TN NHSN User Call

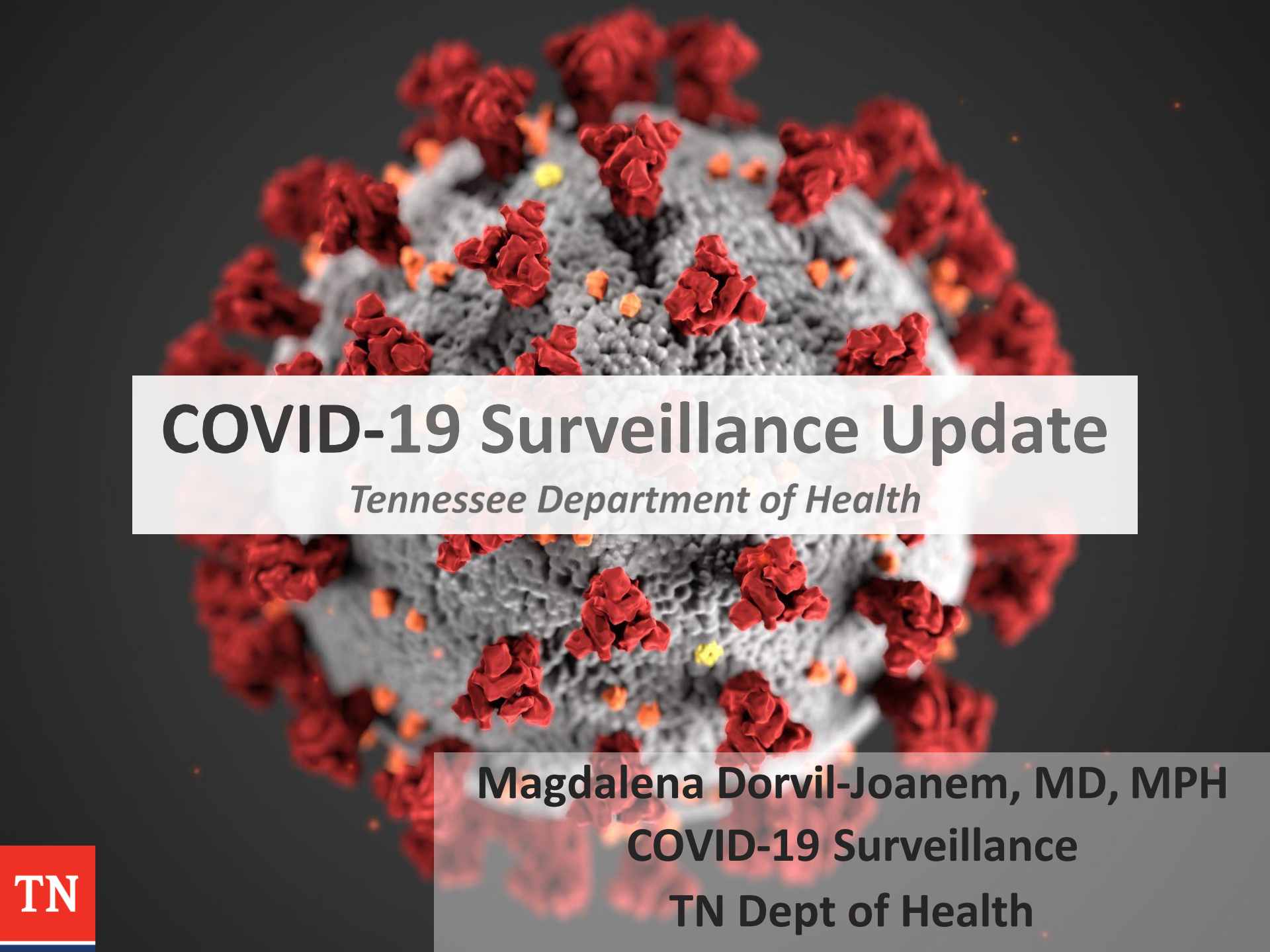
Monday, May 15, 10am CT

Agenda

- **COVID-19 Update**
  - **Magdalena Dorvil-Joanem, MD, MPH**
- **NHSN Update**
  - **Vicky Lindsey, AAS, RN, CIC**
- **COVID-19 Hospital Data Guidance Update**
  - **Meisha Millwee**
- **NHSN Demo**
  - **Abigail Marrero, MPH, CPH**
- **Multi-Drug Resistant Organism (MDRO) Surveillance Team Update**
  - **Alex Kurutz, MPH**

TDH NHSN Team

- Abigail Marrero, MPH
  - 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

TN

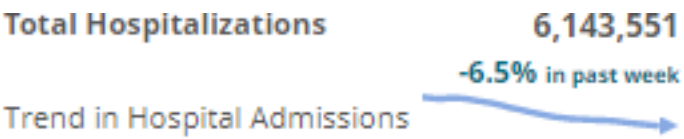
PHE Ending Impact on COVID Data

- **The federal government COVID-19 Public Health Emergency (PHE) Declaration ended on May 11, 2023**

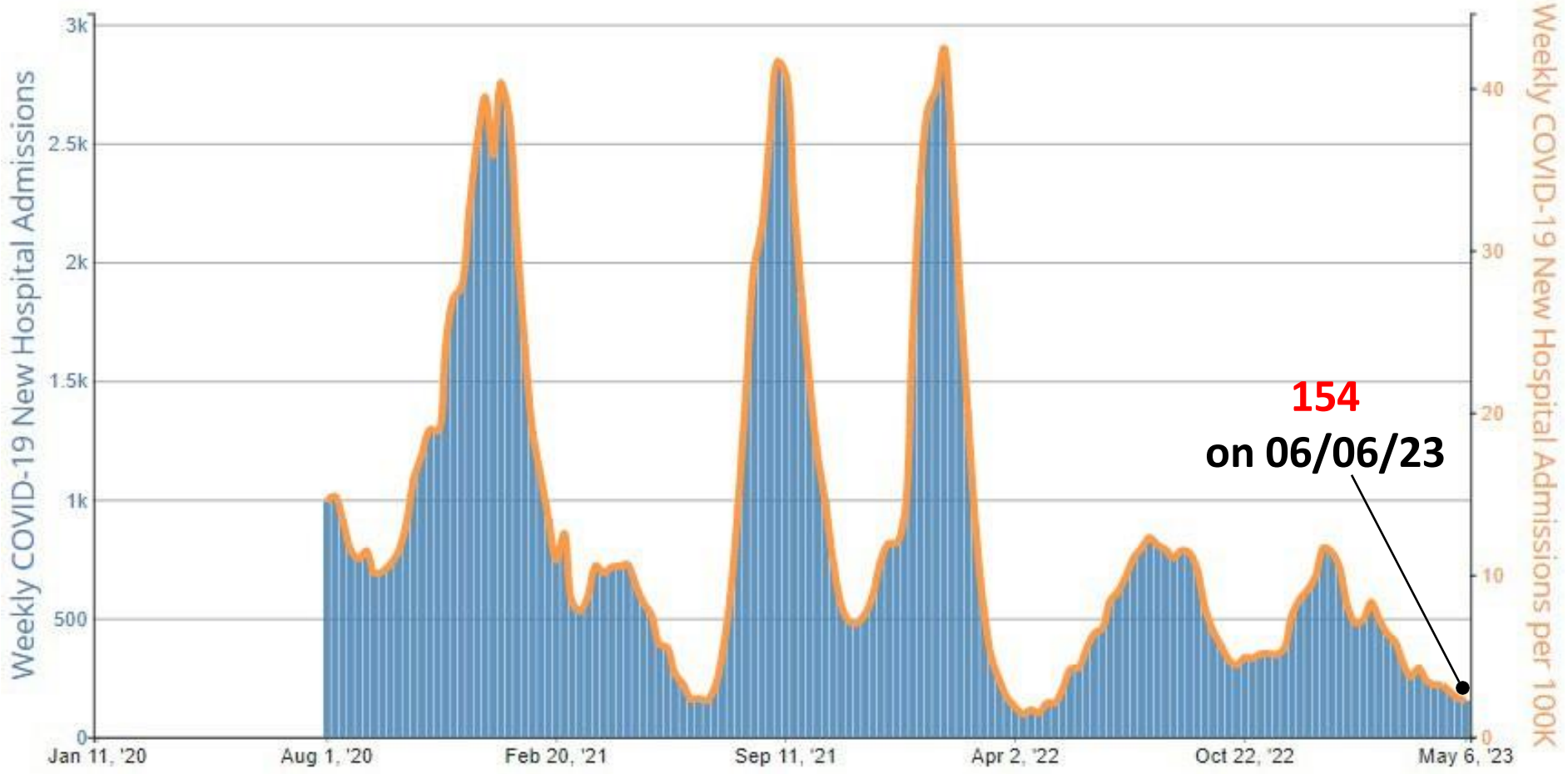
- **Impact on COVID data**
  - **Most COVID data are not directly affected by PHE ending**
  - **CDC announced sunset of community transmission levels**
  - **CDC provides hospital admission and mortality data as key surveillance metrics**

COVID-19 Trends in TN & US

- **Tennessee**
  - **Hospitalizations decreasing**
  - **Deaths decreasing**
- **U.S.A.**
  - **Deaths decreasing**
  - **New hospitalizations decreasing**



