

HEALTHCARE-ASSOCIATED INFECTION (HAI) MODULE Part Two

Laboratory-identified Event (LabID) Module for Long-Term Care Facilities (LTCFs): MDRO Overview

Date: October 2022

Presenter: Hannah Byers, MPH
Goldbelt C6, LLC (Contractor)
Infection Preventionist
NCEZID, Division of Healthcare Quality Promotion
(DHQP)/Surveillance Branch
Centers for Disease Control and Prevention

Learning Objectives

- Explain multi-drug resistant organism (MDRO) LabID Event definitions and protocols.
- Define required monthly summary data for MDRO LabID Event reporting.
- Describe how to manually enter MDRO LabID event data and monthly summary data into the NHSN application.
- Explain the importance of, and steps for, resolving data quality alerts.

Multi-drug Resistant Organisms (MDROs) Key Terms and Definitions

Multi-drug Resistant Organisms (MDROs) Options

A facility can chose to monitor one or more of the following organisms:

- Staphylococcus aureus, methicillin-resistant (MRSA)
- Staphylococcus aureus, methicillin-susceptible (MSSA) plus MRSA
- Vancomycin-Resistant Enterococcus spp. (VRE)
- Cephalosporin-Resistant Klebsiella spp.(CephR-Klebsiella)
- Carbapenem-Resistant Enterobacteriaceae (CRE)
 - Klebsiella spp. (CRE-Klebsiella)
 - E coli. (CRE-E. coli)
 - Enterobacter (CRE-Enterobacter)
 - Multidrug-Resistant Acinetobacter spp. (MDR-Acinetobacter)



Submit ALL MDRO LabID events for all specimen sources to NHSN

Common Terms and Definitions used in LabID Event Module

- MDRO Positive Isolate: Any specimen, obtained for clinical decision making, testing positive for a MDRO. Note: Excludes positive isolates collected for active surveillance testing.
- MDRO LabID Event: MDRO positive isolate from ANY specimen source collected while the resident is under the care of the reporting LTCF, which includes residents physically housed and cared for in the reporting LTCF, as well as residents being cared for during a brief outpatient visit (OP) in which the resident returns to the reporting LTCF on the day of the OP visit or the following calendar day.

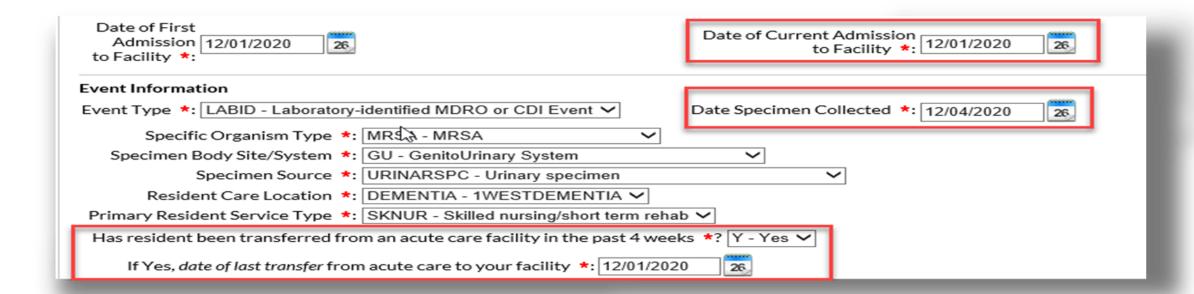
Which MDRO Specimens Should <u>NOT</u> be Reported to NHSN as a LabID Event?

- Negative MDRO lab results.
- Specimens collected as part of active surveillance testing.
- Specimens collected prior to admission to the LTCF or during an inpatient admission in another healthcare facility.

NHSN will Categorize MDRO LabID Events for Analysis

Categorizations are determined by:

- 1. Reported date of specimen collection (event date),
- 2. Reported specimen source (specifically blood sources),
- 3. Reported date of current admission to facility, and
- 4. Reported date of last transfer from acute care to your facility.



NHSN removes duplicate events when.....

 The same organism is subsequently collected from any non-blood source in the same calendar month.

AND

- The same organism is collected from a second blood source in the subsequent 14 calendar days.
 - Note: While these events are not further analyzed by NHSN, a facility user may opt to review a NHSN line list to view all submitted MDRO LabID events, including duplicate and non-duplicate events.

NHSN will Categorize Non-duplicate MDRO LabID Events for Analysis

- Community-onset (CO) LabID Event: LabID event date (collection date)occurs in 3 calendar days or less after date of current admission to the facility (i.e., days 1, 2, or 3 of admission).
- Long-term Care Facility-onset (LO) LabID Event: LabID event date (collection date) is more than 3 calendar days after current admission to the facility (i.e., on or after day 4).
 - LO Events are further sub-classified:
 - Acute Care Transfer-Long-term Care Facility-onset (ACT-LO): LO LabID
 events with a specimen collection date 4 weeks or less following date of
 last transfer from an acute care facility to the LTCF.

