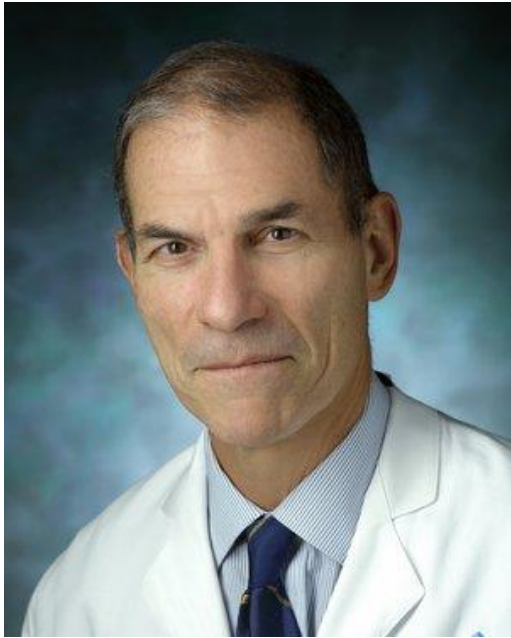


Overview – AHRQ Safety Program for MRSA and SSI Prevention

Surgical Services



Presenters



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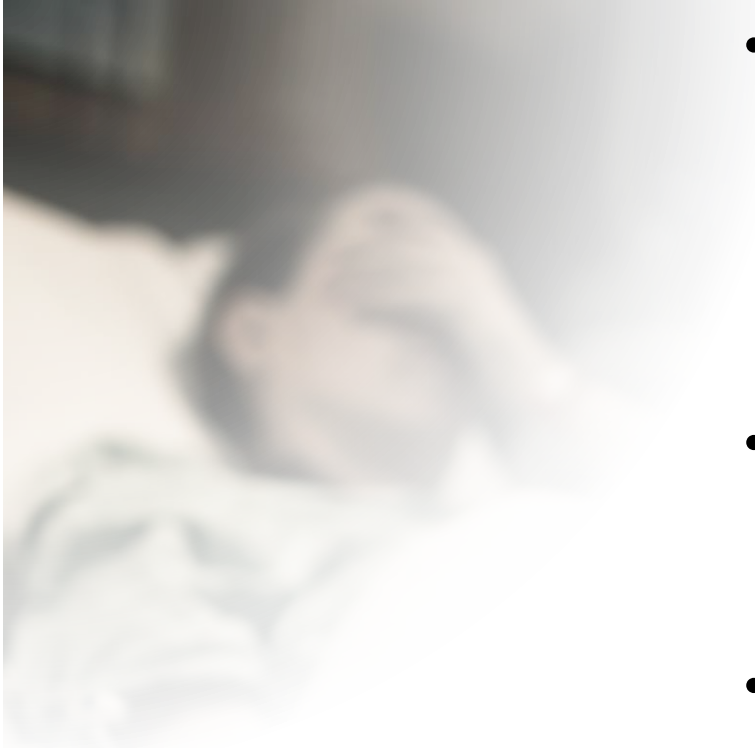


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MRSA and Surgical Site Infections Are a Serious Threat

