



 **Duke University Hospital**

Clinical Care | Education | Research





Singapore Healthcare Management Congress 2014

HM 1 – Journey to Excellence, Roadmap to Success

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Outline

- Introduction / Background
- Overview of Organizational Success
- Key Milestones
- Roadmap
- Case Study
- Closing Comments



Where is Duke University Hospital?

- Duke University Hospital is located in Durham, North Carolina, USA





Duke University Hospital Overview

- 957 licensed beds
- Main campus (Over 1 million square feet):
 - Duke North inpatient bed tower
 - Duke Cancer Center
 - Duke Medicine Pavilion
 - Duke South Clinics
 - Eye Center
 - Children's Health Center
- Off Campus
 - Ambulatory Surgery Center
 - Adult Bone Marrow Transplant
 - ~25 primary and specialty care clinics





Duke University Hospital Expansion

- 2012: 267,000 square foot Duke Cancer Center
- 2013: Duke Medicine Pavilion
 - ~100 new inpatient Intensive Care and Stepdown beds
 - 16 new operating rooms
 - Ancillary services including imaging and labs





Duke University Hospital Key Statistics

Fiscal Year 2014 (July 2013 through June 2014)

- 39,614 adult inpatient discharges
- 6.60 adult average length of stay
- 716 average daily census
 - 749 average daily census with observation patients
 - 81.5% occupancy rate
- 66,860 Emergency Department visits
- 1,026,501 outpatient visits
- 38,106 operating room cases
- Staff:
 - 7,132 FTEs (Full Time Equivalents)
- Physicians:
 - 1,690 credentialed physicians
 - 981 GME (Graduate Medical Education) learners



Performance Services Overview

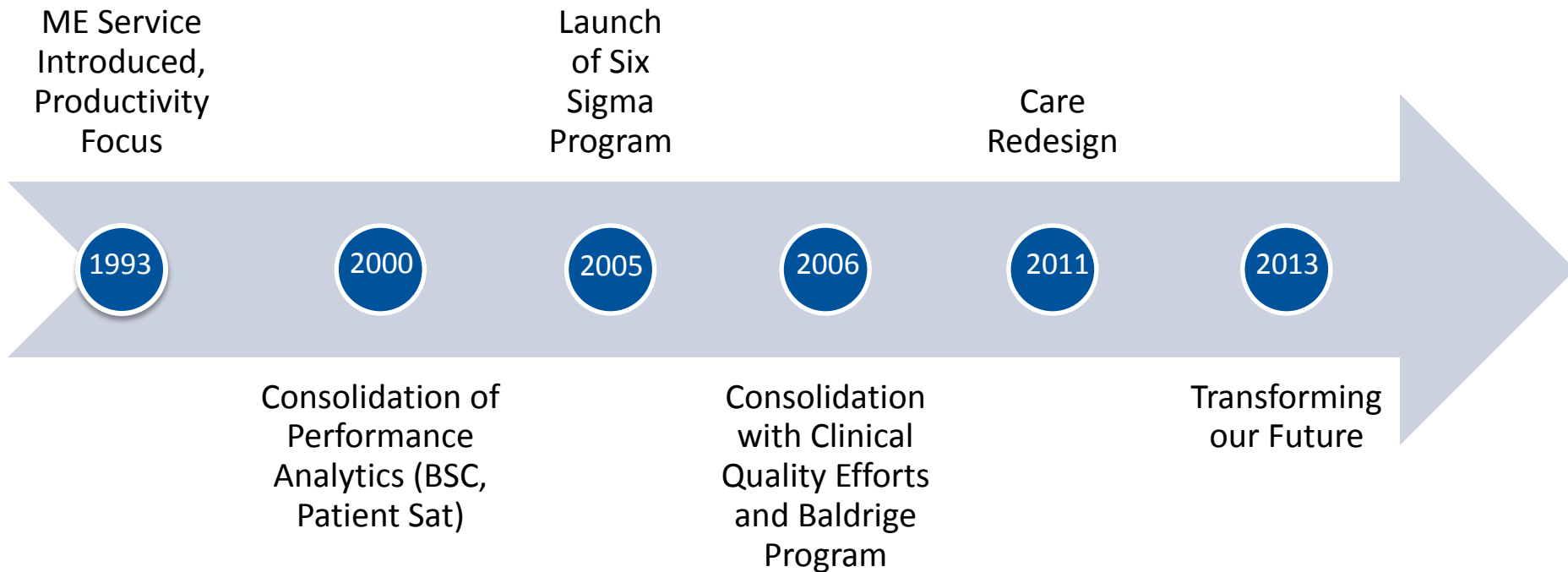


Performance Services Background

- Purpose:
 - Support the attainment of performance goals through the measurement, monitoring and improvement of performance.
- Structure:
 - Report to the Executive Vice President of DUHS with system scope
 - Centrally coordinated and delivered
 - Team consists of engineers, analysts and nurses



Performance Services – Key Milestones





Performance Services – Core Responsibilities

- Labor Management
- Balanced scorecard
- Benchmarking
- Project Management
- Performance improvement
- Quality measurement
- Patient experience measurement
- Analytical and reporting services
- Facilitate key leadership processes

MEASURING THE IMPACT OF LEADERSHIP



TRUVEN HEALTH ANALYTICS

100 TOP HOSPITALS

2014

Measurement of Leadership Impact and Value:

- Not a consumer tool for hospital selection
- 21 year development and field testing effort
- Balanced scorecard theory – Norton and Kaplan, Harvard University
- Academic validation of hospital balanced scorecard
- Objective statistical analysis of public data, updated annually
- Peer-reviewed risk and severity adjustment and methodologies

Scalable for hospitals, health systems and provider networks

- Selected to validate Baldrige winner performance vs. peers
- New metrics developed and tested as industry evolves