EXAMPLE: NHSN Classification of LabID Events aCommunity-onset (CO) or LTCF-onset (LO)

Example	: NHSN Classification	on of Lab ID Event	s as Community-onset or LTC	F-onset
Admission date June 4th	June 5th	June 6th	June 7th	June 8th
Day 1	Day 2	Day 3	Day 4	Day 5
Comn	nunity-onset (CO)		Long-term Care Faci	lity-onset (LO)

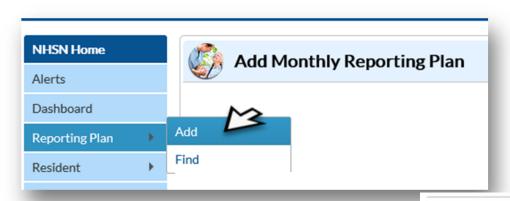
EXAMPLE

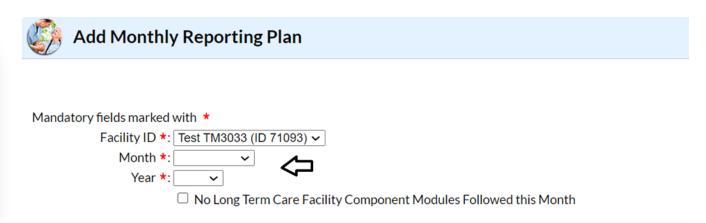
Ms. Smith was transferred to your SNF from an acute care facility on July 1st. A urine culture was collected on July 10th that tested positive for VRE. The SNF submitted a VRE LabID event to NHSN for July 10th.

- a. First, NHSN identified the submitted event as a non-duplicate since the application did not detect a prior VRE LabID event submitted for Ms. Smith in the month of July.
- b. Next, NHSN categorized the nonduplicate VRE LabID event as **Acute Care Transfer-Long-term Care Facility-onset (ACT-LO)** since the specimen was collected more than 3 calendar days after her current admission and the submitted event indicated a transfer from an acute care facility to your SNF in the previous 4 weeks.

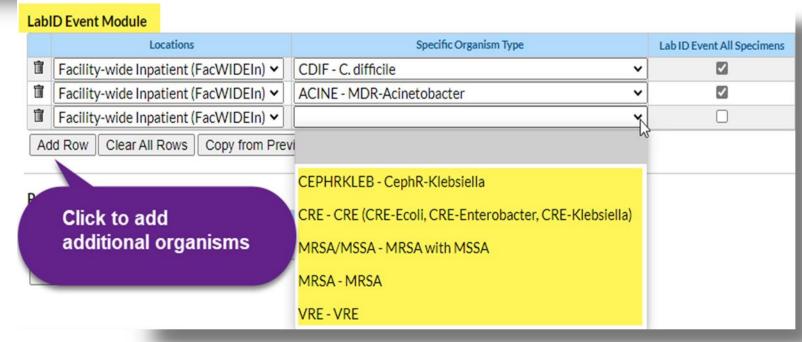
Submit MDRO Reporting Plan for Every Month of Participation to NHSN

Add Monthly Reporting Plan for MDRO LabID Event Module Participation





- Red asterisk = required to save page
- Click ADD ROW to add additional organisms for the LabID Event Module
- SAVE



Submit all MDRO Events for <u>ALL</u> Specimen Sources to NHSN

Reporting CDI or MDRO LabID Event: Customizable NHSN LabID Event form available for data collection

