



TN NHSN User Call

from the Tennessee Department of Health

TN

Monday, November 20, 10am CT

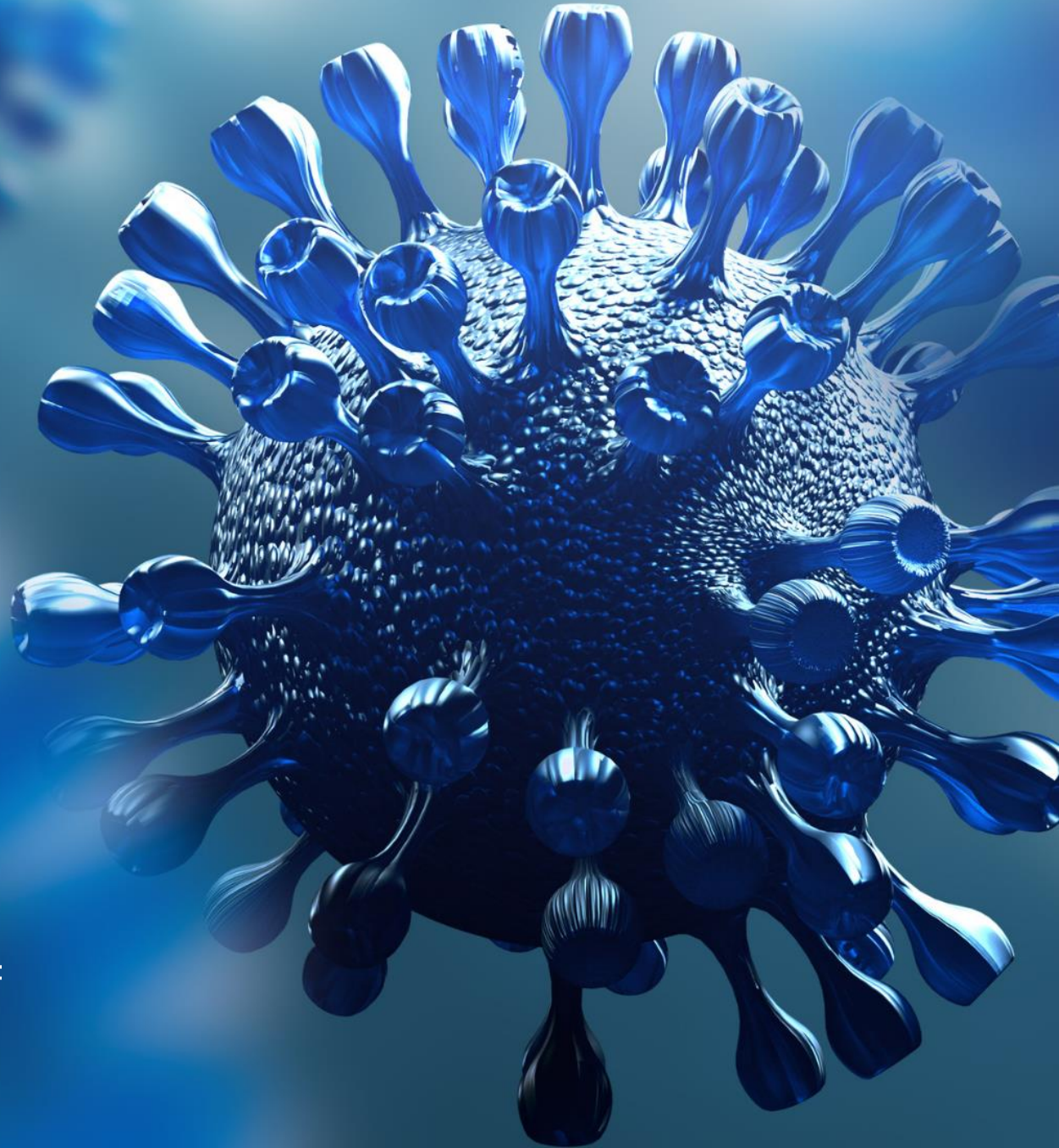
Agenda

- **Respiratory Illness Update**
 - Abigail Marrero, MPH, CPH
- **Respiratory Virus Season Resources**
 - Bailey Crawley
- **NHSN Update**
 - Vicky Lindsey, RN, CIC
- **Annual Report Review Series: MRSA**
 - Abigail Marrero, MPH, CPH
- **Multi-Drug Resistant Organism (MDRO) Surveillance Team Update**
 - Marissa Turner, MPH

TDH NHSN Team

- **Abigail Marrero, MPH, CPH**
 - Senior NHSN Epidemiologist
- **Vicky Lindsey, AAS, RN, CIC**
 - Senior NHSN Public Health Nurse Consultant
 - Lead Technological Assistance
 - Infection Prevention and Control Specialist
- **Tara Suhs, MPH**
 - Assistant NHSN Epidemiologist
 - MRSA Initiative Lead
- **Ashley Gambrell, MPH**
 - Assistant NHSN Epidemiologist
- **Marissa Turner, MPH**
 - Assistant NHSN Epidemiologist
- **Alex Kurutz, MPH**
 - Dialysis Epidemiologist

Respiratory Illness Update



TN

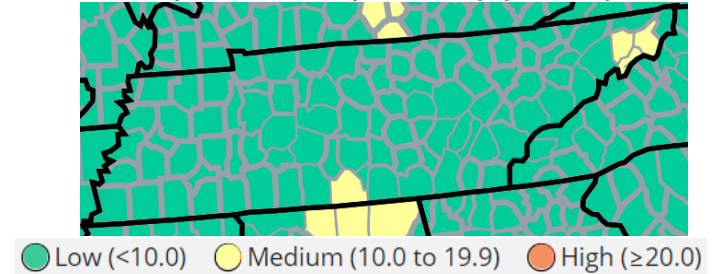
Department of
Health

COVID-19 Trends in TN & US

- Tennessee

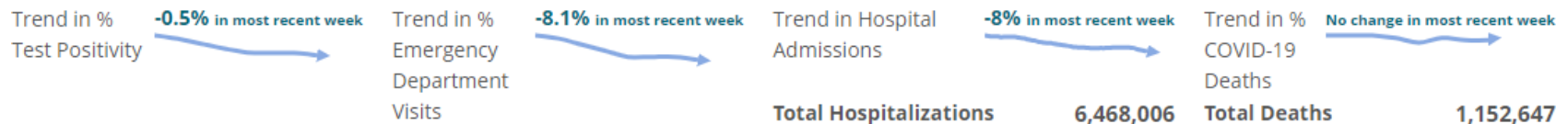
- New cases increasing ▲
(total ~4450/week; ~3700 week prior)
- Hospitalizations increased ▲
(316 – currently hospitalized; 260 – week prior)
- Deaths decreased slightly ▼

New COVID-19 hospital admissions per 100,000 population, past week (total)