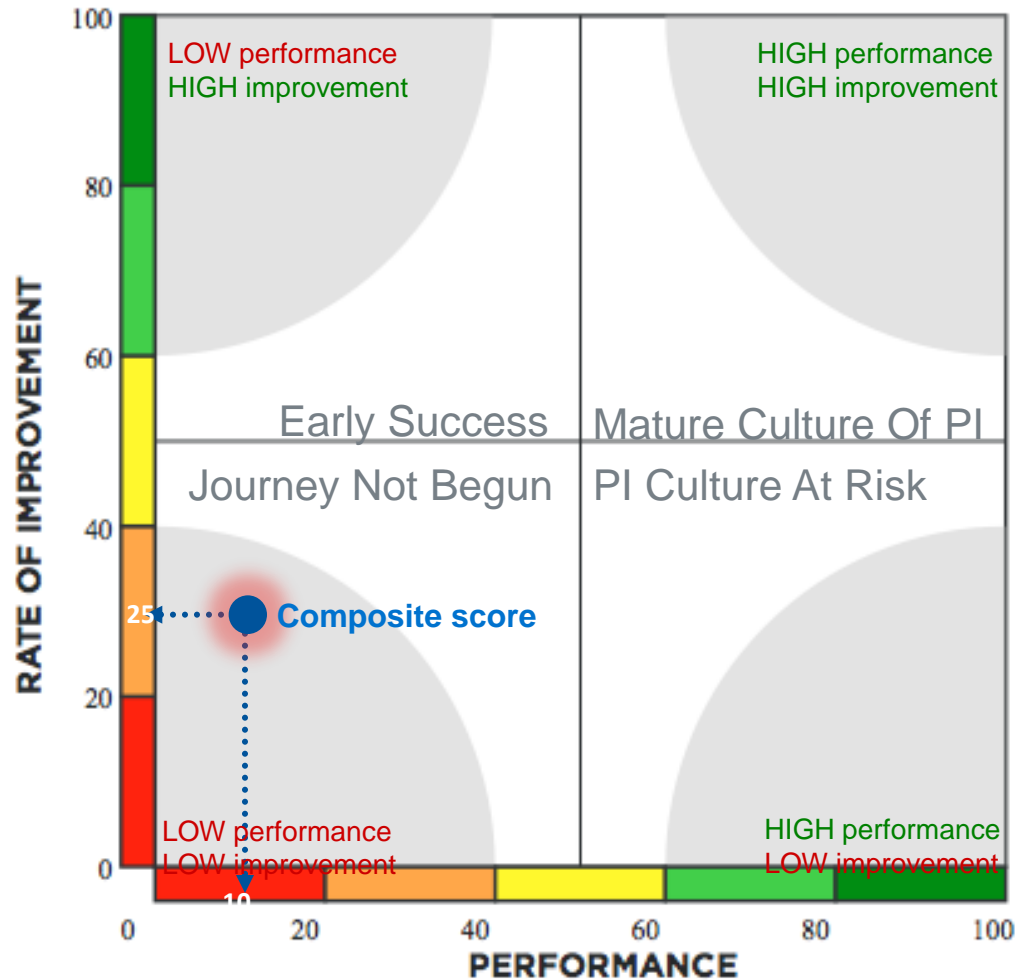
100 Top Hospitals - Measures

- Mortality, Complications indexes
- Composite Patient Safety Index
 - *(10 PSIs in current and trend profiles)*
- Core Measures Mean Percent
 - Heart Attack (AMI), Heart Failure (HF), Pneumonia (PN), Surgical Care (Surg)
- 30 Day Mortality Rates (AMI, HF, PN)
- 30 Day Readmission Rates (AMI, HF, PN)
- Average Length of Stay (ALOS)
- Inpatient Expense per Discharge
- Operating Profit Margin
- HCAHPS (Overall Rating Question)



MEASURING THE STRENGTH OF PI CULTURE

RATE OF IMPROVEMENT AND RESULTANT PERFORMANCE

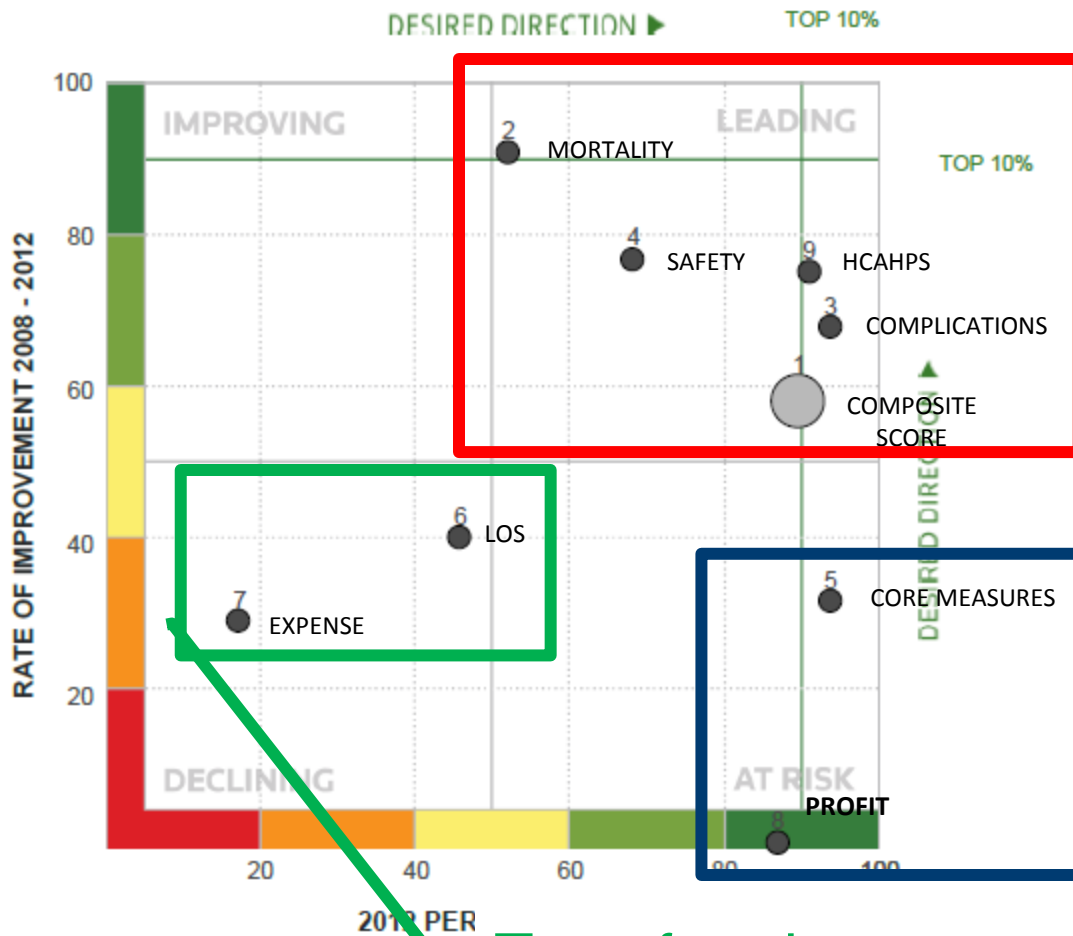


2014 Duke University Hospital



Recent Areas of Focus

MAJOR TEACHING CLASS



• DATA POINTS •

- 1: OVERALL
- 2: Mortality*
- 3: Complications*
- 4: Patient Safety*
- 5: Core Measures
- 6: ALOS*
- 7: IP Expense/Disch
- 8: Op Profit Margin
- 9: HCAHPS

• QUINTILES •

- 80 TO 100
- 60 TO 80
- 40 TO 60
- 20 TO 40
- 0 TO 20

PROFILED HOSPITAL:

2012 Comparison Group: n = 192

2008 - 2012 Comparison Group: n = 193

* Rate of Improvement data years 2009 - 2012

Transforming our Future

Mature



Duke University Hospital

Performance Awards and Recognition

- National and State Quality Programs:
 - Governor’s Award for Performance Excellence – 2014
 - National Site Visit – Malcolm Baldrige National Quality Award Program - 2014
 - National Recognition for Best Practices in Leadership – Baldrige Program – 2014
- National Rankings:
 - USNWR Honor Roll of Best Hospitals (1989-2014)
 - Truven Top 100 Hospitals
- Local and Regional Rankings:
 - Best Hospital in the Greater Triangle
 - US News & World Report
 - Consumer Choice Award (2000-2014)
 - National Research Corporation (NRC)



The Journey to Excellence...

