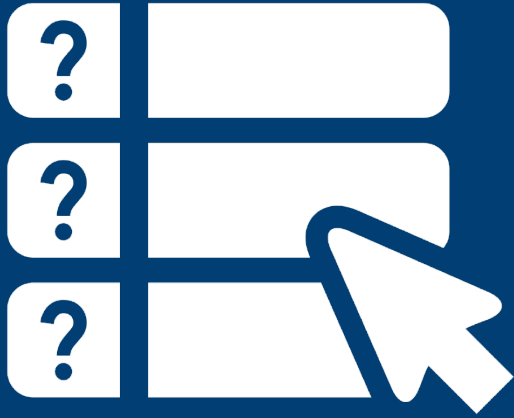


# Wisconsin HAI Education Series

**February 27, 2025**



WISCONSIN DEPARTMENT  
*of* HEALTH SERVICES



## **We want your feedback!**

Following today's presentation, please take a moment to tell us how you feel about the education we provide!

# National Healthcare Safety Network (NHSN) Standardized Infection Ratio (SIR) Rebaseline

HAI Education Series | February 27, 2025

**Nancy Eberle, MPH**

Surveillance Coordinator

Wisconsin Healthcare-Associated Infections (HAI) Prevention Program



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# Agenda

- SIR overview
- Historical data
- Available data under new baseline
- Key points to remember
- Resources

