



MHA Keystone Center  
for Patient Safety  
& Quality

[www.MHAKeystoneCenter.org](http://www.MHAKeystoneCenter.org)

MHA Keystone Overview

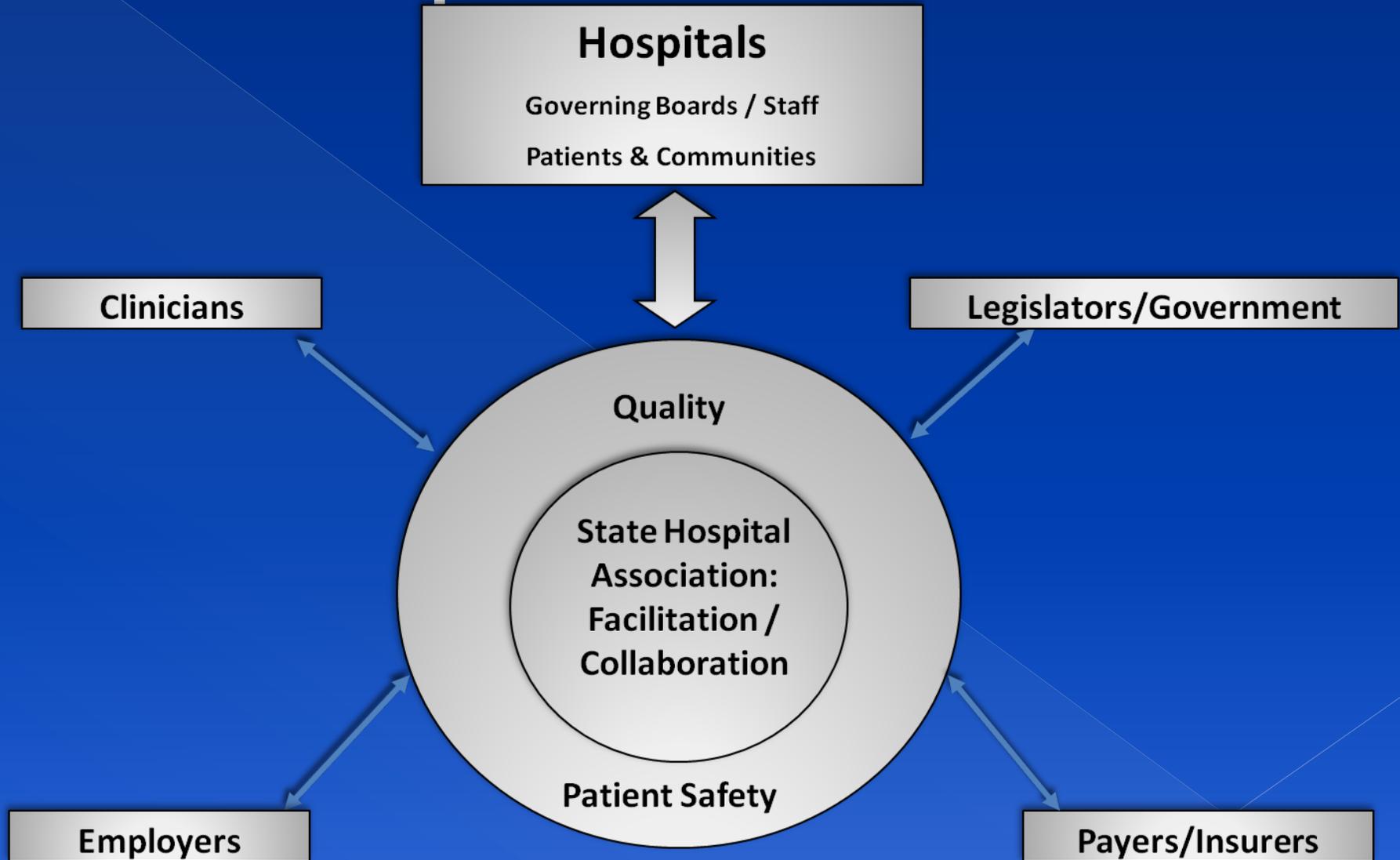
Sam R. Watson, Executive Director

# MHA Keystone Center for Patient Safety & Quality

**Vision: Health care that is free of harm**

- The MHA Keystone Center uses evidence-based best practice in combination with cultural improvement to effect change in patient safety and quality.
- Cohesive commitment to top performance
  - > We can achieve broad scale improvement by working together; *Patient Safety and Quality are Not Competitive – the tide raises all ships.*
- United voice to practitioners
  - > Support for evidence-based care
  - > Rigorous measurement

