



TN NHSN User Call

Tuesday, June 20, 10am CT

Agenda

- **COVID-19 Update**
 - **Magdalena Dorvil-Joanem, MD, MPH**
- **NHSN Update**
 - **Vicky Lindsey, AAS, RN, CIC**
- **NHSN Data Demo**
 - **Abigail Marrero, MPH, CPH**
- **Fungal Meningitis Update**
 - **Dr. Simone Godwin, DVM, MPH, MS**
- **Multi-Drug Resistant Organism (MDRO) Surveillance Team Update**
 - **Erin Hitchingham, MPH, CPH**

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
- **Dr. Simone Godwin, DVM, MPH, MS**
 - Outbreak Lead



COVID-19 Surveillance Update

Tennessee Department of Health

Magdalena Dorvil-Joanem, MD, MPH

COVID-19 Surveillance

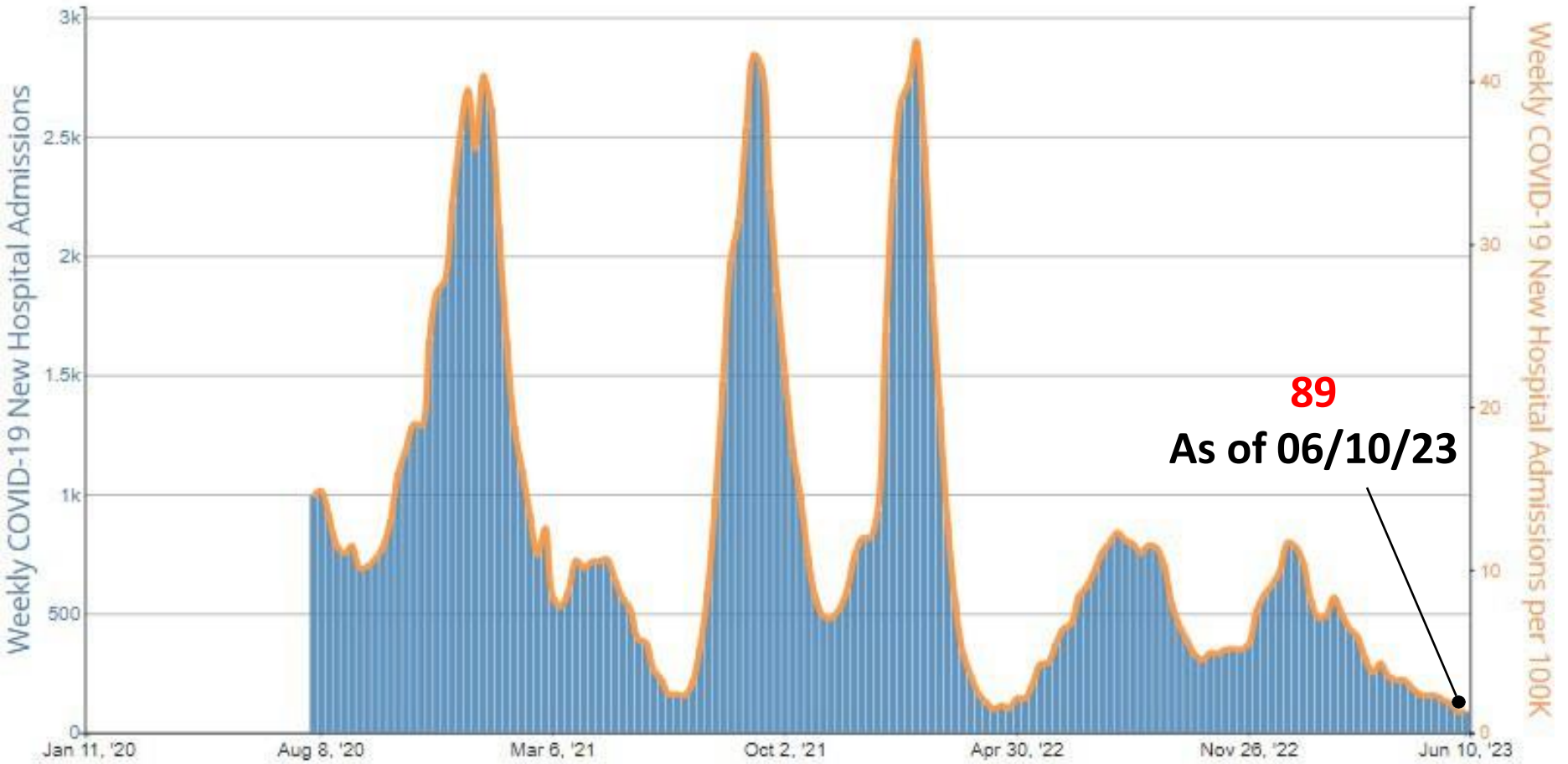
TN Dept of Health

COVID-19 Trends in TN & US

- **Tennessee**
 - New cases decreasing (total ~1,015/week)
 - Hospitalizations decreasing (136 hospitalized)
- **U.S.A.**
 - New hospitalizations decreasing
 - Deaths decreasing