New Hospital Admissions

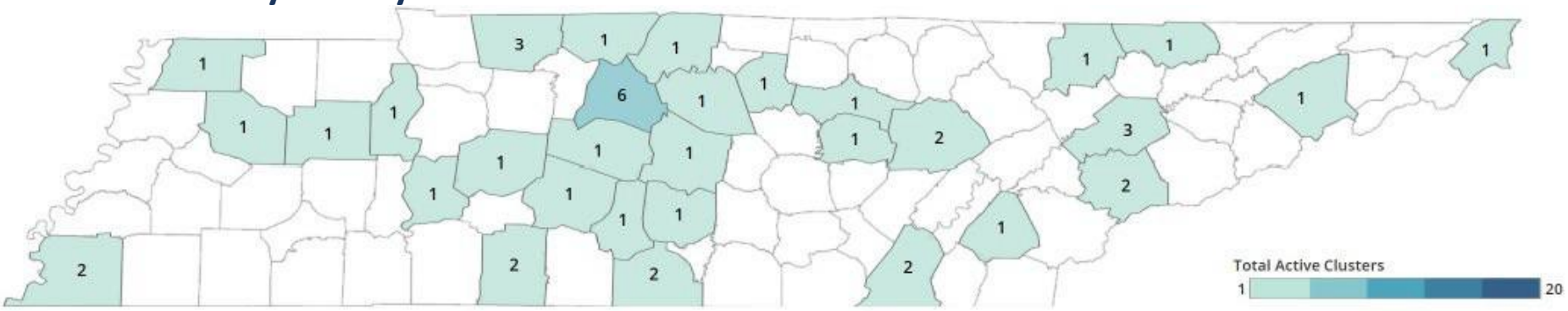


COVID Cluster in High-Risk Settings

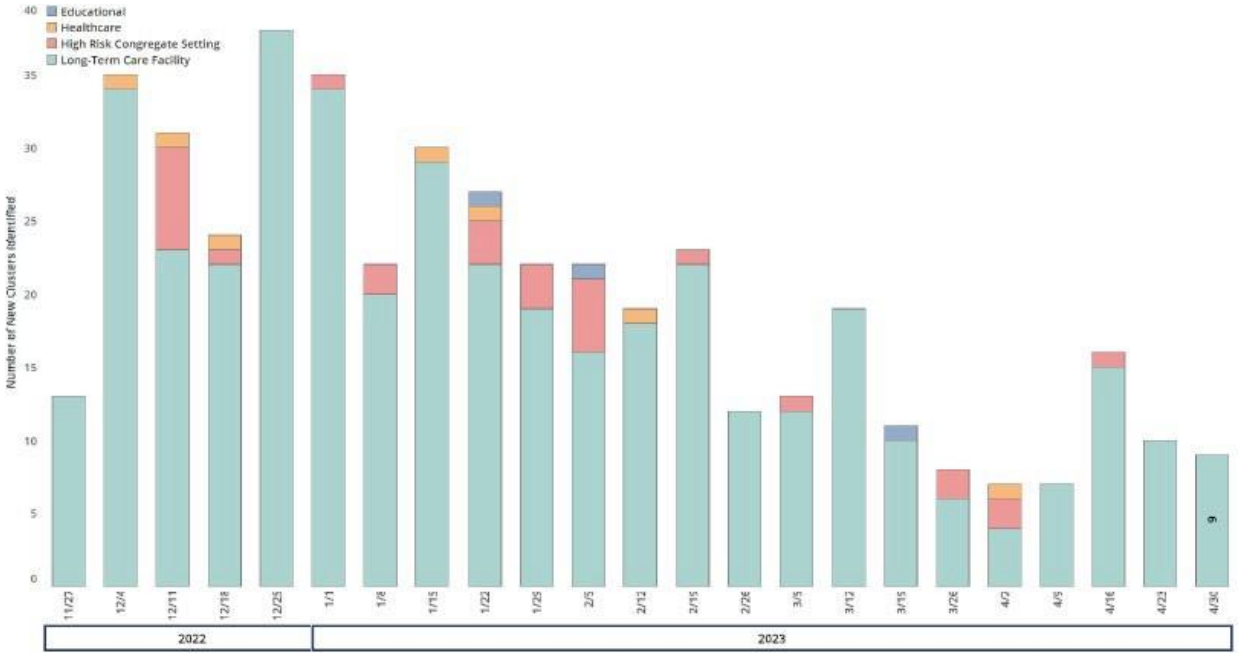
46 Total Active Clusters

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

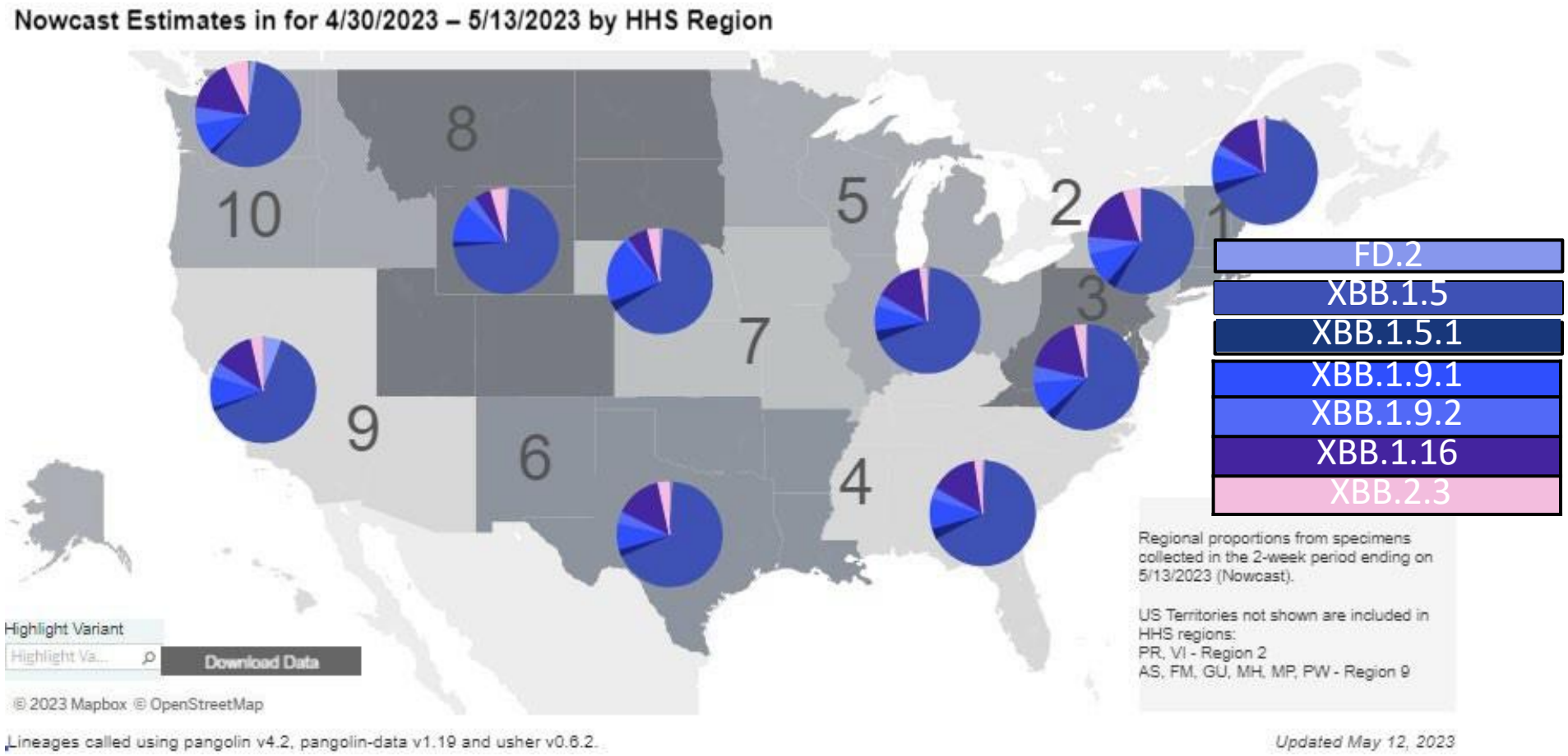
Active Clusters by County



Confirmed Clusters by Week and Facility Type

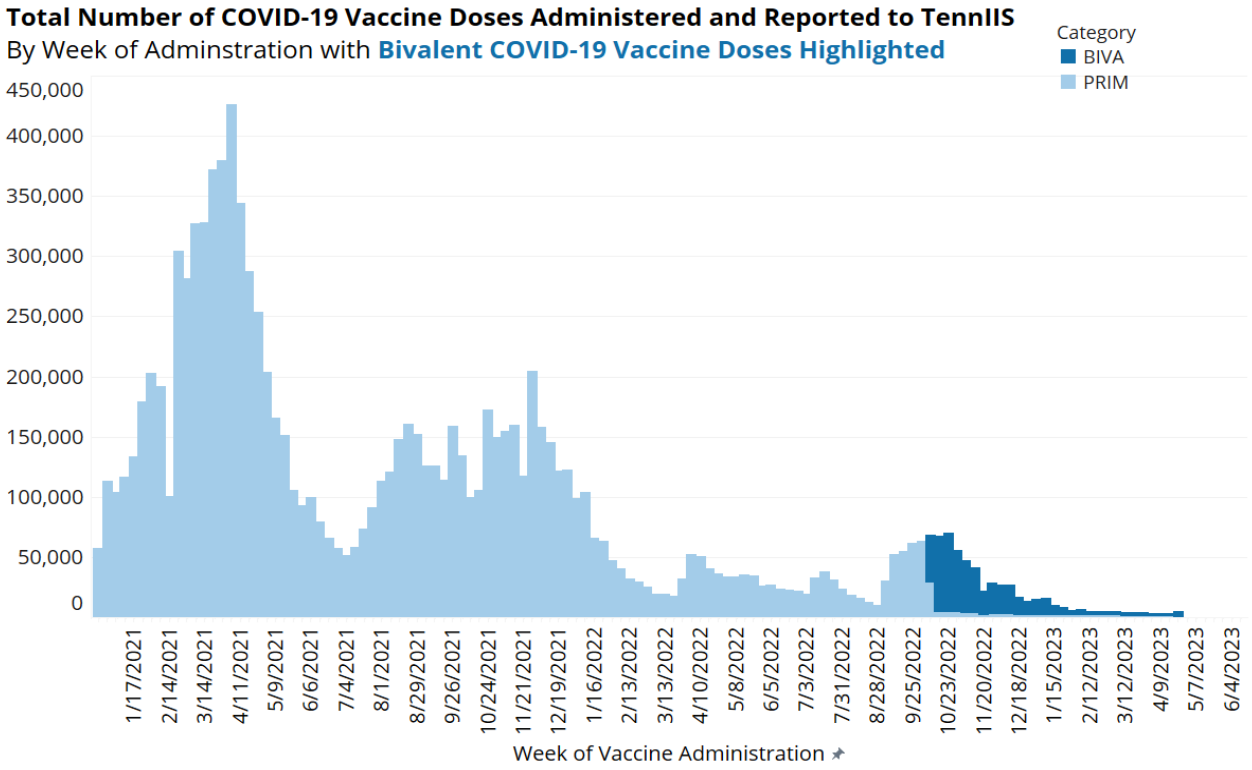


Variant Proportions by HHS Region



Vaccine Update (as of 5/01/2023)

- **Tennesseans with Bivalent Booster (% of total population)**
  - **429,819 or 6.16% (previously 6.08%)[1]**
  - **National rate = 16.8% (previously 16.5%)[2]**



[1] As reported by TennIIS: https://www.tn.gov/health/cedep/ncov/covid-19-vaccine.html
[2] As reported by CDC: https://covid.cdc.gov/covid-data-tracker/#vaccinations

NHSN Updates

HPS COVID-19 Vaccination Data Reporting: Post-Public Health Emergency

- **Should facilities continue reporting healthcare personnel COVID-19 vaccination data through the Weekly COVID-19 Vaccination Module?**
  - **Yes. CMS-certified facilities must continue to report healthcare personnel COVID-19 vaccination data through the Weekly COVID-19 Vaccination Module even after the PHE is declared over on May 11, 2023.**
- **COVID-19 Vaccination Coverage among Healthcare Personnel is part of several CMS Quality Reporting Programs.**
  - **The COVID-19 Vaccination Coverage among Healthcare Personnel is a quality measure; therefore, any changes would go through the annual rule-making process for these Quality Reporting Programs.**
- **Please note that this is separate from other required COVID-19 reporting, such as COVID-19 hospital admission reporting required under CMS Conditions of Participation.**

HPS COVID-19 Vaccination Data Reporting: Post-Public Health Emergency

- **What is the benefit of continuing to report COVID-19 vaccination data through NHSN after the PHE ends?**
  - **It is important to incentivize and track healthcare personnel vaccination in facilities through quality measurement to protect healthcare personnel, patients, and caregivers, and to help sustain the ability of facilities to continue serving their communities.**
- **How often should facilities report these data?**
  - **There are no changes to the frequency of data reporting.**
  - **Facilities should continue to report data for at least one week per month for each reporting quarter. COVID-19 vaccination data should be submitted by the end of the quarter, as defined by CMS.**
  - **Facilities can select any week within the month to report data.**
    - **As a reminder, a week is designated as belonging to the month that contains the week-end date. For example, submitting data for the week of Monday, May 29, 2023 – Sunday, June 4, 2023, counts as reporting for a week in June (and not May).**

HPS COVID-19 Vaccination Data Reporting: Post-Public Health Emergency

- **Where can facilities access training materials?**
  - **Materials pertaining to healthcare personnel COVID-19 vaccination data reporting are found on this webpage: HPS | Weekly HCP COVID-19 Vaccination | NHSN | CDC**

- **This operational guidance document outlines the CMS reporting requirement: Operational Guidance COVID-19 Vaccination Reporting Rule (cdc.gov)**

- **For any questions, please send an e-mail to the NHSN Helpdesk at NHSN@cdc.gov with "COVID-19 Vaccination" in the subject line of the e-mail, along with your facility type.**

Today May 15, 2023 Deadline

- Acute Care Hospitals,
- Cancer Hospitals
- Inpatient Rehabilitation Facilities
- Long-term Acute Care Facilities (Long-term Care Hospitals)
- Skilled Nursing Facilities
- Inpatient Psychiatric Facilities

  - 2022 Quarter 4 data
  - 2022 Quarter 4 & Quarter 1 2023 Annual Influenza Data (October 1 – March 31, 2023)

- Email on 5/5/2023 with specific data required for each facility type

COVID-19 Hospital Data Guidance Update
Meisha Millwee

Hospital COVID-19 Data Reporting: Post-Public Health Emergency

UPDATED GUIDANCE OVERVIEW

- **The federal Public Health Emergency (PHE) for COVID-19, declared under Section 319 of the Public Health Service (PHS) Act, has expired as of the end of the day on May 11, 2023.**
  - HHS/CDC has finalized some reductions in the number of data elements reported daily by hospitals.
  - The implementation of these changes begins **Sunday, June 11th.** Current reporting remains the same through Saturday, June 10th.
  - The cadence of reporting remains the same, with some data element reductions.