# Abbreviations and Acronyms

**ASA:** American Society of Anesthesiologists

**BMI:** Body mass index

**CAUTI:** Catheter-associated urinary tract infection

**CDI:** *Clostridioides difficile* infection

**CLABSI:** Central line-associated bloodstream infection

**CMS:** Centers for Medicare and Medicaid Services

**COLO:** Colon surgery

**HYST:** Abdominal hysterectomy

**MRSA:** Methicillin-resistant *Staphylococcus aureus*

**SSI:** Surgical site infection

**VAE:** Ventilator-associated event

# SIR Overview



# SIR Overview

SIR

=

Observed  
HAs

÷

Predicted  
HAs

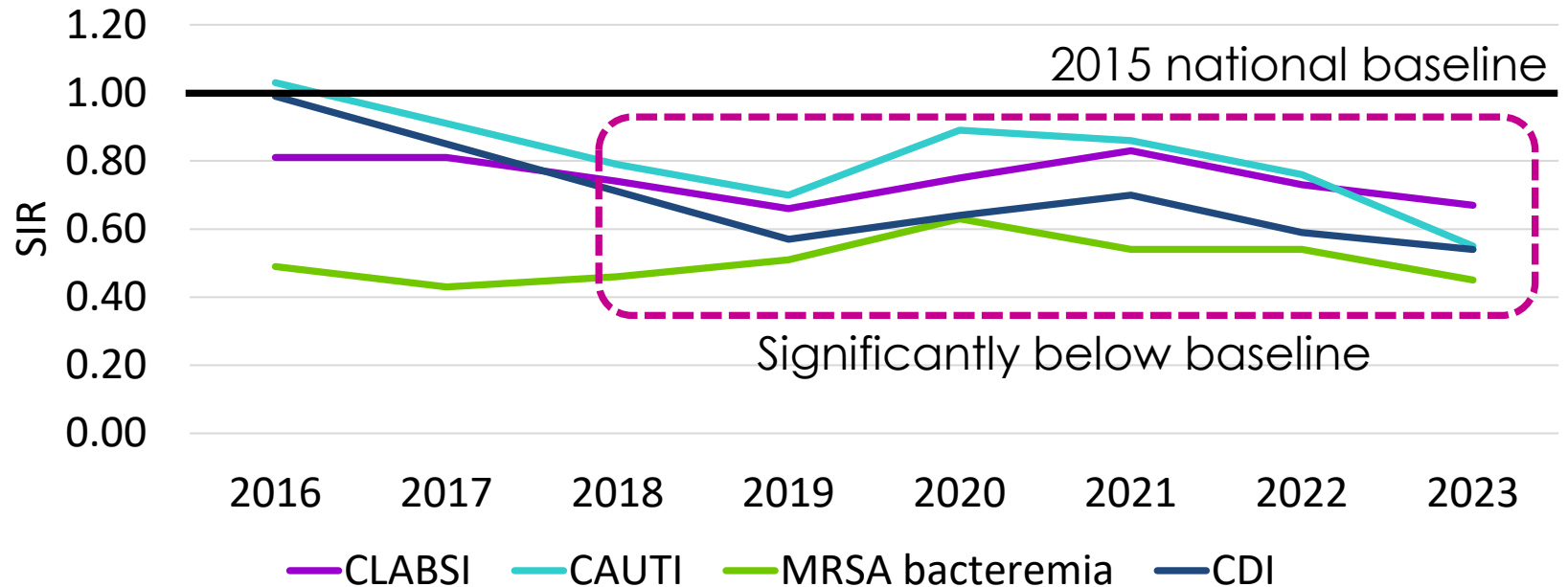
# Interpreting SIR Values

- $SIR > 1$ : More HAIs than predicted
- $SIR < 1$ : Fewer HAIs than predicted
- $SIR = 1$ : No different than national baseline



# Wisconsin State-level SIRs Over Time

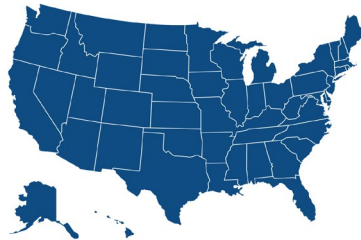
Trends in State-level Acute Care Hospital SIR Values,  
2016–2023



# State-Level Performance Compared to 2015 Baseline

## In 2023:

- **49** states had SIR < 1 for at least 3 HAI types.
- **36** states had SIR < 1 for at least 4 HAI types.
- **20** states had SIR < 1 for at least 5 HAI types.

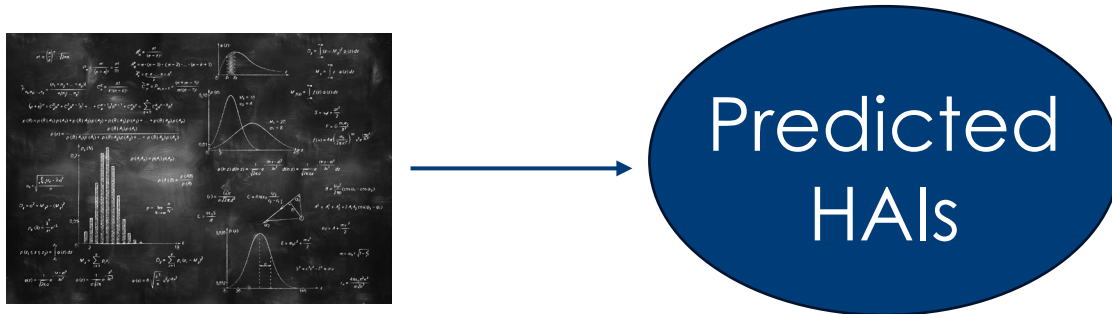


# SIR Rebaseline Process



# NHSN Rebaseline Process

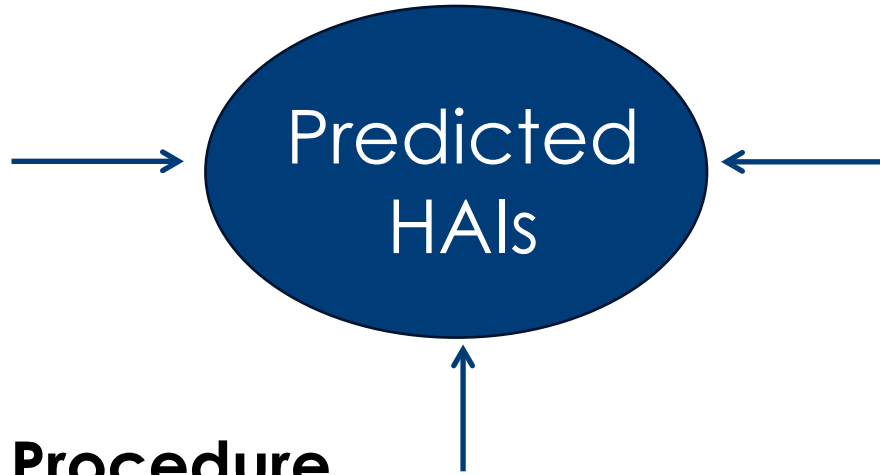
- Utilized data submitted by facilities for 2022.
- Determined factors statistically associated with each HAI type.
- Developed statistical models to account for these factors.