New Hospital Admissions

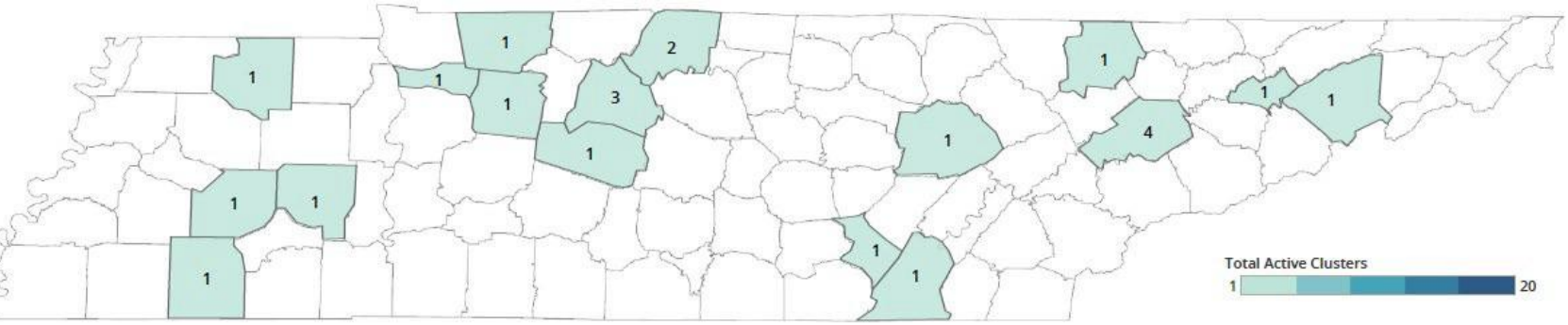


COVID Cluster in High-Risk Settings

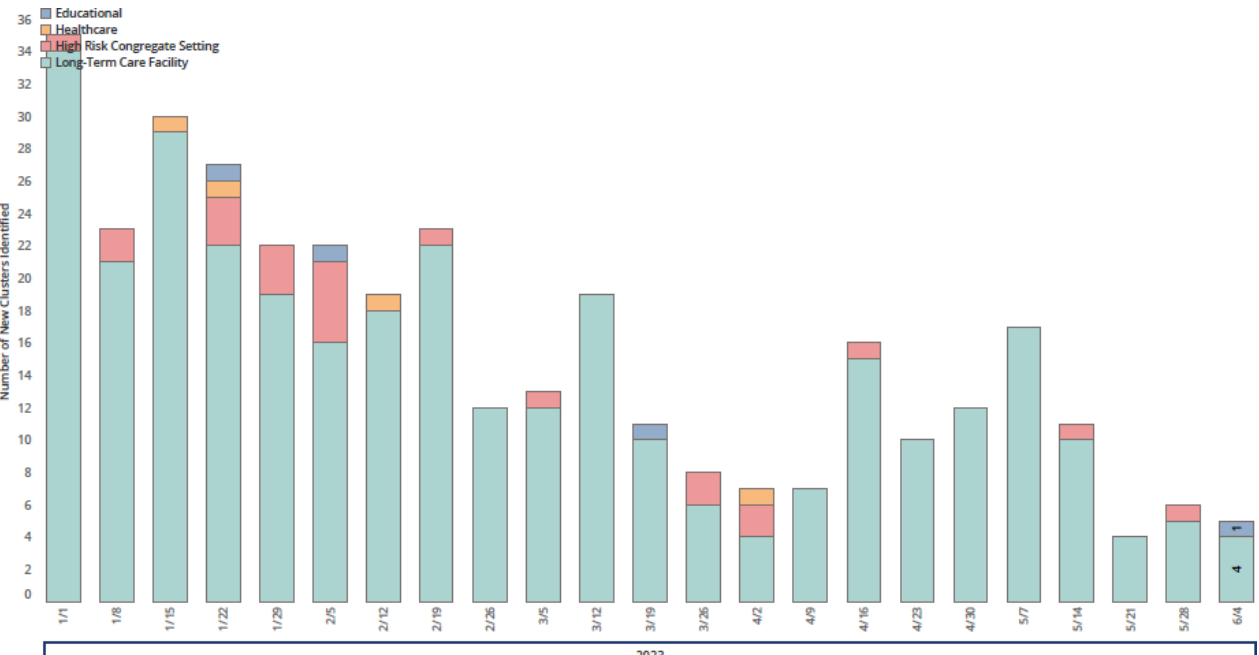
24
Total Active
Clusters

High-risk settings include long-term care facilities, correctional facilities, shelters, and other congregate settings

Active Clusters by County

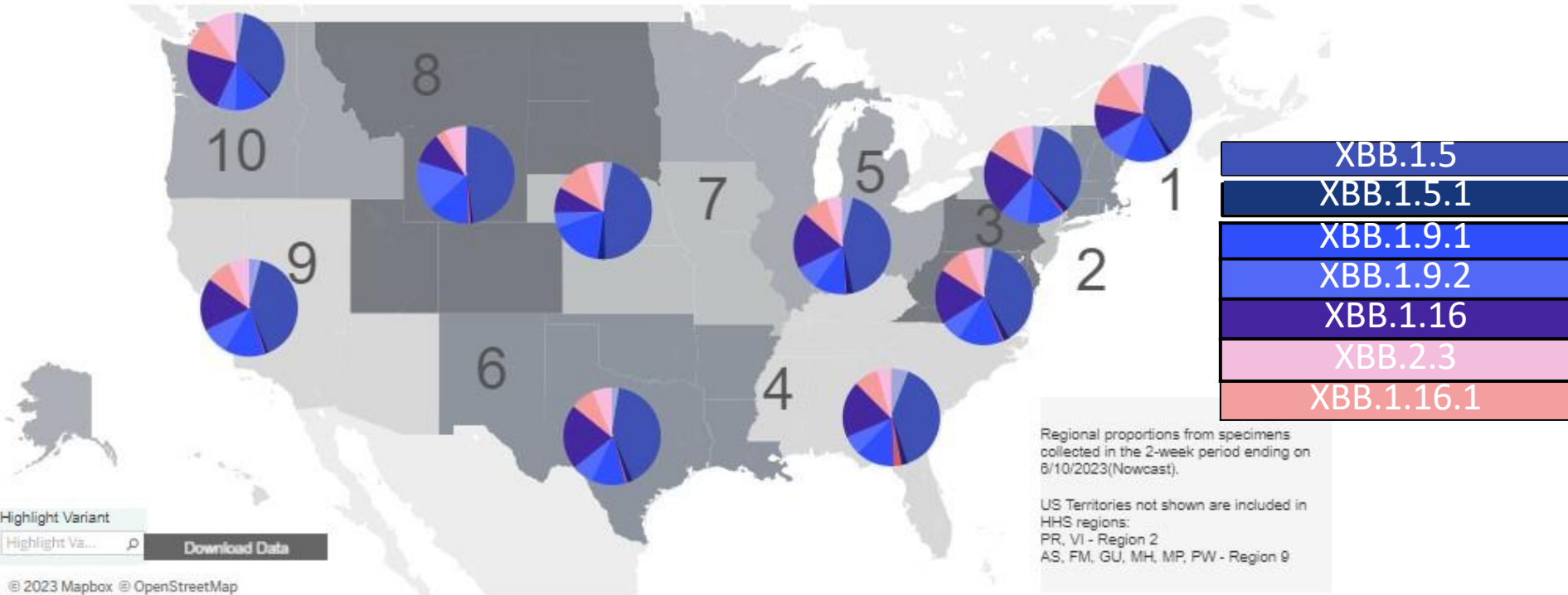


Confirmed Clusters by Week and Facility Type



Variant Proportions by HHS Region

Nowcast Estimates in for 5/28/2023 – 6/10/2023 by HHS Region



Highlight Variant
 Highlight Va...

