



# Healthcare Performance Management (HPM)

## A Strategy for Moving from Fragmented Care to Integrated Care

Alan Eisman, NA Director Healthcare Solutions  
Information Builders

# Healthcare Performance Management

## *Agenda*

- The Performance Imperative
- What is HPM & Why is it Important?
- Organizational and Strategic Alignment
- HPM Road Map
- Wrap-up and Questions

# Goals and Challenges for ACOs

## ■ Goals

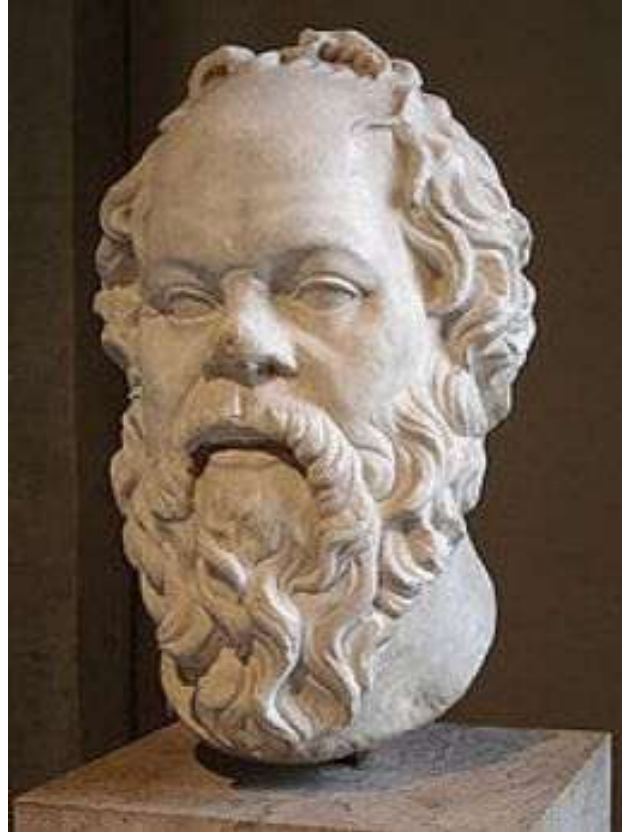
- Increase Access
- Reduce Costs
- Improve Quality

## ■ Challenges

- Funding and the Business Case for Change
- Resistance to Change
- Productivity Disruptions
- Limited Infrastructure to Pursue Change

*National Inst. for Health Care Reform  
Research Brief, January 2011*

# The First Person to Truly Appreciate Business Intelligence



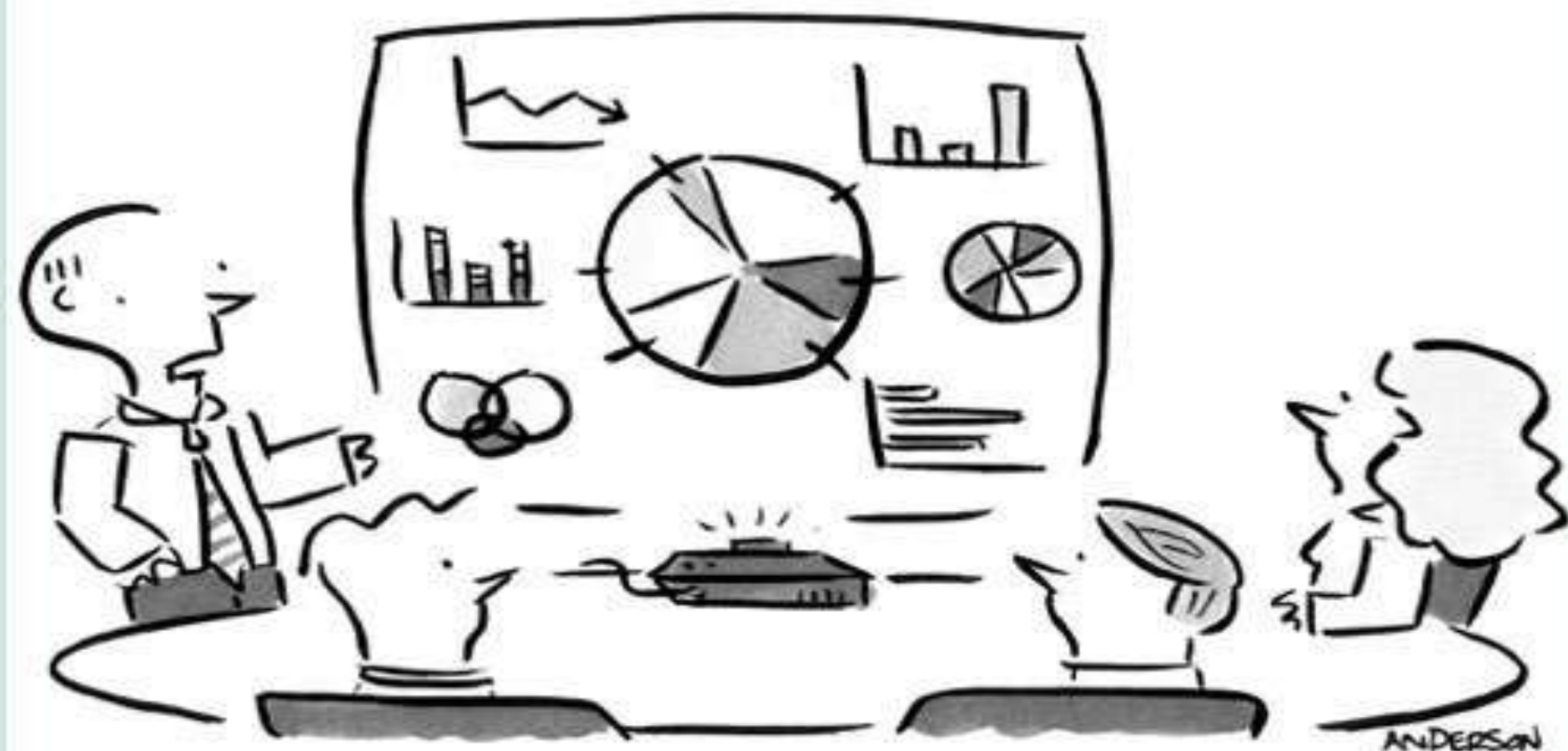
**"The only real wisdom is knowing you know nothing"**  
**Socrates, Around 420 BC**

# Healthcare Performance Management

## *Imperative: A Hysterical View*

- According to Hippocrates, “A physician’s judgment mattered more than any external measurement.”
- Vendor Closed Architectures
- Emergency Departments instead of Primary Care
- Fee for Service
- McAllen Texas
- The Political Debate and the Media
- Disintegrated Care
- Chaos & Organization in Healthcare by Dr. Thomas Lee and Dr. James Mongan

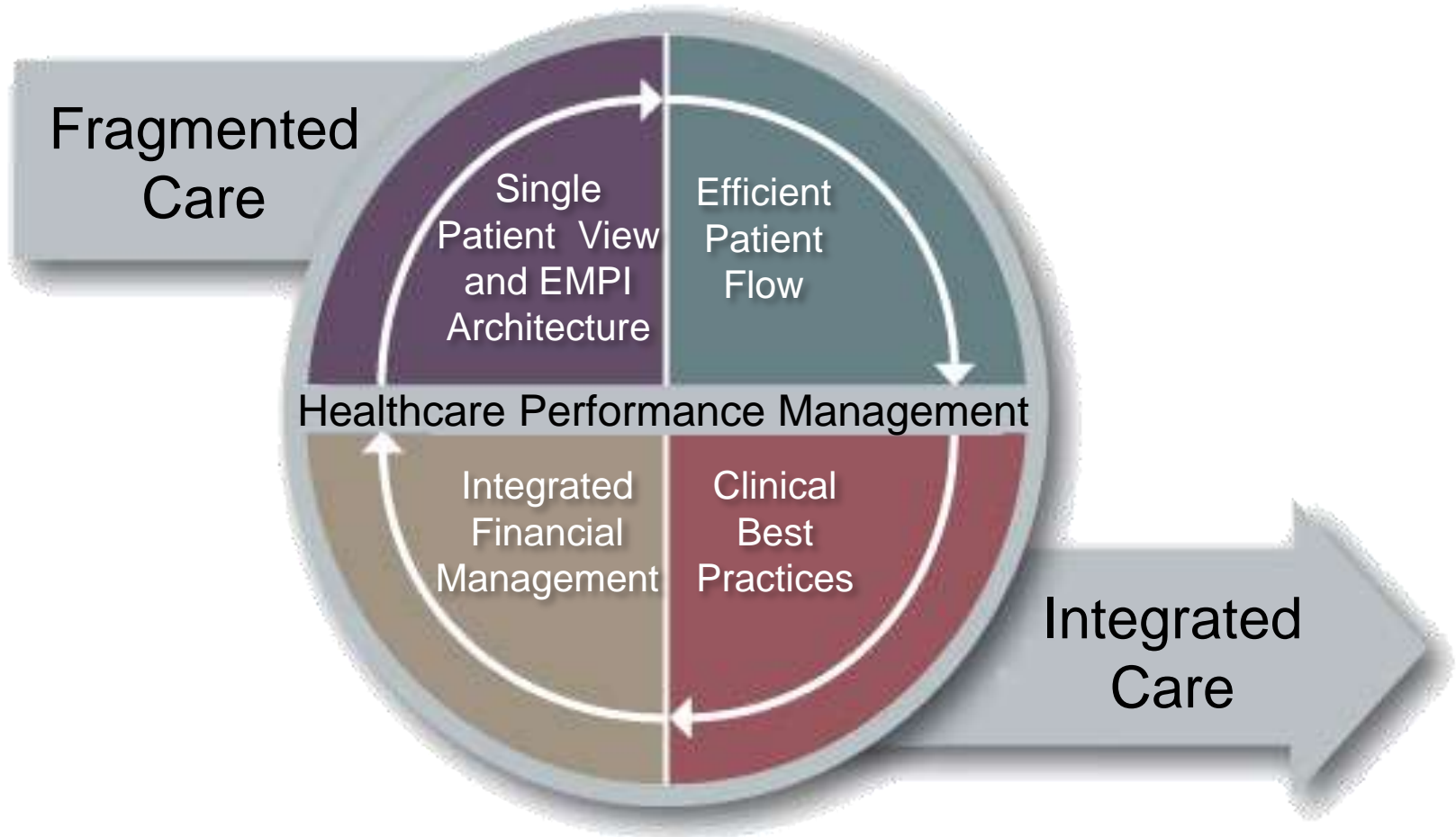
**Sign #7 you need better BI:** each day your employees spend 2 hours working on work and 6 hours working on Excel



"I know the data is right, I typed it all in myself."