# Risk Adjustment Factors: COLO SSI\*

## Patient

- Age
- Sex
- BMI
- ASA score



## Facility

- Bed size
- Med. school affiliation
- Oncology hospital

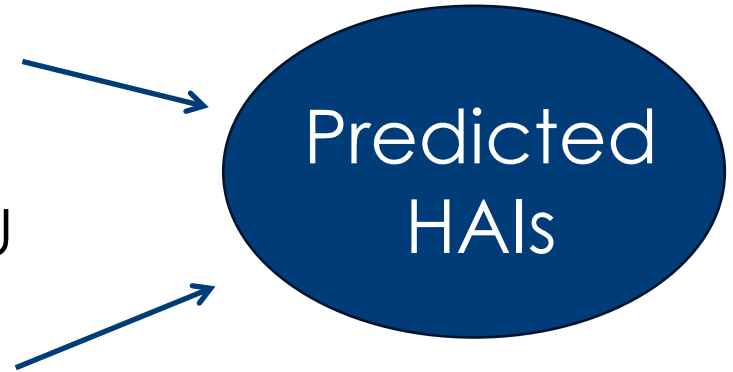
## Procedure

- Duration
- Scope
- Anesthesia
- Emergency
- Trauma
- Wound class

# Risk Adjustment: MRSA Bacteremia\*

## Facility factors

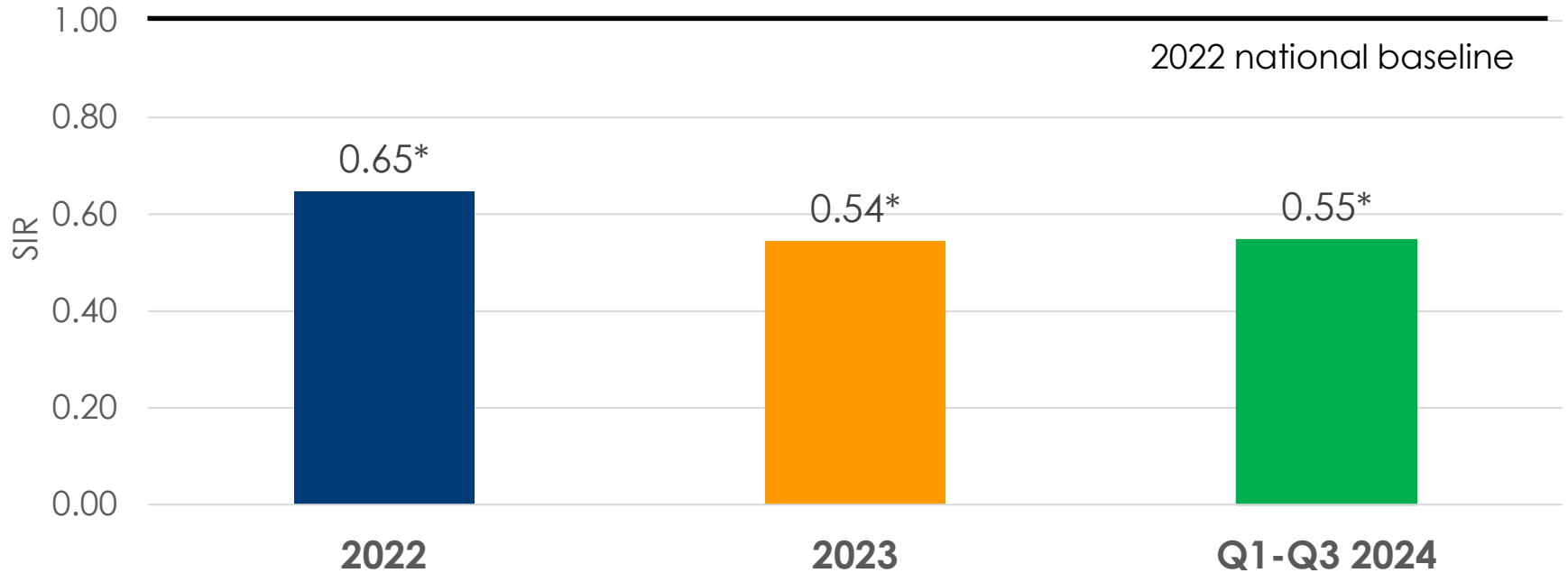
- Outpatient and inpatient community-onset prevalence rates
- Average length of stay
- Bed size
- Proportion of beds that are ICU
- Medical school affiliation
- Facility type