© 2023 Mapbox © OpenStreetMap

Lineages called using pangolin v4.3, pangolin-data v1.20 and usher v0.6.2.

Updated June 9, 2023

Additional Information

- **Last week, FDA's external scientific committee, VRBPAC, voted to update COVID-19 vaccine**
- **Pfizer, Moderna and Novavax will manufacture the updated vaccines**



NHSN Updates

NHSN Update – QIP Deadline

- **Outpatient hemodialysis facilities participating in the Centers for Medicare and Medicaid Services (CMS) End-Stage Renal Disease (ESRD) Quality Incentive Program (QIP) must submit:**
 - **Q1 2023 Dialysis Event data to NHSN by Monday, July 3, 2023, at 11:59 PM PT.**
 - **This is necessary to meet reporting requirements for Payment Year 2025. Quarter one data includes dialysis events that occurred during January 01, 2023 through March 31, 2023.**
- **At each quarterly reporting deadline, NHSN takes a snapshot of your facility's data and creates a permanent data file which is used to create the annual CMS ESRD QIP Final Compliance File.**
- **New or revised data entered into NHSN after July 3, 2023 at 12 midnight PT will not be reflected in the quarter one permanent data file used for the CMS QIP Final Compliance File.**

NHSN Update- COVID-Vaccination - Dialysis

- The NHSN Vaccination Team will be hosting a webinar to review important changes and information regarding reporting Dialysis Patient COVID-19 vaccination data through the NHSN Dialysis (DIAL) Component beginning June 26th, 2023, for Quarter 3.
 - These changes will be effective beginning in Quarter 3 2023 (June 26, 2023, for HCP, and June 28, 2023, for patients).

The Registration information available on the [Dialysis | Weekly Patient COVID-19 Vaccination | NHSN | CDC](#)

NHSN Update- COVID-Vaccination - Dialysis

- **Initial Session Thursday, June 22nd**

When: Thursday, June 22, 2023, 02:00 PM Eastern Time (US and Canada) https://cdc.zoomgov.com/webinar/register/WN_4XbreuDmT-a9zngS9t1JgQ

And

- **Replay Session Thursday, June 29th**

When: June 29, 2023, 02:00 PM Eastern Time (US and Canada) https://cdc.zoomgov.com/webinar/register/WN_DIFW5PCyT5CTJGUALP-K1g

NHSN Update – Healthcare Personnel Component

- **The NHSN Vaccination Team will be hosting a webinar to review important changes and information regarding reporting Healthcare Personnel COVID-19 vaccination data through the NHSN Healthcare Personnel Safety Component (HPS).**
 - **These changes will be effective beginning in Quarter 3, 2023 (June 26, 2023).**
- **Please register in advance and plan to attend the initial session and/or the replay to learn more about the new updates.**
 - **The initial webinar on June 21, 2023, and the webinar replay on June 28, 2023, will cover the same information; therefore, you may only need to attend once but may attend both.**

NHSN Update – Healthcare Personnel Component

The Registration information seen below is also available on the [HPS | Weekly HCP COVID-19 Vaccination | NHSN | CDC.](#)

- Initial Session Wednesday, June 21st

When: Wednesday, June 21, 2023, 02:00 PM Eastern Time (US and Canada)

https://cdc.zoomgov.com/webinar/register/WN_MYyidsbpQtGDt2UDYdEM6w

And

- Replay Session Wednesday, June 28th

When: June 28, 2023, 02:00 PM Eastern Time (US and Canada)

https://cdc.zoomgov.com/webinar/register/WN_AgqxcEHkSKKEitwZZ86MCg

NIOSH Respiratory Protective Device Information

The National Personal Protective Technology Laboratory (NPPTL)

The National Personal Protective Technology Laboratory (NPPTL) Home

Promoting productive workplaces
through safety and health research / **NIOSH**[®]

NIOSH Respiratory Protective Device Information

Subject: Effective Immediately — Revocation of NIOSH Public Health Emergency (PHE) Approvals issued during the COVID-19 Response

Supersedes NIOSH CA 2022-1044

NIOSH CA 2023-1059

May 16, 2023

Effectively immediately, NIOSH revokes eight PHE FFR approvals and four PHE PAPR approvals issued to the PHE approval holders listed in the table, below. These respirators are NO LONGER recognized as NIOSH Approved[®] respirators and therefore cannot be used in **workplace settings that require the use of NIOSH Approved respirators.** [↗](#) Respirators bearing the NIOSH approval numbers listed below are no longer considered approved and may not be used to fulfill any standard or statute requiring the use of a NIOSH Approved respirator.

NIOSH Respiratory Protective Device Information

NIOSH REVOKED PHE FFR APPROVALS and APPROVAL HOLDERS	
TC-84A-PH01	General Motors Company
TC-84A-PH04	General Motors Company
TC-84A-PH05	Ford Motor Company
TC-84A-PH06	VirusDefense Inc.
TC-84A-PH08	General Motors Company
TC-84A-PH15	Protective Health Gear, Inc.
TC-84A-PH16	Pandemic, Inc.
TC-84A-PH18	Outdoor Research, LLC

Hospital COVID-19 Data Reporting: Updates 6/20/2023

HHS/CDC finalized reductions in the number of data elements reported daily by hospitals.

- The documentation for TDH validation was released the day after these changes went live on Sunday, June 11th. After reviewing the updates, TDH identified the following additional items that will be removed this Thursday, June 22nd after 5PM in addition to the prior changes. An updated schema will be sent to the SFTP partners to be implemented as of this Friday morning, June 23rd.
 - Total hospitalized suspected (pending) or confirmed COVID-19 patients
 - Adult and Pediatric
 - Hospitalized and ventilated COVID-19 patients
 - Adult, Pediatric, Neonatal - suspected (pending) or confirmed
 - Total ICU suspected (pending) COVID-19 patients.
 - Adult or Pediatric
 - Ventilators, Total and In Use
 - Adult and Pediatric
- To allow for future reporting during widespread respiratory events in TN, Ventilator questions are moving to the “Resources” grid on each Facility Profile Page in HRTS but will not be required daily.



