

#### Agenda

- Respiratory Illness Update
  - Abigail Marrero, MPH, CPH
- NHSN Update
  - Vicky Lindsey, RN, CIC
- FDA Recall
  - Stephanie Henry, RN, BSN, CIC
- MDRO and Outbreak Response Updates
  - Simone Godwin, DVM, MPH, MS, CIC
- Multi-Drug Resistant Organism (MDRO) Surveillance Team Update
  - Ashley Gambrell, MPH
- Annual Training Announcements
  - Abigail Marrero, MPH, CPH

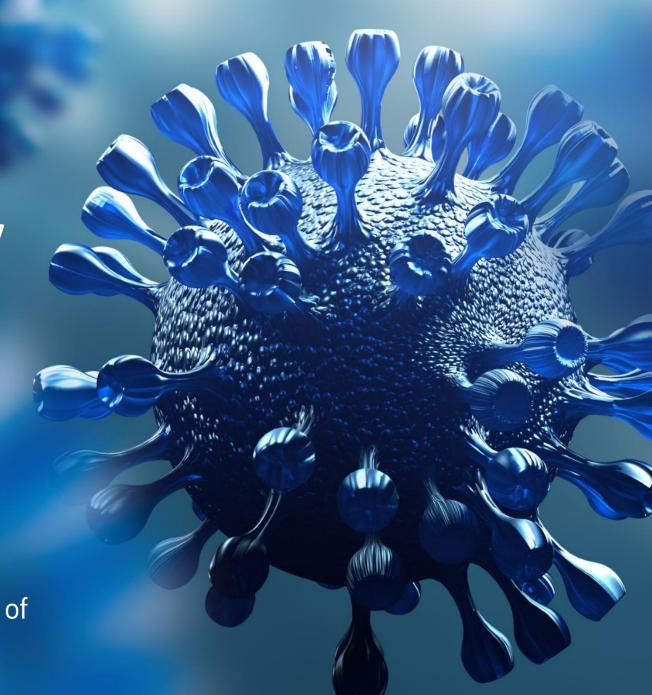


#### TDH NHSN Team

- 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
- Ashley Gambrell, MPH
  - Assistant NHSN Epidemiologist
- Marissa Turner, MPH
  - Assistant NHSN Epidemiologist
- Alex Kurutz, MPH
  - Dialysis Epidemiologist



Respiratory
Illness
Update



TN

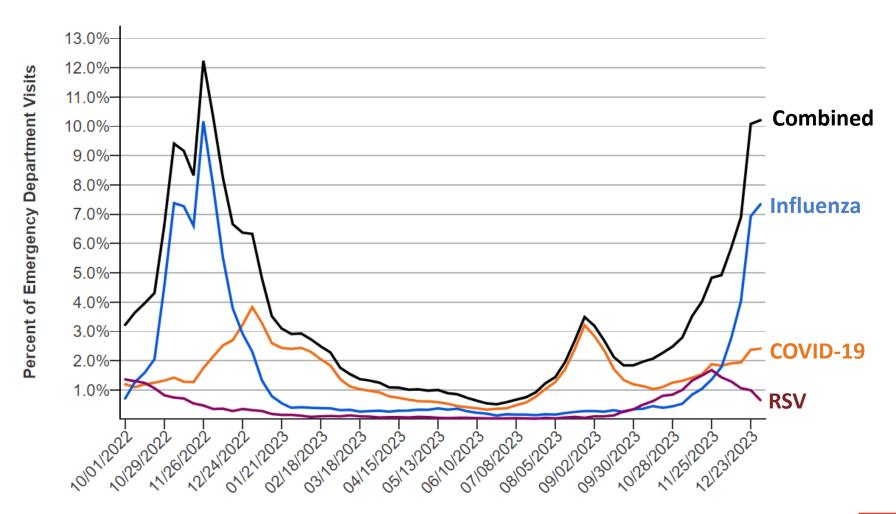
Department of **Health** 

## Influenza in Tennessee Snapshot

	SURVEILLANCE INDICATOR	TREND	CURRENT WEEK	PREVIOUS WEEK
	ILLNESS  Percentage of outpatient visits due to influenza-like illness (ILI)		13.4%	11.7%
\$	LABORATORY  Percentage of positive specimens & predominant strain of influenza		<b>22.3%</b> Flu B	<b>15.7%</b> Flu B
×	OUTBREAKS 2 or more ill persons of a shared setting		NEWLY REPORTED  during week of December 24, 2023	SEASON TOTAL since October 1, 2023
4	<b>DEATHS</b> Newly reported and season total pediatric influenza-associated deaths in TN		1	2

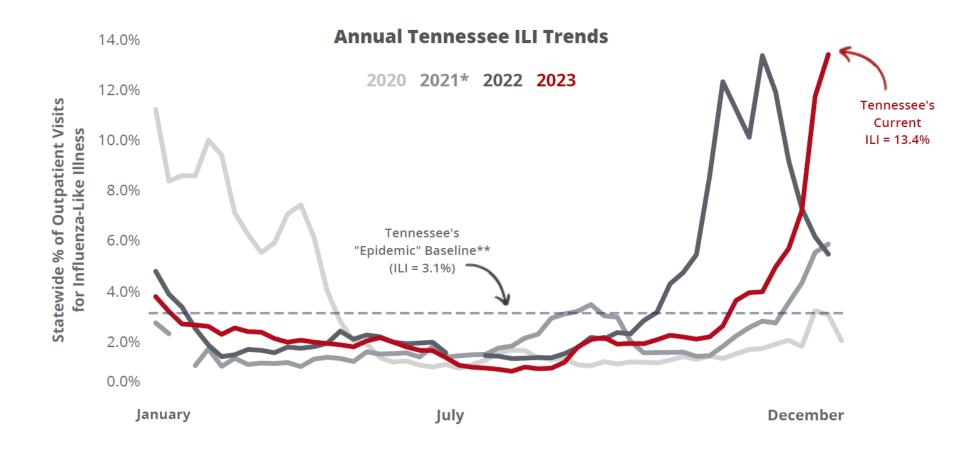


#### **Emergency Department Visits - Tennessee**





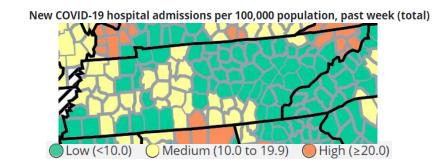
#### **Influenza-Like Illness**





#### **COVID-19 Trends in TN & US**

- Tennessee
  - New cases increased ▼
     (total ~6758/week; ~7146 week prior)
  - Hospitalizations increased ▲
     (553 hospitalized as of 12/30)
  - Deaths ▲(total 62/week; 37 week prior)