# Healthcare Performance Management

## *HPM: Optimizing x-Functional Performance A Req. for ACO*



# What is Healthcare Performance Management?

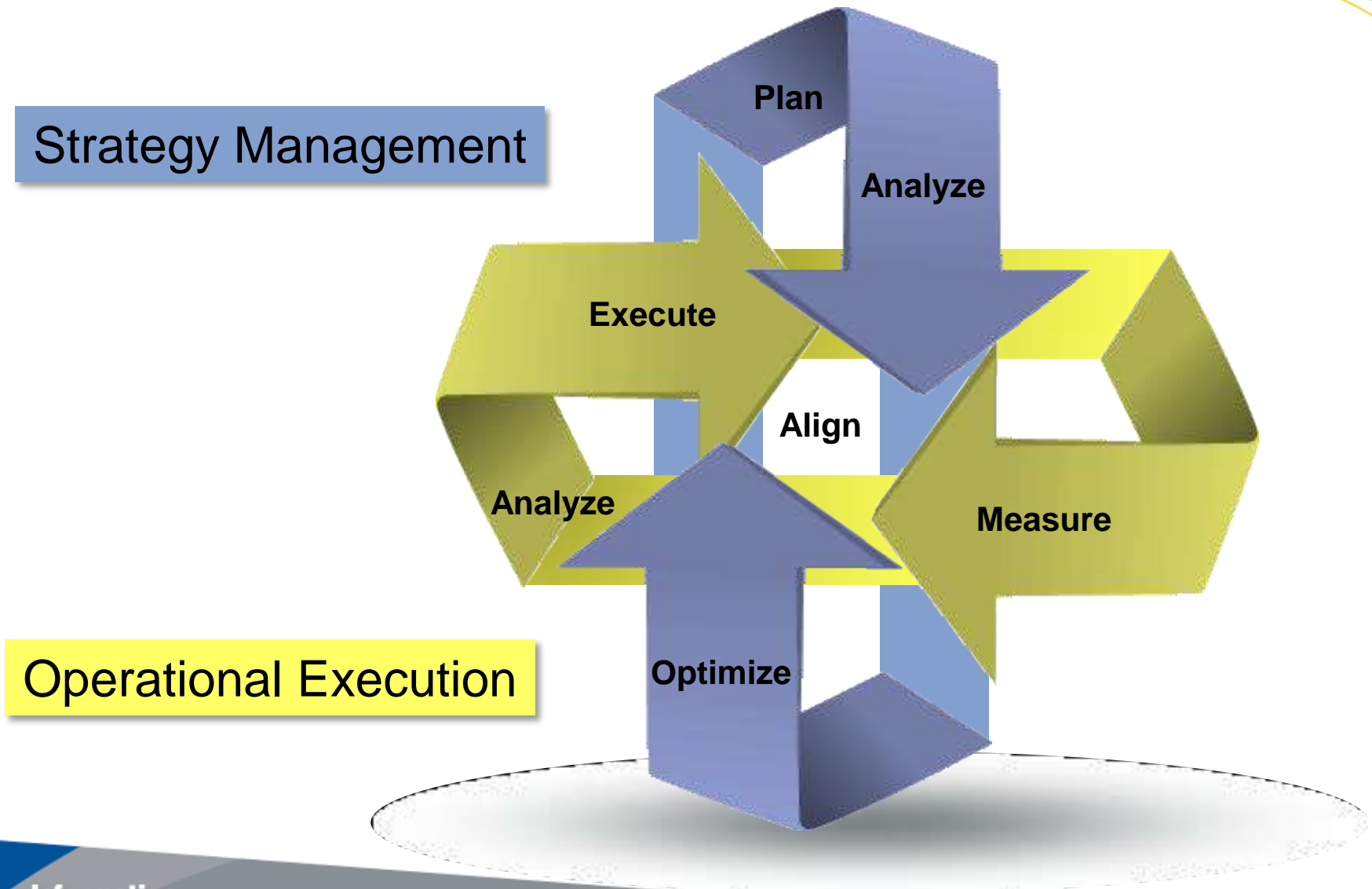
# Healthcare Performance Management

## *HPM: What is Healthcare Performance Management (HPM)?*

- HPM is an integrated & organic strategy & framework for merging goals, strategies, operations & initiatives in a way that makes sense to every participant to enable and optimize high quality cost effective accountable care
- HPM is Holistic
  - Providing a mechanism for balancing goals, for example clinical outcomes with financial goals
  - **Transparently** communicating practice patterns and aligning accountability which helps mitigate ACO risk
- HPM closes the Strategy Gap enabling you to optimize performance across the extended health network

# Healthcare Performance Management

*Align: HPM Closes the Gap Between Strategy & Operations*



# Healthcare Performance Management

## HPM: How HPM Should Work

Strategic



Monitor performance and communicate strategy

- Translate strategy for the operation
- Promote continuous improvement
- Drive accountability and focus on key drivers

**Direct Analytical BI towards potential problems**

Analytical

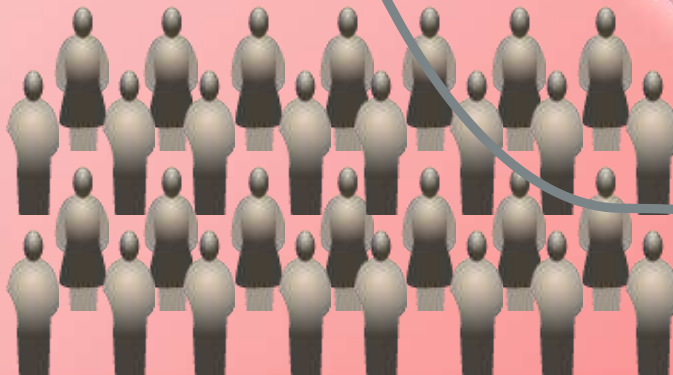


Isolate and identify good and bad

- Analyze historical trends
- Mine for problems and opportunities
- Predict future potential

**Direct the focus of operational initiatives**

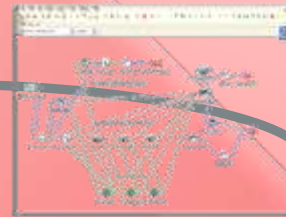
Operational



Implement Operational Initiatives To...

- Enable/Accelerate processes
- Empower employee decisions
- Improve patient flow

**Monitor Performance of Initiatives**



# Organizational & Strategic Alignment

# Healthcare Performance Management

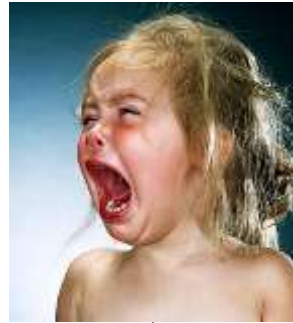
## *Align: Aligning the Organization*



What does my business unit need to do well to help the organization meet its goals?