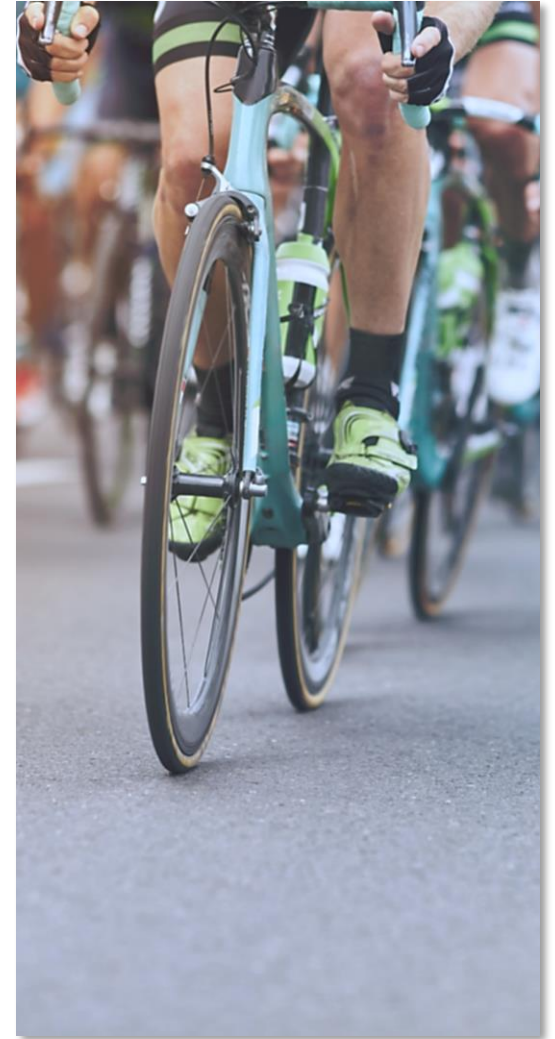


- Surgical site infections (SSIs) are one of the most common and most costly healthcare-associated infections (HAIs), accounting for nearly 1 million additional inpatient days, and \$3.3 billion in healthcare expenditures every year.¹⁻⁵
- *Staphylococcus aureus* is the leading causative organism of SSIs (17.5% of overall SSIs, 38.6% of orthopedic, 27.0% of cardiac).⁶
- SSIs caused by methicillin-resistant *S. aureus* (MRSA) are associated with higher raw mortality rates, longer lengths of stay, and elevated costs of hospitalization compared with SSIs caused by other organisms.⁷