# State Hospital Association Role



# MHA Keystone Center Michigan Collaboratives

Collaborative	Participating Hospitals
Keystone: ICU	77
Keystone: Hospital-Associated Infection	120
Keystone: Surgery	104
Keystone: Obstetrics	60
Keystone: Gift of Life	76
Keystone: Emergency Department	66
MI STA*AR (Rehospitalization Project)	27

 <b>MHA</b> <small>MICHIGAN HEALTH &amp; HOSPITAL ASSOCIATION</small>	 <small>MHA Keystone Center for Patient Safety &amp; Quality</small>	 <small>Blue Cross Blue Shield Blue Care Network of Michigan</small> <small>Nonprofit corporations and independent licensees of the Blue Cross and Blue Shield Association</small>
<b>A Voluntary Collaborative to Improve Quality and Save Lives</b>		

# Keystone: ICU

## Interventions

- Central Line-associated bloodstream infection prevention
- Ventilator-associated pneumonia prevention
- CUSP
- Sepsis (early goal directed therapy)
- Delirium prevention
- Early mobility of ICU patients

## Results

- 1,830 lives saved
- More than 140,700 excess hospital days avoided
- More than \$300million in health care dollars saved

# KEYSTONE ICU OUTCOMES

## CLABSI Rate per 1,000 Central Line Days

Quarter	Year						
	2004	2005	2006	2007	2008	2009	2010
Qtr 1	2.9	1.5	1.0	1.1	1.0	0.9	0.8
Qtr 2	2.7	1.6	1.7	1.1	0.9	0.8	1.0
Qtr 3	2.5	1.6	1.1	1.2	1.1	1.0	1.1
Qtr 4	2.2	1.3	1.1	1.2	0.8	0.9	0.7