Form Approved OMB No. 0920-0666 Exp. Date: 12/31/2027 www.cdc.gov/nhsn

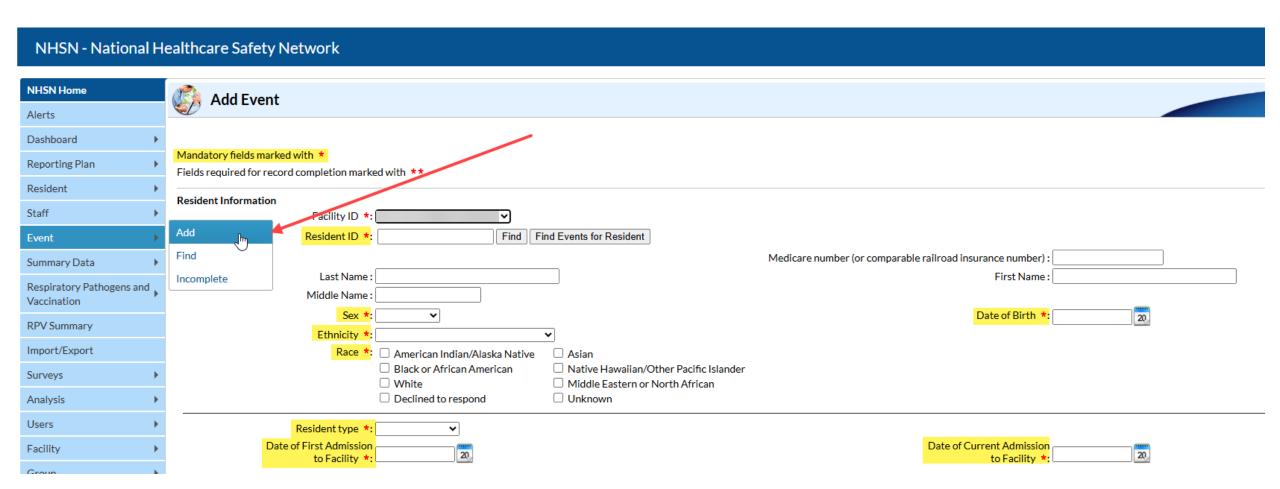
- Optional form
- Allows users to collect required information prior to submitting NHSN event
- Use one form for each LabID event
- Form may be customized for each facility
- Use accompanying Table of Instructions for helpful guidance

Laboratory-identified MDRO or CDI Event for LTCF

Laboratory-identified Wibi	NO OF CDI EVERILIOF LICE
*Required for saving	
*Facility ID:	Event #:
*Resident ID:	
Medicare number (or comparable railroad insurance number	r):
Resident Name, Last: First:	Middle:
*Sex: F M	*Date of Birth://
*Ethnicity (specify): Hispanic or Latino Declined to respond Unknown	*Race (specify): American Indian/Alaska Native Asian Black or African American Middle Eastern or North African Native Hawaiian/Other Pacific Islander White Declined to respond Unknown
*Date of First Admission to Facility:/_/	*Date of Current Admission to Facility:/_/
Event Details	
*Event Type: LabID	*Date Specimen Collected:/_/
*Specific Organism Type: (check one)	
□ MRSA □ MSSA □ VRE	☐ C. difficile ☐ CephR-Klebsiella
□ CRE-E. coli □ CRE-Enterobacter □ CRE-Kle	ebsiella MDR-Acinetobacter
*Specimen Body Site/System:	*Specimen Source:
*Resident Care Location:	
*Primary Resident Service Type: (check one)	
□ Long-term general nursing □ Long-term deme	entia Long-term psychiatric
☐ Skilled nursing/Short-term rehab (subacute) ☐ Ventila	ator Bariatric Hospice/Palliative
*Has resident been transferred from an acute care facility in	the past 4 weeks? Yes No
If Yes, date of last transfer from acute care to your facility:	
If Yes, was the resident on antibiotic therapy for this specifitime of transfer to your facility?	fic organism type at the Yes No

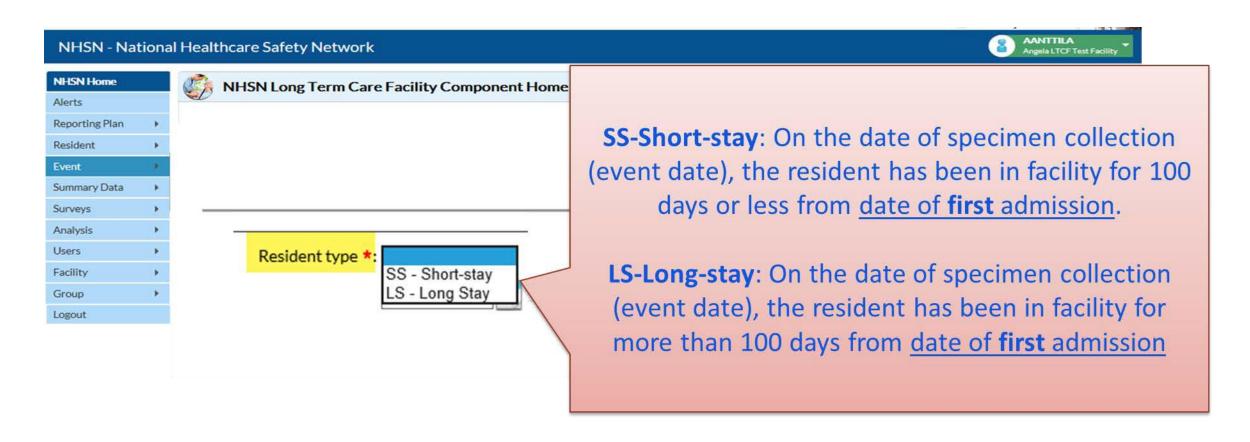
Laboratory-identified MDRO or CDI Event for LTCF Form <u>57.138 (cdc.gov)</u>