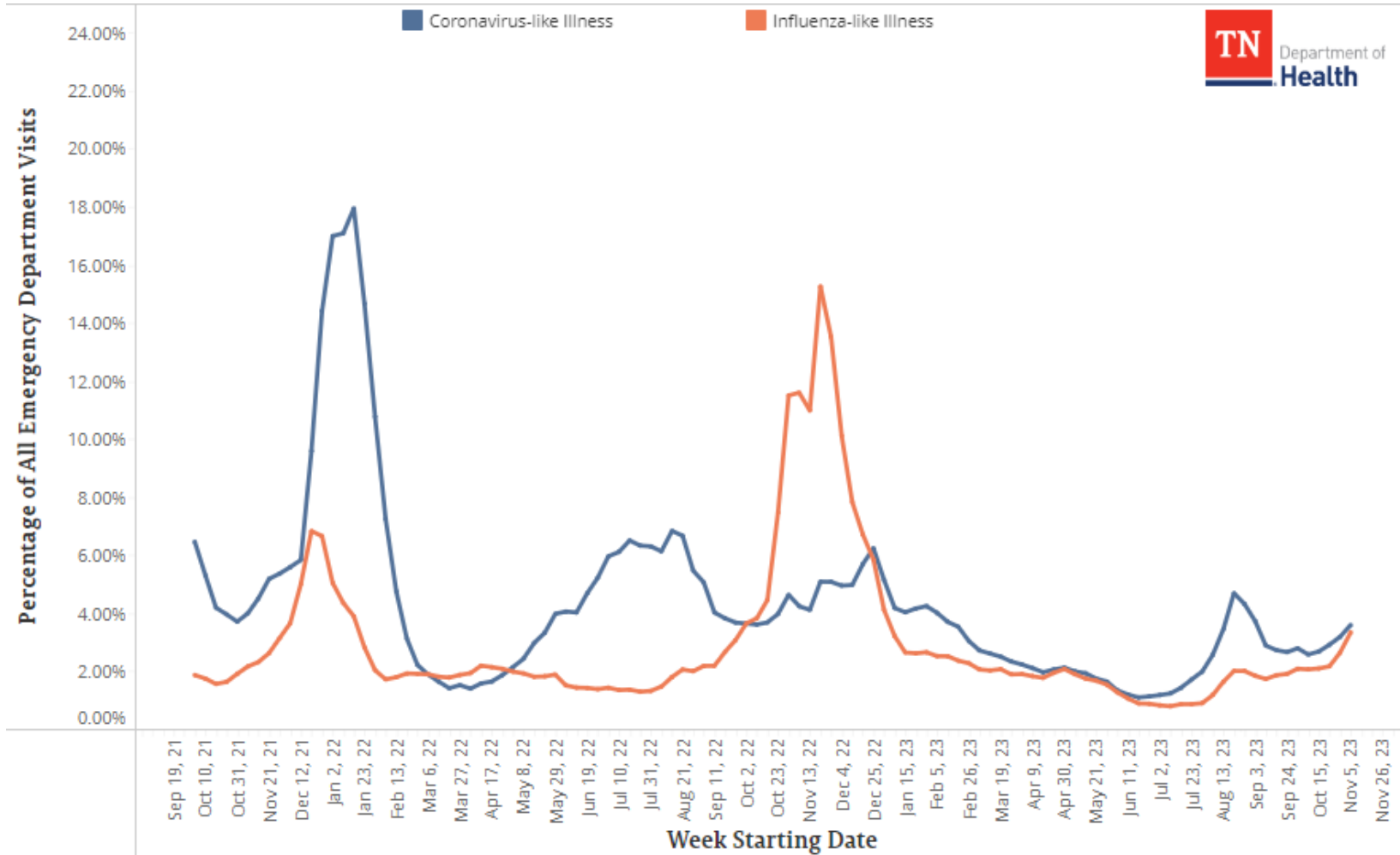
- U.S.A.

- New hospitalizations decreasing ▼
- Deaths stable ►



Syndromic Surveillance

Emergency Department Data of chief complaint and discharge diagnosis



Central Office Support

- **Test Kits**

- Facilities (Health Departments, LTCFs, Community Partners, etc.) can request free test kits from covid19.testing@tn.gov

- **Cluster Surveillance & Response**

- The Cluster and Outbreak team manages the statewide cluster database and offers support for outbreak response for regional and metro health departments.
- Contact COVID19.Cluster@tn.gov for information.

Bottom Line

- **Respiratory Illness in Tennessee**
 - COVID – Activity increasing slightly ▲
 - Flu – Activity holding steady ▶



Preventing Transmission of Viral Respiratory Pathogens

Learning Objective

- Describe and review how to prevent the transmission of **all** viral respiratory infections in healthcare settings, including influenza virus and COVID-19 infection, the following infection control measures should be implemented into standard procedures.
 - Optimizing the use of administrative and engineering controls, and indoor air quality
 - Communicating about recommended infection control practices
 - Practicing respiratory hygiene and cough etiquette
 - Considering broader use of source control
 - Using appropriate Transmission-Based Precautions based on suspected diagnosis

Prepare and Respond



1) Optimize the Use of Administrative and Engineering Controls, and Indoor Air Quality

- Take measures to limit crowding in communal spaces.
- Encourage people with symptoms of respiratory infection to sit away from other patients.
- Explore options, in consultation with facility engineers, to implement strategies to improve indoor air quality.

2) Communicate About Recommended Infection Control Practices

- Provide instructions when scheduling appointments and post visual alerts at the entrances to healthcare facilities reminding patients and visitors who accompany them to:
 - Tell healthcare personnel about symptoms of a respiratory infection when they first register for care
 - Wear a mask while in the facility if they have symptoms of respiratory infection or have recently been in close contact with someone with COVID-19
 - Clean their hands after having contact with respiratory secretions
- Instructions and alerts should be provided in appropriate languages and with consideration for individuals with learning disabilities or visual impairment.

3) Practice Respiratory Hygiene and Cough Etiquette

- Healthcare facilities should ensure the availability of materials for adhering to respiratory hygiene/cough etiquette at facility entrances, triage areas, and waiting areas for patients and visitors.
 - Provide facemasks to people with symptoms of respiratory infection or who have recently had close contact with someone with COVID-19 infection.
 - To facilitate hand hygiene, provide conveniently located dispensers of alcohol-based hand sanitizer; where sinks are available, ensure that supplies for hand washing are consistently available.
 - Provide tissues and no-touch receptacles for used tissue disposal.

4) Consider Broader Use of Source Control

- Source control is recommended for those residing or working on a unit or area of the facility experiencing an outbreak of respiratory infection. Universal use of source control could be discontinued as a mitigation measure once the outbreak is over.
- During periods of higher levels of community respiratory virus transmission, facilities should consider having everyone mask upon entry to the facility to ensure better adherence to respiratory hygiene and cough etiquette for those who might be infectious.

5) Use Appropriate Transmission-Based Precautions Based on Suspected Diagnosis

- Apply appropriate Transmission-Based Precautions, including placement in a single-person room, when examining a patient with known or suspected respiratory infection.
- Selection of diagnostic tests will depend on the suspected cause of the infection and if the results will inform clinical management or infection control decisions.

References

- CDC Preventing Transmission of Viral Respiratory Pathogens in Healthcare Settings
- CDC Transmission-Based Precautions

Thank you for listening!

- Questions, comments, or concerns?
 - HAI/AR Inbox
 - Email: HAI.Health@tn.gov





NHSN Updates

Vicky Lindsey, AAS, RN, CIC | Tennessee Department of Health | Communicable and Environmental Diseases and Emergency Preparedness

NHSN Protocol and Training Team (PaTT)

- Ask the NHSN Experts
- Monthly Webinars
- If you have any questions about the webinar series, they can be emailed to NHSNTrain@cdc.gov.

PaTT Ask the Experts Webinar Series 2023	
Date	Topic
July 19th	How to Use the NHSN Organism List
August 10th	BSI
September 20th	Secondary BSI
October 25th	SSI
November 15th	Chapter 17
December 13 th	UTI/PNEU

NHSN –PaTT Chapter 17

https://www.cdc.gov/nhsn/faqs/faq_ssi.html#Evidence-of-Infection

Q9. Does NHSN have a definition for purulence?

There is no standard, clinically agreed upon definition for purulence. For NHSN surveillance purposes, the descriptors "pus" or "purulence" are sufficient gross anatomic evidence of infection. When the terms 'pus' or 'purulence' are not written in the medical record, NHSN has allowed determinations for purulence based off descriptors. Documentation that uses a color descriptor and a consistency descriptor (from the list below) in combination is acceptable to indicate 'purulence'. For example, fluid only described as yellow, or only described as thick, is not sufficient. However, if the terms are combined, then they may be more representative of purulence (for example: fluid described as thick and yellow).

Color

Green

Yellow

Consistency

Milky

Thick

Creamy

Opaque

Viscous

NOTE: The following descriptors cannot be used to define purulence/infection: 'Cloudy', 'turbid', 'murky' or the odor of a wound.

Gram stain results such as WBCs or PMNs cannot be used to define purulence within the [SSI protocol](#). [PDF - 1 MB].

NHSN –PaTT Chapter 17

What Does “*With no other recognized cause” Mean?

- **“With no other recognized cause”** means the sign/symptom is eligible for use in meeting the HAI or SSI criteria unless there is physician documentation within the medical record that specifically states the sign/symptom is due to something other than an HAI or SSI.
- The local facility must make this determination based on the documentation available in the medical record.

BJ-BONE AND JOINT INFECTION

BONE-Osteomyelitis

Osteomyelitis must meet at least **one** of the following criteria:

1. Patient has organism(s) identified from bone by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment, for example, not Active Surveillance Culture/Testing (ASC/AST).
2. Patient has evidence of osteomyelitis on gross anatomic or histopathologic exam.
3. Patient has at least **two** of the following localized signs or symptoms: fever (>38.0°C), swelling*, pain or tenderness*, heat*, or drainage*

And at least one of the following:

- a. organism(s) identified from blood by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment, for example, not Active Surveillance Culture/Testing (ASC/AST).