- For Duke, the Journey to Excellence includes learning from and sharing with other high performing organizations including:
 - Magnet,
 - Baldrige,
 - NCAfE (NC Awards for Excellence),
 - AHA (American Hospital Association), and
 - ACGME (Accreditation Council for Graduate Medical Education)



American Hospital Association McKesson
Quest for Quality Prize®

Honoring Leadership and Innovation
in Patient Care Quality, Safety, and Commitment





Key Milestones in the DUH Journey to Excellence

Introduced BSC as a measurement tool

- Introduced to create a balanced focus on Performance. Previous focus was primarily Financial metrics

Transitioned BSC to a management tool

- Implemented systematic process to define organizational priorities, measures, and targets

Organizational Alignment

- Alignment of priorities, measures and targets at all levels of the organization, including staff members

Deployed advanced PI tools and aligned PI priorities and efforts

- Deployed six sigma training, placed trained staff within the organization, and created alignment with the BSC

Implemented formal leadership processes

- Senior leadership effort to formalize the leadership system and supporting processes

Initiated Transforming our Future

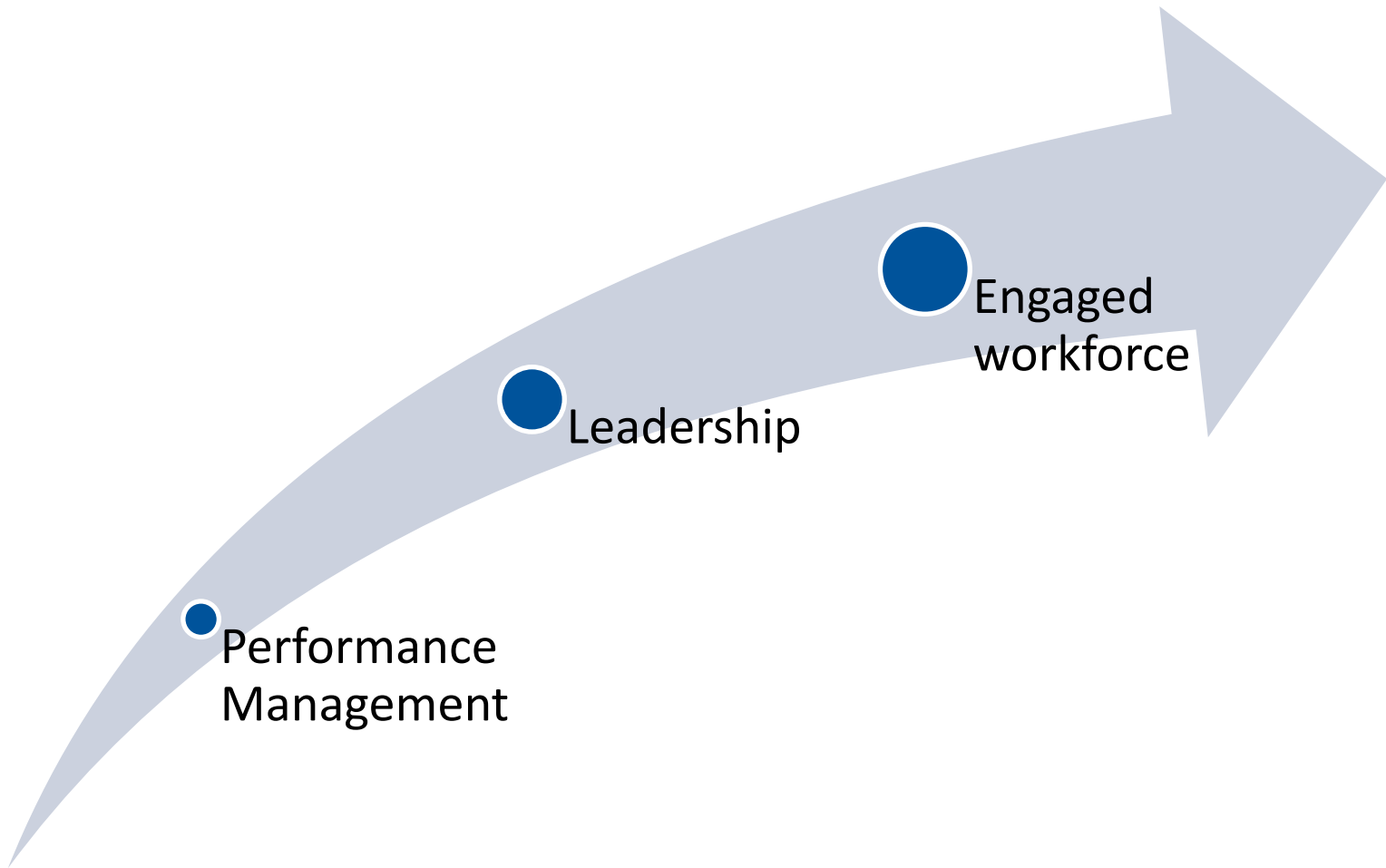
- Transform the way care is delivered and how operations are designed and managed to deliver a higher level of value