Submitting a MDRO LabID Event to NHSN

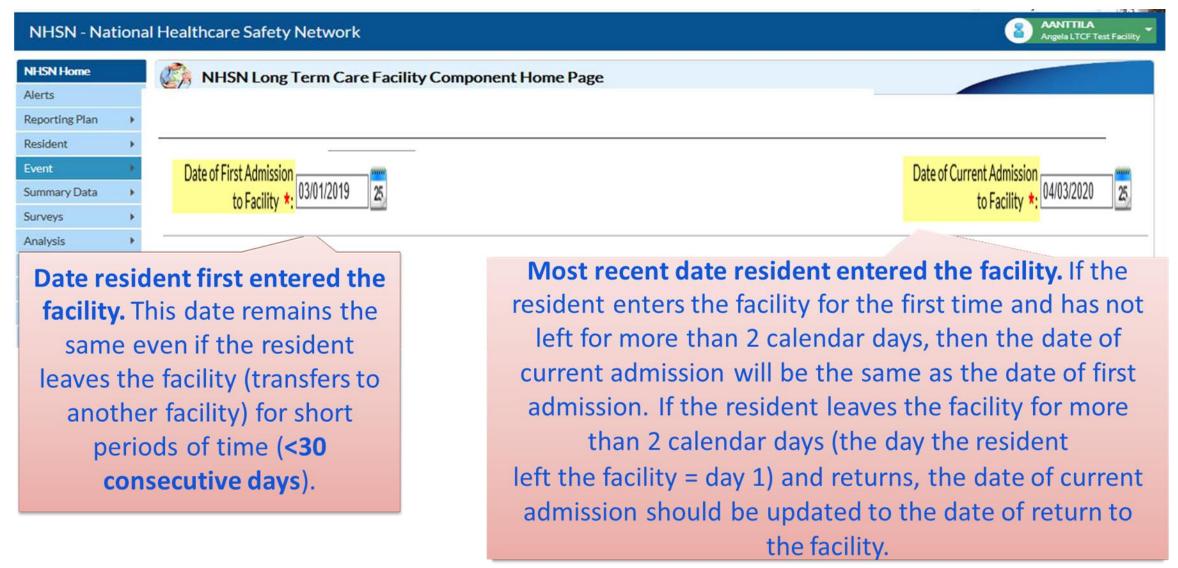


Submitting a MDRO LabID Event to NHSN: Resident Type

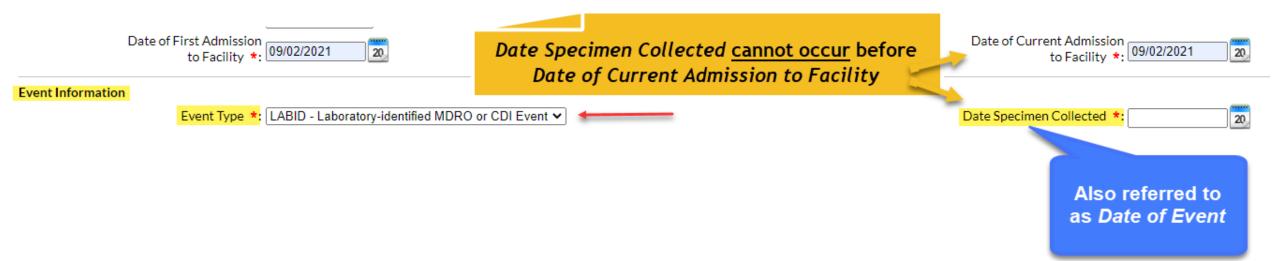
Auto-populated by NHSN as short stay or long-stay after user enters the *Date of First Admission to the Facility* and the *Date Specimen Collected* (specifically for LabID events).



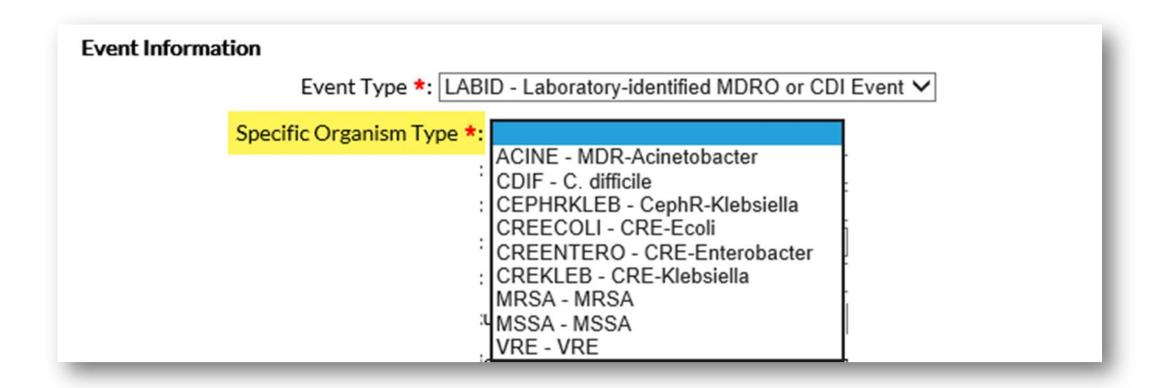
Submitting a MDRO LabID Event to NHSN: Date of First and Current Admission to Facility