For any questions, please send an e-mail to the NHSN Helpdesk at NHSN@cdc.gov with "COVID-19 Patient Safety Component" in the subject line of the e-mail, along with your facility type.

NHSN COVID-19 Data Reporting: Data Element Reduction

QUESTIONS / FIELDS NO LONGER BE REQUIRED:

- ***For Tennessee, each of these are calculated fields based upon other questions in the HRTS COVID survey.***
  - Total hospitalized adult suspected or laboratory-confirmed COVID-19 patients.
  - Total hospitalized pediatric suspected or laboratory-confirmed COVID-19 patients.
  - Hospitalized and ventilated COVID-19 patients - Patients currently hospitalized in an adult, pediatric, or neonatal inpatient bed who have suspected or laboratory-confirmed COVID-19 and are on a mechanical ventilator.
  - Total ICU adult suspected or laboratory- confirmed COVID-19 patients.

HRTS COVID-19 Data Reporting: Data Element Reduction

QUESTIONS NO LONGER REQUIRED / TO BE REMOVED:

- ***These questions will be removed from the HRTS COVID-19 survey and set to optional in the CSV file for both inbound and outbound (SFTP) reporting.***

  - Hospital onset - Total current inpatients with onset of suspected or laboratory-confirmed COVID-19 fourteen or more days after admission for a condition other than COVID-19.
  - Previous day's adult admissions with suspected COVID-19 and breakdown by age bracket: 18-19 • 20-29 • 30-39 • 40-49 • 50-59 • 60-69 • 70-79 • 80+ • Unknown.
  - Previous day's pediatric admissions with suspected COVID-19.
  - Previous day total ED visits.
  - Previous day total COVID-19-related ED visits

Hospital COVID-19 Data Reporting: Actions

HRTS / SFTP Partners Reporting via CSV:

- ***HRTS Survey***
  - Remove 5 questions from the COVID-19 Survey.
- ***SFTP / CSV***
  - Set the 5 questions and related calculated fields to optional on the inbound / outbound schema.
- ***Reporting Cadence***
  - Continue daily reporting as is.
    - Daily data is still required and must be collected.
    - Waiting until the end of the week introduces room for lost data and errors.
    - Users are already accustomed to the current process.
    - TDH will continue to run compliance weekly

- ***Psychiatric and rehabilitation facilities will continue to submit data once annually from October to October and will include the reduced data elements, as stated in the reporting guidance document: Hospital COVID-19 Reporting Guidance Document***

NHSN Data Demo 2023

TDH HAI/AR Program | May 15, 2023

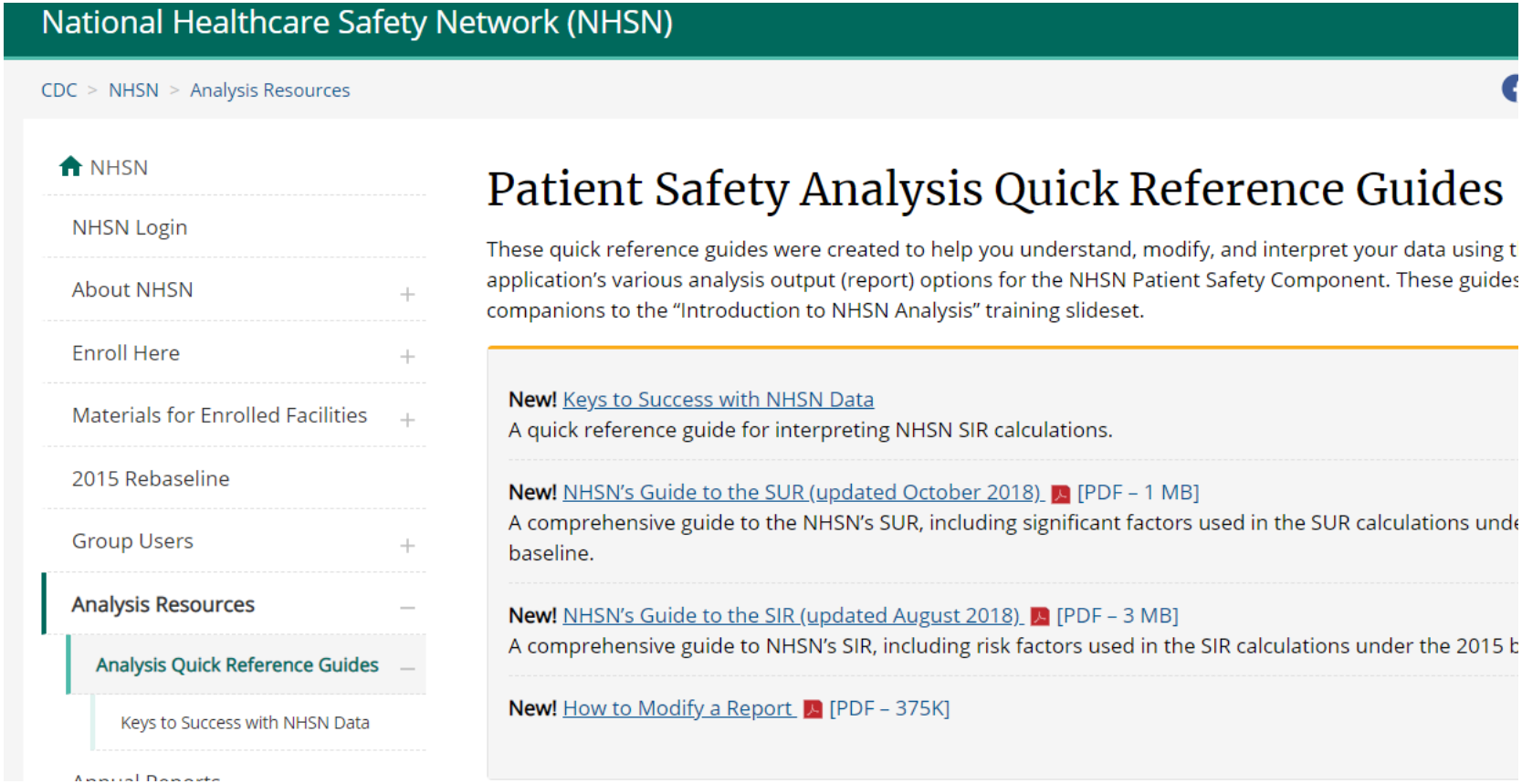
Agenda of Instructions

- Review generating data set
- Exporting report
- Using Excel to run analysis
  - Filter
  - Freeze Panes
  - Conditional Formatting
  - P-value
  - Pivot Tables