AND

imaging test evidence definitive for infection (for example, x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for osteomyelitis.

- b. imaging test evidence definitive for infection (for example, x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for osteomyelitis.

* With no other recognized cause

Reporting Instructions

- Report mediastinitis following cardiac surgery that is accompanied by osteomyelitis as SSI-MED rather than SSI-BONE.
- If a patient meets both organ space JNT and BONE report the SSI as BONE.
- After an HPRO or a KPRO if a patient meets both organ space PJI and BONE report the SSI as BONE.

NHSN –PaTT Chapter 17

Chapter 17 Key Concepts: Equivocal Imaging Finding

■ Equivocal:

Equivocal imaging

Findings from medical imaging studies that do not conclusively identify an infection or infectious process. Imaging findings such as these require additional conclusive clinical evidence that an infection is present, such as physician documentation of antimicrobial therapy for treating the infection or infectious process.

Example of definitive imaging: abscess visualized in the right lower quadrant.

Example of equivocal imaging: fluid collection visualized in the right lower quadrant.

■ Clinical Correlation:

Clinical correlation

Physician documentation of antimicrobial treatment for site-specific infection related to equivocal findings (not clearly identified) of infection on imaging test.

For example, when applying intraabdominal infection (IAB) criterion “3b”, the finding of ‘fluid collection seen in the lower abdominal cavity’ on an imaging test, may or may not represent an infection. This finding is not clearly identified as an infection and should be confirmed with clinical evidence that an infection is present. In the case of IAB criterion “3b”, the clinical evidence that is required, is physician documentation of antimicrobial therapy for treating the intraabdominal infection.

New Optional Flu and RSV Reporting

- Beginning Sunday, November 26, 2023, NHSN plans to expand the hospital COVID-19 module data collection form to include **optional** data fields for voluntary reporting of adult and pediatric influenza and respiratory syncytial virus (RSV) new admissions, hospitalized patients, and hospitalized ICU patients
- Seasonal influenza and RSV can result in substantial burden on hospitals. The addition of these **optional** data fields can be used to improve situational awareness of severe respiratory illness, make forecasts, help direct resources to address the potential increased impact of flu, COVID-19, and RSV co-circulation and inform guidance and recommendations for public health professionals, clinicians, and the general public.
- Understanding influenza and RSV hospitalizations and admissions can also help to identify potential strains on PPE inventory.

New Optional Flu and RSV Reporting

- Reporting for the new influenza and RSV fields is **optional**.
 - The addition of the influenza and RSV fields does **not** impact the [FY 2023 Hospital Inpatient Prospective Payment System \(IPPS\)](#) and [Long-Term Care Hospital Prospective Payment System \(LTCH PPS\) Final Rule \(CMS-1771-F\)](#) for hospital, critical access hospital (CAH), psychiatric facility, and rehabilitation facility infection prevention and control conditions of participation (CoP) requirements for hospital COVID-19 data reporting.
 - Current processes for reporting hospital COVID-19 data to NHSN can continue exactly as is.
 - An updated CSV template will be available for reporters who elect to include the new flu and RSV in their hospital COVID-19 reporting.
 - The current CSV template can continue to be used with no impact to reporting processes or compliance under the conditions of participation requirements.



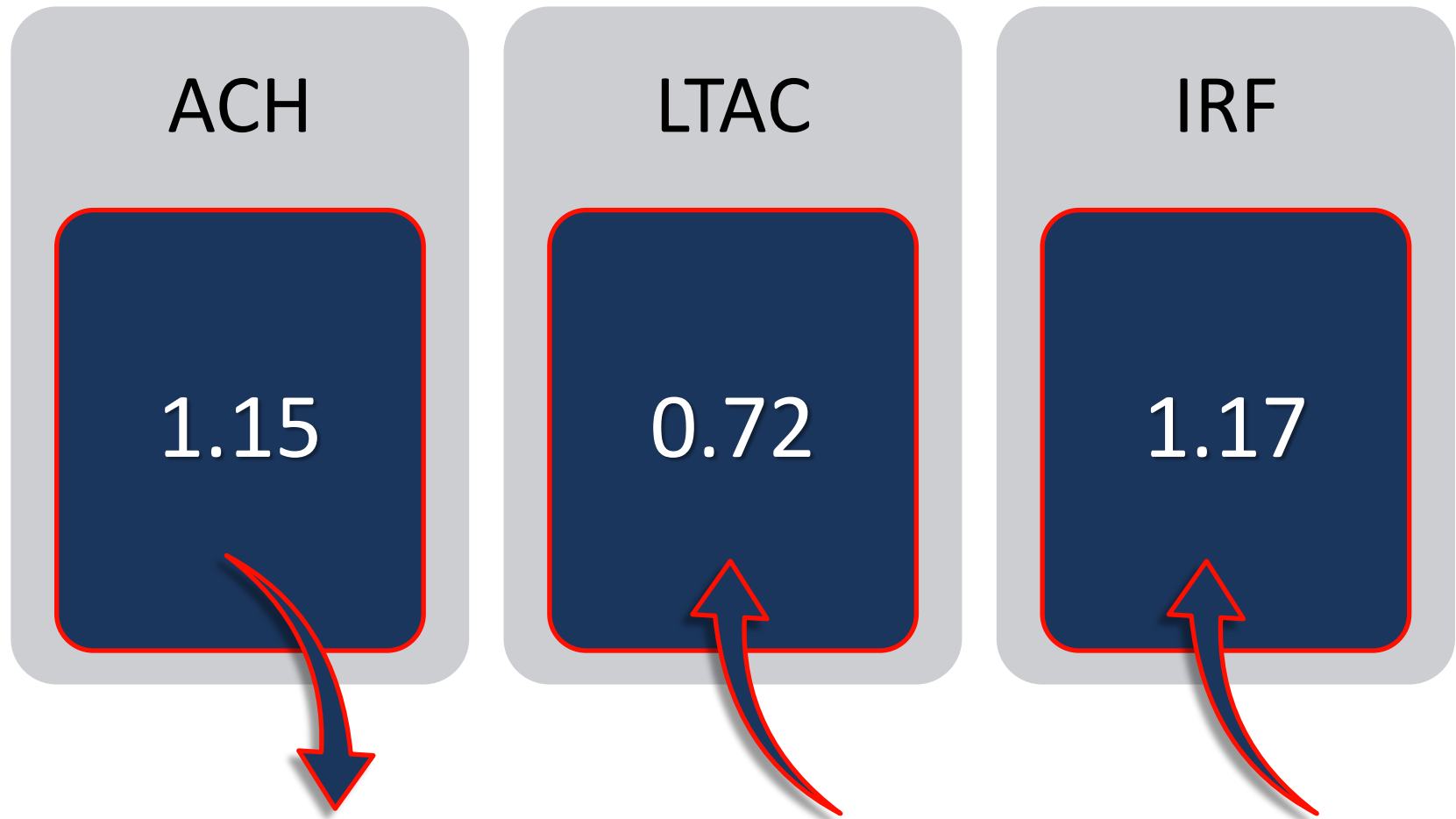
Annual Review: MRSA

Abigail Marrero, MPH, CPH | Tennessee Department of Health | Communicable and Environmental
Diseases and Emergency Preparedness