# Healthcare Performance Management

## *Align: A Whimsical Analogy*



-Reduce  
Baby Crying



Keep Diaper  
Clean



Feed  
Baby



Let them  
Nap



Check  
Diaper  
Regularly

Available  
supplies



# on-time  
Meals

Inventory on  
Hand



# on-time  
Naps



# Healthcare Performance Management

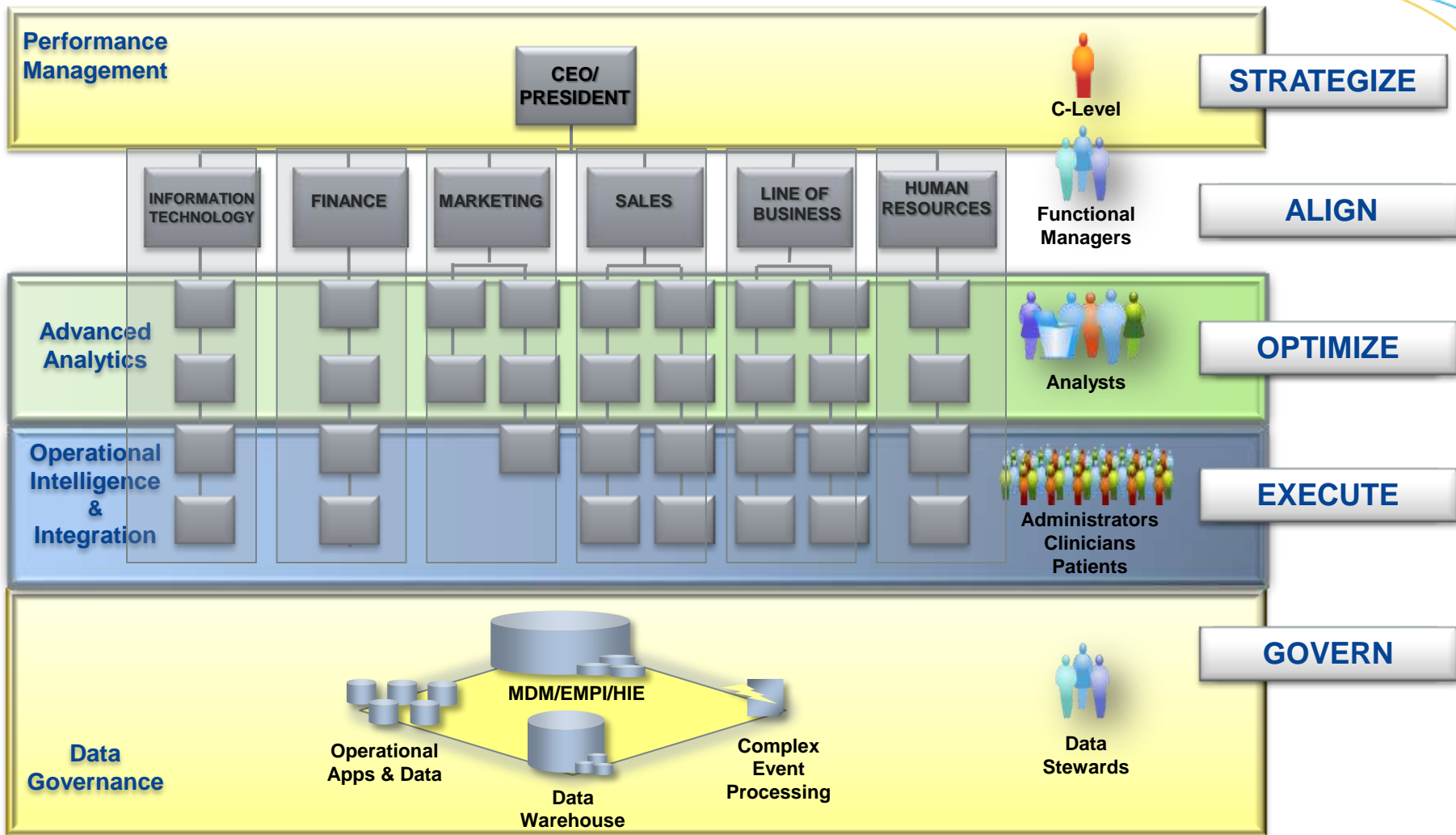
## *Align: Preparing for a World of Accountable Care*

- Align organization structure & business model to strategy
- Provide clear roles, responsibilities and incentives
- Create Performance Culture
  - Provide focus around high value results
  - Transparency of performance data
  - Operational measures tied directly to target outcomes
- Encourage Engagement & Collaboration “Knowledge is power....Only when it is shared

*Measurement without the opportunity to improve is Harassment – W. Edwards Deming (Father of Quality)*

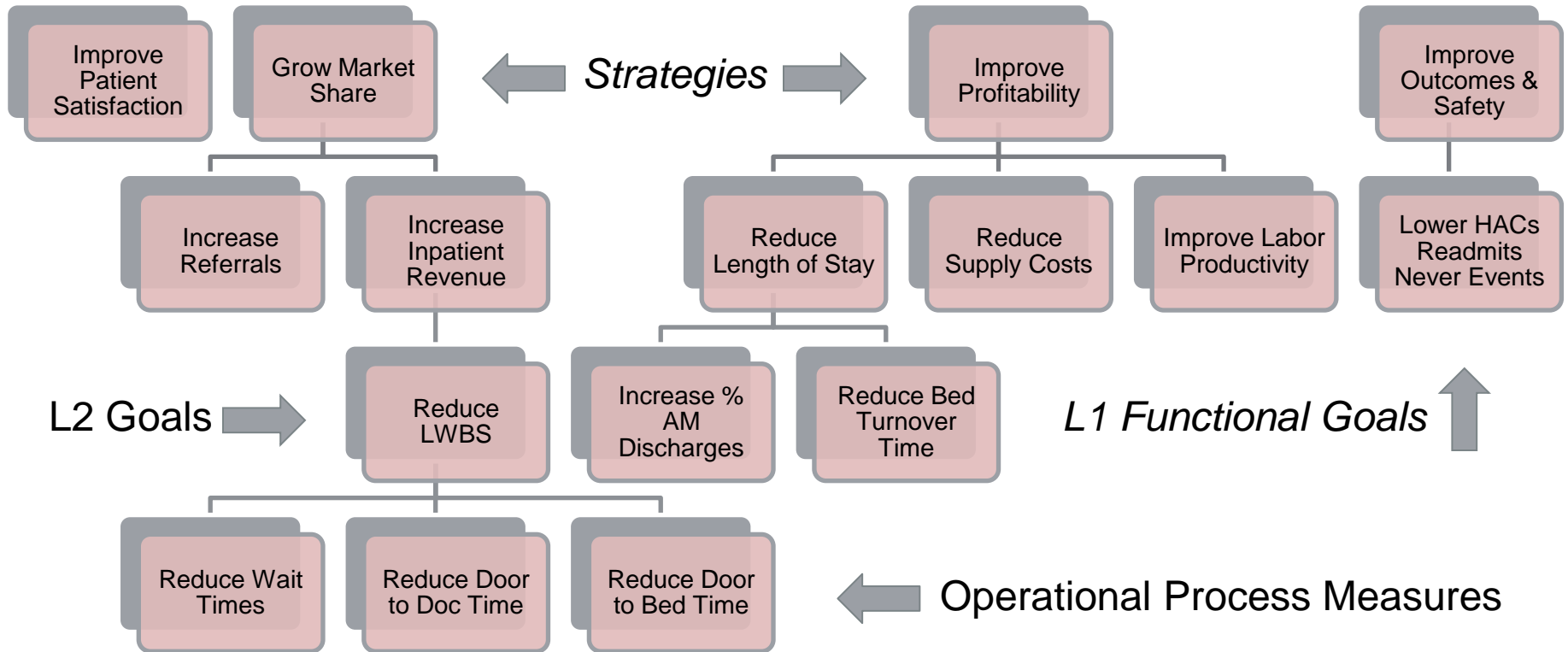
# Healthcare Performance Management

## *Align: Creating a Culture of Transparency and Accountability*



# Healthcare Performance Management

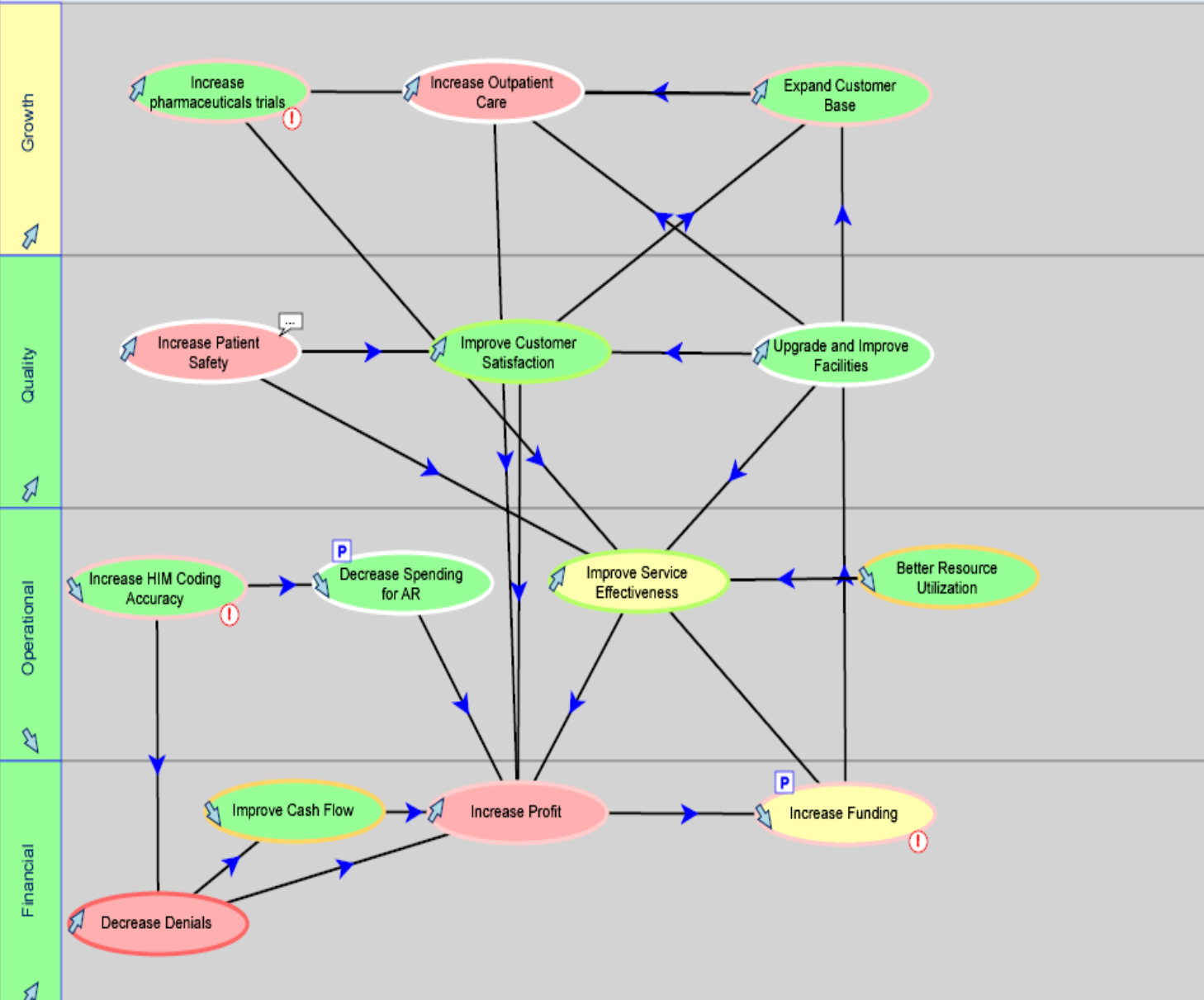
## Align: Simple Strategy Map



# Healthcare Performance Management

## Align: Aligning Goals With Your Strategies

My Hospital Scorecard Our mission is to support the physical, mental and psychological needs of our patients and our community; We take pride in service excellence!