If you want to reduce MRSA and SSIs in your facility and strengthen team-based infection prevention practices, enroll in the AHRQ Safety Program for MRSA and SSI Prevention by February 28th, 2023.

A Patient's Story

- Internationally competitive athlete with innumerable successes on the playing field
- Some 20 years ago, he required a bilateral hip replacement
- Continued to remain active throughout his life
- This past year, at age 80, he underwent a revision hip replacement
- Died postoperatively of complications from a MRSA wound infection



AHRQ Safety Program Overview

Overarching Goal of the AHRQ Safety Program:

To prevent MRSA infections, including surgical site infections, among high-risk surgical patients.

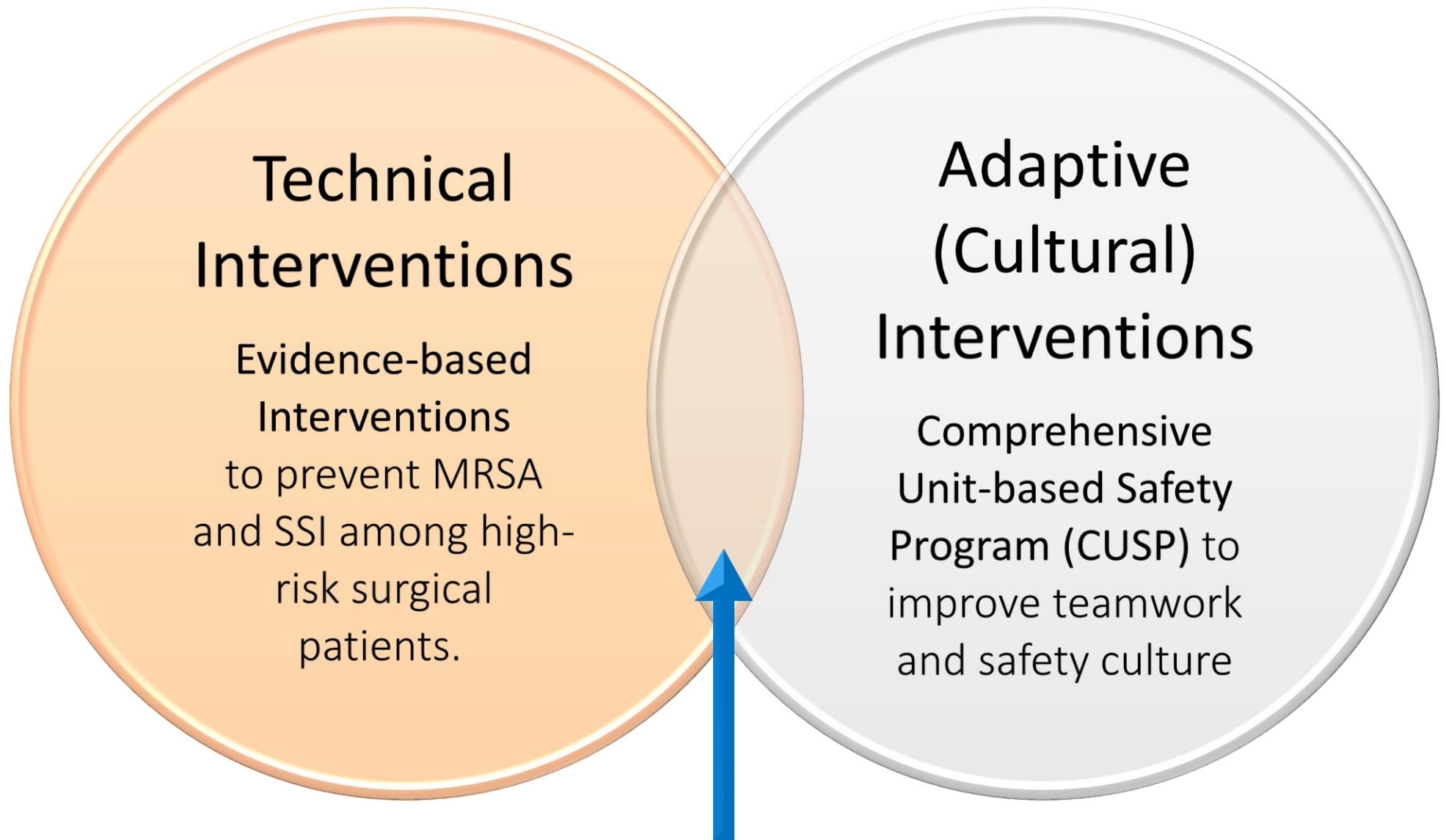
Additional Goals:

- To **strengthen the culture of safety and build capacity** for team-based quality improvement activities.
- To provide technical assistance for the implementation of **evidence-based infection prevention practices** that help prevent surgical site infections

Funded and Guided by: AHRQ

Led by: • Johns Hopkins Medicine • NORC at the University of Chicago

AHRQ Safety Program Approach



Technical Interventions

Evidence-based Interventions to prevent MRSA and SSI among high-risk surgical patients.

Adaptive (Cultural) Interventions

Comprehensive Unit-based Safety Program (CUSP) to improve teamwork and safety culture

Local Adaptation
Tapping Into the Wisdom of Frontline Staff

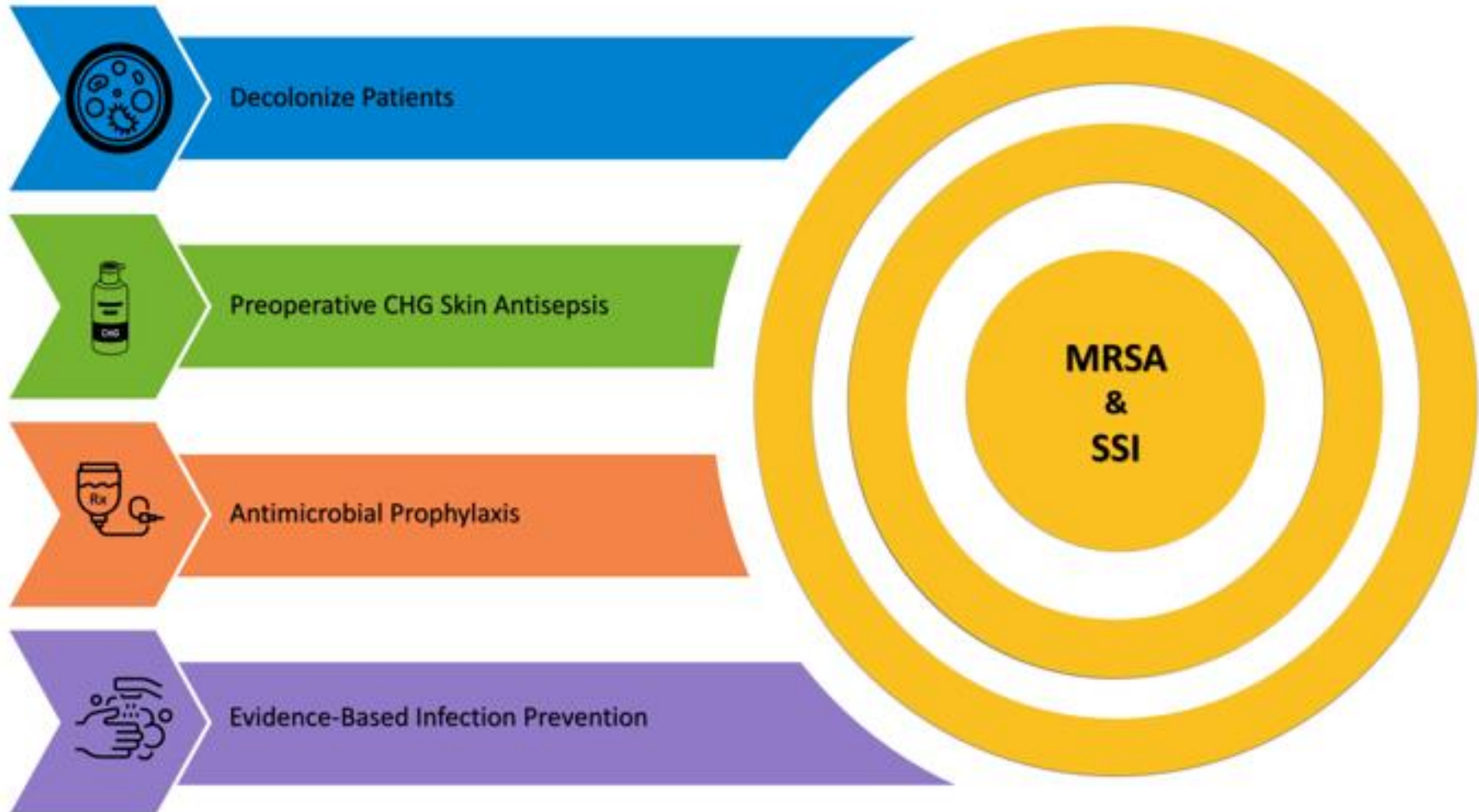
The Benefits of CUSP

- Facilitates communication and teamwork in the surgical environment
- Helps clinical teams improve patient safety
- Partners management and clinical staff efforts
- Implements clinical best practices



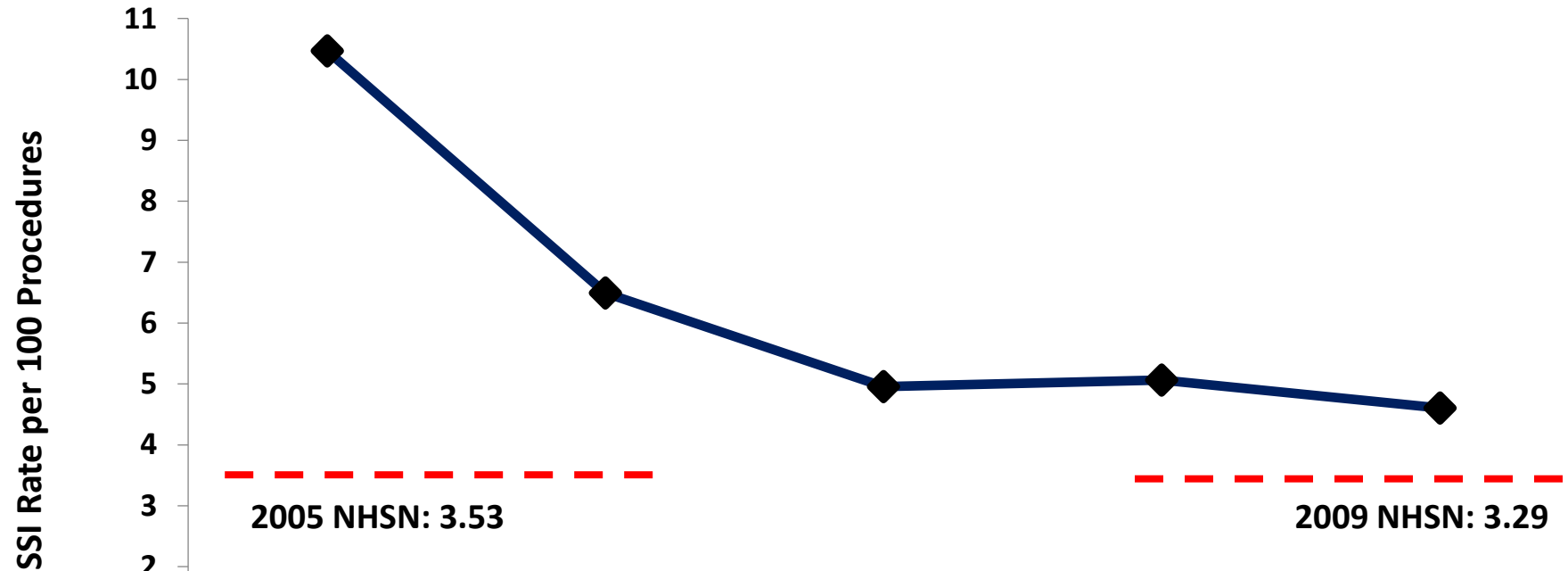
More info on CUSP is available here: <https://www.ahrq.gov/hai/cusp/index.html>

