

# The Financial Benefits of Clinical Integration: Memorial Hermann Accountable Care Network

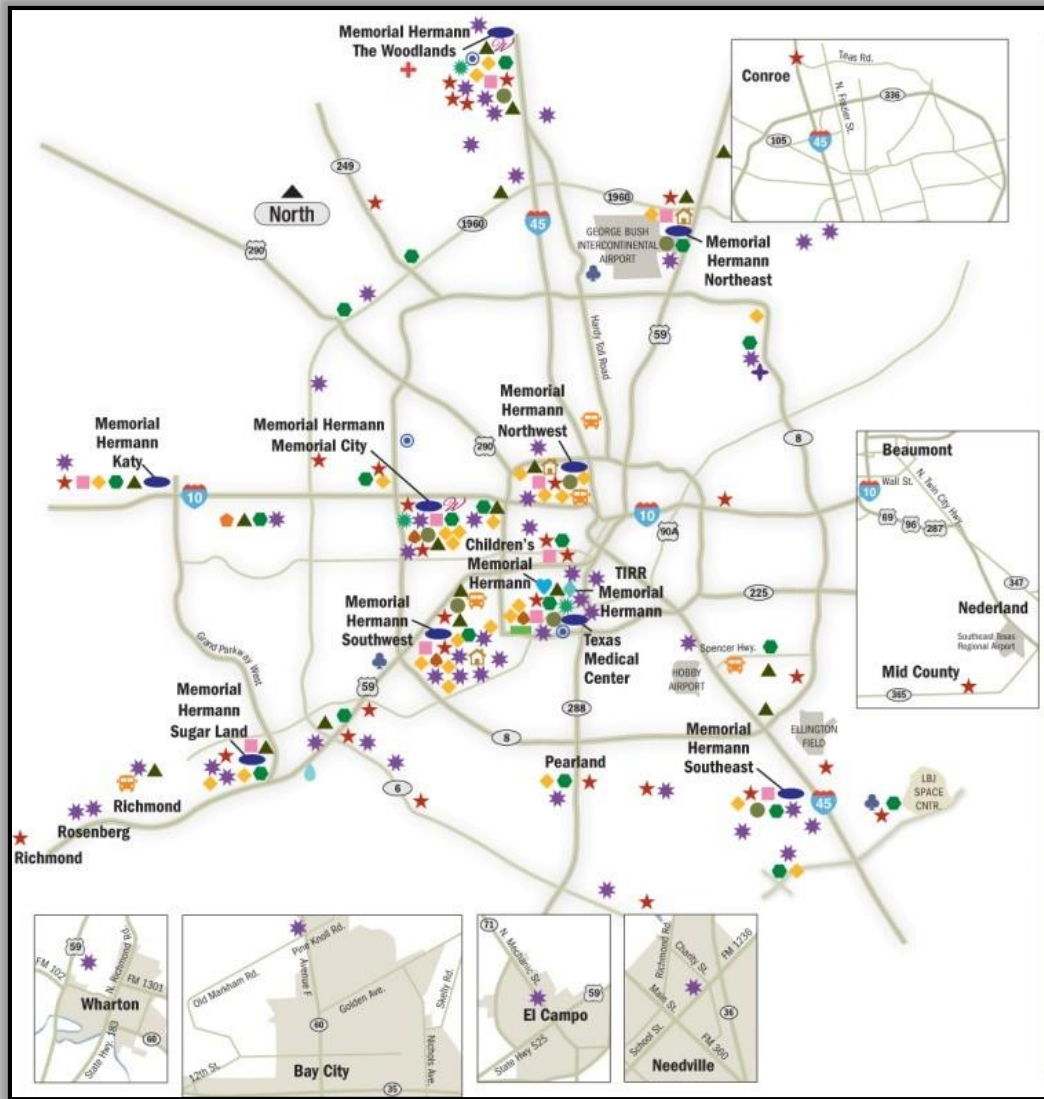
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# Memorial Hermann Network



## MH Health System

- \$5 Billion Total Operating Revenue
- 4.6% Operating Margin
- 25,000 Employees
- 16 Hospitals
- 250+ Care Delivery Sites

## MH Physician Network (MHMD)

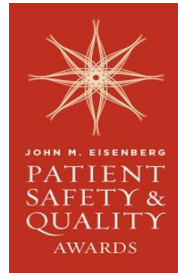
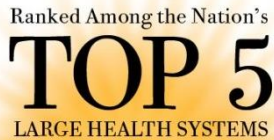
- 2,000 ACO Physicians
- 400 Patient-Centered Medical Home Physicians
- >650 total PCPs
- Additional 800 Specialty Physicians from University of Texas Medical School (UT Health)

# Recent Accolades

## Quality – A competitive advantage for Memorial Hermann



15 Top Health Systems; Top 5 Large Health Systems (2012 & 2013)



John M. Eisenberg National Patient Safety & Quality Award (2012)



National Quality Forum National Quality Healthcare Award (2009)



TIRR Memorial Hermann No. 2 in rehabilitation hospitals



Texas Hospital Association Bill Aston Quality Award (2011)



Healthcare's "100 Most Wired" 12<sup>th</sup> consecutive year



America's #1 Quality Hospital for Overall Care (2011 & 2012)



America's 50 Best Hospitals (2010-2014)



The Joint Commission Top Performer (2012), Heart Attack, Heart Failure, Pneumonia, Surgical Care