Roadmap



Roadmap



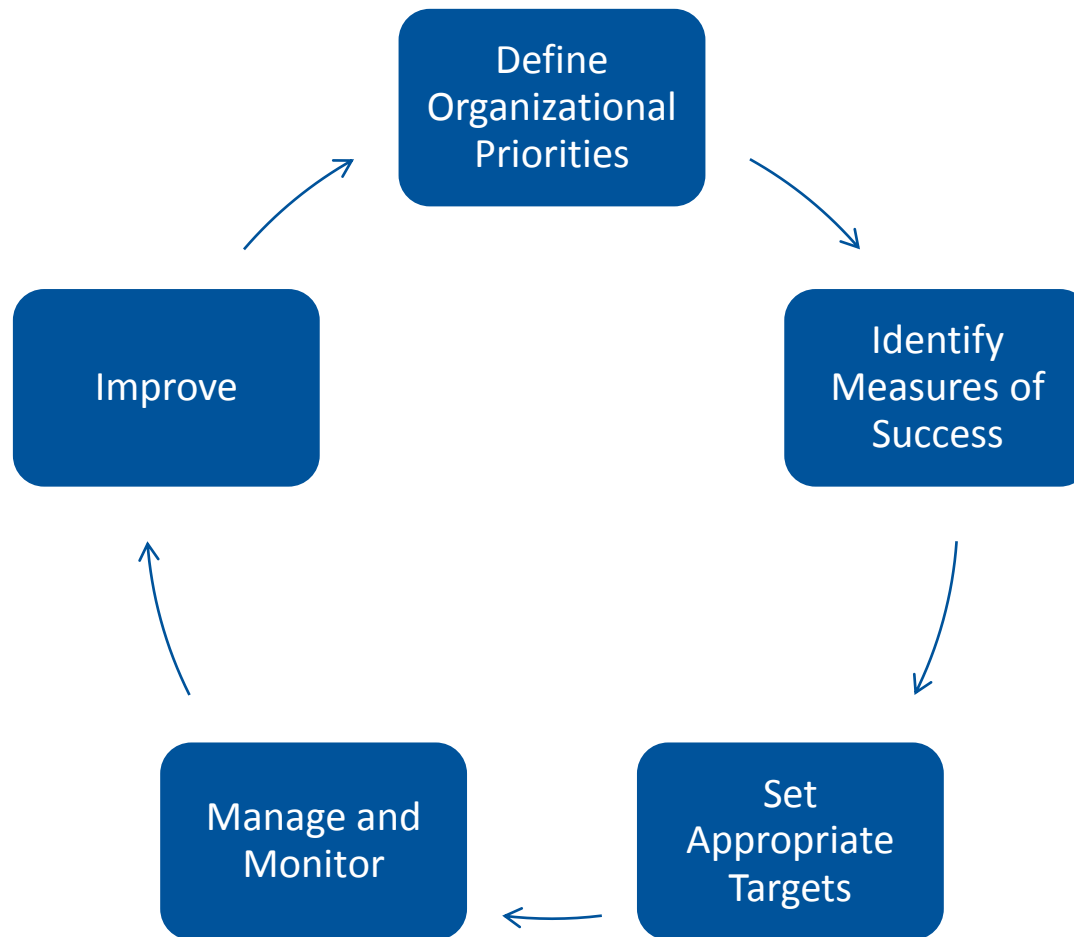


What is Performance Management?

- Wikipedia: Performance management includes activities which ensure that goals are consistently being met in an effective and efficient manner.
- Dr. Aubrey Daniels: Formal definition of performance management is "a scientifically based, data-oriented management system. It consists of three primary elements-measurement, feedback and positive reinforcement."