Generate NHSN Data Set

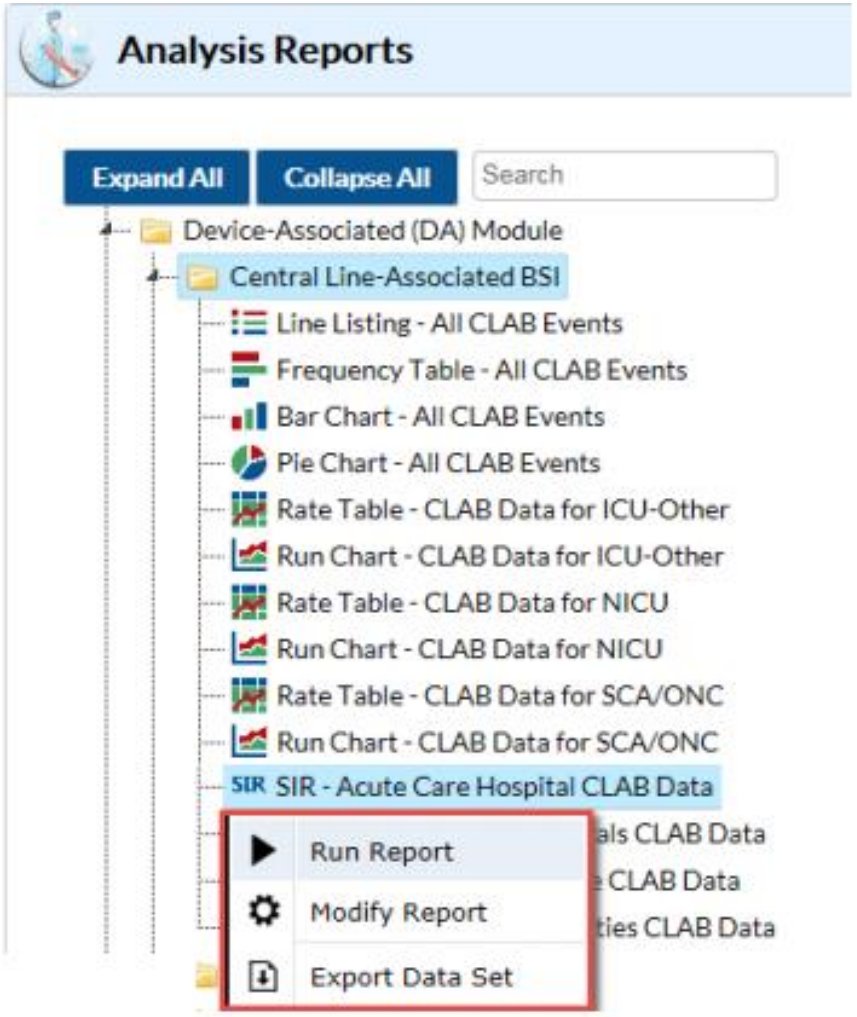
NHSN Analysis Resources

- https://www.cdc.gov/nhsn/ps-analysis-resources/reference-guides.html

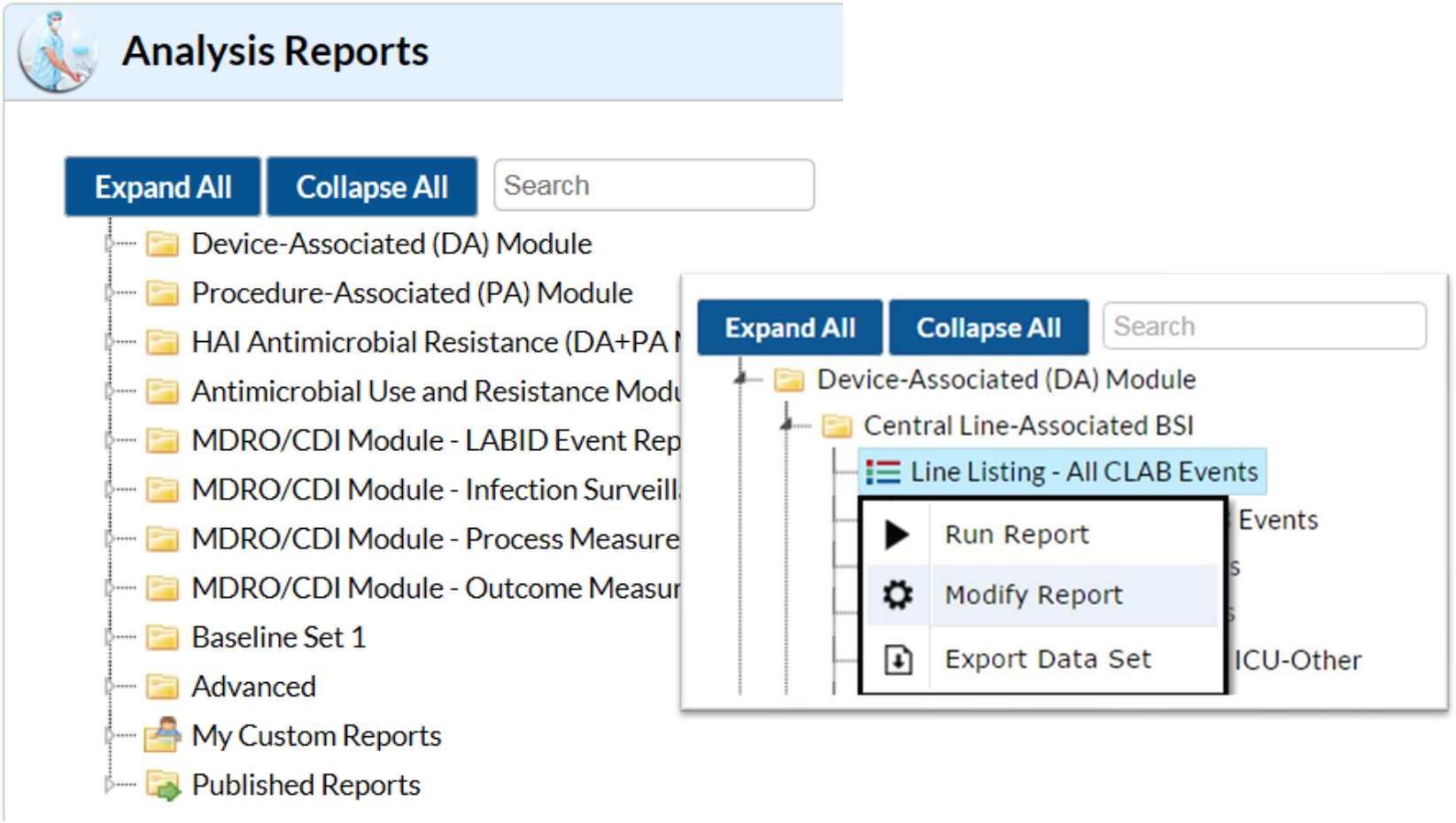


NHSN Analysis Reports

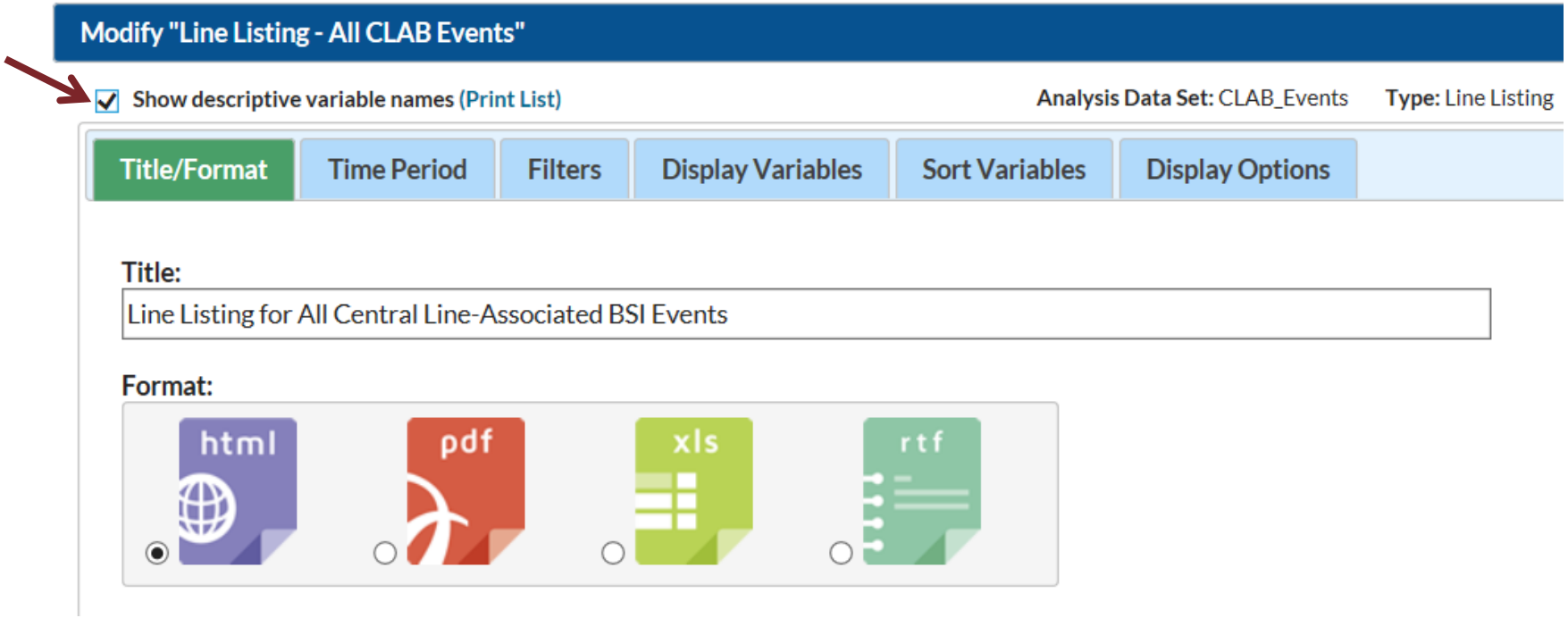
- **Report Options:**
  - **Line List**
  - **Frequency Table**
  - **Bar/Pie Chart**
  - **Rate Table/Run Chart**
  - **SIR Report**
  - **SUR Reports**
  - **TAP Reports**
- **Clicking Run will run a stock report**
- **Click Modify to create more specific reports**



