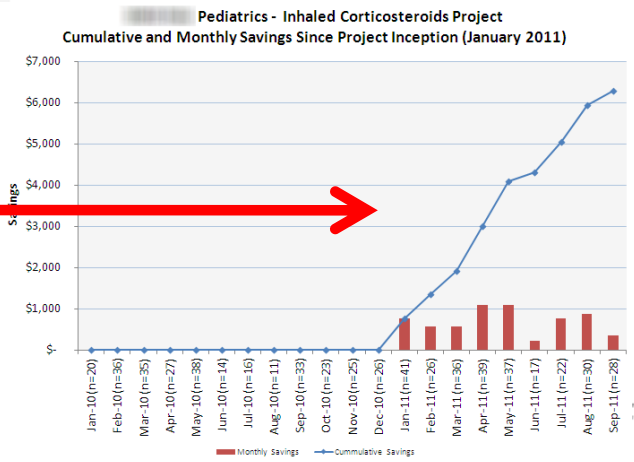
**1. Prescribing of preferred drug increases**



**2. Average drug cost drops**



**3. Savings over baseline begin to accumulate**



# Highlighted Project: : Hypertension – Generic ARBs

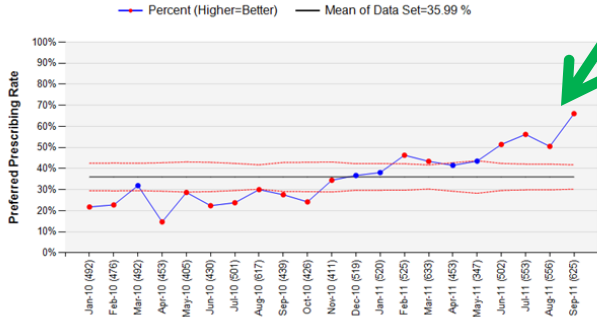
Average drug cost drops

Savings begin to accrue

**Total Savings: \$56,500**

Internal/Family Medicine: Preferred ARB Prescribing Rate

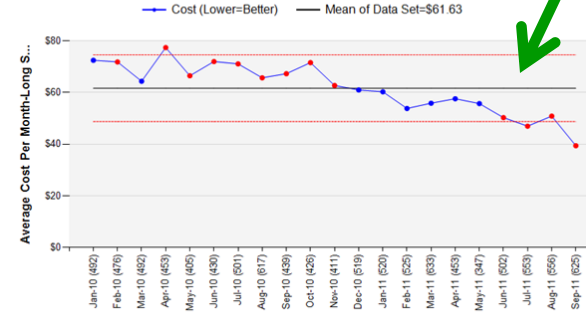
Project Start Date: Mar 01, 2011  
P-Chart



Prescribing of preferred drug increases

Internal/Family Medicine Average ARB Cost Per Month-Long Supply

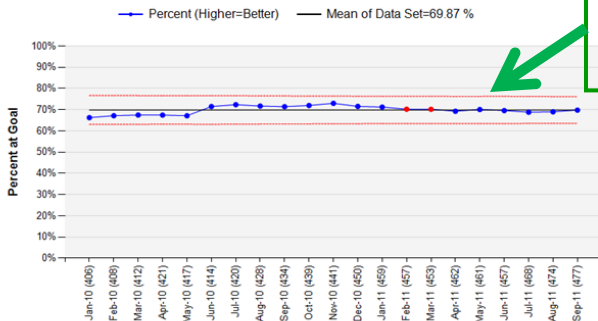
Project Start Date: Mar 01, 2011  
I-Chart



Average Cost Per Month-Long Supply

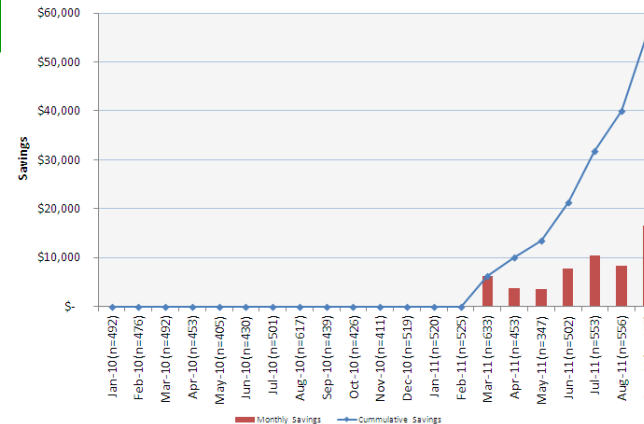
Internal/Family Medicine Percent on an ARB at Goal for Blood Pressure