NHSN Data Demo

Agenda of Instructions

- **Review generating data set**
- **Exclusion Criteria**
- **Exporting report**
 - All SSI Line List
 - By Procedure
 - By Provider
 - Procedures Excluded from SIR
- **Using Excel to run SSI analysis**
 - Review Conditional Formatting
 - Pivot Tables
 - Counts v. Percentage
 - Filter Conditional Format Only

Exclusion Criteria

Universal Exclusion Criteria Variables	Definition of Variables
exclMissingVarInd	Procedure excluded for missing risk factors used in risk adjustment of applicable procedure category for SSI models
exclMissingVarList	List of missing risk factors used in risk adjustment of applicable procedure category for SSI models
exclDurThresholdInd	Procedure excluded due to procedure duration being less than 5 minutes or exceeding the IQR5 value. Please see the list of procedure duration cutoff points in the SSI section of the SIR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf
exclAgeGT109Ind	Procedure excluded if the patient's age at time of procedure is 109 years or older
exclOutpatientInd	Procedure excluded because it was reported as an outpatient procedure; NOTE: all outpatient procedures are excluded from the inpatient SSI SIRs calculated using the 2015 baseline. There are separate SIR reports for procedures performed in Hospital Outpatient Procedure Departments (HOPD).
exclPedIndcmpx30d	Procedures performed in pediatric patients are excluded from the Complex 30-day model
exclGenderOth	Procedure excluded because patient's gender was not reported as male or female (specifically, gender = Other)
exclInvalidJointRepHemi	Procedure is excluded if procedure code is KPRO or HPRO and (procedure type is a hemi joint replacement reported as a total revision or a total joint replacement reported as a partial revision) and procedure date is January 1, 2015-December 31, 2015.
exclBMIThresholdInd	Procedure excluded if the adult patient's BMI is less than 12 or greater than 60. In pediatric patients > 18 years if BMI is less than 10.49 or greater than 65.79** https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/Reporting-Height-and-Weight-for-Procedures-508.pdf

**NHSN Manual
Page 9-30**

Procedures by Surgeon

Count of Procedure Code	Column Labels	CARD	CBGB	CBGC	COLO	HPRO	HYST	KPRO	Grand Total
A			3	1	4				8
B						2	2		4
C							2	2	4
D							1	2	3
E							1		1
F			5				1		6
G			7						7
H			6	1					7
I				1	1		5		7
J			3				2	2	7
Grand Total		8	16	3	5	2	14	6	54



PivotChart Fields

Choose fields to add to report:

Search

- Procedure Count
- All SSI Model Events
- All SSI Model~Number Predicted
- All SSI Model~SIR
- All SSI Model~SIR p-value
- All SSI Model~95% Confidence~Interval
- Procedure Code**
- Facility Org ID
- Type of Facility
- Type of Affiliation
- State
- CMS Certification Number

Drag fields between areas below:

Filters

Legend (Series)

Procedure Code

Axis (Categories)

Surgeon Code

Values

Count of Procedure C...

View Counts v. Percentages

Row Labels	Count of Procedure Code
CARD	38
CBGB	31
CBGC	26
COLO	25
HPRO	22
HYST	26
KPRO	24
(blank)	
Grand Total	192

Value Field Settings

Source Name: Procedure Code

Custom Name: Count of Procedure Code

Summarize Values By: Show Values As

Show values as

- No Calculation
- No Calculation
- % of Grand Total
- % of Column Total**
- % of Row Total
- % Of
- % of Parent Row Total

All SS1 Model ~ 95% Confidence ~ Interval

Procedure Code

Number Format

OK Cancel

- Right-click Pivot Table
 - Value Field Settings
- Show Values As
 - % of Column Total

Row Labels	Count of Procedure Code
CARD	19.79%
CBGB	16.15%
CBGC	13.54%
COLO	13.02%
HPRO	11.46%
HYST	13.54%
KPRO	12.50%
(blank)	0.00%
Grand Total	100.00%

Filter Conditional Format Only

The image shows an Excel spreadsheet with a context menu open over a selected cell. The spreadsheet has a green background for the first column and a pink background for the second column. The context menu includes the following options:

- Cut
- Copy
- Paste Options:
 - Paste Special...
- Insert Row
- Delete Row
- Clear Contents
- Quick Analysis
- Filter >
 - Clear Filter From "All SSI Model~SIR..."
 - Reapply
 - Filter by Selected Cell's Value
 - Filter by Selected Cell's Color (highlighted)
 - Filter by Selected Cell's Font Color
 - Filter by Selected Cell's Icon
- Sort >
- Get Data from Table/Range...
- New Comment
- New Note
- Format Cells...



Fungal Meningitis Outbreak Associated with Procedures Performed under Epidural Anesthesia in Matamoros, Mexico

Background

- On May 17, 2023 CDC released a HAN regarding suspected outbreak of fungal meningitis
- All had undergone
 - Cosmetic procedures
 - Under epidural anesthesia
- 5 patients diagnosed with suspect fungal meningitis
 - Headache
 - Fever
 - Stiff neck
 - Photophobia
 - Elevated levels of (1,3)-beta-D-glucan