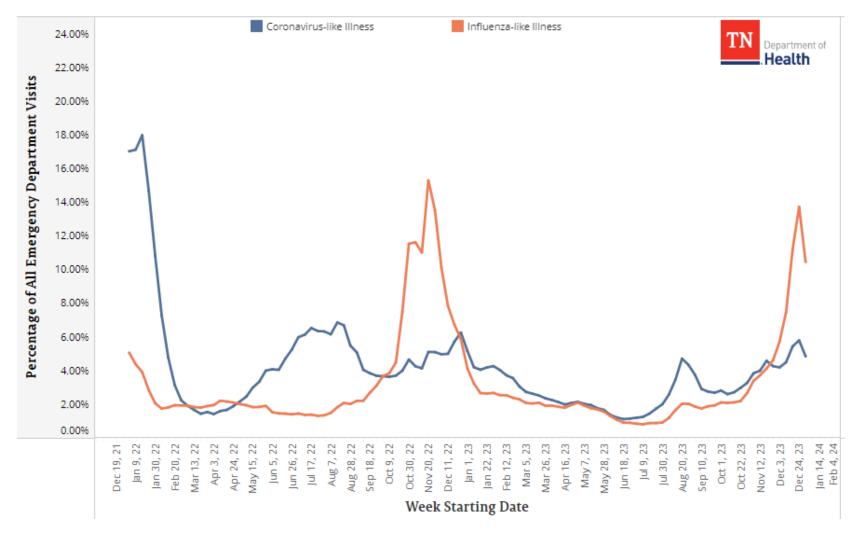
- U.S.A.
  - New hospitalizations increasing
  - Deaths increasing





#### **Syndromic Surveillance**

#### **Emergency Department Data of chief complaint and discharge diagnosis**



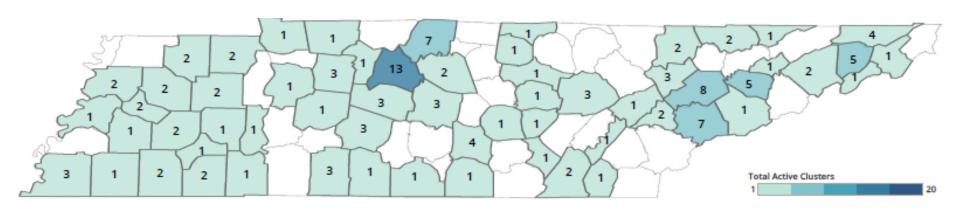


#### **COVID Cluster in High-Risk Settings**

137
Total Active
Clusters

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

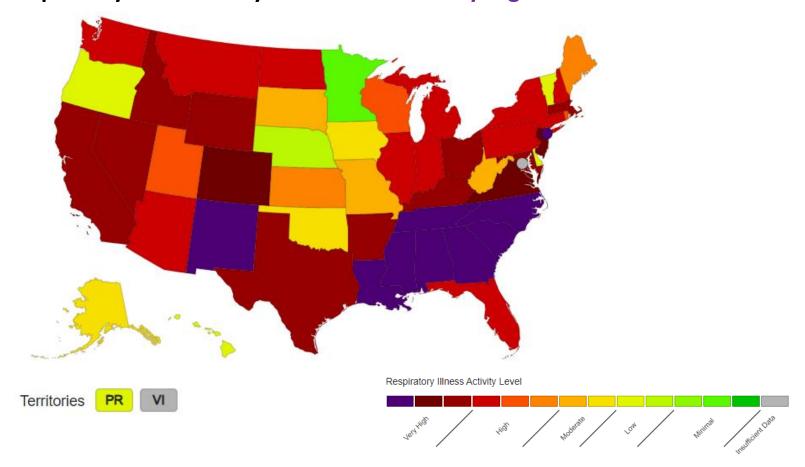
#### **Active Clusters by County**





#### **Bottom Line**

- Respiratory Illness in Tennessee
  - Respiratory virus activity in Tennessee is Very High





#### **CDC** Resources

- Resources to Prepare for Flu, COVID-19, and RSV | CDC
- Protect yourself from COVID-19, Flu, and RSV (cdc.gov)
- Weekly Viral Respiratory Illness Snapshot (cdc.gov)
- Choosing the Right PPE for COVID-19 | Project Firstline | Infection Control | CDC
- Infection Control: Severe acute respiratory syndrome coronavirus
   2 (SARS-CoV-2) | CDC
- CDC COVID Data Tracker: Vaccinations in Nursing Homes





# NHSN Updates

## 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 <a href="mailto:NHSNTrain@cdc.gov.">NHSNTrain@cdc.gov.</a>





## NHSN Protocol and Training Events

- NHSN Protocol and Training Team
  - January 17, 2024 2024 Protocol Updates
  - February 21, 2024 'Get Annual Training Ready'
  - March 18-22, 2024, NHSN Annual Training (virtual)
  - April 16-19, 2024, Society for Healthcare Epidemiology of America (SHEA)(in-person)
  - June 3-5, 2024, Association for Professionals in Infection Control and Epidemiology (APIC) (in-Person)
- "Ask the Expert"
  - These Q & A sessions will be conducted on the 2<sup>nd</sup> or 3<sup>rd</sup> Wednesday of the month at 2:00 pm eastern standard time.



## NHSN 2024 Summary Updates

- Patient Safety Component: <a href="https://www.cdc.gov/nhsn/pdfs/pscmanual/2024-psc-summary-508.pdf">https://www.cdc.gov/nhsn/pdfs/pscmanual/2024-psc-summary-508.pdf</a>
- Outpatient Procedure Component: <a href="https://www.cdc.gov/nhsn/pdfs/opc/2024-opc-summary-508.pdf">https://www.cdc.gov/nhsn/pdfs/opc/2024-opc-summary-508.pdf</a>
- Neonatal Component: <u>https://www.cdc.gov/nhsn/pdfs/neonatal/losmen/2024-losmen-summary-508.pdf</u>



#### NHSN 2024-

- Weekly HPS COVID-19 Vaccination CMS Rate Tables
  - New! CMS tables are now available to review a detailed summary of weekly COVID-19 vaccination rates. Access it through the analysis tab on the left-hand navigation bar in NHSN.