Target MRSA and Surgical Site Infections



Case Example: Johns Hopkins Hospital, 2009

CABG Rates: SSI JHH, 2005-2009



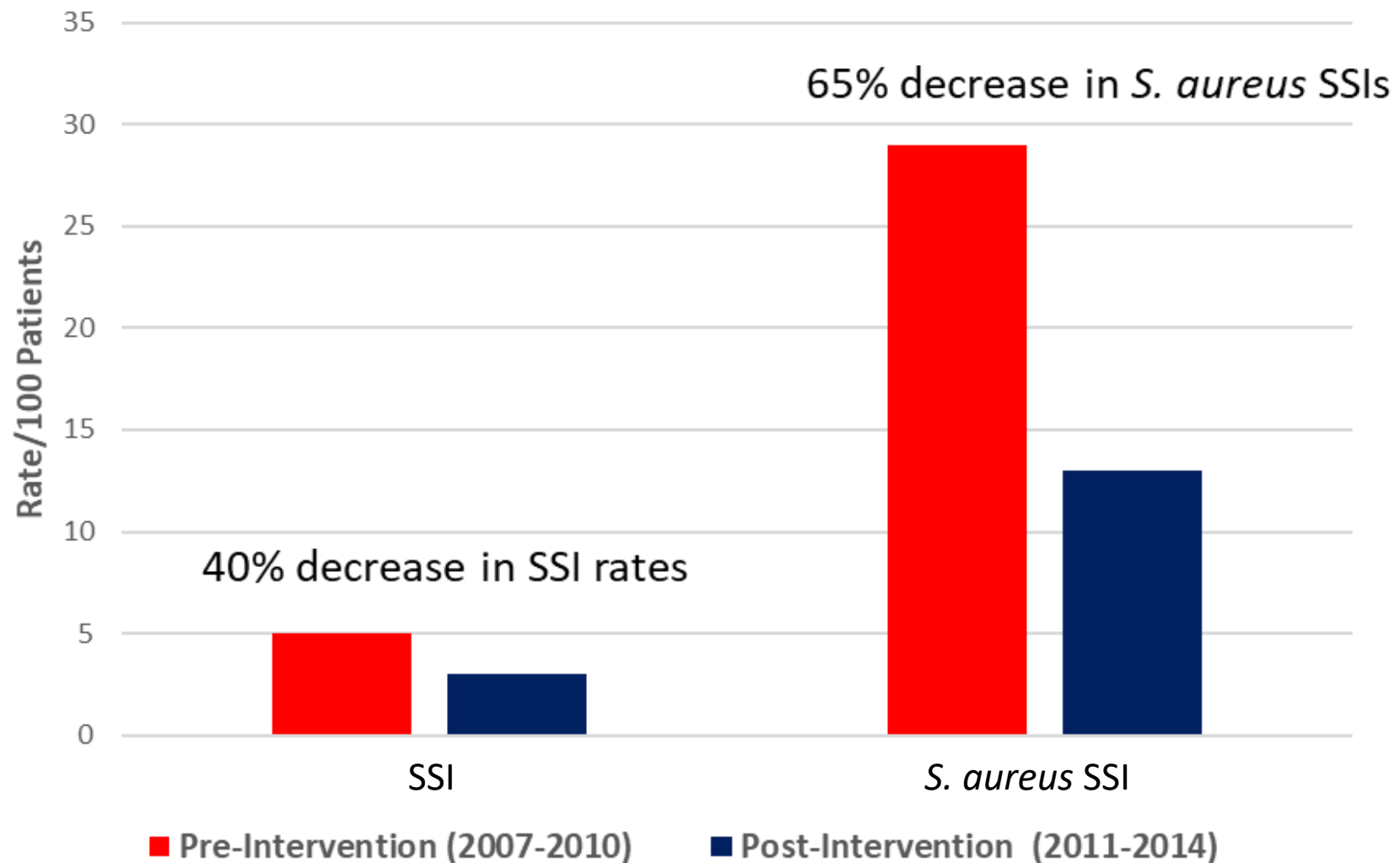
	2005	2006	2007	2008	2009
◆ Infection Rate	10.47	6.49	4.96	5.06	4.61
# SSI Infections	38	25	17	20	21
# Procedures	363	385	343	395	456

