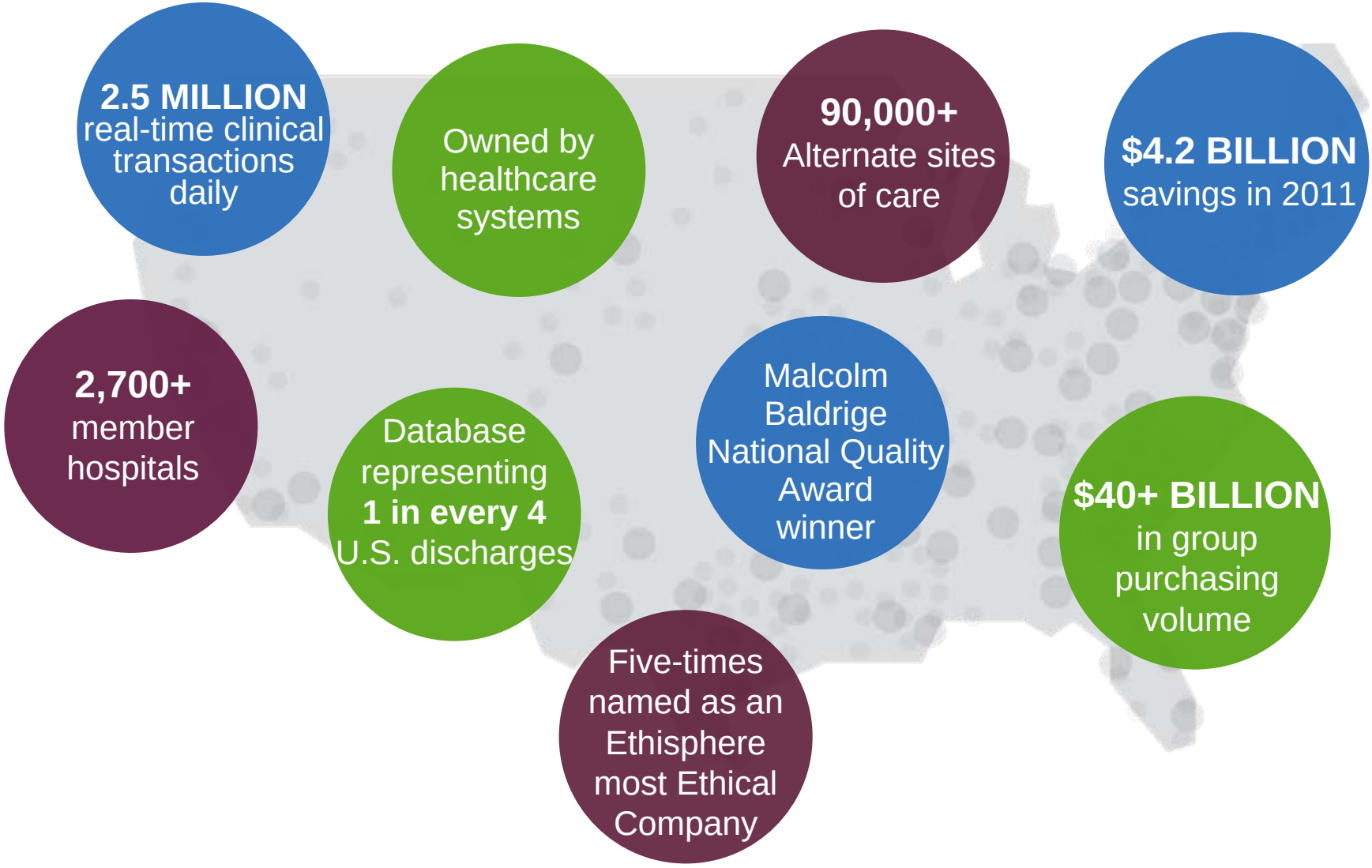
PREMIER

Hospital Value Based Payment: Preparation through QUEST, PFP and review of waste

The National Pay for Performance Summit
February 19, 2013
Hyatt Regency San Francisco, CA

Premier is the nation's largest healthcare alliance

Our mission: To improve the health of communities



Today's agenda

- Value Based Purchasing and what to expect
  - Changing landscape and quality journey
  - Premier collaboratives
  - Mountain States Healthcare experience
- Partnership for Patients
  - Program goals and results
  - Carle Foundation experience
- Strategies to eliminate costs and reduce waste - the future
  - Premier waste report and its use
  - Audience discussion

Faculty

- **Monica Barrington**
  Vice President, Engagement and Delivery, Premier Performance Partners, Premier healthcare alliance

- **Mark Hiller**
  Vice President, Innovative Solutions, Premier healthcare alliance

- **Susan R. Kennedy**
  Senior Quality Project Analyst, Mountain States Health Alliance, Johnson City, TN

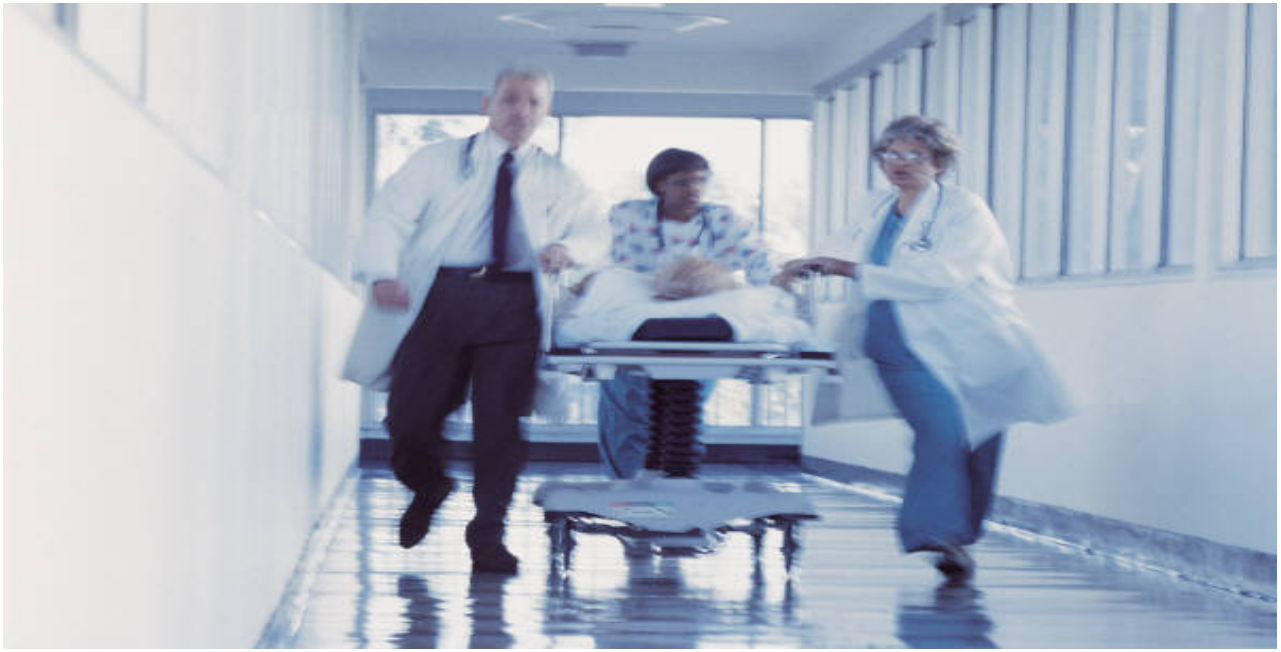
- **Napoleon Knight, MD**
  Medical Director, Hospital Medicine and Associate Medical Director, Quality for Carle Foundation Hospital and Physician Group, Urbana, IL

- **Carolyn Scott**
  Service Line Vice President, Premier Performance Partners, Premier healthcare alliance

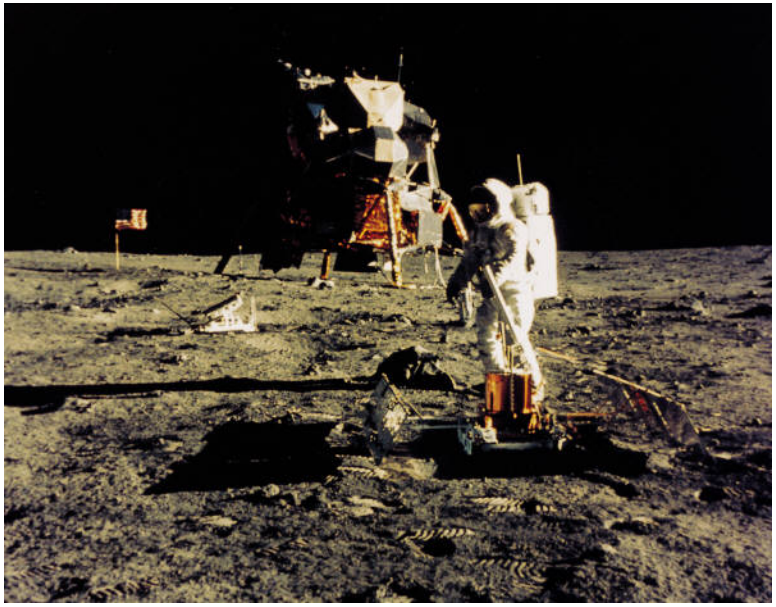
Value Based Purchasing and what to expect

Carolyn Scott, RN, M. Ed., MHA
Service Line Vice President
Premier healthcare alliance

The changing landscape of healthcare quality



Your organization's understanding of the quality imperative



The quality journey – 2003 to present

Value-based purchasing: HACs, quality, efficiency, cuts

Partnership for Patients

Bundled payment

Medical home

Shared savings & Global payment

MOVEMENT TO INTEGRATED CARE, NEW PAYMENT MODELS & RISK

High Performing Hospitals
- Most efficient supply chain
- Best outcomes in quality, safety
- Waste elimination
- Satisfied patients

High Value Episodes
- DRG and episode targeting
- Care models and gainsharing
- Data analytics
- Cost management

Population Management
- Population analytics
- Care management
- Financial modeling and management
- Legal
- Physician integration

Reform's bending the curve "Strategic" plan

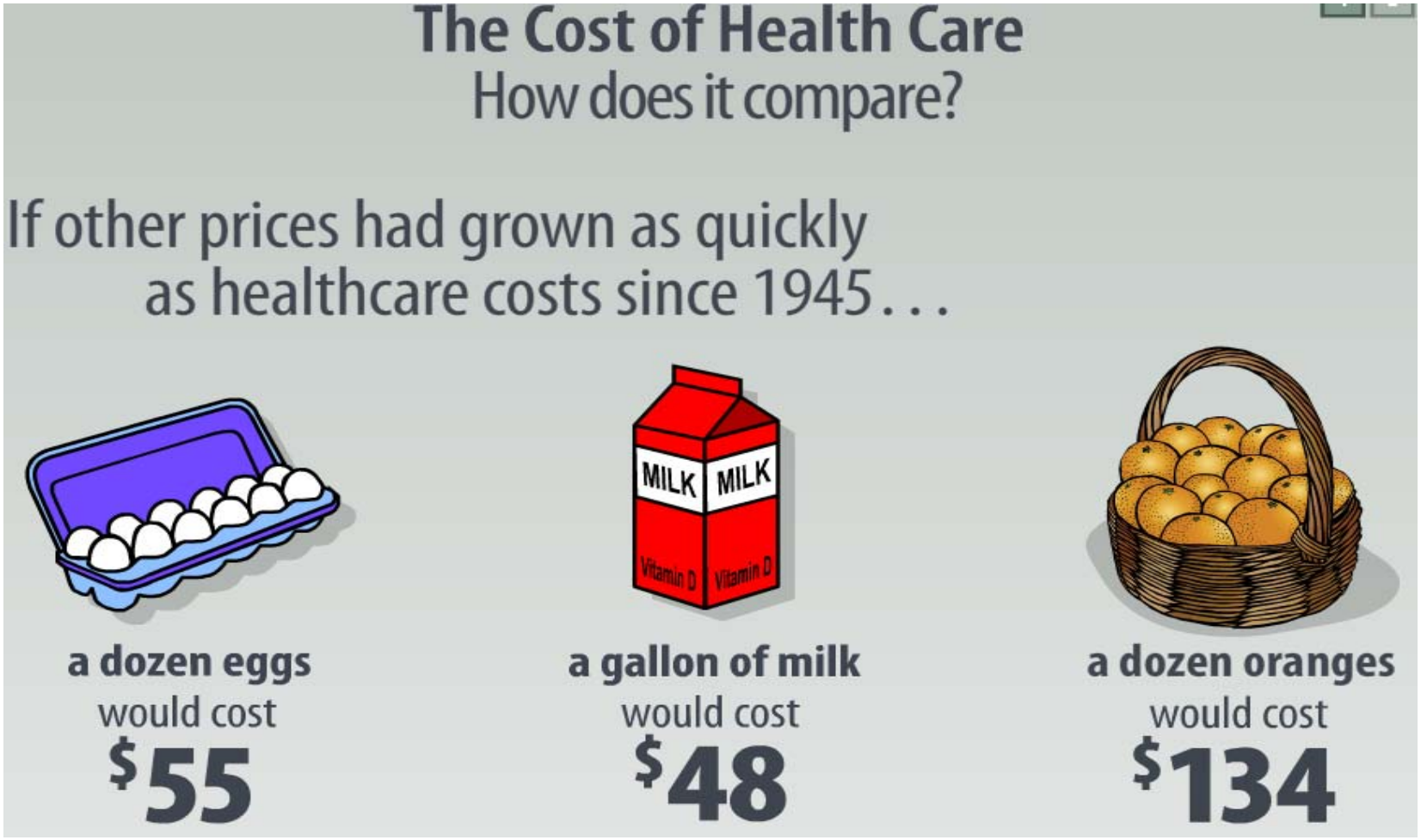
Cuts to Existing [illegible]

- Market baske[illegible]
- DSH cuts
- P4P & Nonpayment for anything preventable or unnecessary

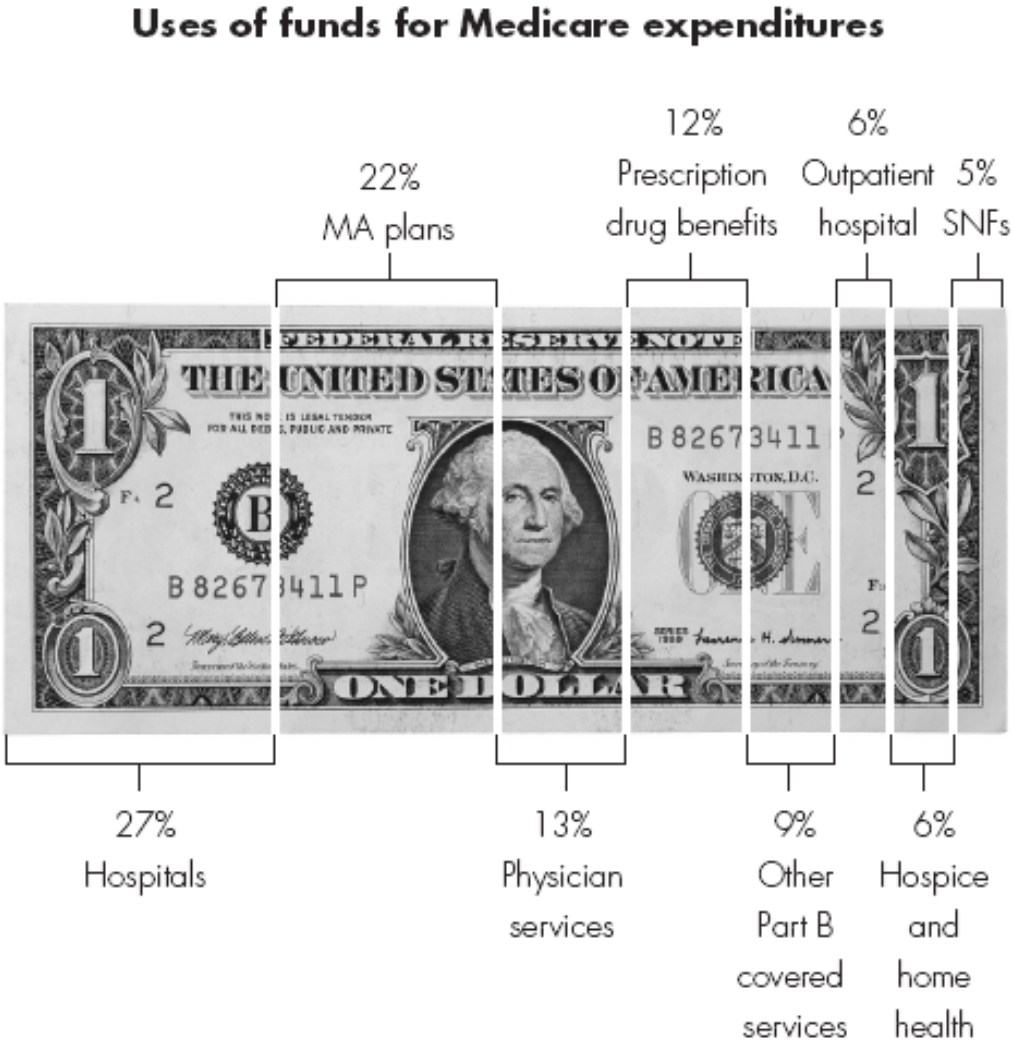
[illegible]ot Existing System

- Bundled Payments
- Innovation Center/ demonstrations
- ACOs

The cost of healthcare

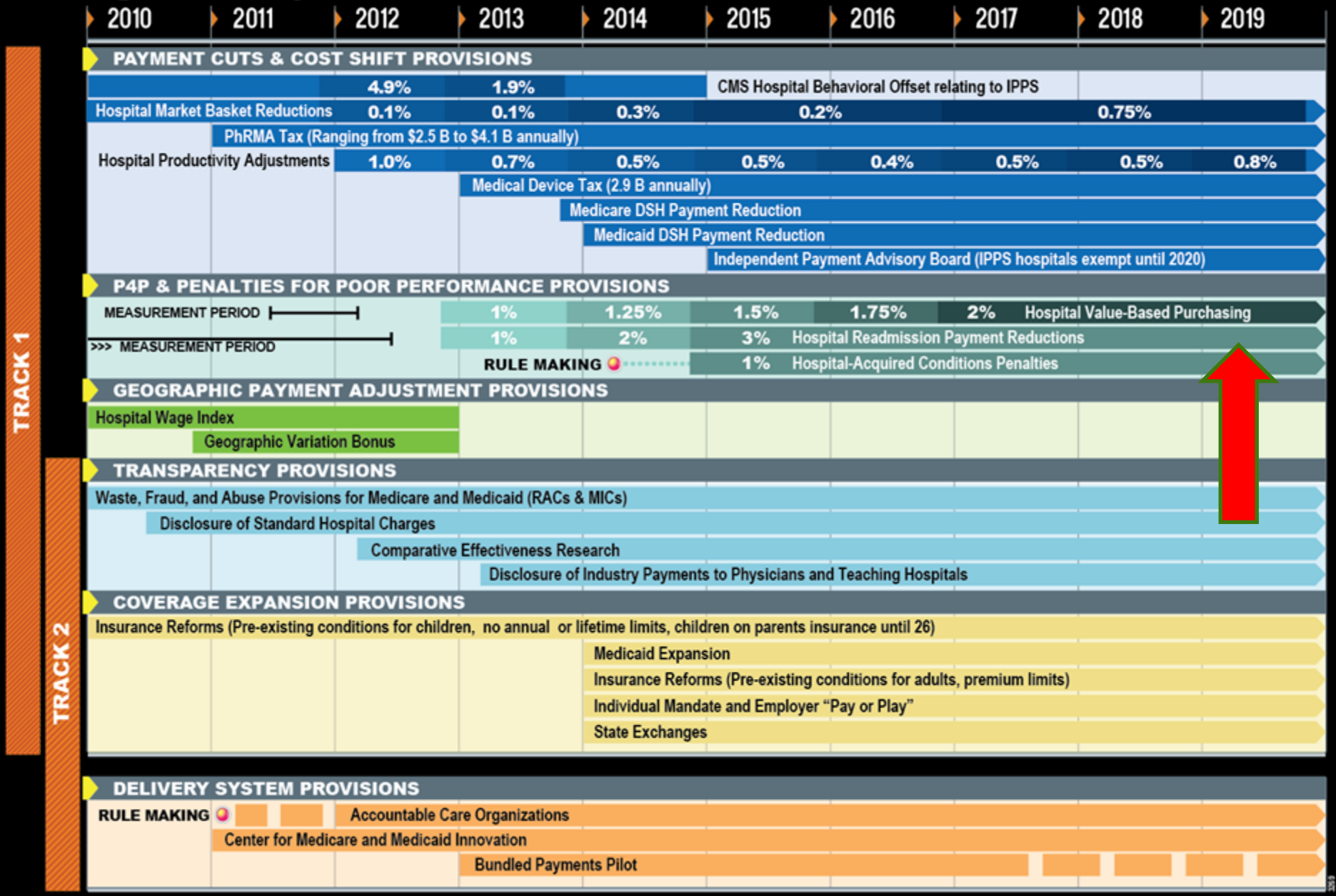


Medicare's biggest target



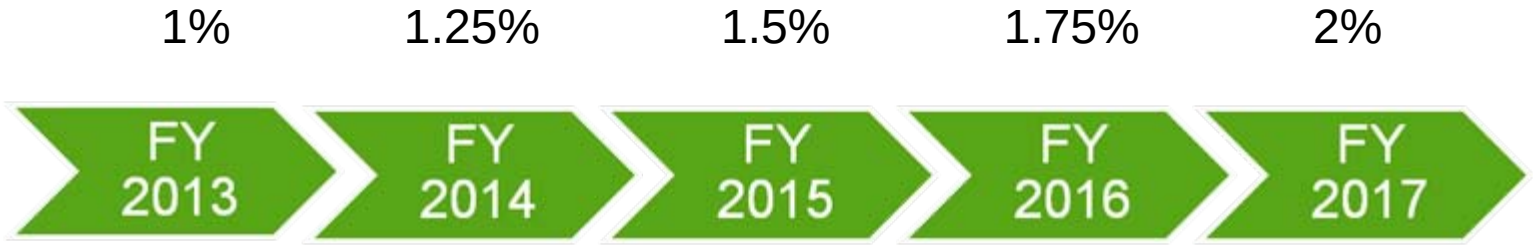
MedPAC Report to the Congress: Medicare Payment Policy, March 2011

Changes are upon us now!



Inpatient Value-Based Purchasing ("VBP")

- VBP policies have been included across numerous regulation in the past 1.5 years—VBP, IPPS and OPPS.
- A percent of inpatient operating payments are and will continue to be at stake depending upon quality of outcomes.



- Rewards for achievement or improvement

VBP 2013 measures and weighting

70% Weight:
12 **clinical process** measures

- Acute myocardial infarction
- Heart failure
- Pneumonia
- Surgery
- Surgical infections

30% Weight:
8 **patient experience** measures

- Communication with nurses
- Communication with doctors
- Responsiveness of staff
- Pain management
- Communication about medicines
- Cleanliness and quietness of environment
- Discharge information
- Overall rating

Clinical Process & Patient Survey Timeline for FY 2013 Payment

- Baseline July 1, 2009 to March 31, 2010
- Performance July 1, 2011 to March 31, 2012

VBP into the future

- **Expands to include mortality in 2014**
- **Expands in 2015 to include**
  - The “Efficiency Measure”: Medicare Spending per Beneficiary (A/B);
  - AHRQ Patient Safety Indicator composite measure; and
  - Central Line-Associated Blood Stream Infection measure.

AHRQ PSI Composite Measure Patient Safety for Selected Indicators (PSI #90)	
PSI #03 Pressure Ulcer Rate1	PSI #11 Postoperative Respiratory Failure Rate2
PSI #06 Iatrogenic Pneumothorax Rate1	PSI #12 Postoperative Pulmonary Embolism or Deep Vein Thrombosis Rate1
PSI #07 Central Venous Catheter-Related Blood Stream Infection Rate1	PSI #13 Postoperative Sepsis Rate1
PSI #08 Postoperative Hip Fracture Rate1	PSI #14 Postoperative Wound Dehiscence Rate1
PSI #09 Postoperative Hemorrhage or Hematoma Rate2	PSI #15 Accidental Puncture or Laceration Rate1
PSI #10 Postoperative Physiologic and Metabolic Derangement Rate2	

Hospital readmissions reduction program

- Hospital-specific payment adjustment factor has been applied to inpatient claims beginning Oct 1, 2012.

- Uses 30-day AMI, HF and PN measures based on 3 years of data (July 1, 2008 - June 30, 2011 for FY 2013).

- Applies to wage-adjusted base operating DRG payment amount (includes new tech add-on payment only, no adjustments for DSH, IME, outlier, or low volume).

Readmissions into the future

- **Expands in 2015 to include at least:**
  - Coronary Artery Bypass Graft;
  - Chronic Obstructive Pulmonary Disease;
  - Percutaneous Coronary Intervention; and
  - Other vascular Conditions.
- **Adds to the Hospital Inpatient Quality Reporting program that are likely to be adopted in the penalty program in the future:**
  - 30-day Hip/Knee readmissions
  - Hospital-Wide All-Cause Unplanned Readmission (HWR)

Hospital Inpatient Quality Reporting
Summary

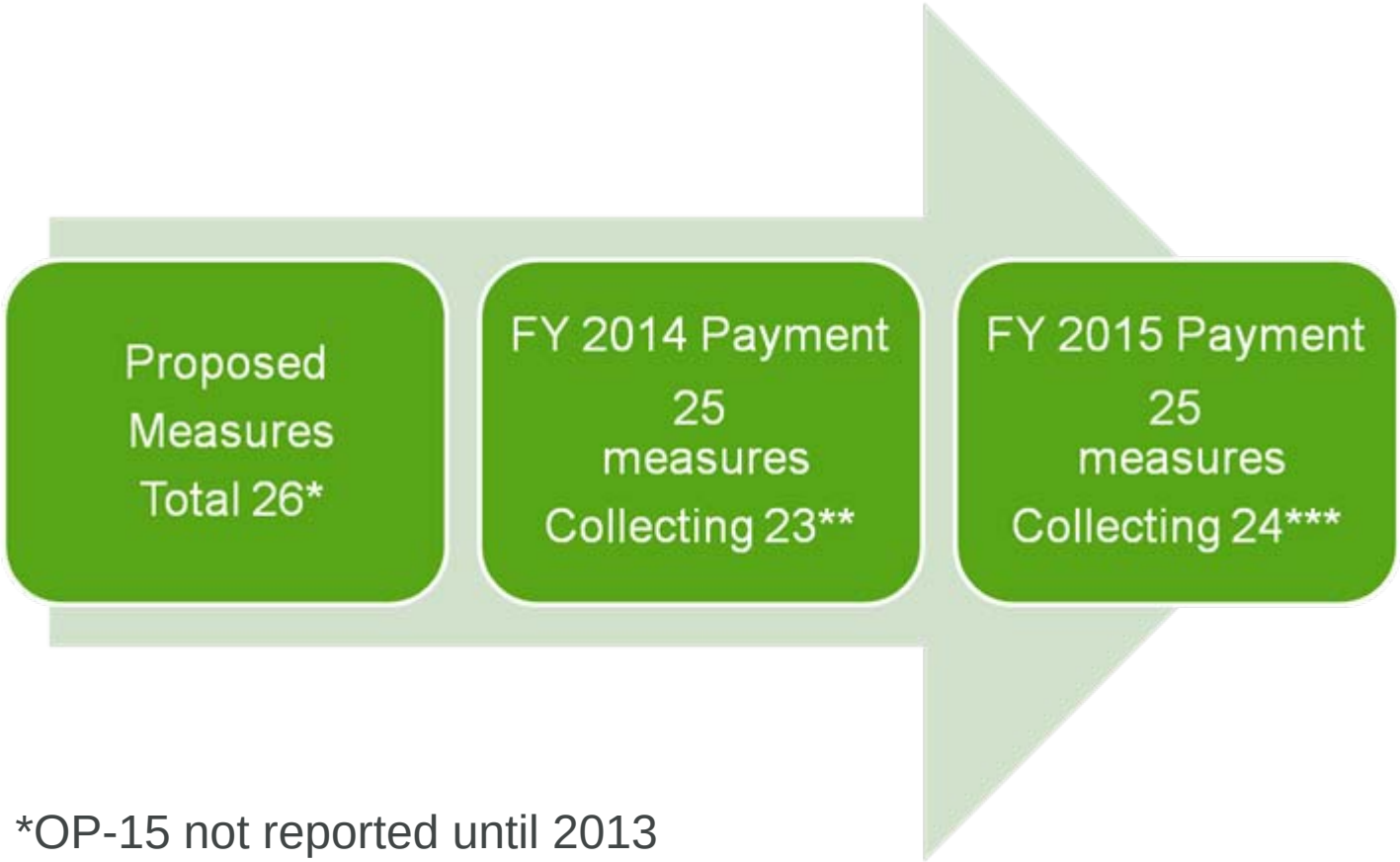
Measure Category	CY 2012 Count	Change	CY 2013 Count
Chart-Abstracted	36	Remove 1 and add 1 (EED)	36
HAI	6	None	6
Mortality	3	None	3
Readmission	3	Add 2 (Hip/Knee & HWR)	5
AHRQ	10	Remove 8	2
Hospital Acquired	8	Remove 8	0
Surgical Complications	0	Add Hip/Knee Complication	1
Efficiency	1	None	1
Structural	4	None	4
HCAHPS	1	Add new questions	1
Totals	72	Removes 17, add 4	59

Overlapping Medicare HAC policies

Hospital-acquired conditions (HACs)	Not eligible higher payment (FY 2008 ongoing)	VBP (rolling in starting FY 2013)	1% Payment Cut - TBD (FY 2015)
Catheter associated UTI	X	X	?
Surgical Site Infections	X	X	?
Vascular cath-assoc. infections	X	X	?
Foreign object retained after surgery	X		?
Air embolism	X		?
Blood incompatibility	X		?
Pressure ulcer stages III or IV	X		?
Falls and trauma	X		?
DVT/PE after hip/knee replacement	X		?
Manifestations of poor glycemic control	X		?
Ventilator associated pneumonia		X	?
Methicillin resistant Staph. aureus (MRSA)		X	?
Clostridium difficile (CDAD)		X	?

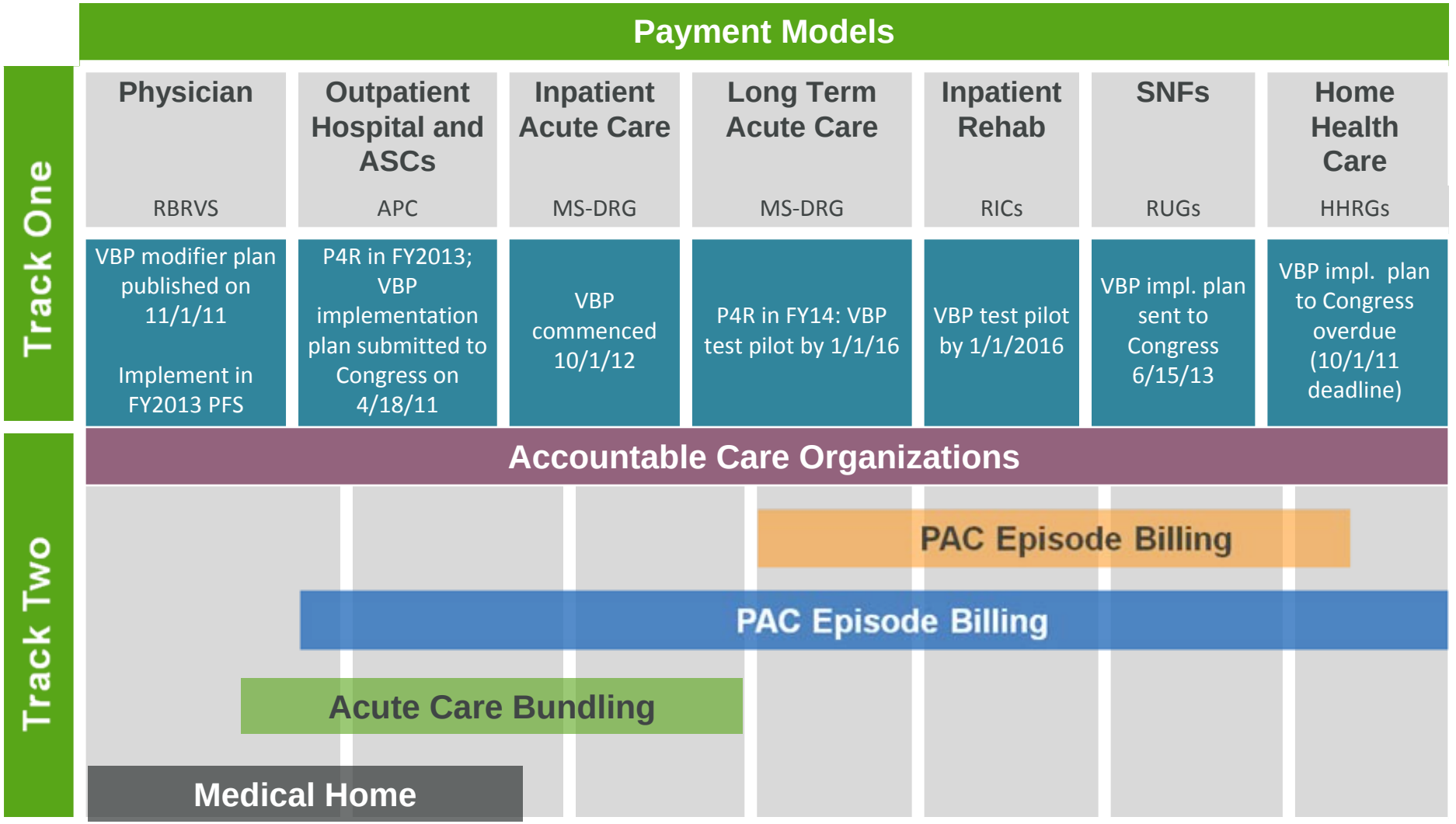
Hospital Outpatient Quality Reporting (OQR) Proposals

- FY 2014 and 2015 Payment
  - No new measures for Hospital OQR program

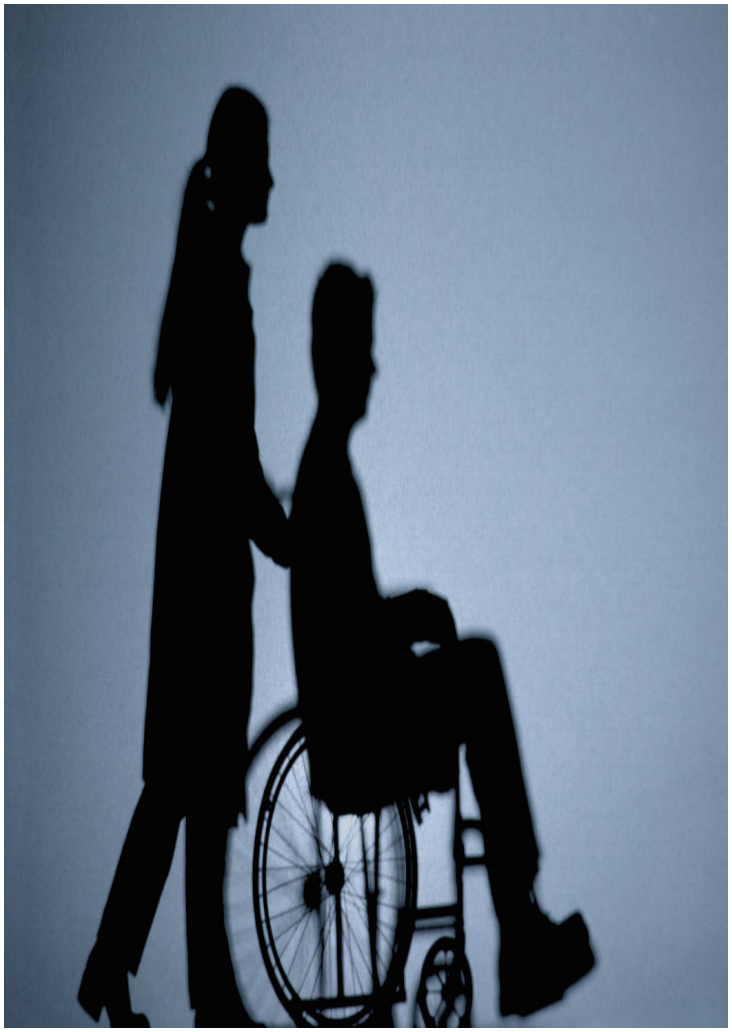


*OP-15 not reported until 2013
**OP-19 Suspended, OP-24 delayed until January 2014 collection
***Add OP-24 to data collection

Value Based Purchasing across payment silos



Whose voice is growing louder by the day?