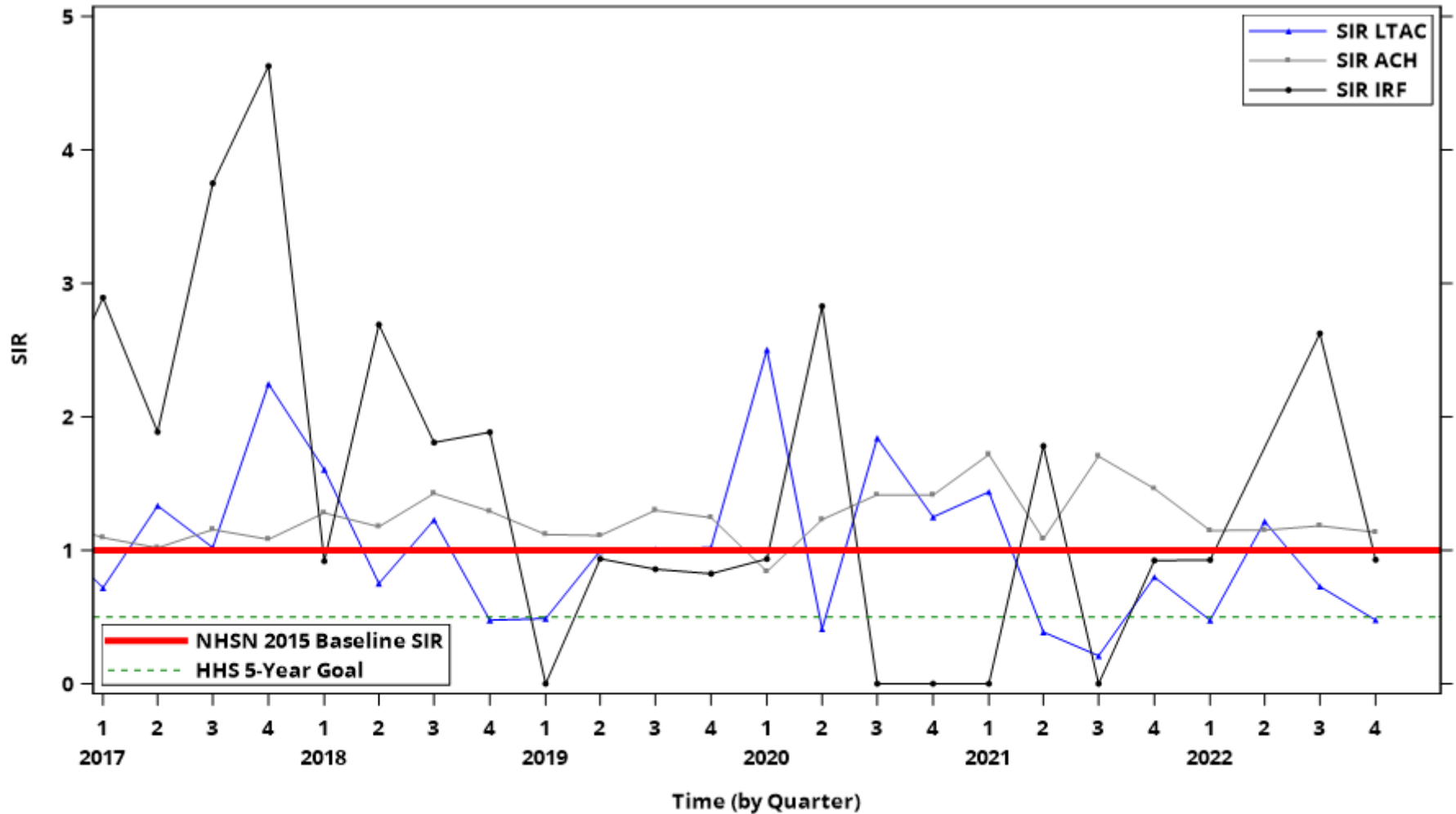
Background

- **Methicillin-resistant *Staphylococcus aureus* Events from January 1 – December 31, 2022**
- **Data reported as of May 2023**
- **Total # of facilities:**
 - ACHs – 97
 - LTACs – 8
 - IRFs – 27
- **Device days:**
 - ACHs – 4,026,628
 - LTACs 89,062
 - IRFs – 223,985