## **NHSN 2024**

	Healthcare Personnel COVID-19 Vaccination Cumu	lative Summary for No	on-Long-Term Car	re Facilities				
Date Created:								
Facility ID # *: 15813	Location Type *: Hospital							
Vaccination type *: COVID19	Facility CCN #: 999999							
Veek of Data Collection: 01/01/2024 - 01/07/	2024 Date Last Modified:							
	Cumulative Vacci	nation Coverage						
			Healthcare Personnel (HCP) Categories					
			Employee HCP			Non-Employee HCP		
		*All Core HCP <sup>a</sup>	*All HCP <sup>b</sup>	* Employees (staff on facility payroll) <sup>C</sup>	* Licensed independent practitioners: Physicians, advanced practice nurses, & physician assistants <sup>d</sup>	* Adult students/trainees and volunteers <sup>e</sup>	* Other Contract Personnel <sup>f</sup>	
<ol> <li>Number of HCP that were eligible to have w collection</li> </ol>	orked at this healthcare facility for at least 1 day during the week of da	a						
<ol> <li>Cumulative number of HCP in Question #1</li> <li>Please review the current definition of up to da</li> </ol>								
3. *Cumulative number of HCP in Question #1	with other conditions:							
3.1. *Medical contraindication to COVID-19 vac	ccine							
3.2. * Offered but declined COVID-19 vaccine								
3.3. * Unknown/other COVID-19 vaccination st	atus							

Save

Cancel

#### NHSN 2024-

- Summary form changes taking place January 1, 2024 (Quarter 1, 2024):
  - Questions related to COVID-19 primary series vaccination will be removed.
  - Questions on reasons why an individual has not received vaccine (medical contraindication, declined, or other/unknown vaccination status) will relate to an individual's up-to-date vaccination status.
  - The question asking "number of HCP who are up to date" has been moved up on the form to Question #2.



#### NHSN 2024-

 During Quarter 1 2024, HCP should not be considered up to date with COVID-19 vaccination unless they received the updated 2023-2024 COVID-19 vaccine.

 NOTE: Most HCP who previously had complete primary series should NOT be counted in Question #2 (up to date).

Weekly HCP COVID-19 Vaccination

FAQs on Reporting COVID-19 Vaccination Data-January 2024





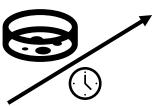
## MDRO and Outbreak Response Reminders and Updates

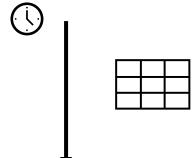
#### **HAI/AR Data**

- Where do we get our data?
  - NHSN
  - NBS
  - ARLN
  - Direct Reporting





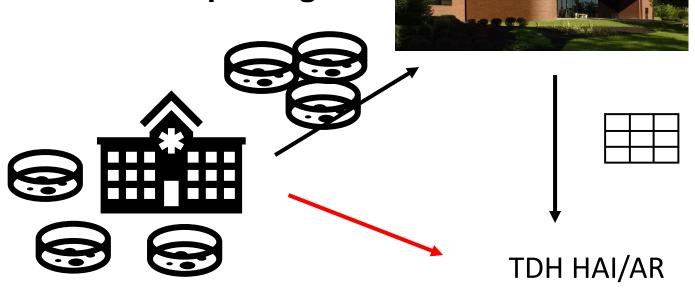




TDH HAI/AR

#### **Data Sources**

- Where do we get our data?
  - NHSN
  - NBS
  - ARLN
  - Direct Reporting



#### **Direct Reporting**

- Outbreaks
  - Any outbreak of any condition is reportable
- Unusual resistance patterns, any pathogen
- When should my team report a suspect outbreak?
  - >1 case that is linked epidemiologically, such as...
    - Overlapping or recent stay on the same unit
    - Different units but seen by the team (e.g., wound care, RT)
    - Admission from the same facility
    - Underwent similar procedures or different procedures in same OR/with same staff
  - Consider AST while awaiting carbapenemase testing
- Report directly to <u>HAI.Health@tn.gov</u>
  - Simone.Godwin@tn.gov
  - **-** 615.487.4077



#### Reportable Disease Resources

 https://www.tn.gov/health/cedep/reportablediseases.html

2024 Reporting Guidance - \*Effective January 1, 2024



#### **List for Providers/List for Labs**

ei



2024 Reportable Diseases/Conditions in Tennessee
Laboratory List

(Healthcare provider requirements differ)

Did you know that you are required to report certain lab results to the Tennessee Department of Health?

You are an invaluable part of disease reporting and surveillance in Tennessee!

These lab reporting requirements apply to all labs located within TN as well as those that test residents of TN, including labs located within healthcare facilities.

Please report pathogens listed here to your local health office (listed at www.tn.gov/health/health-program-areas/localdepartments.html) or the state office via fax at 615-741-3857.

To discuss reporting via <u>electronic</u> lab reporting (ELR), please visit https://www.tn.gov/health/cedep/meaningful-use-summary/laboratoryresult-reporting.html to review TDH's ELR specifications and then email ceds.informatics@tn.gov. More ELR details on page 2.

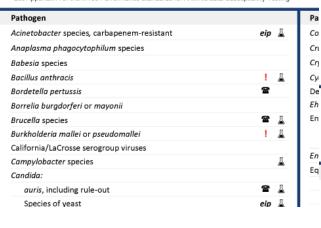
You may also report online via NBS. To request an NBS account for reporting, please fill out the user survey at <a href="https://redcap.health.tn.gov/redcap/surveys/?s=8L7CMWHN4M">https://redcap.health.tn.gov/redcap/surveys/?s=8L7CMWHN4M</a>.

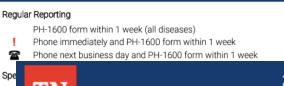
#### Outbreaks and Events of Urgent Public Health Concern:

Disease clusters or outbreaks

Single cases of pan non-susceptible organisms, unusual resistance mechanisms, or other

\* See Appendix A of the M100 Performance Standards for Antimicrobial Susceptibility Testing





Department of

Health

2024 Reportable Diseases/Conditions in Tennessee Healthcare Provider List

(Laboratory requirements differ)

Did you know that you are required to report certain disease and conditions to the Tennessee Department of Health?

You are an invaluable part of disease reporting and surveillance in Tennesseel

These healthcare reporting requirements apply to all providers located within TN as well as those that with patients residing in TN.