Sustained success requires continuous innovation

Value-based purchasing: HACs, quality, efficiency, cuts

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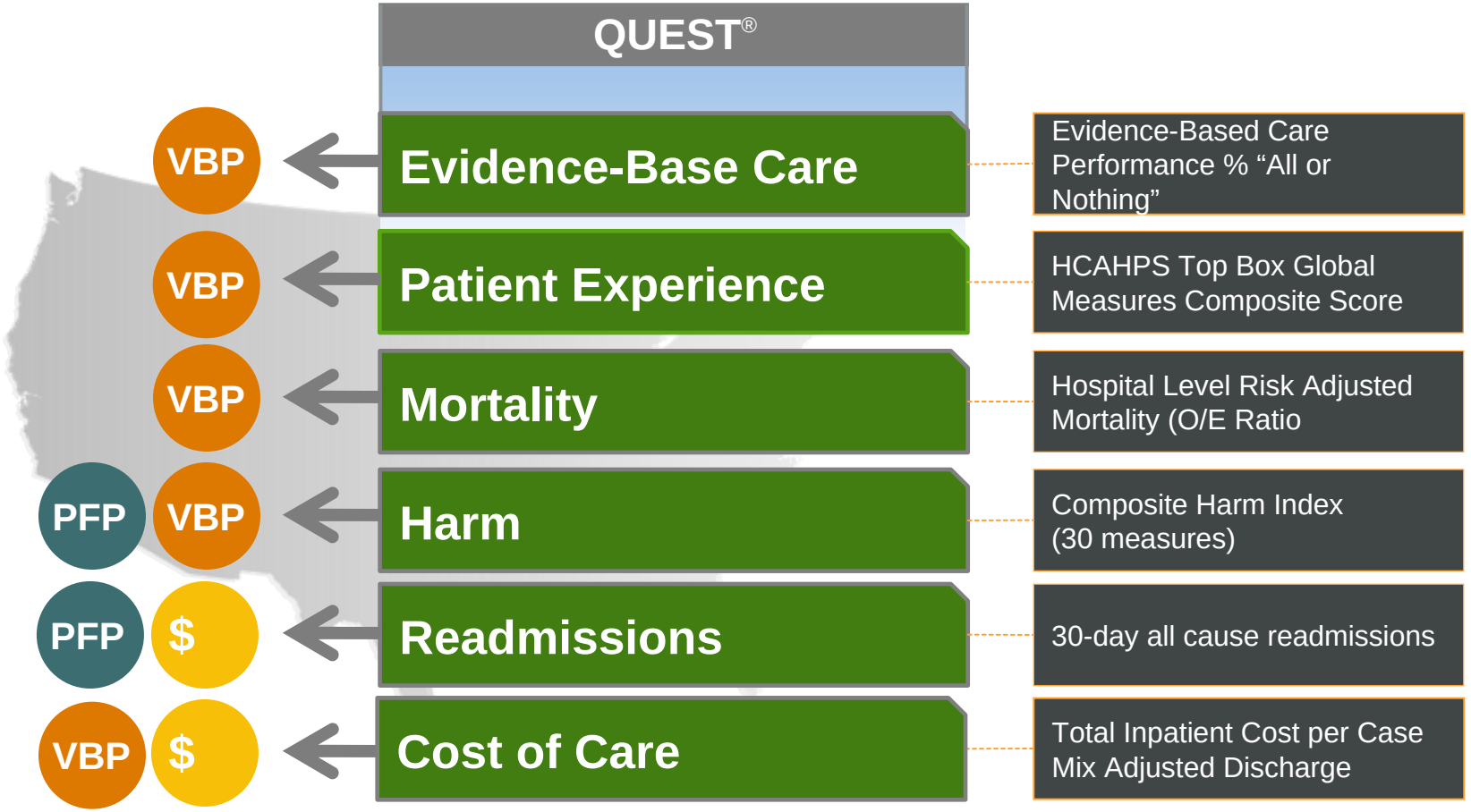
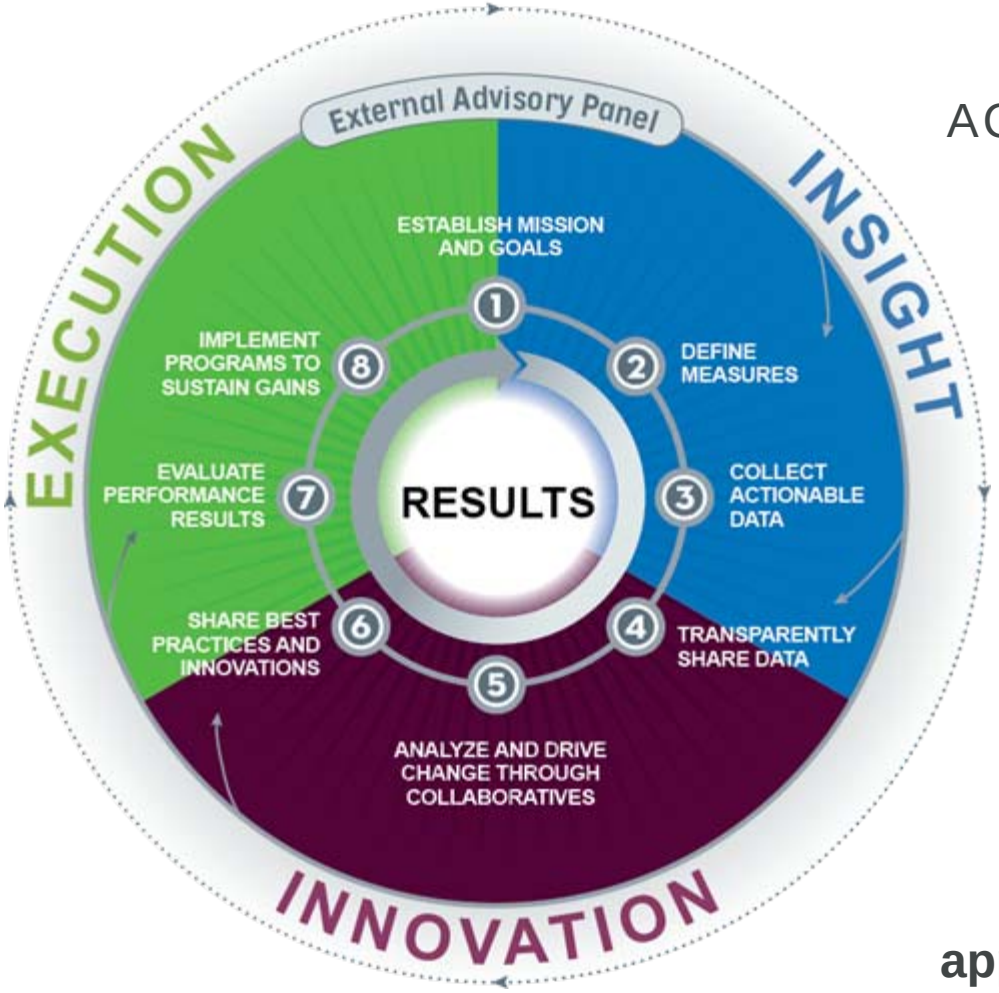
Measures that closely align with national initiatives



PFP=Partnership for Patients VBP = Value Based Purchasing $ = standalone payment penalty

Premier's collaborative methodology



ACCELERATING IMPROVEMENT

Measure with defined metrics

Report transparently

Share best practice

Execute collaboratively

"Knowing is not enough; we must apply. Willing is not enough; we must do."

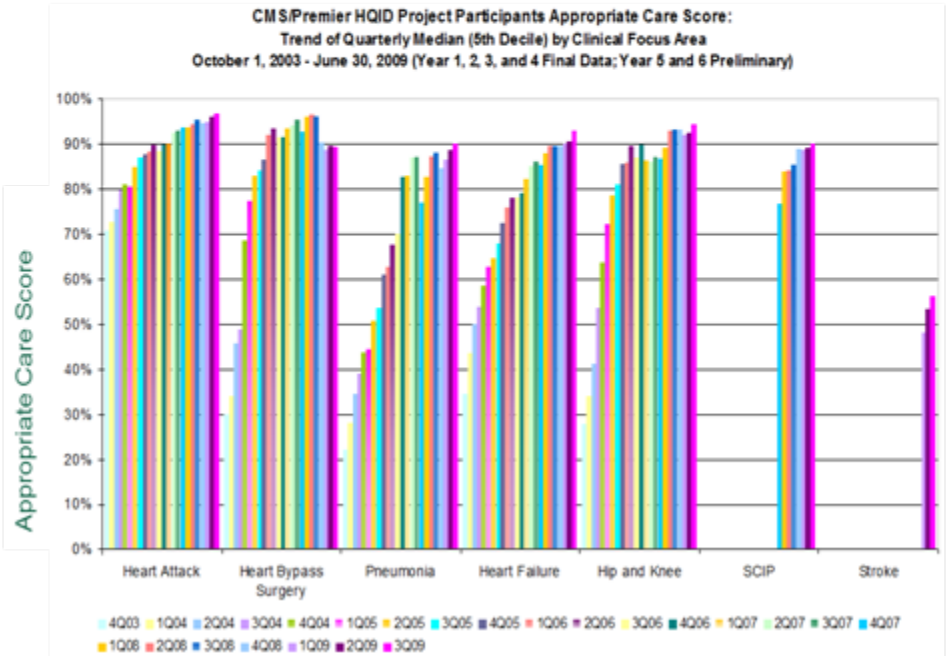
-Johann Wolfgang von Goethe

HQID: The journey to value based purchasing

If all hospitals in nation achieved this improvement, we estimate annually:

70,000 lives saved and $4.5+ billion in cost savings

Evidence-based Care Improvements



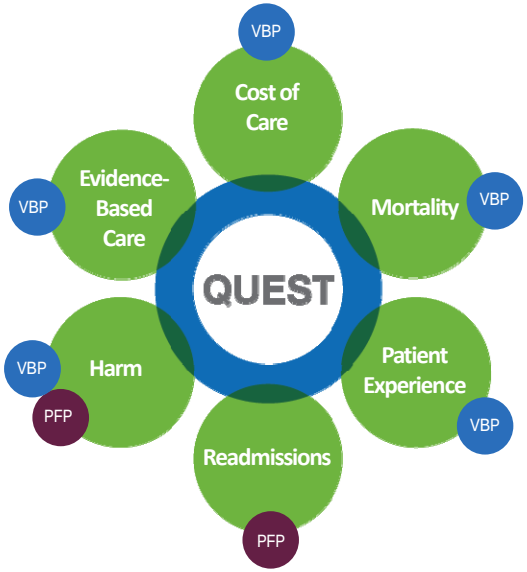
How they did it

- **"Quality" core value of institution**
- **Priority of executive team**
- **Clinician engagement**
- **Improvement methodology**
- **Prioritization methodology**
- **Dedicated resources**
- **Committed "knowledge transfer"**

QUEST: An “Insurance policy for reform and VBP”

2008

2012



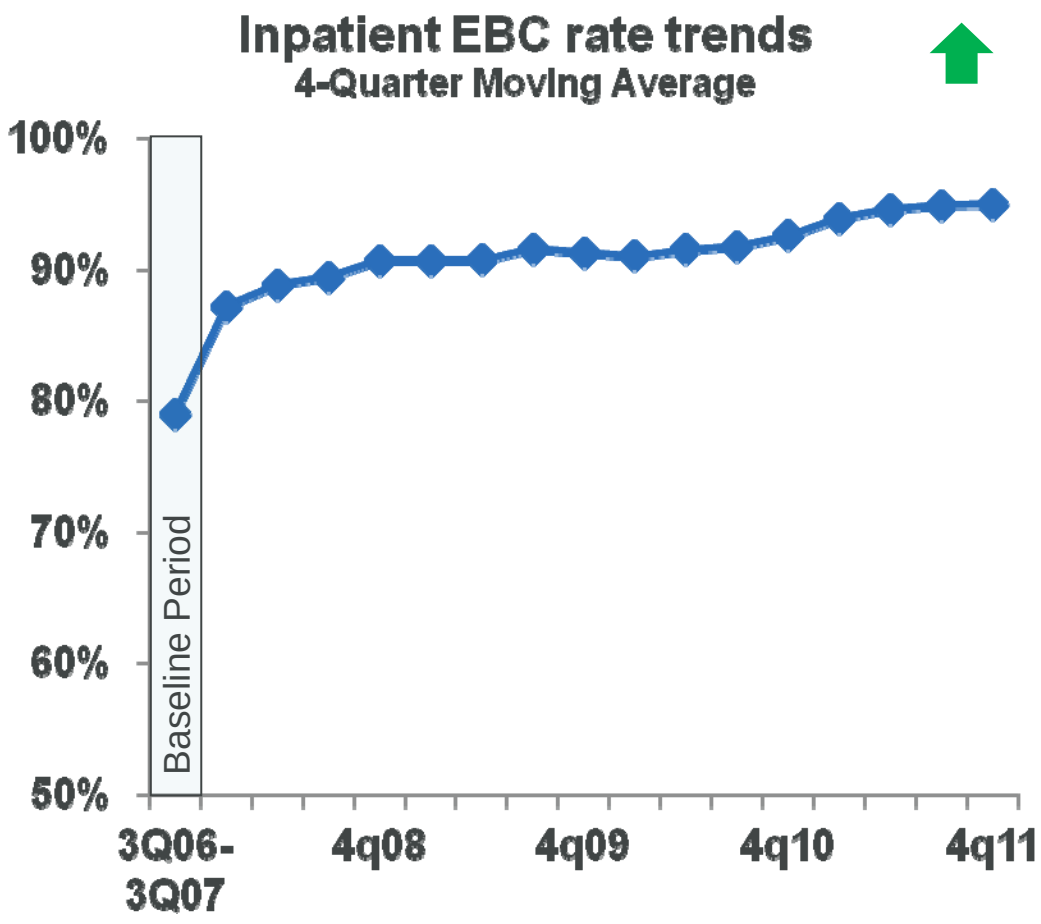
Sustained improvement over time

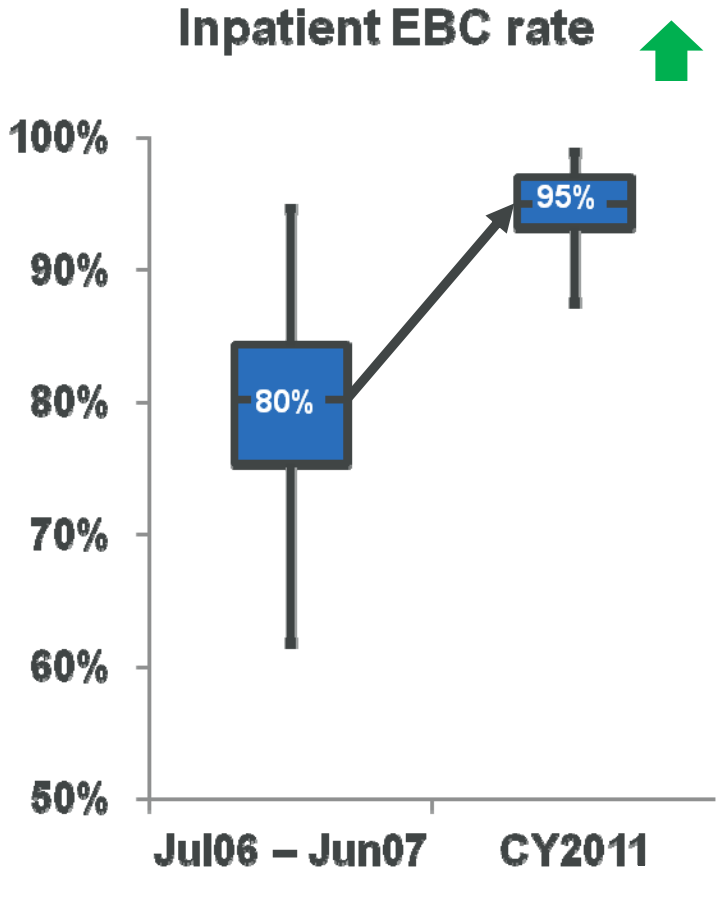
	Year 1	18 Months	Year 2	30 Months	Year 3	42 Months	Year 4
Hospital deaths avoided	8,118	13,285	17,264	20,314	24,820	26,862	29,974
Dollars saved	$685M	$1.3B	$2.1B	$3.2B	$4.5B	$5.6B	$6.9B
Patients receiving all EBC	18,359	31,090	44,629	60,247	75,638	90,717	105,494

If all hospitals across the country achieved these gains, an estimated **87,250 lives** and **$34 billion** could be saved each year.

Results based upon the 157 original charter members for years 1 – 3 and for the same group who had data in years 4 and 5 (140); results are cumulative.

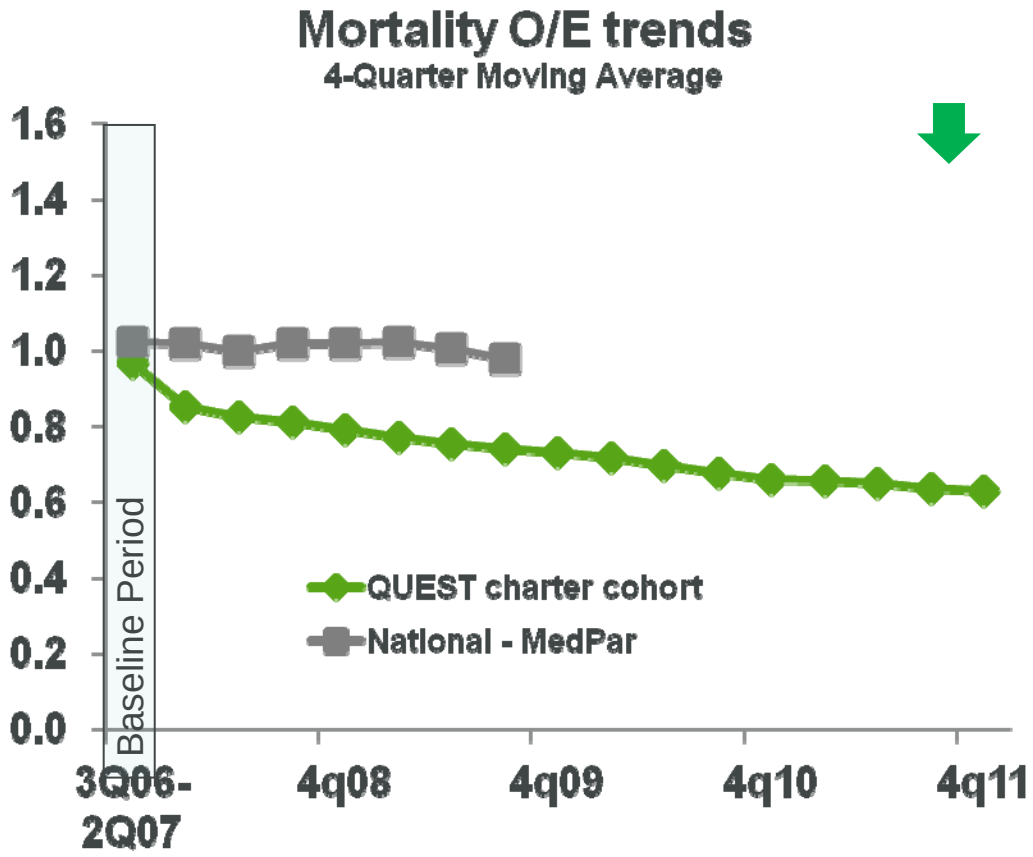
Evidence-based care (EBC) improvement – charter member cohort

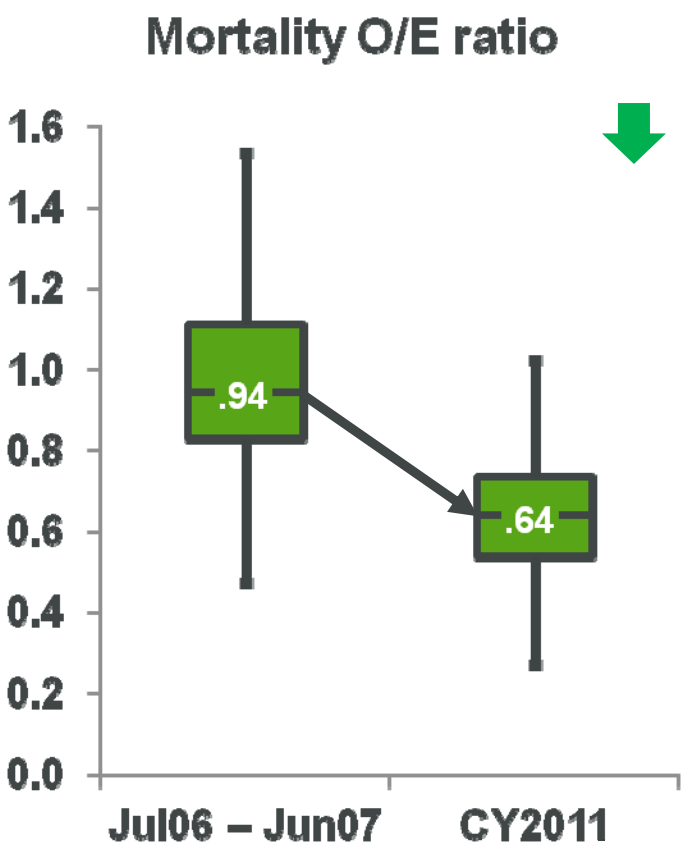




The biggest improvement has been in primary PCI within 90 minutes of arrival: 12.5% improvement from Year 1 to Year

Mortality improvement – charter member cohort



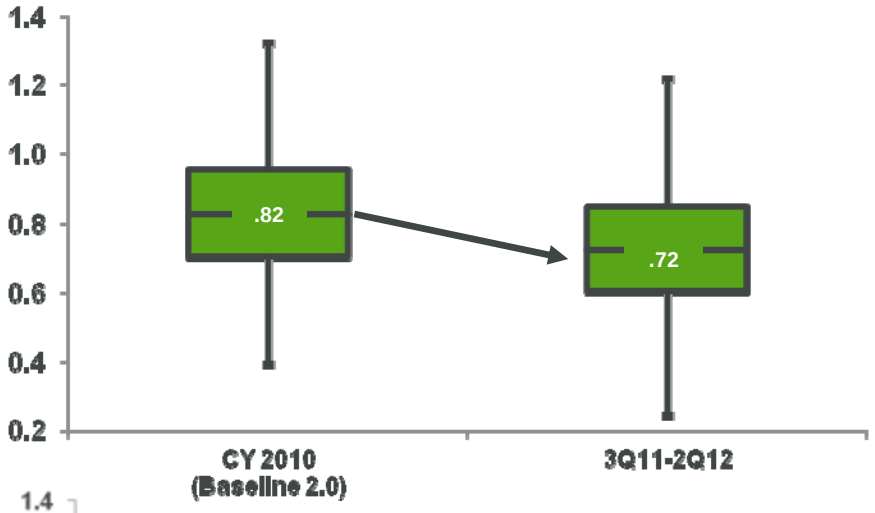


- Significant reduction in mortality within certain groups (Sepsis)
- Patient and family centered end of life care
- Improved documentation and coding

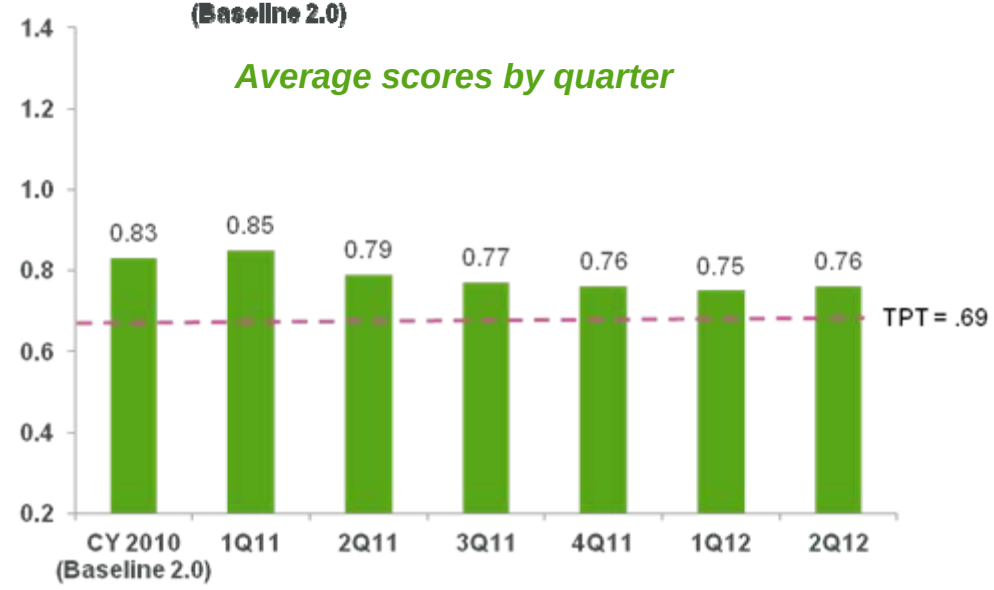
Mortality: Year on year improvement

Mortality O/E ratio

Median scores and spread



Average scores by quarter



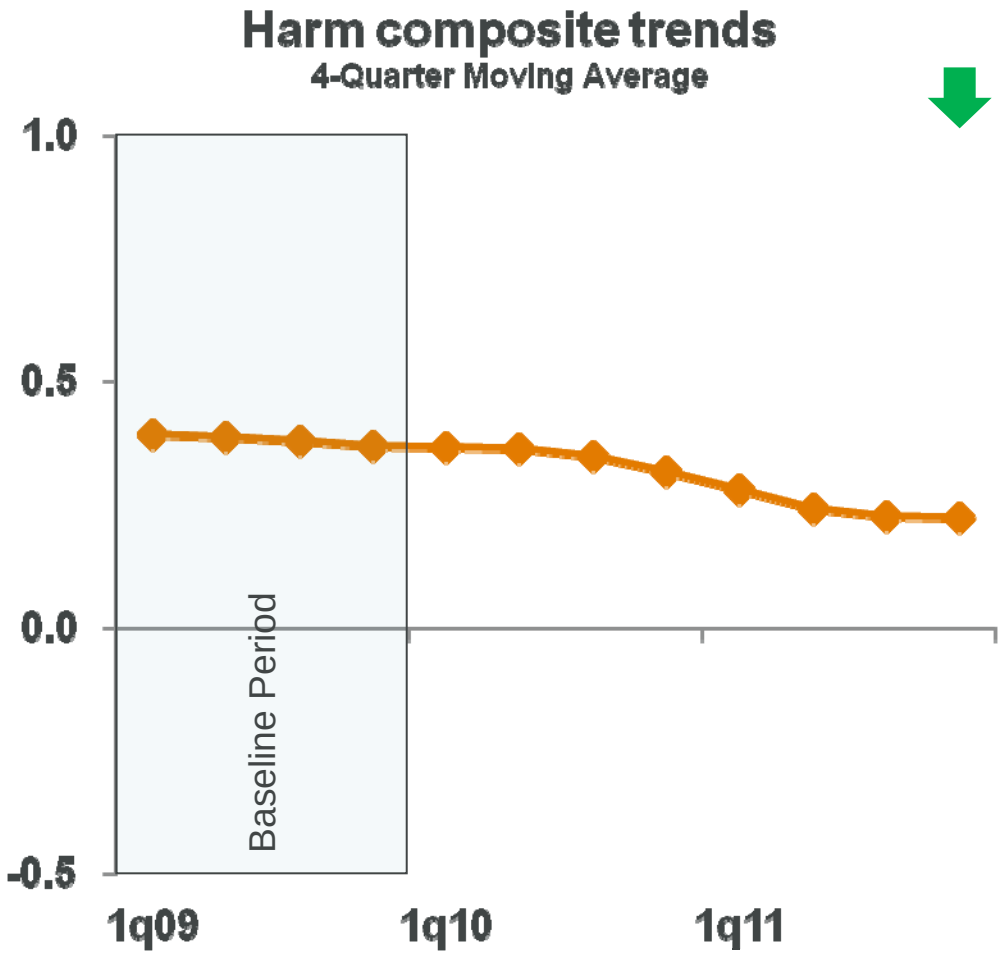
QUEST 2.0 CY2010 → 3Q11-2Q12:

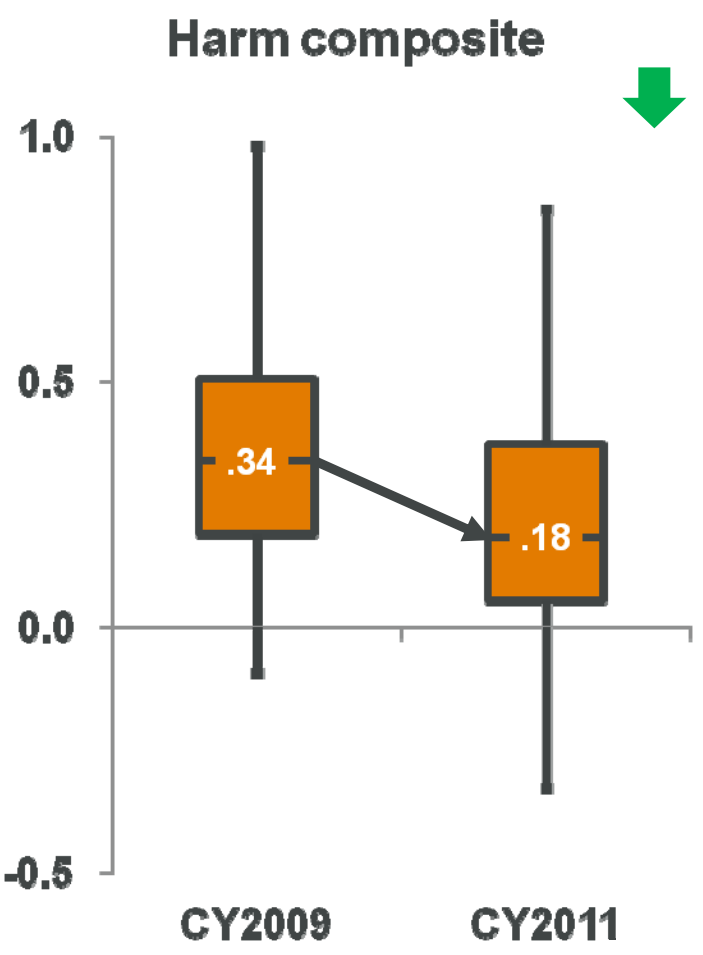
69% improved over CY2010

37% achieved Premier's TPT

- Hospitals meeting top performance thresholds increased to 37% from baseline CY2010 of 25%
- .1 point decrease in median observed to expected mortality ratio from baseline CY2010 to 2Q11-1Q12 data shows improvement by the cohort.
- **Significant opportunities for improvement:**
  - Respiratory conditions including
    - » Pneumonia
    - » COPD
    - » Ventilator associated conditions

Harm improvement – charter member cohort

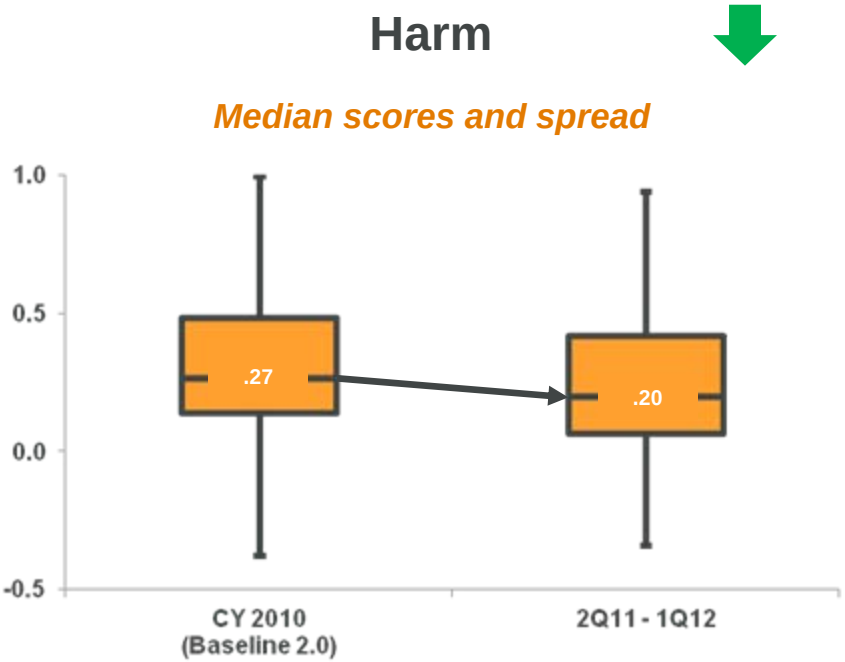


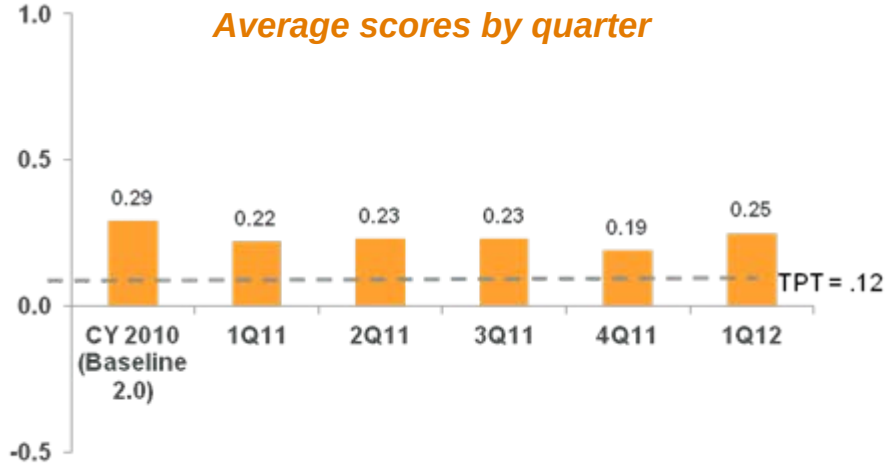


Biggest improvements in Harm: Mediastinitis, Staph sepsis, CLABSI, as well as injuries

Harm: Year on year improvement

Harm





QUEST 2.0 CY2010 → 2Q11-1Q12:

56% improved over CY2010

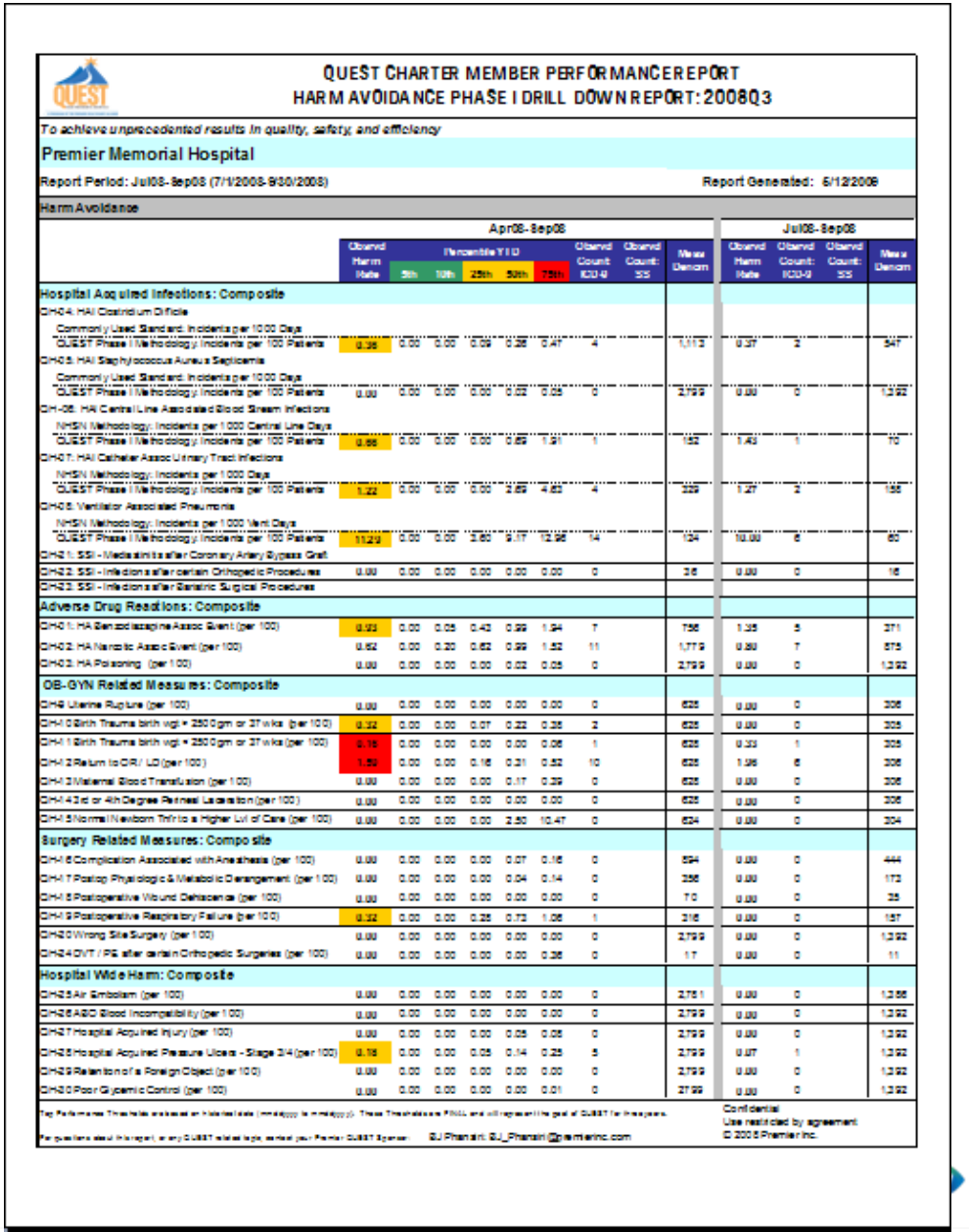
38% achieved Premier's TPT

- 0.07 decrease in median Harm Composite from baseline CY2010 to 2Q11-1Q12 data
- Hospitals reaching top performance threshold increased to 38% from baseline CY2010 value of 25%