Project Start Date: Mar 01, 2011  
P-Chart



No adverse effect on quality

Internal and Family Medicine Preferred ARB Prescribing Cumulative and Monthly Savings Since Project Inception (March 2011)



# Highlighted Project: Orthopedics

## Gel Injections for Osteoarthritis of the Knee

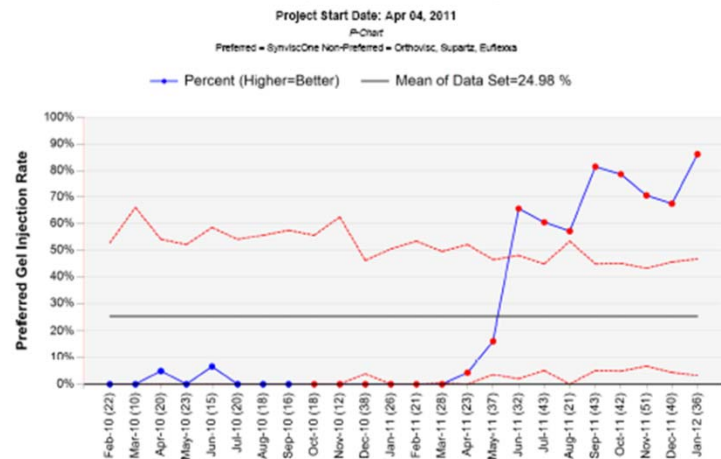
Preferred Gel Injection Rate shoots up after Orthopedists decide to switch to SynviscOne

456 appointment slots are freed up because SynviscOne requires one visit instead of three

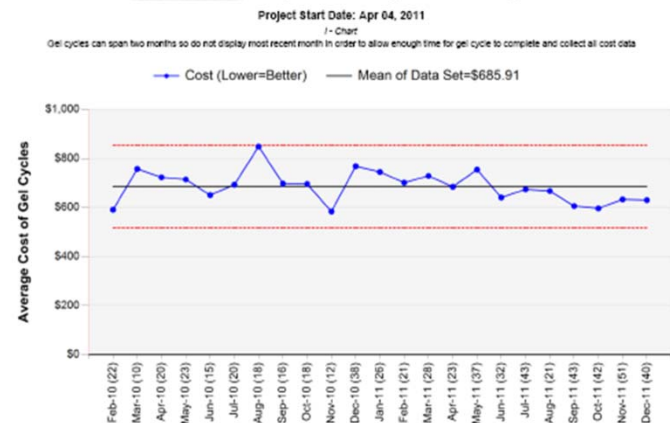
Access improved !

Average cost of gel injections falls from \$722 to \$650 reducing spend by **\$24,000**

Orthopedics: Preferred Gel Injection Rate



Orthopedics: Average Cost of Gel Cycles





# Results – through January 2012

- Palo Alto Medical Foundation (started 2008)
  - 31 active/mature projects
  - \$17.1 M savings
- Rest of Sutter Medical Network (started 2010)
  - 21 active/mature projects
  - \$1.2 M savings