Case Example: JHH

- The CUSP framework was adopted in 2009 to address the SSI issue
- A CUSP team was organized for cardiovascular surgery
 - Representatives from:
 - Attendings
 - Fellows
 - AP's: both CVSICU and CVPCU
 - Respiratory Therapy
 - Pharmacy
 - Nursing: both CVSICU and CVPCU
 - Administration
 - Quality Improvement

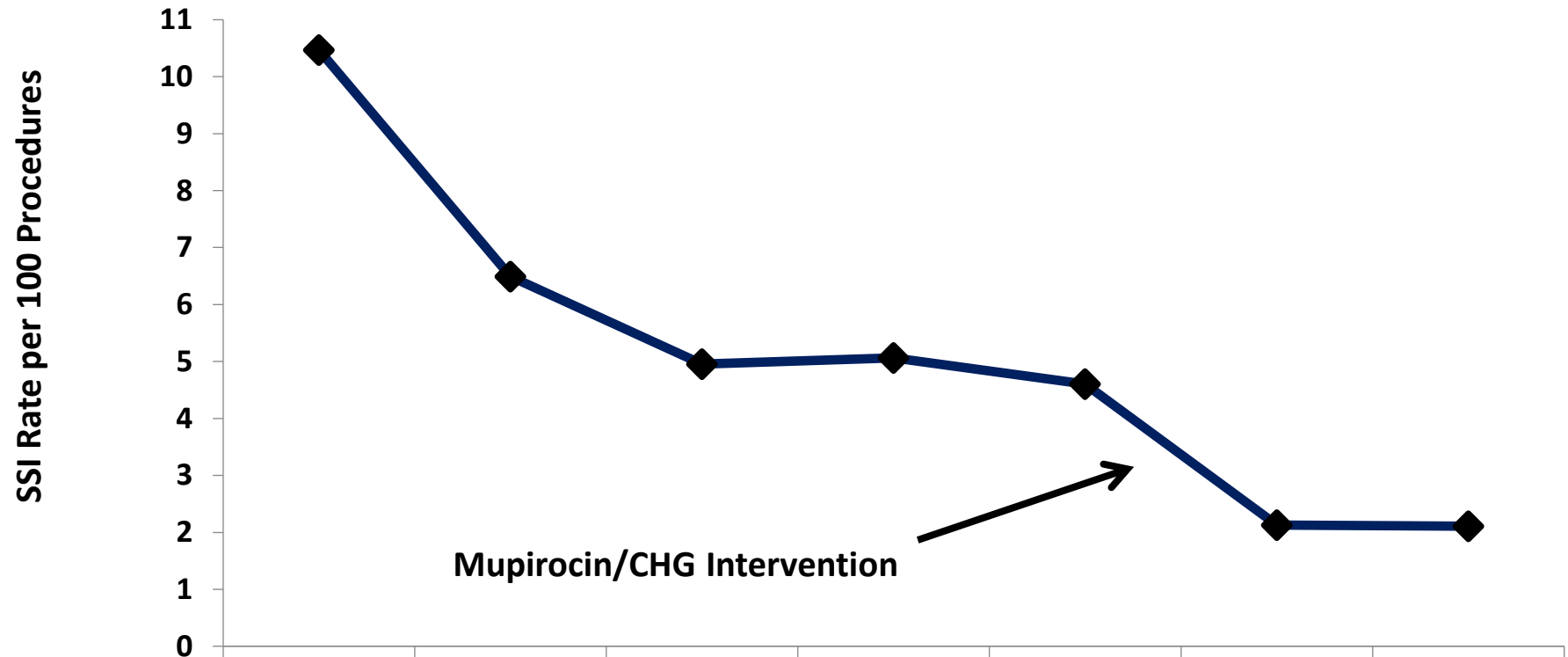
Case Example: JHH

CABG SSI and *S. aureus* SSI Rates at JHH (2007-2014) Pre- vs. Post-Implementation



Case Example: JHH

CABG Rates: SSI JHH, 2005-2011



	2005	2006	2007	2008	2009	2010	2011
◆ Infection Rate	10.47	6.49	4.96	5.06	4.61	2.13	2.11
# SSI Infections	38	25	17	20	21	9	10
# Procedures	363	385	343	395	456	423	474

AHRQ Safety Program Details

How Long Is the Program?

- 18-month program
- Begins January 2023
- Enrollment deadline is February 28, 2023

Who Is Eligible To Participate?

- High-risk adult inpatient surgical services:
 - Neurosurgical
 - Orthopedic
 - Cardiac

How Much Does It Cost To Participate?

- Free

How Much Time Does It Require?

- Minimum of 3 hours per month

Will CME and CEU Credits Be Awarded for Participation?

- CME and CEU credits will be available for participating physicians and nursing staff

Procedure Types

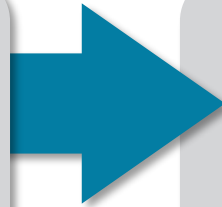
- **Neurosurgical**
 - Spinal fusion
- **Orthopedic**
 - Hip joint replacement
 - Knee joint replacement
 - Spinal fusion
- **Cardiac**
 - Cardiac valve replacement
 - Coronary artery bypass graft
 - Surgeries that involve a median sternotomy

This program has been determined to be Not Human Subjects Research by the Johns Hopkins IRB. Individual sites are not expected to obtain local IRB review unless requested by their home institutions.

AHRQ Safety Program Timeline

Participation Timeline

**November 2022–
January 2023**



**January 2023–
July 2024**

May 2023

- Assemble a multidisciplinary Comprehensive Unit-based Safety Program (CUSP) team within surgical service
- Ensure members of team have access to the Safety Program website

- Participate in educational programs, including an orientation webinar and monthly to twice monthly educational webinars
- Meet at least once a month with Implementation Advisers (IAs)
- Meet regularly with CUSP team and implement evidence-based interventions
- Submit project data on monthly or quarterly basis (details on next slide)

- Submit baseline infection data (January 2022–December 2022)
- Submit infection data for the first quarter of the project