- **Biggest opportunities**
  - C. Difficille
  - 3rd or 4th perineal lacerations
  - Post operative respiratory failure
  - SSI following certain orthopedic procedures
  - SSI following bariatric surgery

Sample QUEST Harm Report

- Occurrence of Harm captured by ICD9 coded data and inclusion of NHSN standards for measurement (where applicable)



QUEST CHARTER MEMBER PERFORMANCE REPORT
HARM AVOIDANCE PHASE I DRILL DOWN REPORT: 2008Q3

To achieve unprecedented results in quality, safety, and efficiency

Premier Memorial Hospital

Report Period: Jul08-Sep08 (7/1/2008-9/30/2008) Report Generated: 6/12/2008

Harm Avoidance

	Apr08-Sep08									Jul08-Sep08			
	Observd Harm Rate	Percentile Y I D 5th	10th	25th	50th	75th	Observd Count: ICD-9	Observd Count: SS	Mean Denom	Observd Harm Rate	Observd Count: ICD-9	Observd Count: SS	Mean Denom
Hospital Acquired Infections: Composite													
DH04: HAI Clostridium Difficile													
Commonly Used Standard: Incidents per 1000 Days													
QUEST Phase I Methodology: Incidents per 100 Patients	0.36	0.00	0.00	0.09	0.36	0.47	4		1,113	0.37	2		547
DH05: HAI Staphylococcus Aureus Septicemia													
Commonly Used Standard: Incidents per 1000 Days													
QUEST Phase I Methodology: Incidents per 100 Patients	0.00	0.00	0.00	0.00	0.02	0.05	0		2,799	0.00	0		1,392
DH06: HAI Central Line Associated Blood Stream Infections													
NHSN Methodology: Incidents per 1000 Central Line Days													
QUEST Phase I Methodology: Incidents per 100 Patients	0.66	0.00	0.00	0.00	0.69	1.91	1		152	1.43	1		70
DH07: HAI Catheter Assoc Urinary Tract Infections													
NHSN Methodology: Incidents per 1000 Days													
QUEST Phase I Methodology: Incidents per 100 Patients	1.22	0.00	0.00	0.00	2.69	4.63	4		329	1.27	2		158
DH08: Ventilator Associated Pneumonia													
NHSN Methodology: Incidents per 1000 Vent Days													
QUEST Phase I Methodology: Incidents per 100 Patients	11.29	0.00	0.00	3.60	9.17	12.96	14		124	10.00	6		60
DH21: SSI - Mediastinitis after Coronary Artery Bypass Graft													
DH22: SSI - Infections after certain Orthopedic Procedures	0.00	0.00	0.00	0.00	0.00	0.00	0		36	0.00	0		16
DH23: SSI - Infections after Bariatric Surgical Procedures													
Adverse Drug Reactions: Composite													
DH01: HA Benzodiazepine Assoc Event (per 100)	0.93	0.00	0.05	0.43	0.99	1.24	7		756	1.35	5		371
DH02: HA Narcotic Assoc Event (per 100)	0.62	0.00	0.20	0.62	0.99	1.52	11		1,779	0.80	7		875
DH03: HA Poisoning (per 100)	0.00	0.00	0.00	0.00	0.02	0.05	0		2,799	0.00	0		1,392
OB-GYN Related Measures: Composite													
DH09: Uterine Rupture (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		625	0.00	0		306
DH10: Birth Trauma birth wgt > 2500 gm or 37 wks (per 100)	0.32	0.00	0.00	0.07	0.22	0.36	2		625	0.00	0		305
DH11: Birth Trauma birth wgt < 2500 gm or 37 wks (per 100)	0.16	0.00	0.00	0.00	0.00	0.06	1		625	0.33	1		305
DH12: Return to OR / LD (per 100)	1.59	0.00	0.00	0.16	0.31	0.62	10		625	1.96	6		306
DH13: Maternal Blood Transfusion (per 100)	0.00	0.00	0.00	0.00	0.17	0.29	0		625	0.00	0		306
DH14: 3rd or 4th Degree Perineal Laceration (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		625	0.00	0		306
DH15: Normal Newborn Trf'rd to a Higher Lvl of Care (per 100)	0.00	0.00	0.00	0.00	2.50	10.47	0		624	0.00	0		304
Surgery Related Measures: Composite													
DH16: Complication Associated with Anesthesia (per 100)	0.00	0.00	0.00	0.00	0.07	0.16	0		894	0.00	0		444
DH17: Postop Physiologic & Metabolic Derangement (per 100)	0.00	0.00	0.00	0.00	0.04	0.14	0		356	0.00	0		173
DH18: Postoperative Wound Dehiscence (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		70	0.00	0		35
DH19: Postoperative Respiratory Failure (per 100)	0.32	0.00	0.00	0.25	0.72	1.06	1		316	0.00	0		157
DH20: Wrong Site Surgery (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		2,799	0.00	0		1,392
DH24: DVT / PE after certain Orthopedic Surgeries (per 100)	0.00	0.00	0.00	0.00	0.00	0.36	0		17	0.00	0		11
Hospital Wide Harm: Composite													
DH25: Air Embolism (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		2,751	0.00	0		1,356
DH26: ABO Blood Incompatibility (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		2,799	0.00	0		1,392
DH27: Hospital Acquired Injury (per 100)	0.00	0.00	0.00	0.00	0.00	0.05	0		2,799	0.00	0		1,392
DH28: Hospital Acquired Pressure Ulcers - Stage 3/4 (per 100)	0.18	0.00	0.00	0.05	0.14	0.25	5		2,799	0.07	1		1,392
DH29: Retention of a Foreign Object (per 100)	0.00	0.00	0.00	0.00	0.00	0.00	0		2,799	0.00	0		1,392
DH30: Poor Glycemic Control (per 100)	0.00	0.00	0.00	0.00	0.00	0.01	0		2799	0.00	0		1,392

Top Performance Thresholds are based on historical data (mm/dd/yyyy to mm/dd/yyyy). These Thresholds are FINAL and will represent the goal of QUEST for these plans.

For questions about this report, or any QUEST related topic, contact your Premier QUEST Sponsor. BJ Phanstiel, BJ_Phanstiel@premierinc.com

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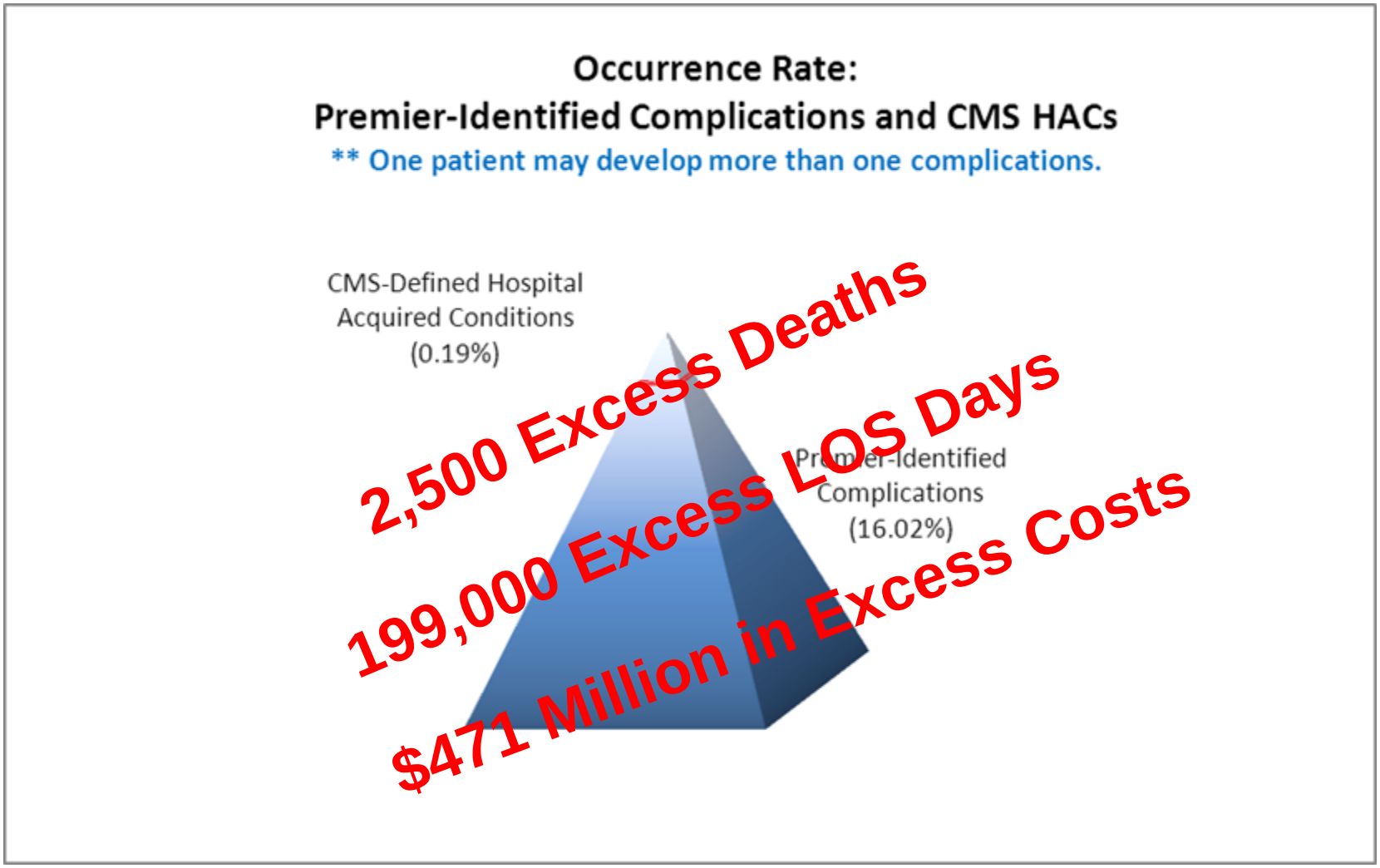
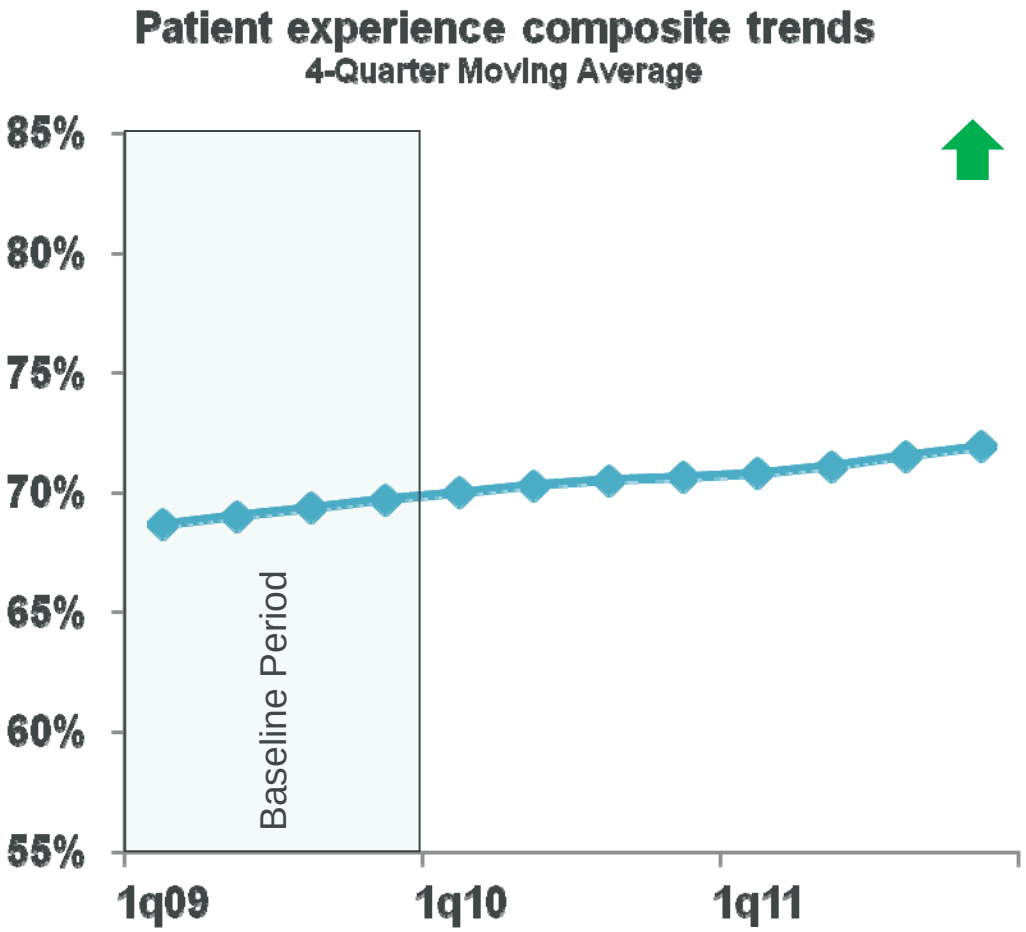
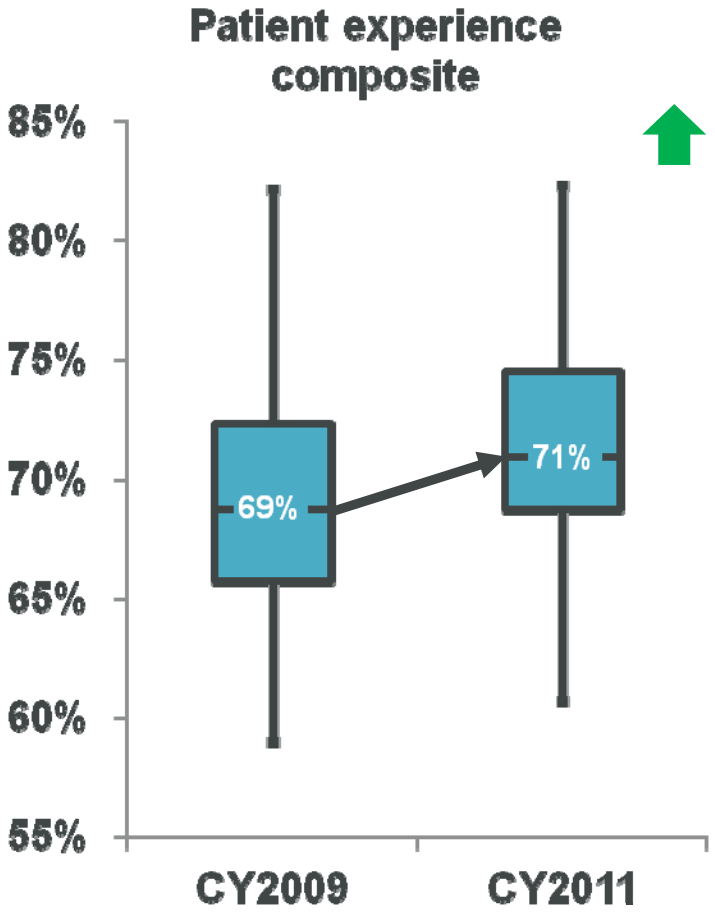
Premier Identified Complications (PICs)
-a comprehensive new measure of harm



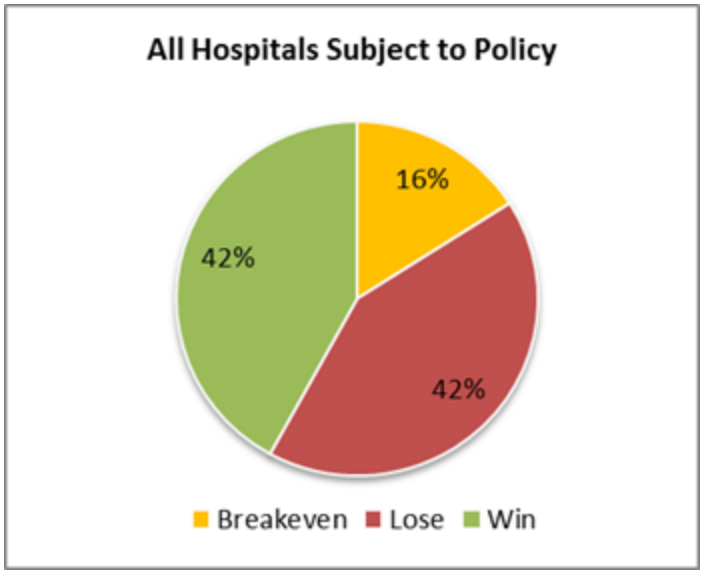
Patient experience improvement – charter member cohort

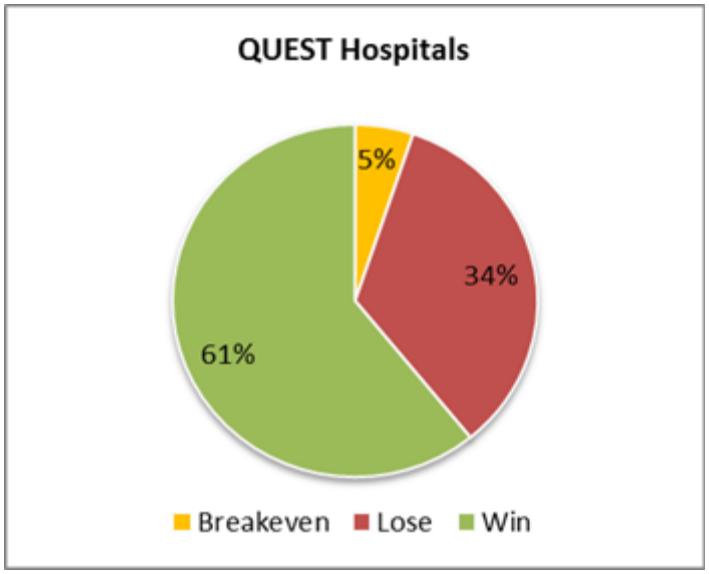




Biggest improvement in nursing communication and communication about medication scores

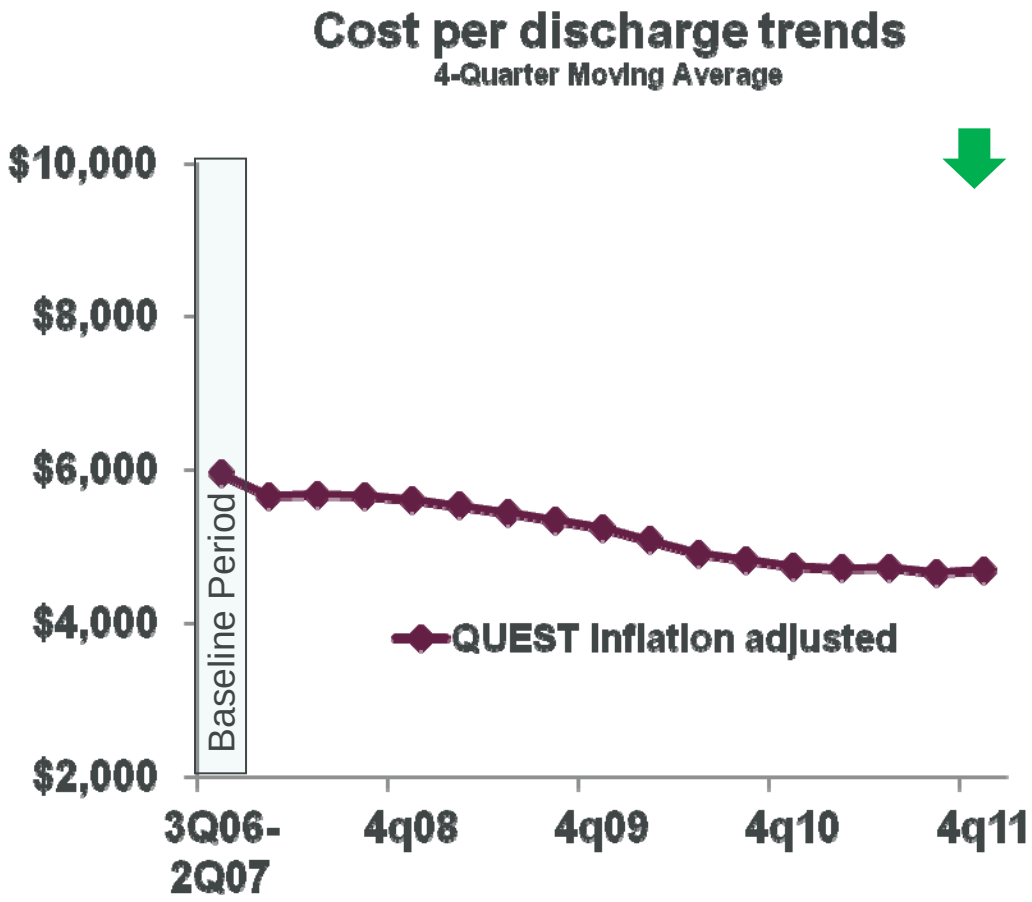
Performance in Value Based Purchasing FY 2013 payment

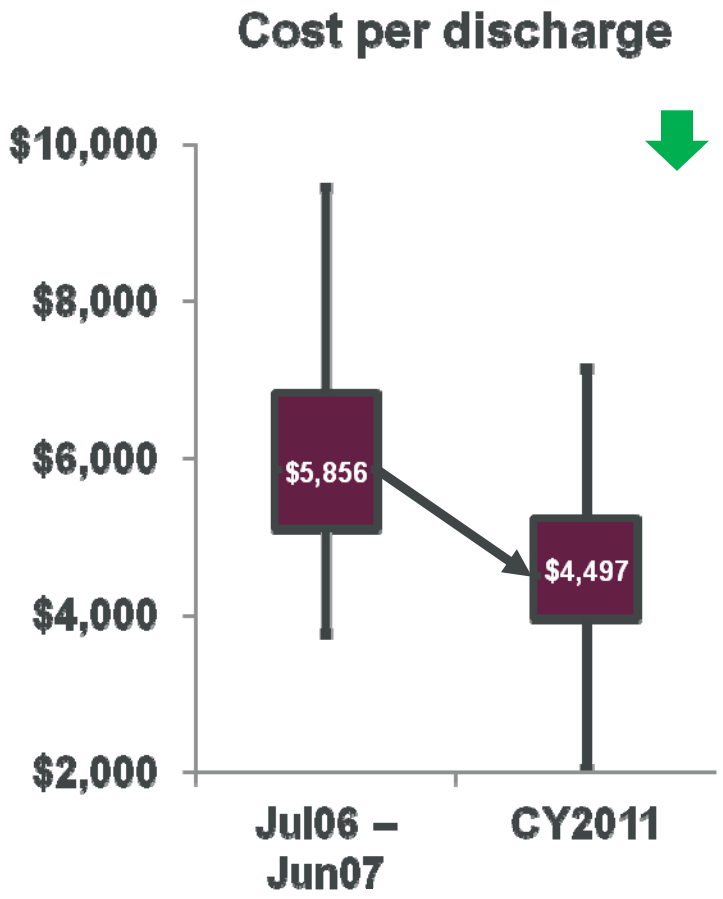




- A higher proportion of QUEST members are earning back more than they contribute to the inpatient VBP program compared to the nation (61% compared to 42%)

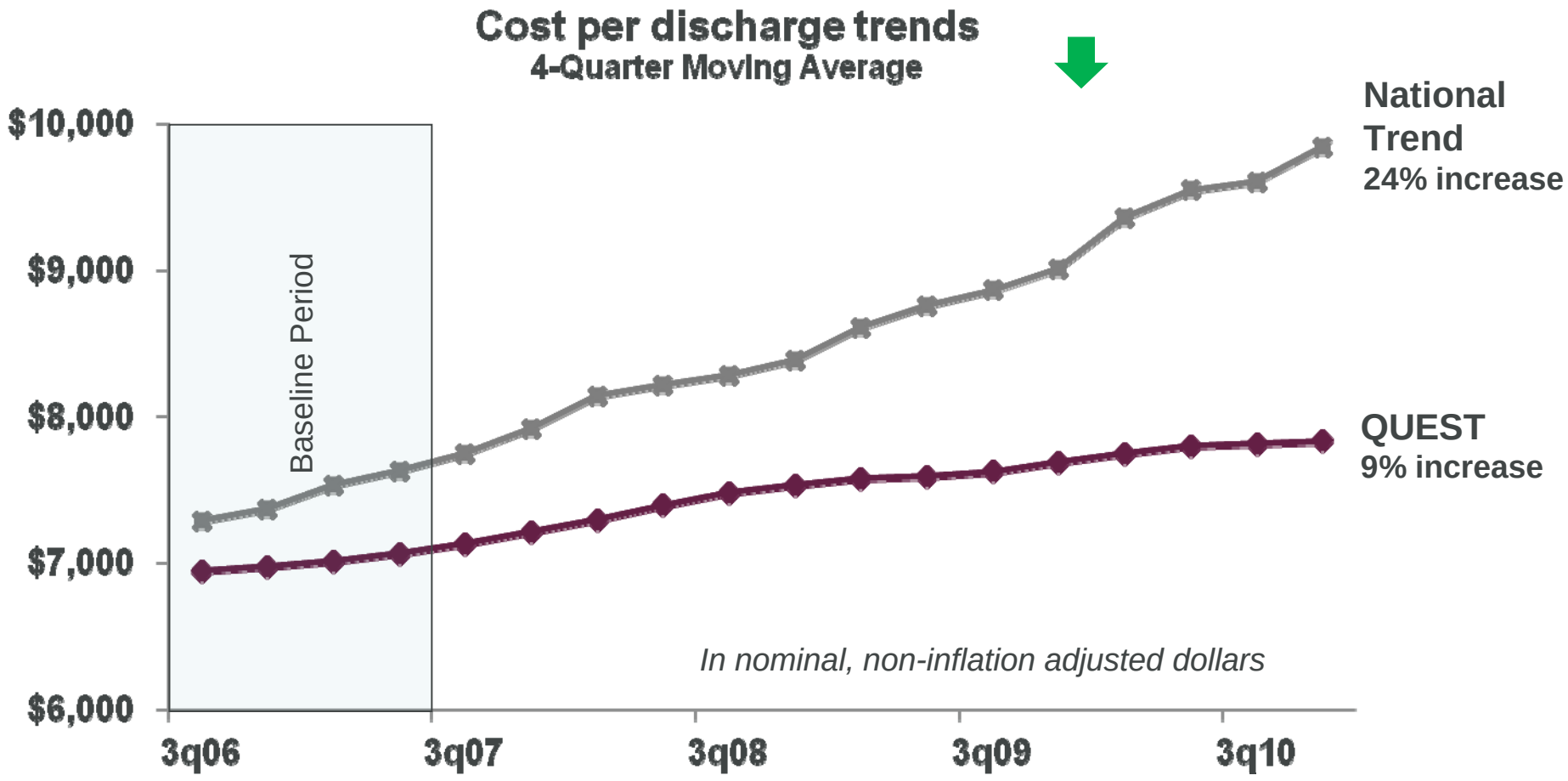
Cost improvement – charter member cohort (inflation adjusted)





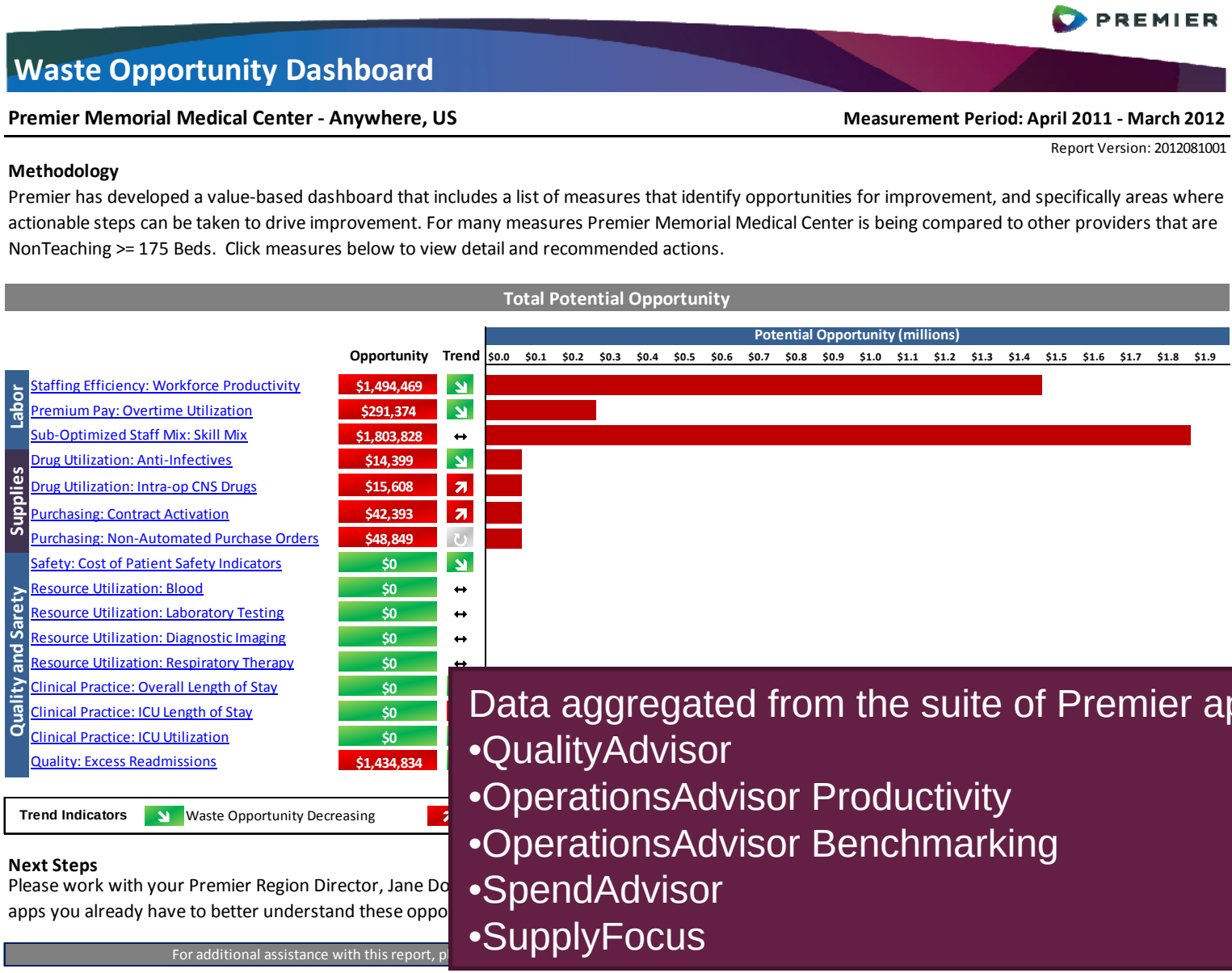
Adjusted for inflation, the median cost of a CMI adjusted discharge has been reduced by $1,359 over four years within the QUEST charter members.

Cost improvement – charter member cohort



This is what is meant by bending the cost curve: While in-patient hospital costs have increased 24% since the start of the collaborative, the QUEST hospitals have increased only 9% in non inflation-adjusted terms.

Identifying potential opportunities



Data aggregated from the suite of Premier apps:

- QualityAdvisor
- OperationsAdvisor Productivity
- OperationsAdvisor Benchmarking
- SpendAdvisor
- SupplyFocus

Common causes of waste in healthcare

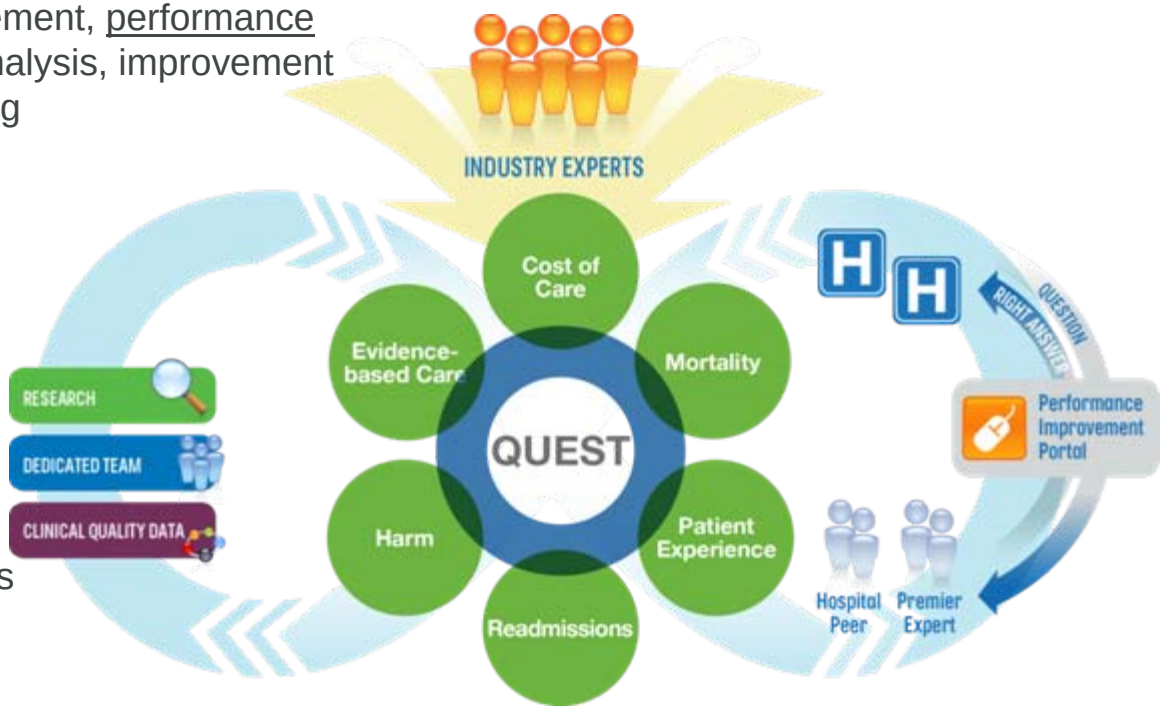
- Staffing Inefficiency
- Excessive Premium Dollar Utilization
- Sub-Optimized Skill Mix
- Hospital Acquired Conditions/Infections
- Product Selection / Contract Non-Compliance
- Excessive Readmissions
- Medication Errors
- Pharmaceutical Selection and Utilization
- Unnecessary Testing
- Inappropriate Level of Care
- Inappropriate Length of Stay
- Inadequate Turnaround / Cycle Times

Collaborative engagement activities

PremierConnect™	Comprehensive online best practices forum
Benchmarking/Analytics	Access to collaborative-specific, customized comparative reports and benchmarking
Sprints	A 90 day rapid cycle improvement series to help drive improvement in specific indicators
Collaboratives	An extended improvement initiative focused on a specific condition, disease state or process
National Meetings	Two face-to-face meetings per year
Performance Improvement Support	1:1 coaching for improvement opportunities based on customized improvement plans

Why do hospitals find success in Premier collaboratives?