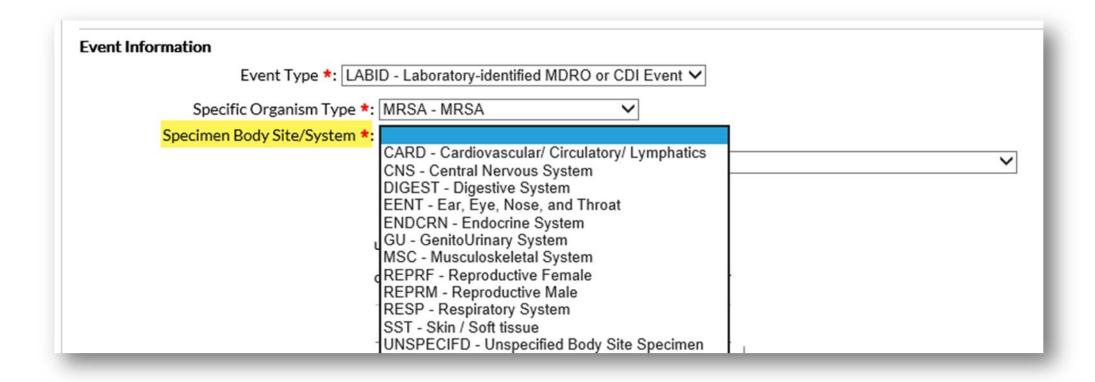
Submitting a MDRO LabID Event to NHSN: Event Type and Date Specimen Collected



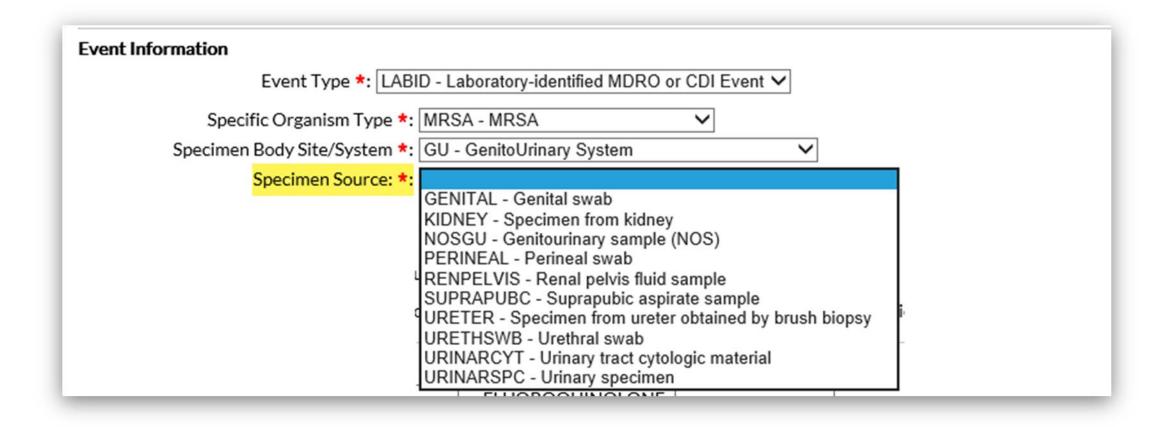
Submitting a MDRO LabID Event to NHSN: Specific Organism Type



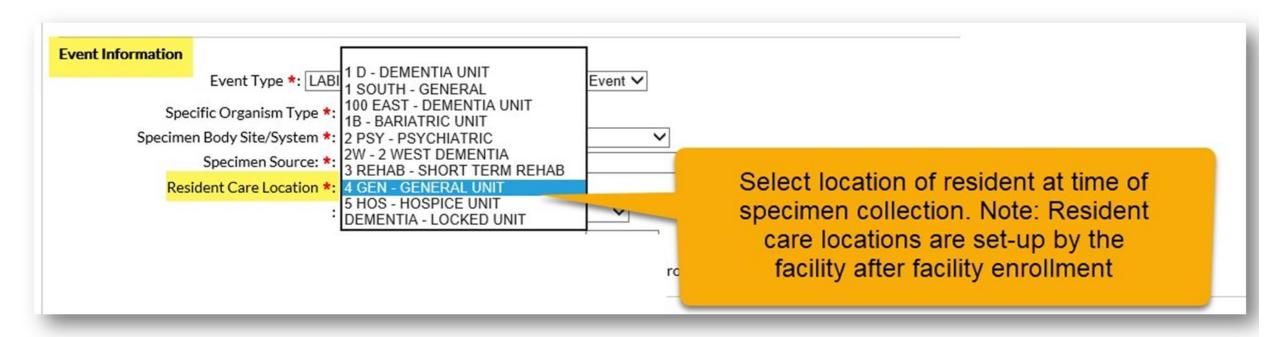
Submitting a MRSA LabID Event to NHSN: Specimen Body Site/System