2011 Texas Healthcare Foundation Quality Improvement Awards (9 Memorial Hermann Campuses)



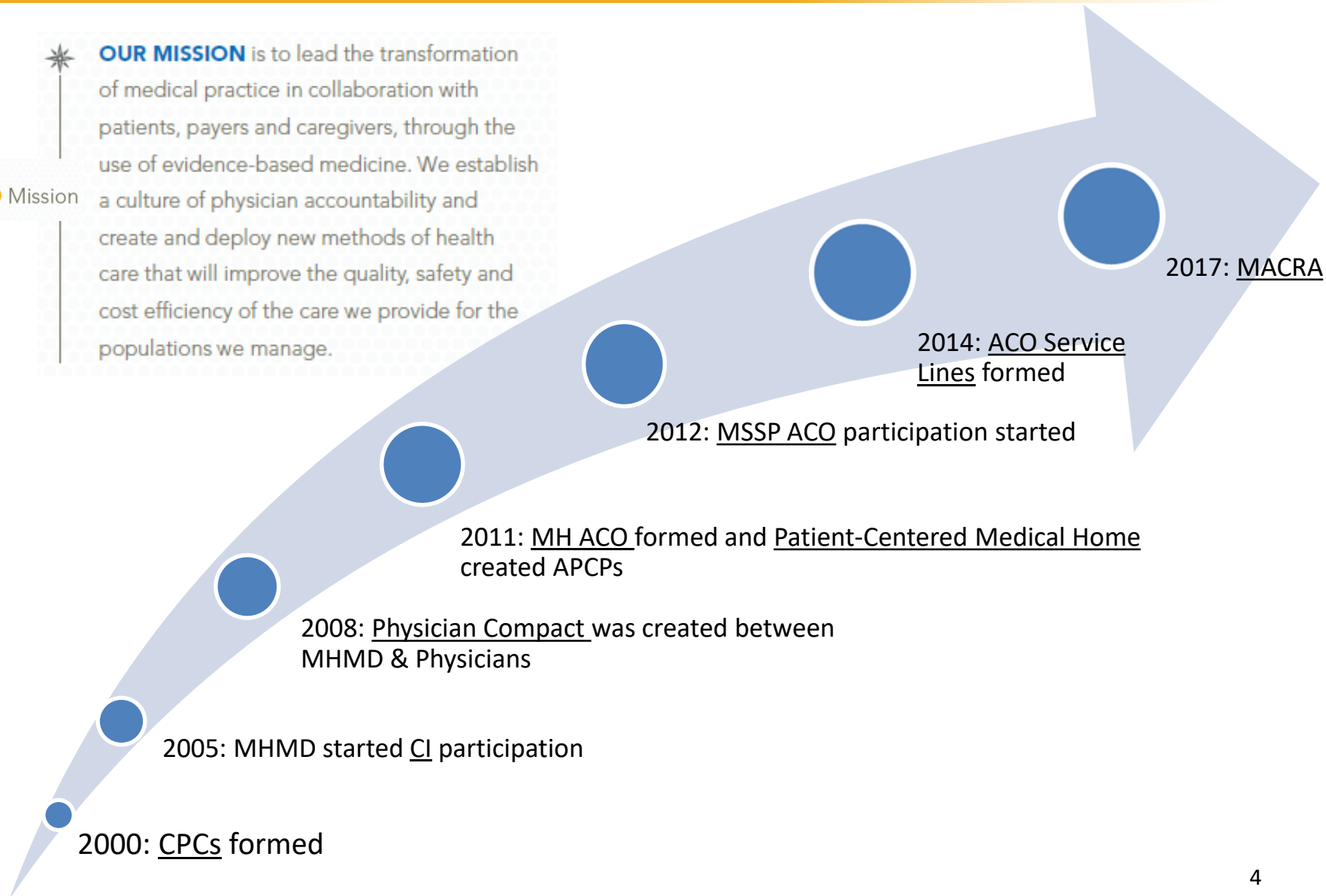
The Woodlands, Southeast, Southwest, Greater Heights, Memorial City

# MHMD Journey



**OUR MISSION** is to lead the transformation of medical practice in collaboration with patients, payers and caregivers, through the use of evidence-based medicine. We establish a culture of physician accountability and create and deploy new methods of health care that will improve the quality, safety and cost efficiency of the care we provide for the populations we manage.

## MHMD Mission





# Strategic Growth in Health Care



## Network Delivery Strategies

- Acute Care Services
- Professional Services
- Home Care Services
- Ancillary Services
- Post Acute Services
- Retail Care Services



## Covered Lives Strategies

- Medicare (MA) at Risk Plans
- Medicaid at Risk Plans
- Commercial at Risk Plans
- Health Exchanges
- Self-Funded Plan Sponsored

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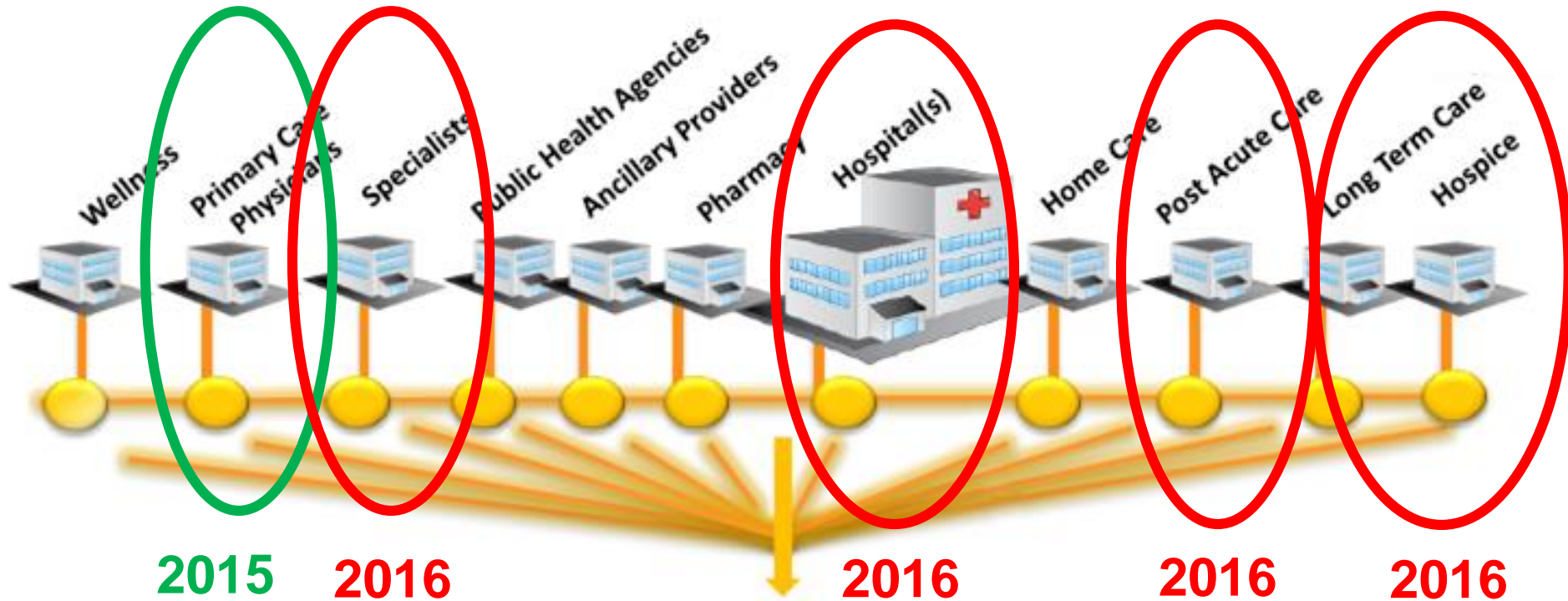
## Service Line Products