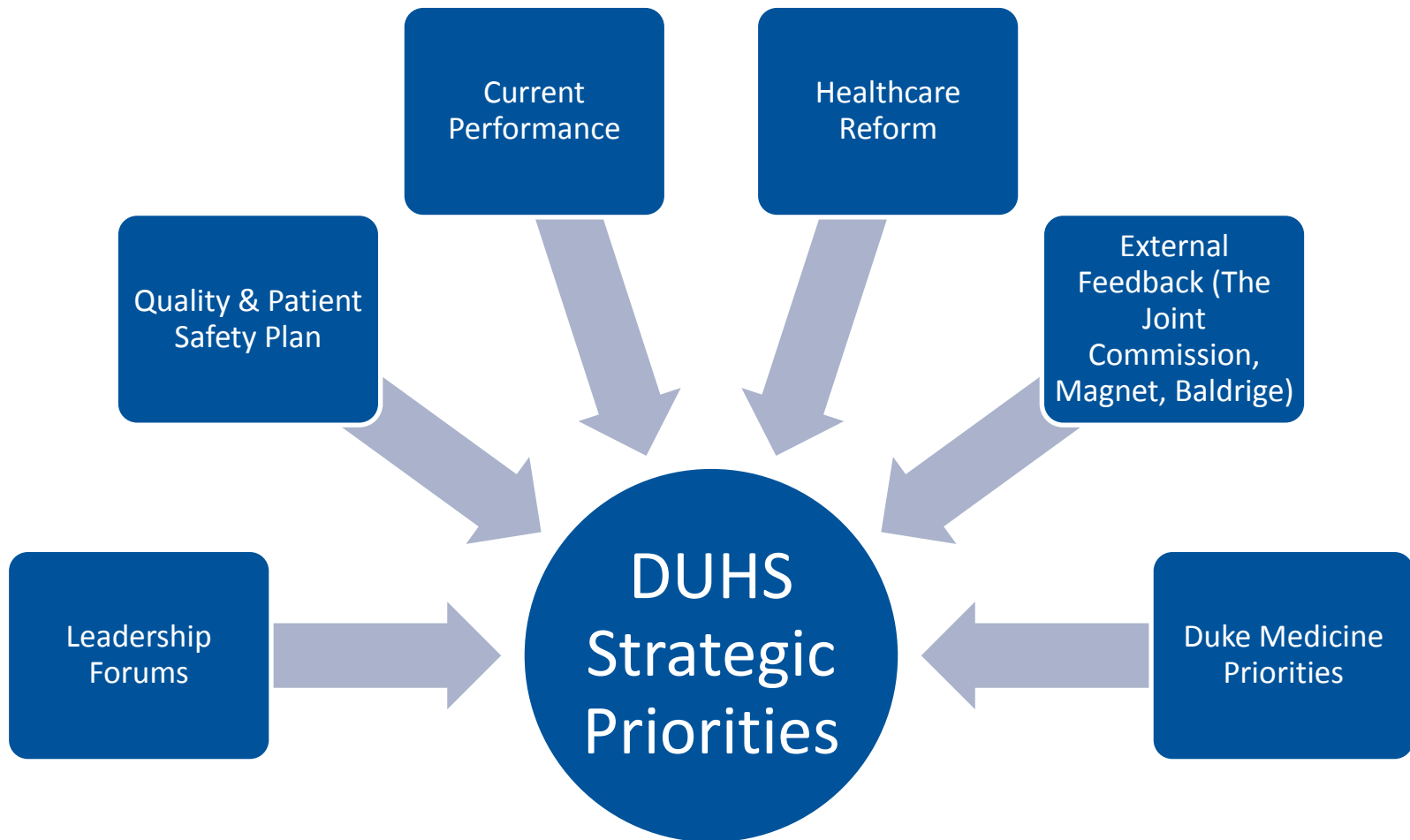


Performance Management Process

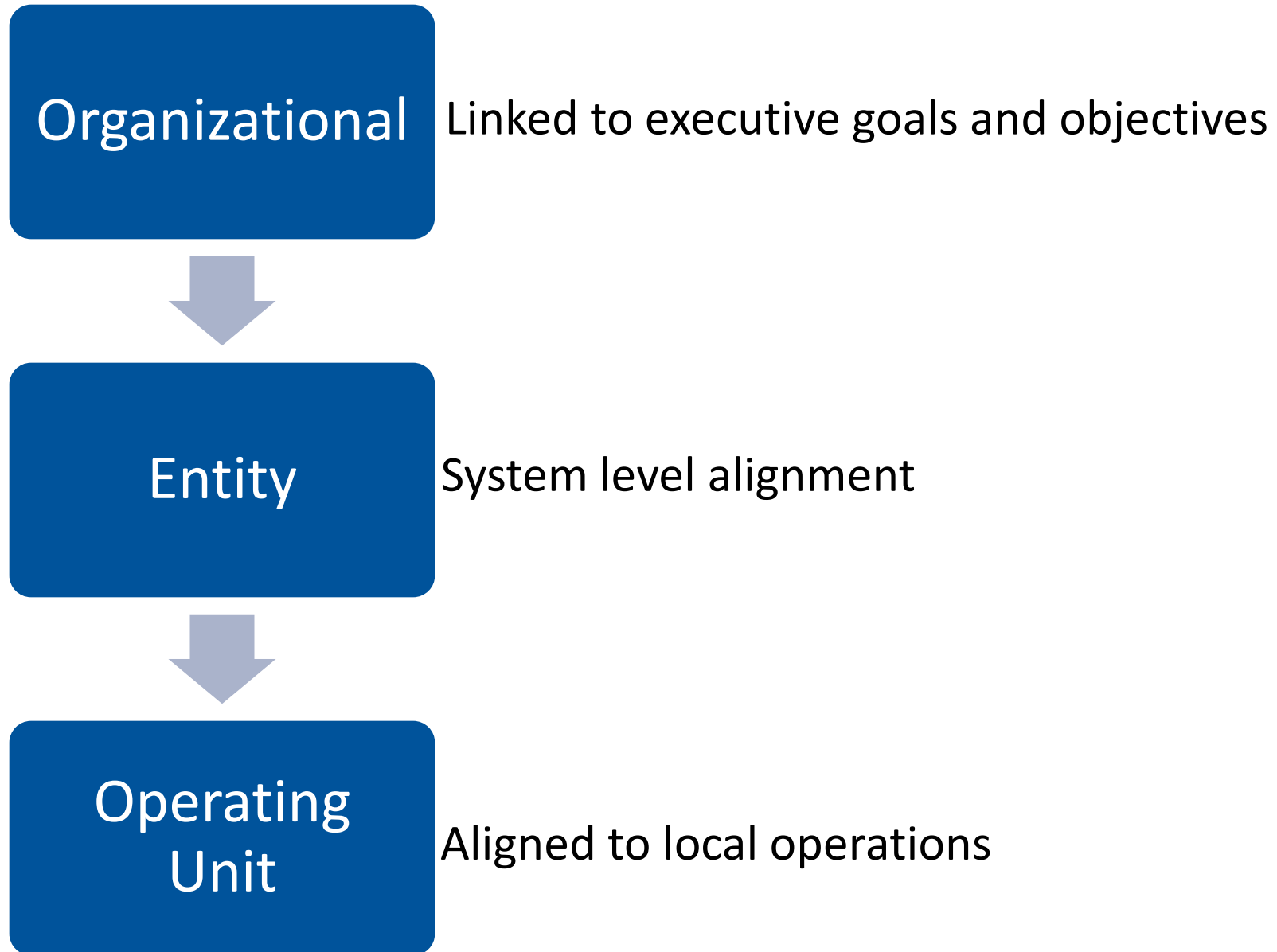




Inputs to Priority Development



Organizational Alignment





Performance Management

- Beginning

- Organizational balanced scorecard of key performance indicators
- Central oversight with limited accountability
- Targets based on internal performance to promote incremental improvement

- Now

- Balanced scorecards available at all levels of leadership
- Measures and targets linked to key priorities and cascaded to achieve alignment and to promote accountability
- Targets based on best practice benchmarks to promote transformational improvements



Leadership

Key Elements

- Drive the performance management process
- Develop and commit to key leadership processes
 - Create a culture of performance improvement and innovation



Leadership

Drive the Performance Management Process

- Define priorities and targets
- Establish accountability
- Monitor progress and support the development of tactics and workplans
- Communicate to all levels
 - Importance
 - Results
 - Opportunities for improvement



Leadership

Drive the Performance Management Process

- Integrate with Pay for Performance System:
 - BSC targets become individual performance targets
 - Link to the pay for performance program at all levels
 - Establish a link between the expectations and targets



Leadership

- Develop and commit to key leadership processes
 - Formalize the informal
 - Use some type of external process to continually assess organizational process and performance
 - Ongoing assessment and improvement as needed



Leading Our Vision: Strategic Planning Process

Figure 2.1-1 DUH Strategic Planning Process (SPP)

DUH STRATEGIC PLANNING PROCESS				
STRATEGY DEVELOPMENT	1	Validate MVV & CC	SST, HLC/MD	WINTER RETREAT- DECEMBER
	2	Analyze Key Inputs/Perform SWOT/ Validate SA, SC	SST, HLC/MD	
	3	Finalize DUH SO and Goals by BSC Quadrant/Initiate Financial & HR Planning	SST, HLC/MD	JANUARY- FEBRUARY
	4	Cascade/Alignment of SO and Goals	SST, HLC/MD	APRIL
STRATEGY DEPLOYMENT	5	Finalize Tactics to Address SO and Goals	SST, HLC/MD	SPRING RETREAT-MAY
	6	Develop/Finalize CSU/Department Workplan Tactics	HLC/MD, Dept. Heads	JUNE
	7	Align Individual Expected Job Results (EJR)	SST, HLC, MD, Dept. Heads, All Staff	JULY
	8	Performance Evaluation and Improvement	SST, HLC/MD, Dept. Heads, All Staff	JULY-JUNE

- Supports DUH's ability to address health care reform
- Cascades/aligns goals and objectives through the organization
- Includes key inputs from patients, loved ones, the community and other key stakeholders
- Incorporates comprehensive risk modeling



Leadership

- *Beginning*

- Limited performance management process
- Informal leadership processes
- Leadership goals set independent from the BSC process

- *Now*

- Complete performance management process linked to Health System leadership
- Formal leadership processes
- Leadership goals aligned at all levels