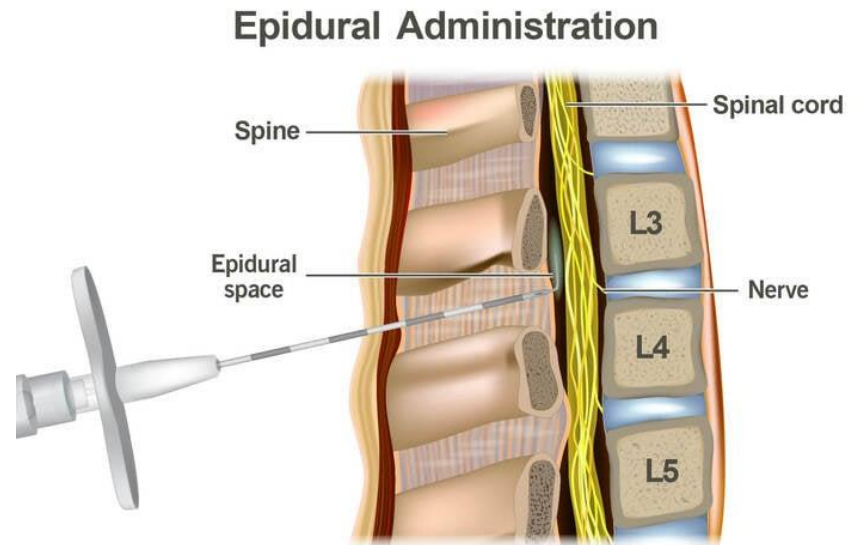
Initial Investigation

- Affected patients underwent procedures in at least two clinics in Matamoros, Mexico
 - River Side Surgical Center
 - Clinica K-3
- A linelist of patients potentially exposed was shared with CDC
 - >200 persons under investigation
 - One TN resident identified



Initial Investigation

- Implicated procedures
 - Breast augmentation
 - Liposuction
 - “Brazilian butt lift”
- Patient Demographics
 - Average Age: 34 years
 - All Female



CDC Case Definitions

In patients who received a procedure with epidural anesthesia in Matamoros, Mexico, since January 1, 2023:

- Person under investigation:
 - LP results not yet available
AND
 - No symptoms, or symptomatology unknown.
- Suspect case:
 - LP results not yet available
AND
 - Patient has symptoms suggesting CNS infection (e.g., fever, headache, stiff neck, nausea/vomiting, photophobia, or altered mental status).

Abbreviations: LP = lumbar puncture; CSF = cerebrospinal fluid; WBC = white blood cell; RBC = red blood cells; PCR = polymerase chain reaction; mNGS = metagenomic next-generation sequencing

CDC Case Definitions

- Probable case:
 - CSF profile with >5 WBCs/mm³, accounting for the presence of red cells (i.e., subtracting 1 white cell for every 500 RBCs present)
 - AND
 - Fungus has not been detected from CSF or tissue by culture, PCR, or mNGS
- Confirmed case:
 - Fungus has been detected from CSF or tissue culture, PCR, or mNGS

Abbreviations: LP = lumbar puncture; CSF = cerebrospinal fluid; WBC = white blood cell; RBC = red blood cells; PCR = polymerase chain reaction; mNGS = metagenomic next-generation sequencing

CDC Recommendations

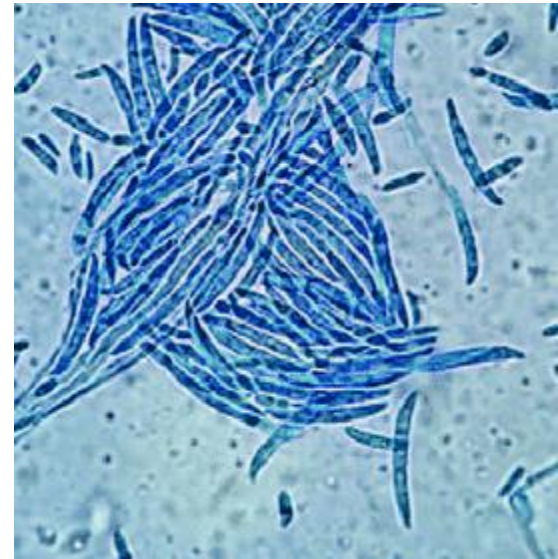
- All patients who underwent a medical or surgical procedure under epidural anesthesia in Matamoros, Mexico, after January 1, 2023, should receive
 - magnetic resonance imaging [MRI]
 - a diagnostic LP unless contraindicated
 - *regardless of symptoms*
- Treatment of patients with abnormal LP results
 - Amphotericin B
 - Voriconazole
 - Minimum 3 months

Tennessee Investigation

- 38 year old Female
 - Underwent BBL + liposuction February 14
 - Early March
 - Headache
 - Neck stiffness
 - Photophobia
 - April 5 presentation to ED
 - Persistent headache
 - Lumbar Puncture
 - WBC 379
 - Protein 99 mg/dl
 - Negative bacterial culture
 - Empiric treatment
 - Vancomycin → Linezolid
 - Minor improvement

Tennessee Investigation

- 38 year old Female
 - Post-discharge follow-up
 - Treponemal ag +, neg RPR
 - Penicillin (no improvement)
 - Empiric fluconazole (Mid-April)
 - Admitted to ACH May 18
 - Worsening tinnitus
 - Persistent headache
 - Transitioned to Amphotericin B and Voriconazole
- CSF sent for additional analysis
 - *Fusarium solani* identified