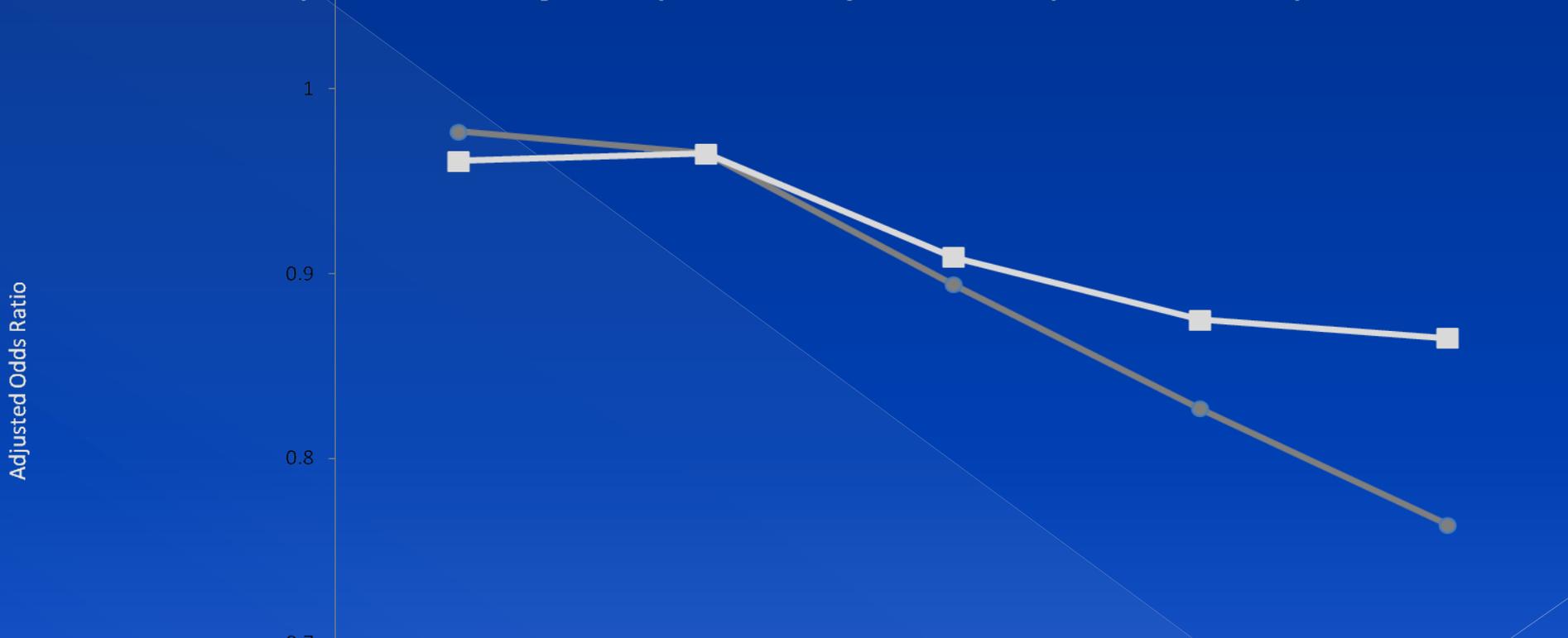
# KEYSTONE ICU Outcomes

## VAP Rate per 1,000 Ventilator Days

Quarter	Year						
	2004	2005	2006	2007	2008	2009	2010
Qtr 1	5.0	3.6	3.0	2.4	1.8	1.6	1.4
Qtr 2	5.6	3.6	3.3	2.3	1.7	1.7	0.9
Qtr 3	4.7	4.0	3.0	2.7	2.1	1.9	1.4
Qtr 4	3.7	4.3	2.6	2.4	2.2	1.4	1.3

# Mortality of Medicare Patients with an ICU Stay, 2004 - 2006

Impact of Michigan Keystone Project on Hospital Mortality



	Pre-implementation (12 months: Oct 02 - Sept 03)	Project Initiation (5 months: Oct 03 - Feb 04)	Implementation (12 months: Mar 04 - Feb 05)	Post-implementation (12 months: Mar 05 - Feb 06)	Post-implementation (12 months: Mar 06 - Dec 06)
Study Group Adjusted OR	0.977	0.965	0.894	0.827	0.764
Comparison Group Adjust OR	0.961	0.965	0.909	0.875	0.865



# Mortality of Medicare Patients with an ICU Stay, 2004 - 2006

	Study Comparison Group Adjusted OR	Comparison Group Adjusted OR
Pre-implementation (12 months: Oct 02 – Sep 03)	0.977	0.961
Project Initiation (5 months: Oct 03 – Feb 04)	0.965	0.965
Implementation (12 months: Mar 04 – Feb 05)	0.894	0.909
Post-implementation (12 months: Mar 05 – Feb 06)	0.827	0.875
Post-implementation (12 months: Mar 06 – Dec 06)	0.764	0.865

# Keystone: Surgery

## Interventions

- › Pre-operative briefings and post-operative debriefings
- › Prevention of mislabeled specimens
- › Beginning to review MHA PSO data for issues
- › Wrong site surgery toolkit
- › CUSP

# Keystone: Obstetrics

- Interventions
  - > Pitocin protocol
  - > 39 week induction
  - > Second stage labor management
  - > CUSP

# OB Pilot Results

% Elective Inductions < 39 wks; n=20,574

Month	Percentage (%)
Jan	20.57
Feb	9.41
Mar	6.25
Apr	6.45
May	9.56
Jun	13.15
Jul	10.91
Aug	8.56
Sep	5.75
Oct	4.1
Nov	7.26

Change of 14.99% to 5.68% (Jan/Feb to Oct/Nov); Significant (p=.008) and Percent change = -62.1%)