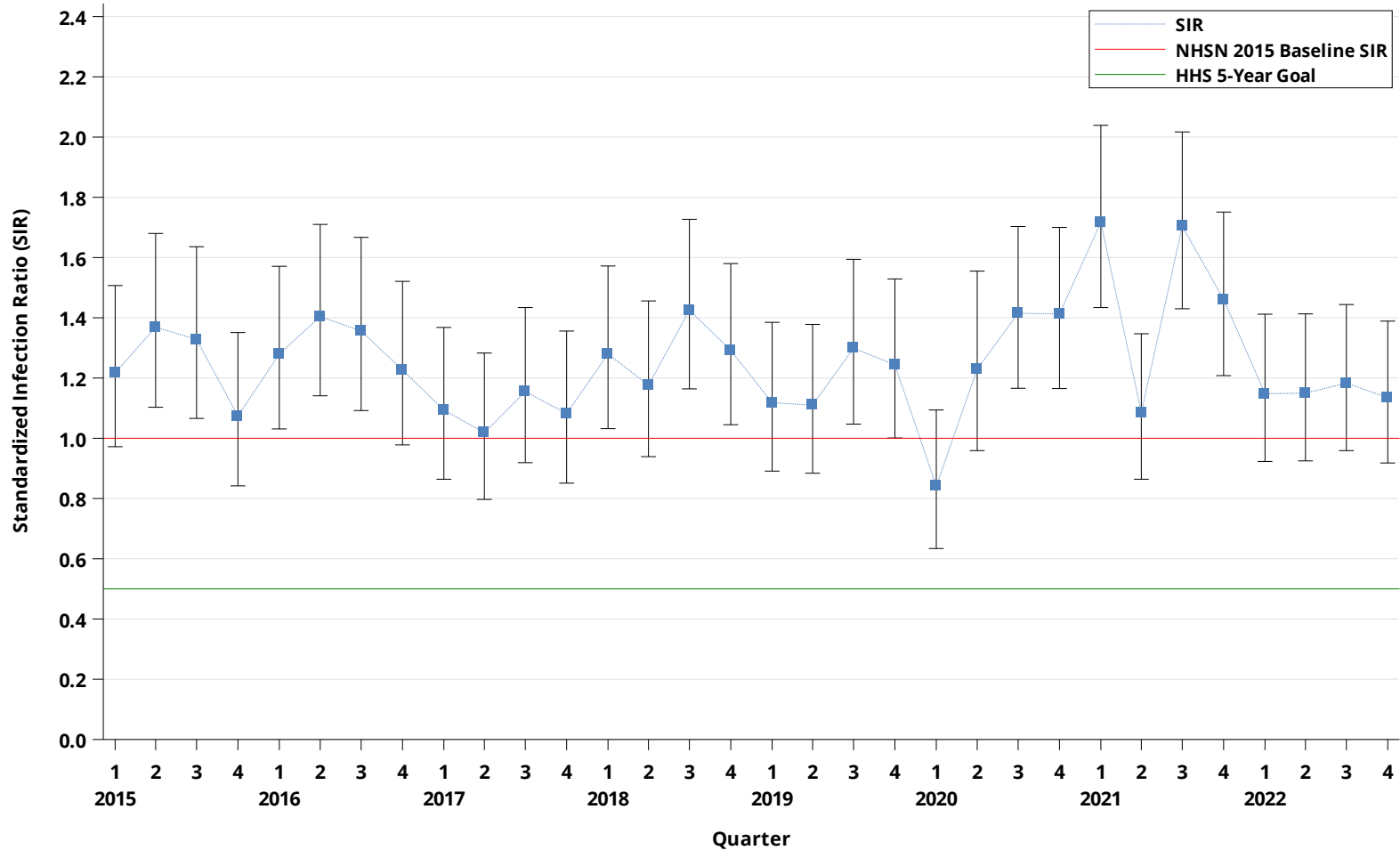
SIRs by Facility Type



SIRs by Facility Type

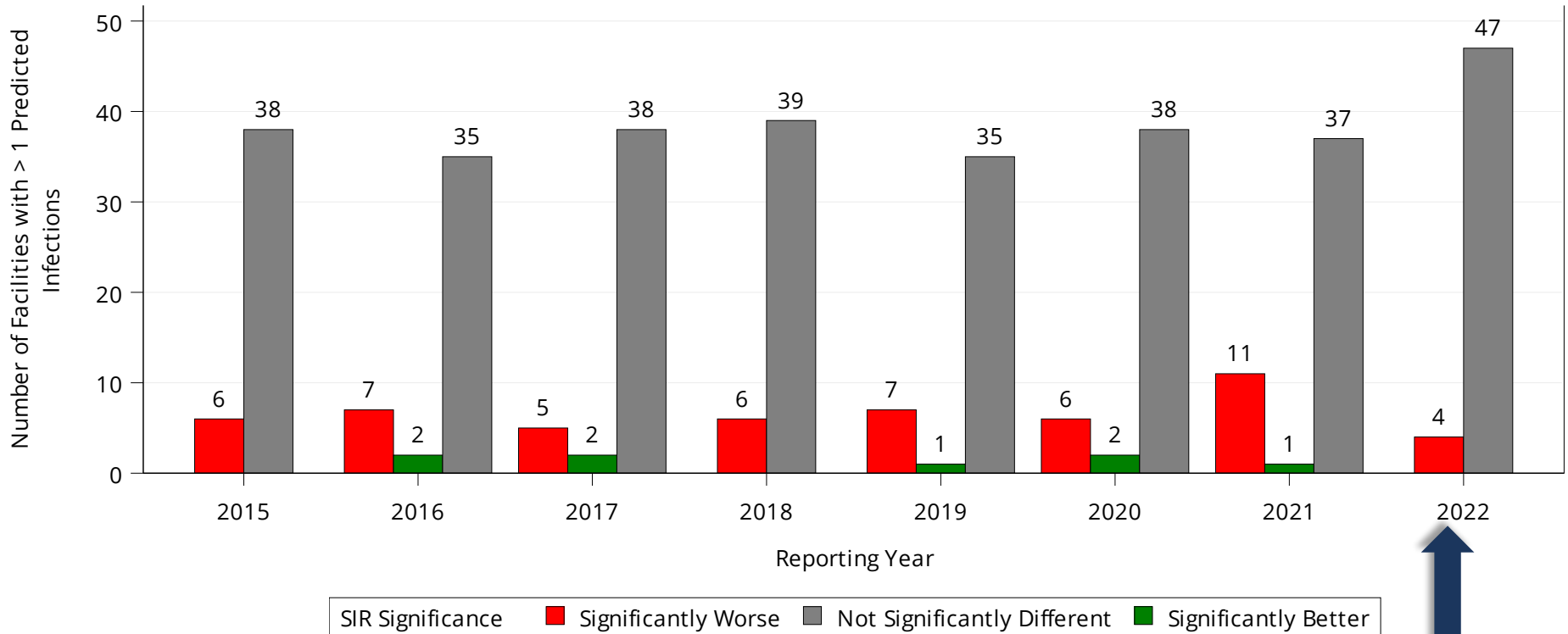


SIRs for ACHs by Quarter



Data Reported as of May 17, 2023

Statistically Significant ACHs



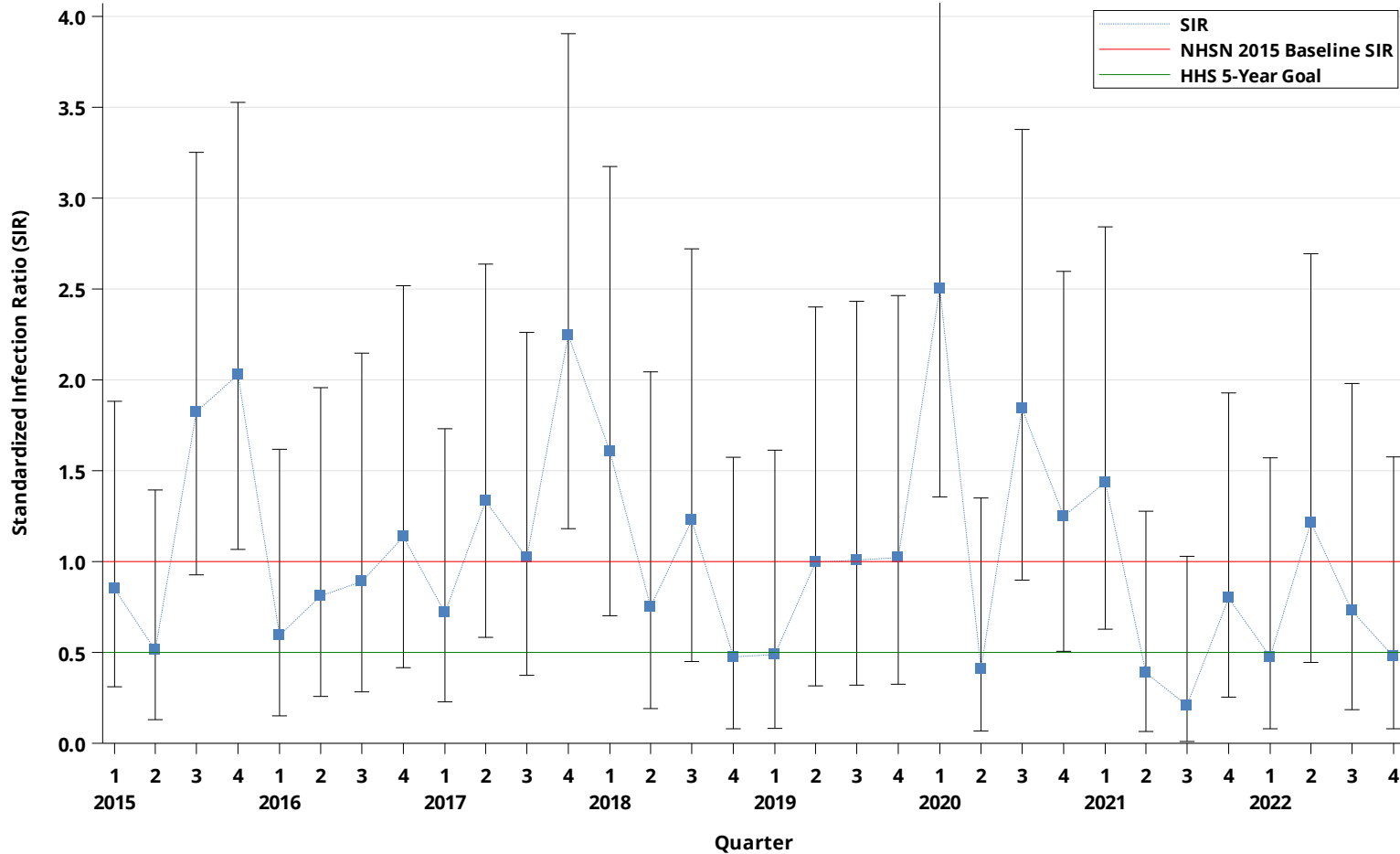
Data reported as of May 17, 2023

**New TN
record!!**

But wait, there's more...