Please report cases of diseases or conditions listed here to your local health office (listed at <a href="https://www.tn.gov/health/health-program-areas/localdepartments.html">www.tn.gov/health/health-program-areas/localdepartments.html</a>) or the state office via <a href="fax.at 615-741-3857">fax.at 615-741-3857</a>.

You may also report online via NBS. To request an NBS account for reporting, please fill out the user survey at <a href="https://redcap.health.tn.gov/redcap/surveys/?s=8L7CMWHN4M">https://redcap.health.tn.gov/redcap/surveys/?s=8L7CMWHN4M</a>.

#### Regular Reporting

PH-1600 form within 1 week (all diseases)

! Phone immediately and PH-1600 form within 1 week

Phone next business day and PH-1600 form within 1 week

#### Special Reporting



All blood lead test results must be reported, electronically or fax, within 1 week of elevated test results. Refer to <a href="www.tn.gov/health/health-program-areas/mch-lead/for-providers.html">www.tn.gov/health/health-program-areas/mch-lead/for-providers.html</a> or email UT Extension at leadtri@utk.edu for more details or assistance.



Neonatal abstinence syndrome within 1 month at



https://www.tn.gov/health/nas.html



Birth defects within 1 week at https://tdhrc.health.tn.gov/redcap/surveys/s=TDEYPYCHET



Drug overdoses every Tuesday for the previous week, for more information, see <a href="https://www.tn.gov/content/tn/health-programareas/bdo//bdo/drug-overdose-reporting.html">https://www.tn.gov/content/tn/health-programareas/bdo//bdo/drug-overdose-reporting.html</a>



For COVID-19 and mpox reporting, please refer to Reportable Diseases listed on this website: <a href="https://www.tn.gov/health/cedep/reportable-diseases.html">https://www.tn.gov/health/cedep/reportable-diseases.html</a>.

#### Outbreaks and Events of Urgent Public Health Concern:

Disease clusters or outbreaks

Single cases of pan non-susceptible organisms, unusual resistance mechanisms, or other emerging or unusual pathogen!

\* See Appendix A of the M100 Performance Standards for Antimicrobial Susceptibility Testing

9 Disease/condition	
Anaplasmosis	
Anthrax	1
Antibiotic Use (acute care and critical access hospitals)	*
Babesiosis	
Birth defects	Ŕ
Botulism: foodborne, wound, or infant	1

Disease/condition
Cronobacter
Cryptosporidiosis
Cyclosporiasis
Dengue
Diphtheria

## **Detailed Lab Guidance**

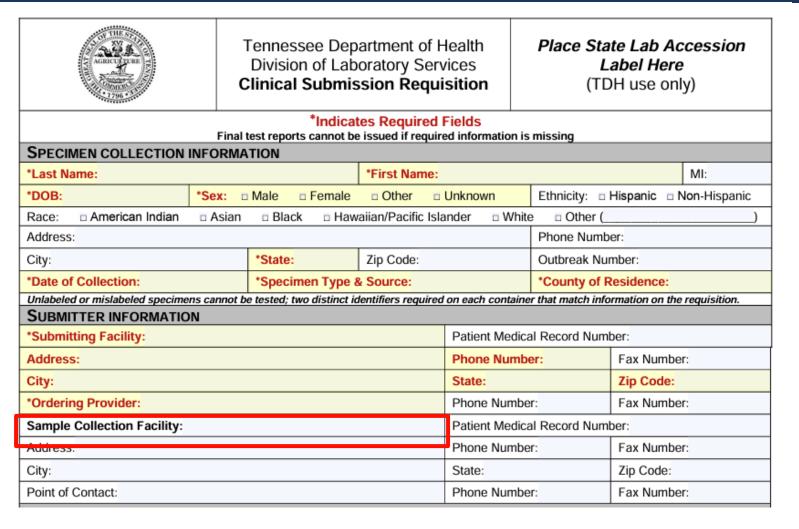
2024 Reportable Diseases in Tennessee: Detailed Laboratory Guidance						
Pathogen <sup>1</sup>	Laboratory Tests and Results to Report to Public Health <sup>2</sup>	Send Isolate or Specimen	Reporter 4			
Burkholderia mallei / Burkholderia pseudomallei !	Positive cultures for <i>Burkholderia mallei</i> and <i>Burkholderia pseudomallei</i> are reportable by laboratories. Isolates are required to be submitted to the Tennessee Department of Health Laboratory.	Required	L			
California/LaCrosse serogroup viruses: California Encephalitis Virus, LaCrosse Encephalitis Virus, Jamestown Canyon Virus, Keystone Virus, Snowshoe Hare Virus, Trivittatus Virus	Positive IgM. Quantitative IgG indicating a positive test result. Isolation of virus or demonstration of specific viral antigen or nucleic acid. Virus-specific neutralizing antibodies. Any specimen.		L&P			
Campylobacter species	Positive by any method (including culture, EIA, & PCR, and excluding antibody positive tests) for any specimen. Include speciation results if known. Submit isolates to the Tennessee Department of Health Laboratory within 1 week of isolation. CIDT specimens should be forwarded to the laboratory within 4 days of specimen collection.	Required	L&P			
Candida auris (including rule-out Candida auris) 🖀	Candida auris, positive by any method for any specimen including detection from swabs from skin. If any Candida auris or "rule-out C. auris" are detected via PCR, perform a culture to obtain the isolate. Submit isolates immediately to the Tennessee Department of Health Laboratory. Contact hai.health@tn.gov for clarification/questions.	Required	L&P			
Candida species of yeast <b>eip</b>	Submit isolate of each unique Candida species isolated from blood (send specimens of each if more than one species isolated in blood). Report all Candida species isolated from blood in the EIP catchment counties: Knox, Sevier, Jefferson, Blount, Anderson, Roane, Loudon, Union, Grainger, Hancock, Unicoi, Hawkins, Greene, Johnson, Washington, Sullivan, and Carter. Send specimens to the East TN Regional State Lab, 2102 Medical Center Way, Knoxville, TN 37920. Attn: Sandra Hardin. Candida auris isolates should follow the guidance listed above for that specific organism.	Required	L&P			
Carbapenemase-producing Pseudomonas aeruginosa (CP-CRPA)	Pseudomonas aeruginosa detected by any method from any clinical specimen (including nonsterile sites and rectal/perirectal swabs) positive for carbapenemase production or a carbapenemase gene. Labs unable to test for carbapenemase production or genes should submit isolates resistant to at least one carbapenem antibiotic (excluding ertapenem) AND not susceptible to cefepime or ceftazidime according to breakpoints listed in the 2023 CLSI guidelines. If Pseudomonas aeruginosa is detected via PCR, perform a culture to obtain the bacterial isolate and perform subsequent testing to determine antibiotic susceptibility profile or carbapenemase production or gene. Submit isolates to the Tennessee Department of Health Laboratory within 3 days of detection/isolation. Contact hai.health@tn.gov for clarification/questions.	Required	L&P			
Carbapenemase-producing Acinetobacter baumannii (CP-CRAB)	Acinetobacter baumannii detected by any method from any clinical specimen (including nonsterile sites and rectal/perirectal swabs) positive for carbapenemase production or a carbapenemase gene. Labs unable to test for carbapenemase production or genes should submit isolates resistant to at least one carbapenem antibiotic (excluding ertapenem) according to breakpoints listed in the 2023 CLSI guidelines. If Acinetobacter baumannii is detected via PCR, perform a culture to obtain the bacterial isolate and perform subsequent testing to determine antibiotic susceptibility profile or carbapenemase production or gene. Submit isolates to the Tennessee Department of Health Laboratory within 3 days of detection/isolation. Contact hai.health@tn.gov for clarification/questions.	Required	L&P			
Carboxyhemoglobin (COHb)	Level of > 12.0% as measured in a blood sample.		L&P			
Chikungunya virus 🖀	Positive IgM. Quantitative IgG indicating a positive test result. Isolation of virus or demonstration of specific viral antigen or nucleic acid. Virus-specific neutralizing antibodies. Any specimen.		L&P			