Submitting a MRSA LabID Event to NHSN: Specimen Source



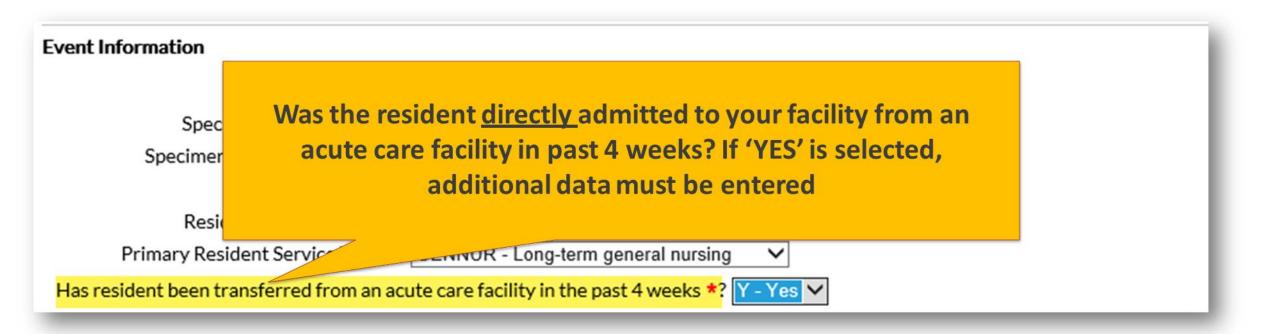
Submitting a MDRO LabID Event to NHSN: Resident Care Location



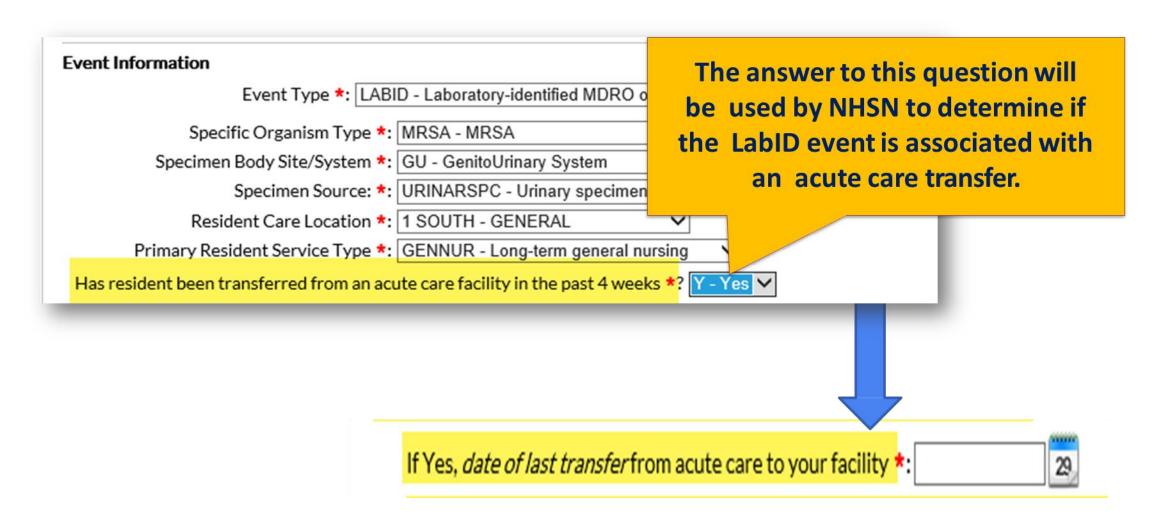
Submitting a MDRO LabID Event to NHSN: Primary Service Type