### Perspectives

### Objectives

#### objectives

#### Better R...Increase

- Better Resource Utilization
- Decrease Denials
- Decrease Spending for AR
- Expand Customer Base
- Improve Cash Flow
- Improve Customer Satisfaction
- Improve Service Effectiveness
- Increase Funding
- Increase HIM Coding Accuracy
- Increase Outpatient Care

#### Increase...Upgrade

- Increase Patient Safety
- Increase Profit
- Increase pharmaceuticals trials
- Upgrade and Improve Facilities

### Themes

### Projects

### Processes

Save Cancel

# Healthcare Performance Management

## Align: Transparently Distributing Accountability

KPI Metrics

Card: Integrated Health Intelligence

Today Page: Measures - Rolling 5 Periods

« Back  
Options

Measures - Rolling 5 Periods  
As of: 2007Q1

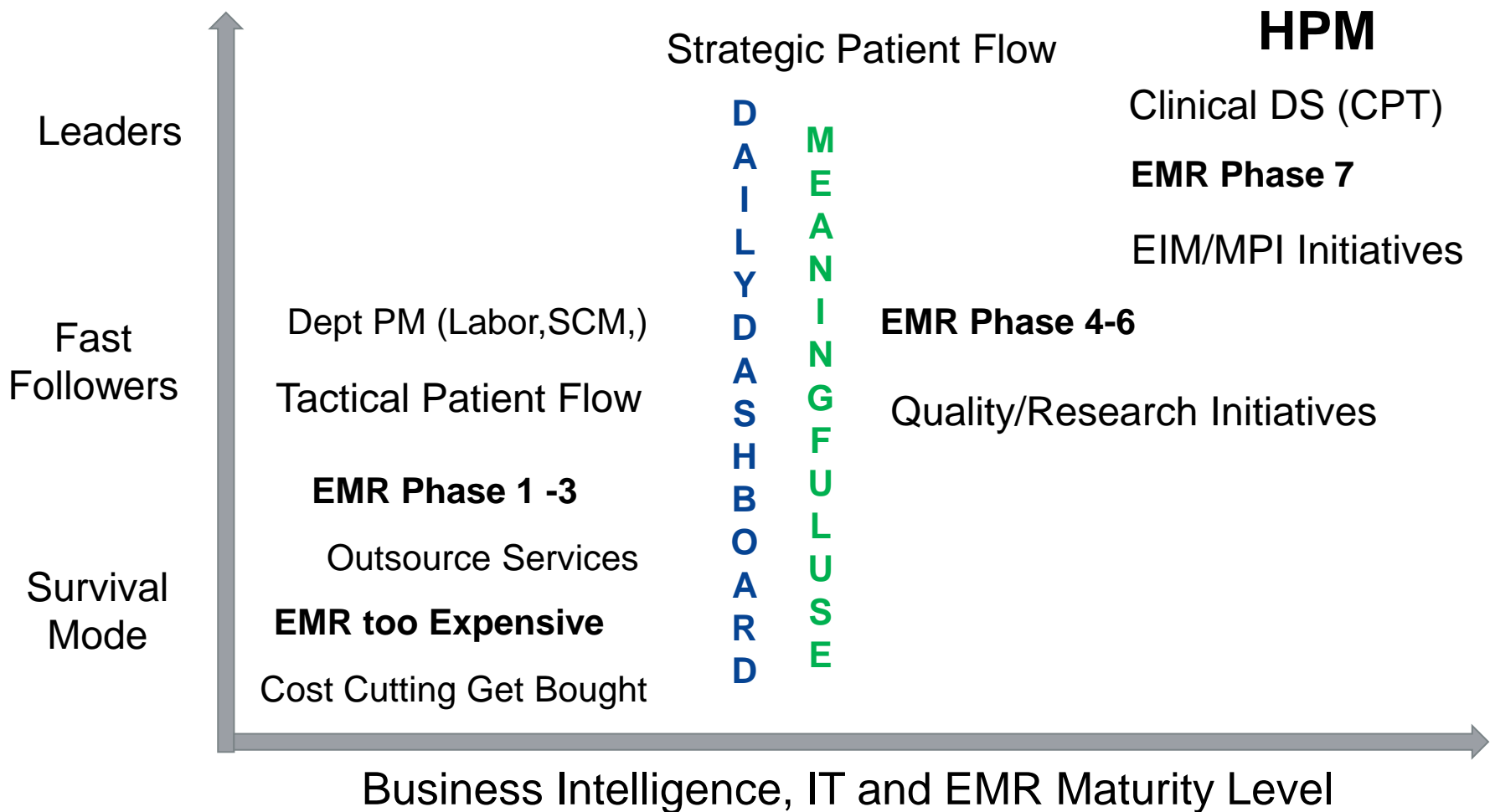
	2006Q1	2006Q2	Quarter 2006Q3	2006Q4	2007Q1
<a href="#">ALOS</a>	<u>.0 [ .0%]</u>	<u>.0 [ .0%]</u>	<u>.0 [ .0%]</u>	<u>.0 [ .0%]</u>	<u>.0 [ .0%]</u>
<a href="#">Accuracy Rate</a>	● <u>30.33% [ 95.8%]</u>	● <u>91.33% [ 98.9%]</u>	● <u>92.67% [ 96.2%]</u>	● <u>93.00% [ 96.5%]</u>	● <u>61.33% [ 94.4%]</u>
<a href="#">All Medical Errors</a>	<u>1 [ 150.0%]</u>	● <u>6 [ .0%]</u>	<u>4 [ 120.0%]</u>	<u>3 [ 100.0%]</u>	● <u>2 [ .0%]</u>
<a href="#">Ancillary Revenue</a>	<u>\$9,555,479.07 [ 99.8%]</u>	● <u>\$9,535,583.25 [ 99.3%]</u>	● <u>\$9,539,295.56 [ 99.6%]</u>	● <u>\$9,472,845.54 [ 98.7%]</u>	<u>\$9,628,175.63 [ 100.3%]</u>
<a href="#">Assessment Speed</a>	● <u>91.67% [ 95.7%]</u>	● <u>91.43% [ 92.7%]</u>	● <u>91.55% [ 91.5%]</u>	<u>95.71% [ 98.4%]</u>	● <u>91.67% [ 93.6%]</u>
<a href="#">Average Facility Utilization</a>	<u>.31 [ 95.9%]</u>	<u>.97 [ 100.0%]</u>	<u>.96 [ 97.6%]</u>	<u>.99 [ 102.1%]</u>	<u>.85 [ 86.1%]</u>
<a href="#">Bad Debt</a>	<u>\$99,140.00 [ 100.9%]</u>	<u>\$99,600.00 [ 100.4%]</u>	<u>\$98,160.00 [ 101.8%]</u>	<u>\$99,180.00 [ 100.8%]</u>	<u>\$98,720.00 [ 100.3%]</u>
<a href="#">Charity</a>	<u>\$115,200.00 [ 104.0%]</u>	<u>\$115,100.00 [ 104.1%]</u>	<u>\$117,300.00 [ 102.3%]</u>	<u>\$115,600.00 [ 103.7%]</u>	<u>\$106,600.00 [ 103.1%]</u>
<a href="#">Chart Delinquency rate</a>	<u>.11 [ 60.9%]</u>	<u>.31 [ 52.4%]</u>	<u>.24 [ 94.0%]</u>	<u>.23 [ 86.7%]</u>	<u>.12 [ 60.0%]</u>
<a href="#">Chart retrieval speed</a>	<u>.00% [ 100.0%]</u>	<u>.00% [ 100.0%]</u>	<u>.00% [ 100.0%]</u>	<u>.00% [ 100.0%]</u>	<u>.00% [ 100.0%]</u>
<a href="#">Charts Coded</a>	<u>25.00% [ 125.0%]</u>	<u>77.33% [ 177.3%]</u>	<u>85.00% [ 185.0%]</u>	<u>88.33% [ 188.3%]</u>	<u>60.67% [ 160.7%]</u>
<a href="#">Clinical Overhead</a>	<u>\$ .00 [ .0%]</u>	<u>\$ .00 [ .0%]</u>	<u>\$ .00 [ .0%]</u>	<u>\$ .00 [ .0%]</u>	<u>\$ .00 [ .0%]</u>
<a href="#">Cost To Collect</a>	<u>\$9,914.00 [ 100.9%]</u>	<u>\$9,960.00 [ 100.4%]</u>	<u>\$9,816.00 [ 101.8%]</u>	<u>\$9,918.00 [ 100.8%]</u>	<u>\$9,872.00 [ 100.3%]</u>
<a href="#">Current net income</a>	● <u>\$1,629,629.63 [ 96.5%]</u>	● <u>\$1,555,555.56 [ 101.2%]</u>	● <u>\$1,685,185.19 [ 92.9%]</u>	<u>\$ .00 [ .0%]</u>	<u>\$1,592,592.59 [ 102.3%]</u>
<a href="#">Customer Partnerships Ratio</a>	<u>6.00 [ 120.0%]</u>	● <u>5.00 [ 83.3%]</u>	● <u>5.00 [ 83.3%]</u>	<u>.00 [ .0%]</u>	<u>6.00 [ 100.0%]</u>
<a href="#">Days Cash on Hand</a>	● <u>23.30% [ 93.2%]</u>	● <u>23.81% [ 95.2%]</u>	<u>25.00% [ 100.0%]</u>	<u>.00% [ .0%]</u>	<u>25.00% [ 100.0%]</u>
<a href="#">Denials - Billing Errors</a>	● <u>9 [ 87.5%]</u>	● <u>10 [ 57.1%]</u>	● <u>10 [ 88.9%]</u>	<u>7 [ 122.2%]</u>	● <u>10 [ 57.1%]</u>
<a href="#">Denials - Case Management (No PreAuth)</a>	<u>7 [ 130.0%]</u>	● <u>10 [ 75.0%]</u>	<u>7 [ 130.0%]</u>	<u>7 [ 100.0%]</u>	<u>7 [ 130.0%]</u>
<a href="#">Denials - HIM Coding Errors</a>	● <u>17 [ 45.5%]</u>	● <u>16 [ 40.0%]</u>	<u>0 [ 200.0%]</u>	<u>0 [ 200.0%]</u>	<u>0 [ 200.0%]</u>
<a href="#">Denied Dollars</a>	<u>\$9,972.00 [ 152.0%]</u>	<u>\$ .00 [ 200.0%]</u>	<u>\$9,972.00 [ 152.0%]</u>	<u>\$9,972.00 [ 152.0%]</u>	<u>\$9,972.00 [ 152.0%]</u>
<a href="#">Discharged (Outpatient)</a>	<u>0 [ .0%]</u>	<u>0 [ .0%]</u>	<u>0 [ .0%]</u>	<u>0 [ .0%]</u>	<u>0 [ .0%]</u>