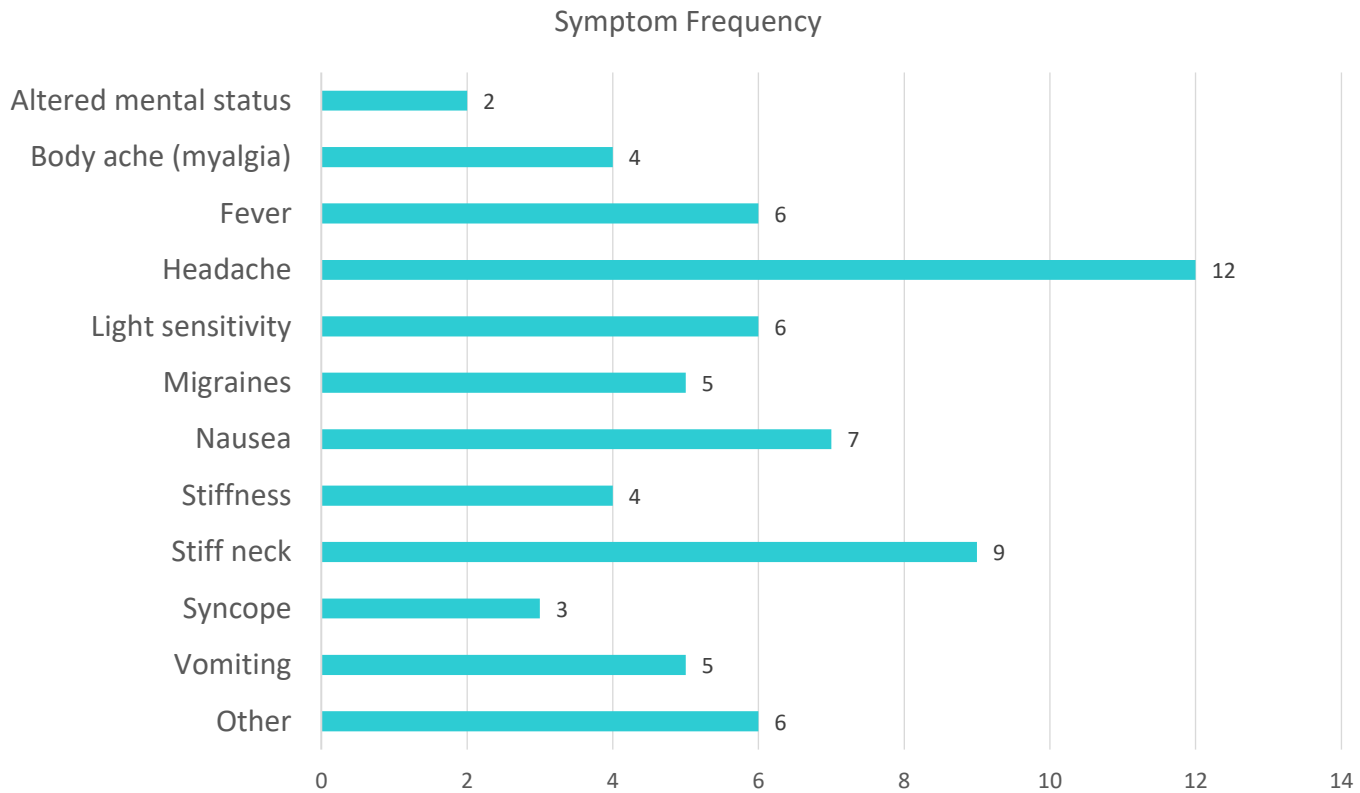
Tennessee Investigation

- Medical Tourism Questionnaire
 - Referred by a friend
 - Coordinated by an individual located in the U.S. working for surgeon
 - Linked to other patients via Facebook group

Current Status of Investigation

Case Types	Case Counts
Persons under investigation (People with no symptoms ¹ or symptoms are unknown, spinal tap results pending or unknown)	172
Suspected cases (Symptoms consistent with meningitis, spinal tap results pending or unknown)	18
Probable cases (Spinal tap results suggest meningitis; ² fungus not isolated)	10
Confirmed cases (Fungus detected from samples ³)	6
Deaths⁴	4

Clinical Summary



Clinical Summary

Timeframe	Average	Median	Min	Max
# Days from Procedure to Onset	19	18	2	32
# Days from Procedure to Hospitalization	56	56	14	106

Barriers to Investigation

- Line list inaccuracies
- ED non-compliance with recommendations
- Patient non-compliance with recommendations
- Financial cost associated with recommendations

Reporting

- Should you suspect a case associated with this outbreak, please report to
 - HAI.Health@tn.gov

Conclusion



Resources

- **Fungal Meningitis Outbreak Webpage**
 - [Suspected Fungal Meningitis Outbreak Associated with Procedures Performed under Epidural Anesthesia in Matamoros, Mexico | HAI | CDC](#)
 - <https://www.cdc.gov/hai/outbreaks/es/meningitis-epidural-anesthesia.html>
- **Travel Health Notice:**
 - [Fungal Infections Following Surgical Procedures in Mexico - Alert - Level 2, Practice Enhanced Precautions - Travel Health Notices | Travelers' Health | CDC](#)
- **HAN #1:**
 - [Health Alert Network \(HAN\) - 00491 | Outbreak of Suspected Fungal Meningitis in U.S. Patients who Underwent Surgical Procedures under Epidural Anesthesia in Matamoros, Mexico \(cdc.gov\)](#)
- **HAN #2:**
 - [Health Alert Network \(HAN\) - 00492 | Important Updates on Outbreak of Fungal Meningitis in U.S. Patients Who Underwent Surgical Procedures under Epidural Anesthesia in Matamoros, Mexico \(cdc.gov\)](#)
- **MSGERC clinician-focused webinar**
 - <https://www.youtube.com/watch?v=7hzAxASLcbs>
- **Interim Recommendations, One-Pager, & Algorithm**
 - [Interim Recommendations for Diagnosis and Management of Cases of Fungal Meningitis Associated with Epidural Anesthesia Administered in Matamoros, Mexico](#)
- **COCA Call Recording**
 - [Webinar Thursday, June 8, 2023 - Interim Recommendations for Diagnosing and Managing Suspected Fungal Meningitis Associated with Epidural Anesthesia Administered in Matamoros, Mexico \(cdc.gov\)](#)



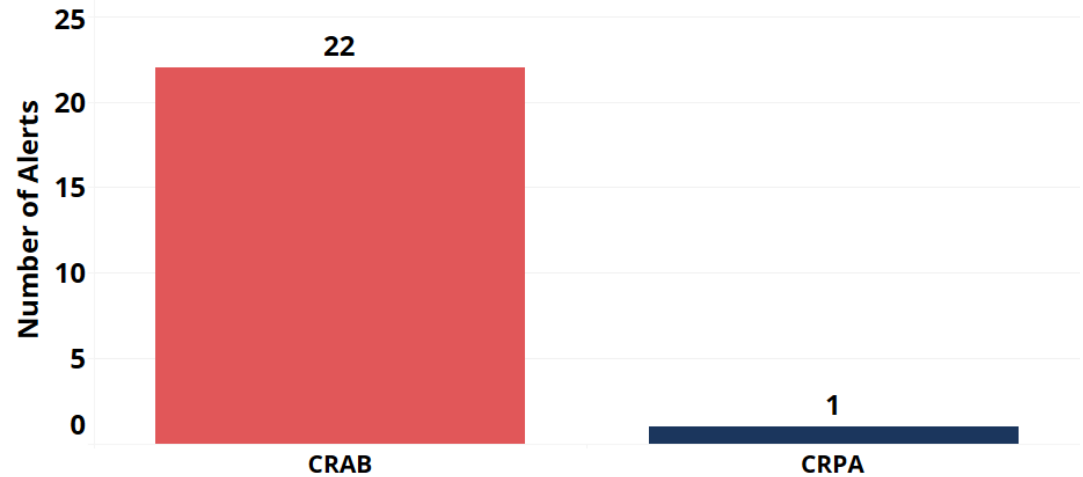
Multi-Drug Resistant Organism (MDRO) Outbreak Team Update