- High Value Specialty Networks
- High-end Quaternary Offerings/  
Centers of Excellence
- Virtual Health Services

CLINICAL INTEGRATION

ENABLING TECHNOLOGY & DATA ANALYTICS INFRASTRUCTURE

# Transformation of the Care Delivery Network



**MHMD Clinically Integrated Health Network**

# 2016 MHMD CPC Structure

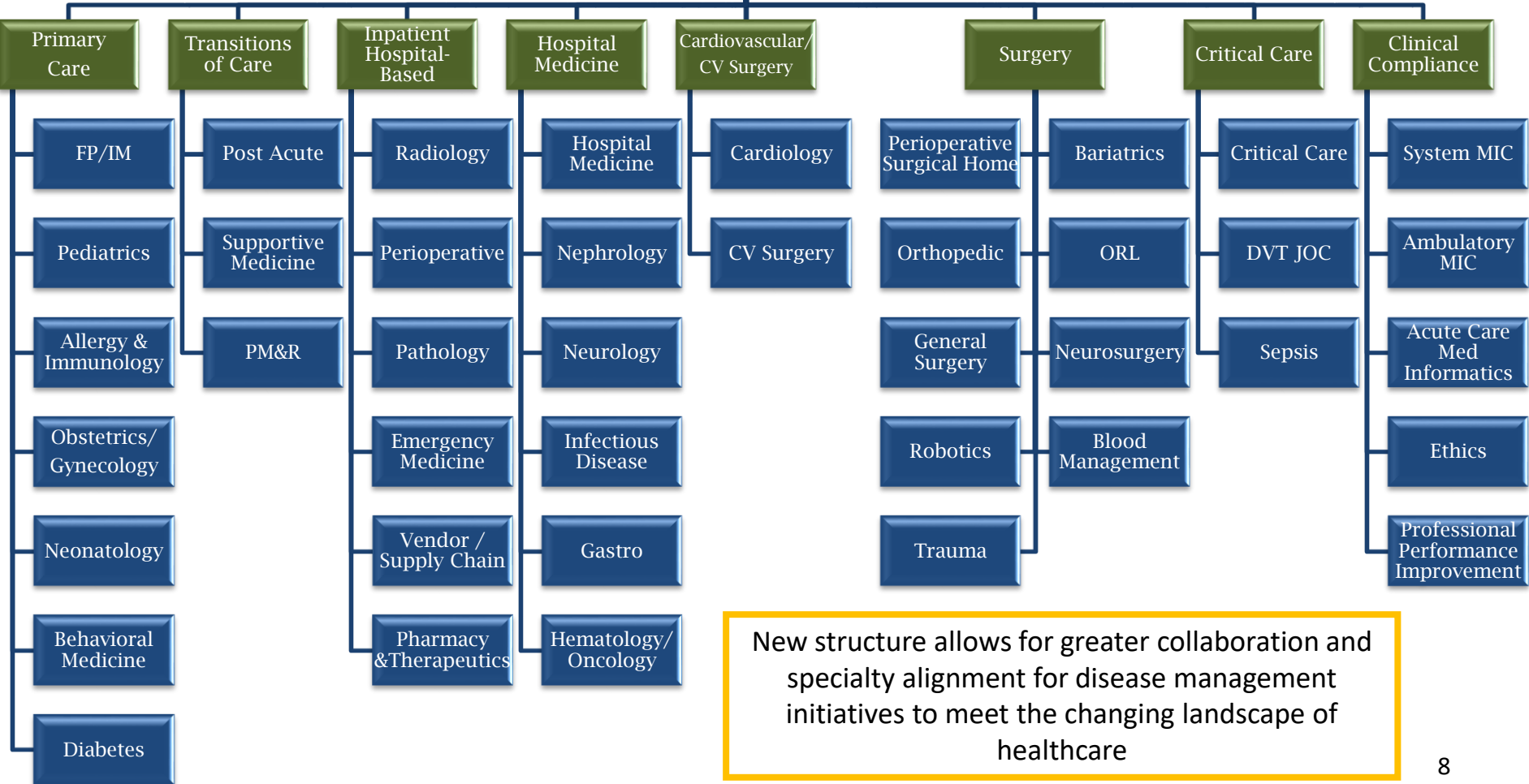
## Guiding Principles

- ❖ Decrease Unnecessary Clinical Variation
- ❖ Improve Safety and Reliability of Care
- ❖ Rationalization of Services and Resources
- ❖ Standards for Medical Necessity

MHMD Full CPC

Innovation

MHPP



New structure allows for greater collaboration and specialty alignment for disease management initiatives to meet the changing landscape of healthcare



# Cost Savings Opportunity for Top 20 DRGs

Top AP RDRGs	APR-DRG Description	APR Service Line
560	Vaginal delivery	Obstetrics/Delivery
720	Septicemia & disseminated i..	Infectious Disease
540	Cesarean delivery	Obstetrics/Delivery
004	Tracheostomy w MV 96+ hou..	General Surgery
173	Other vascular procedures	Cardiovascular Surg
002	Heart &/or lung transplant	Transplant Surgery
175	Percutaneous cardiovascular..	Invasive Cardiology
161	Cardiac defibrillator & heart a..	Cardiac Surgery
194	Heart failure	Cardiology
710	Infectious & parasitic disease..	General Surgery
045	CVA & precerebral occlusion ..	Neurology
313	Knee & lower leg procedures..	Orthopedic Surgery
221	Major small & large bowel pr..	General Surgery
021	Craniotomy except for trauma	Neurological Surgery
302	Knee joint replacement	Orthopedic Surgery
912	Musculoskeletal & other proc..	General Surgery
460	Renal failure	Nephrology
301	Hip joint replacement	Orthopedic Surgery
640	Neonate birthwt >2499g, nor..	Neonatology
304	Dorsal & lumbar fusion proc ..	Orthopedic Surgery