- Dimensions
- Organization
- ServiceLines
  - Academic
  - Non-Academic
    - Clinical Practices
    - Clinical Services
      - Lab - Pathology
      - Nursing
      - Oncology - Lun
      - Radiology
    - Finance
    - Support Services
  - Time
    - 2006
    - 2007
      - 1
      - 2
      - 3
      - 4
    - 2008
    - 2009

# HPM Roadmap

# Healthcare Performance Management

## Roadmap: Priorities Depend on Where You are Now



CPT = Clinical Process Transformation

PM = Performance Management

# Healthcare Performance Management

## *HPM: Architecture Lets MU/ACO Be Whatever It Needs to Be*

### Independent Layers Without Bias

My Dashboard  
for KPIs, \ Alerts  
& Drill Anywhere



Metrics in one  
place w/Scrdrds  
for each Dept.



Bus. Analytics  
with data from  
Any source

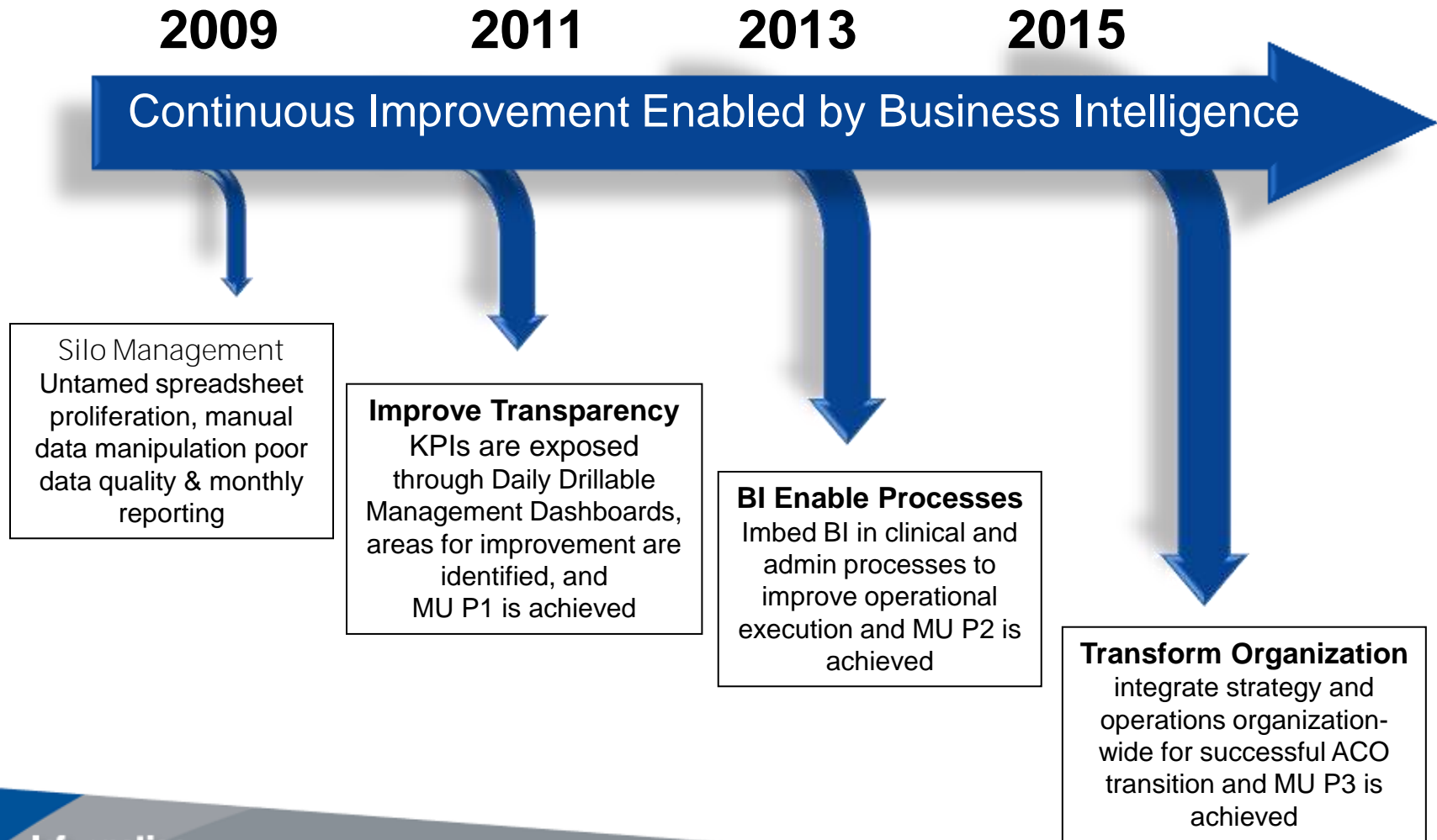


Holistic  
integration  
framework



# Healthcare Performance Management

## *Roadmap: HPM Roadmap for MU and Much More*



# Healthcare Performance Management

## *Roadmap: Phase 1 – Better Management Control*



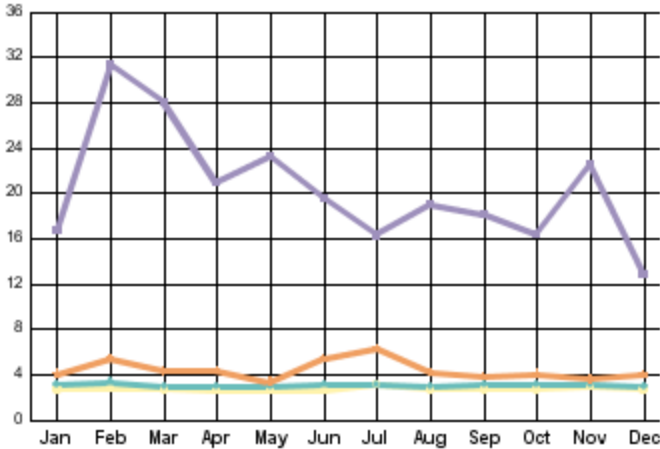
One Gustave L. Levy Place  
1190 Fifth Avenue, New York, NY 10029  
Telephone: (212) 241-6500

- Operational
- Census Summary
- Customer/Executive Facing
- General Ledger
- Salary Analysis
- Visual Analysis
- Schedules
- Library