- **Executive commitment**
  - Support from the top is mandatory, making QUEST everyone's priority; crystal clear "LOS" (line of sight): Board>C-suite>Associates
- **Sound measurement**
  - Clearly defined and measurable goals
- **Collaboration**
  - Structured approach to measurement, performance gap identification, opportunity analysis, improvement methodology and shared learning
- **Knowledge transfer**
  - Sharing what works & what doesn't through face-to-face meetings, conference calls, webinars, social media, etc.
- **Transparency**
  - Peer pressure works. Everyone likes being held up as a top performer; no one wants to be at the bottom

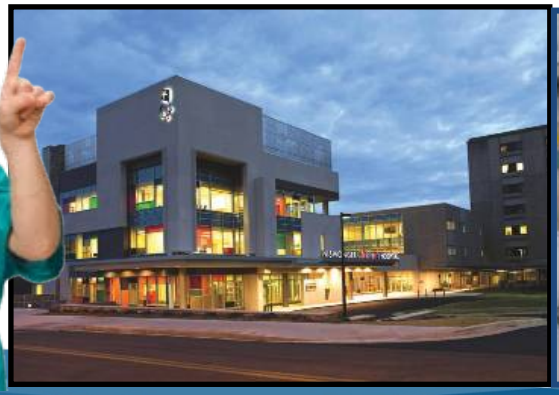


QUEST 3.0: Starting the Journey on January 1, 2014

Pay for Performance: Learning through Partnership and Collaboration

Mountain States Health Alliance

- Facilities located throughout Northeast Tennessee and Southwest Virginia
- Health system created September 1, 1998, with Johnson City Medical Center, Inc. acquiring six Columbia/HCA hospitals
- Services also include physician groups, home health & hospice, retail pharmacies
- Largest Regional Integrated Health Care Delivery System (29 County, Four State Region: TN, VA, NC, and KY)
- 13 Hospitals with 1,623 Licensed Beds

Mountain States Health Alliance

Tennessee Hospitals

- Johnson City Medical Center - Johnson City, TN
- Niswonger Children's Hospital - Johnson City, TN
- Indian Path Medical Center - Kingsport, TN
- James H. & Cecile C. Quillen Rehabilitation Hospital - Johnson City, TN
- Franklin Woods Community Hospital- Johnson City, TN
- Johnson County Community Hospital - Mountain City, TN
- Sycamore Shoals Hospital - Elizabethton, TN
- Woodridge Hospital - Johnson City, TN

Virginia Hospitals

- Dickenson Community Hospital - Clintwood, VA
- Norton Community Hospital - Norton, VA
- Russell County Medical Center - Lebanon, VA
- Smyth County Community Hospital - Marion, VA
- Johnston Memorial Hospital – Abingdon, VA





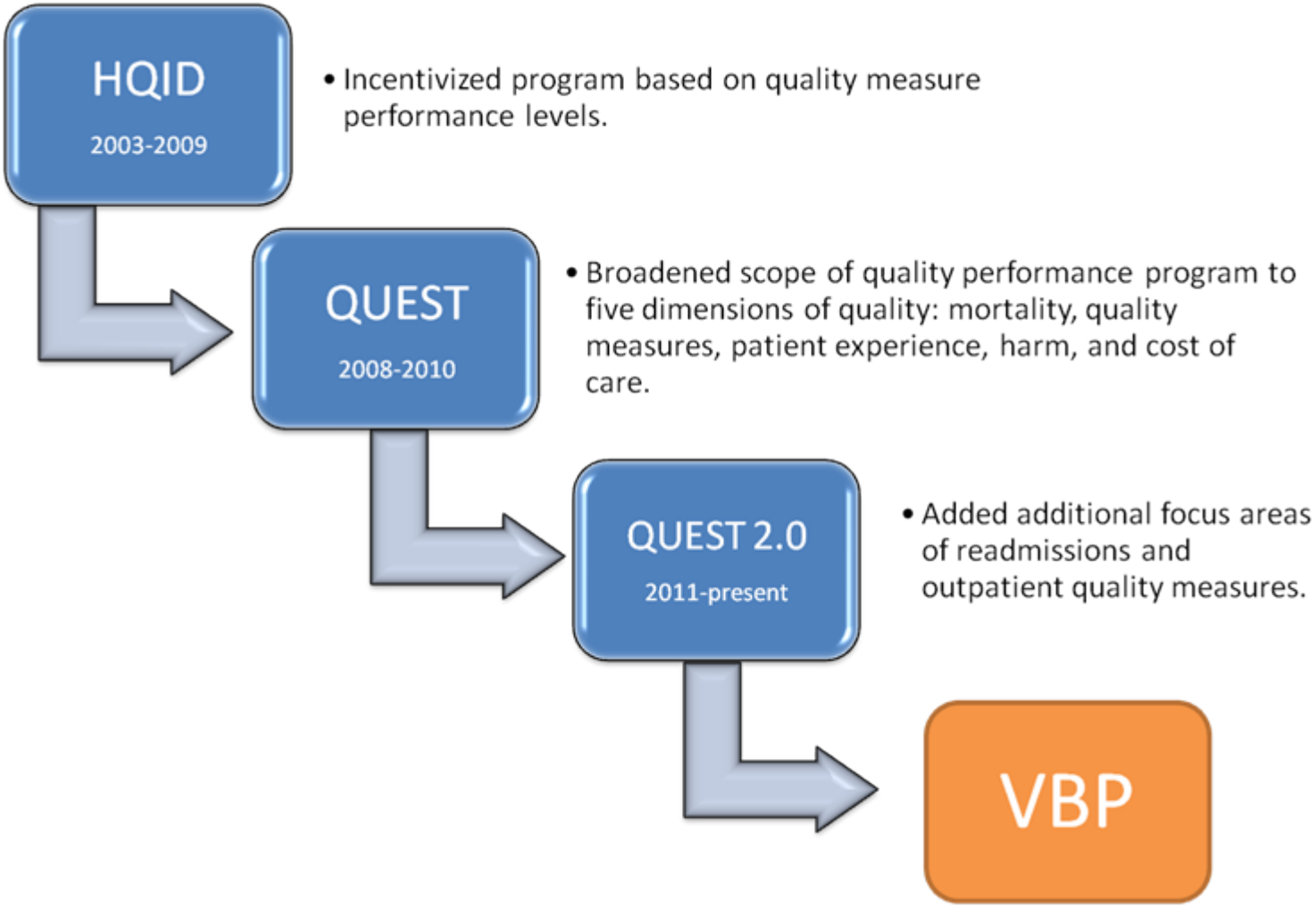


National and State Recognition

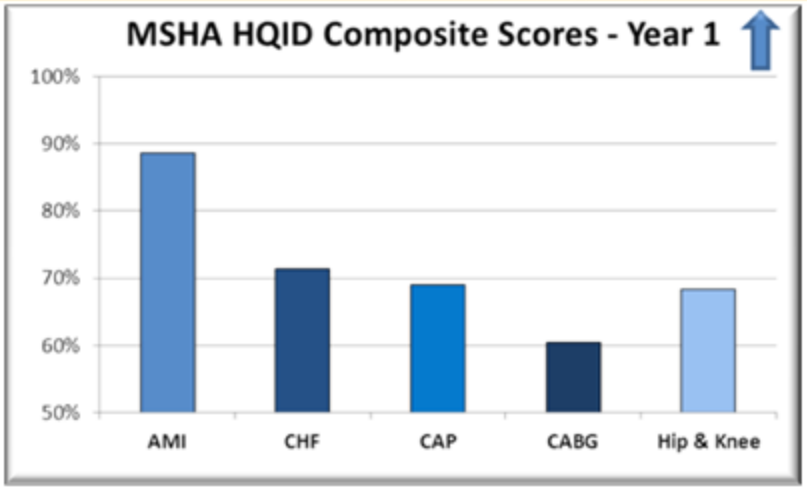
- National Quality Forum: National Quality Healthcare Award (2012)
- Magnet Hospital Designation and Re-designation (JCMC: 2005, 2009)
- Tennessee Center for Performance Excellence: Excellence Award (2005, 2009)
- Virginia Senate Productivity and Quality Award: Medallion Award (2012)
- QUEST Top Performers (IPMC, SSH, SCCH, JCMC, FWCH)

MSHA's Pay for Performance Experiences & Lessons Learned

Pay for Performance Journey



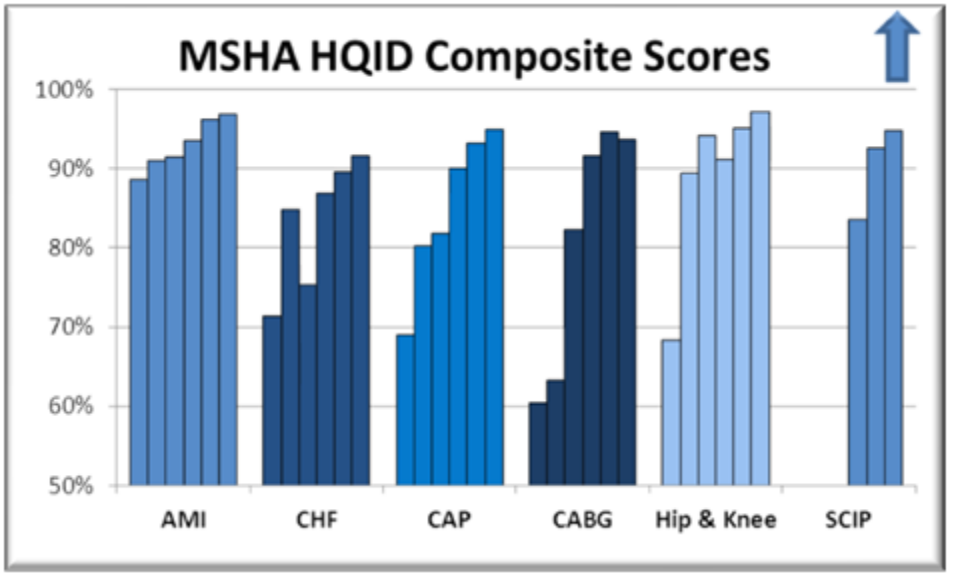
Where We've Been



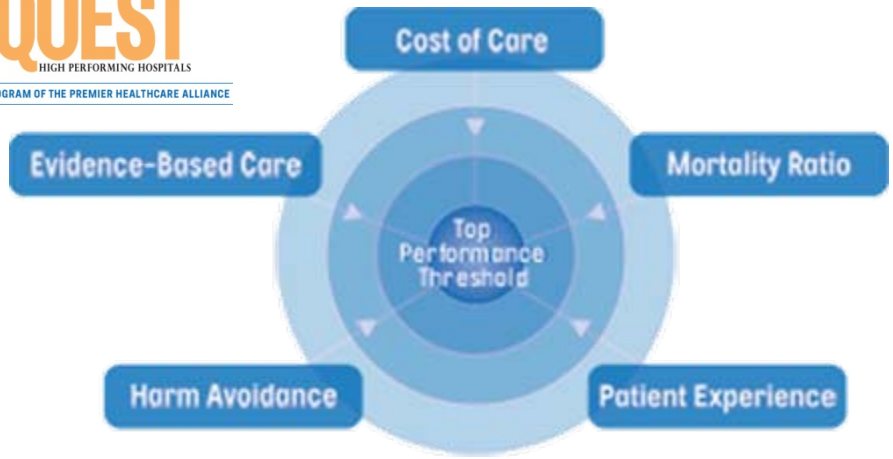
- Initial HQID performance levels showed significant opportunity across most focus areas.

- Through education and building of awareness, we were able to identify process opportunities, make needed adjustments, and sustain improvements.

- Gains experienced in quality measure performance during HQID laid the foundation for future P4P focus.

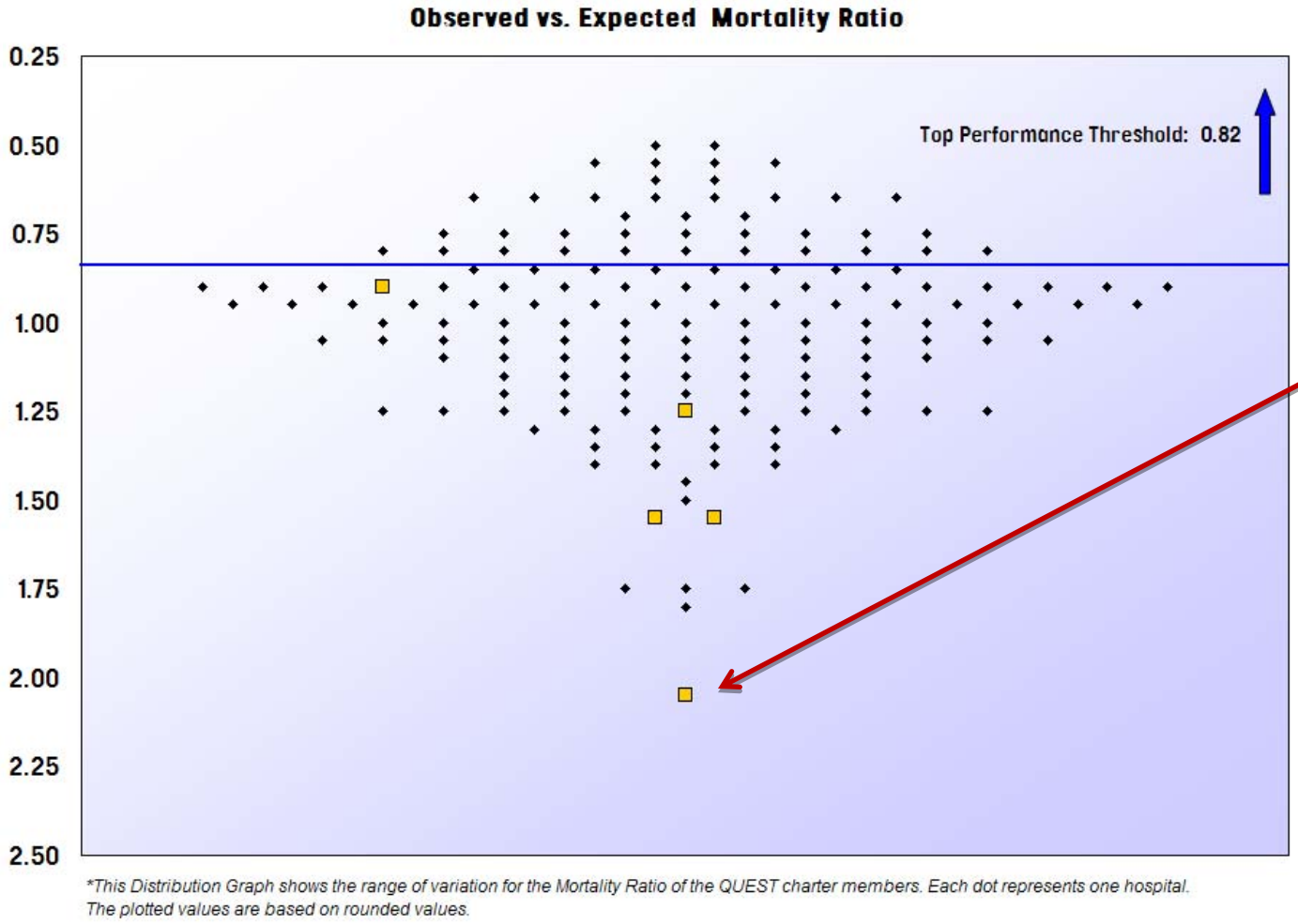


Where We've Been



- The QUEST collaborative took HQID to a new level by incorporating additional dimensions of care to incentivize hospitals to become top performers within three years of the project.
- MSHA initially had five facilities become QUEST charter members, while a 6th facility joined the QUEST Class of 2009.
- QUEST 2.0 built upon the successes and lessons learned in the initial QUEST program while adding in outpatient quality measures and a sixth dimension for readmissions.
- Although all MSHA facilities had always adopted performance metrics and goals from QUEST, the final two facilities became official QUEST members in 2012.

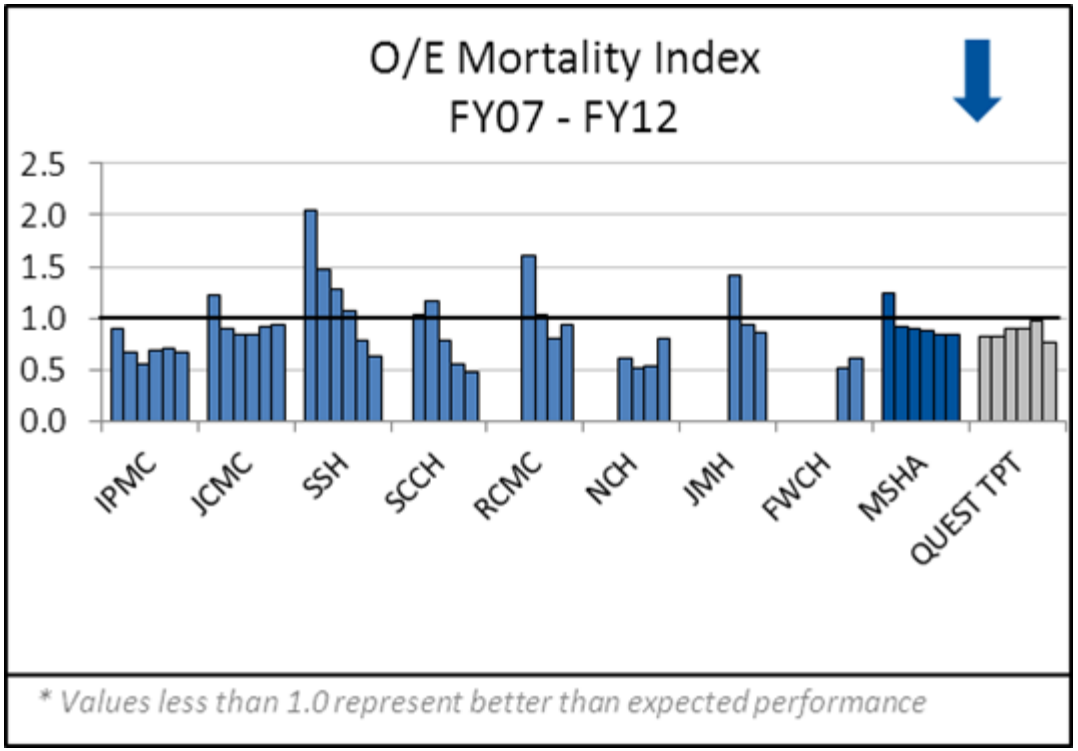
Where We've Been



*This Distribution Graph shows the range of variation for the Mortality Ratio of the QUEST charter members. Each dot represents one hospital. The plotted values are based on rounded values.

For mortality, one MSHA hospital had the worst observed/expected ratio in the entire QUEST collaborative during the baseline period; all other MSHA facilities participating at the time also showed the need for improvement.

Where We've Been



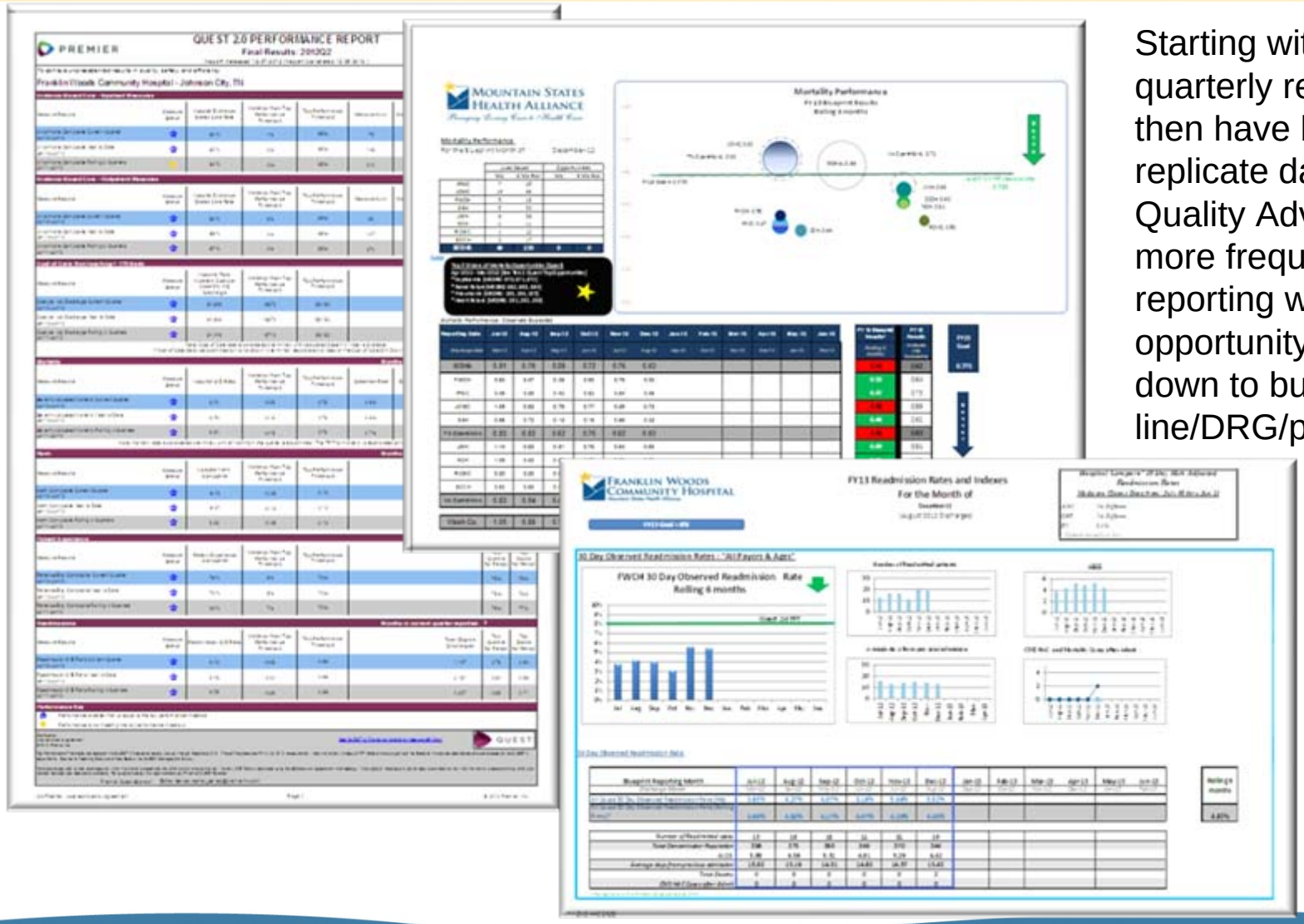
Since the beginning of the QUEST project, MSHA facilities have seen significant improvements in their mortality index. All eight MSHA facilities are currently performing better than expected and several facilities have surpassed the QUEST top performer threshold, including the facility which was once labeled worst performer.

How We Improved

- Integration of QUEST dimensions of care into system scorecards (Blueprints)
- Accountability of facilities' and system's performance to CEOs and Boards of Directors
- Frequent (i.e. monthly/quarterly) reporting
- Drill-downs to the patient level to be able to identify and aggregate common mistakes/issues
- Dedicated quality teams in each facility (Quality Managers, Quality Coordinators, & Patient Safety Officers)
- Involvement of multi-disciplinary teams (clinical, coding, pharmacy, quality, and others) focused on improvement

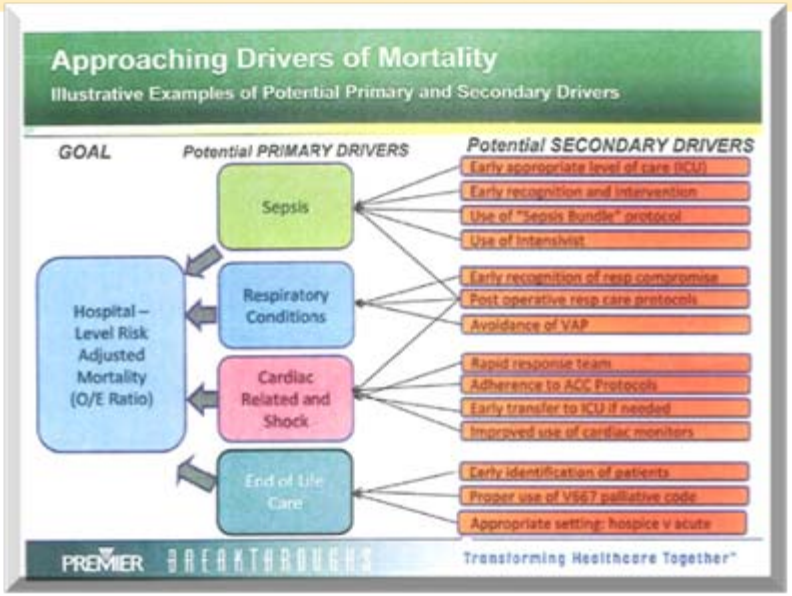
- Participation in QUEST Sprints; using Quality Advisor data and driver diagrams to identify opportunities with largest impact
- Continued focus on achieving excellence through Baldrige business model

Tools We Used



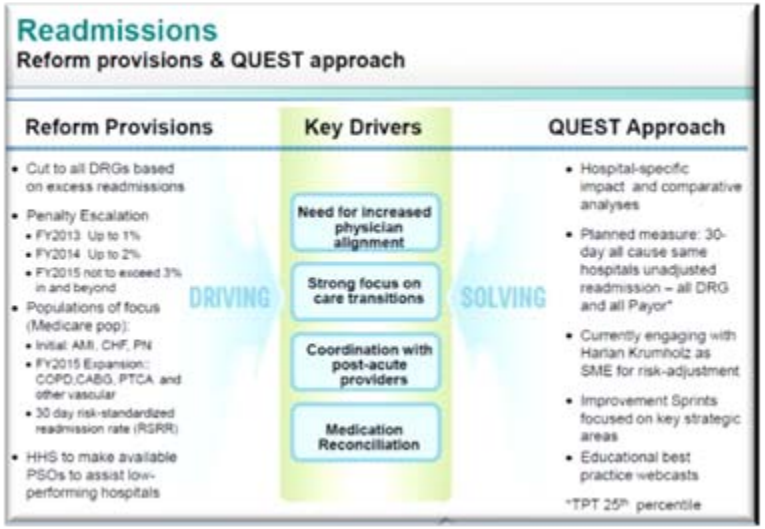
Starting with QUEST quarterly reports, we then have been able to replicate data in Quality Advisor for more frequent internal reporting with opportunity for drill-down to business line/DRG/patient level

Tools We Used



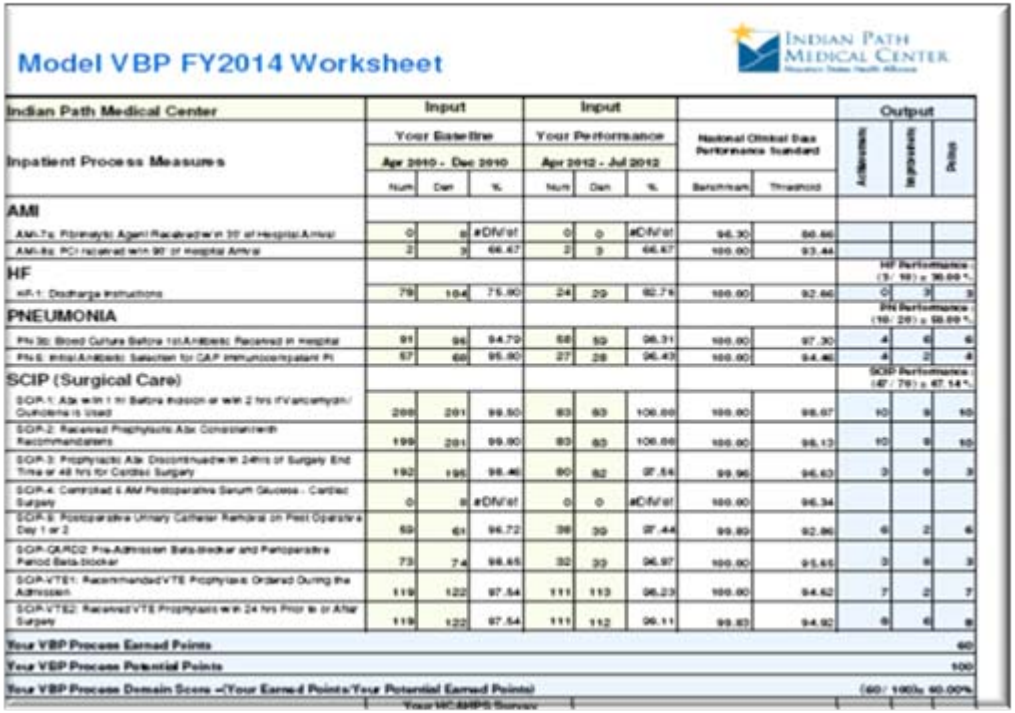
Top 5 Mortality Opportunities (QUEST)
Apr 2011 - Mar 2012
* Septicemia (MSDRG: 870, 871, 872)
* Renal Failure(MSDRG: 682, 683, 684)
* Pneumonia (MSDRG: 193, 194, 195)
* Heart Failure (MSDRG: 291, 292, 293)
* Respiratory/Vent (MSDRG: 207, 208)

Premier tools and research on identifying drivers for mortality and readmissions provide guidance and structure; also use frequent reports identifying top MS-DRGs with opportunity for mortality and readmissions across the QUEST cohort.



Top 5 Readmission Opportunities (QUEST)
Apr 2011 - Mar 2012
* Septicemia (MSDRG: 870, 871, 872)
* Renal Failure(MSDRG: 682, 683, 684)
* Pneumonia (MSDRG: 193, 194, 195)
* Heart Failure (MSDRG: 291, 292, 293)
* COPD (MSDRG: 190, 191, 192)

Tools We Used



Model VBP FY2014 Worksheet

Indian Path Medical Center

Indian Path Medical Center	Input			Input					Output		
Inpatient Process Measures	Your Baseline Apr 2010 - Dec 2010			Your Performance Apr 2012 - Jul 2012			National Clinical Data Performance Standard		Achievement	Improvement	Points
	Num	Den	%	Num	Den	%	Benchmark	Threshold			
AMI											
AMI-7a: Fibrinolytic Agent Received within 30 of Hospital Arrival	0	0	#DIV/0!	0	0	#DIV/0!	96.30	86.66			
AMI-8a: PCI received with 90' of Hospital Arrival	2	3	66.67	2	3	66.67	100.00	93.44			
HF									HF Performance (3/ 10) = 30.00 %		
HF-1: Discharge Instructions	79	104	75.96	24	29	82.76	100.00	92.66	0	3	3
PNEUMONIA									PN Performance (10/ 20) = 50.00 %		
PN-3b: Blood Culture Before 1st Antibiotic Received in Hospital	91	96	94.79	58	59	98.31	100.00	97.30	4	6	6
PN-6: Initial Antibiotic Selection for CAP Immunocompetent Pt	57	60	95.00	27	28	96.43	100.00	94.46	4	2	4
SCIP (Surgical Care)									SCIP Performance (47/ 70) = 67.14 %		
SCIP-1: Abx with 1 hr Before Incision or with 2 hrs if Vancomycin/ Quinolone is Used	200	201	99.50	83	83	100.00	100.00	98.07	10	9	10
SCIP-2: Received Prophylactic Abx Consistent with Recommendations	199	201	99.00	83	83	100.00	100.00	96.13	10	9	10
SCIP-3: Prophylactic Abx Discontinued within 24hrs of Surgery End Time or 48 hrs for Cardiac Surgery	192	195	98.46	80	82	97.56	99.96	96.63	3	0	3
SCIP-4: Controlled 6 AM Postoperative Serum Glucose - Cardiac Surgery	0	0	#DIV/0!	0	0	#DIV/0!	100.00	96.34			
SCIP-5: Postoperative Urinary Catheter Removal on Post Operative Day 1 or 2	59	61	96.72	38	39	97.44	99.89	92.86	6	2	6
SCIP-CARD2: Pre-Admission Beta-blocker and Perioperative Period Beta-blocker	73	74	98.65	32	33	96.97	100.00	95.65	3	0	3
SCIP-VTE1: Recommended VTE Prophylaxis Ordered During the Admission	119	122	97.54	111	113	98.23	100.00	94.62	7	2	7
SCIP-VTE2: Received VTE Prophylaxis with 24 hrs Prior to or After Surgery	119	122	97.54	111	112	99.11	99.83	94.92	8	6	8
Your VBP Process Earned Points											40
Your VBP Process Potential Points											100
Your VBP Process Domain Score =(Your Earned Points/Your Potential Earned Points)											(40/ 100)= 40.00%
	Your HCAHPS Survey										

A VBP worksheet, which was provided to us by one of our QIOs, was used to educate facility leadership on components and thresholds of VBP so that they could more easily relate to how their Blueprint metrics and performance now impact reimbursement.

Where We Are Now

- Continuing to educate on VBP and ties to Blueprints and QUEST
- Integrating Partnership for Patients with QUEST/VBP
- Focusing on a systemwide approach to readmissions
- Implementing sepsis teams to further reduce mortality and readmissions
- Looking for ways to reduce costs without sacrificing quality
- Continuing to engage patients and families to learn how we can better serve our patients and improve satisfaction scores
- Collaborating with other organizations to glean best practices and become better prepared for changing reimbursement models

The work never ends!
Everyone else is working to get better at the same things you are.

Lessons Learned

- Integrate wherever possible
- Facility-specific Quality teams
- Look for improvements and best practices within as well as from outside
- Document, document, document
- Checks and balances on coding
- Drill-down to understand where opportunities lie
- Always look for ways to improve even when the results look good

Challenges

Results-level:

- Readmissions – coordination & accountability
- Patient experience – moving the dot
- VBP clinical process of care measures – low volumes potentially skewing results

System-level:

- Continuing to integrate and consider all of the moving parts
- Streamlining forms and processes
- Converting to CPOE and integrated software platforms
- Balancing all of the priorities of an evolving health care environment

Moving Forward

What's on the horizon for MSHA…

•Leveraging our Value Optimization System (Lean) to improve efficiencies and reduce costs in light of payment reductions through ACA programs and other payor cuts; also using VOS to improve processes that can ultimately increase patient satisfaction through elimination of waste and waiting

•Further deploying Patient Advisory Councils and incorporating Service Excellence teams to address opportunities related to patient satisfaction

•Development of care models and transitions of care plans

•Further implementation of ACO to better manage population health and reduce costly hospitalizations

What Can You Do?

- Be vigilant!
- Integrate P4P into operational strategies and goals
- Understand opportunities for improvement and prioritize them
- Leverage cross-functional teams to maximize results
- Collaborate and share your challenges and successes with others
- Use your vendors and QIOs as resources of invaluable information
- Focus on the future

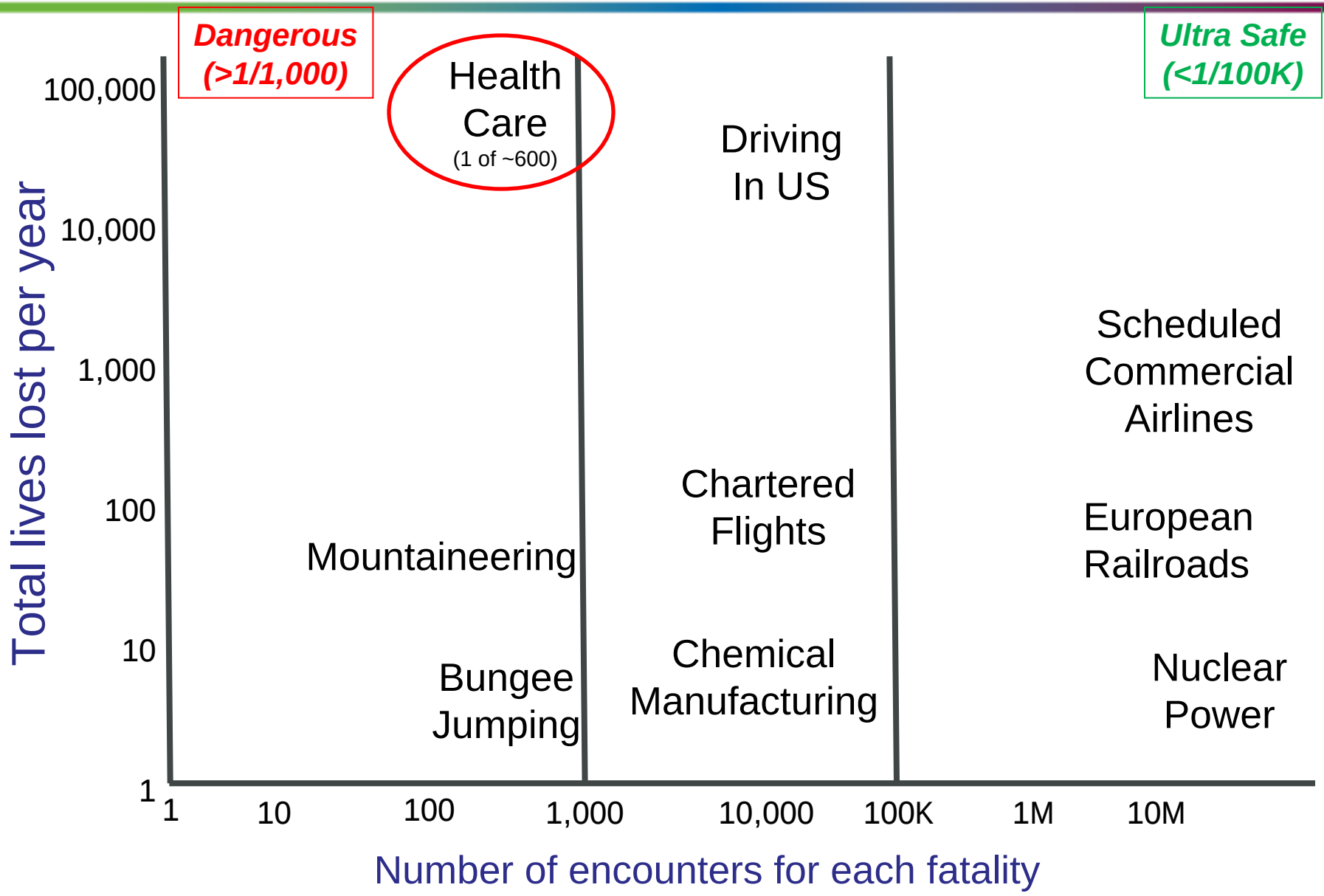
Questions?

PREMIER
TRANSFORMING HEALTHCARE TOGETHER®

Partnership for Patients

Monica Barrington, RPH, MPH, FASCP
Vice President
Premier

How safe Is healthcare?



Road map - redesigning healthcare delivery and financing

National Quality Strategy–Report to Congress

- http://www.healthcare.gov/law/index.html
- Extensive stakeholder input (300+ groups)
- Priorities: safer care, effective transitions, patient engagement, decreased mortality (cardiovascular), affordable through rapid spread of effective new delivery models
- Department of Health & Human Services collaboration (CMS, AHRQ, NIH, CDC, FDA, VA, IHS, HRSA, etc.)
- Nat'l Priorities Partnership convened by the National Quality Forum (NQF)
- Contracts, program agreements, grants
- Payment policies

The Hospital Engagement Contractor program

- On July 6, 2011, the Center for Medicare and Medicaid Innovation (CMMI) announced the availability of an additional $500 million in funding to help hospitals achieve the goals of the Partnership for Patients (PFP) initiative.
- Applications accepted by CMMI until August 5 from organizations seeking to serve as "Hospital Engagement Contractors."
  - These organizations – hospital associations, hospital affinity groups or healthcare systems with more than 25 hospitals – will work toward the stated goals through education, best-practice sharing, measurement and reporting
- 26 Hospital Engagement Contractors…now known as Hospital Engagement Networks (“HENs”) were selected

Partnership for Patients program goals

Goals

- ***Reduce harm caused to patients in hospitals*.** By the end of 2013, preventable hospital-acquired conditions would **decrease by 40%** compared to 2010.
- ***Improve care transitions***. By the end of 2013, preventable complications during a transition from one care setting to another would be decreased such that all hospital readmissions would be **reduced by 20%** compared to 2010.