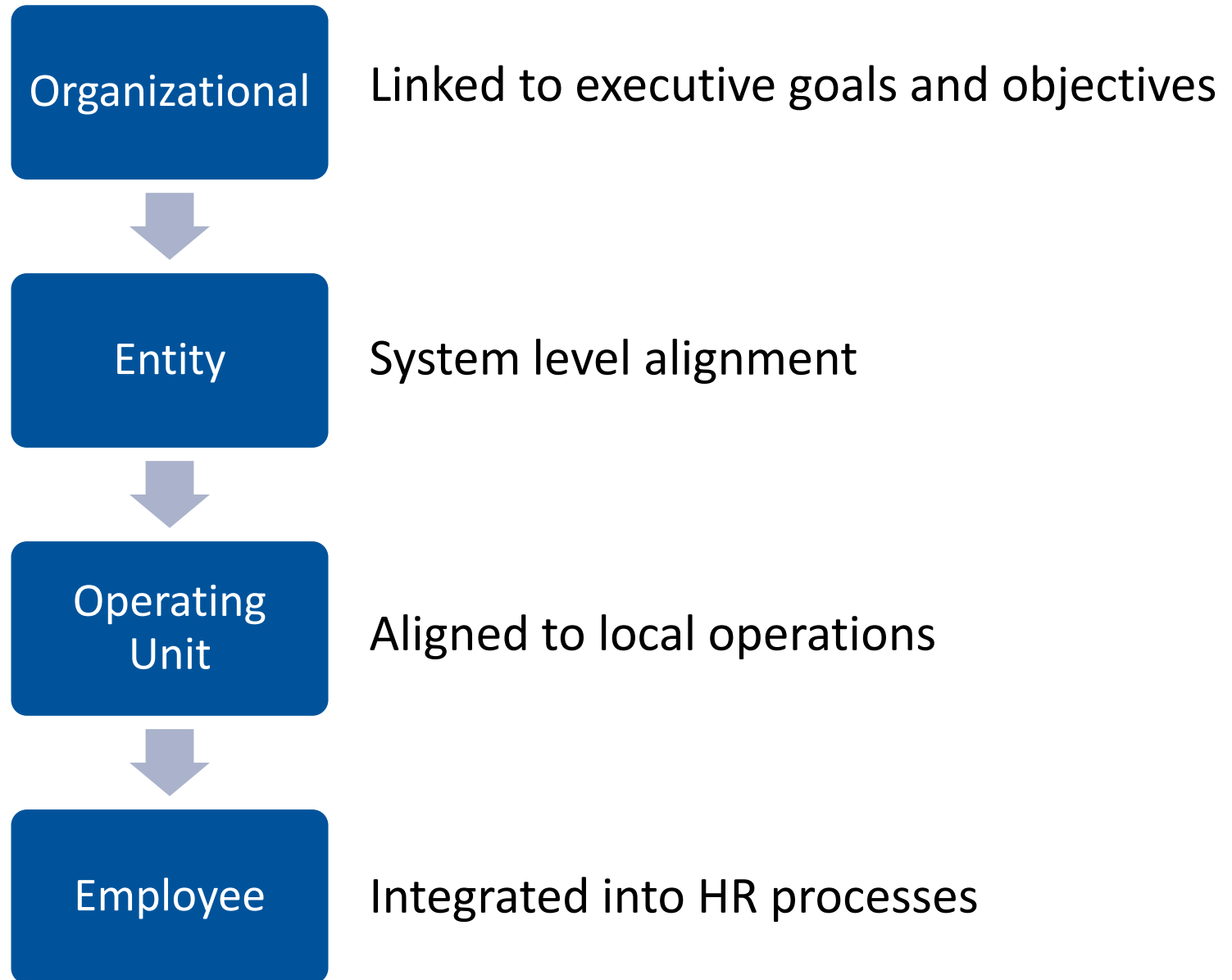


Workforce Engagement

Key Elements

- Develop local alignment and accountability for performance goals
- Provide resources to support the local improvement efforts
- Promote interdisciplinary problem solving and performance improvement
- Leadership engagement

Organizational Alignment





Workforce Engagement *Tools*

- Provide a variety of tools to support a culture of continuous learning and innovation:
 - Lean
 - DMAIC-black belt, DMAIC-green belt, FMEA, Mistake Proofing
 - Rapid Cycle Improvement Process
 - Change Management
- The purpose must be to improve performance, not to implement tools
- Importance of selecting the right tool



Workforce Engagement

PI Deployment Strategy

- Performance improvement is everyone's job
- Embed the expertise into targeted operational areas
- Integrate into the operational management processes to create alignment and to promote interdisciplinary problem solving
- Continue to add tools to the organization's toolbox as needed



Workforce Engagement

- Beginning:
 - HR process separate from the BSC
 - Local PI priorities and efforts separate from the BSC and management processes
 - Use of basic PI tools
- Now:
 - Individual performance goals and expectations linked to BSC targets
 - PI efforts linked to priorities and BSC
 - Advanced PI training
 - Trained individuals strategically placed within the organization