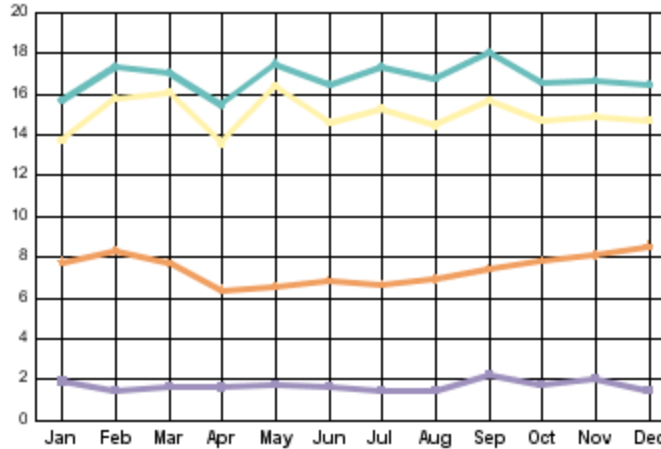
Maternity

Change Service Type

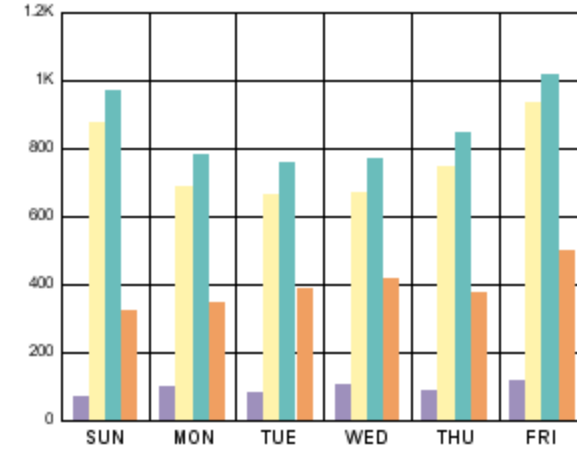
Average Length of Stay



Average Number of Discharges per Day



Discharge per Day of the Week

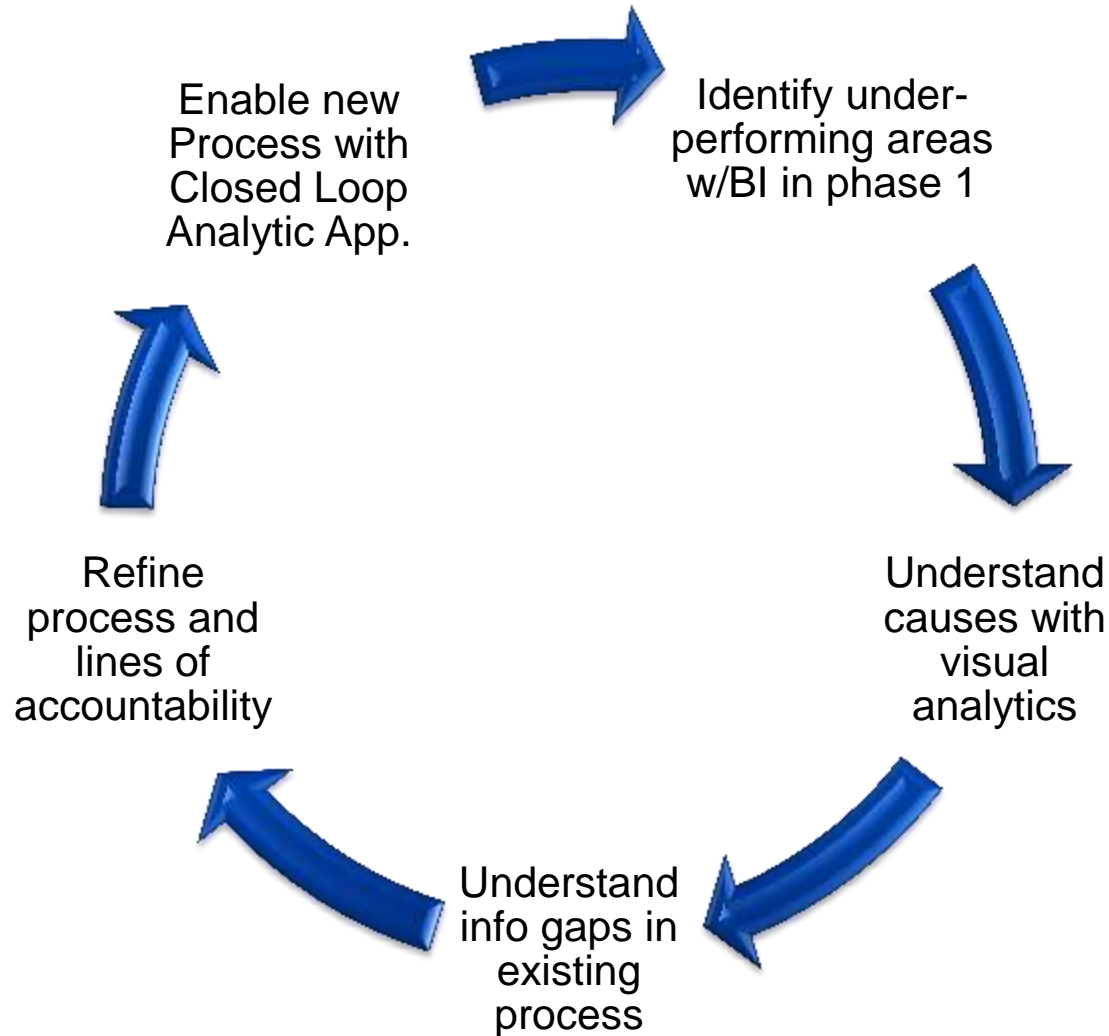


NEONATAL NEWBORN OBSTETRICS PEDIATRICS

Service Type	Service	Jan		Feb		Mar		Apr		May	
		Avg Hbr Discharge per day	Avg Length of Stay	Avg Hbr Discharge per day	Avg Length of Stay	Avg Hbr Discharge per day	Avg Length of Stay	Avg Hbr Discharge per day	Avg Length of Stay	Avg Hbr Discharge per day	Avg Length of Stay
Maternity	NEONATAL	2	16.7	1	31.3	2	28.0	2	20.9	2	23.3
	NEWBORN	14	2.7	16	2.8	16	2.7	14	2.6	16	2.6
	OBSTETRICS	16	3.2	17	3.4	17	3.0	15	2.9	17	3.0
	PEDIATRICS	8	4.1	8	5.4	8	4.3	6	4.4	7	3.4

# Healthcare Performance Management

## Roadmap: Phase 2 – Enable Improved Processes



# Healthcare Performance Management Roadmap: Identifying Revenue Leakage

The Mount Sinai Hospital

One Gustave L. Levy Place  
1190 Fifth Avenue, New York, NY 10029  
Telephone: (212) 241-6500

Login | Tree | Domain Search | Help

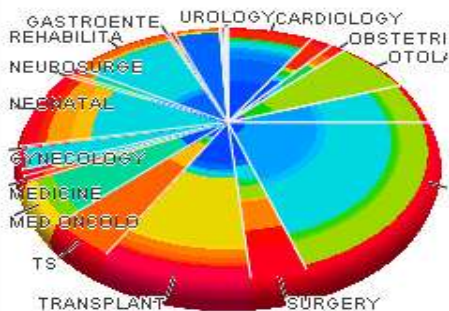
Mount  
Sinai

Reporting Analysis

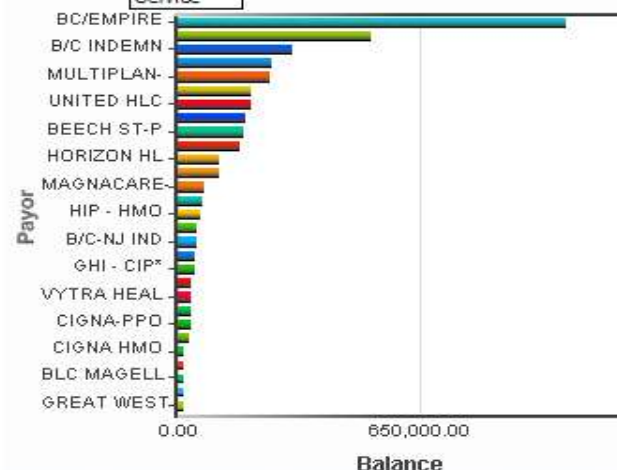
TSI Balance Analysis

Color by: Payor Service Zoom In Restore All Active Report View Detail

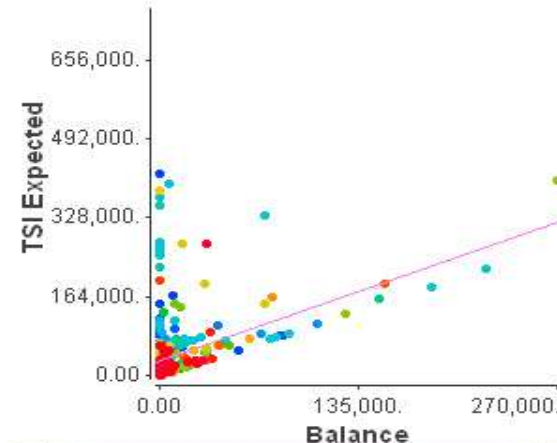
Balance per Service



Balance per Payor



TSI Expected per Balance



Record Number	Serial Number	Discharge Date	Service	Payor	TSI Expected	Primary Payment	Primary Adjust	Copay/Deduct	Balance
6146101	28285470	01/10/2006	CARDIOLOGY	BC/EMPIRE	73,132	49,682	0	0	23,450
6648791	28300130	01/12/2006	NEWBORN	B/C OF NJ	1,754	1,306	0	-412	36
6648568	28297702	01/10/2006	NEWBORN	CIGNA-PPO	1,821	1,609	0	0	212
6648255	28294894	01/07/2006	NEWBORN	UNITED HLC	1,340	0	0	-269	1,071
10401076	28296326	01/09/2006	OBSTETRICS	BC/EMPIRE	6,355	6,002	0	-300	53
5832780	28297420	01/11/2006	OBSTETRICS	BC/EMPIRE	10,513	10,161	0	-300	52
4897694	28298415	01/12/2006	OBSTETRICS	BC/EMPIRE	0	0	0	0	0
6631169	97299	01/07/2006	OBSTETRICS	HIP - HMO	6,120	3,456	0	-406	2,278
6628643	28297764	01/11/2006	OBSTETRICS	PHS/HLTHNE	6,115	5,370	0	-250	495
6599850	28317650	01/26/2006	OTOLARYNGO	AETNA/USHC	41,257	38,327	0	-250	2,680
6629944	28301774	01/19/2006	OTOLARYNGO	BC/EMPIRE	4,345	3,971	0	-300	74
6649190	28304156	01/20/2006	PSYCHIATRY	OXFORD HLT	6,544	6,452	0	0	92
6646545	28287020	01/15/2006	SURGERY	B/C INDEMN	46,591	42,298	0	-300	3,993