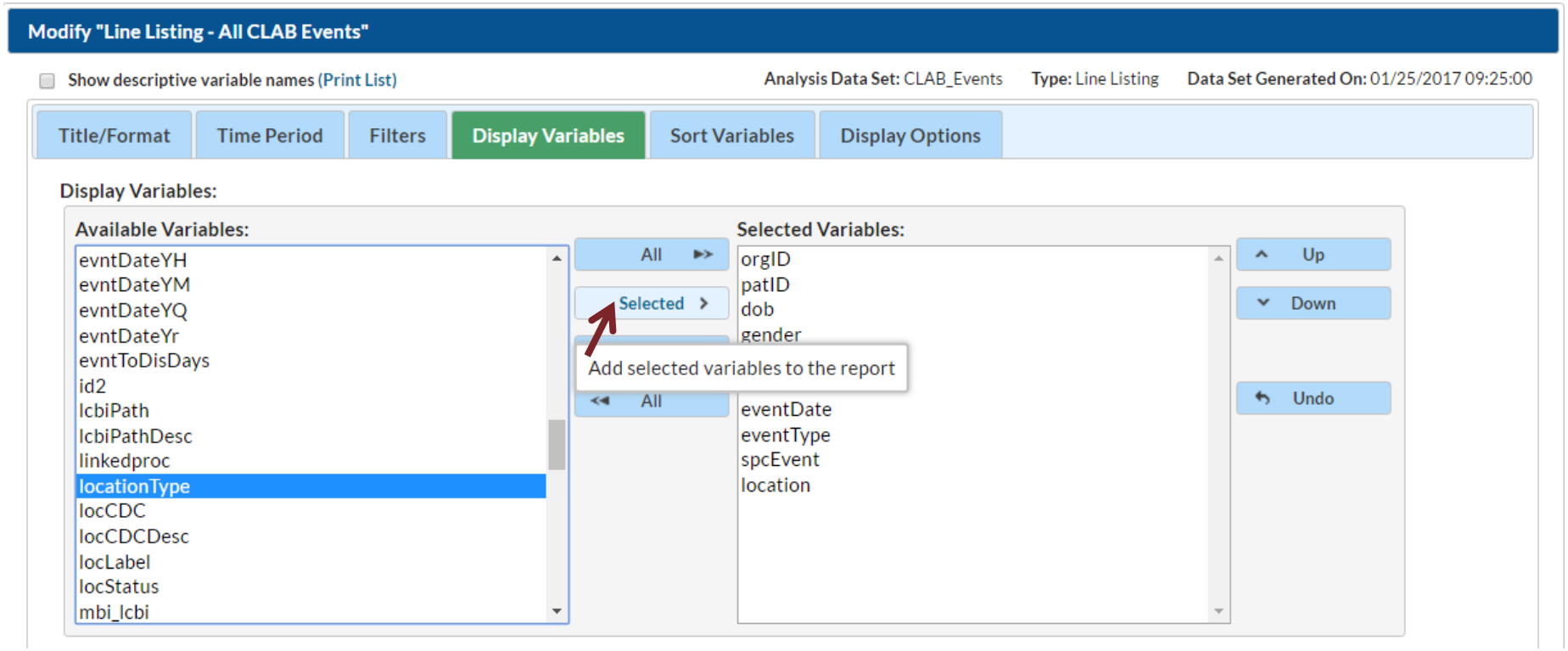
Modify Reports: Line Listing



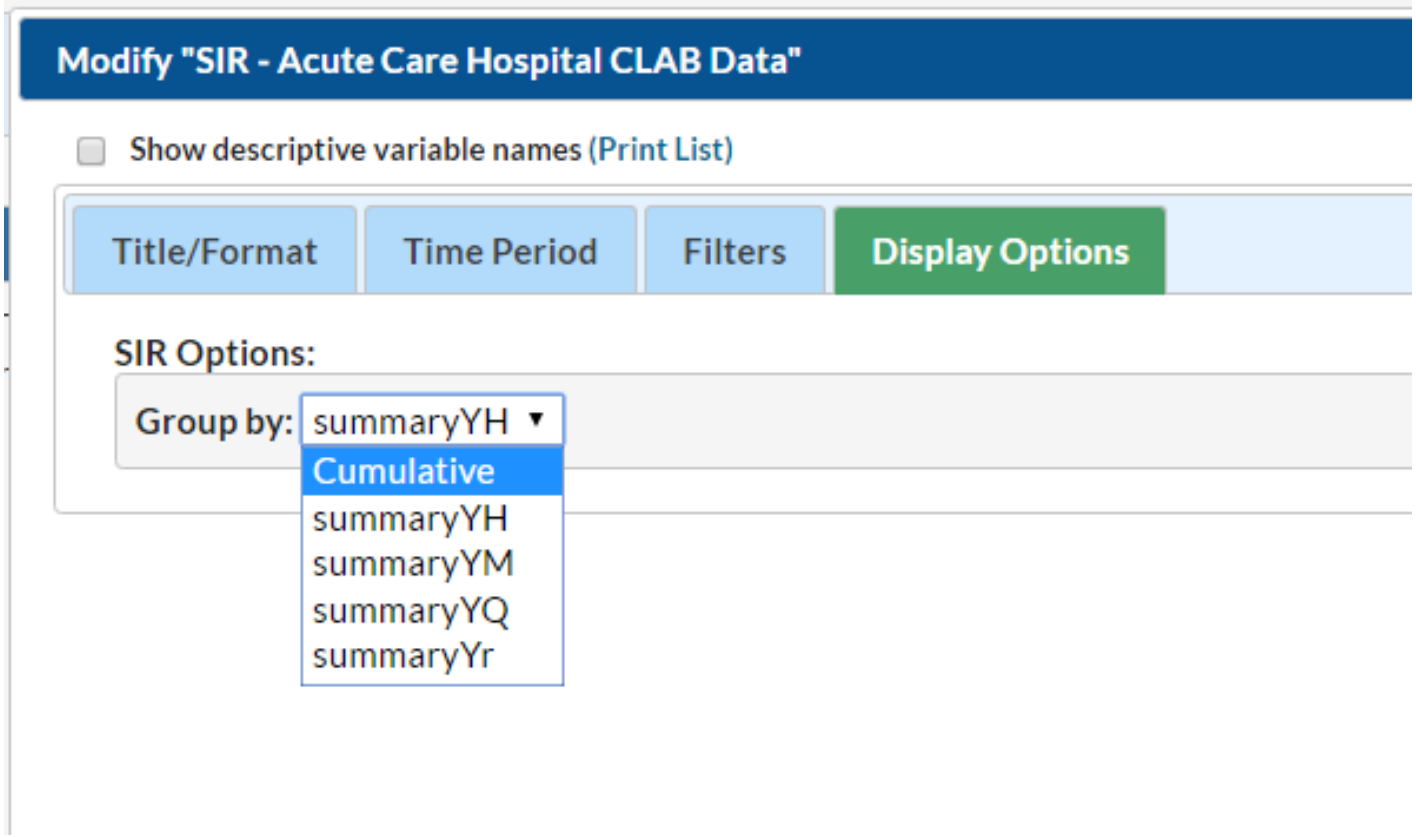
Modifying Reports : Line Listing



Modifying Reports : Line Listing



Modifying Reports: SIR

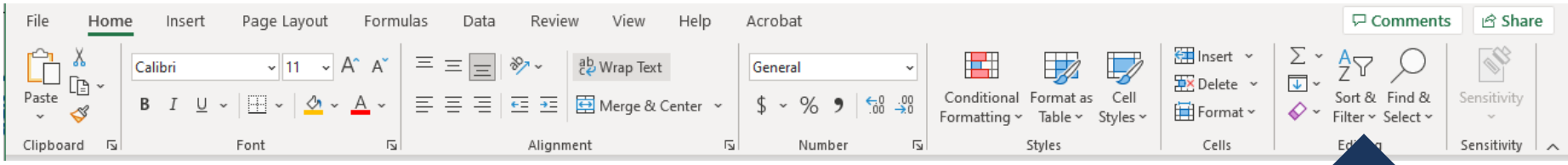


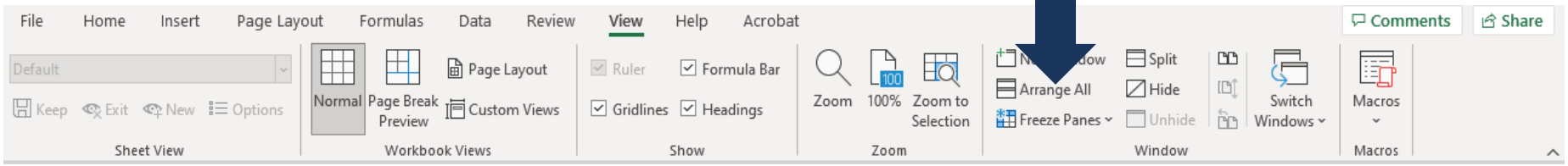
NHSN to Excel

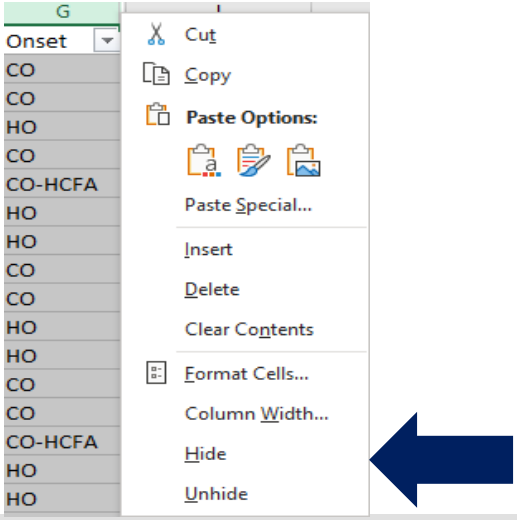
Why Analyze?

- **We want these numbers to talk to us, what is their story?**
- **We have a whole lot of data, but if we can't speak their language, it doesn't help us or our patients**
- **Reports generated from NHSN can help inform prioritization and success of prevention activities.**

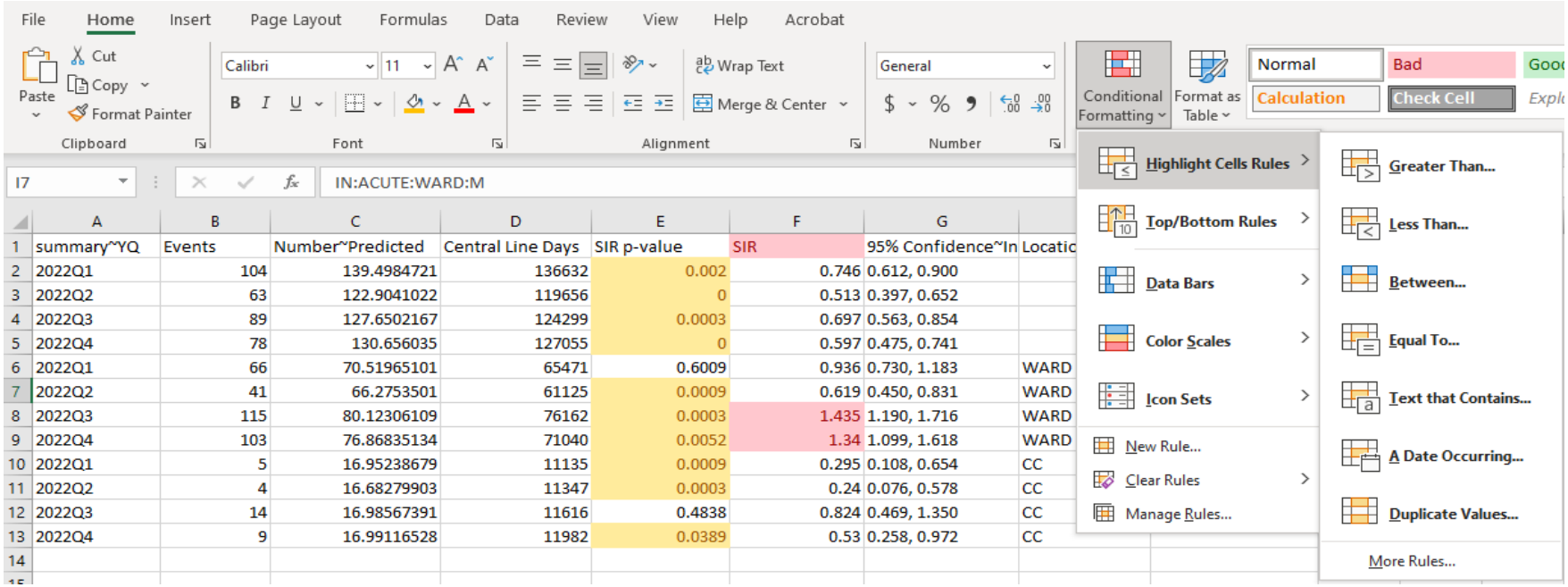
Filter, Freeze & Hide







Conditional Formatting



	A	B	C	D	E	F	G	
1	summary~YQ	Events	Number~Predicted	Central Line Days	SIR p-value	SIR	95% Confidence~In	Locatic
2	2022Q1	104	139.4984721	136632	0.002	0.746	0.612, 0.900	
3	2022Q2	63	122.9041022	119656	0	0.513	0.397, 0.652	
4	2022Q3	89	127.6502167	124299	0.0003	0.697	0.563, 0.854	
5	2022Q4	78	130.656035	127055	0	0.597	0.475, 0.741	
6	2022Q1	66	70.51965101	65471	0.6009	0.936	0.730, 1.183	WARD
7	2022Q2	41	66.2753501	61125	0.0009	0.619	0.450, 0.831	WARD
8	2022Q3	115	80.12306109	76162	0.0003	1.435	1.190, 1.716	WARD
9	2022Q4	103	76.86835134	71040	0.0052	1.34	1.099, 1.618	WARD
10	2022Q1	5	16.95238679	11135	0.0009	0.295	0.108, 0.654	CC
11	2022Q2	4	16.68279903	11347	0.0003	0.24	0.076, 0.578	CC
12	2022Q3	14	16.98567391	11616	0.4838	0.824	0.469, 1.350	CC
13	2022Q4	9	16.99116528	11982	0.0389	0.53	0.258, 0.972	CC
14								

Standardized Infection Ratio (SIR) Review

$$\text{SIR} = \frac{\text{Observed (O) HAIs}}{\text{Predicted (P) HAIs}}$$

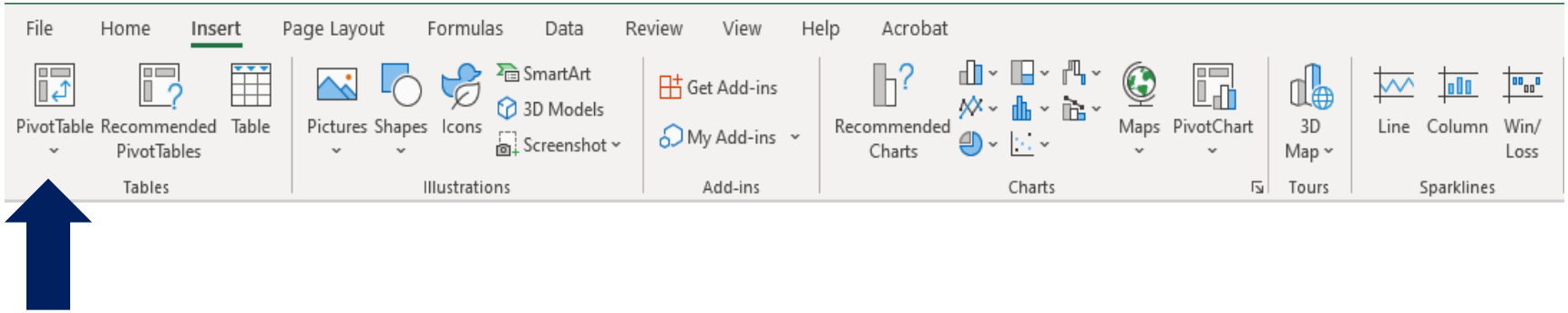
- To calculate O, sum the number of HAIs among a group
- To calculate P, requires the use of the appropriate aggregate data – 2015 national baseline