# Data under 2022 baseline



# Wisconsin Acute Care Hospital MRSA Bacteremia SIR, 2022 Baseline

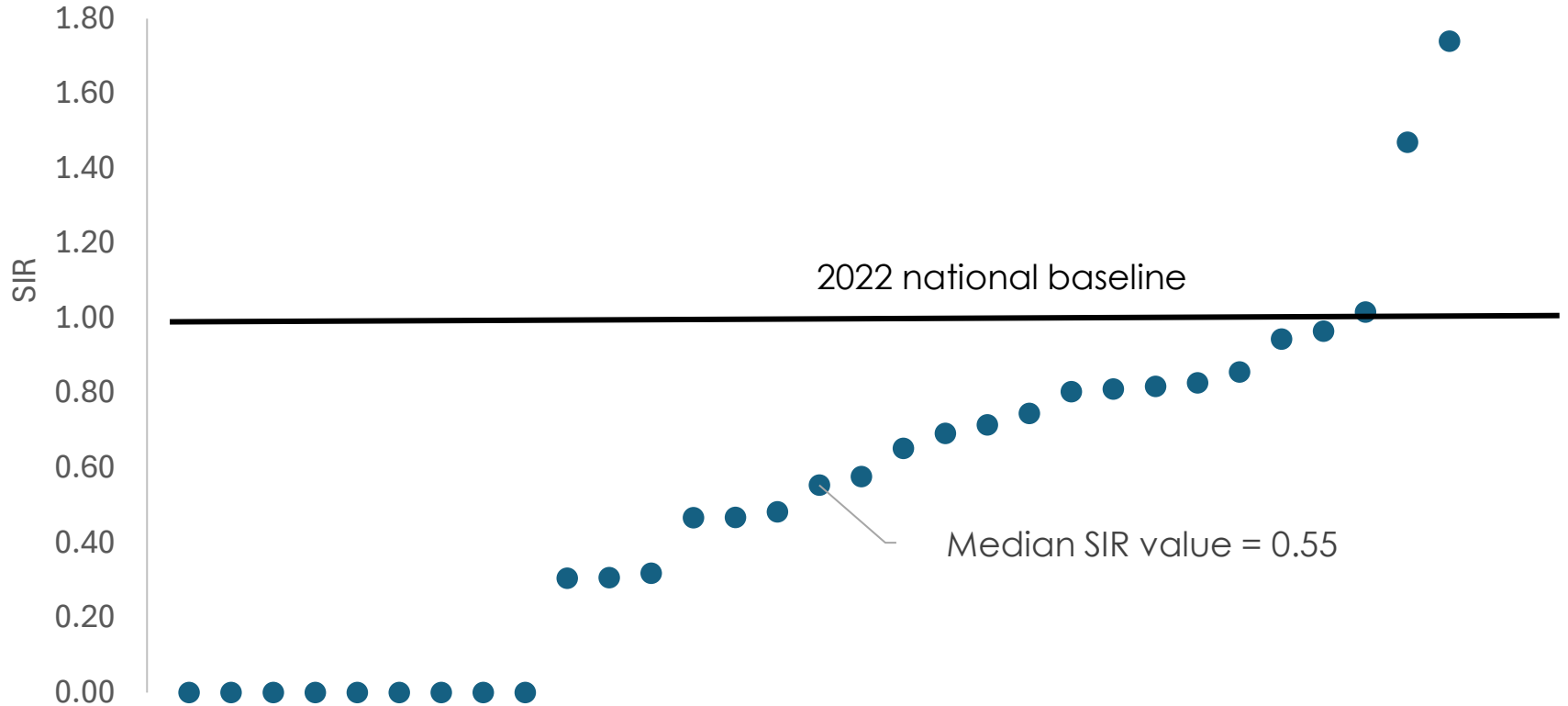


Note: 2024 data includes Q1–Q3 only.