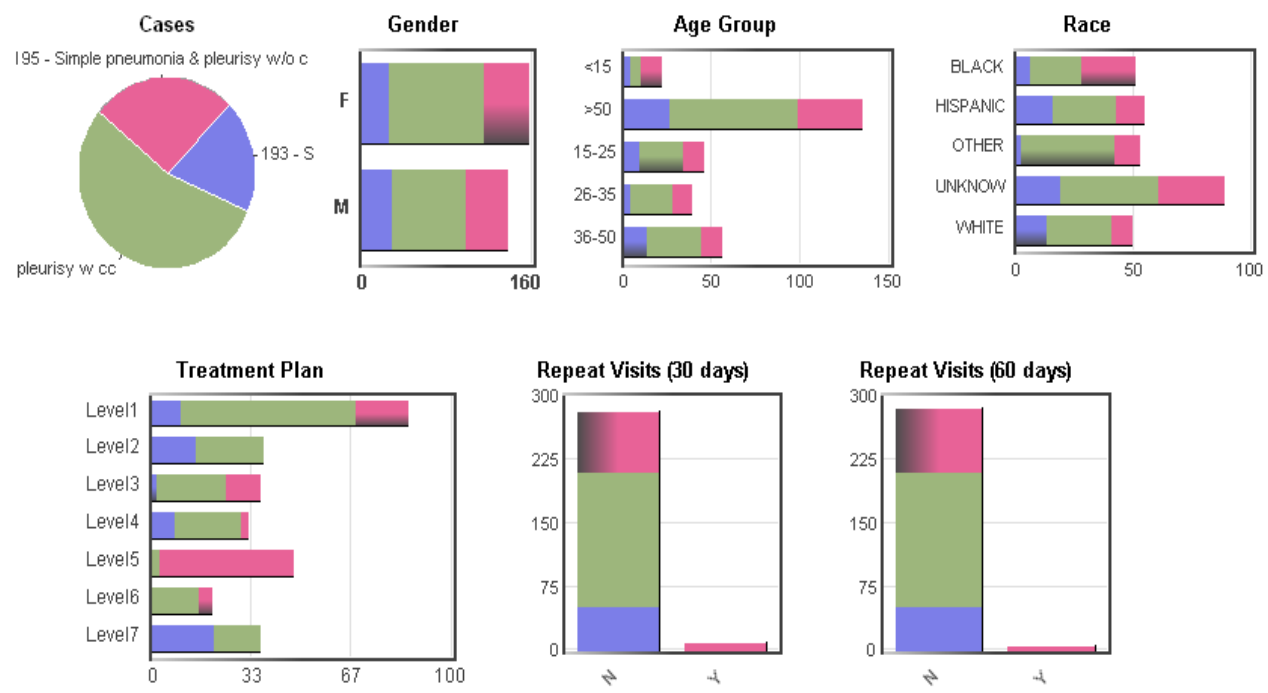
# Healthcare Performance Management

## Roadmap: Predicting and Reducing Readmits w/Visualization

- [Root Cause Visualization](#)
- [Clinical Cost LOS Visualization](#)

Selector shape:  Case Type:

Select type of output:

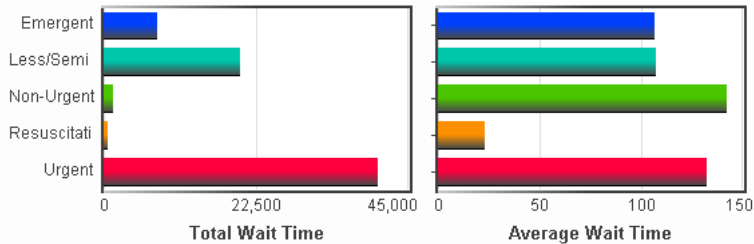


# Managing Emergency Department Throughput

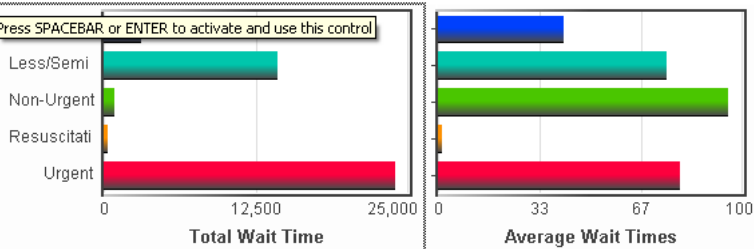


[Welcome](#)
[Census Dashboard](#)
[Tracking Board](#)
[Wait Time Monitor](#)
[Overtime and Sick](#)
[My Reports](#)
[Visual Analysis](#)
[Medical Metrics](#)
[Analytics](#)
[Today](#)

Ist Contact with Doctor



Ist Contact with Nurse



Discharge Disposition	Triage Time	Discharge H / M	1st Doctor H / M	1st Nurse H / M
-----------------------	-------------	-----------------	------------------	-----------------

Admit to ICU/OR	2008/11/09 10:33	8 27	0 42	0 27
	2008/11/10 15:45	7 25	0 35	0 15
	2008/11/11 23:10	8 45	0 35	0 5
	2008/11/12 14:38	7 4	1 57	2 7
	2008/11/12 20:00	4 40	0 50	-20 0
Admit to Inpt Unit (not ICU)	2008/11/13 11:57	7 53	3 23	1 25
	2008/11/09 07:14	4 1	0 56	0 36
	2008/11/09 11:23	2 22	2 37	0 7
	2008/11/09 13:15	2 25	1 45	1 20
	2008/11/09 13:55	2 5	0 25	0 35
	2008/11/09 17:18	2 52	0 42	0 2
	2008/11/09 17:28	3 17	0 32	0 12
	2008/11/09 17:59	9 21	1 16	0 33
	2008/11/09 19:01	2 42	1 14	0 19
	2008/11/09 19:33	5 12	2 44	0 43
	2008/11/10 01:30	8 40	5 10	2 0
	2008/11/10 05:17	9 58	1 53	0 -2
	2008/11/10 10:00	6 50	3 45	-10 0
	2008/11/10 11:10	3 50	2 10	0 35
	2008/11/10 11:25	6 15	3 50	3 45
2008/11/10 11:55	4 35	3 20	3 5	
2008/11/10 12:00	6 20	2 25	-12 0	
2008/11/10 13:00	5 15	3 0	2 0	
2008/11/10 13:15	4 30	0 45	0 25	
2008/11/10 15:30	3 20	0 10	0 7	
2008/11/10 16:44	3 26	3 1	-16 **	

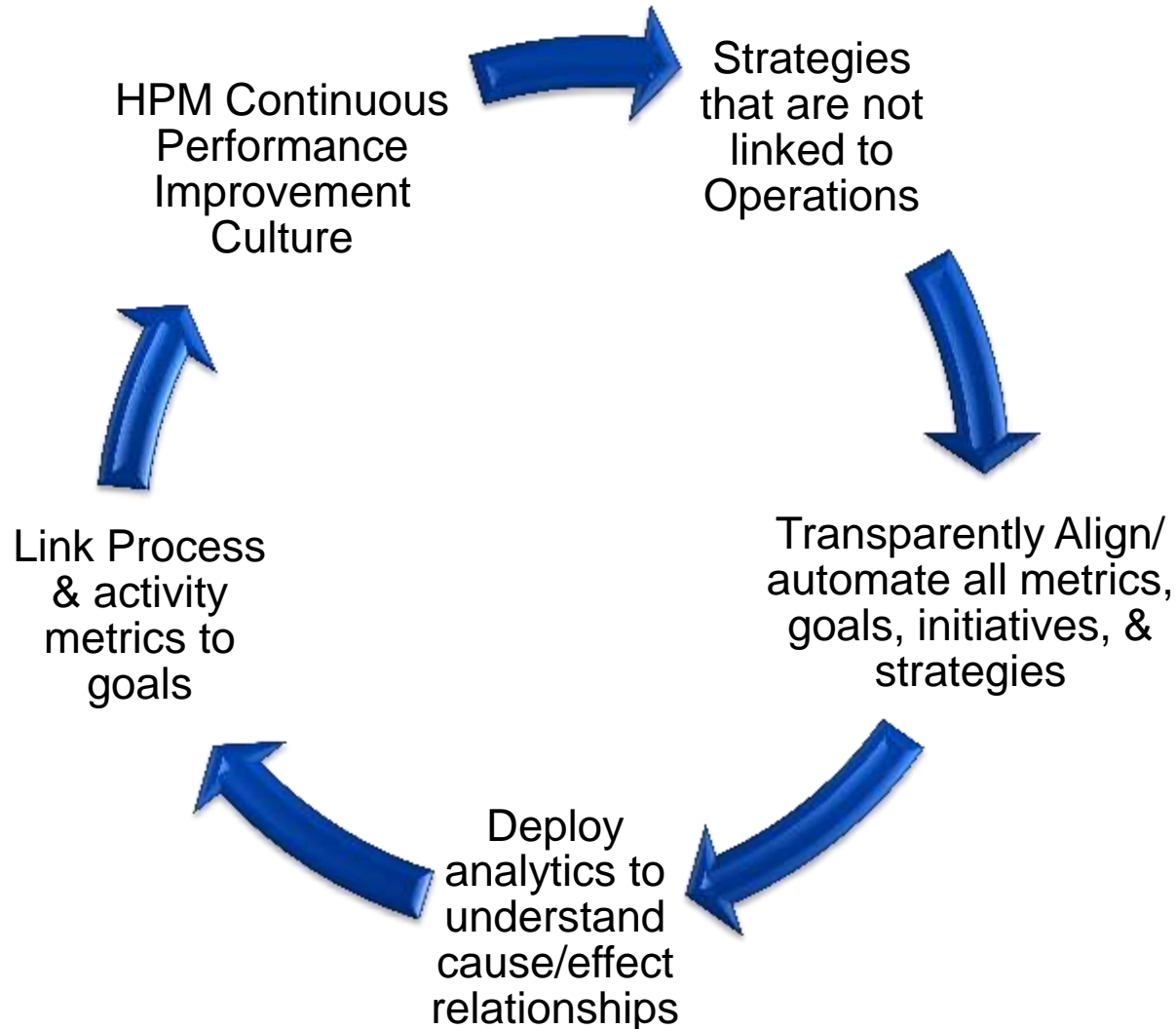
*Over 6 hours*      *Over 2 hours*      *Over 1 hour*