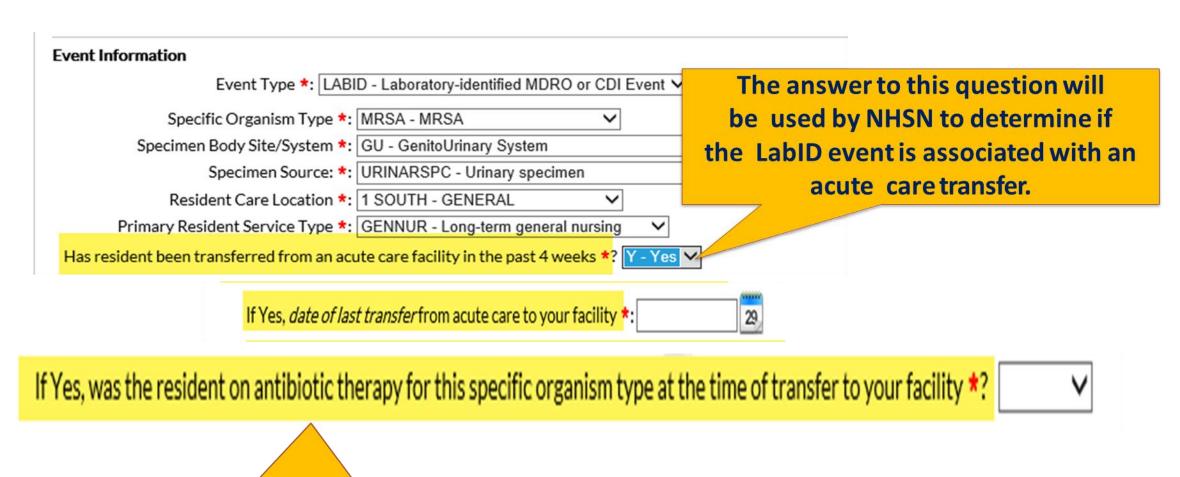
Submitting a MDRO LabID Event to NHSN: Transfer from Acute Care Facility



Submitting a MDRO LabID Event to NHSN: Transfer from Acute Care Facility, continued



Submitting a MDRO LabID Event to NHSN: Transfer from Acute Care Facility, continued



Informs burden of MDRO coming into facility

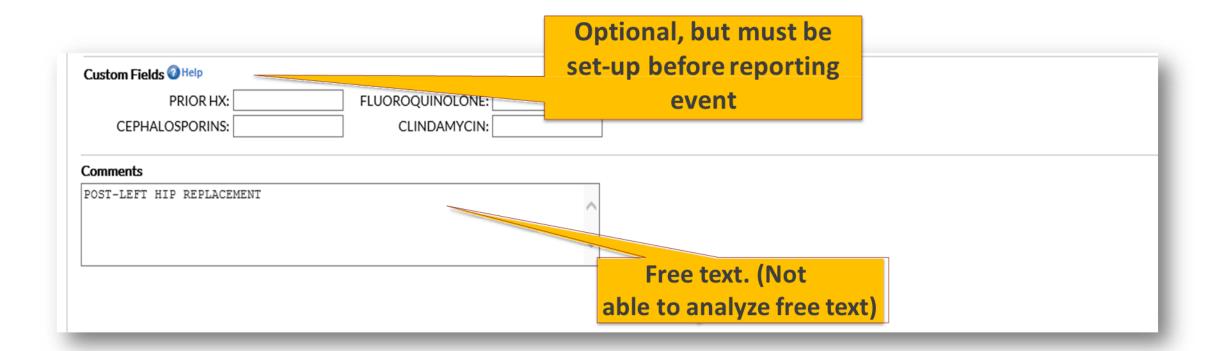
Submitting a MDRO LabID Event to NHSN: Documented Evidence Previous.....

Event Information
Event Type ★: LABID - Laboratory-identified MDRO or CDI Event ∨
Specific Organism Type ★: MRSA - MRSA ✓
Specimen Body Site/System ★: GU - GenitoUrinary System ✓
Specimen Source: *: URINARSPC - Urinary specimen
Resident Care Location *: 1 SOUTH - GENERAL 🗸
Primary Resident Service Type ★: GENNUR - Long-term general nursing
Has resident been transferred from an acute care facility in the past 4 weeks ★? Y - Yes ✓
If Yes, date of last transfer from acute care to your facility *:
If Yes, was the resident on antibiotic therapy for this specific organism type at the time of transfer to your facility *?
Documented evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event in any prior month? Y - Yes

Auto-populated by the NHSN.