- SIR > 1.0: # infections are HIGHER than predicted
- SIR < 1.0: # infections are LOWER than predicted

P-value Review

- **Helps you determine the significance of your results, less than 0.05 is significant**
- **P-values are expressed as decimals although it may be easier to understand what they are if you convert them to a percentage.**
  - **A p value of 0.0254 is 2.54%. This means there is a 2.54% chance your results could be random (i.e. happened by chance).**
  - **That's pretty tiny. On the other hand, a large p-value of .9(90%) means your results have a 90% probability of being completely random and not due to anything in your experiment. Therefore, the smaller the p-value, the more important ("significant") your results.**

Pivot Table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SmartArt
3D Models
Screenshot
Illustrations
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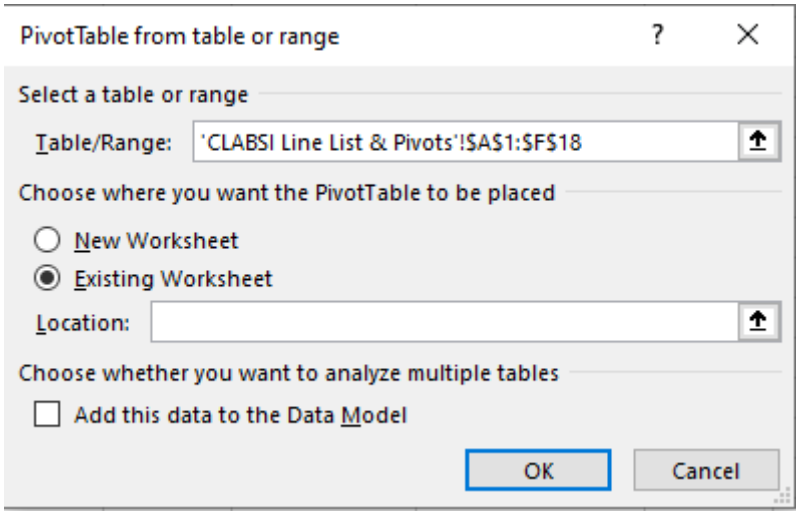
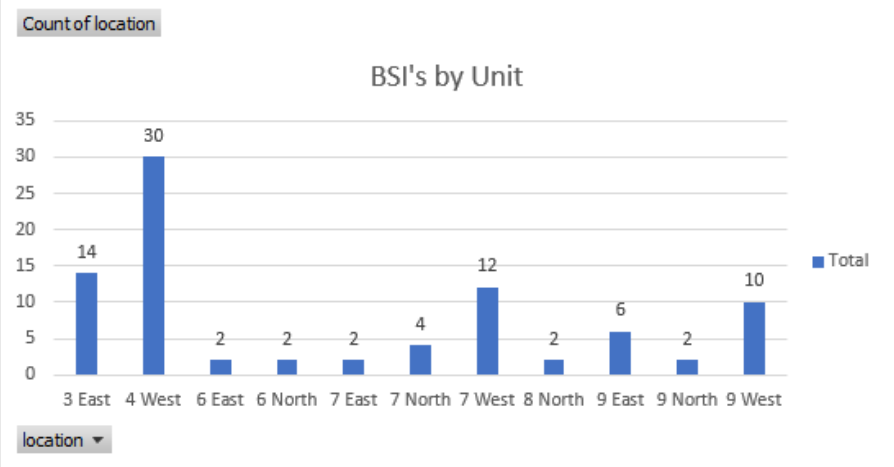
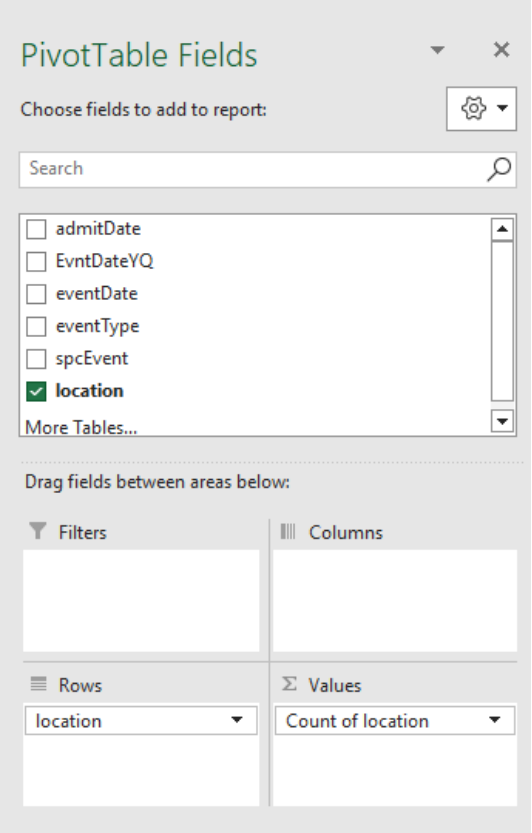

PivotTable from table or range
Select a table or range
Table/Range:
'CLABSI Line List & Pivots'!$A$1:$F$18
Choose where you want the PivotTable to be placed
New Worksheet
Existing Worksheet
Location:
Choose whether you want to analyze multiple tables
Add this data to the Data Model
OK
Cancel

By Location

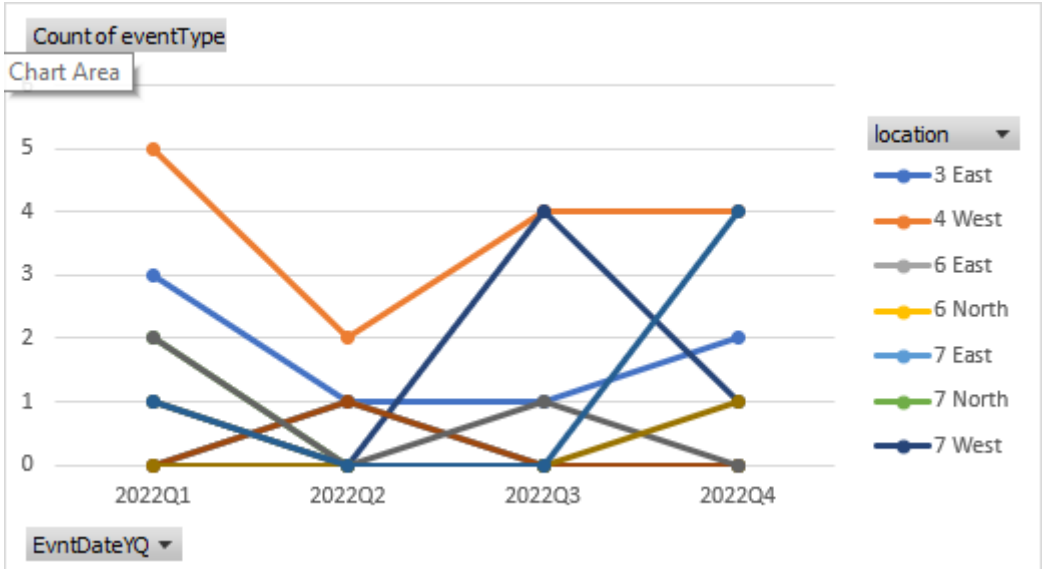
Row Labels	Count of location
3 East	14
4 West	30
6 East	2
6 North	2
7 East	2
7 North	4
7 West	12
8 North	2
9 East	6
9 North	2
9 West	10
Grand Total	**86**

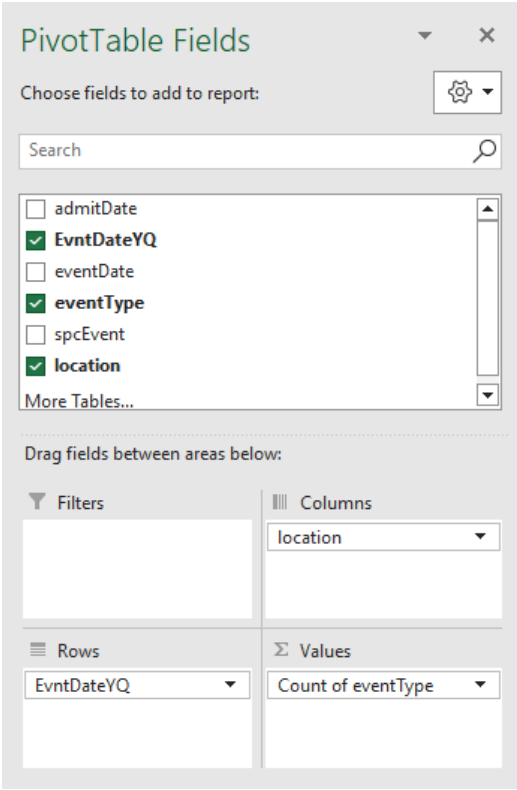




By Quarter

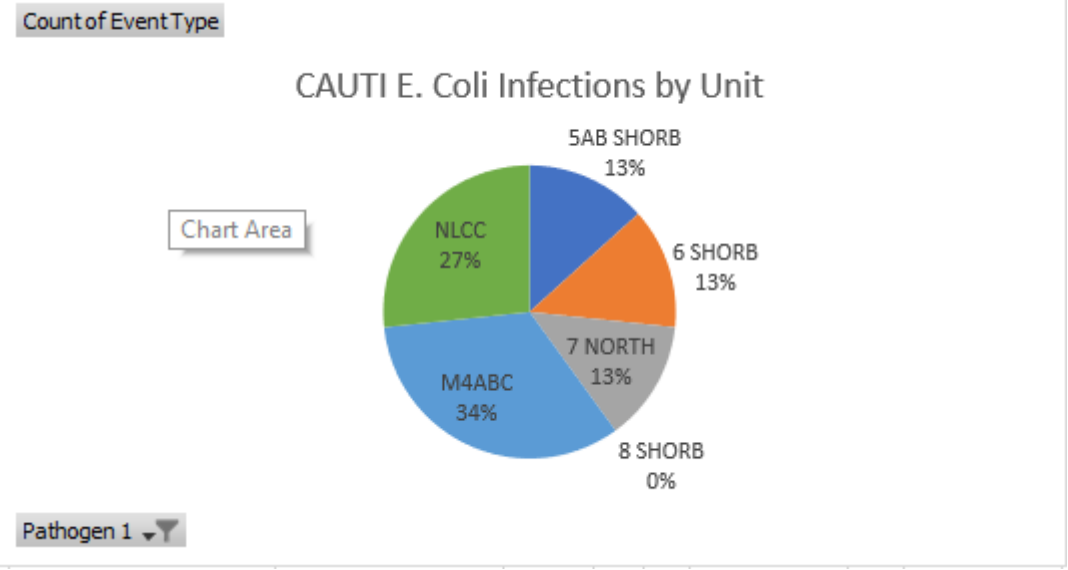
Count of eventType	Column Labels											
Row Labels	3 East	4 West	6 East	6 North	7 East	7 North	7 West	8 North	9 East	9 North	9 West	Grand Total
2022Q1	3	5	0	1	0	2	1	0	2	0	1	15
2022Q2	1	2	1	0	1	0	0	1	0	0	0	6
2022Q3	1	4	0	0	0	0	4	0	1	0	0	10
2022Q4	2	4	0	0	0	0	1	0	0	1	4	12
Grand Total	7	15	1	1	1	2	6	1	3	1	5	43