# Reactions from Physicians

*“I haven't had this much fun since residency”*

*“I have been waiting for this for ten years”*

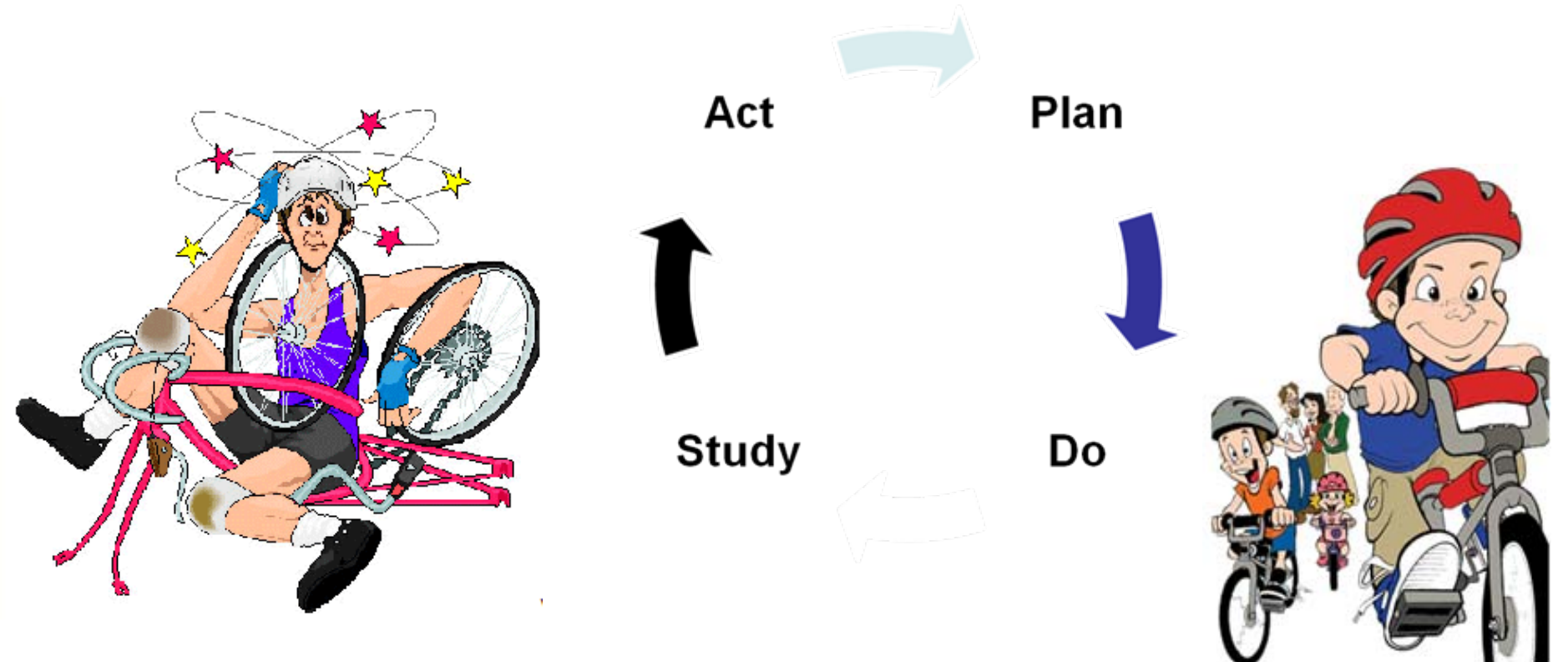
*“That was a lot more fun than I expected from the title of the meeting”*

*“When are you guys coming back?”*



# How We Spread

- Multiple attempts, multiple failures, win!



# 3 “generations” of spread attempts

1

Inform & wait for adoption

2

Small outreach team

3

Local execution;  
Central support

# What is it we are trying to spread?

- Fast way of multiplying the savings?



- or -

- Creating a local capacity for sustaining more savings projects



- or -

- A culture shift: a new way for clinicians to relate to each other that cultivates engagement and professionalism



# 1

## Inform & Wait

- Provided access & training for online data tool to explore variation among MDs



### Key reasons approach failed:

- VR is new work
- No models or templates or roadmap
- Skills to lead groups are new and challenging
- Risk of perceived failure high
- No support system
- Goal not clear
- Absence of burning platform



# 2

## Small Outreach Team

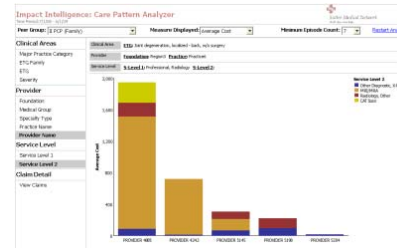


### Concepts to Carry Forward...

- Small team of true believers
- Go directly to target departments
- Experiment with prototyping