13 focus DRGS = \$140M in opportunity

# Strategic Growth in Health Care



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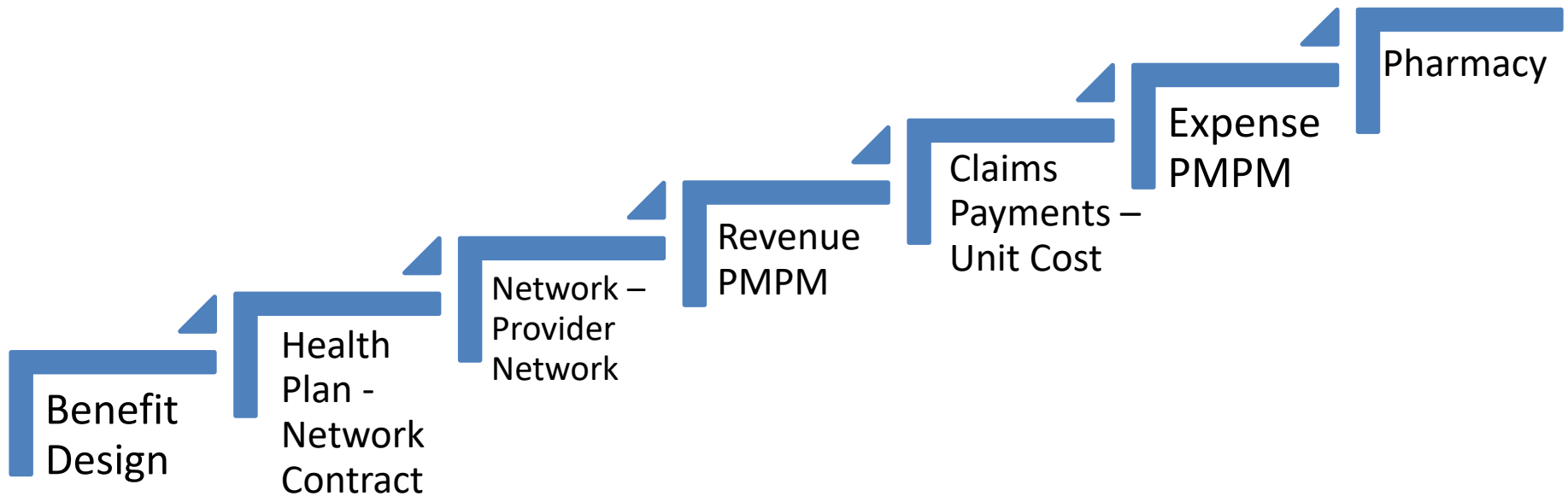
CLINICAL INTEGRATION

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# Covered Lives






# Success in Premium Strategy



# Medicare Shared Savings Program

## TOP PERFORMING ACO IN THE COUNTRY

	YEAR 1	YEAR 2	YEAR 3
	<b>\$58</b> MILLION in Savings	<b>\$53</b> MILLION in Savings	<b>\$89</b> MILLION in Savings
	<b>34,430</b> Beneficiaries	<b>40,911</b> Beneficiaries	<b>50,055</b> Beneficiaries
	<b>83%</b> Quality Score	<b>88%</b> Quality Score	<b>96%</b> Quality Score

# Our Population Outcomes

Fully and self-insured population of 28,529 members



40%

Fewer outpatient surgery cases per/1,000<sup>1</sup>



20%

Fewer high-tech imaging scans per/1,000<sup>1</sup>



9%

Fewer impactable medical admits per/1,000<sup>1</sup>



8%

Fewer hospital bed days per/1,000<sup>1</sup>



4%

More generic drug prescribing in top 4 drug classes<sup>1</sup>



7%

Better than national average quality scores on  
Cardiac Post MI Beta Blockers<sup>2</sup>

# Strategic Growth in Health Care



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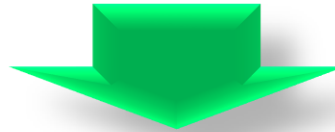
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CLINICAL INTEGRATION

ENABLING TECHNOLOGY & DATA ANALYTICS INFRASTRUCTURE

CPC

## Clinical Programs Committee



## Clinical Service Lines

Campus





# Service Lines Focus Areas

## Acute Care Focus

Focused on increasing efficiency and decreasing cost for Medicare patients



Centered on pre-acute, acute, and post-acute transitions of care



Concentrated on preparing for risk-based contracts, bundled payments, and capitation



## Strategic Priorities



# FY16 Performance

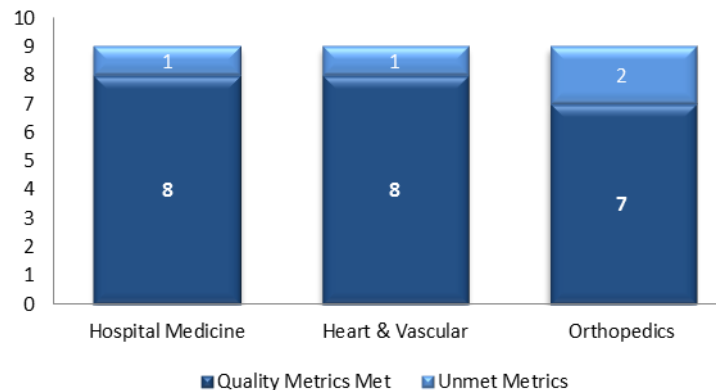
43 % of SL Projects decreased their FY16 Annualized LOS