#### **Reportable Condition Updates 2024**

- Invasive E. coli (iEC) EIP project
  - Escherichia coli with any resistance pattern (including non-resistance/pan susceptible) detected by any method from a clinical specimen isolated from a normally sterile site.
  - Maury, Marshall, Lewis, Wayne
  - Questions?
    - Olivia.Denzie@tn.gov
- Expansion of AU reporting into NHSN to all facility sizes



#### **SPHL Submission Reminder**



 Please communicate with your clinical lab to fill out the Sample Collection Facility field





# 2023 Regional MDRO Data

#### **TN Reportable MDROs**



CARBAPENEM-RESISTANT ENTEROBACTERIACEAE

THREAT LEVEL URGENT

13,100
Estimated cases

1,100
Estimated cases
Estimated
Estimated

- No treatment & high morbidity/mortality
- ORT response:
  - Positive patients on contact precautions
  - Recommend screening to assess for transmission



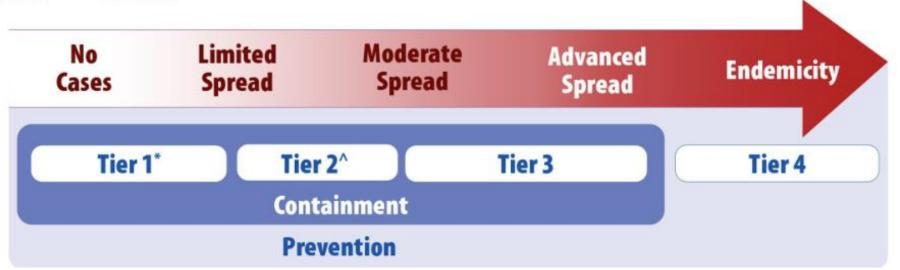


#### **Carbapenemase Genes**

- CRE "Big 5" Genes
  - IMP
  - VIM
  - OXA-48
  - NDM
  - KPC
- CRAB OXAs
  - OXA-23
  - OXA-24/40
  - OXA-235
  - OXA-58

#### **MDRO Containment Strategy**

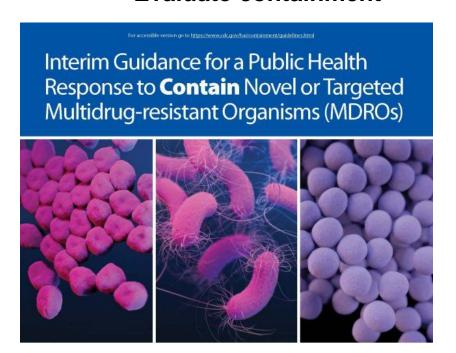
- TDH uses a tiered response system based on regional epidemiology
  - Screening recommendations are based on tier
  - The Outbreak Response Team's main goal is containment
  - Prevention is the focus when organisms become established (endemic) within a certain region.



Tier 4: "Remain vigilant for outbreaks and changes in regional epidemiology that may suggest additional measures (e.g., enhanced screening, expansion of prevention activities) are needed" (CDC Containment Guidance)

#### Regional Prevention and Containment Strategy

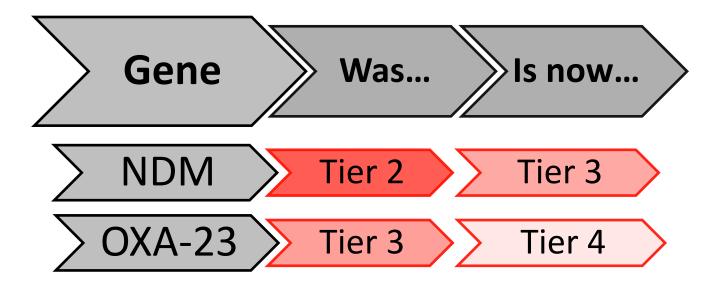
- The more uncommon the gene-organism combination, the more intense the containment response
  - Does NOT reflect where the organism was acquired
  - Screening recommendations are meant to
    - Determine ongoing transmission
    - Evaluate containment



https://www.cdc.gov/hai/mdro-guides/containment-strategy.html

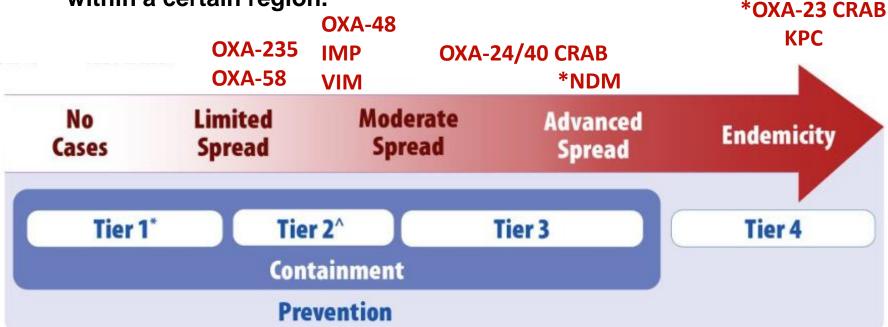
#### \*NEW Tiers for Certain MDROs

Based on statewide and regional analysis, the following changes have been made:



#### **MDRO Containment Strategy**

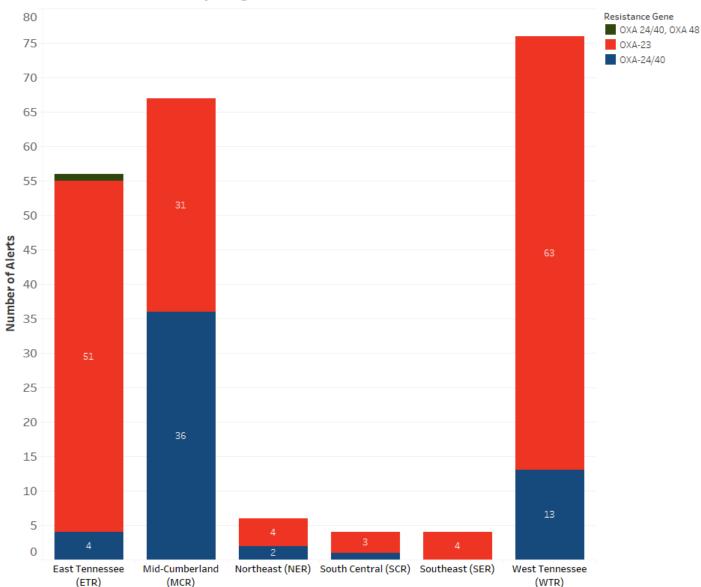
- TDH uses a tiered response system based on regional epidemiology
  - Screening recommendations are based on tier
  - The Outbreak Response Team's main goal is containment
  - Prevention is the focus when organisms become established (endemic) within a certain region.



 Tier 4: "Remain vigilant for outbreaks and changes in regional epidemiology that may suggest additional measures (e.g., enhanced screening, expansion of prevention activities) are needed" (CDC Containment Guidance)