May 13th – June 16th, 2023

MDRO Alerts

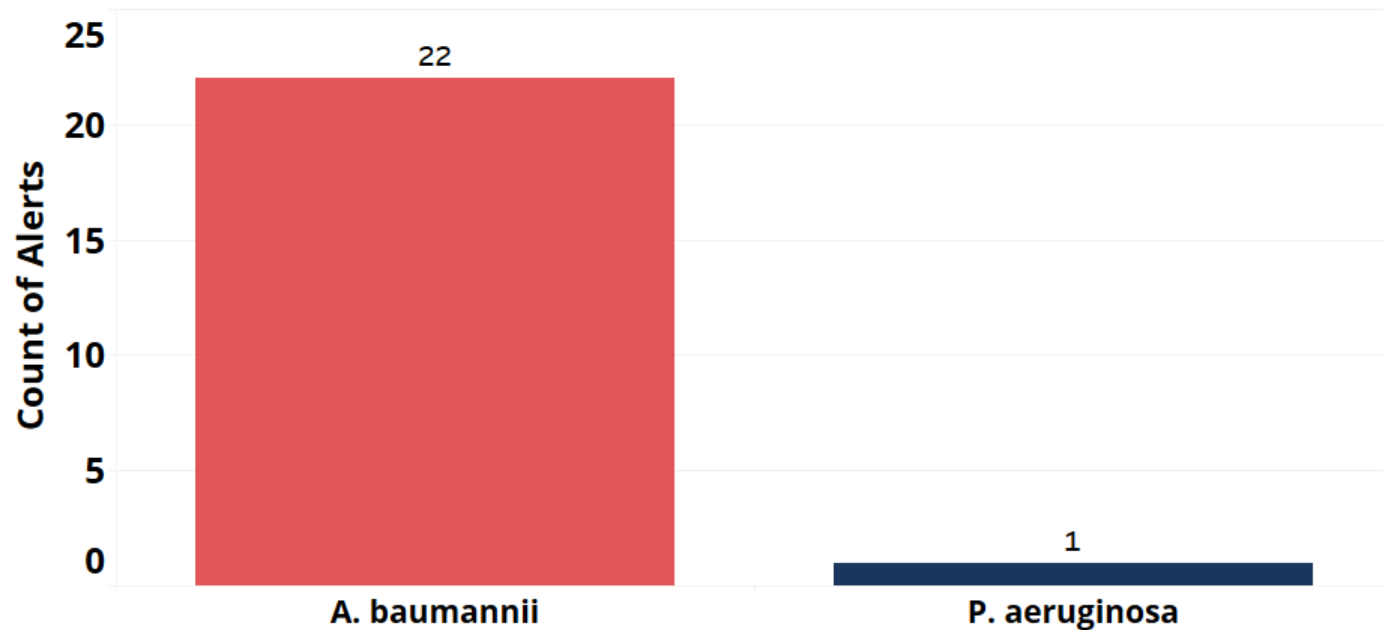
- **CRPA** – Carbapenem-resistant *Pseudomonas aeruginosa*
- **CRAB** – Carbapenem-resistant *Acinetobacter baumannii*
- **CRE** - Carbapenem-resistant *Enterobacterales*
- **KPC** – *Klebsiella pneumoniae* Carbapenemase-producing

MDRO Alerts by Organism Order
(May 13th - June 16th)



MDRO Alert Continued

Alerts by Organism
(May 13th - June 16th)



Non-KPC CRE Genes

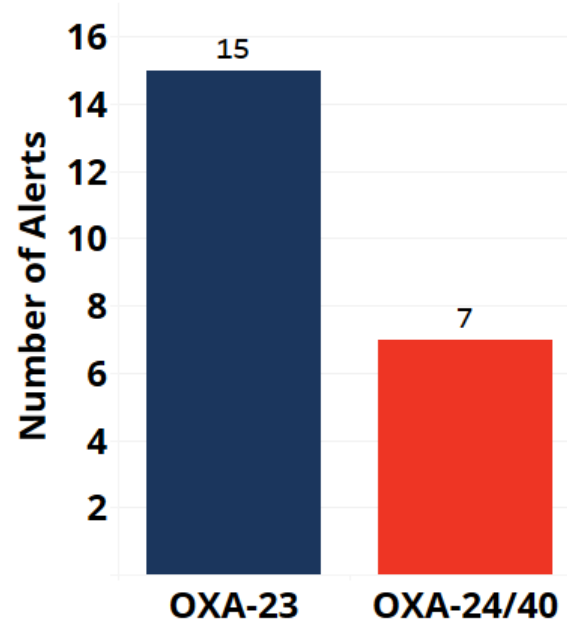
- **Carbapenemase-producing genes:**
 - “Big Five”
 - KPC
 - IMP
 - NDM
 - OXA-48
 - VIM