Data Collection – Hip & Knee Replacement, Spinal Fusion

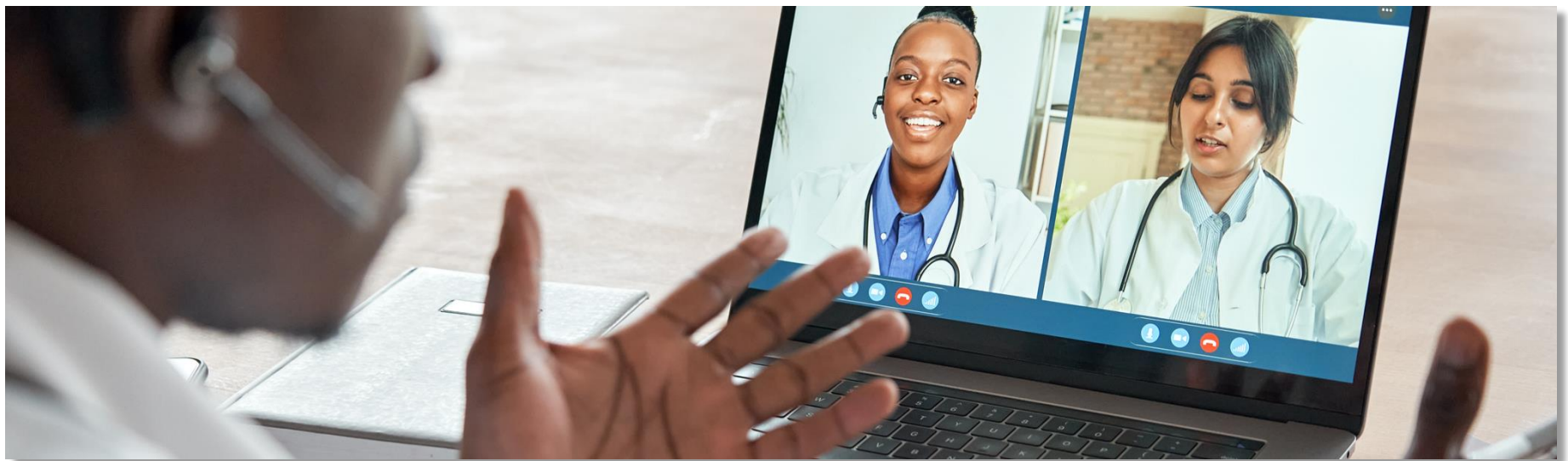
Submission Time	Survey	Data Source	Time to Complete – after initial submission
Beginning and End of Program	Gap Analysis (2 parts)	Infection Preventionist and Team	20 minutes each
	Hospital Survey on Patient Safety Culture (HSOPS)	Team Members	10-15 minutes per staff member
Monthly	Team Checkup Tool	Team Lead	10 minutes
Quarterly (by month)	<u>Clinical Outcomes:</u> <ul style="list-style-type: none"> • SSI events • <i>S. aureus</i> SSI events 	NHSN	Conferred data

Data Collection – Cardiac Surgery

Submission Time	Survey	Data Source	Time to Complete – after initial submission
Beginning and End of Program	Gap Analysis (2 parts)	Infection Preventionist and Team	20 minutes each part
	Hospital Survey on Patient Safety Culture (HSOPS)	Team Members	10-15 minutes per staff member
Monthly	Team Checkup Tool	Team Lead	10 minutes
Quarterly (by month)	<u>Clinical Outcomes:</u> STS (primary data source) <ul style="list-style-type: none"> • SSI events • Hospital readmissions 	STS	20 minutes (by STS abstractor)
	NHSN (if reporting CABG data) <ul style="list-style-type: none"> • SSI events • Causative organisms 	NHSN	Conferred data

Benefits of Participating

- Expert coaching in MRSA SSI prevention and CUSP
- Support for data collection, reporting, analysis, and feedback
- Access to Implementation Advisors
- Teamwork tools and guides
- Monthly office hours
- Peer-to-peer learning with other participating facilities
- Monthly/twice monthly webinars
- Facilitator guides
- Posters
- Summary sheets
- Educational material for patients and families



Anticipated Outcomes of Participation

- Reduced MRSA infections
- Reduced overall SSIs
- Improved team-based infection prevention practices (decolonization, CHG bathing, and antimicrobial prophylaxis)
- Enhanced communication and teamwork regarding prevention of MRSA infections and SSIs
- Improved teamwork and patient safety culture



Thank you.

We look forward to working with you on improving the delivery of high-quality care for all patients across the United States.

**To learn more
and enroll, visit:**

<http://safetyprogram4mrsaprevention.org>

Or email: MRSAPrevention@norc.org

*The deadline to enroll is
February 28, 2023*

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