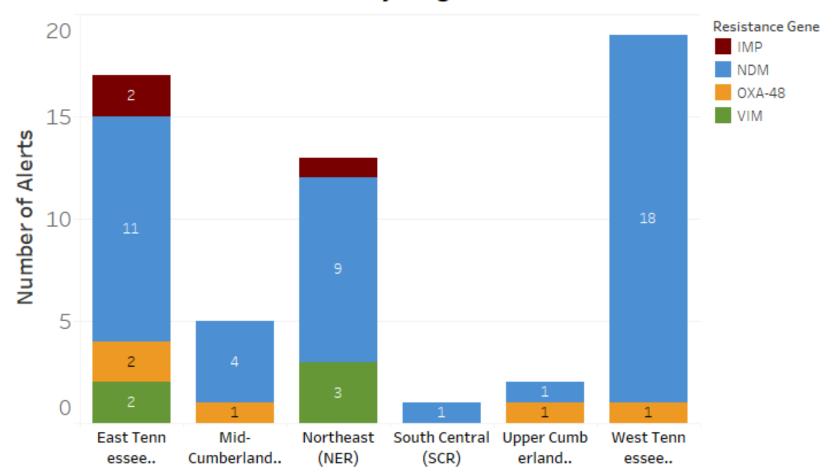
# **CRAB Alerts by Region, 2023**

#### CRAB Resistance Gene by Region from 2023

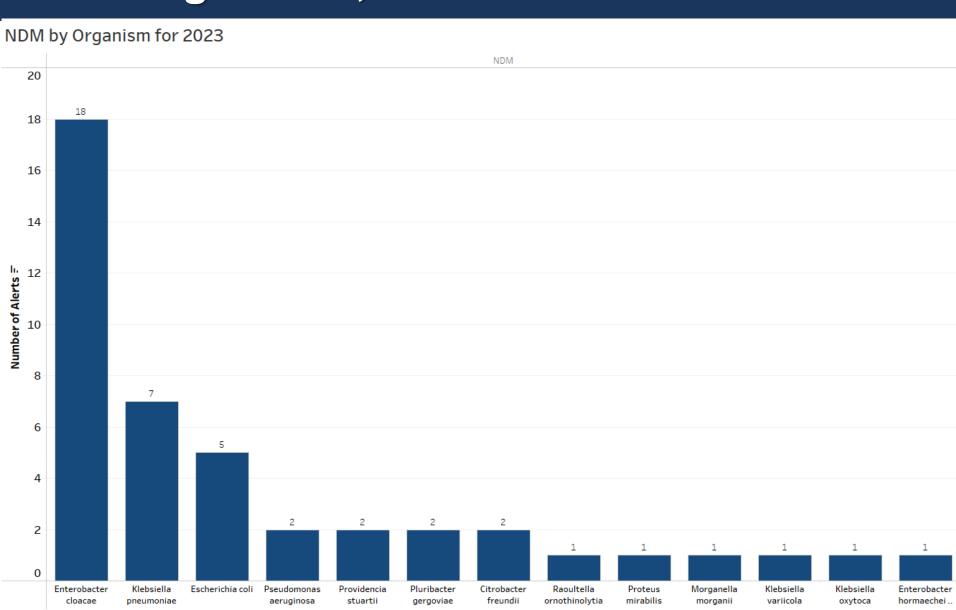


### Non-KPC CP-CRE Alerts by Region, 2023

### IMP, VIM, OXA-48 and NDM by Region from 2023

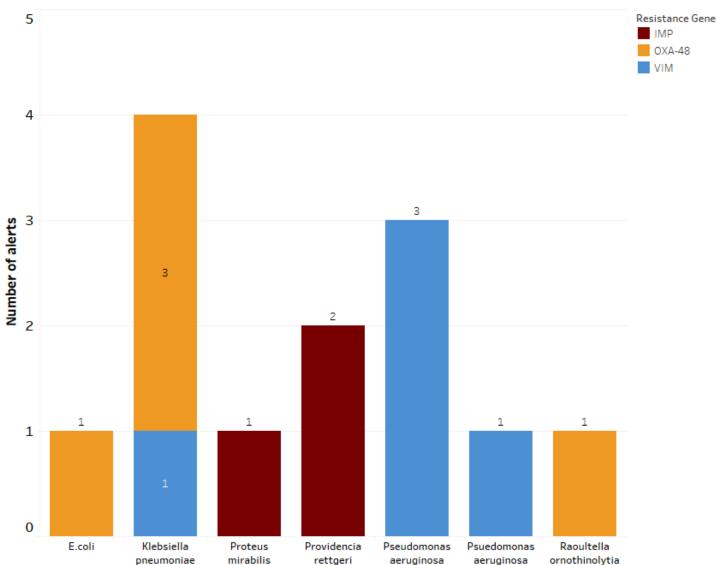


# NDM Organisms, 2023



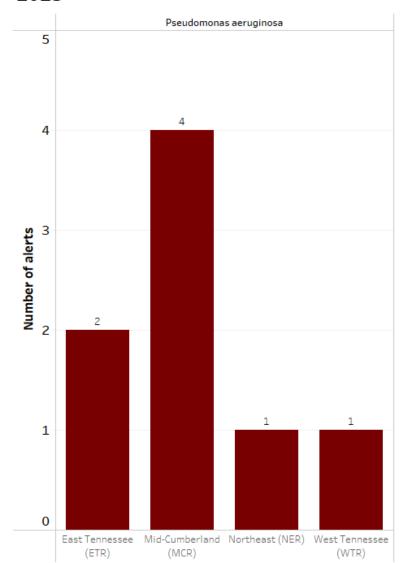
# Other non-KPC "Big 5" Organisms

IMP, VIM, and OXA-48 by Organism for 2023



### mCIM+/PCR-

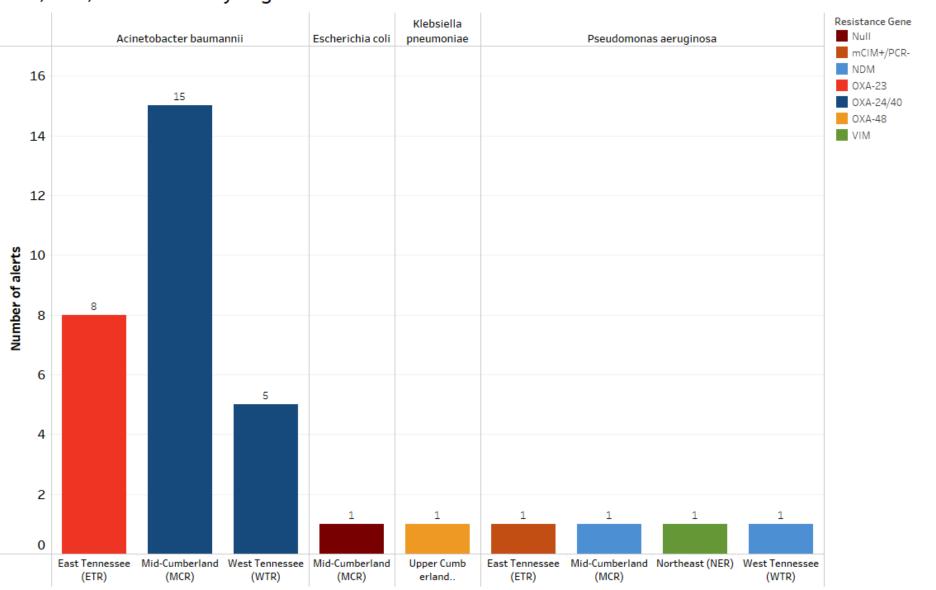
IMP, VIM, and OXA-48 by Organism for 2023



- 1. Truly novel organism
- 2. Known mechanism not tested for
- 3. False positive

# Pan-nonsusceptible Alerts by Region

IMP, VIM, and OXA-48 by Organism for 2023



### **2024 Goals**

- Ongoing analysis to help detect trends early
  - Improved multi-facility outbreak detection
  - Prevent endemicity
  - Target areas and facilities for prevention activities
- Collaboration opportunities for regional external partners
  - Local HDs
  - Advocacy organizations
  - Professional organizations and networks
  - Hospital systems
  - Individual facilities



# **Questions?**

Simone.Godwin@tn.gov



# FDA RECALL Tracheostomy care sets and kits Dressing change kits

### FDA Class 1 recall

Busse Hospital Disposables, Inc. Recalls Care Trays and Kits Containing Sterile Water Based Products Under Recall by Nurse Assist

- Recalled products include Tracheostomy Care Kit, Dressing Change kit and Tracheostomy Care set
- Product codes: NXA, MCY
- Catalog No:
- 800 Tracheostomy Care tray
- 1443 Tracheostomy Care Kit
- 9251R1, 9251R2, 9251R3
   Tracheostomy care sets



### Recommendations

- Check your supply of Tracheostomy care trays and kits and Dressing Change trays
- Quarantine these recalled products and follow the recommendations of the company's recall announcement.
- Alert Clinicians to the recall

Please refer to the FDA recall alert for more information





# Multi-Drug Resistant Organism (MDRO) Outbreak Team Update

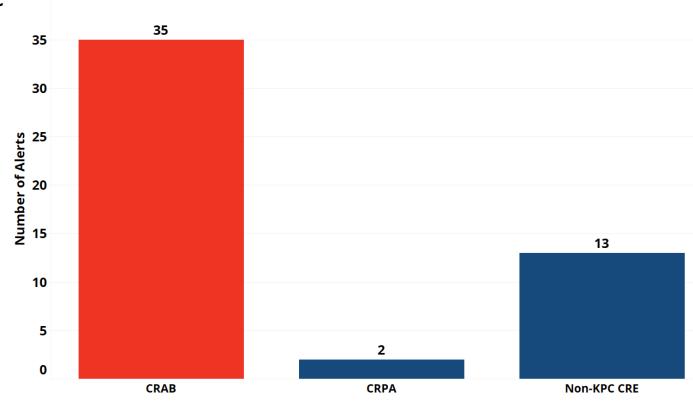
November 15<sup>th</sup> – January 16<sup>th</sup>, 2024

### **MDRO Alerts**

CRAB – Carbapenemresistant Acinetobacter baumannii

- CRE Carbapenemresistant Enterobacterales
- CRPA Carbapenemresistant
   Pseudomonas aeruginosa
- KPC Klebsiella pneumoniae Carbapenemaseproducing