Baseline FY15 Annualized LOS

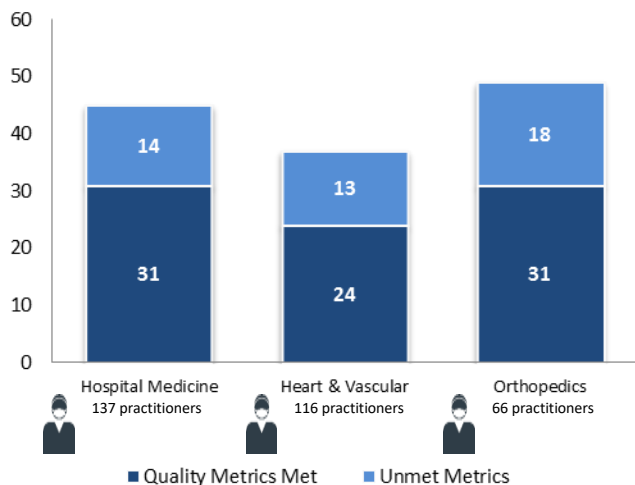


FY16 Annualized LOS

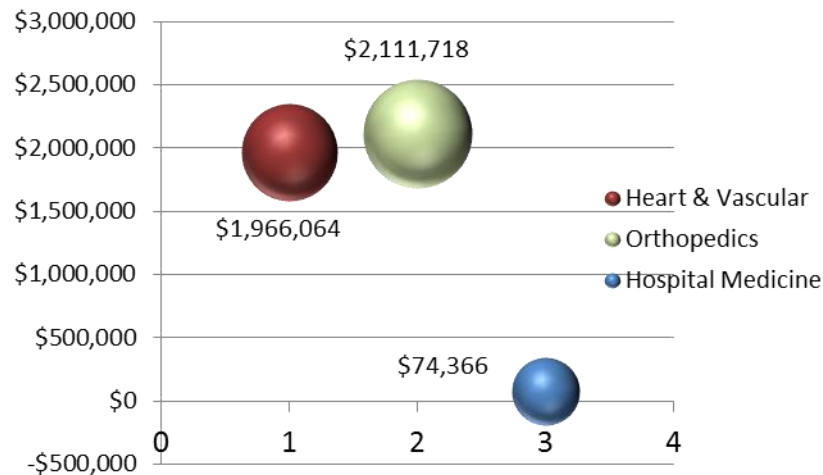
Patient Satisfaction at Threshold or Above\*



Quality Metrics Met at Threshold or Above \*

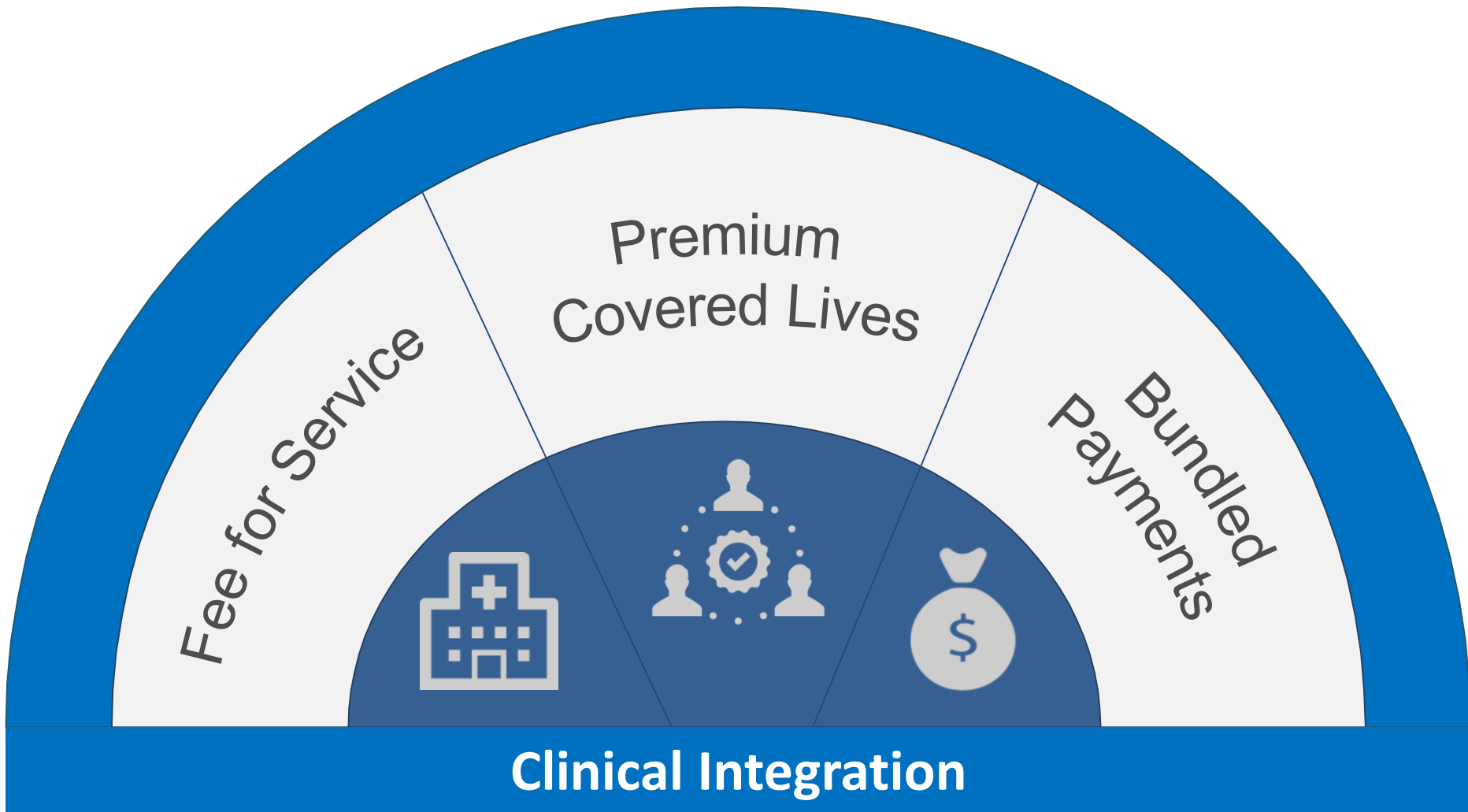


Supply Savings



\* Data based on FY16 reporting period

# Clinical Integration: A Financial Imperative



# CMS Quality Metrics

## Safety of Care

- Complication Rate for Hip/Knee Replacements
- Serious Complications (AHRQ)
- Deaths Among Patients with Serious Treatable Complications
- ICU and Select Ward CLABSI
- ICU Only CLABSI
- ICU and Select Ward CAUTI
- ICU Only CAUTI
- SSI: Colon
- SSI: Hysterectomy
- MRSA Bloodstream Infections
- C. Diff Intestinal Infections

## Efficient Use of Medical Imaging

- OP Low Back Pain MRI w/o treatment recommendation
- OP with f/u Mammogram, U/S or MRI breast w/in 45 days
- OP CT Chest Double Scans
- OP CT Abdomen Double Scans
- OP w/ Cardiac Imaging Stress Test Before Surgery
- OP with Brain CT + Sinus CT