Focus Areas

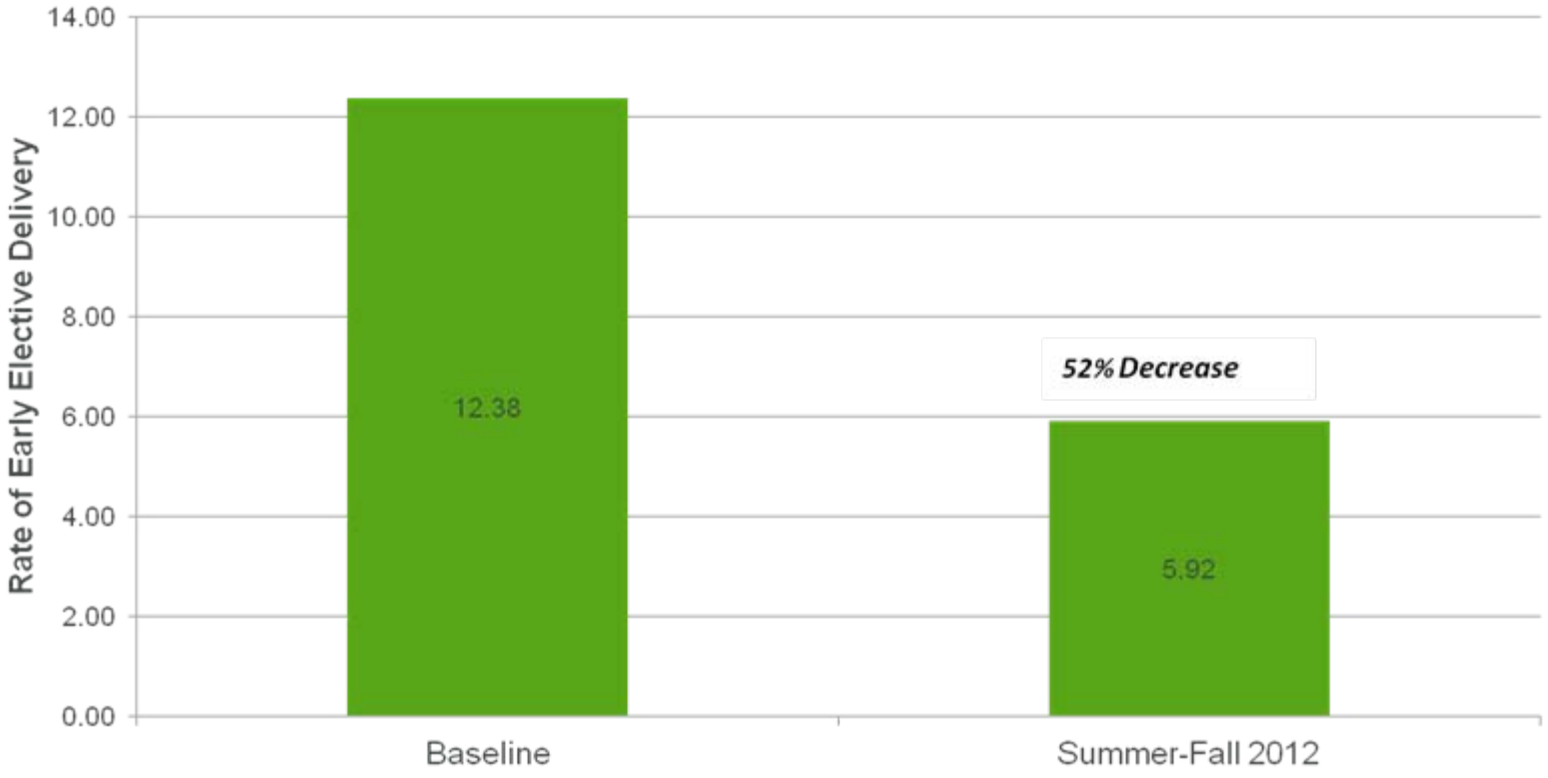
- Adverse drug events (ADE) *
- Catheter-associated urinary tract infections (CAUTI) *
- Central line-associated blood stream infections (CLABSI) *
- Injuries from falls and immobility *
- Obstetrical adverse events *
- Pressure ulcers *
- Surgical site infections *
- Venous thromboembolism (VTE) *
- Ventilator-associated pneumonia (VAP) *
- Preventable readmissions *
- Leadership
- Culture

**** Denotes an area for measurement: At least one process and one outcomes measure for each area of focus***

National Partnership for Patients Results: We Are Moving in the Right Direction!

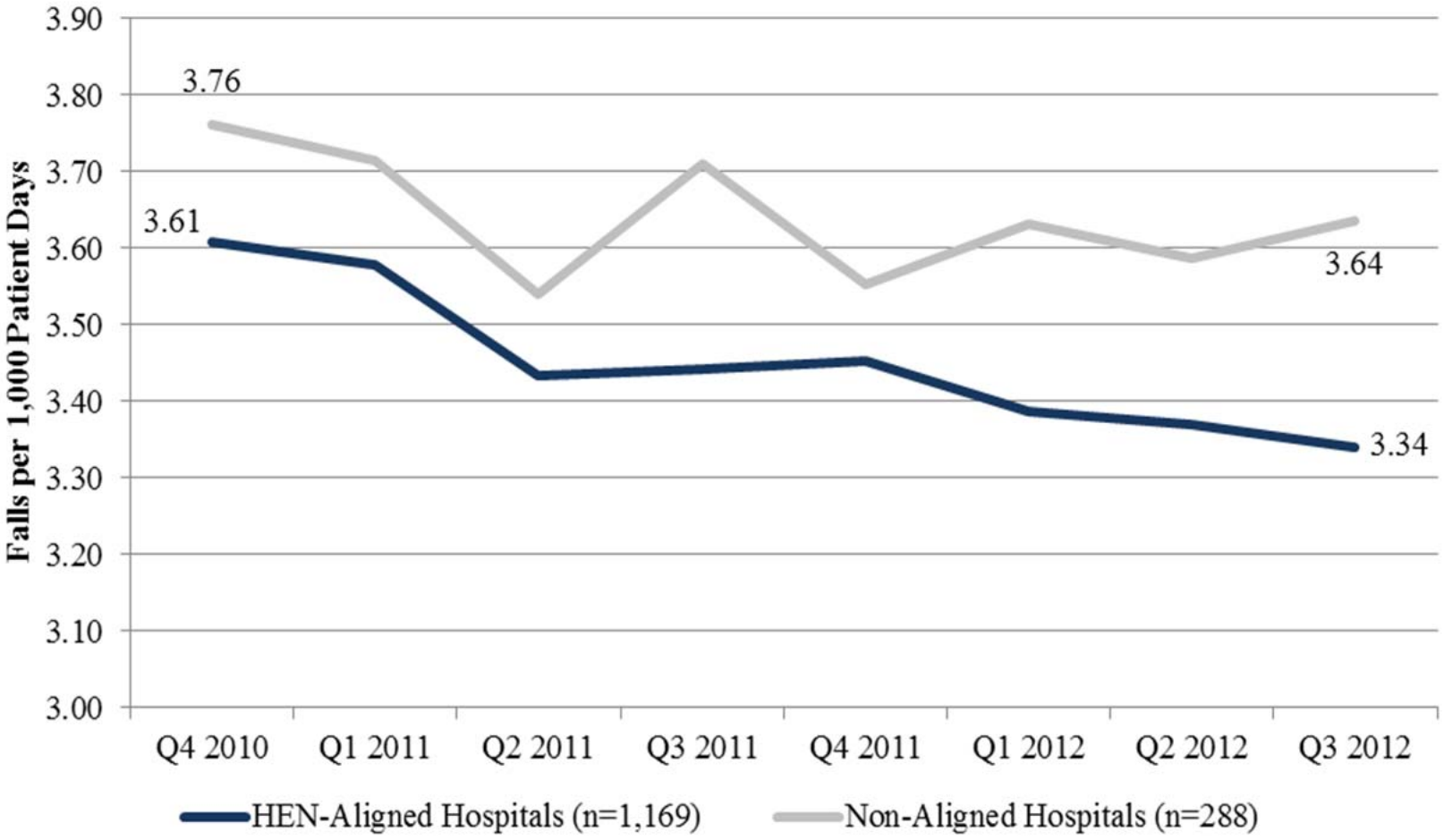
- Progress on ***Patient and Family Engagement*** is Accelerating
- ***National Support and Management System*** for Reducing HACs and Readmissions is in Place for 3700+ Hospitals
- Dramatic ***Progress on EEDs*** in Multiple Networks and Hundreds of Hospitals; Further Rapid Improvement Expected
- Initial Estimates Show ***Decreases in Average Medicare 30-Day Readmissions*** in 2012
- ***Trends Are Positive and Moving in the Right Direction***

Rate of Early Elective Delivery Among Births >=37 and <39 Weeks Gestation: 848 Hospitals from 19 HENs



Note: Baseline varied by HEN, Range=Jan 2010 to July 2012.Summer-Fall 2012 represented the most recent data reported by each HEN, Range= June to Oct 2012. Rates were weighted by number of hospitals in the 19 HENs: AHA, Ascension, Carolinas, DFW, Dignity, GA, IA , Intermountain, JCR, MI, NPHHI, NJ, NV, NY, PA, Premier, TN, VHA and WA.

Falls with Injury per 1,000 Patient Days (NDNQI Data)



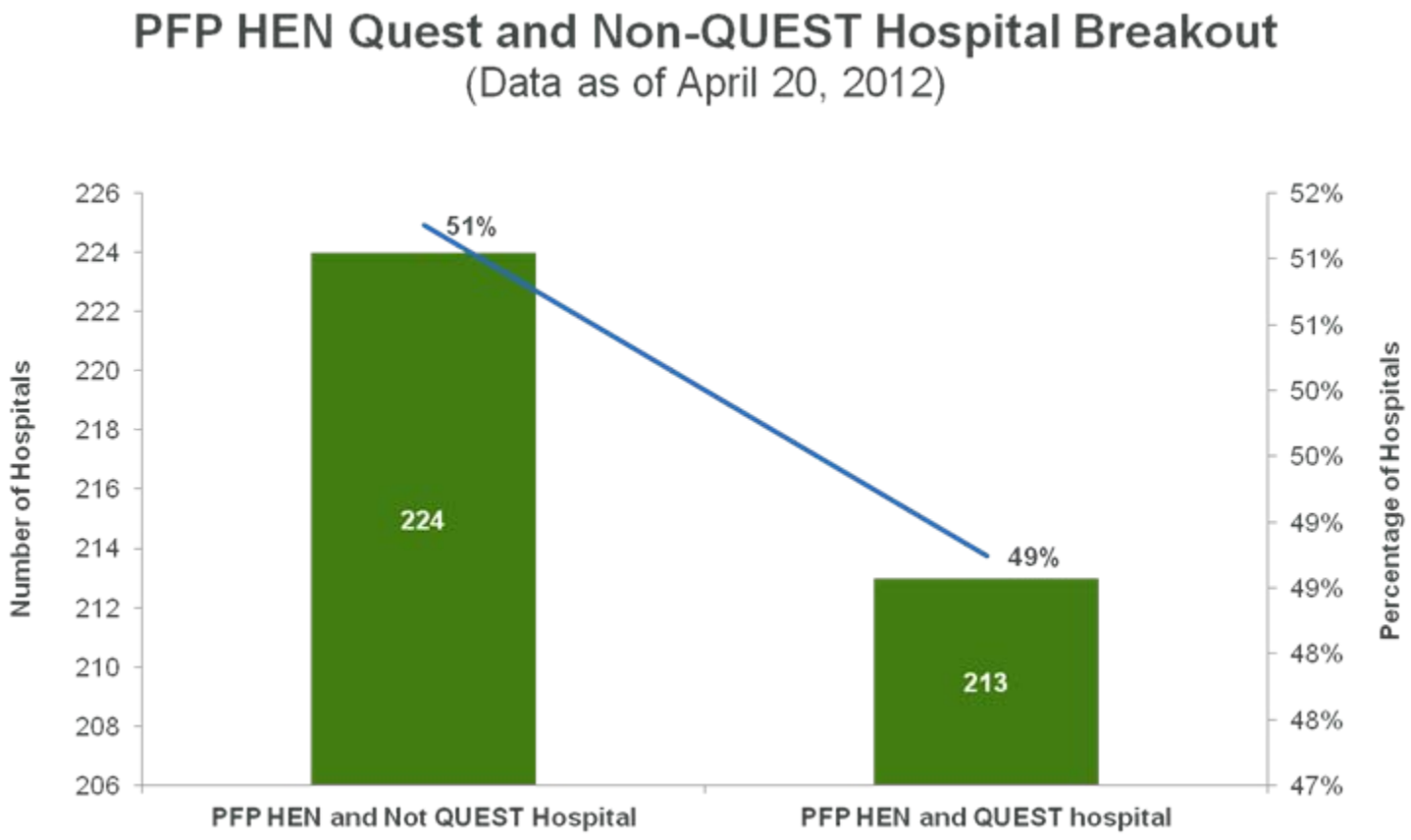
The Premier HEN PFP approach

Strategic Delivery Partners
Affinity Groups
Measurement
Communications
Education

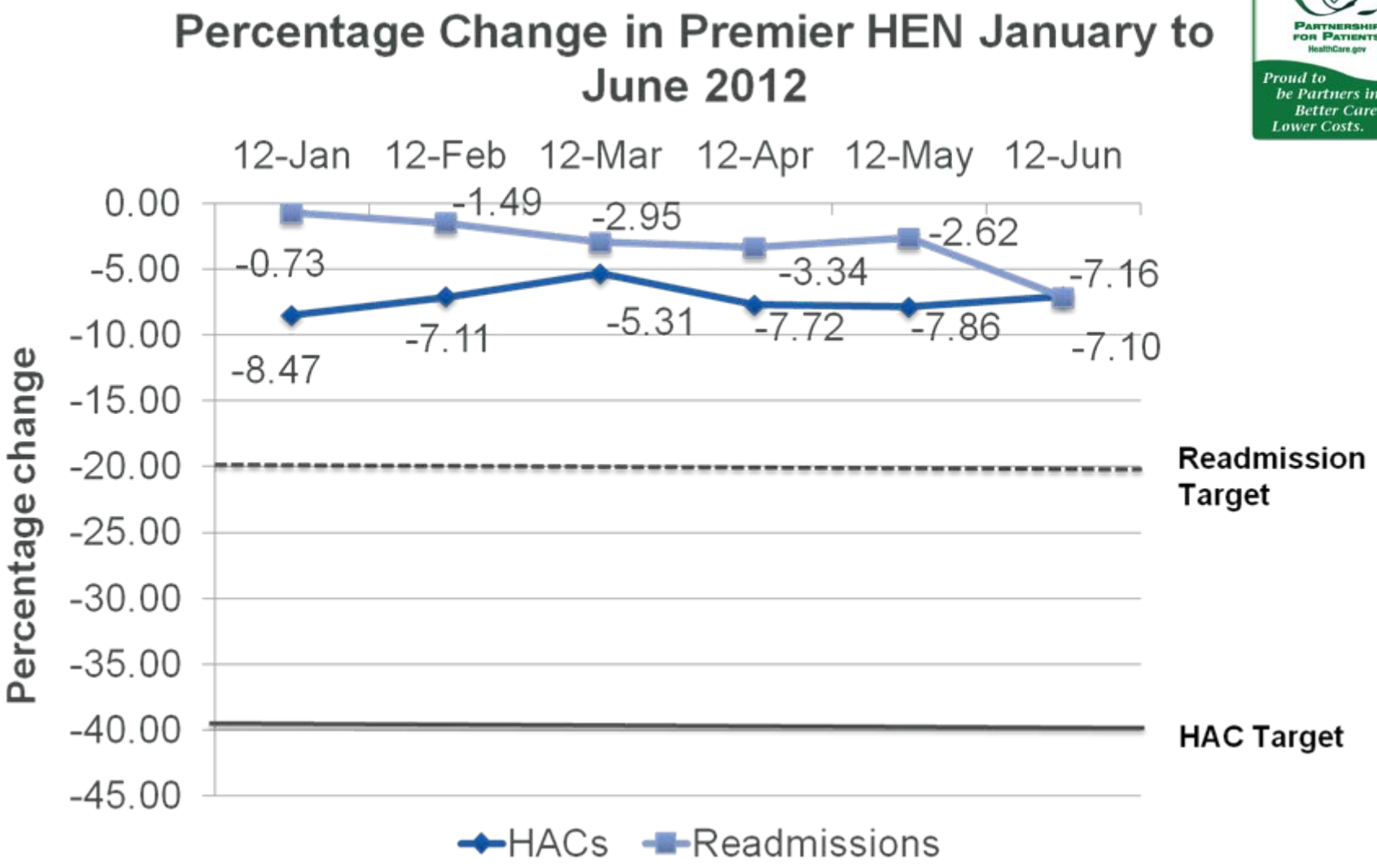
State and Federal Partners
Cross HEN Collaboration
CMS Support
NCD

CIAs

Premier PFP HEN Hospitals breakout: Quest/Non-Quest

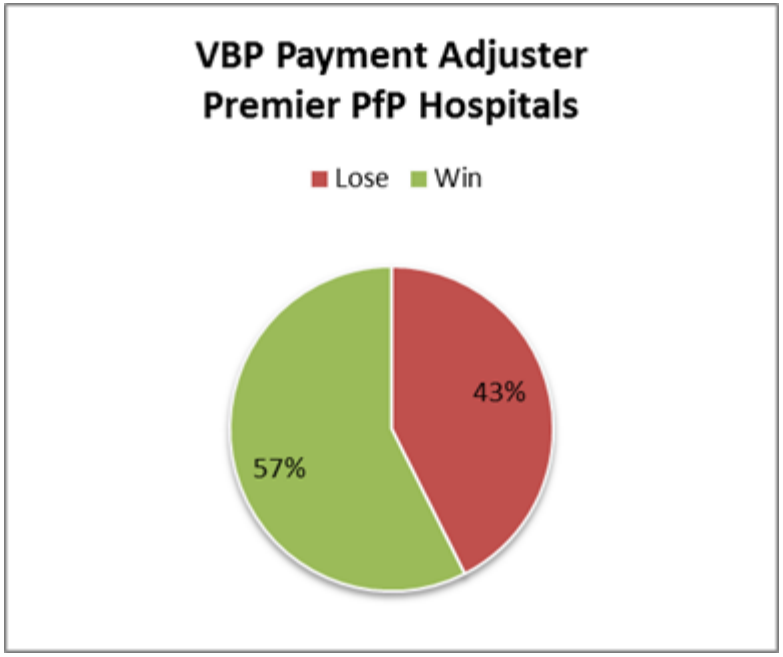


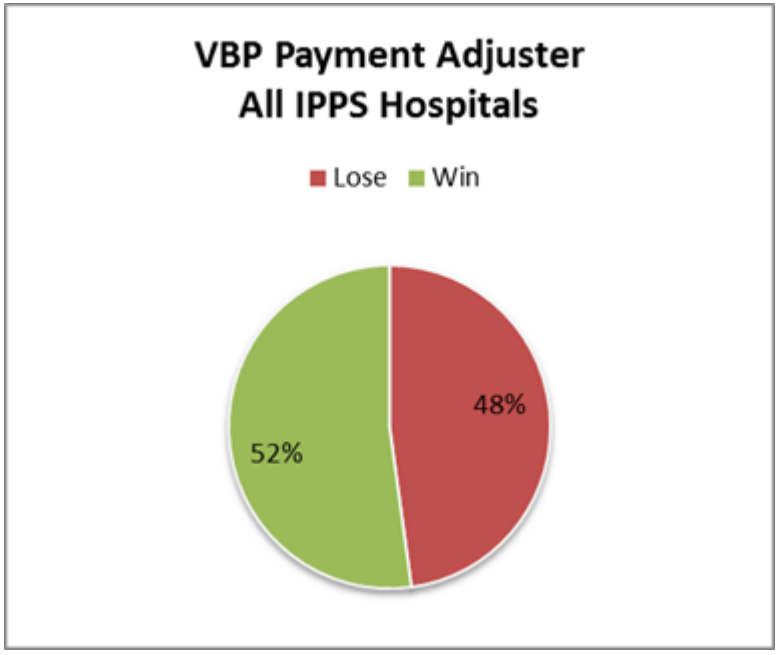
Partnership for Patients – Premier second QTR results



Impact on patients and communities

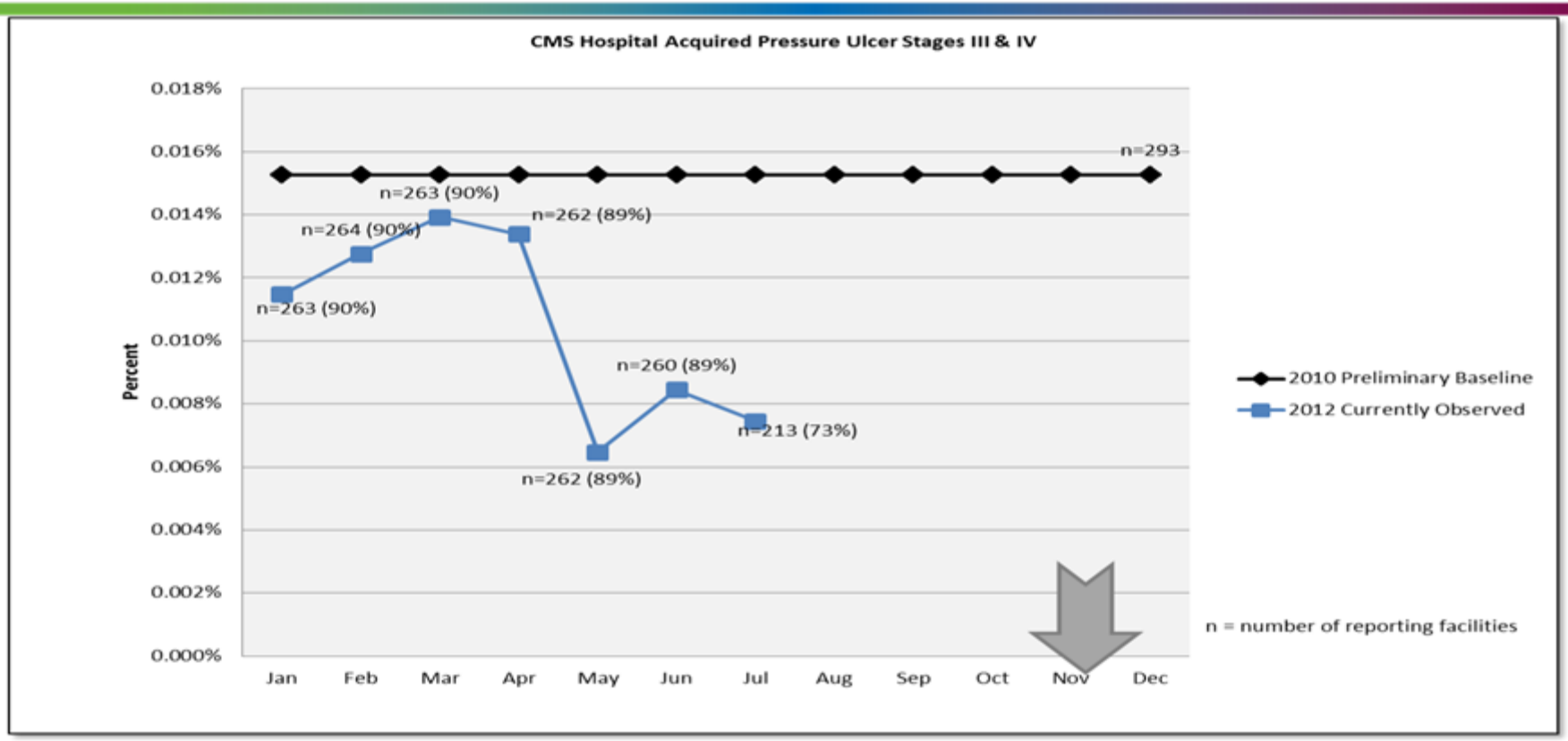
Value-based purchasing FY 2013





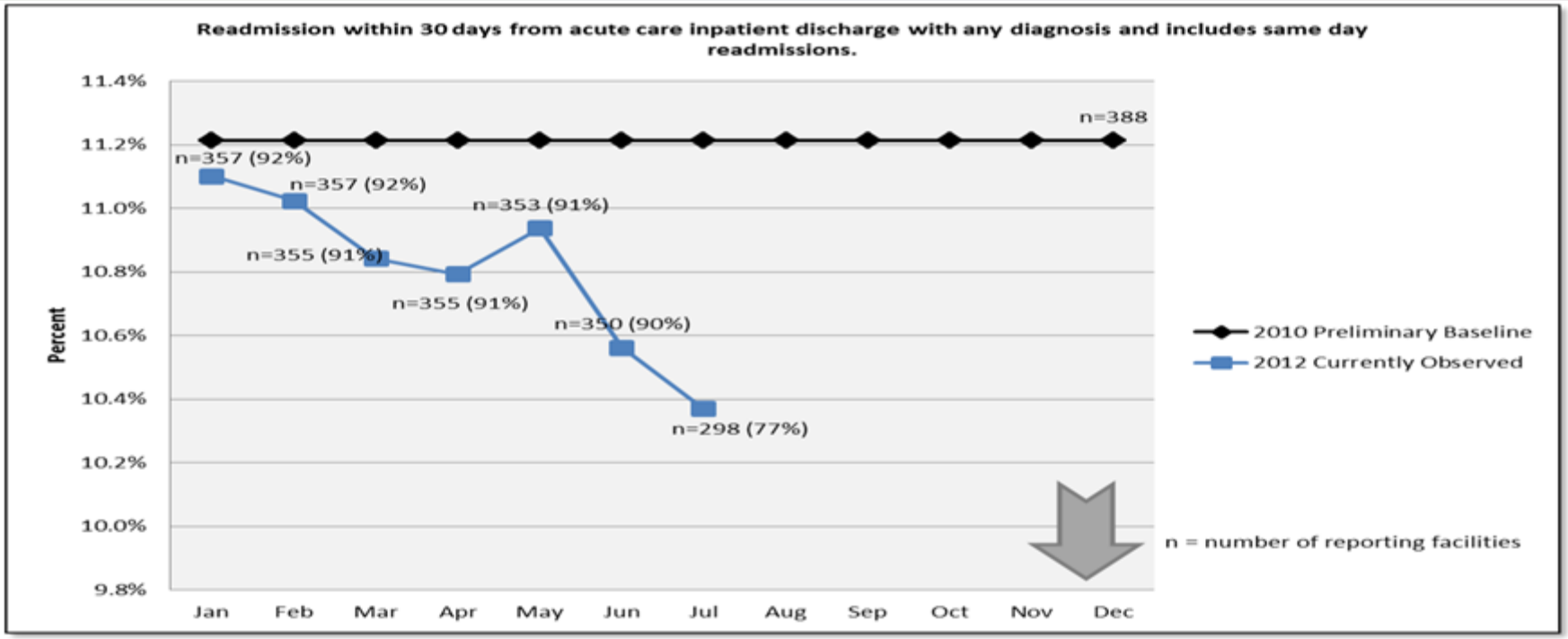
- A larger proportion of Premier PfP hospitals will receive incentive payments greater than their contribution payments in inpatient VBP in FY 2013
- Premier PfP hospitals are performing better than the nation in FY 2013 VBP measures overall

Success in pressure ulcer



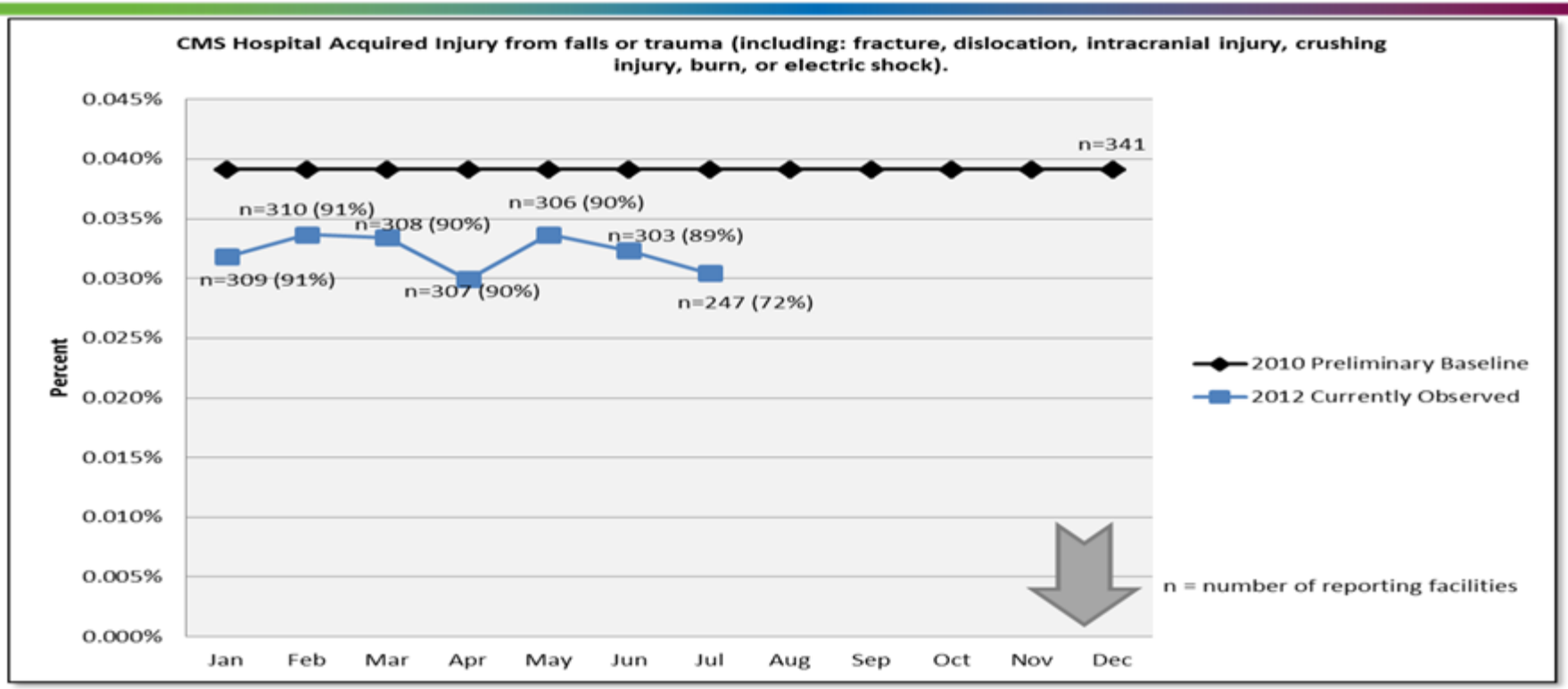
- 31% increased limitation of disposable briefs
- 30% increase in visual cue to document completion of admission risk assessment
- 25% have increased checklist to assist data collection for rates and practice
- 23% increased repositioning chair or wheelchair bound clients every hour
- 23% increased use of underpads that pull moisture away from the skin

Success in readmission



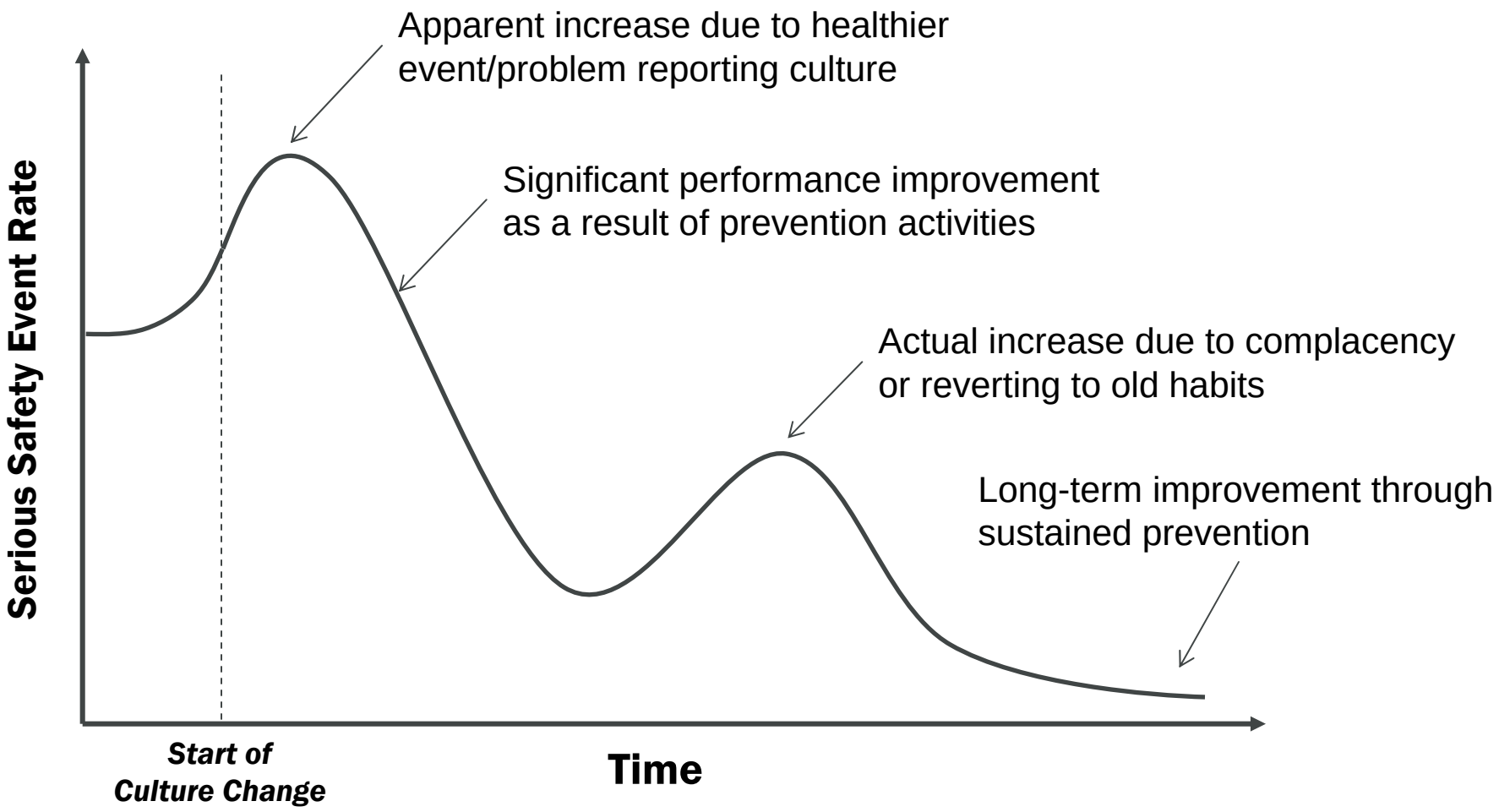
- 26% improvement confirming patient has a plan for post discharge services
- 26% improvement confirming patient is able to get their medications
- 24% improvement in contact info provided for PCP
- 23% improvement in listing at discharge of acute medical issues, tests and studies for which confirmed results are pending and require follow up
- 33% improvement in reviewing purpose of medication with patients
- 28% improvement in the use of “teachback” to educate patients about diagnosis and home care at discharge