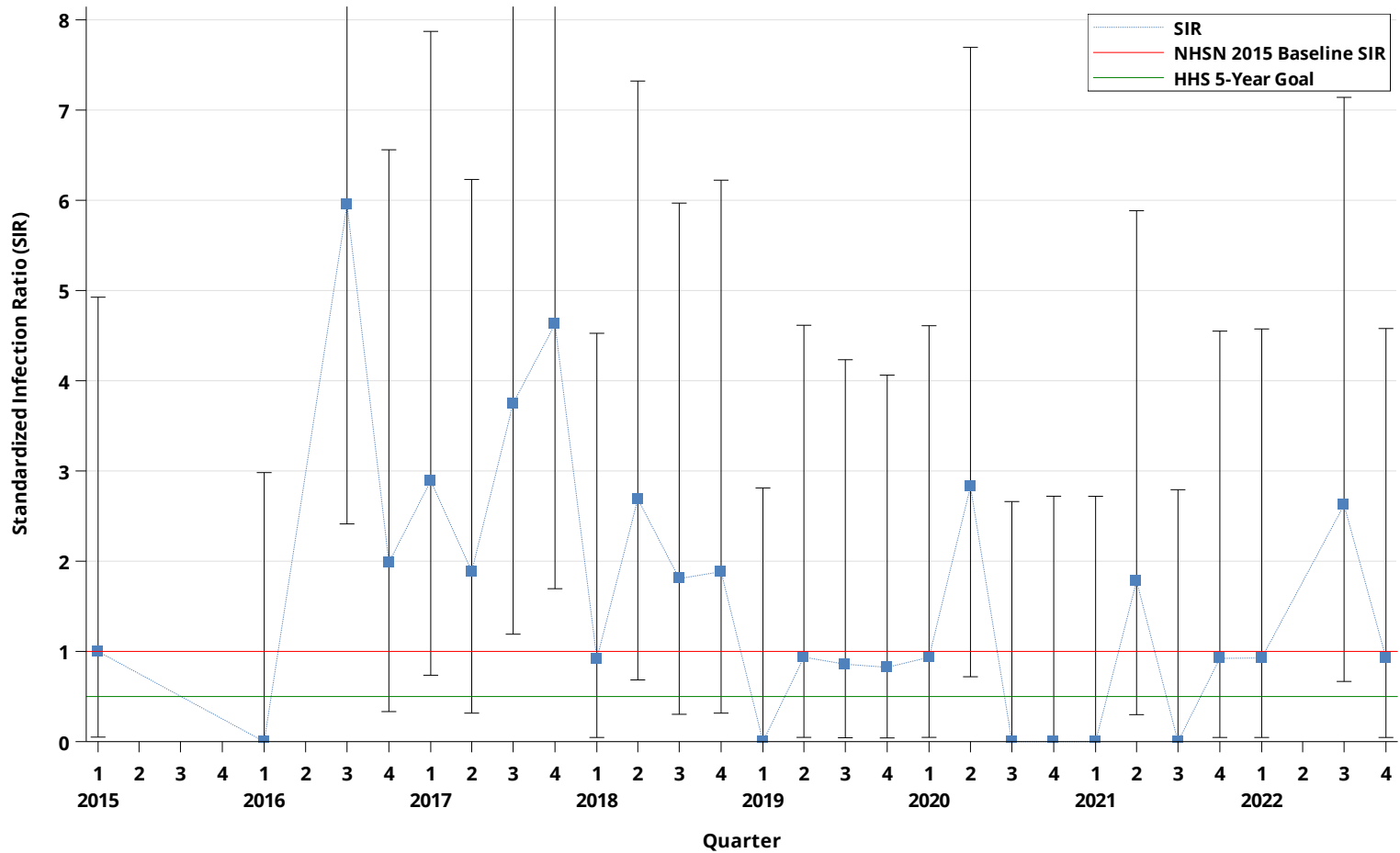


SIRs for LTACs by Quarter



Data Reported as of May 17, 2023

SIRs for IRFs by Quarter



Data Reported as of May 17, 2023

TN MRSA Initiative (as an example)

Nasal Decolonization: universal application for first 5 days of admission

- Implemented in ALL adult Intensive/ Critical Units
- Plus one or more of the following:
 - LTC transfer patients,
 - Patient with indwelling devices (CVCs, midline catheters, lumbar drains),
 - High risk surgery patients (cardiothoracic, orthopedic, or neurosurgery),
 - Surgery healthcare workers.

CHG Bathing: Daily Chlorhexidine gluconate (CHG) 2% No-Rinse Bathing Cloths

- Implemented in ALL adult Intensive/ Critical Units
- Plus one or more of the following:
 - LTC transfer patients,
 - Patient with indwelling devices (CVCs, midline catheters, lumbar drains),
 - High risk surgery patients (cardiothoracic, orthopedic, or neurosurgery).

Environmental Audits

- Surprise environmental cleaning inspections and observations

Contact Precautions:

- Implement contact precautions for both active infections and colonized patients
- Implement contact precautions for patients with excessive wound drainage





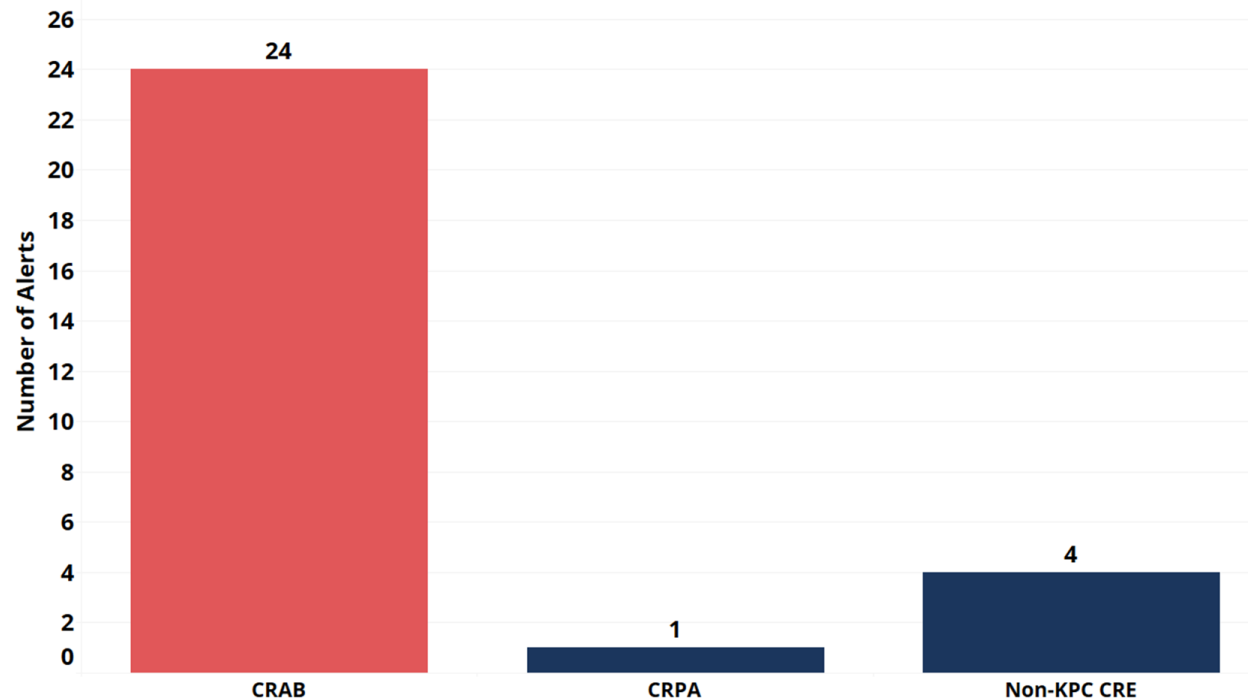
Multi-Drug Resistant Organism (MDRO) Outbreak Team Update

October 15th – November 14th, 2023

MDRO Alerts

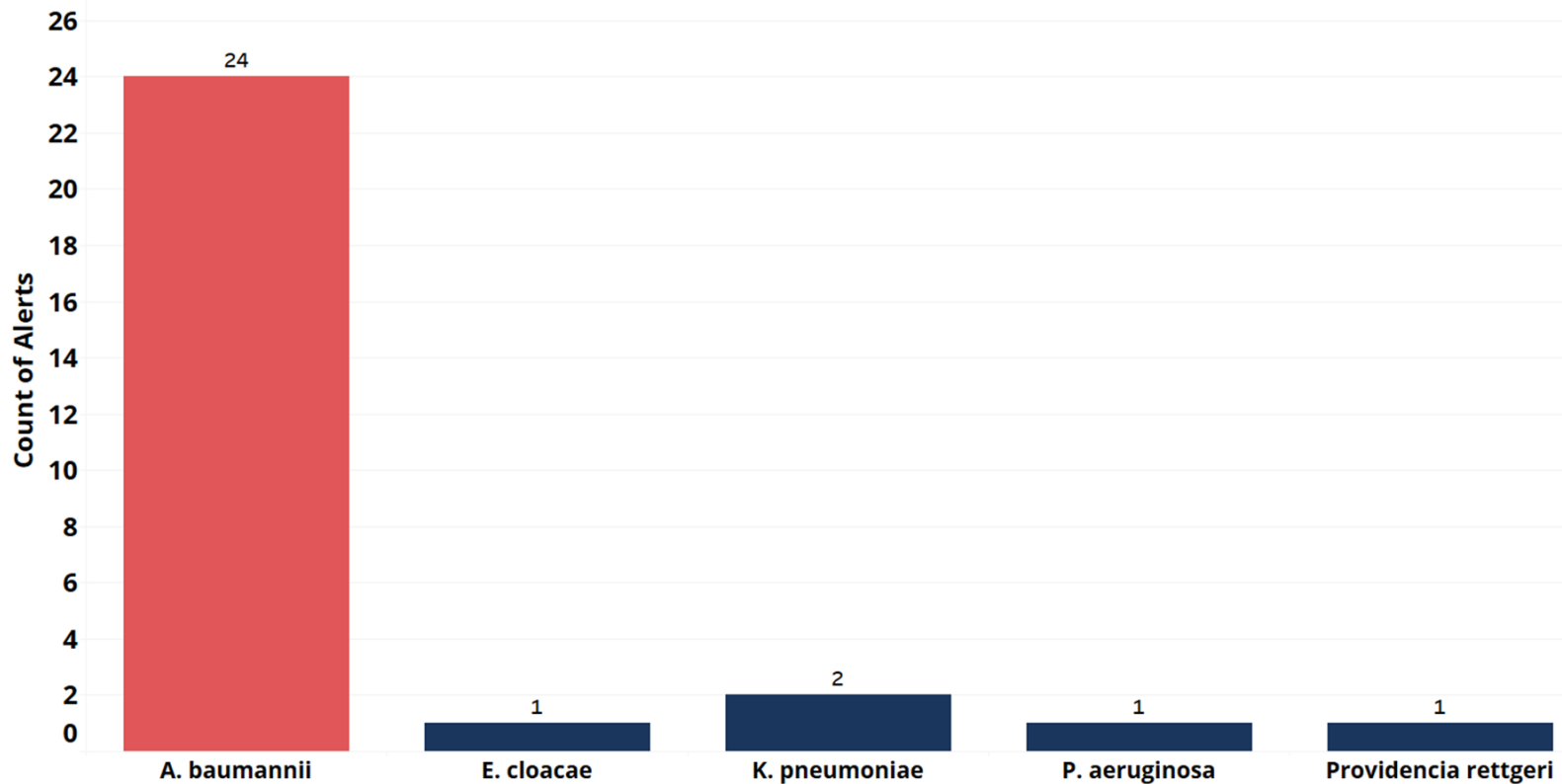
- **CRAB** – Carbapenem-resistant *Acinetobacter baumannii*
- **CRE** - Carbapenem-resistant *Enterobacterales*
- **CRPA** – Carbapenem-resistant *Pseudomonas aeruginosa*
- **KPC** – *Klebsiella pneumoniae* Carbapenemase-producing