## Patient Experience

- Nurse Communication
- Physician Communication
- Timely Help
- Pain Control
- Medicine Explanation
- Clean Rooms and Bathrooms
- Quiet at Night
- Home Recovery Education
- Care Understood at Discharge
- 9 or 10 rating
- Patients who Recommend

## Payment & Value of Care

- Medicare Spending per Beneficiary
- Payment for Heart Attack, Heart Failure and Pneumonia Patients (x3)
- Value of Care for Heart Attack, Heart Failure and Pneumonia Patients
  - Death Rate (x3)
  - Payment (x3)

## Timeliness & Effective Care

- Colonoscopy
  - Recommendation for Follow-Up Colonoscopy Screening
  - Polyps Receiving Timely Follow-Up
- Heart Attack
  - Outpatient Chest Pain Specialized Transfer
  - Outpatient Chest Pain to EKG Time
  - Outpatients Chest Pain Receiving Clot Busters within 30 minutes
  - Outpatients Chest Pain Aspirin within 24 Hours
  - Heart Attack Receiving Clot Busters within 30 minutes
  - Heart Attack Coronary Intervention within 90 minutes
- Heart Failure
  - Evaluation of LVS Function
- Pneumonia
  - Most appropriate initial antibiotics
- Surgical Care
  - Pre-Op Antibiotic Administration Timeliness
  - Post-Op Antibiotic Discontinuation Timeliness
  - Peri-Operative Clot Therapy Timeliness
  - Perioperative B-Blocker Management
  - Appropriate Antibiotics
  - Urinary Catheter Removal Post Op Day 1 or 2
- ED Care
  - Broken Bones Pain Medication
  - Left Without Being Seen
  - Stroke Brain Scan within 45 minutes
  - Time to Admission
- Time to Inpatient Room
- Time Spent in ED
- Time Spent before Healthcare Professional
- Preventive Care
  - Patients Assessed and Influenza Vaccination
  - Healthcare Workers Influenza Vaccination
- Children's Asthma
  - Home Management Plan of Care
- Stroke
  - Clot Busters within 3 hours of Symptoms - Ischemic
  - Clot Complication Prevention within 2 days of Admission – Ischemic
  - All Stroke – Clot Prevention w/in 2 days of Admission
  - Prescription for Clot Prevention – Ischemic
  - Arrhythmic Stroke Prescribed Blood Thinner
  - Ischemic Stroke with Prescription for Cholesterol
  - All Stroke Written Education Materials
  - All Stroke Evaluated for Rehab
- Clot Prevention
  - Admission and Perioperative Clot Prevention
  - ICU Clot Prevention
  - Patients with Clots not Receiving Clot Prevention
  - Clot Patients Receiving Recommended Treatment
  - Clot Patients Blood Thinner Complication Screening
  - Clot Patients Discharged on Blood Thinner Written Education
- Pregnancy & Delivery
  - Too-Early Delivery Scheduling

## Readmissions & Mortality

- 30 Day Hospital-Wide Readmissions
  - COPD, Heart Attack, Heart Failure, Pneumonia, Stroke, CABG
    - Readmissions (x6)
    - Death (x6)
- Hip & Knee
  - Readmissions

# Overview: How did they do it? (from 2011)

## Metrics Transparency & Control

“Five or six years ago we didn’t think we could prevent these infections. They were like an act of God. But if you follow certain procedures to a “T,” you can prevent them almost every time.

If I show you the curve of our infection rate and the point at which we started making measurements and publishing them, the rate goes down like it’s off a cliff.”

- Michael Shabot MD, FACS, CMO, Memorial Hermann Health System

## Decision Rights

“Basically, we are handing them (the clinically integrated network) the keys ... They will be setting the protocols and the care management strategies for the entire system.”

- Dan Wolterman, President and CEO Memorial Hermann Health System

# Mitigating Clinical & Financial Risk: Purpose

- Achieve measurable, systematic and evidence-based continuous performance evolution by enhancing collaborative physician, clinician and management entities
- Mitigate clinical and financial risk under emerging payment models