Success in falls

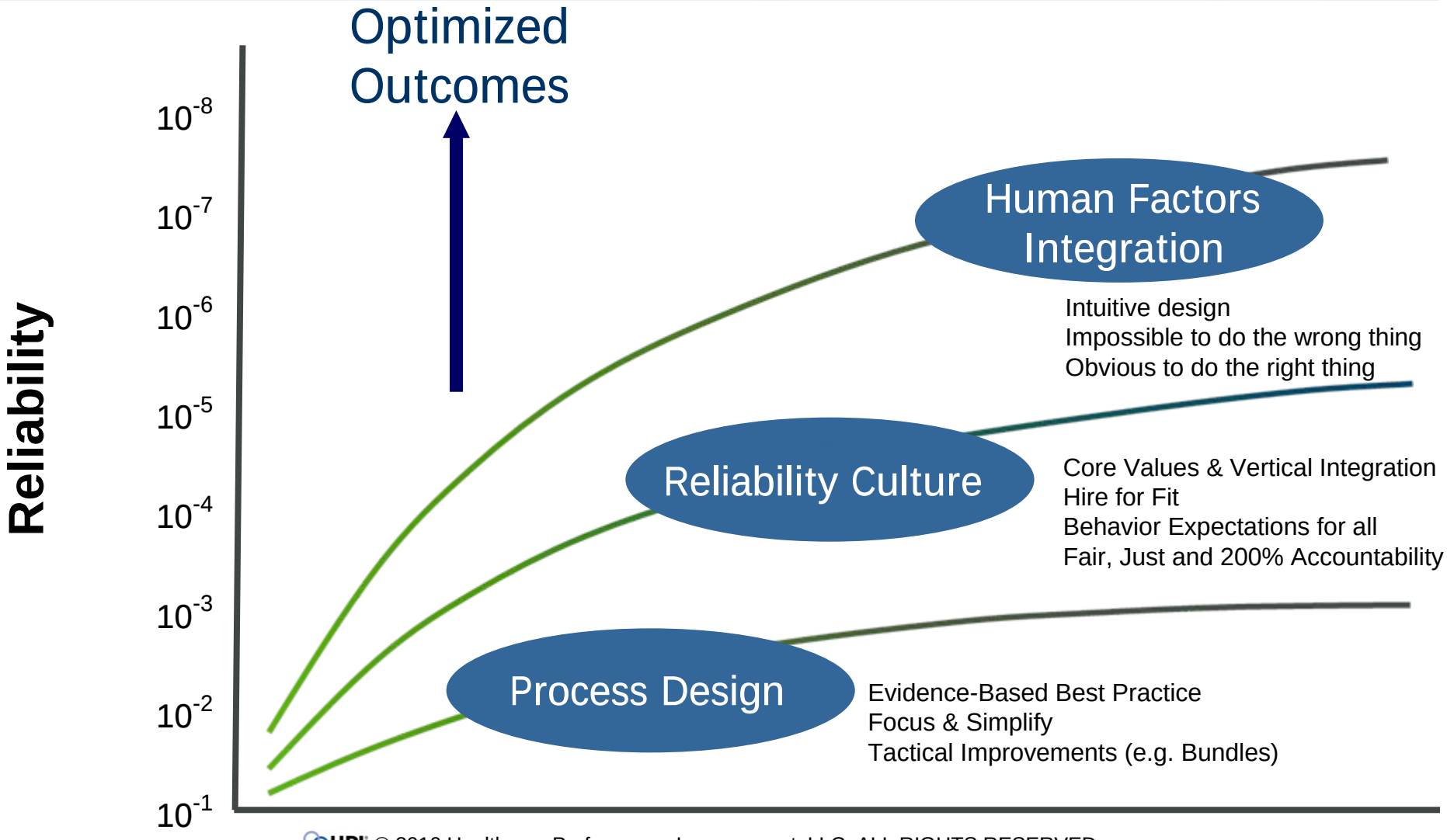


- 28% increase in adjusting falls risk to high risk medication starts or change in condition
- 26% increase in staff involved in environmental assessment
- 20% increase in use of alarms

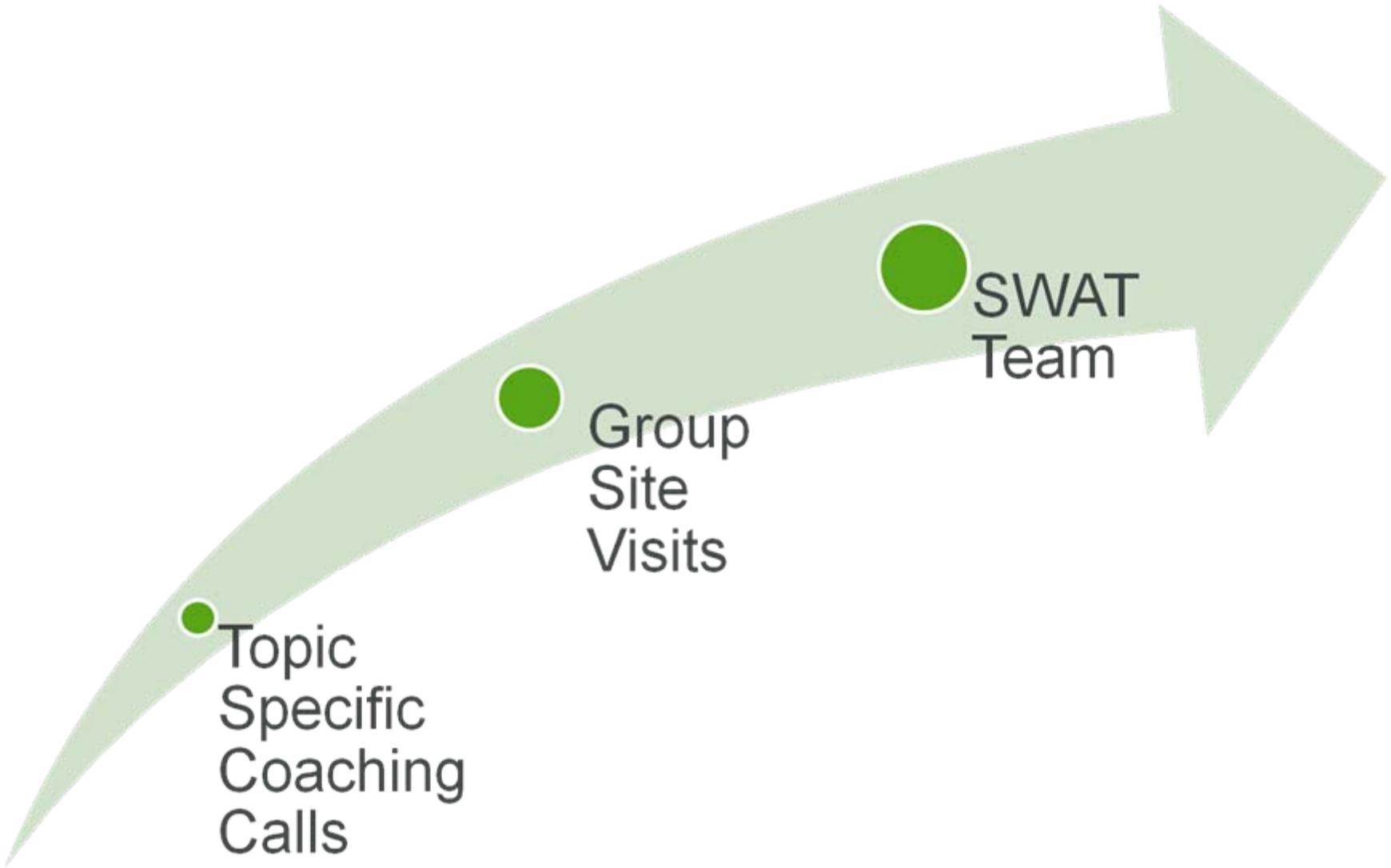
Typical improvement curve



Journey to improving reliability – getting to zero



Intervention plans for closing the gap for Year 2



PFP custom strategies for Year 2 results

PremierConnect™	New Premier online community provides access to gain best practice knowledge; new innovative ways to create knowledge transfer
Reporting/Analytics	Access to individualized benchmarked reports on progress to goal; identification of best practice hospitals
Sprints	Moving from “knowing to doing”
Collaboratives	An extended improvement initiative focused on ADEs, and Preventable Readmissions (CY13); other best practice knowledge sharing events
Regional Meetings	Focus on specific needs and special populations
Clinical Improvement Advisors (CIAs)	Site Visit 3 and 4 - continue customized approach and look for ways to connect hospitals to one another

Reducing Readmission Rates:

Patient Cognitive Status

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EQUAL JUSTICE UNDER LAW

Readmissions, so what?

- PPACA , is affirmed as lawful with one exception
- Value Based Purchasing (VBP) is a key element:
  - Critical aspects:
    - Standardized, comparative, and transparent information on patient outcomes and healthcare status
    - Patient experience (satisfaction)
    - Costs (direct, indirect) of services provided
- Section 3025 of the Affordable Care Act, section 1886(q)
  - Establishes the Hospital Readmissions Reduction Program
  - Reduces payments to IPPS hospitals with excess readmissions
  - Effective for discharges beginning on October 1, 2012
  - Heart Failure, Acute Myocardial Infarction, Pneumonia

Value Based Purchasing

- Departure from the Medicare fee-for-service (FFS) payment system
- Attempt to move away from excessive, costly, and complex services
- Focus on value, remembering that:

VALUE = QUALITY/COST

- By any measure, current cost of care is unsustainable and changes must be made

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What do they know about this car that we don't know about our patients?

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Bloom's Taxonomy of Cognitive Domain

Category	Description
Knowledge	Ability to recall previously learned material
Comprehension	Ability to grasp meaning, explain, restate ideas
Application	Ability to use learned material in new situations
Analysis	Ability to separate material into component parts and show relationship between parts
Synthesis	Ability to put together the separate ideas to form new whole, establish new relationships
Evaluation	Ability to judge the worth of material against stated criteria

Revised Anderson and Krathwohl Cognitive Taxonomy

Category	Description
Remember	Ability to recall previously learned material
Understand	Ability to grasp meaning, explain, and restate ideas
Apply	Ability to use learned material in new situations
Analyze	Ability to separate material into component parts and show relationships between parts
Evaluate	Ability to judge the worth of material against stated criteria
Create	Ability to put together the separate ideas to form new whole, establish new relationships

References

Anderson, L.W., and Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman.*

Bloom, B.S. and Krathwohl, D. R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals, by committee of college and university examiners. Handbook I: Cognitive Domain. NY, NY: Longmans, Green.*

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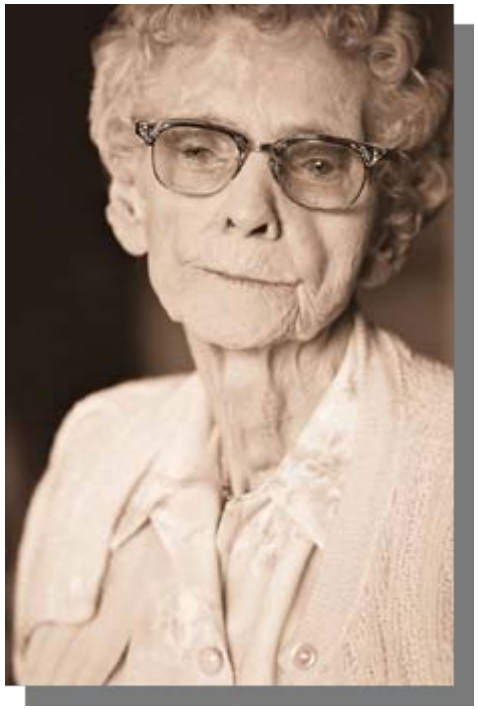
Delirium



- May become chronic or result in permanent sequelae
- Affects 14% - 56% of hospitalized elderly patients
- Mortality rates for patients with delirium ranges from 10% - 26%
- 20% of patients over 65 experience complications due to delirium

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Poorer Outcomes

- Agitation and lethargy
- Higher risk of medication side effects
- Long-term cognitive impairment
- Functional impairment
- Increased incidence of:
  - Re-hospitalization
  - Institutionalization
  - Death

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Increased Costs

Estimated at $2,500 per patient per hospitalization (approximately $6.9 billion Medicare expenditures) due to:

- Increased length of stay
- Increased intensity and complexity of care
- Increased pharmacological costs
- Higher involvement of medical personnel
- Higher post-discharge costs

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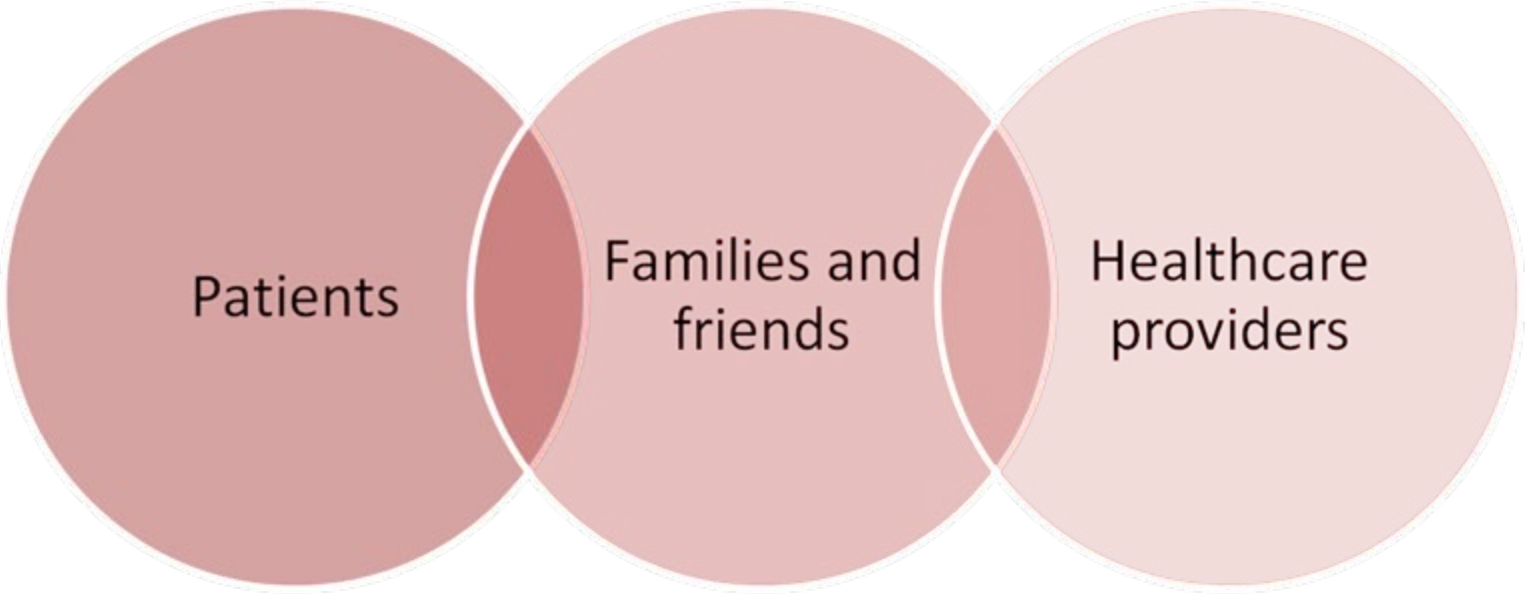
Additional Challenges

Psychologically stressful:



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Prevention of Delirium

- Estimated 30% - 40% of delirium cases preventable
- Prevention most effective strategy for minimizing delirium
- Common prevention strategies:
  - Avoidance of certain drugs (benzodiazepines, anticholinergic agents, minimize narcotics)
  - Environmental interventions (adequate nutrition, fluids, sleep, promote mobility, consistent staffing, etc.)

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Prevention of Delirium

- Improved mechanisms of assessing delirium and other cognitive disorders (eg, clinical history, screening tools)
- Healthcare providers proactive with addressing issues (hospitalists, specialists)
- More effective, evidence-based pharmacological therapies for management (eg, Haloperidol)
- Increased research on other agents (antipsychotics, cholinesterase inhibitors, 5-HT receptor antagonists, melatonin, and Alpha-2 agents)

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Why Now? Why Not?

- AHRQ determined occurrence of delirium marker of quality of care and patient safety
- Identified as one of top three conditions for which quality of care needs improvement
- Government mandate to reduce healthcare utilization and costs
- Greater number of elderly patients hospitalized (eg, longer life expectancy, baby boomers, medical comorbidity)

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Overview

- Screening assessment range from interview-based observations to more elaborate neuropsychological screening measures.
  - Blessed Orientation, Concentration, and Memory Test (BOMC)
  - Confusional Assessment Method (CAM)
  - Abbreviated Memory Test (AMT)
  - Mini-Mental Status Examination (MMSE)
  - Clock Drawing Test (CDT)
  - Montreal Cognitive Assessment (Moca)

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Blessed Orientation Memory Concentration Test (BOMC)

Item	Max. Error	Score	Weight
What year is it now?	1		X4
What month is it now?	1		X3
About what time is it? (within 1 hour)	1		X4
Count Backwards 20 to 1	2		X2
Say the months in Reverse Order starting with Dec.	2		X2
Memory	5		X2
John (1)			
Brown (1)			
42 (1)			
Market (1)			
Chicago (1)			Total

BOMC Scoring

- Multiply error by weighted score and total weighted scores
  - Maximum score = 28
  - 10 = “consistent with dementia”
  - Normal = ≤ 6

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Confusional Assessment Method (CAM)

- Originally developed in 1988-1990 to recognize Delirium
- Frequently used screening for delirium
- Sensitivity ranges between 94 – 100% and specificity 90 – 95%
- Completed based on an interview with the patient and in conjunction with a brief cognitive screen (e.g., MMSE)
- Training manual is available at Cam Training Manual (http://www.viha.ca/NR/rdonlyres/0AC07A64-FF24-41E3-BDC5-41CFE4E44F33/0/cam_training_pkg.pdf)

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CAM

1. Acute Onset
2. Inattention
3. Disorganized Thinking
4. Altered Level of Consciousness
5. Disorientation
6. Memory Impairment
7. Perceptual Disturbances
8. Psychomotor Agitation
9. Psychomotor Retardation
10. Altered Sleep-Wake Cycle

In general, each domain has 3 parts. **Part A** is whether or not a behavior was present or the extent to which it is present.

Part B – Was there fluctuations noted during the interview?

Part C – Examples of behavior observed or source of information

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Systemic Review of CAM

- 239 original articles consisting of validation studies, adaptations, translations, and applications.
- Validation studies: Combined: Sensitivity = 94%, Specificity = 89%

Study	Study Population (N)	Sensitivity	Specificity	Inter-rater reliability
Gonzalez (2004)	Inpts ≥ 65	.90	1.0	k=.89
Laurila (2002)	Pts > 70	.81-.86	.63-.84	n/r
Fabbri (2001)	Pts ≥60	.94	.96	k=.70
Monette (2001)	Pts ≥ 66	.86	1.0	k=.91
Ely (2001)	ICU pts.	.95-1.0	.89-.93	K=.79-.95

Wei, Sternberg, and Inouye (2008)

Abbreviated Memory Test (AMT)

- Developed in 1972 and utilized primarily in hospital settings, although better screens available
- Generally correlated with MMSE, but validity studies are lacking
- Score of ≤6 is worrisome for delirium or dementia

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AMT

- ✓ What is your age?
- ✓ What is the time to the nearest hour?
- ✓ Provide an address and patient to repeat it at the end of the test. (e.g., 42 West Street)
- ✓ What is the year?
- ✓ What is the name of the hospital?
- ✓ Can the patient recognize two people?
- ✓ In what year did World War 1 begin? (any past historical date can be used)
- ✓ Name the current president of the US.
- ✓ Count backwards from 20 to 1.

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Mini-Mental Status Examination (MMSE)

- 8-minute administration (range 4-21 minutes)
- 30-points
- Two versions:
  - Serial 7s
  - Spell “World” Backward
- Scores can be effected by education, language, can cultural factors
- Age and Education corrected normative data available from PAR, Inc.
- Cut-off values vary depending on education.
  - ≤ 23 for 12 years of education
  - ≤ 25 for higher education levels
- Sensitivity and Specificity vary depending on population
- Limitations:
  - Does not access executive functions, planning
  - Limited ability to detect post-stroke cognitive impairment, Non-AD dementias, or subcortical deficits.

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Woodford and George, 2007

Clock Drawing Test (CDT)

- Takes 1-2 minutes to administer
- Screens for visuospatial, constructional praxis, and frontal/executive impairment
- Patient asked to draw a circle, place numbers of clock face, and to draw hands so that the clock reads a specific time (e.g., 10 past 11)
- Numerous scoring systems, although no consensus on which is the best
- Non-consensus on efficacy
- Poor at differentiating subtypes of dementia
- Sensitivity and specificity vary depending on populat
  approximately 85%

CDT – Scoring Systems

CAMDEX

A.Clock face drawn

B.Numbers located within clock

C.Correct time indicated

Score:

0 = Unable to make drawing resemble a clock

1 = 1 of 3 elements are correct

2 = 2 of 3 elements are correct

3 = All items are correctly drawn

Shulman

0 = Unable to make drawing resemble a clock

1 = Severe disorganization (e.g., spacing, omitted numbers, perseverations, right-left reversal, dysgraphia, no time indicated)

2 = Moderate visuospatial disorganization, unable to indicate time due to spatial difficulties

3 = Inaccurate time representation when visuospatial organization is intact or minor deviations

4 = Minor visuospatial errors (e.g. mild spacing difficulties, drawing time outside of circle, writing numbers upside down, draws “spokes” to help with spacing)

5 = Drawing intact

CDT – Scoring Systems

Method for evaluating clock drawings described by Sunderland and colleagues[14]

Score	Criterion
10–6	**Drawing of clock face with circle and number is generally intact.**
10	Hands are in correct position.
9	Slight errors in placement of the hands.
8	More noticeable errors in the placement of hour and minute hands.
7	Placement of hands is significantly off course.
6	Inappropriate use of clock hands (i.e., use of digital display or circling of numbers despite repeated instructions).
5–1	**Drawing of clock face with circle and numbers is *not* intact.**
5	Crowding of numbers at one end of the clock or reversal of numbers. Hands may still be present in some fashion.
4	Further distortion of number sequence. Integrity of clock face is now gone (i.e., numbers missing or placed at outside of the boundaries of the clock face).
3	Numbers and clock face no longer obviously connected in the drawing. Hands are not present.
2	Drawing reveals some evidence of instructions being received but only a vague representation of a clock.
1	Either no attempt or an uninterpretable effort is made.

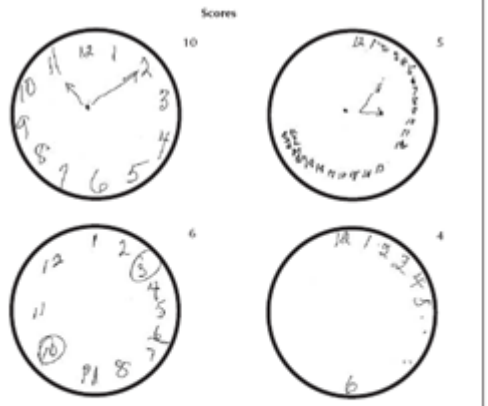


Fig. 2: Method described by Sunderland and colleagues[14] for scoring clock drawings. As described in Fig. 1, patients are given a predrawn circle and asked to draw a clock and the time as "10 past 11." Top: Scoring criteria. Bottom: Examples of clock drawings and scores derived using this method. Scores of 6 or more are considered normal.

Method for evaluating clock drawings described by Watson and colleagues[11]

1. Divide the circle into 4 equal quadrants by drawing one line through the centre of the circle and the number 12 (or a mark that best corresponds to the 12) and a second line perpendicular to and bisecting the first.
2. Count the number of digits in each quadrant in the clockwise direction, beginning with the digit corresponding to the number 12. Each digit is counted only once. If a digit falls on one of the reference lines, it is included in the quadrant that is clockwise to the line. A total of 3 digits in a quadrant is considered to be correct.
3. For any error in the number of digits in the first, second or third quadrants assign a score of 1. For any error in the number of digits in the fourth quadrant assign a score of 4.
4. Normal range of score is 0–3. Abnormal (demented) range of score is 4–7.

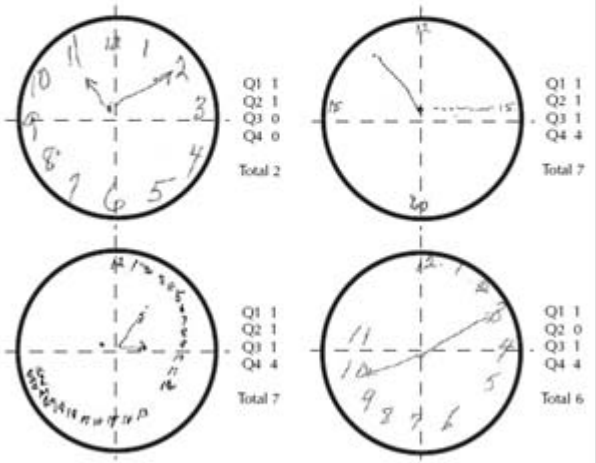
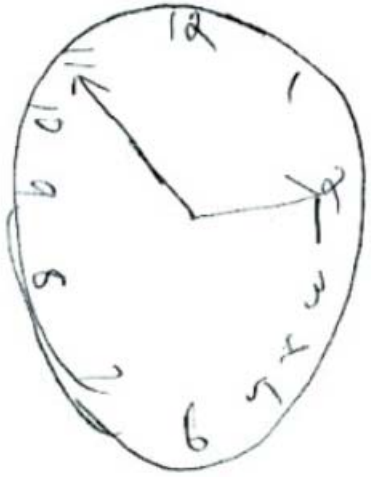
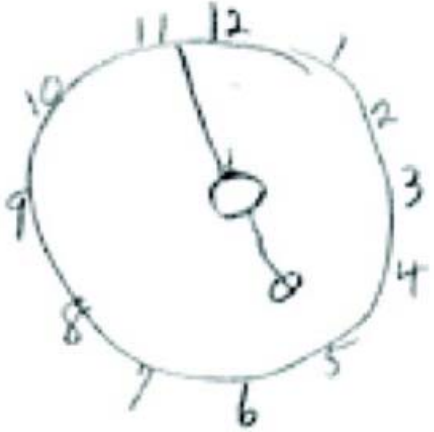
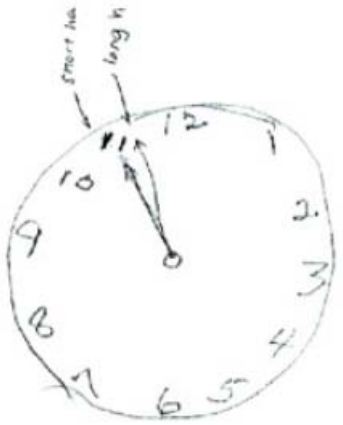


Fig. 1: Method described by Watson and colleagues[11] for scoring clock drawings. Patients are given a predrawn circle and asked to draw numbers on it to make it look like a clock. They are then asked to draw the hands of the clock to read "10 past 11." Top: Scoring criteria. Bottom: Examples of patients' clock drawings and scores derived using this method.

CDT: Examples







Montreal **C**ognitive **A**ssessment (MoCA)

- **Assesses:**
  - ✓ Cognitive Flexibility
  - ✓ Visual-spatial construction
  - ✓ Confrontational naming
  - ✓ Delay recall (with option category prompts and multiple choice)
  - ✓ Attention
  - ✓ Repetition
  - ✓ Phonemic verbal fluency
  - ✓ Orientation
- **Three different versions**
- **Available in numerous languages**
-

Nasreddine, Z: http://www.mocatest.org

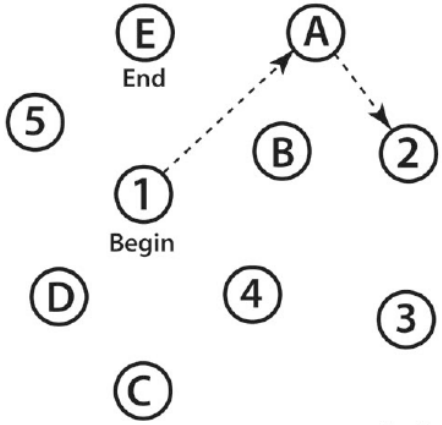
- Arabic
- Afrikaans
- Chinese *(Beijing, Cantonese, Changsha, Hong Kong, Taiwan)*
- Czech
- Croatian
- Danish
- Dutch
- Estonian
- Filipino
- Finnish
- French
- German
- Greek
- Hebrew
- Italian
- Japanese
- Korean
- Norwegian
- Persian
- Polish
- Portuguese
- Russian
- Serbian
- Sinhalese
- Slovak
- Spanish
- Swedish
- Thai
- Turkish
- Ukrainian
- Vietnamese

MoCA (version 1)

MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

NAME :
Education :
Sex :
Date of birth :
DATE :

VISUOSPATIAL / EXECUTIVE



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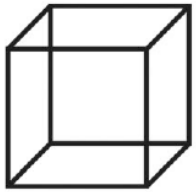


Copy cube

[ ]

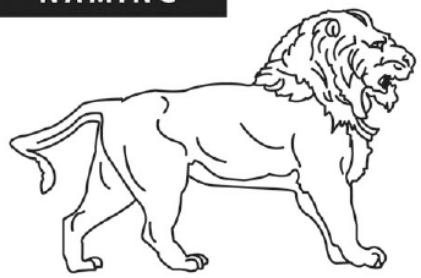
Draw CLOCK (Ten past eleven)
(3 points)

[ ] Contour [ ] Numbers [ ] Hands

POINTS

___/5

NAMING



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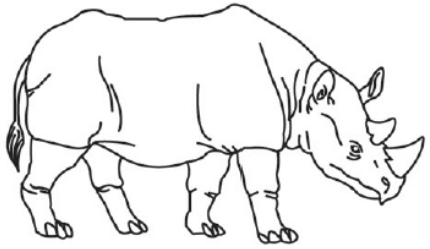

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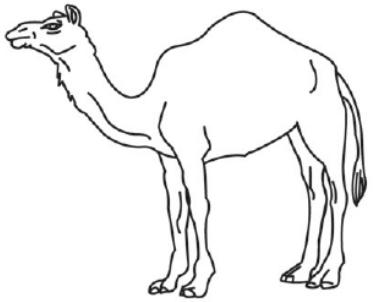

[ ]

___/3

MEMORY

Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED	No points
1st trial						
2nd trial						

ATTENTION

Read list of digits (1 digit/ sec.).

Subject has to repeat them in the forward order [ ] 2 1 8 5 4

Subject has to repeat them in the backward order [ ] 7 4 2 ___/2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors

[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B ___/1

Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65

4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt** ___/3

LANGUAGE

Repeat : I only know that John is the one to help today. [ ]

The cat always hid under the couch when dogs were in the room. [ ] ___/2

Fluency / Name maximum number of words in one minute that begin with the letter F [ ] _____ (N ≥ 11 words) ___/1

ABSTRACTION

Similarity between e.g. banana - orange = fruit [ ] train – bicycle [ ] watch - ruler ___/2

DELAYED RECALL

	Has to recall words **WITH NO CUE**	FACE [ ]	VELVET [ ]	CHURCH [ ]	DAISY [ ]	RED [ ]	Points for UNCUED recall only
Optional	Category cue						
	Multiple choice cue						

___/5

ORIENTATION

[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City ___/6

www.mocatest.org

Normal ≥ 26 / 30

TOTAL ___/30

Add 1 point if ≤ 12 yr edu

Administered by: _____

MoCA Normative Data

MOCA SCORES

	Normal Controls (NC)	Mild Cognitive Impairment (MCI)	Alzheimer's Disease (AD)
Number of subjects	90	94	93
MoCA average score	**27.4**	**22.1**	**16.2**
MoCA standard deviation	2.2	3.1	4.8
MoCA score range	25.2 – 29.6	19.0 – 25.2	21.0 – 11.4
Suggested cut-off score	**≥26**	**<26**	**<26ψ**

ψ Although the average MoCA score for the AD group is much lower than the MCI group, there is overlap between them. The suggested MoCA cut-off score is thus the same for both. The distinction between AD and MCI is mostly dependent on the presence of associated functional impairment and not on a specific score on the MoCA test.

Nasreddine, Z: http://www.mocatest.org

MoCA Items Average scores

	NC		MCI		AD	
	AVG	SD	AVG	SD	AVG	SD
Trails	0.87	0.34	0.56	0.50	0.27	0.45
Cube	0.71	0.46	0.46	0.50	0.25	0.43
Clock	2.65	0.65	2.16	0.82	1.56	0.98
Naming	2.88	0.36	2.64	0.58	2.19	0.82
Memory	3.73	1.27	1.17	1.47	0.52	1.03
Digit span	1.82	0.44	1.83	0.43	1.49	0.62
Letter A	0.97	0.18	0.93	0.26	0.67	0.47
Serial 7	2.89	0.41	2.65	0.65	1.82	1.12
Sentence rep	1.83	0.37	1.49	0.71	1.37	0.80
Fluency F	0.87	0.34	0.71	0.45	0.32	0.47
Abstraction	1.83	0.43	1.43	0.68	0.99	0.80
Orientation	5.99	0.11	5.52	0.84	3.92	1.73
Total *	27.37	2.20	22.12	3.11	16.16	4.81

SD=Standard Deviation. AVG=Average
*Total is adjusted for education

Nasreddine ZS, Phillips NA, Bédirian V, Charbonneau S, Whitehead V, Collin I, Cummings JL, Chertkow H. The Montreal Cognitive Assessment (MoCA©): A Brief Screening Tool For Mild Cognitive Impairment. J Am Geriatr Soc 53:695–699, 2005.

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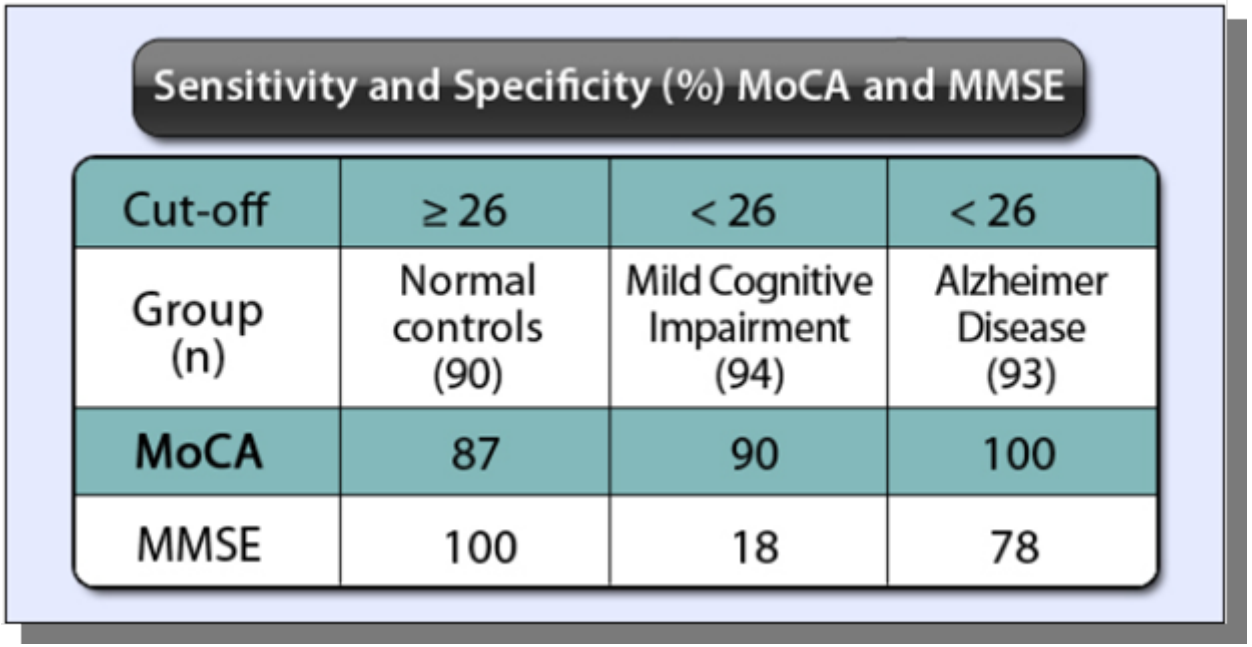
MoCA Normative Data



Sensitivity and Specificity (%) MoCA and MMSE

Cut-off	≥ 26	< 26	< 26
Group (n)	Normal controls (90)	Mild Cognitive Impairment (94)	Alzheimer Disease (93)
MoCA	87	90	100
MMSE	100	18	78

Nasreddine, Z: http://www.mocatest.org

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Summary

Domain	BOMC	MMSE	CDT	MOCA	AMT
ATTENTION/CALCULATION	+	+	+	+	+
EXECUTIVE FUNCTIONS	-	-	+	+	-
LANGUAGE	-	+	-/+	+	-
ORIENTATION	+	+	-	+	+
SHORT TERM MEMORY	+	+	-	+	+
SEMANTIC MEMORY	-	-	+	+	-
LONG TERM MEMORY	-	-	-	-	-
VISUOSPATIAL	-	+	+	+	-

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References

Woodford, H.J. and George, J. (2007). Cognitive assessment in the elderly: a review of clinical methods. QJM: An International Journal of Medicine, 105(7), 469- 484.