# Patterns Emerged

- Data exploration tool



- Project methodology



- Common format for charter, analytics, data display, meeting structure

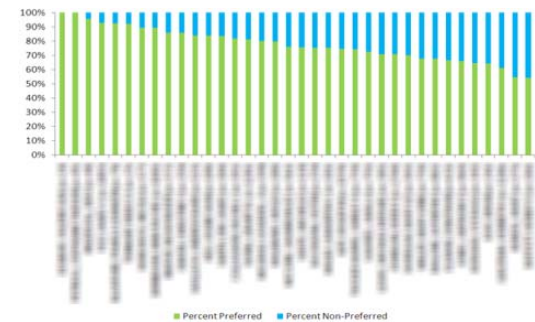
**VARIATION REDUCTION PROJECT CHARTER**  
 Sutter Health  
 With You. For Life.

**Diabetes and Hypertension: Cost and effectiveness of ARBs**

Dept chair: [Redacted]  
 VR Clinical Team Leader: [Redacted]  
 Charter approved May 7, 2011

**Project Definition**

ARB	Average Cost per 30 Day Supply	# of 30 Day Supplies	Total Cost
CHERAPRAZOLE (Pharm)	\$17	290	\$137,830
FANTOPRAZOLE (Pharm)	\$20	4953	\$99,060
LIANSOPRAZOLE (Pharm)	\$89	1414	\$125,840
DEKLANDOPRAZOLE (Pharm)	\$128	884	\$113,152
EXEMPRAZOLE (Pharm)	\$196	2476	\$48,238
RAMEPRAZOLE (Pharm)	\$242	1893	\$458,106



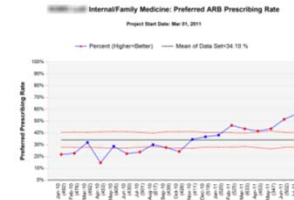
**Problem Statement:** *Question: Where should we go?*  
 From 3/1/10 – 2/28/11, the average 12 month cost of caring for our diabetic patients with hypertension was \$1,403.  
**AND**  
 From 3/1/10 – 2/28/11, 57.5% of our diabetic patients with hypertension achieved blood pressure measures at or below the desired outcome goal of 130/80 mmHg.



# Measuring Standard Emerged

- Common Tracking Tools

- Tracking improvement



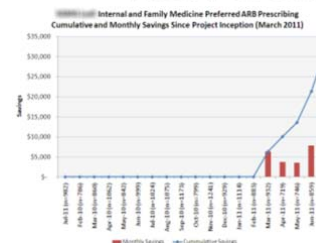
- Tracking Costs



- Monitoring Quality



- Accruing Savings



# Key Learnings from Approach

- Variation Reduction was doable
- Select projects that are easier
  - Pharmacy projects: not where we are going to end, but a good place to start
- Go where you are welcome



# Must Have's...

- Organizational Buy-In
  - Senior leaders
  - Clinicians
- Return on Investment
  - Cultural
  - Financial
- Measurement of Progress
  - Dashboard
  - Scorecard



# 3

## Local Execution, Central Support

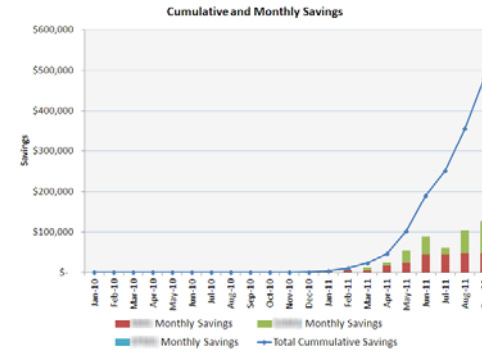
- Local Outreach Team
  - Training
  - Handoff of existing projects
  - Local governance
- Community of Practice
  - Need for coordination
  - Standardization of methodology
  - Support in Learning
- Central Analytical Staff
  - Consistency
  - Best Practice Sharing





# How IS the Spread Working?

- 80+ projects
- Over \$18M in reduced healthcare spending
- Mindset shift about affordability (culture change)



# Demo

- Sutter Care Pattern Analyzer
  - Sutter designed user interface
  - Front end for vendor product
  
  - Severity adjusted Episode Treatment Groups
  - Peer comparisons within specialty
  - Visual drill down to individual claim lines

# For More Information

- Please contact:

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