MDRO Alerts by Organism Order
(Oct 15th - Nov 14th)



MDRO Alert by Organism

Alerts by Organism
(Oct 15th - Nov 14th)



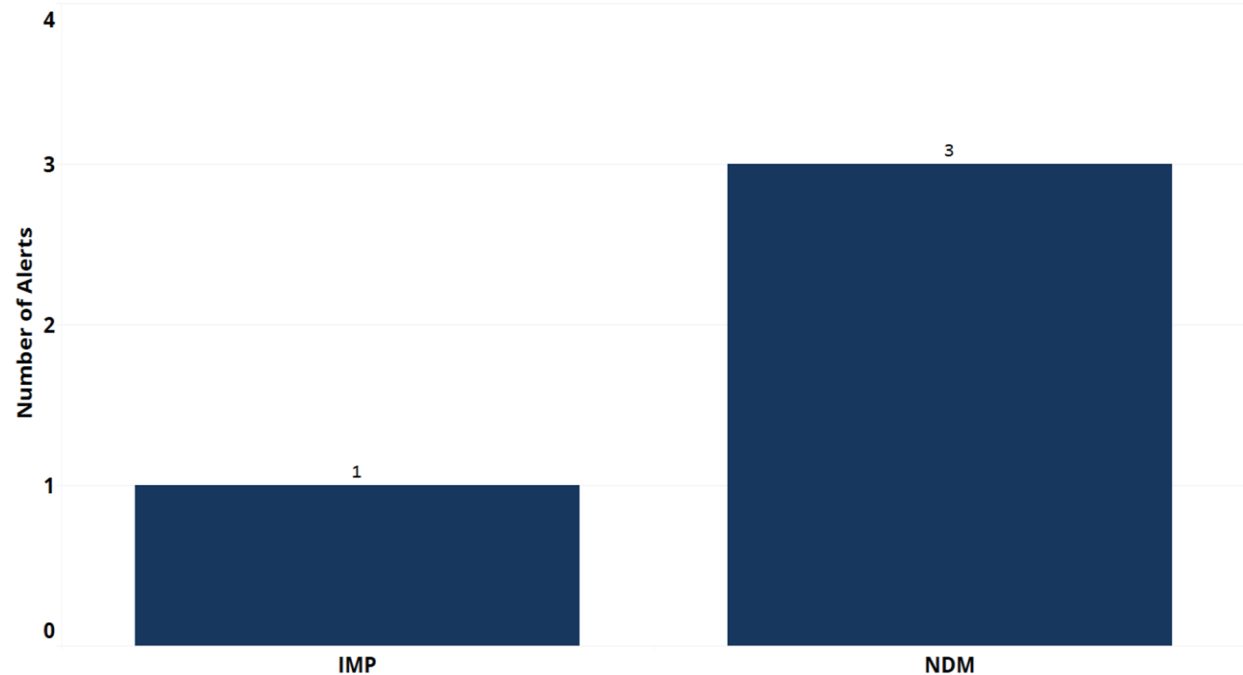
Non-KPC CRE Genes

- **Carbapenemase-producing genes:**

- “Big Five”

- KPC
- IMP
- NDM
- OXA-48
- VIM

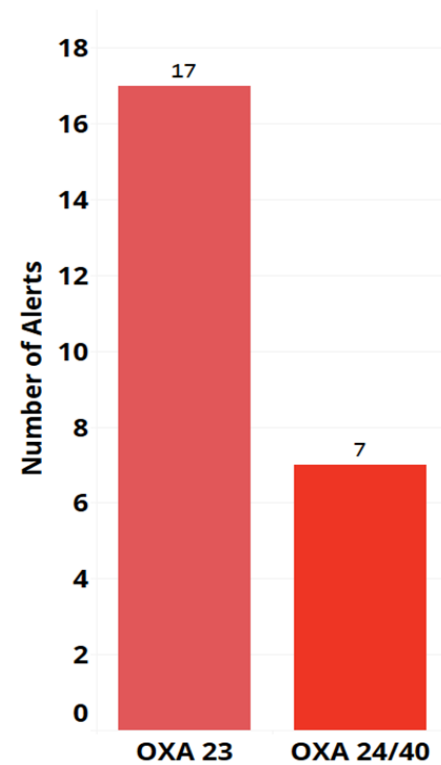
MDRO Alerts by Resistance Gene
(October 15th - November 14th)



CRAB Alerts

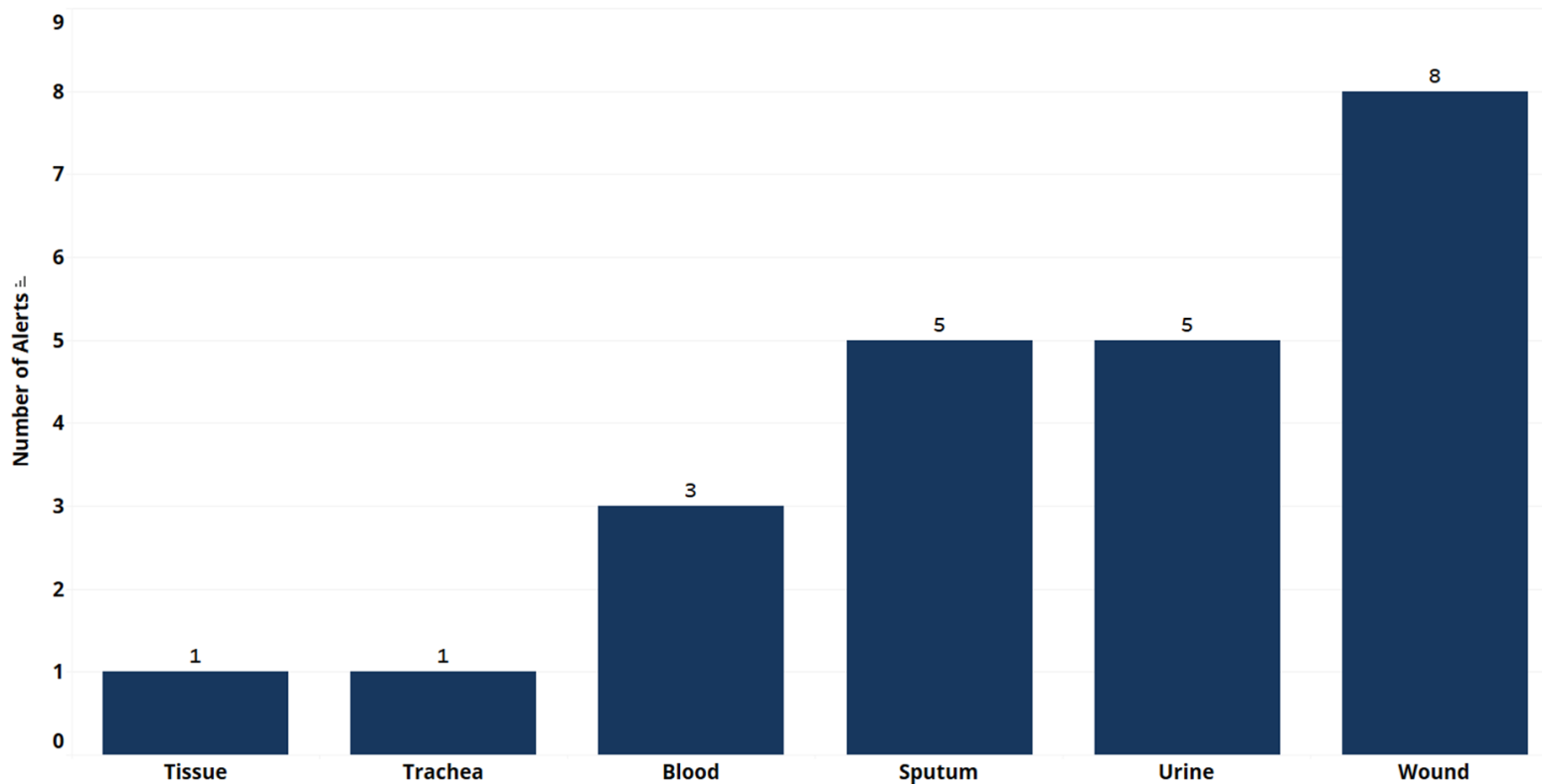
- **Carbapenemase-producing genes:**
 - **Other Oxacillinases**
 - OXA-24/40
 - OXA-23