# Mitigating Clinical & Financial Risk: Approach

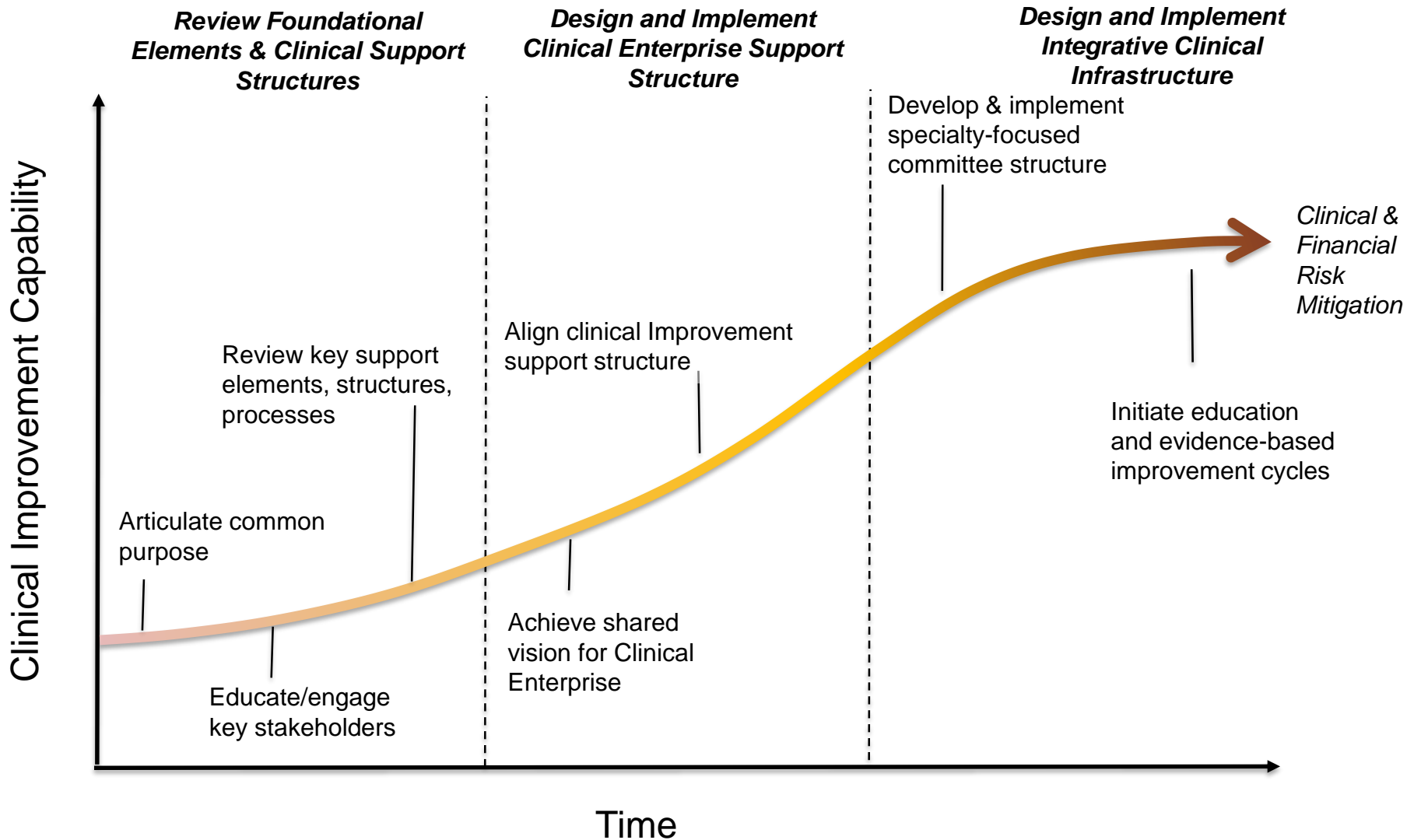
- **Clinical Integration**

- *A system, process and infrastructure* to engage physicians and clinicians in continuous improvement decision making with appropriate informational and executional support, as well as oversight and accountability
  - Accomplished through a specialty-focused committee infrastructure that serves as an improvement engine
  - Infrastructure is supported by any department that can help feed evidence to decision makers, or help practicing clinicians execute their decisions (clinical and administrative)
  - A common understanding of purpose, approach and expectations creates an environment that allows the above to succeed
  - Robust and cyclical reporting processes provide clear ROI value of improvement activities

- **Physician/Clinician Engagement**

- *An approach and process* for communicating with, educating, convincing and co-opting physicians as collaborative decision makers in continuous performance improvement

# Timeline

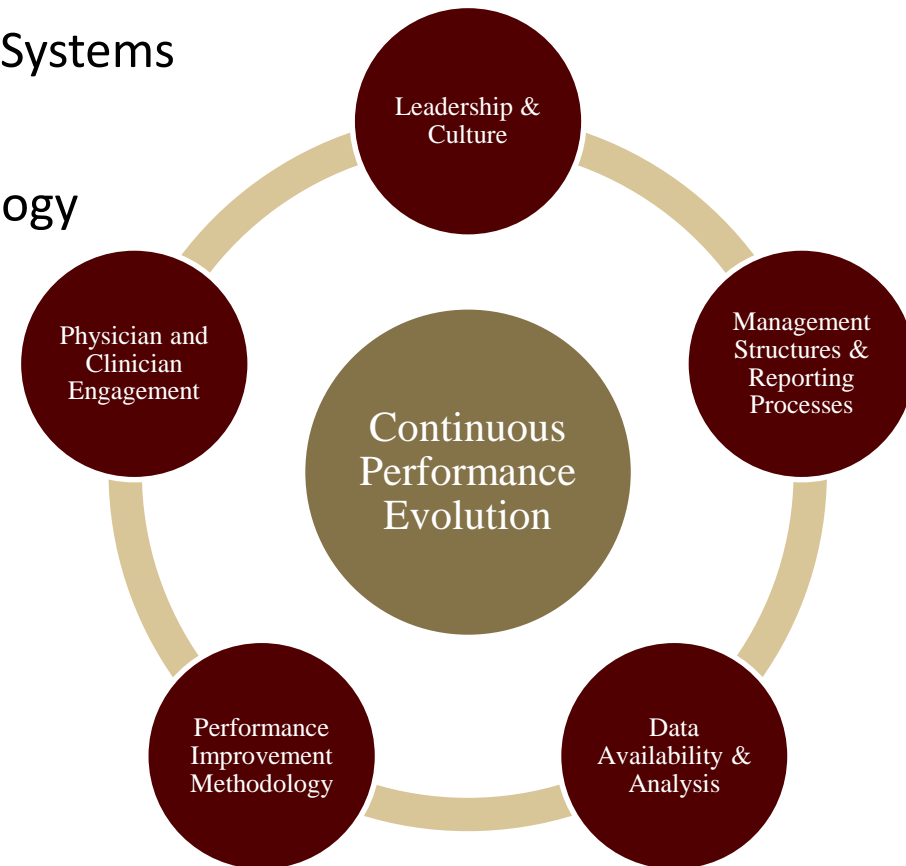




# Mitigating Clinical & Financial Risk: Success Factors

## Critical Success Factors

- Leadership & Culture
- Management Structures & Reporting Systems
- Data Availability & Analysis
- Performance Improvement Methodology
- Physician & Clinician Engagement



# Approach and Best Practice Infrastructure

**1.** Foundational elements can be assessed for consistency with leading practice and functionality.

## Critical Success Factors (Environment for Change)

Leadership & Culture	Structures & Systems	Data Processes & Systems
Process Improvement	Clinician Engagement	

**2.** Alignment of support resources to assist the ongoing work of the clinical decision-making infrastructure.

## Aligned Support Structure

Quality	Patient Safety	Infection Control
Clinical Data Management	Performance Improvement	Clinical Documentation
Care Management	Nursing	Pharmacy

**3.** Specialty focused committee infrastructure brings clinicians and others together for collaborative identification, prioritization, planning and implementation of evidence-based improvements.