Readmission Improvement Case Study

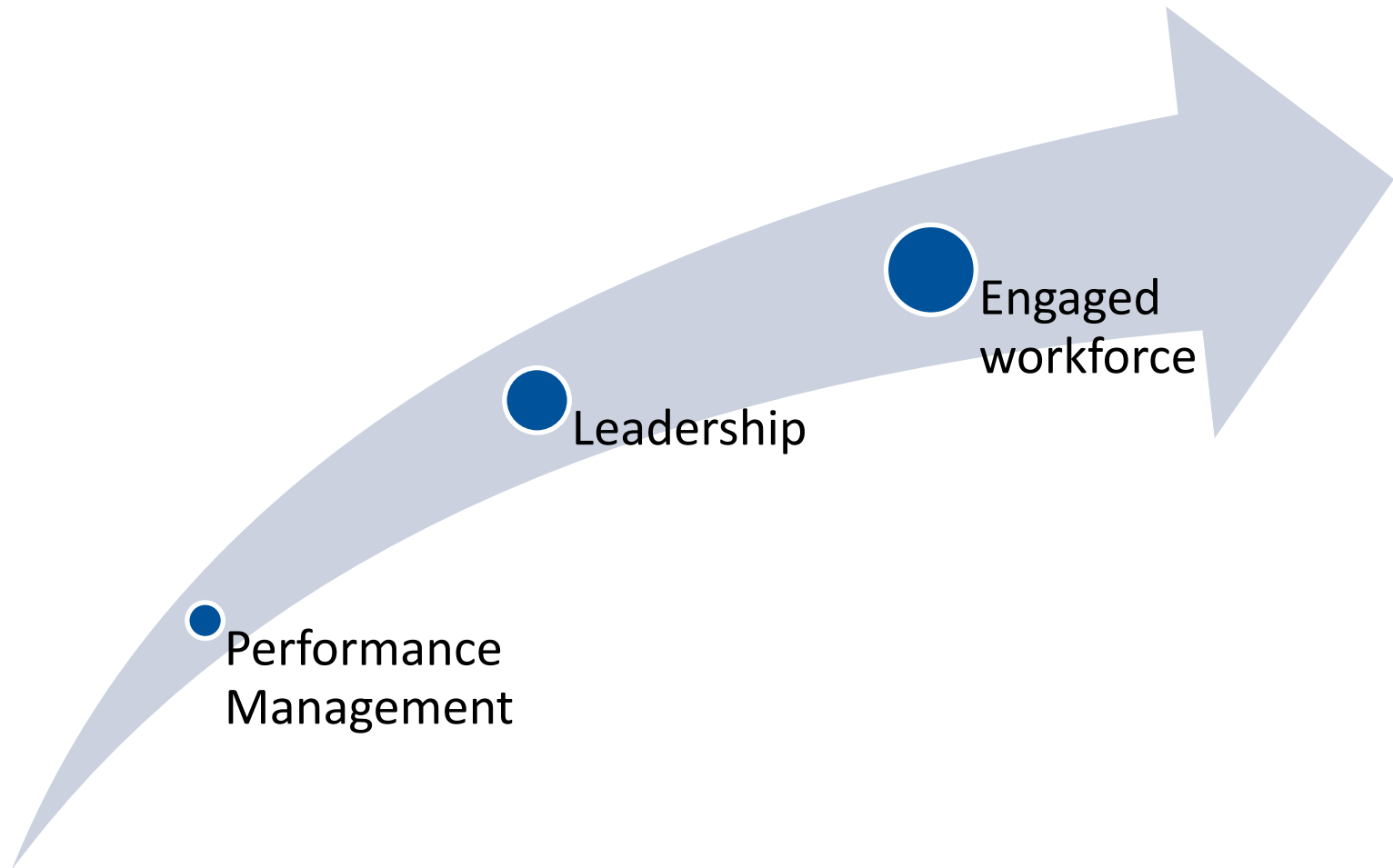


Readmission Reduction Program Overview

- Government program launched to reduce the number of hospital readmissions
- An excess readmission ratio is calculated for each condition and applied to base payment
 - Program is penalty-based only, no reward for good performance
 - Payment adjustment is applied to inpatient claims at the beginning of each federal fiscal year (October 1)



Readmission Case Study



Performance
Management

Leadership

Engaged
workforce



Readmissions

Performance Management – Setting the Stage

- Identified as a priority as a part of our annual performance management cycle
- Set targets based on national benchmarks and identified areas for improvement
- Aligned with entity and service line leaders
- Linked to annual goals and expectations



Leadership

Driving the Change and Workforce Engagement

- Integrated into ongoing performance review sessions
- Resources provided to support the improvement process
 - Staff time for projects
 - Pilot improvement efforts
- Linkage to individual goals and expectations at all appropriate levels.

Same Day Access Heart Failure Clinic *Implementation Team Roster*



Team Member	Role / Title
Simon Curtis (Co-Chair)	Strategic Service Associate, Ambulatory Care Operations
Zubin Eapen, MD (Co-Chair)	Assistant Professor, Department of Medicine
Midge Bowers, NP	Nurse Practitioner, Heart Failure Program
Karol Harshaw-Ellis, NP	Nurse Practitioner, Heart Failure Program
Chris Samples	VP, Ambulatory Care Operations
Catherine McCarver	Director, Heart Center of Excellence
Mary Vinson	ACNO, Ambulatory Care Operations
Coretta Smith	Nurse Manager, 2F/2G
Kyle Dorsey	HCA, 2F/2G
Lisa Dove	Clinical Pharmacists, Duke Outpatient Clinics
Emmanuel Brown	Performance Services Management Engineer
Wanda Bride	ACNO, Heart Center
Garisha Davis	Nurse Manager, 2A
Jennifer Lewis	Nurse Clinician, Heart Center
Susan Schlundt	ARIA Analyst
Eugenia Johnson	COD, 2A
Tammey Wilkerson	Administrative Director, Heart Center Communications
Laura Huffman	Manager, Finance
Barbara Carter	Revenue Manager, Heart Center



Improvement Tactics Implemented

- Follow-up appointment within 7-14 days from discharge (Primary Care Provider or Specialty)
- Follow-up phone call within 24-48 hours from discharge
- Readmission case review (review of factors include – PCP, age, comorbidities, discharge disposition, social situation, etc.)
- Careplans implemented for “Familiar Faces”
- Collaboration with local Skilled Nursing Facilities to improve transitions
- Same day clinics for targeted patient populations
 - Heart Failure, Sickle Cell



Performance Monitoring

- Monthly trending at Service line and “bundle” level
- Ad-hoc comparisons and drill-down into benchmark comparative data for specific populations
- CMS Medicare data reviewed annually