By Pathogen

Count of Event Type	Column Labels				
Row Labels	EC	ENTFS	KO	KP	Grand Total
5AB SHORB	2	1	0	2	5
6 SHORB	2	4	0	0	6
7 NORTH	2	0	0	0	2
8 SHORB	0	1	0	0	1
M4ABC	5	3	1	2	11
NLCC	4	2	2	2	10
Grand Total	**15**	**11**	**3**	**6**	**35**



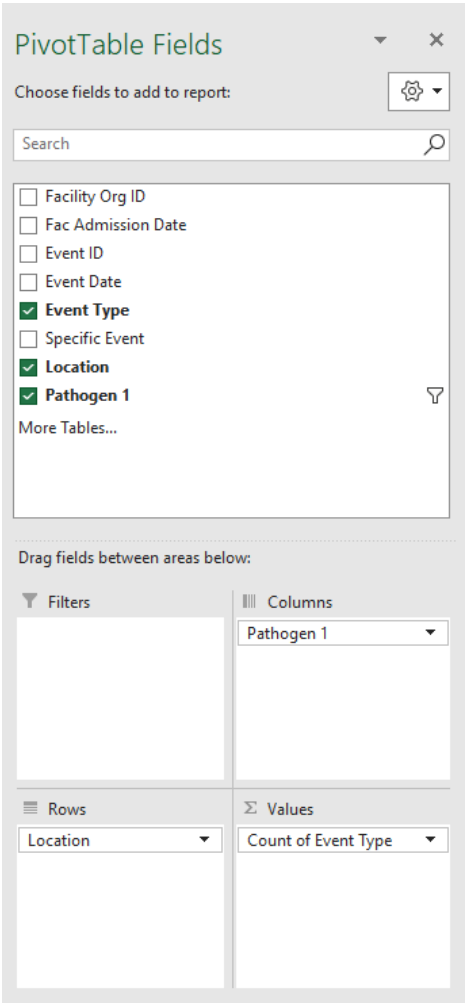
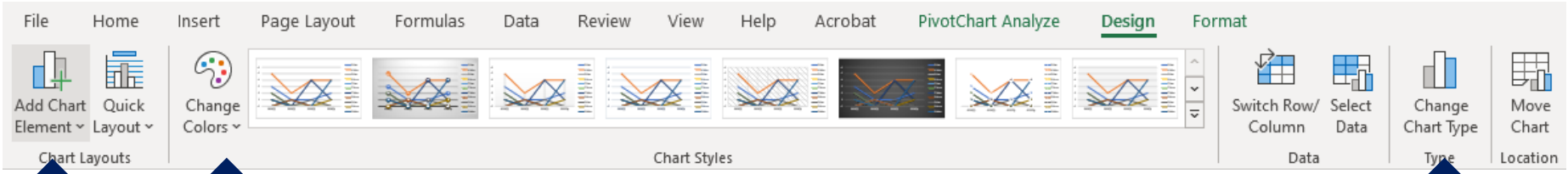
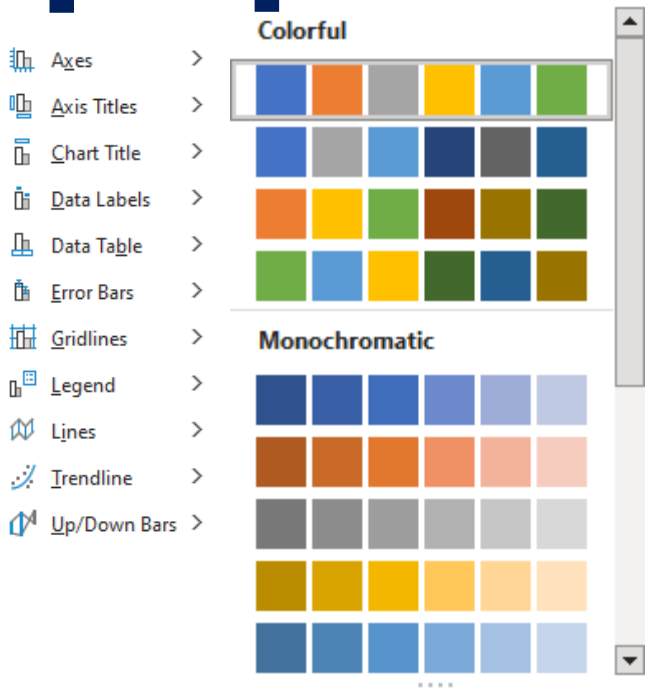
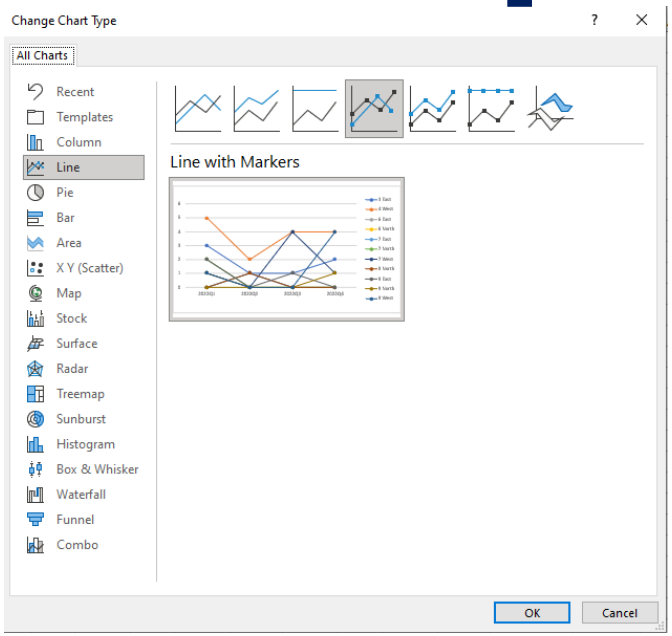


Chart Design







Questions?

Contact Information

HAI.Health@tn.gov

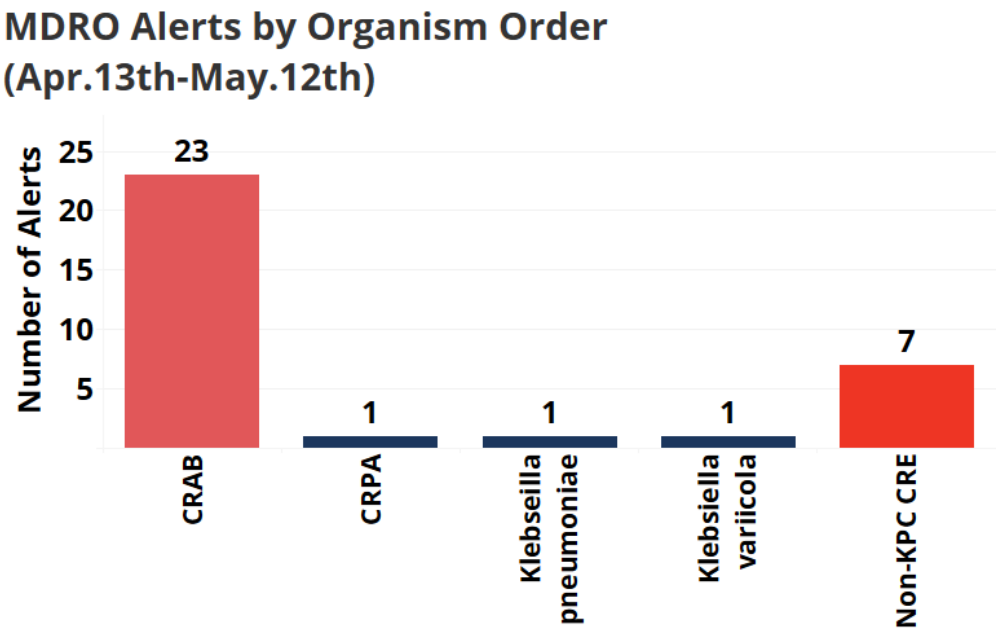
Multi-Drug Resistant Organism (MDRO) Outbreak Team Update