# OB Pilot Results

**% Elective Cesarean Births < 39 wks; n=5,131**

<b>Month</b>	<b>Percentage (%)</b>
Jan	23.8
Feb	17.6
Mar	8.9
Apr	14.9
May	17.9
Jun	9.7
Jul	10.2
Aug	11.9
Sep	8.6
Oct	6.8
Nov	5.9

**Change of 20.0% to 6.35% (Jan/Feb to Oct/Nov) Significant (p=0.003) Percent change=-69.23%**

# OB Pilot Results

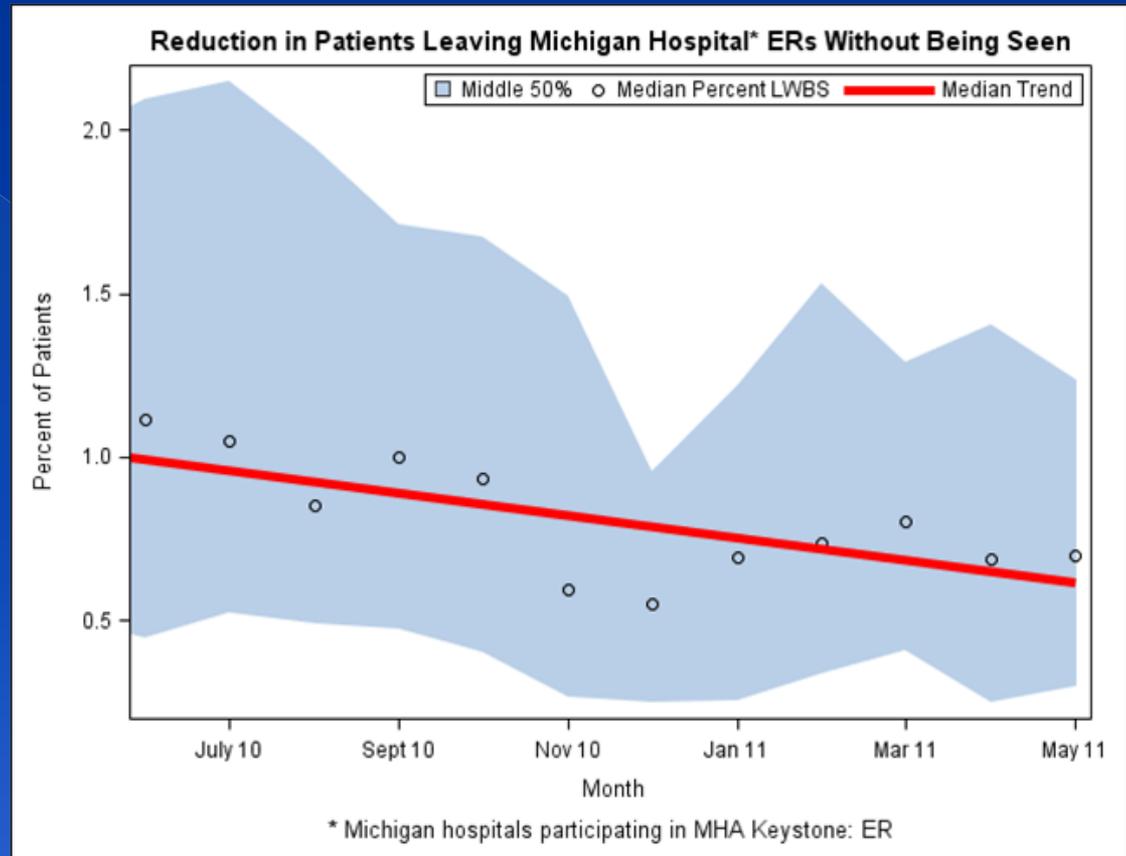
Apgar Scores < 7 at 5 min

Month	Percentage (%)
Jan	1.2
Feb	0.94
Mar	0.82
Apr	0.99
May	0.84
Jun	0.62
Jul	0.7
Aug	0.42
Sep	0.82
Oct	0.67
Nov	0.37
Change of 1.07% to 0.51% (170 of 26,758 babies); Percent change=-51.4% (Jan/Feb to Oct/Nov)	