University of Florida, Institute of Aging. http://www.aging.ufl.edu/files/pdf/tools/clockanalysis.pdf

Nasreddine, Z. The Montreal Cognitive Assessment. http://www.mocatest.org

Wei, Leslie A, Fearing, Michael A., Sternberg, Eliezer J., Inouye, Sharon K. (2008). The Confusion assessment method (CAM): A systematic review of current usage. Journal of the American Geriatric Society, 56(5), 823-830

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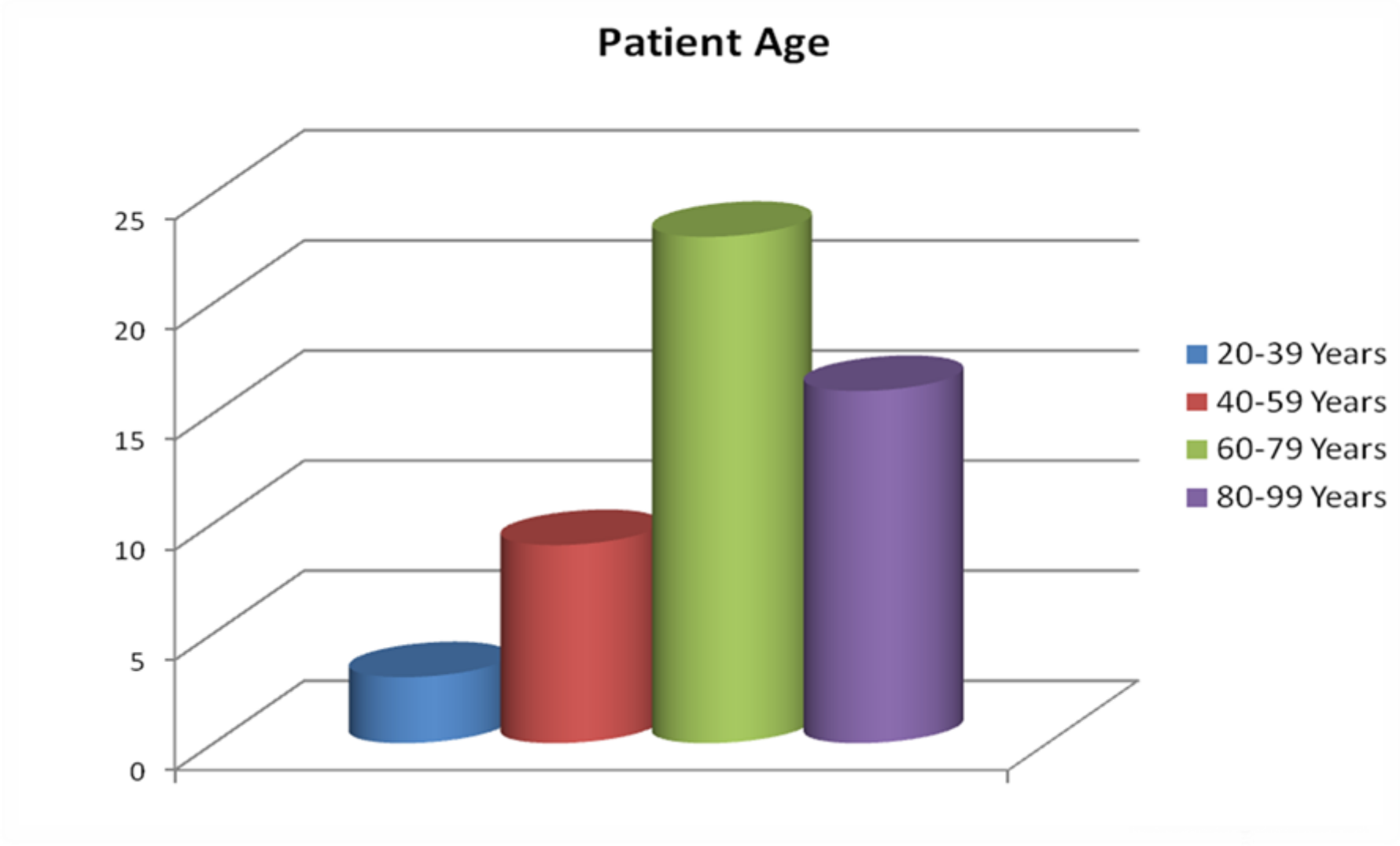
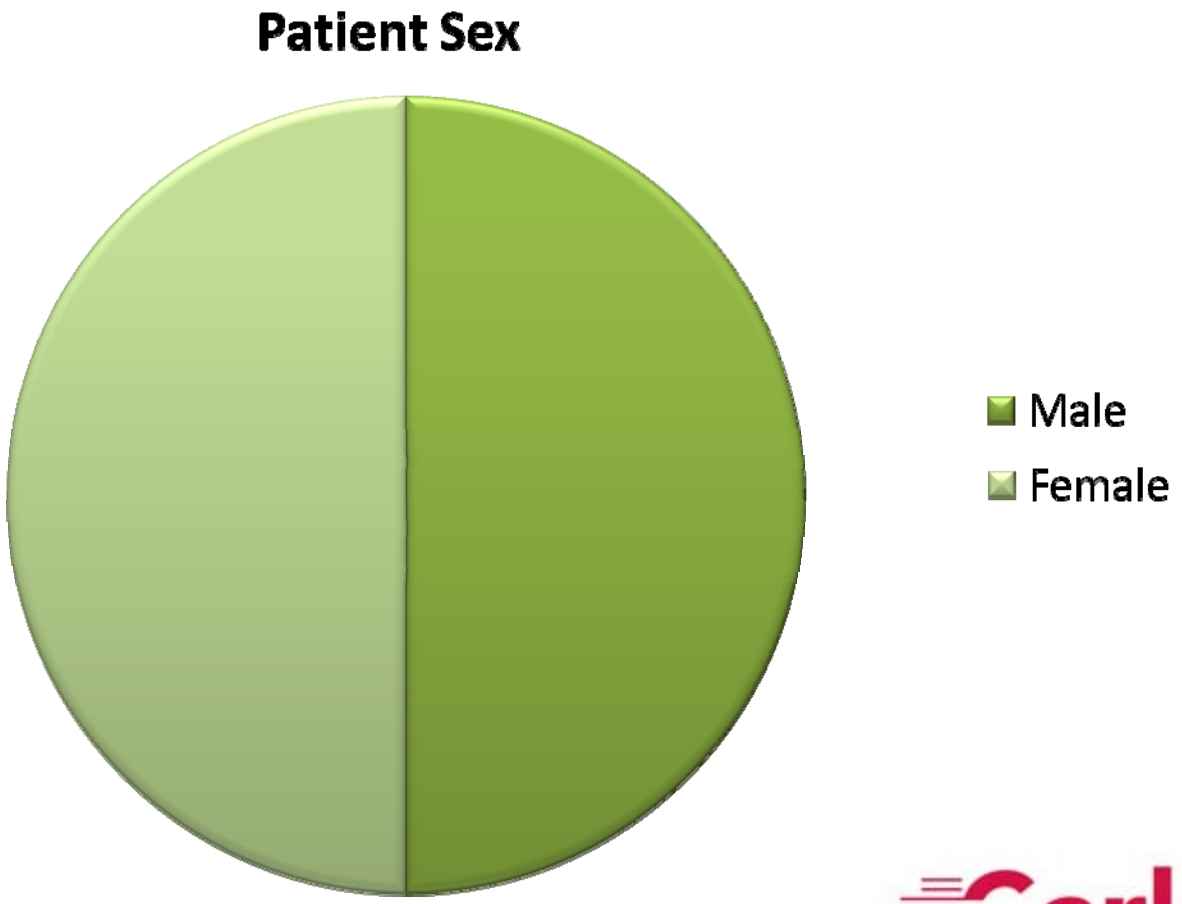
MoCA Testing at Carle



MoCA Testing at Carle



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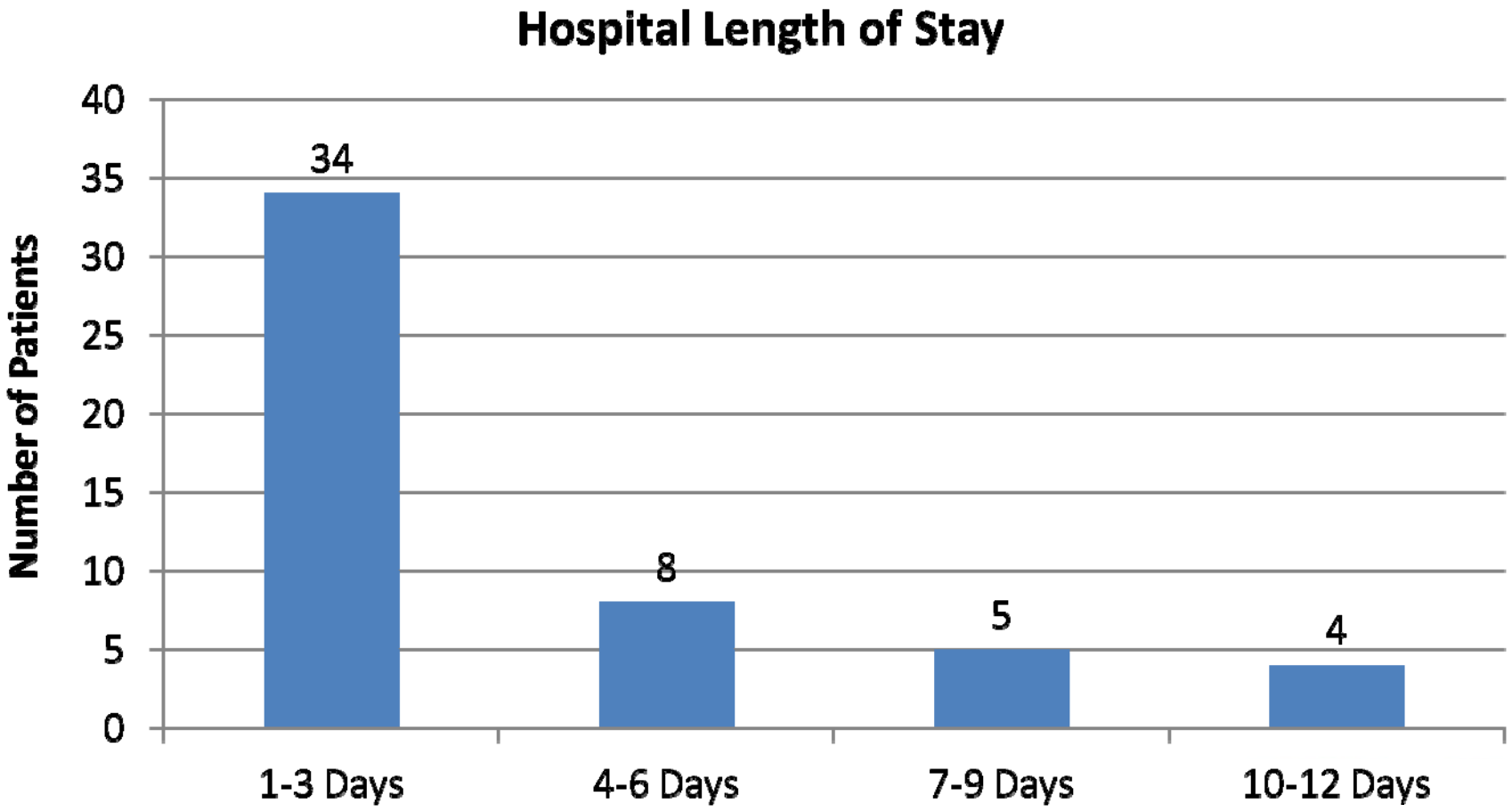
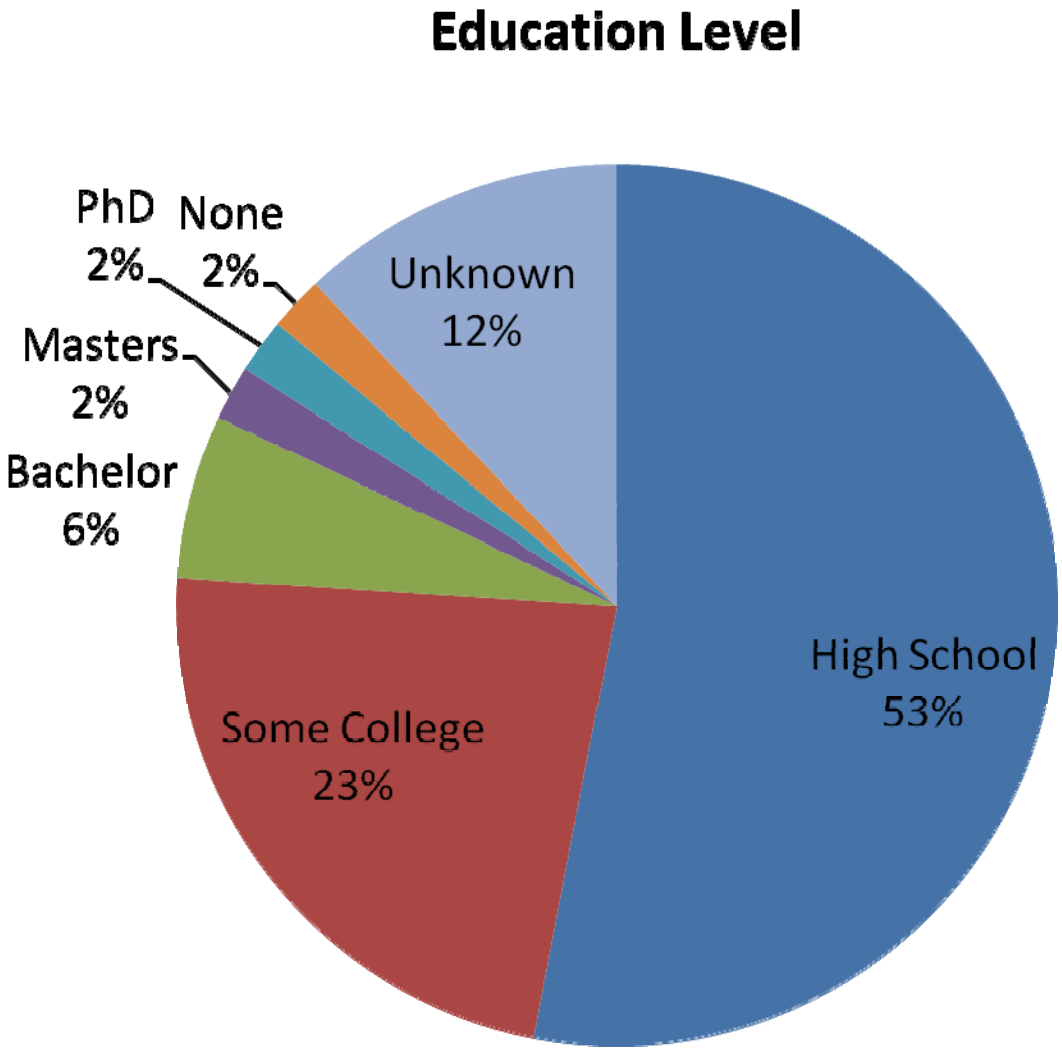
MoCA Testing at Carle



MoCA Testing at Carle



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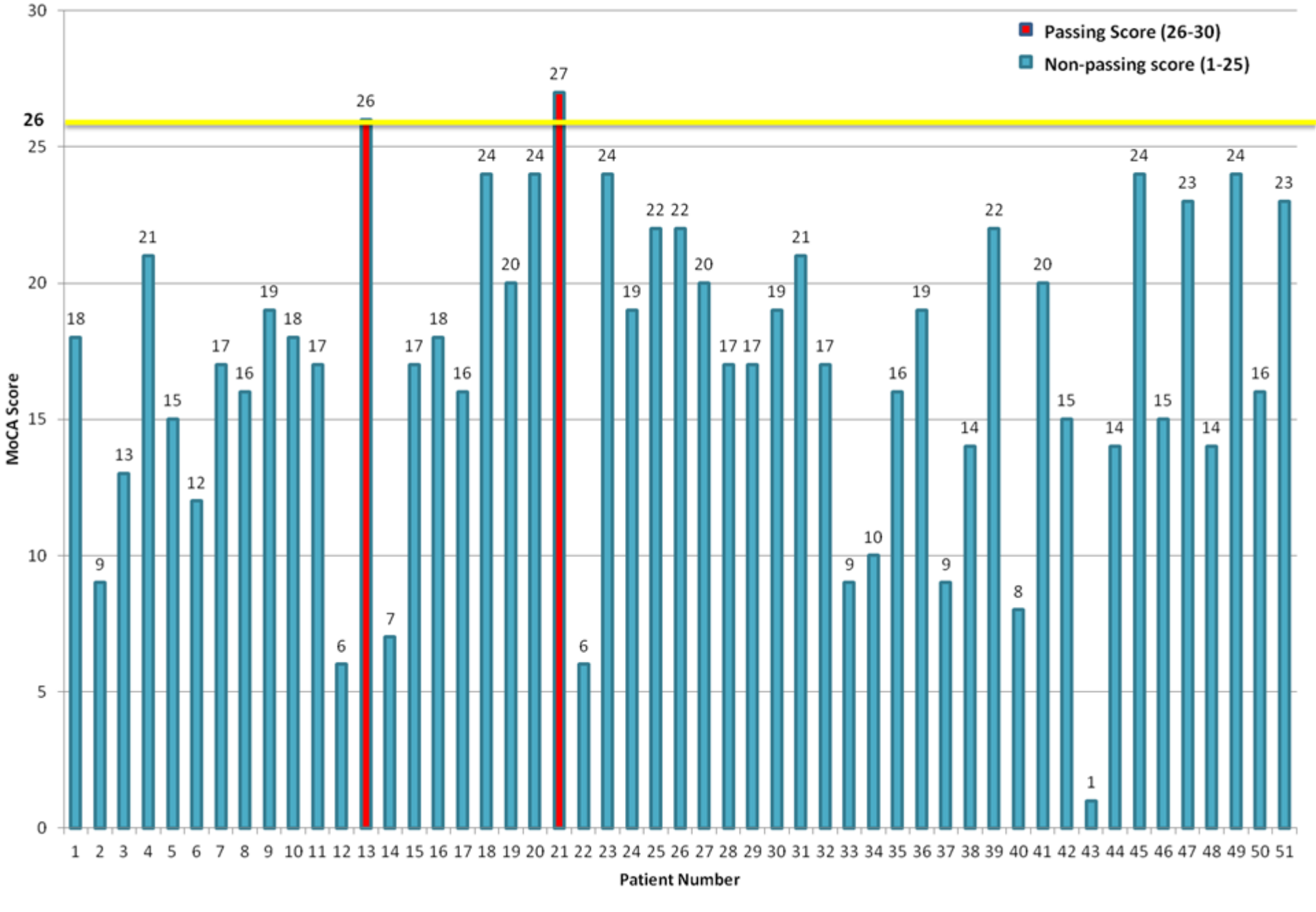
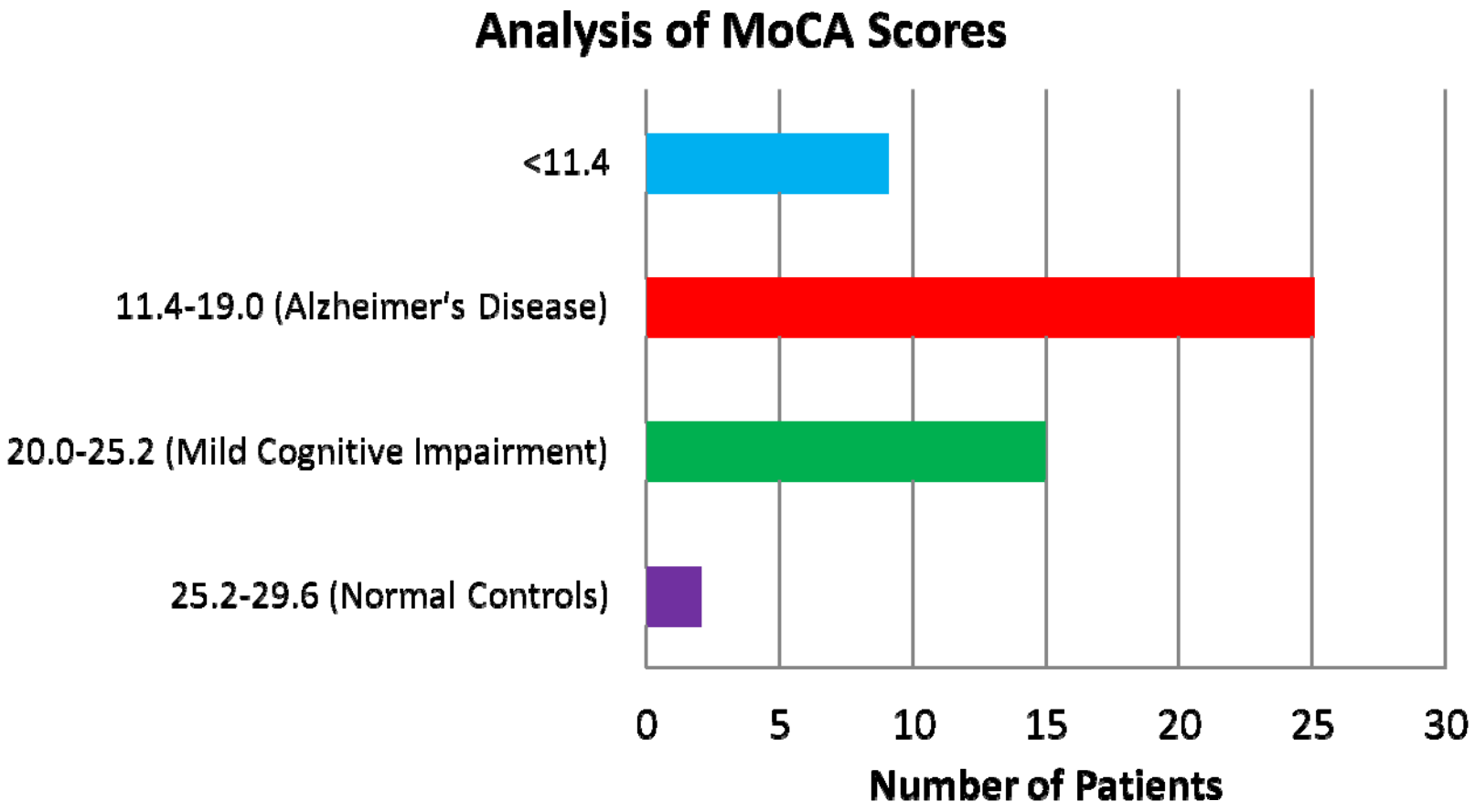
MoCA Score in Carle Patients



MoCA Testing at Carle



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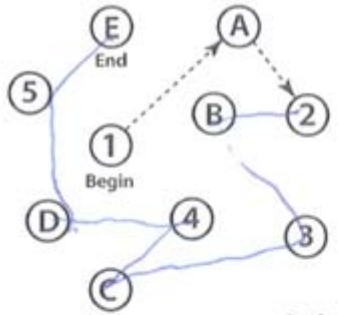
MONTREAL COGNITIVE ASSESSMENT (MOCA)

Version 7.1 Original Version

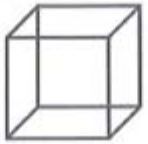
NAME :
Education : High School Date of birth : 10/5/1937
Sex : M DATE : 7/6/12

VISUOSPATIAL / EXECUTIVE



[ ]

Copy cube



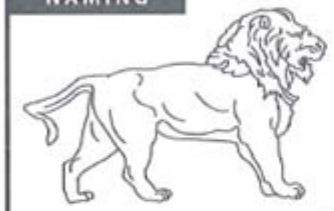
[ ]

Draw CLOCK (Ten past eleven)
(3 points)

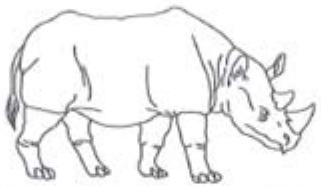
[ ] Contour [ ] Numbers [ ] Hands

POINTS 2/5

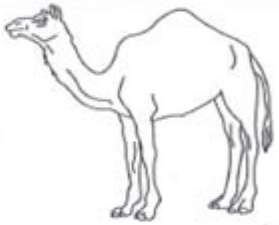
NAMING



[✓]



[ ]



[✓] 2/3

MEMORY

Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful.
Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial	✓	✓	✓	✓	✓
2nd trial					

No points

ATTENTION

Read list of digits (1 digit/ sec.).

Subject has to repeat them in the forward order [✓] 2 1 8 5 4

Subject has to repeat them in the backward order [✓] 7 4 2

2/2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors

[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

1/1

Serial 7 subtraction starting at 100 [✓] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65

4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

0/3

LANGUAGE

Repeat : I only know that John is the one to help today. [ ]
The cat always hid under the couch when dogs were in the room. [ ]

2/2

Fluency / Name maximum number of words in one minute that begin with the letter F [ ] _____ (N ≥ 11 words)

0/1

ABSTRACTION

Similarity between e.g. banana - orange = fruit [✓] train – bicycle [ ] watch - ruler

1/2

DELAYED RECALL

	Has to recall words WITH NO CUE	FACE [ ]	VELVET [ ]	CHURCH [ ]	DAISY [ ]	RED [ ]
Optional	Category cue					
	Multiple choice cue					

Points for UNCUED recall only

0/5

ORIENTATION

[✓] Date [ ] Month [ ] Year [✓] Day [✓] Place [✓] City

4/6

www.mocatest.org

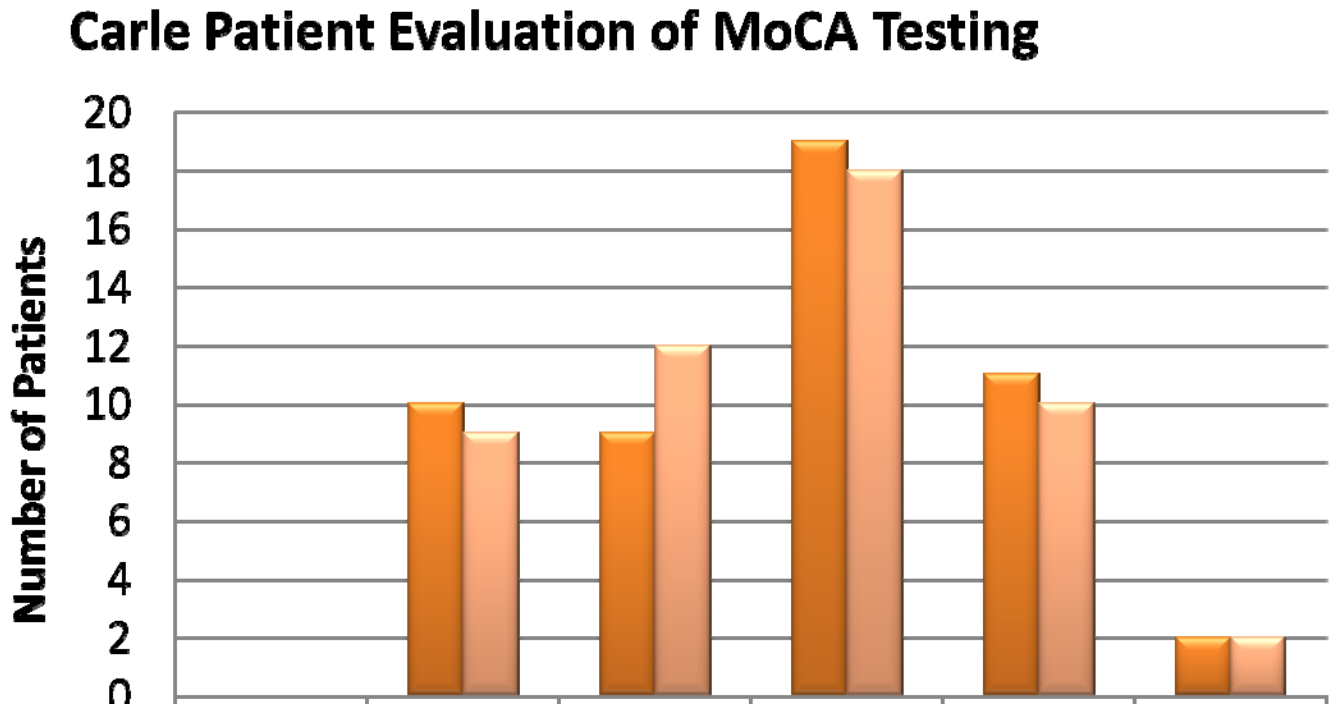
Normal ≥ 26 / 30

TOTAL 16/30

Add 1 point if ≤ 12 yr edu

Administered by: _____

MoCA Testing at Carle



	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	N/A
MoCA easy to complete?	0	10	9	19	11	2
MoCA valuable?	0	9	12	18	10	2

Outline

- Definitions
- What we know about the biology of ‘metabolic encephalopathy’
  - Focus on CHF and sepsis
- What’s on the horizon?

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Definition for today's talk:

Metabolic encephalopathy = a change in mental status related to an underlying illness that has its locus outside of the central nervous system

- Examples: CHF, sepsis, hyponatremia
- Encephalopathy vs. Delirium

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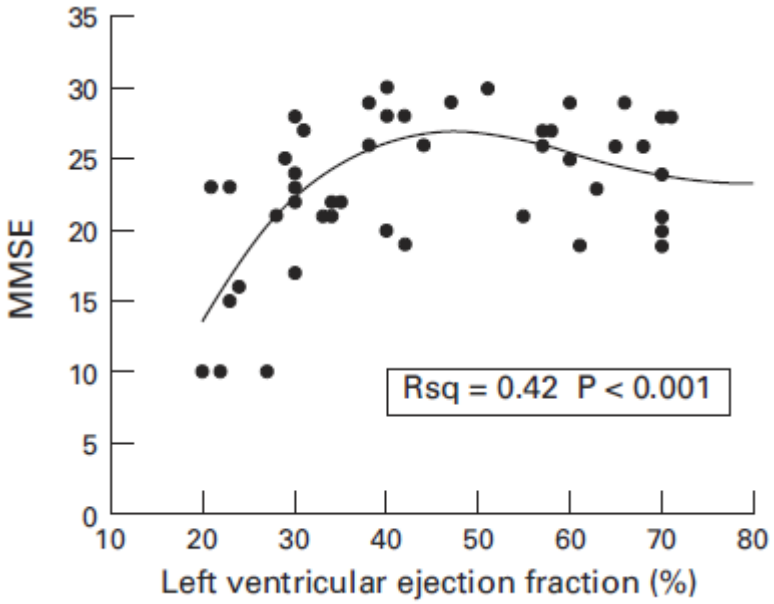
What we know about CHF-related cognitive dysfunction:

- Large number of studies showing a strong correlation between LVEF and cognitive function
  - Number of potential reasons:
    - Common risk factors
    - Cardioembolic stroke
    - Global perfusion issues

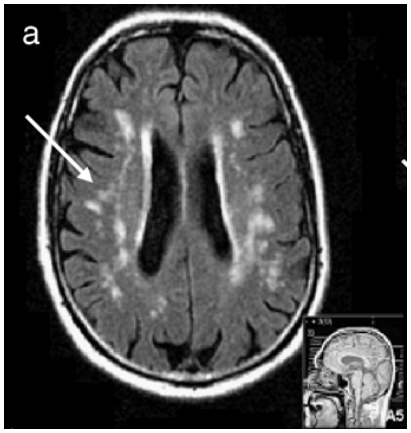


(Zuccala et al. 1997)

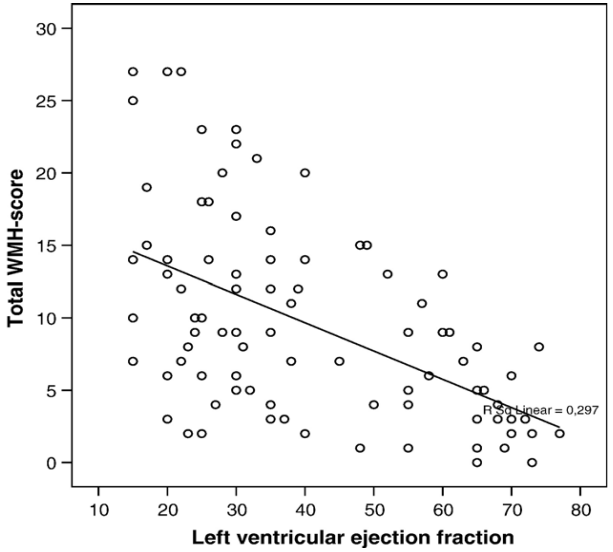
- Therefore…
  - Acute exacerbations of CHF cause an <u>acute on chronic</u> worsening of cognitive dysfunction

CHF and Brain Imaging:

- At baseline, CHF patients have:
  - More white matter hyperintensities
  - More atrophy
  - Less cerebral blood flow
  - Poorer autoregulation
- Based on imaging and cognitive data, one should have a high index of suspicion for baseline cognitive impairment in CHF patients



(Vogels et al 2007)

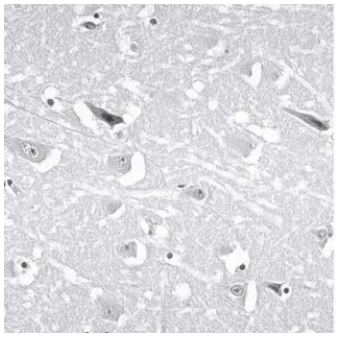


What we know about sepsis-related encephalopathy:

- Incidence of cognitive dysfunction is high (10-30%)
- Sepsis is the most common cause of cognitive dysfunction in the MICU
- Cognitive dysfunction is a strong predictor of poor medical outcomes
- Sepsis can lead to <u>chronic cognitive dysfunction</u>

(Iwashyna et al. 2010)

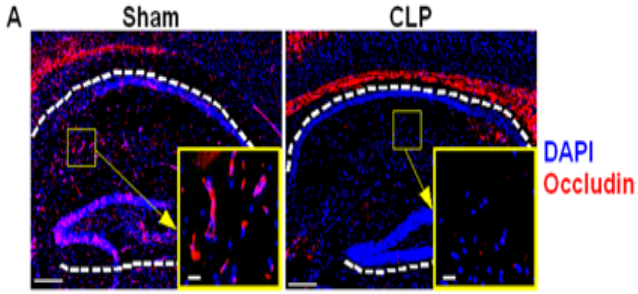
Mechanisms of cognitive dysfunction in sepsis:



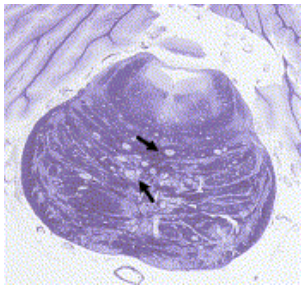
Microinfarction/ hemorrhage:

Endothelial cell dysfunction (TNFα, IL-1, nitric oxide)

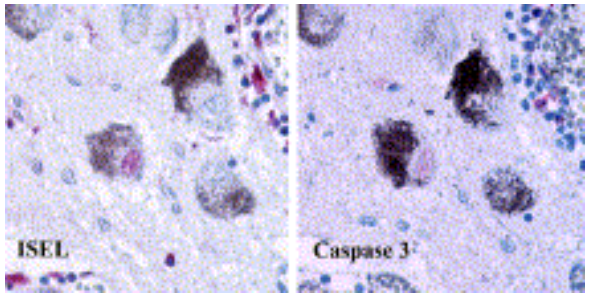
Blood-brain barrier dysfunction:



CNS edema:



CNS apoptosis:



Treatments?

First is to change our point of view:

- Old model: encephalopathy as wet blanket
  - Neurotransmitter dysregulation
- Newer model: encephalopathy as neuronal injury:
  - CNS edema
  - Microinfarction/microhemorrhage
  - Apoptosis
- Requires a high index of suspicion and treatment approach which does not assume that patients will automatically clear

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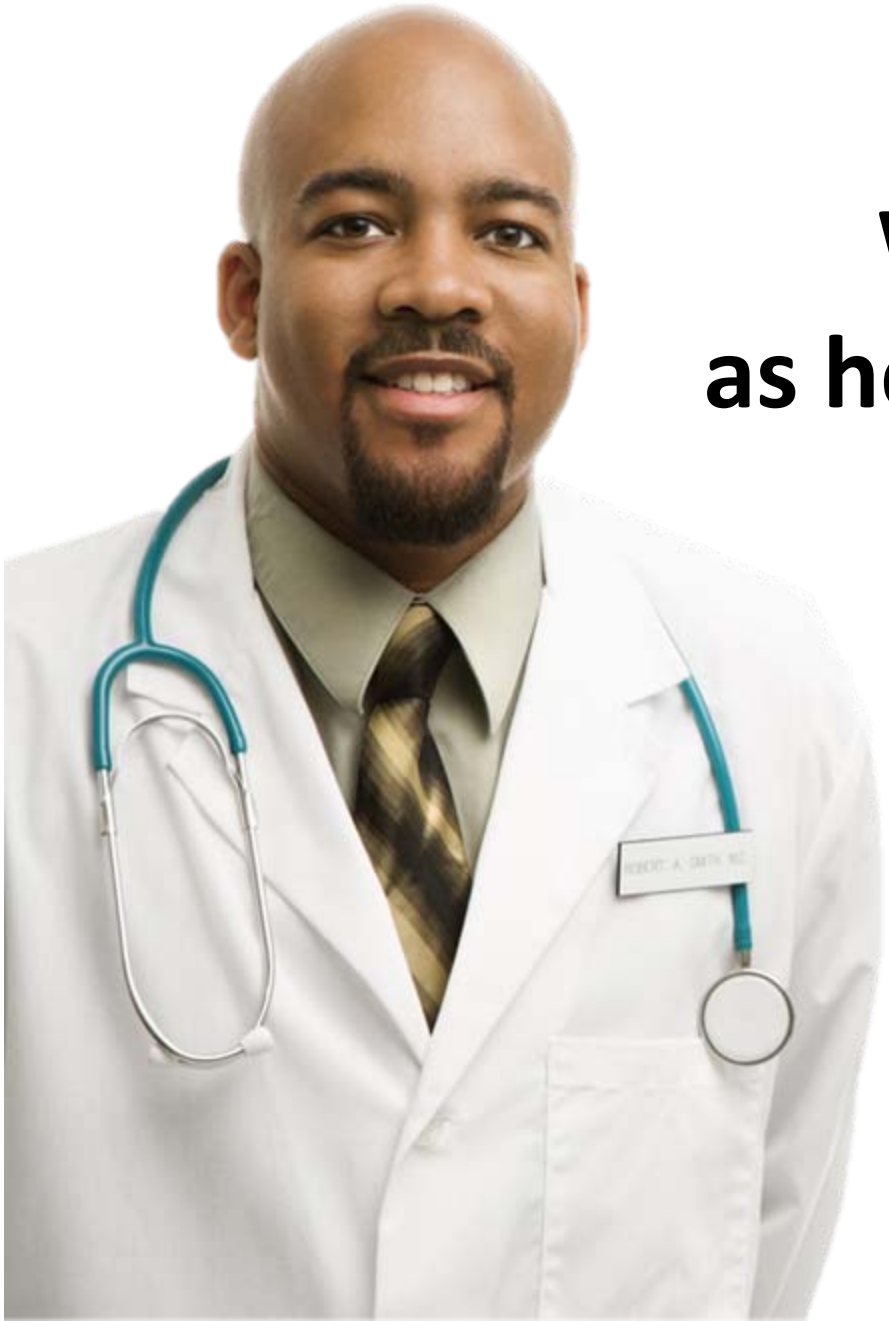
Treatments?