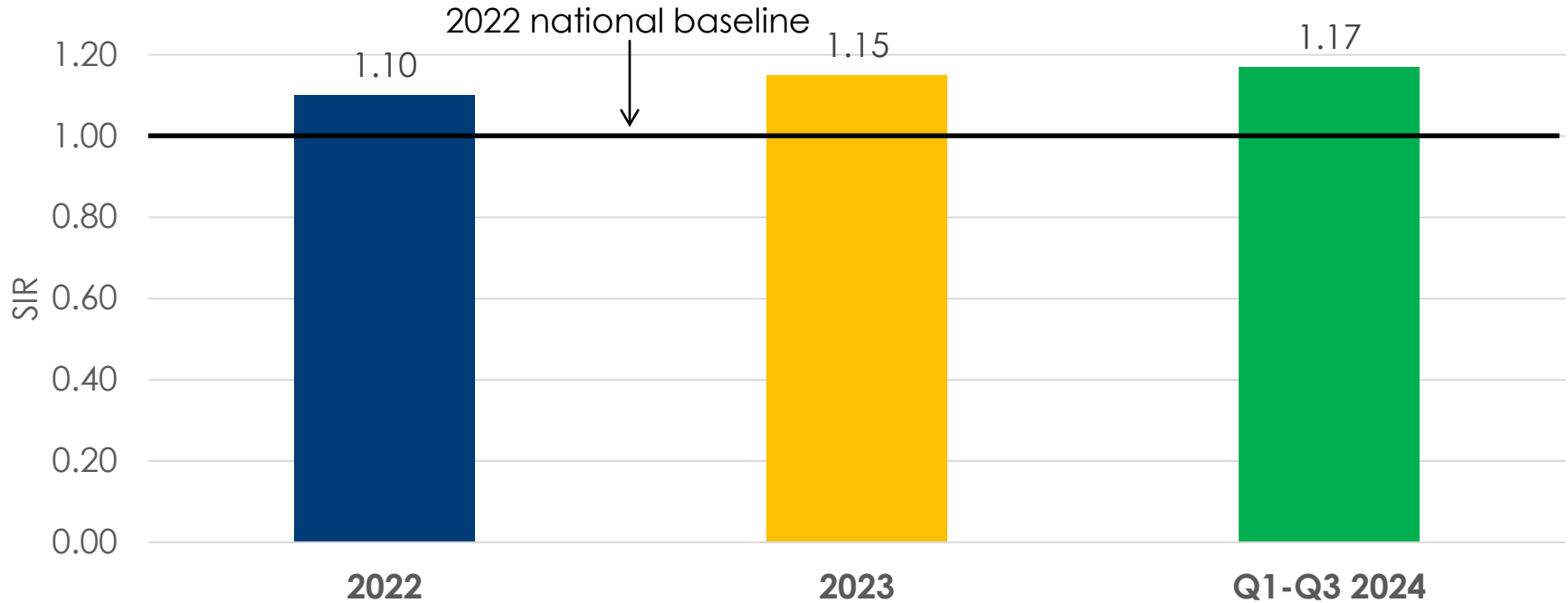
\*Statistically significant difference from national baseline