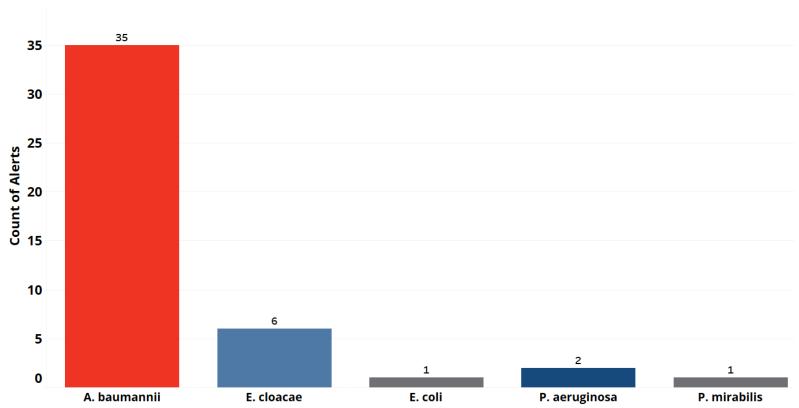






### **MDRO Alert by Organism**

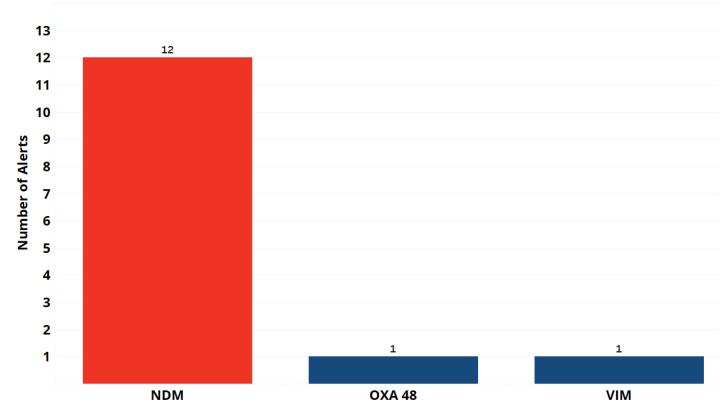
Alerts by Organism (Nov 16th - Jan 16th)



### **Non-KPC CRE Genes**

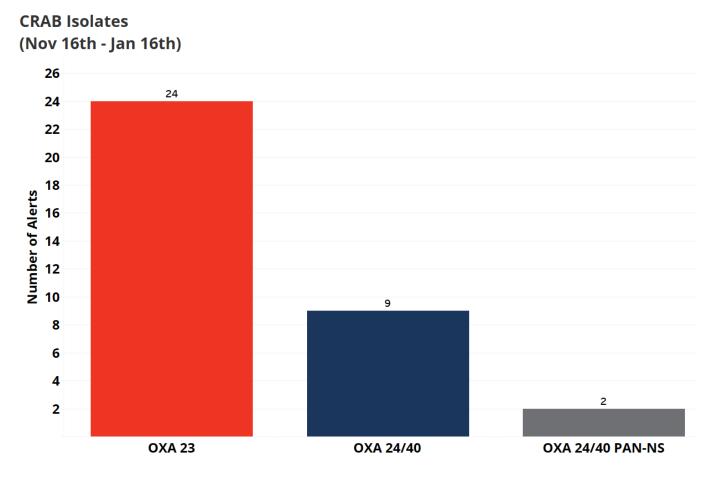
- Carbapenemas e-producing genes:
  - "Big Five"
    - KPC
    - IMP
    - NDM
    - OXA-48
    - VIM





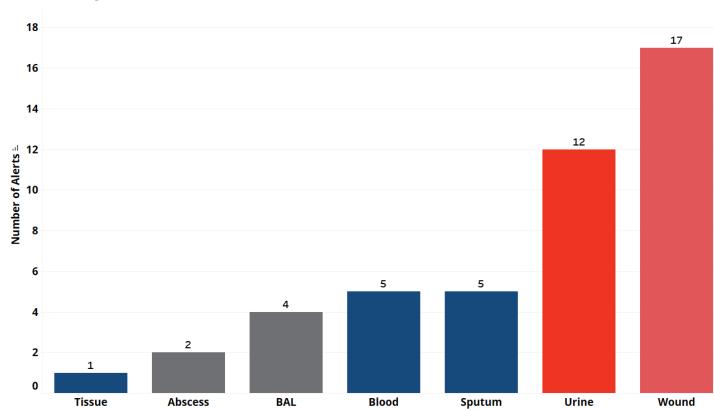
### **CRAB Alerts**

- Carbapenemase -producing genes:
  - OtherOxacillinases
    - OXA-24/40
    - OXA-23



### **Specimen Sources**

Alerts by Specimen Source (Nov 16th - Jan 16th)



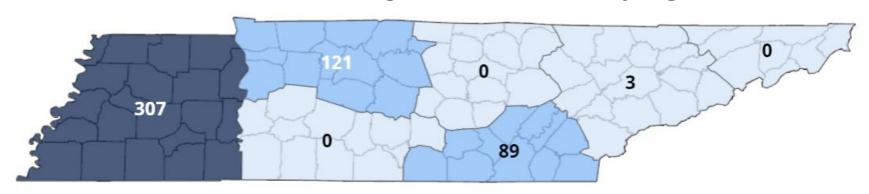
### C. auris

### **Screening vs Clinical Candida auris Cases by Region**

Year	Region	# of Facilities							
2022	Southeast	4	Clinical	6					
			Screening		60				
	West	2	Clinical	2					
			Screening	3					
2023	East	3	Clinical	1					
			Screening	2					
	Mid-Cumberland	13	Clinical	18					
			Screening			103			
	Southeast	1	Clinical						
			Screening	24					
	West	23	Clinical		61				
			Screening						237
				0	50	100	150	200	250

### C. auris

### Combined Clinical and Screening Candida auris Cases by Region, 2022-2023



# \*\*Upcoming TDH Annual Trainings\*\*

- 2024 Patient Safety Manual has been released
- Beginning January 22, 2024
  - Starting with CLABSI/CAUTI
  - 1/29 MDRO/CDI Events
  - 2/5 SSI events
  - 2/12 AUR events
  - 2/20 VAE/PedVAE events (Tuesday since 2/19 is a state holiday)
  - 2/26 Analysis
- Will hold trainings every consecutive Monday focusing on any new changes from 2023 to 2024
  - Expect invites for these webinars in the next week
- Case Studies trainings
  - Will update you with a registration link for your 3-hour training in March

### Next NHSN User Call

- Tuesday, February 20, 2024
  - 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