- Clinical trials are few:
  - Interventions that improve medical outcomes also likely improve cognitive outcomes
- For cognitive outcomes specifically, small clinical trials supporting use of:
  - Anti-inflammatory agents:
    - Stress-dose steroids in sepsis (Mussack et al. 2005)
  - Anticoagulants:
    - Drotrecogin in sepsis (Sapen et al. 2010)
  - Nutritional?
    - N-3 fatty acids (Steiner et al., not yet published)
    - Older nutritional literature – no established efficacy
- No strong data supporting 'traditional' drugs for this problem:
  - Donepezil, memantine, methylphenidate, etc.



What can we do as health professionals?

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1. Recognition

We must do a better job recognizing reduced cognitive status:

- Hospital
- Outpatient setting

2. Involvement

If identified, we must do a better job involving family or caretaker with discharge planning

3. Strategies

- Traditional patient education and teaching methods may not work
- Efforts may need to target family member(s) or caretaker

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4. Research

- Further opportunities for research must be explored and pursued

Reducing Readmission Rates:

QUESTIONS

Strategies to eliminate cost and reduce waste

Mark Hiller
Vice President, Innovative Strategies
Premier healthcare alliance

Objectives

- Understand the imperative to reduce waste, in the form of excess cost and poor outcomes
- Provide data demonstrating good care is not sacrificed with waste reduction
- Learn about measures that identify waste within your organization
- Learn how measures of waste can be better assessed, and actions to take to improve results

The Imperative to address unjustified variation

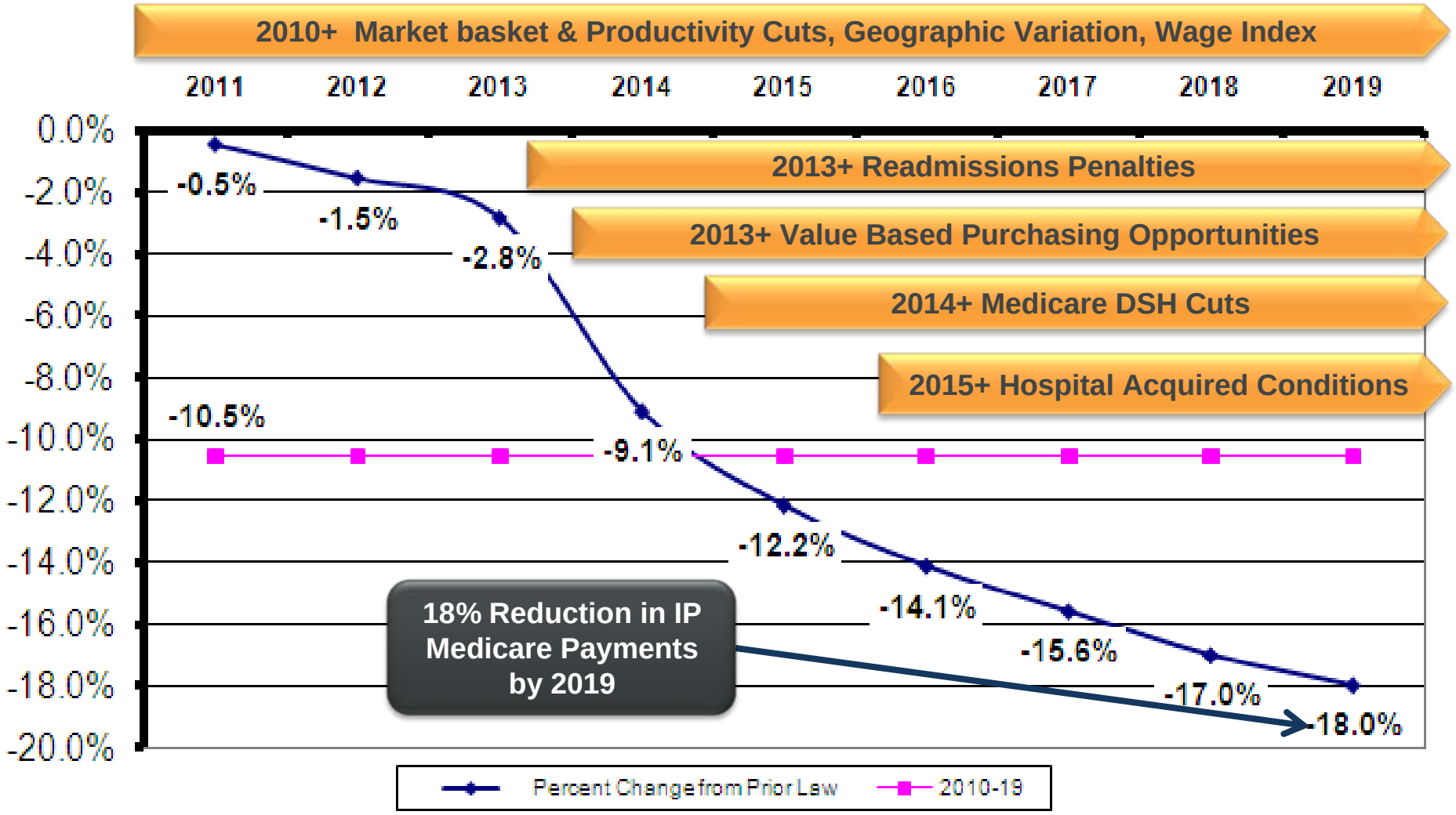
- Consumers are taking on more of the cost burden, prompting a demand for:
  - Better quality and outcomes
  - Experience and easy access
  - Lower costs and greater value
- Large employers are trying to reduce their health care costs
- Economic and legislative implications on payors translate in declining reimbursement
  - Commercial payors are beginning to ratchet down rates given new legislative requirements
  - All states are experiencing a budget crisis and are decreasing services and reimbursement
  - ….and then there's the Federal government…

The Platform is Afire….Reform Implications

- Across the board cuts
- Goal to keep patients out of hospitals
- Approximately 9.5% of Medicare inpatient payment at risk
  - Approximately 8.9% of payment at risk related to: Market Basket and DSH reductions
  - Approximately 0.6% of payment at risk for poor performance on items such as: Value Based Purchasing (VBP), Readmissions, Hospital Acquired Conditions (HACs)
- Imperative to “bend the curve”
- Continued migration of all payors towards Medicare rates
- Continuing changes in store

How and when will it happen?

(Sample 500-bed hospital)

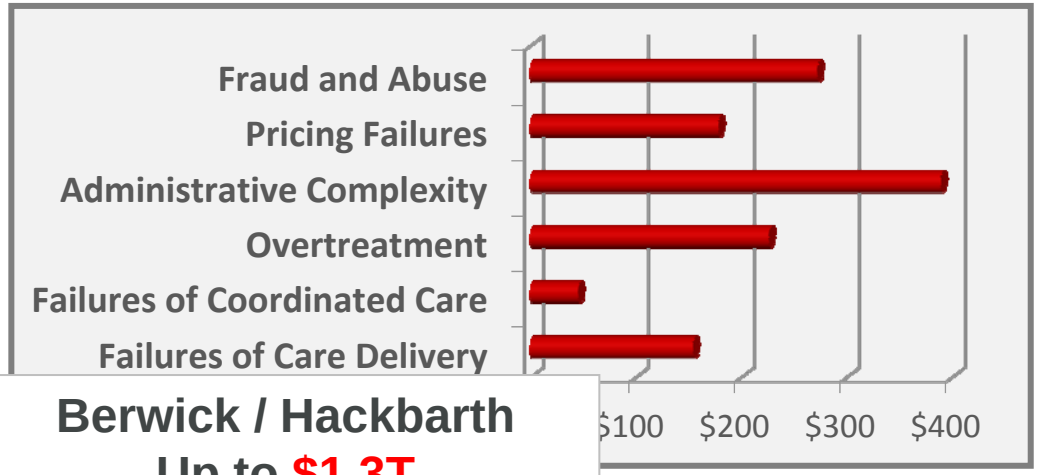


	2011	2012	2013	2014	2015	2016	2017	2018	2019
Pop 65+ (%)*	41.1	42.4	43.8	45.1	46.5	47.9	49.4	50.9	52.6

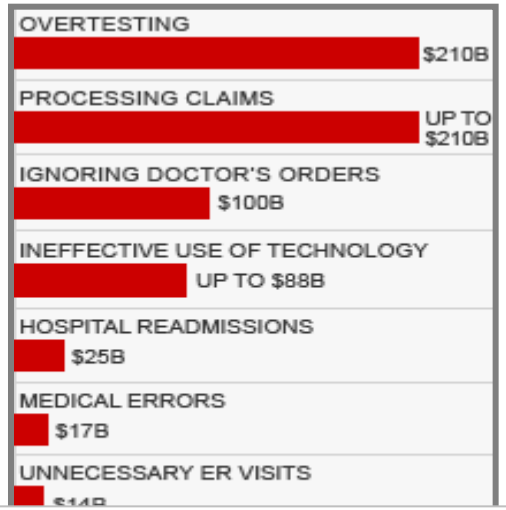
* https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/proj2010.pdf

Estimates of cost inefficiency in healthcare

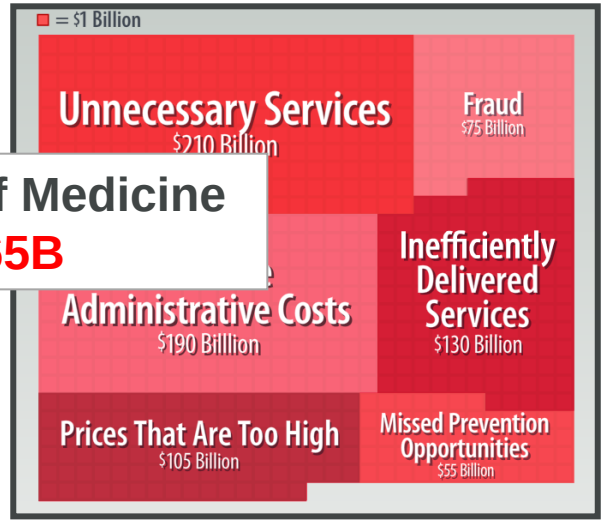
Reform is increasing pressure to identify and remove unnecessary costs across the continuum of care…



Berwick / Hackbarth
Up to $1.3T



PriceWaterhouseCoopers
$1.2T



Institute of Medicine
$765B

Defining waste

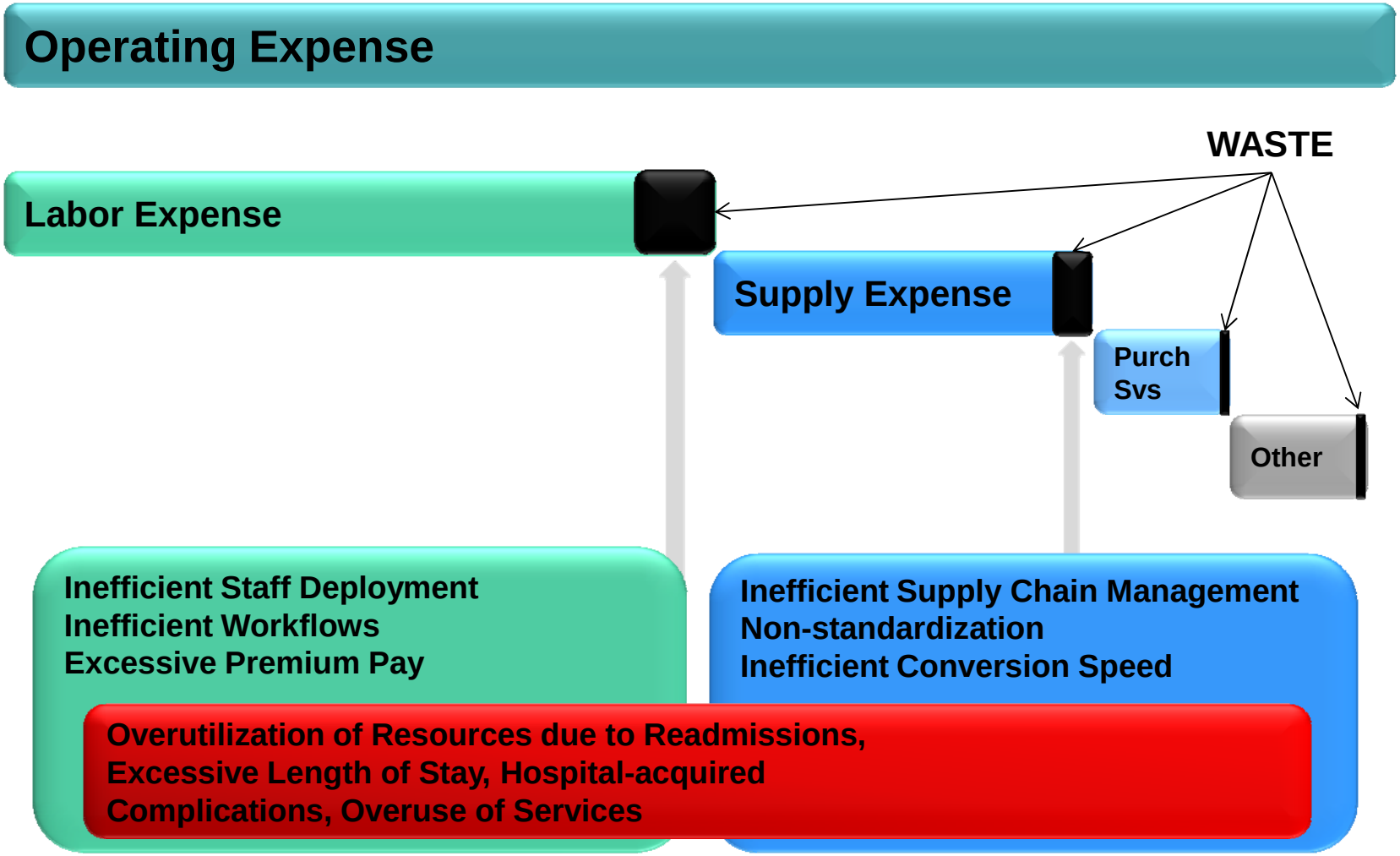
Creating meaningful business intelligence

ANALYTICS via APPS FOR MULITPLE STAKEHOLDERS

BEST PRACTCE KNOWLEDGE SHARING / DOCUMENT MANAGEMENT

ONLINE COMMUNITIES SUPPORT LOCAL AND NATIONAL COLLABORATION

Expense breakdown in an acute setting



Common causes of waste in an acute setting

- Staffing Inefficiency
- Excessive Premium Dollar Utilization
- Sub-Optimized Skill Mix
- Hospital Acquired Conditions/Infections
- Product Selection / Contract Non-Compliance
- Excessive Readmissions
- Medication Errors
- Pharmaceutical Selection and Utilization
- Unnecessary Testing
- Inappropriate Level of Care
- Inappropriate Length of Stay
- Inadequate Turnaround / Cycle Times

How can we aggregate measures of waste to determine an overall performance index of “inefficiency” of an organization?

Development of a comparative index to measure hospital waste dollars

It is possible…

- Guiding Principles:
  - Comprehension: Are the measures and scoring simple to understand?
  - Fairness: Do the measures account for differences in patient populations?
  - Comparability: Does the scoring allow for both internal benchmarking as well as comparison with peers?

Measuring, improving and implementing change

Key principles

- Improvement is a process, not an event
- Point the flashlight in the right direction
- Identify the true drivers
- Engage the key players on their terms

Analysis of waste

Waste Opportunity Dashboard

Premier Memorial Medical Center - Anywhere, US

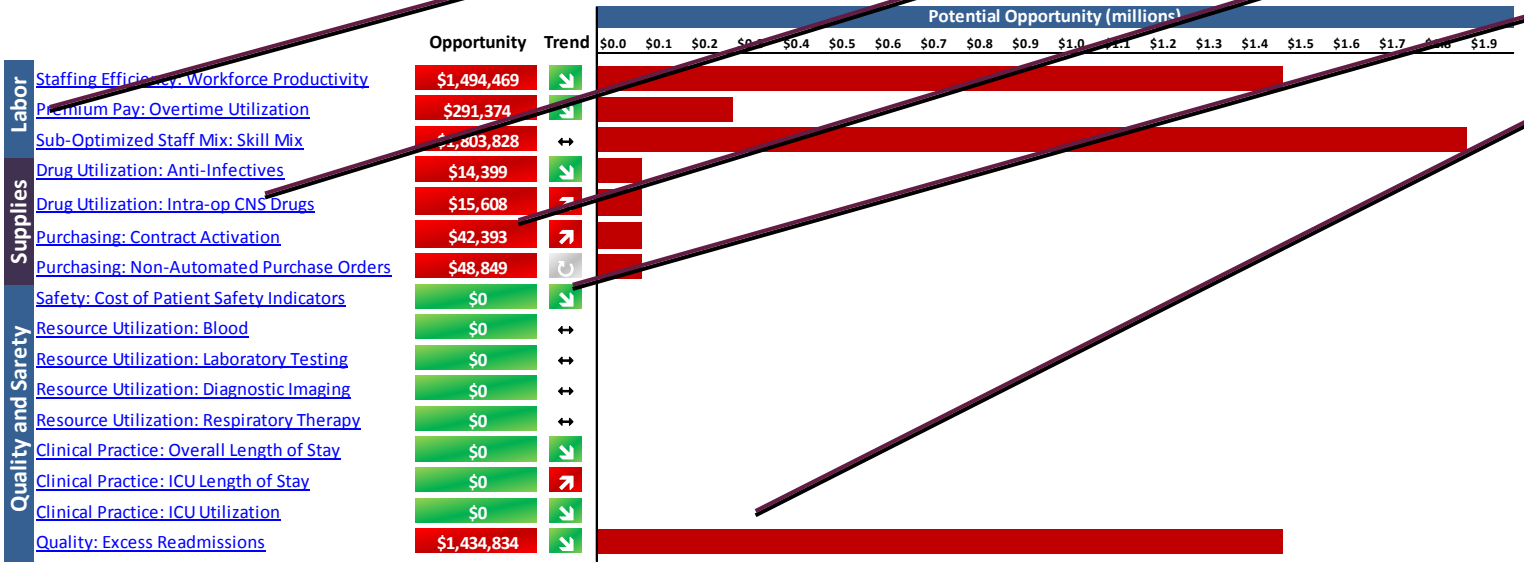
Measurement Period: April 2011 - March 2012

Report Version: 2012081001

Methodology

Premier has developed a value-based dashboard that includes a list of measures that identify opportunities for improvement, and specifically areas where actionable steps can be taken to drive improvement. For many measures Premier Memorial Medical Center is being compared to other providers that are NonTeaching >= 175 Beds. Click measures below to view detail and recommended actions.

Total Potential Opportunity



		Opportunity	Trend
Labor	Staffing Efficiency: Workforce Productivity	$1,494,469	↘
	Premium Pay: Overtime Utilization	$291,374	↘
	Sub-Optimized Staff Mix: Skill Mix	$1,803,828	↔
Supplies	Drug Utilization: Anti-Infectives	$14,399	↘
	Drug Utilization: Intra-op CNS Drugs	$15,608	↗
	Purchasing: Contract Activation	$42,393	↗
	Purchasing: Non-Automated Purchase Orders	$48,849	↻
Quality and Sarety	Safety: Cost of Patient Safety Indicators	$0	↘
	Resource Utilization: Blood	$0	↔
	Resource Utilization: Laboratory Testing	$0	↔
	Resource Utilization: Diagnostic Imaging	$0	↔
	Resource Utilization: Respiratory Therapy	$0	↔
	Clinical Practice: Overall Length of Stay	$0	↘
	Clinical Practice: ICU Length of Stay	$0	↗
	Clinical Practice: ICU Utilization	$0	↘
	Quality: Excess Readmissions	$1,434,834	↘

Trend Indicators ↘ Waste Opportunity Decreasing ↗ Waste Opportunity Increasing ↔ No Change in Performance ↻ Unable to Determine Trend

Measure categories

List of measures

Annual waste/opportunity

Waste/opportunity trend

Relative size opportunity

Next Steps

Please work with your Premier Region Director, Jane Doe (jane_doe@premierinc.com), to discuss next steps and how you can best utilize the Premier apps you already have to better understand these opportunities, identify root causes, and track improvements.

For additional assistance with this report, please contact the Premier Solutions Center at Advisor_Support@PremierInc.com or 800-805-4608

A framework for improvement is a must

PREMIER

Staffing Efficiency

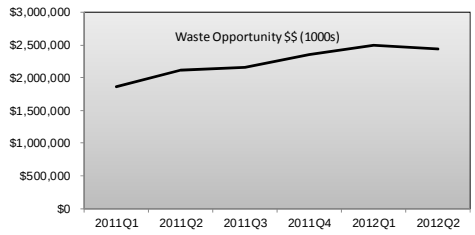
Premier Memorial Medical Center - Anytown, US9999 — **Measurement Period: July 2011 - June 2012**

Return to Summary

Workforce Productivity — Comparative Opportunities at Department Level

Basis of Opportunity: NonTeaching >= 175 Beds / Comparison to Top 25th Percentile

Data Source: OperationsAdvisor™



Potential Opportunity	**$8,063,000**
Total Worked FTE	1247 FTE
Expected Worked FTE	956 FTE
Opportunity Trend	**Review**
	Costs are Increasing
Peer Percentile	**67%**
Based on % Var from Expected	3rd Quartile

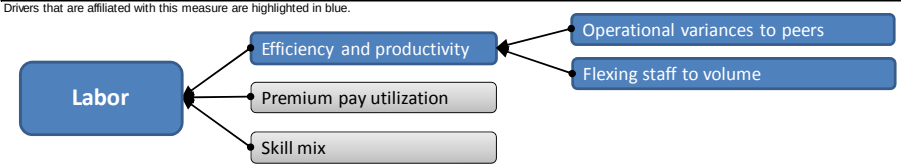
Measure Purpose and Definition

This measure aims to evaluate whether staff utilization for each department in the organization is at the levels of the most efficient hospitals.

A comparison is made to like hospitals to determine the Waste related to inefficient use of staff. Waste is determined by determining, by department, the productivity deficit as compared to the 25th percentile of the peer group but opportunity is capped at 20% of the department's FTE. Productivity is measured in terms of Worked Hours per Unit of Service (UOS). The UOS for each department varies, and is based on either a) the UOS defined by your organization for each department, or b) if not defined by your organization the Premier recommended UOS for the department.

Waste and Inefficiency Drivers

Drivers that are affiliated with this measure are highlighted in blue.



Recommended Actions

Regardless of whether the potential opportunity above is significant, department level opportunities nearly always exist within an organization.

1 Identify departmental opportunities.

In OperationsAdvisor, using the "Global Opportunity Report" with the following criteria:
> Use the metric Worked Hours per Unit at the 25th percentile opportunity
> Utilize peer groups that have been established for your organization (note that this will vary from peer groups used in this dashboard)

2 Assess the departments with the highest opportunity to understand the causes of benchmark variances.

The Department Benchmark Report in OperationsAdvisor provides acomparison of operational characteristics against your peer that can identify practices that are not in line with other organizations. Track variances and either a) establish due dates for operational changes and update productivity targets accordingly, or b) identify acceptable benchmark variances and track them as Strategic Value Alignments - these are often the practices that need to change when cost reductions are absolutely necessary.

3 If you need additional help, contact your Premier Region Director (noted on the Summary section of this report).

Premier provides strategic tools and services that assist your organization in identifying inefficient labor practices and implement a sustainable program to manage labor expense.

Annual waste/opportunity

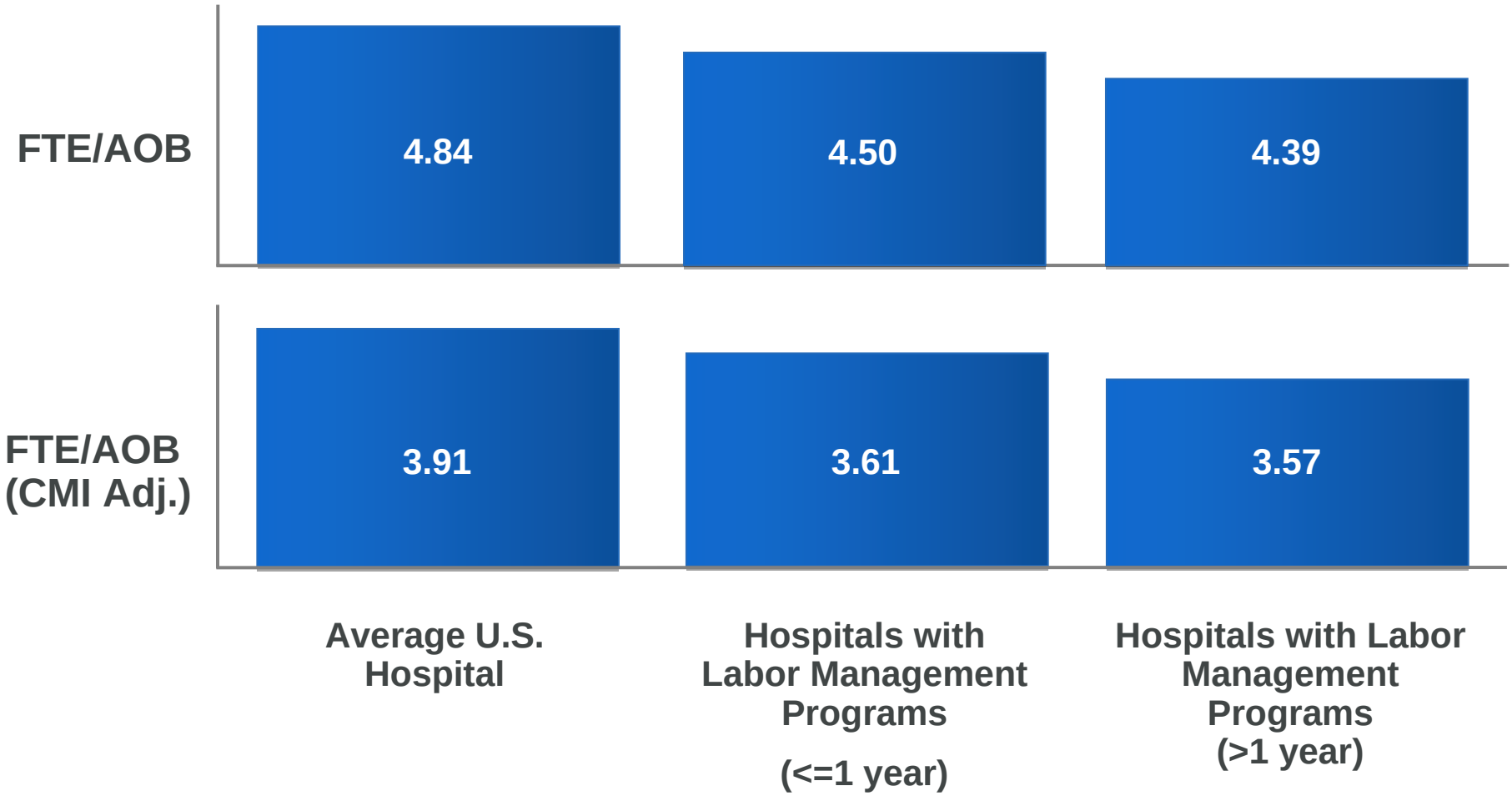
Waste/opportunity trend

Percentile within peer

Drivers of Inefficiency

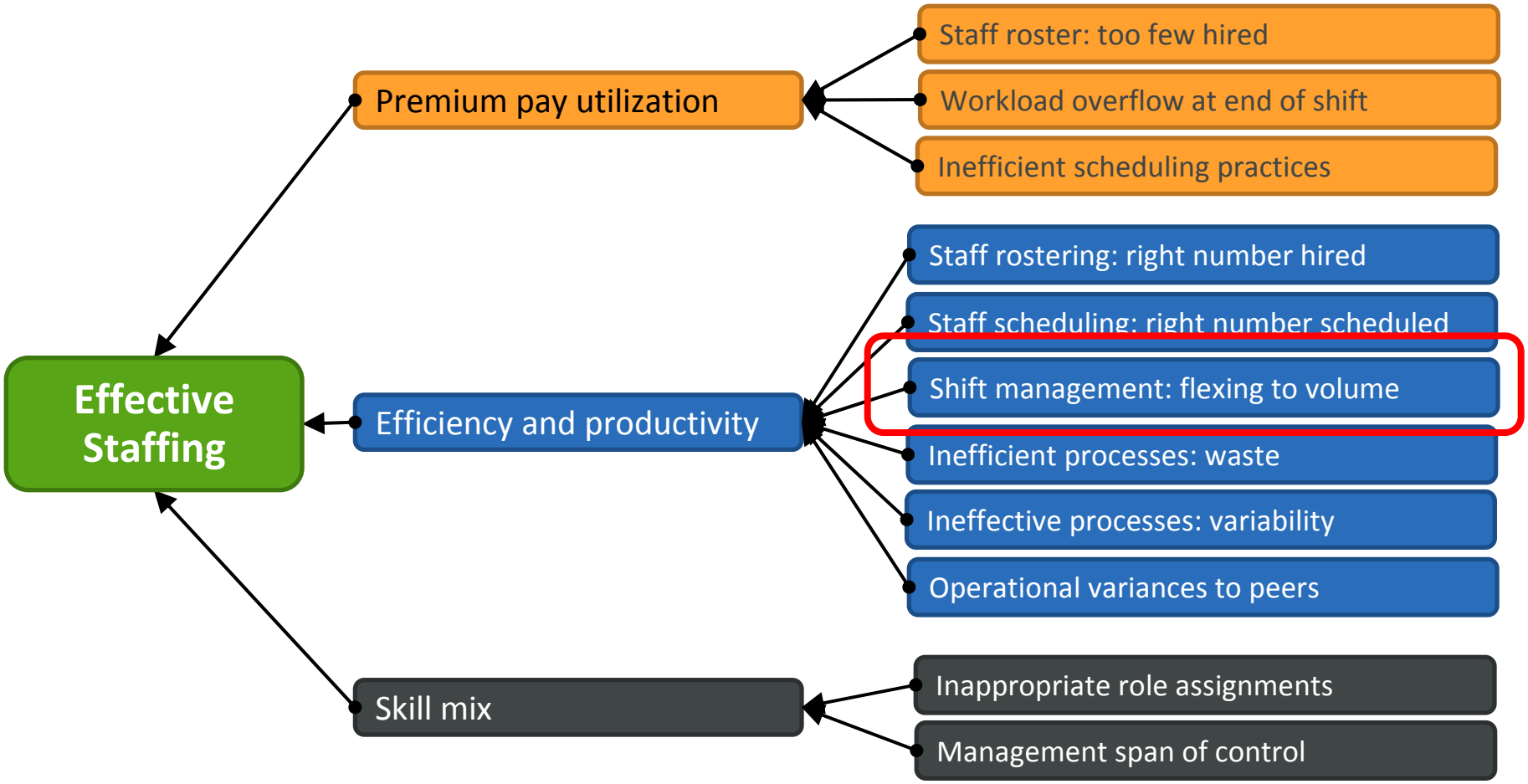
Recommended actions

A holistic view of quality: Workforce efficiency



Labor management program includes routine monitoring of productivity, benchmarking capability, a dedicated resource to manage improvement, and a structured program of accountability

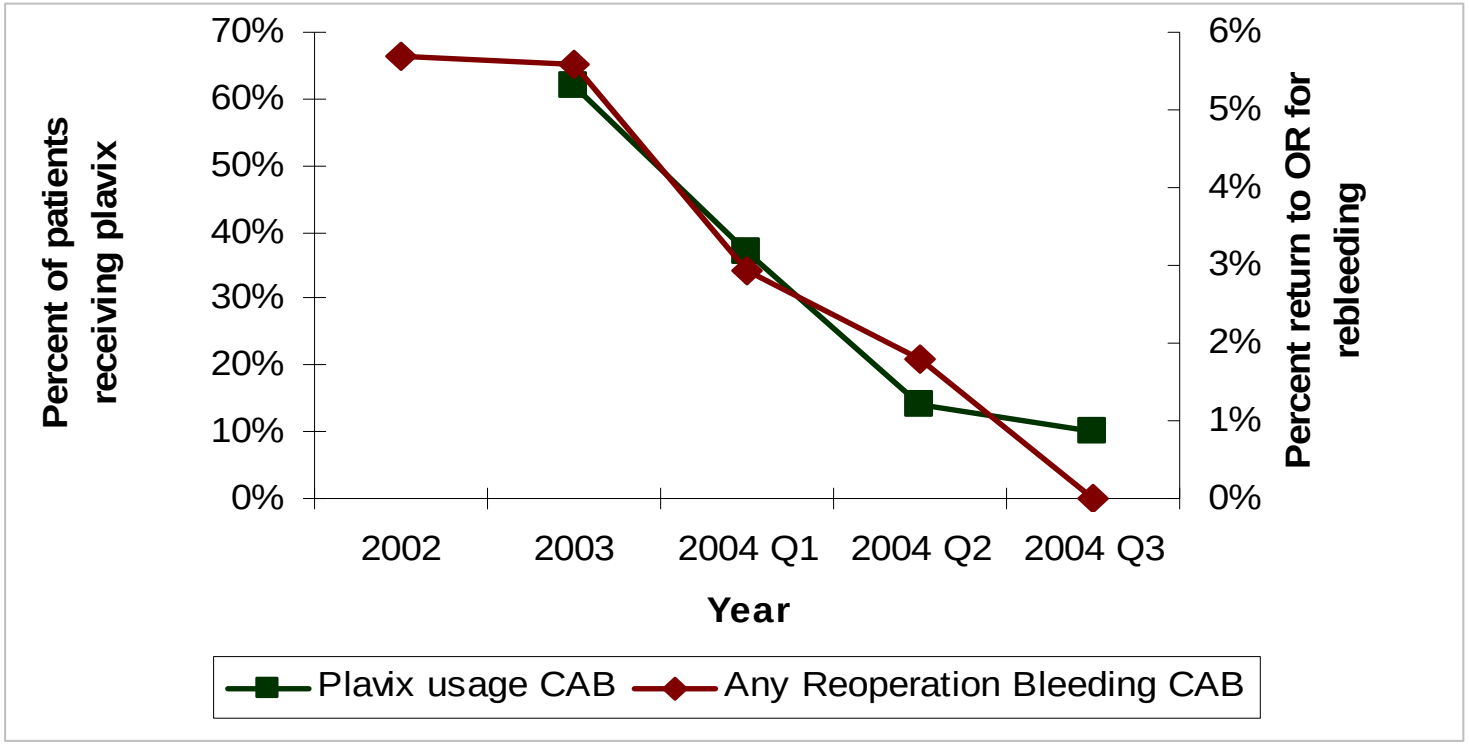
Key elements of staffing effectiveness



Leading with quality

Question: Why do we have a high percentage of our patients returning to the OR for re-bleeding?

Analysis: Identified high use of Plavix. Changes in protocols were implemented and the result was a significant decrease in returns to OR as well as decreased use of all blood products, and a 50% decrease in mortality.



Is safety sacrificed in removing waste?

Safe care is not wasteful based on our qualitative research

- Objective: To track a cohort of facilities over time to provide Premier with the qualitative data to contextualize the data collected through QUEST. (Looking specifically at Cost of Care.)

- Method:
  - Identify hospitals with largest reduction in cost of care
  - Interview CFO, purchasing staff, CNO, and other leaders
  - Questions designed to elicit focus areas to reduced cost of care

*"On the road together: Stories of a successful implementation from Premier's QUEST®," August 2012, Premier, Inc.

Safe care is not wasteful based on our qualitative research*

- Results:
  - Realignment and reorganization of one hospital system helped improve service line performance outcomes

    "*We don't compete as we used to … Now we handle things as a network and do what's right for our patients within our city and decide that not necessarily all our hospitals are going to be everything to everyone?*
  - A culture of continuous improvement reduces costs and improves outcomes

    "In this type of environment, people review tasks and processes to find different approaches that allow the hospital to limit waste, improve outcomes, and reduce the cost of care."

    »e.g. Use Plan-Do-Check-Act, Lean, Six Sigma
  - The use of Evidence Based Protocols for case management drove reductions in cost of care
  - Readmission prevention programs reduced cost of care

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Key points to take with you…

- Economic impact of reform sets the stage for a focus on waste; know how to identify your opportunities
- Higher quality is a result of having effective and reliable processes; higher quality translates to lower cost
- Engage clinical and quality leaders in a way that the patient wins
  - DO: Drive out waste, inefficiency, and poor outcomes
  - DON’T: Cut costs across the board
- Quality and safety are not sacrificed by removing waste

Thank you. What questions do you have?