# Wisconsin Acute Care Hospital 2023 Facility-level MRSA Bacteremia SIRs, 2022 National Baseline

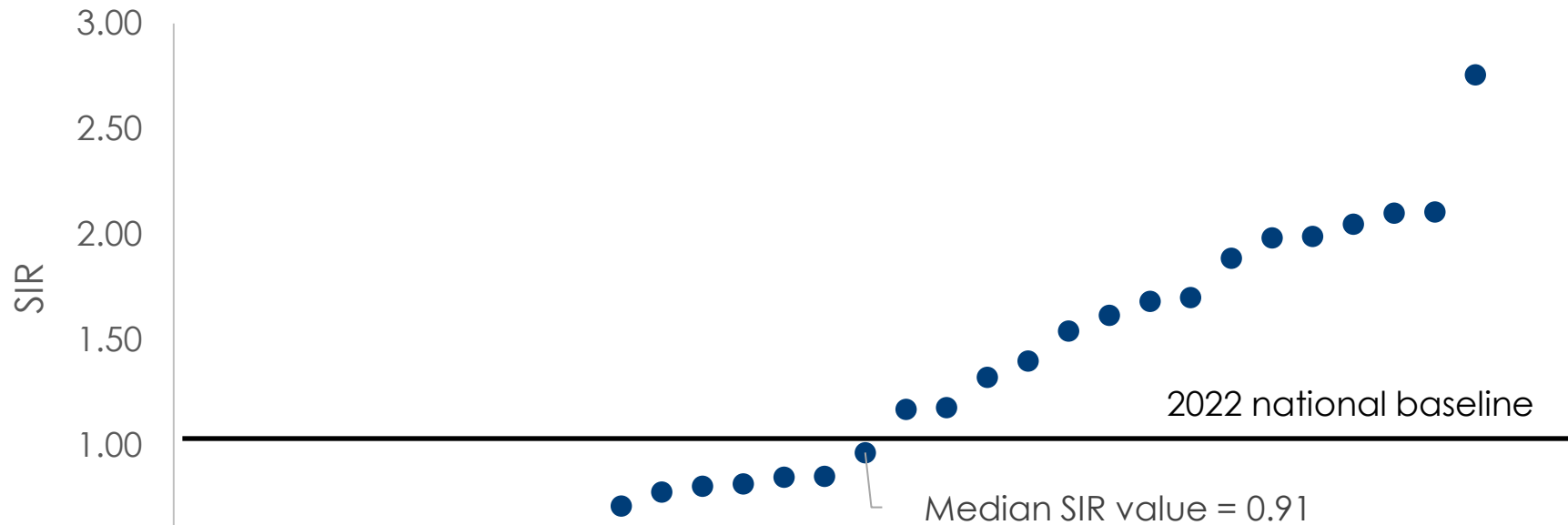


## Wisconsin Acute Care and Critical Access Hospital COLO SSI SIRs, 2022 National Baseline



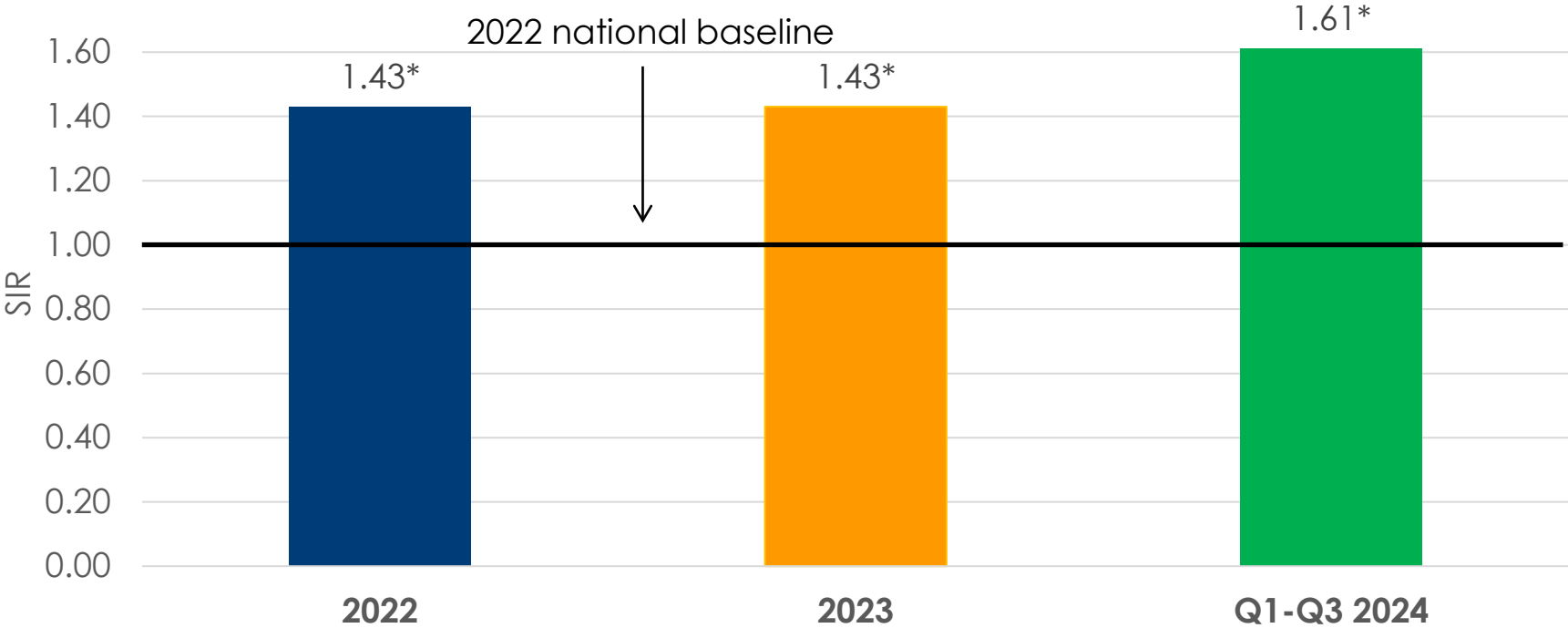
Complex 30-day SSI SIR model. 2024 data includes Q1–Q3 only.  
\*Statistically significant difference from national baseline