# Keystone: Emergency Room

## Interventions

- › Using LEAN to reduce variation and waste in the emergency department.
- › Sepsis and Early Goal Directed Therapy
- › CUSP



# Collaborating to Reduce Hospital Acquired Infections

Blue Cross Blue Shield Association

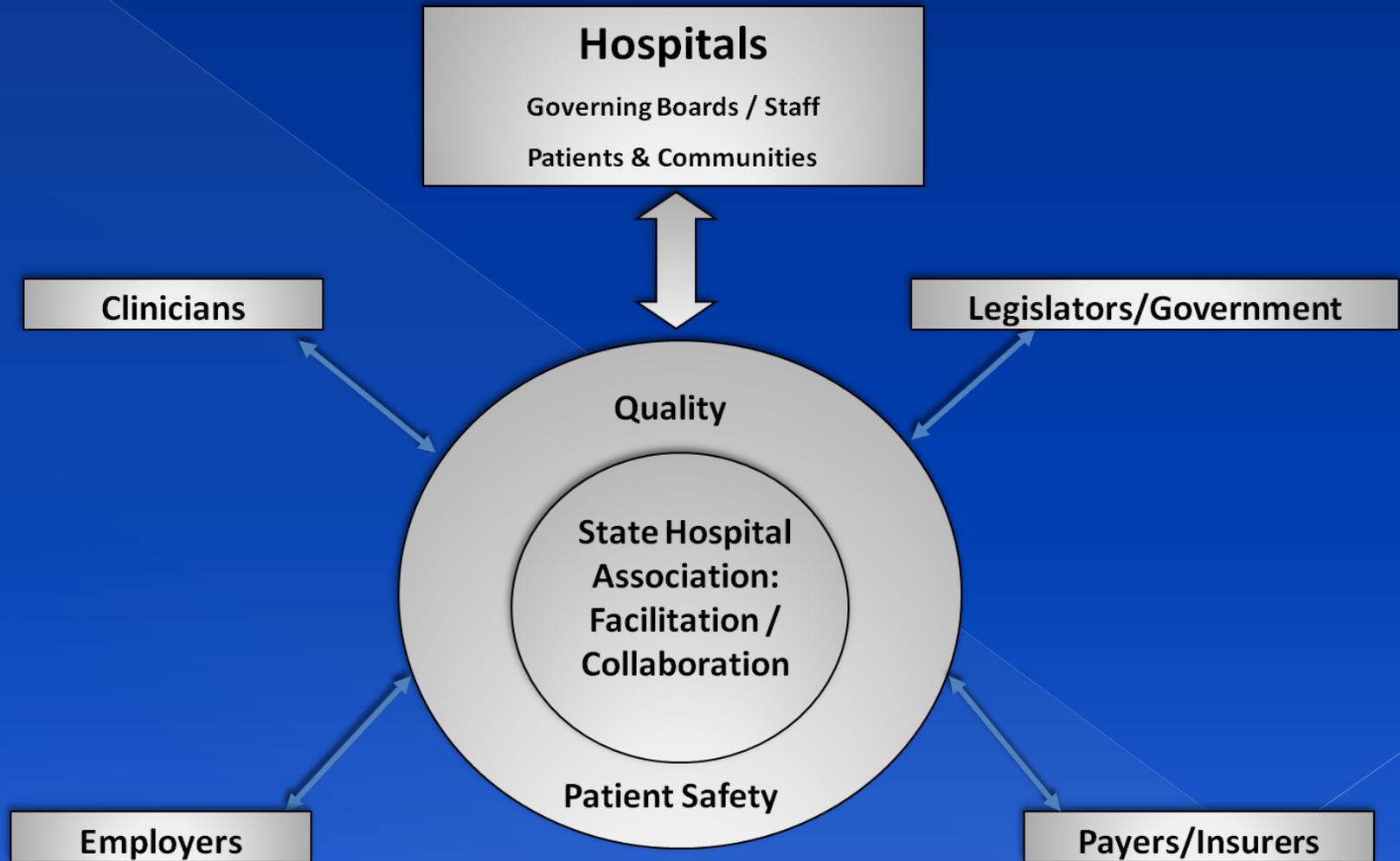
*Gregory Pawlson, MD, MPH, FACP*  
Executive Director for Quality Innovations