## Output

- XML
- Powerpoint
- PDF
- Web Services

# Healthcare Performance Management

## Roadmap: Phase 3 - Transformation for Accountable Care



# Healthcare Performance Management

## Roadmap: Engaging Physicians

HtmlPage - Windows Internet Explorer

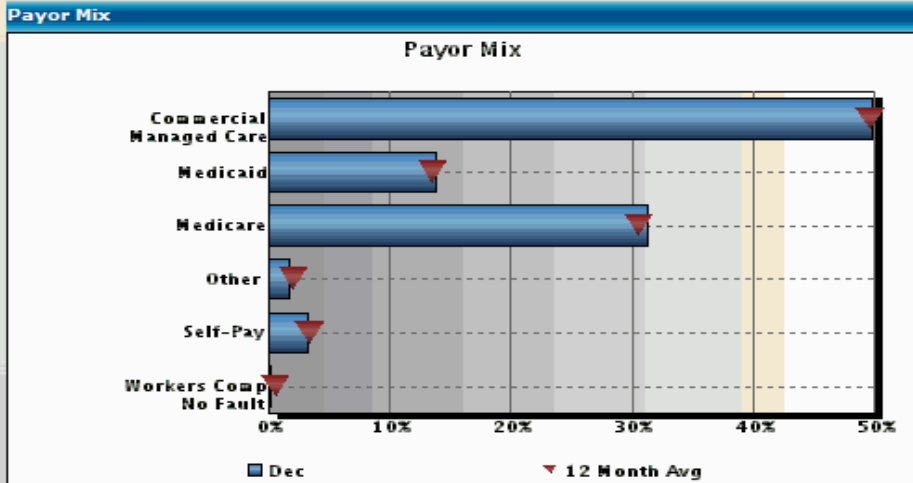
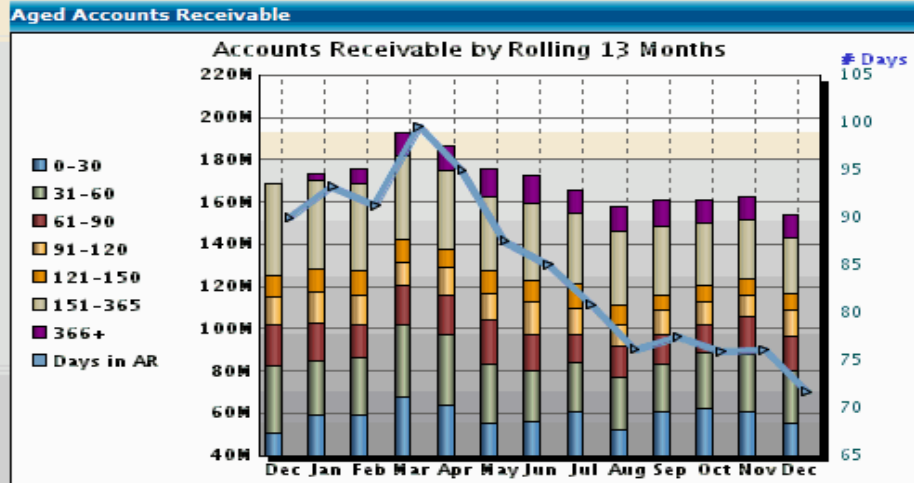
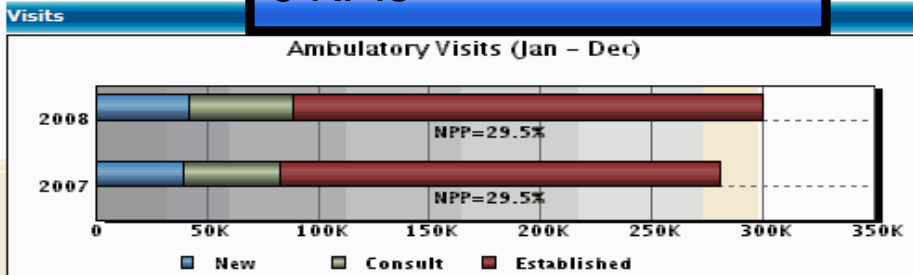
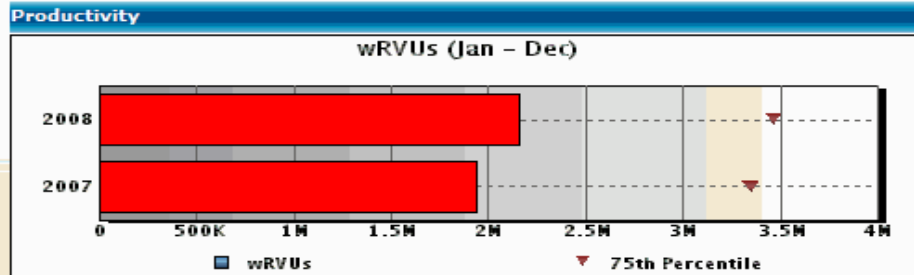
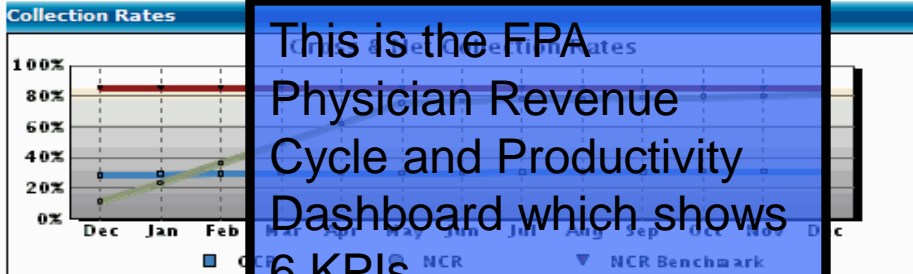
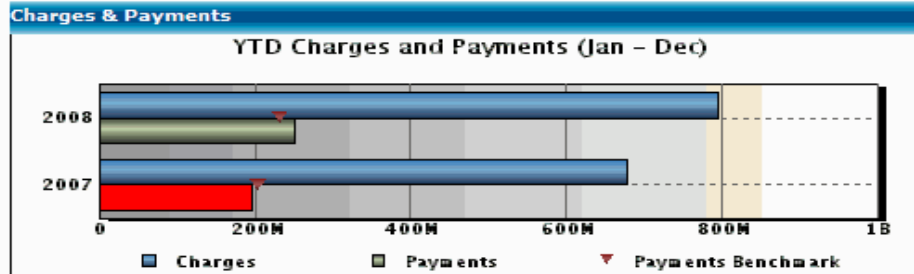


Mount Sinai

### Faculty Practice Associates - Physician Revenue Cycle and Productivity Dashboard

Year: 2008 Month: December Department: ALL Division: ALL Billing Area: ALL Provider: ALL

Adhoc On HTML Dashboard - All KPIs Run Report >> « Back Forward »



# Wrap-Up

# Healthcare Performance Management

*Wrap-up: You know you have HPM when there is ...*

- Democratization of Information - Everyone uses it
- Credibility
  - Everyone believes numbers & can drill to what makes up that number
  - Elimination of Spreadsheets
- Context
  - Understand numbers by any relevant dimension
  - Cause and effect drill paths or drill anywhere to answer Why?
  - Easily discover patterns and anomalies with visual analysis
- Sharing information to support decision making is effortless

***HPM no silver bullet but a strategy & framework for a multi-year journey***

# Healthcare Performance Management

## Wrap-up: HPM Requires Active Executive Leadership



## The New York Times

### The Opinion Pages

CONTRIBUTING COLUMNIST

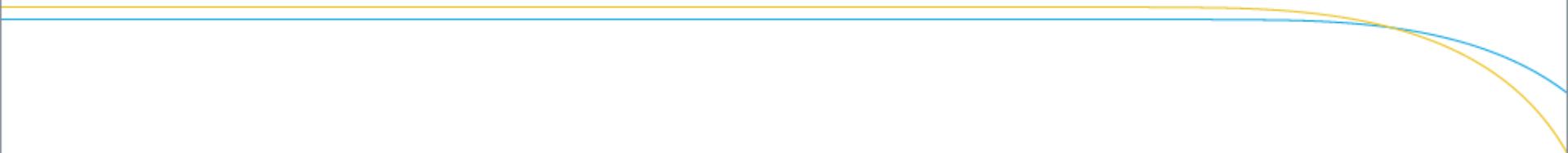
## Health Care's Lost Weekend

By PETER ORSZAG

Published: October 3, 2010

Robert Grossman, the dean and chief executive of N.Y.U. Langone, has gathered data from around the medical center into a “management dashboard.” This allows him to monitor not only financial information like operating margins and cash balances but also detailed quality data on individual doctors like 30-day hospital readmission rates and the number of infections associated with invasive procedures.

The patterns he has been able to discern this way have been eye-opening. The dashboard data revealed, for instance, that on any given day a disproportionately small number of eligible patients were discharged before noon, so that many people were kept in the hospital longer than necessary. Further analysis revealed a key reason: several routine procedures that some patients need before leaving, like the insertion of central catheters, were not performed in the morning. The medical center has since begun to offer the procedures earlier, and the percentage of discharges before noon has increased significantly.



*It is neither the strongest of the species that survive, nor the most intelligent, but the one most adaptable to change*

Charles Darwin

Questions?