# Wisconsin Acute Care and Critical Access Hospital 2023 Facility-level COLO SSI SIRs, 2022 National Baseline



Complex 30-day SSI SIR model

# Wisconsin Acute Care and Critical Access Hospital HYST SSI SIRs, 2022 National Baseline



Complex 30-day SSI SIR model. 2024 data includes Q1–Q3 only.

\*Statistically significant difference from national baseline

# Key Points to Remember



# The Goal Posts Have Moved!

- State- and facility-level SIRs may be higher under 2022 baseline.
- This does not mean that we are now doing “worse” in preventing HAIs.
- SIRs have been recalibrated to reflect more current context.



# Don't Compare SIRs Across Baselines

- SIRs calculated under different baselines **cannot** be directly compared.
- Users can run 2022–2024 data using 2015 **or** 2022 baseline.



# CMS Quality Reporting Programs

- Some CMS quality programs utilize facility-level SIR values.
- These programs currently use 2015 baseline SIRs.
- Per NHSN, no timeline has been established for the adoption of 2022 baseline SIRs into CMS programs.



# NHSN's Next Steps

Complete and release remaining SIR 2022 baseline reports:

- CLABSI
- CAUTI
- CDI
- VAE
- SSI – Complex Admission/Readmission and All SSI models
- Standardized utilization rate (SUR) models

# Resources



# NHSN Rebaseline Resources

- **Many** resources available on NHSN's [2022 Rebaseline webpage](#).
- Key picks:
  - How Will My SIRs Change? Understanding the Impact of the 2022 HAI Rebaseline (recorded webinar and slides)
  - Guide to the 2022 Baseline SIR (updated "SIR Guide")
  - 2022 HAI Rebaseline Talking Points (3-page overview)

# Questions?



# Contact Information

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**Phone:** 608-267-7711



**Website:** [www.dhs.wisconsin.gov/hai/contacts.htm](http://www.dhs.wisconsin.gov/hai/contacts.htm)

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- **Southeastern Region:**  
DHSWIHAIPreventionProgram@dhs.wisconsin.gov
- **Southern Region:** Paula Pintar, MSN, RN, ACNS-BC, CIC, FAPIC, Phone: 608-471-0499



# HAI Infection Prevention Education webpage

[HAI: Home](#)

[For Health Professionals](#)

[For Patients & Families](#)

[Infection Prevention Education](#)

[Infection Preventionist Starter Kit](#)

[Multidrug-Resistant Organisms](#)

[Precautions](#)

[HAI Data](#)

[National Healthcare Safety Network](#)

[Antimicrobial Stewardship](#)



Get Handy Hygiene Tips

## HAI Infection Prevention Education

The resources on this page are intended to connect health care facility infection preventionists (IP) with education materials to support their role in preventing, detecting, and responding to healthcare-associated infections (HAI).

IPs play an essential role in facility infection prevention policy development, surveillance, and risk assessment. IPs also serve as a resource to other staff and programs within their facilities.

In addition to the webinars, trainings, and online references below, there are a number of links to trusted education resources, including the CDC (Centers for Disease Prevention and Control), the CMS (Centers for Medicare and Medicaid Services), and the Association for Professionals in Infection Control and Epidemiology (APIC).

## Monthly webinars for IPs

### HAI Education Series

The HAI Education Series, previously known as the Long-Term Care Education Series, provides education presentations on topics that include infection prevention, HAIs, antibiotic stewardship, disease surveillance, and outbreak response for health care staff in all setting types, local and Tribal health departments, and other health care partners. Each session features a new, timely topic presented by the Department of Health Services (DHS) program staff, HAI infection preventionists, partner organizations, or other external subject matter experts.

The HAI Education Series is a monthly webinar series, typically held the fourth Thursday of each month. Register for the [HAI Education Series](#).

Session recordings





# Upcoming HAI Education Session

**Date: March 27, 2025**

**Topic: Antimicrobial Stewardship**



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