None this month

CRAB Alerts

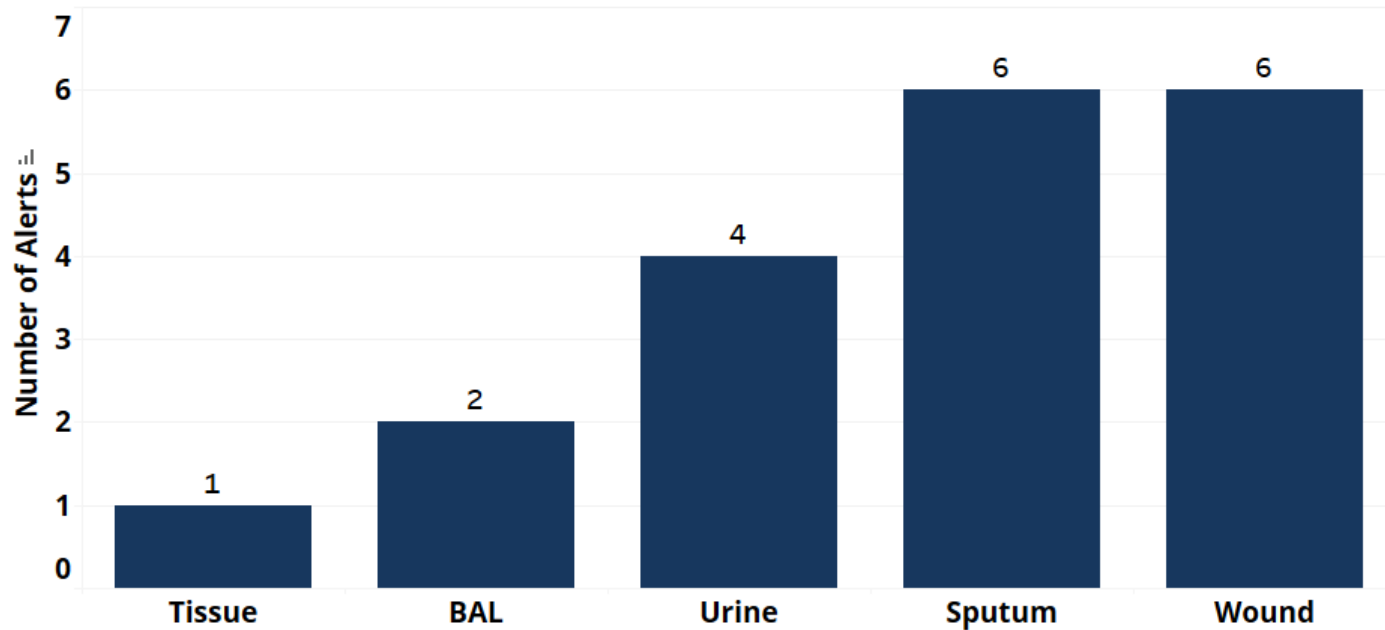
- **Carbapenemase-producing genes:**
 - **Other Oxacillinases**
 - OXA-24/40
 - OXA-23

CRAB isolates
(May 13th - June 16th)



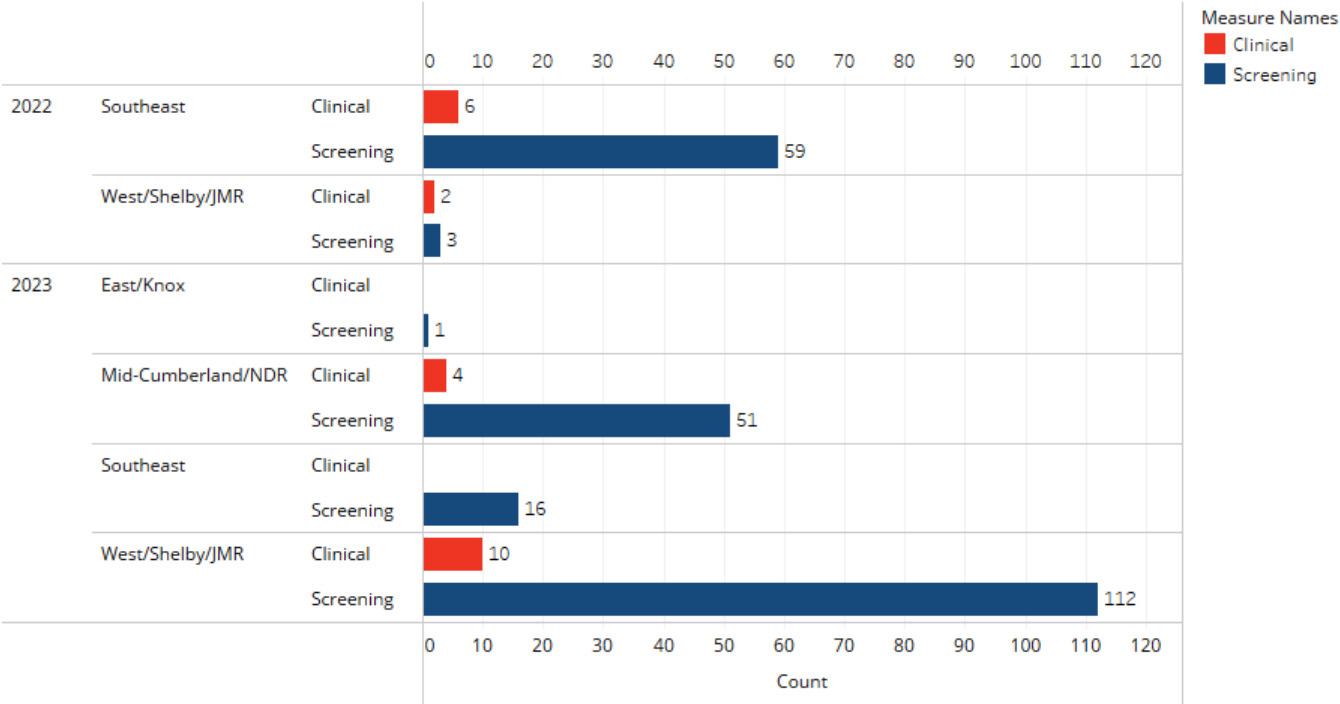
Specimen Sources

Alerts by Specimen Source
(May 13th - June 16th)



C. auris Cases

Screening vs Clinical *Candida auris* Cases by Region (as of June 14, 2023)



Clinical and Screening for each Region broken down by Year Year. Color shows details about Clinical and Screening. The data is filtered on Year Year, which ranges from 2022 to 2023.

TN MDRO Alerts for 2023

- **For 2023**
 - **89 CRAB specimens**
 - 65 OXA-23
 - 23 OXA-24/40
 - **29 non-KPC CRE**
 - 19 NDM
 - 2 IMP
 - 2 KPC, NDM
 - 2 KPC, VIM
 - 1 mCIM
 - 2 OXA-48
 - 1 VIM
 - ***C. auris***
 - 22 Clinical cases
 - 242 Screening cases

Next NHSN User Call

- **Monday, July 17, 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