## Integrated Clinical Decision-Making Infrastructure

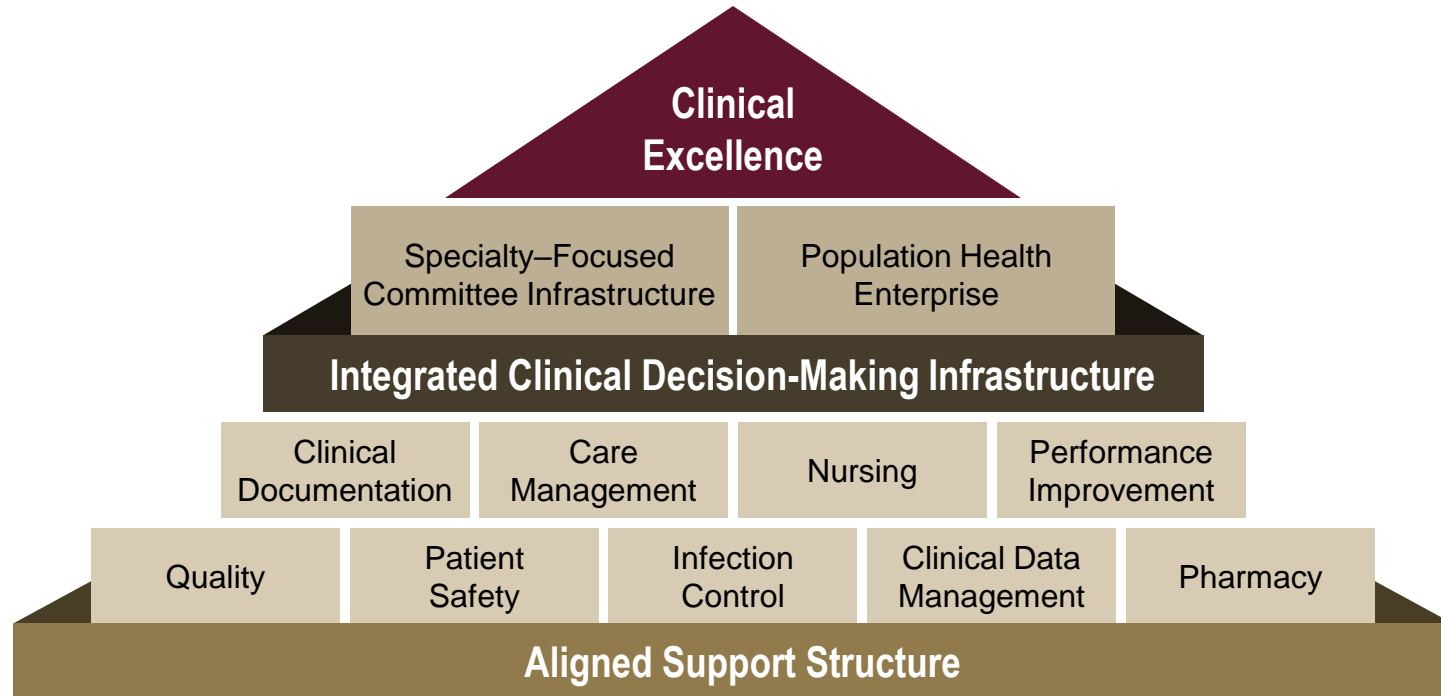
Specialty-Focused Committee Infrastructure	Population Health Enterprise
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**4.** Together, the integrated structure mitigates clinical and financial risk, and aligns patient outcomes, quality metrics, and emerging payment models.

## Clinical Excellence

Clinical Risk Mitigation (Improved Patient Outcomes)	Financial Risk Mitigation (Improved Financial Performance)
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# Improvement Engine Structure



## Aligned Support Resources Enable:

- Common PI and clinician engagement methodology and education for viral spread
- Known resource for bedside caregivers
- Common data report, analysis, vetting and validation processes
- Widespread cultural transformation focused on performance improvement and results

## Committee Infrastructure Enables:

- Intra- and inter- specialty coordination of services
- Common policies, protocols and procedures
- Common reporting processes including clinical, operational and financial results
- Functional and evidence-based self-governance
- Accountability mechanisms

# Improvement Engine Output – 6 Month Sample

1. TAT for CT Head for Stroke Pts in ED
2. Compliance with cardiac/CABG post op blood glucose protocol
3. Nursing Implementation of VTE prophylaxis in the ICU
4. Ensure antibiotics are discontinued within 24 hours post-op for appropriate SCIP pts
5. Ensure VTE prophylaxis is implemented for all SCIP pts
6. Stroke eligible patients are discharged on Statins
7. AMI eligible patients are discharged on Statins
8. Dietary instructions for patients discharged on warfarin
9. Post hospitalization follow up instructions for patients discharged on warfarin
10. Removal of Foley catheter on post-op day 1 or 2
11. Accurate identification of surgical patients on beta blockers
12. Process to ensure VTE screening for all patients in the ICU within 24 hours
13. Hand off communication between ED and ICU
14. Pneumococcal vaccine 6-64 years
15. Process to ensure glucose levels for diabetic patients are accurately assessed prior to CV surgery
16. Appropriate weight based dosing of antibiotic prophylaxis prior to CV surgery
17. Consistent practice of aseptic technique throughout scheduled C-Section cases in L&D ORs
18. Process to ensure pre-op bathing via evidence based practice
19. Consistent coagulation TAT for code stroke patients
20. Appropriate post case cleaning of L&D Ors
21. Central sterile processing best practices
22. Surgical site infection report card
23. Standardized operating room scrub attire
24. Pre-op bathing of scheduled surgical outpatients
25. Bowel management in rehabilitation patients
26. Reducing catheter UTIs in spinal cord injury patients
27. Operating room cleaning policy and protocol
28. CHG bathing before craniotomy
29. Development of automated list to identify SCIP pts
30. Increase accuracy of medication home list upon admission
31. Increase compliance for VTE overlap therapy
32. Accurate screening and admin of pneu and flu vaccine for pediatric pts
33. Accurate screening and admin of pneu and flu vaccine for adult pts
34. Wrong site surgery
35. Preventing deliveries prior to 39 weeks
36. Formalized process for initiating Safety Coach program
37. Preventing gross contamination in C-Section cases
38. Increase meeting education needs for post-op renal pts re dialysis devices
39. Pre-op hair clipping before entering OR
40. Standardized process for continued auditing of Midas security and reports by the business unit
41. Methodology to optimize communication needs for reports/data to QPSIC DM staff

“We’re building these high value networks on ideology and ability to perform rather than on historical performance.”

-Shaun Anand, MD

“If you don’t like change, you’re going to like irrelevance even less.”

-Eric Shinseki

# References

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