Sample Bundle Dashboard



Bundle Dashboard **DRAFT**



KNEE

DUH

PERIOD

FY14 YTD

FY13

Quality and Patient Safety

Total Discharges

33

432

448

ALOS

2.39

2.76

2.87

CMI

2.23

2.18

2.13

30 Day Readmission Rate

3.2%

1.9%

2.4%

90 Day Readmission Rate

2.8%

4.1%

4.4%

Mortality Index

0.00

0.00

Observed Mortalities

0

0

Customer

HCAHPS: Overall Rating of Hospital

75.4%

75.0%

HCAHPS: Communication with doctor

89.4%

87.5%

HCAHPS: Pain management

68.0%

63.6%

HCAHPS: # Responses

183

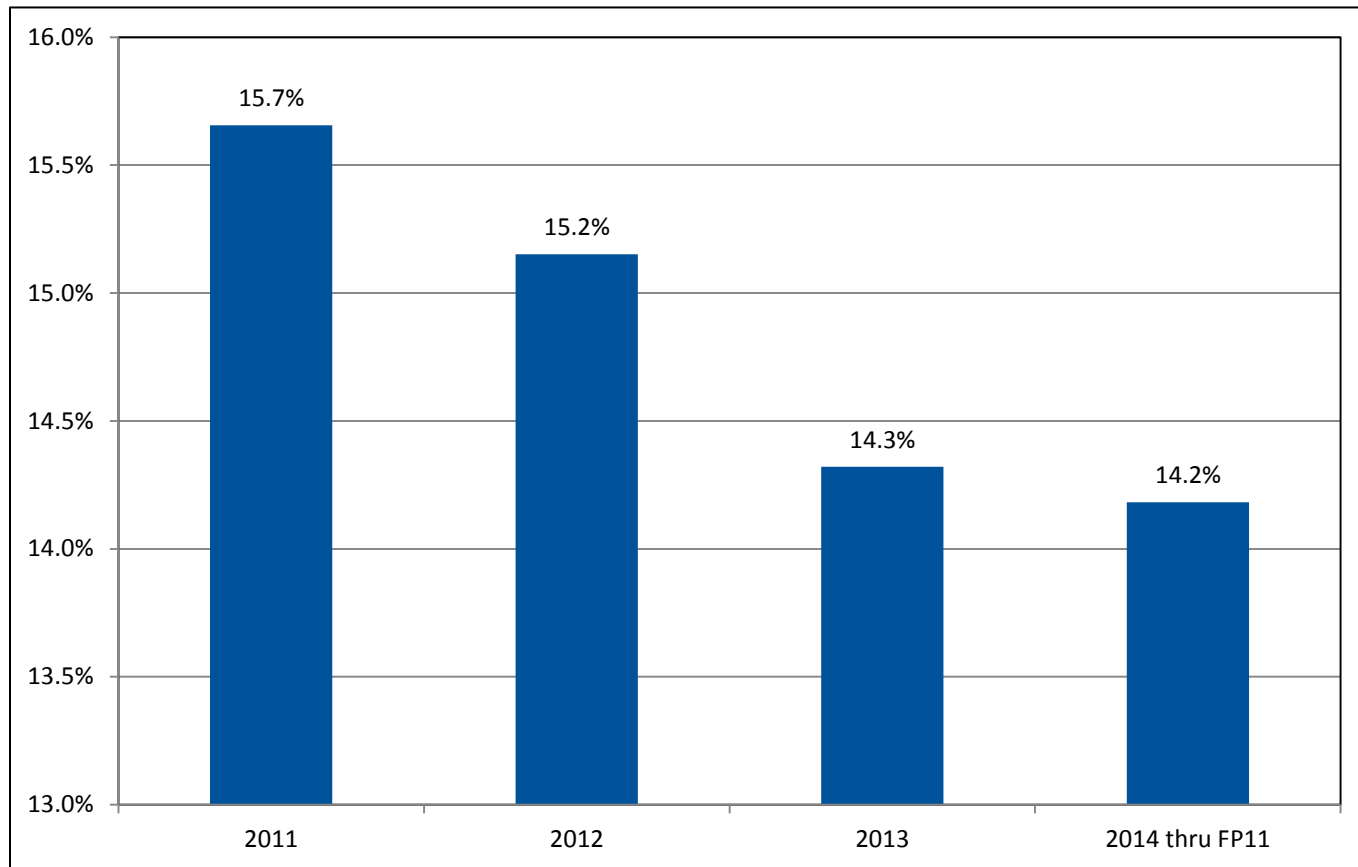
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Finance

Direct Cost/Case



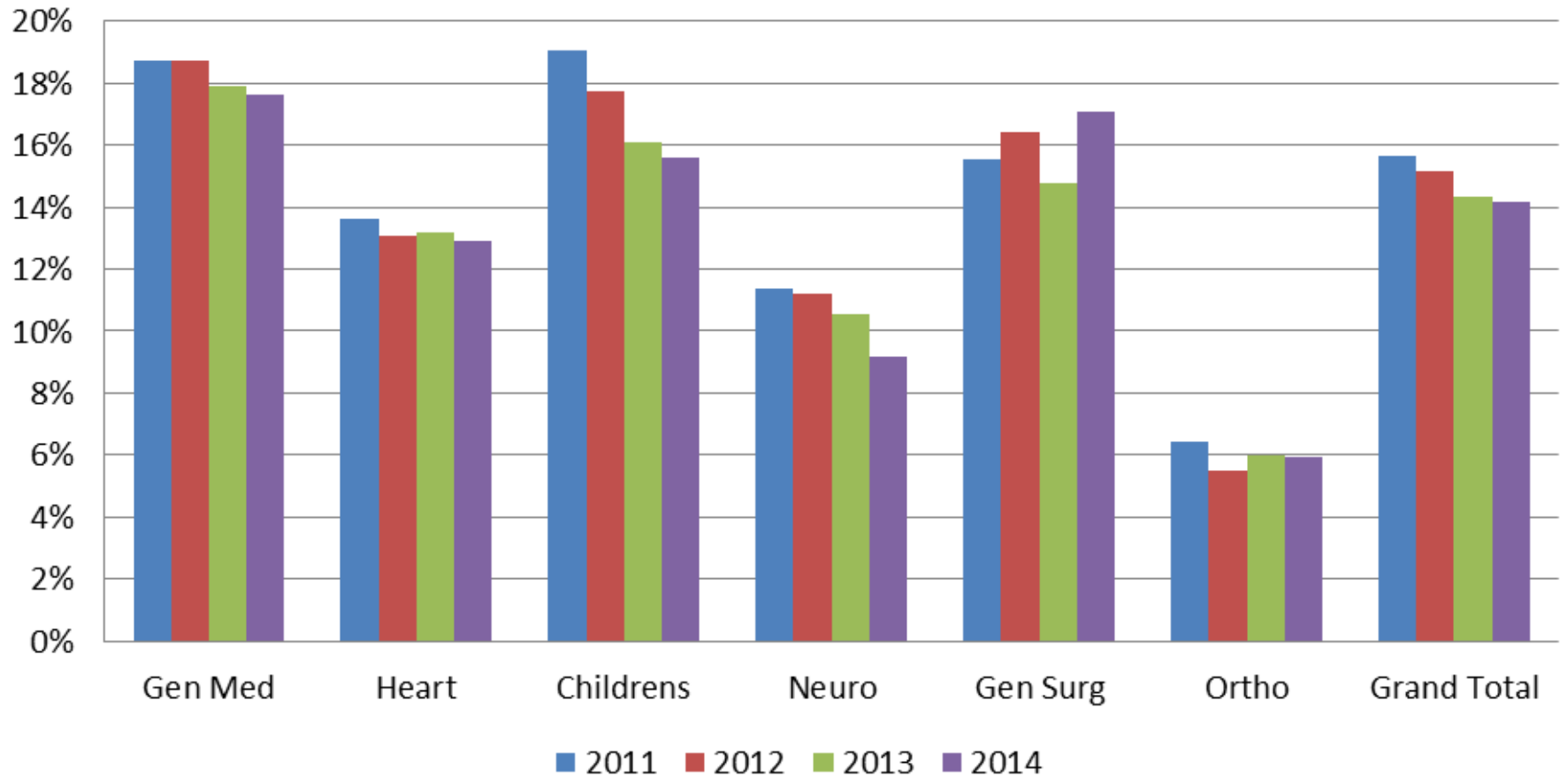
DUH Readmission Trend



DUH down 9.4% since FY11



30 Day Readmission Rate Trend by Service Line





Concluding Comments

- Advance all three:
 - Performance Management
 - Leadership
 - Workforce Engagement
- View deployment as a continuum
 - Journey of continuous improvement
- Performance Excellence is a journey