CRAB Isolates
(Oct 15th - Nov 14th)



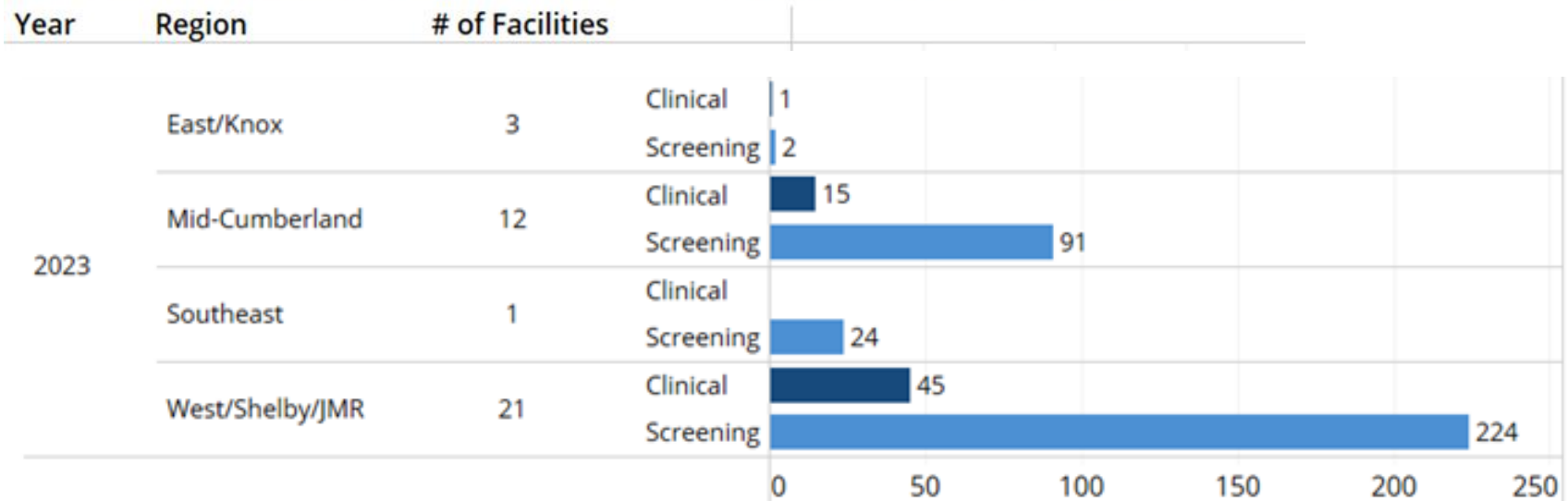
Specimen Sources

Alerts by Specimen Source
(October 15th - November 14th)



2023 *C. auris* Cases

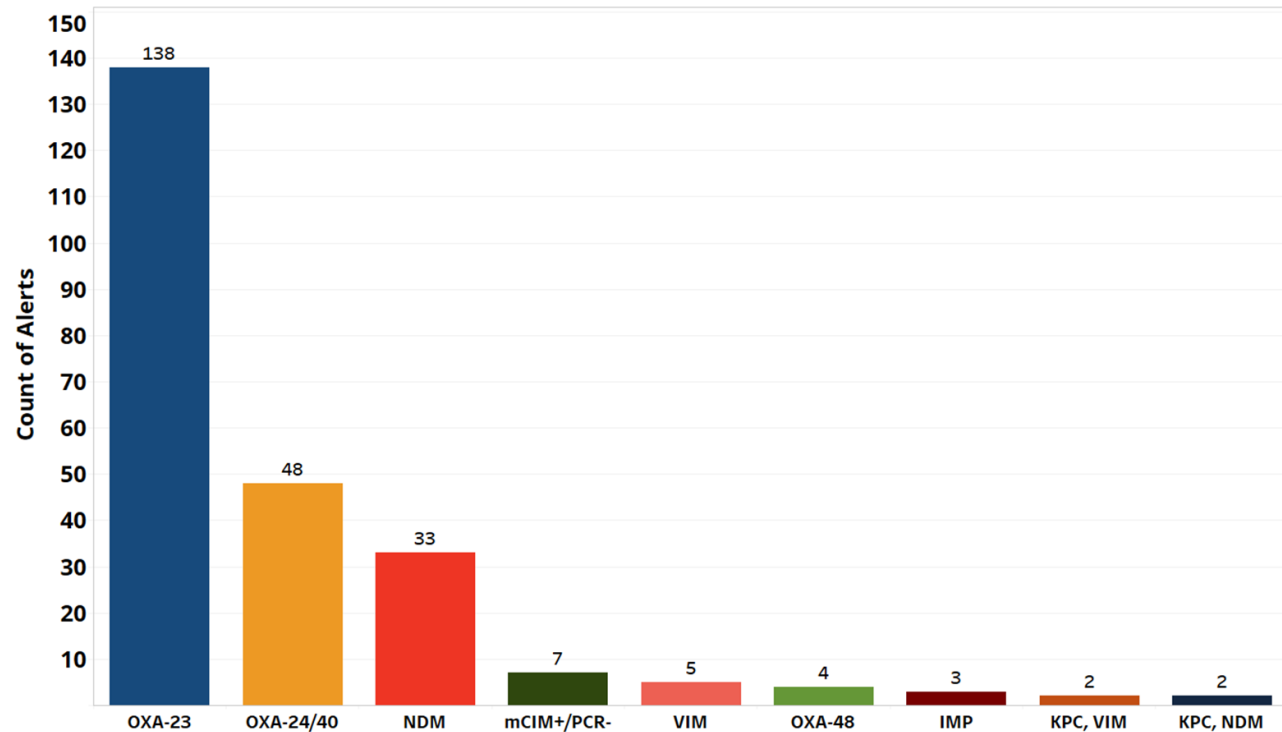
Screening vs Clinical *Candida auris* Cases by Region (as of October 28, 2023)



TN MDRO Alerts for 2023

- **186 CRAB specimens**
 - 138 OXA-23
 - 48 OXA-24/40
- **56 non-KPC CRE**
 - 33 NDM
 - 7 mCIM+/PCR-
 - 5 VIM
 - 4 OXA-48
 - 3 IMP
 - 2 KPC, VIM
 - 2 KPC, NDM
- ***C. auris***
 - 61 Clinical cases
 - 341 Screening cases

MDRO Alerts in 2023, by Gene (As of November 14, 2023)



Next NHSN User Call

- **Monday, December 18, 2023**
 - **10am CT / 11am ET**
- **NHSN Related**
 - Vicky.Lindsey@tn.gov
 - Abigail.Marrero@tn.gov
- **AU/AR Module**
 - Christopher.Evans@tn.gov
- **Infection Prevention**
 - HAI.Health@tn.gov