# Overview of Presentation

- National Goals and Programs: Local Implementation
- Blue Plan and BCBSA levers to influence HAI and other hospital safety issues
  - › Specific Examples
- The Michigan Keystone Collaborative
  - › from the Health Plan perspective
  - › From the Hospital Association Perspective

# National Focus: Local Implementation



# Best Evidence and Practices- Local Implementation

National  
BCBSA

Local  
Blue Plans

Evidence  
Generation  
Coordination  
Share Best  
Practices

Collaboration  
Information  
Incentives

# National BCBSA Patient Safety Initiatives

# Blue Patient Safety Agenda



## Patient Safety

- **Investment** in leadership of key stakeholders— Plan and Hospital Boards
- **Prioritize** strategy based on scope and obtainable safety improvements
- **Leverage** the strength of the Blues to implement meaningful solutions

# BCBSA Patient Safety: *Approach for 2011*

Several opportunities have been identified to further efforts to improve patient safety

Hospital Board  
Education

Blue Surgical  
Safety Checklist

Reduce avoidable  
re-admissions

Eliminate CLABSI



## Blue Implications

- Drives demand of quality care with continued emphasis on quality and safety, building on 5M Lives Campaign
- Supports reduction in medical errors, ultimately improving quality of care and reducing costs associated with adverse medical events
- Enhances provider engagement in safety and quality initiatives and strengthens platform for future development of alternative payment models

# Patient Safety: *Elimination of Infections: CLABSI*

Elimination  
of CLABSI

- Goal is 0% ICU blood stream infections
- Full continuum of programs supported by BCBS Plans
- Approaches using support of local collaboration, transparency and payment incentives

# Local Blue Plan Patient Safety Interventions

# Using Leverage Points

## Blue Role in Promoting Safety

- Information: Providing data and performance transparency for providers, purchasers and members.
- Incentives: Pay-for-Performance programs, new contract language and alternative payment models to incentive quality, safety and outcomes.
- Collaboration: Support regional collaborations with hospitals and physicians.

# BCBS Alabama Infection Control MedMined

BCBS Alabama works with 62 hospitals in Alabama by providing information and tools through MedMined to eliminate healthcare acquired infections

- Lives saved in 2009: 209, cost savings: \$27M
- HAIs to be prevented in 2009: 2,233 (HAI rate from 4.3 to 4.0%). Since the program's inception there has been a 20% reduction in HAI
- Days avoided in 2009: 12,819
- Program spread to six other states

# Highmark BC QualityBLUE

Highmark BC has a QualityBLUE hospital incentive payment program for 54 Hospitals in Pennsylvania and West Virginia

- Program targets 5 major infections (HAI); Emergency Department throughput; AHA Get with the Guidelines; VTE prevention and peri-natal elective induction
- For Central Line Acquired Bloodstream (CLABSI) infections: 122 to 255 lives were saved; and approximately \$37.2 M saved
- Hold an annual hospital best practices meeting to share break through practices

# BCBS MI follows collaborative model to enhance safety and to improve surgical care

- Provided substantial ongoing funding for Keystone Hospital Collaborative (more to follow)
- In addition has provided 10 years of technical and dollar support (“pay for participation”) for Michigan Surgical Quality Consortium
  - Includes 52 hospitals in up to 7 collaboration projects covering such as areas as improving outcomes and reducing complications in surgeries such as angioplasties, bariatric surgery, general and vascular surgery
  - Uses confidential hospital data to drive quality improvement-monitored by aggregate de-identified data
  - Results- 37% reduction in surgical complications overall; 18% reduction in SSI with a positive ROI

# Contact Information

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