April 13th – May 12th, 2023

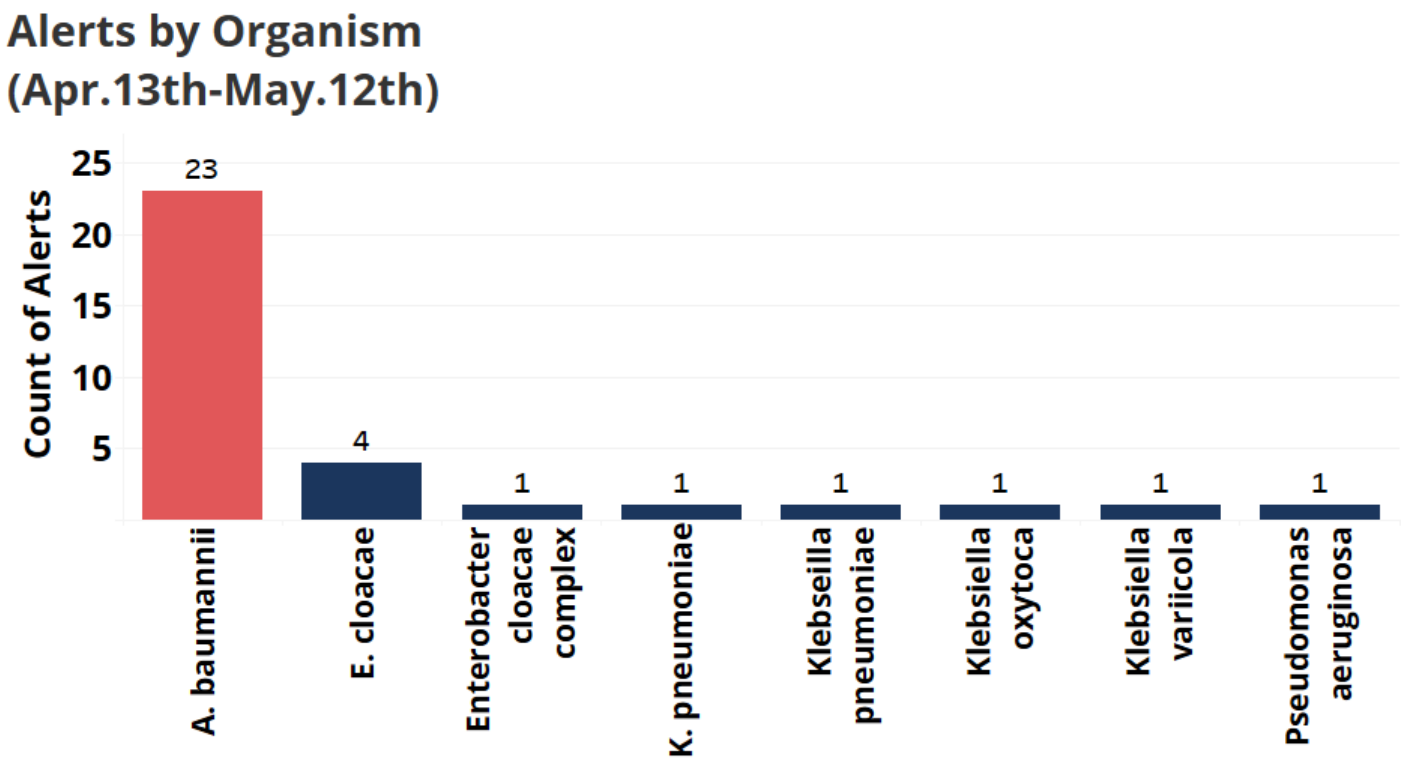
Alex Kurutz, MPH | May 2023

MDRO Alerts

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

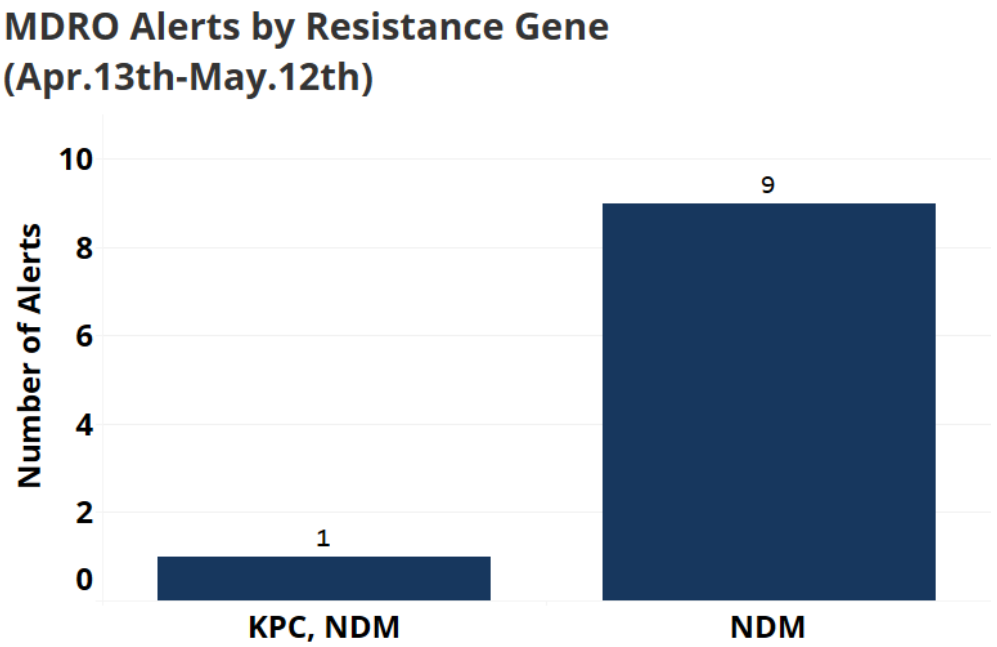


MDRO Alert Continued



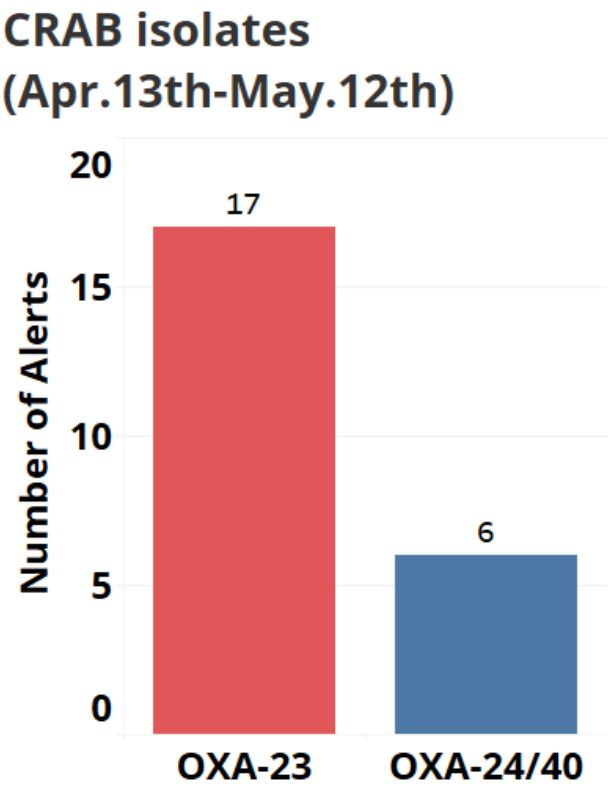
Non-KPC CRE Genes

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

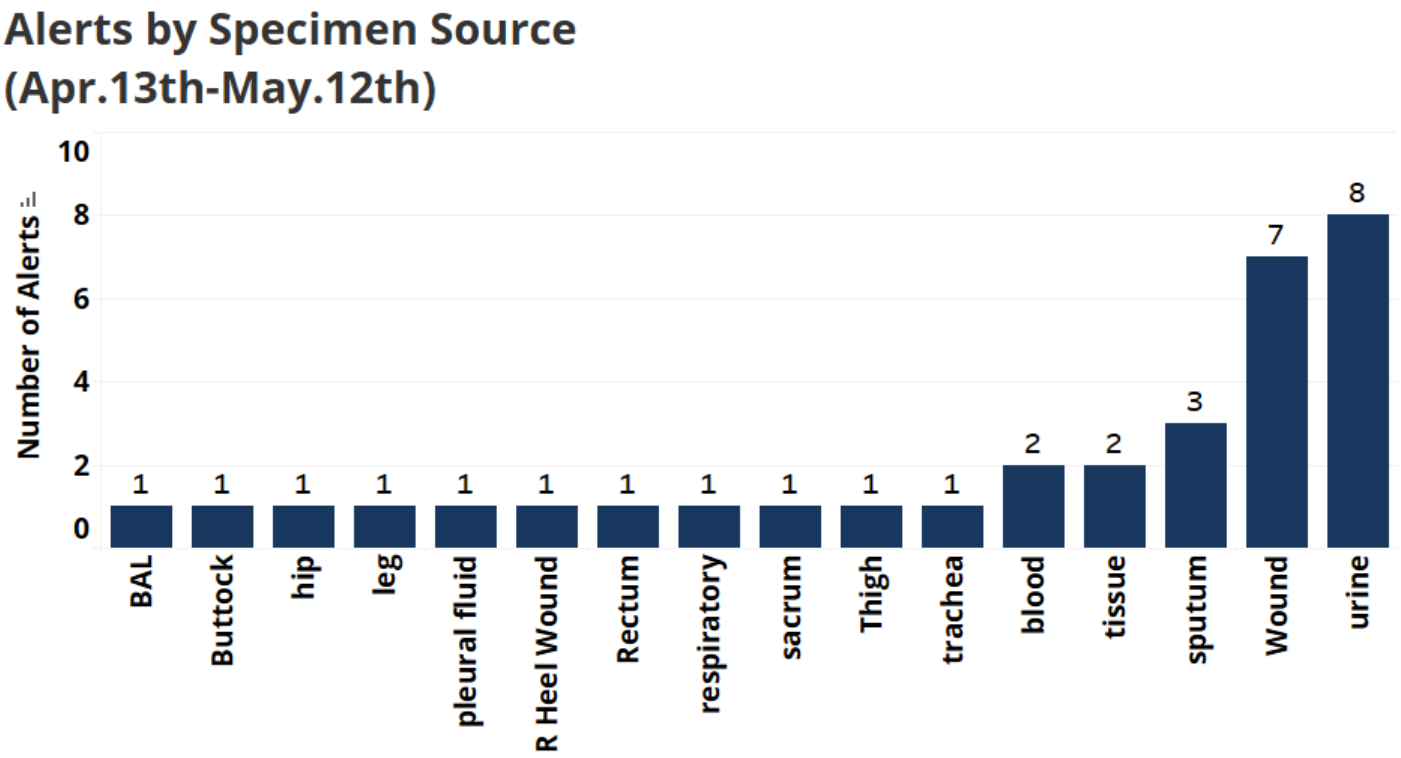


CRAB Alerts

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

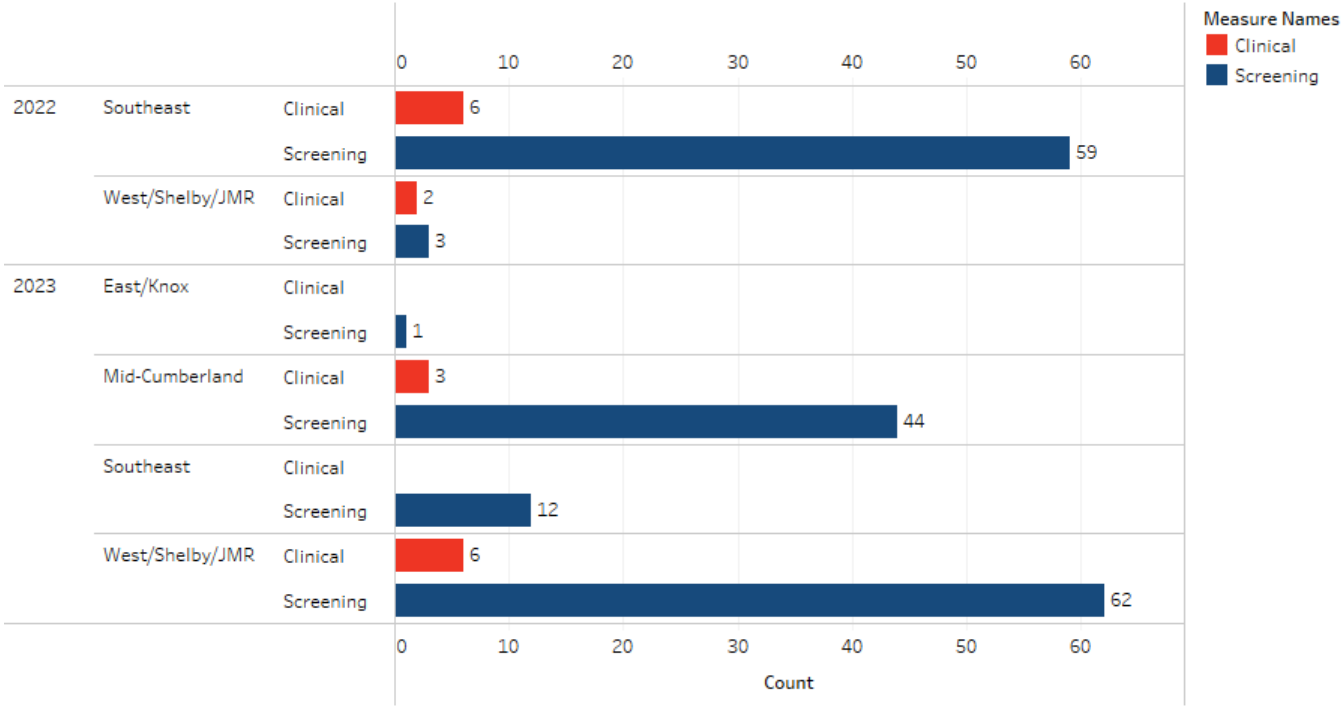


Specimen Sources



C. auris Cases

Screening vs Clinical *Candida auris* Cases by Region (as of May 9, 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 includes everything.

TN MDRO Alerts for 2023

- **For 2023**
  - **69 CRAB specimens**
    - **51 OXA-23**
    - **18 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***
    - **9 Clinical cases**
    - **119 Screening cases**

Next NHSN User Call

- **Monday, June 19, 2023**
  - **10am CT / 11am ET**

- **NHSN Related**
  - Vicky.Lindsey@tn.gov
  - Simone.Godwin@tn.gov

- **AU/AR Module**
  - Christopher.Evans@tn.gov

- **Infection Prevention**
  - HAI.Health@tn.gov