Non-editable by users

Entering MDRO-MRSA LabID Event: Optional: *Custom Fields and Comments*



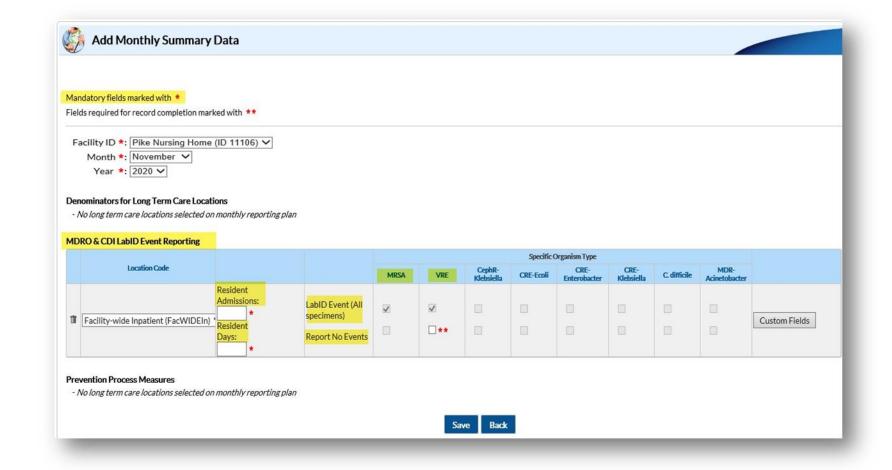
Mandatory fields marked with * Fields required for record completion marked with ** Resident Information Facility ID *:) 🗸 Resident ID *: 1234 Find Find Events for Resident Social Security #: 111-11-1111 Medicare number (or comparable railroad insurance number) Last Name : BETTY First Name: BOOP Middle Name: Sex ★: F - Female ✔ Date of Birth *: 01/10/1939 20. Ethnicity *: HISP - Hispanic or Latino Race *:
American Indian/Alaska Native Asian □ Black or African American □ Native Hawaiian/Other Pacific Islander White ☐ Middle Eastern or North African Declined to respond □ Unknown Resident type *: LS - Long Stay Date of First Admission to Facility *: 10/19/2017 Date of Current Admission to Facility *: 01/12/2021 20 **Event Information** Date Specimen Collected *: 01/12/2021 Event Type ★: LABID - Laboratory-identified MDRO or CDI Event ∨ Specific Organism Type *: MRSA - MRSA Specimen Body Site/System *: GU - GenitoUrinary System ~ Specimen Source *: URINARSPC - Urinary specimen ~ Resident Care Location *: DEMENTIA - LOCKED UNIT Primary Resident Service Type ★: GENNUR - Long-term general nursing ✓ Has resident been transferred from an acute care facility in the past 4 weeks ★? Y - Yes ▼ If Yes, date of last transfer from acute care to your facility *: 12/24/2020 If Yes, was the resident on antibiotic therapy for this specific organism type at the time of transfer to your facility *? Y-Yes 🗸 Documented evidence of previous infection or colonization with this specific organism type from a previously reported LabID Event in any prior month? Y - Yes Custom Fields @Help PRIOR HX: FLUOROQUINOLONE: CEPHALOSPORINS: CLINDAMYCIN: Comments Event 109927 created successfully.

Collect and Submit MDRO Monthly Summary Data to NHSN

Monthly Summary Requirements for MDRO LabID Event Module Participation

Each Month of Participation, Facility Must Report the Following:

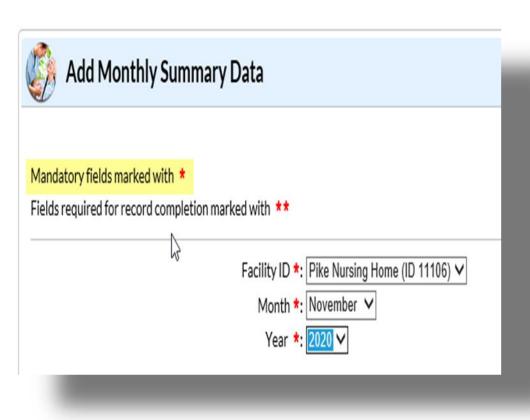
- Resident Admissions
- Resident Days
- Report No Events, if applicable



Submitting Monthly Summary Data in NHSN

- To submit summary data:
 - 1. Locate 'Summary Data' on left-hand navigation bar, and then 'Add'
 - 2. Enter the month and year for which summary data will be reported





Submitting Monthly Summary Data in NHSN



This page will populate based on the module(s) and event(s) selected in your Monthly Reporting Plan for the month in which you are entering summary data.

				Specific Organism Type								
Location Code			MRSA	VRE	CephR- Klebsiella	CRE-Ecoli	CRE- Enterobacter	CRE- Klebsiella	C. difficile	MDR- Acinetobacter		
	Resident											
Facility-wide Inpatient (FacWIDEIn)	Admissions:	LabID Event (All specimens)	V	✓							Custom Fields	
		Report No Events		_**							Custom Fields	
	*											

Prevention Process Measures

- No long term care locations selected on monthly reporting plan

Save

Back

Resident Admissions: Only required if monthly surveillance includes LabID event surveillance.

The total number of residents admitted to the LTCF during the selected calendar month. Includes new admissions **and** re-admissions if a resident was out of the facility for more than 2 calendar days and returned.

						Specific C	rganism Type					
	Location Code			MRSA	VRE	CephR- Klebsiella	CRE-Ecoli	CRE- Enterobacter	CRE- Klebsiella	C. difficile	MDR- Acinetobacter	
Facility-wide Inpatient (FacWIDEIn)	Resident Admissions:	LabID Event (All specimens)	✓	✓							Custom Fields	
	Resident Days:	Report No Events		_ **							Custom Fields	

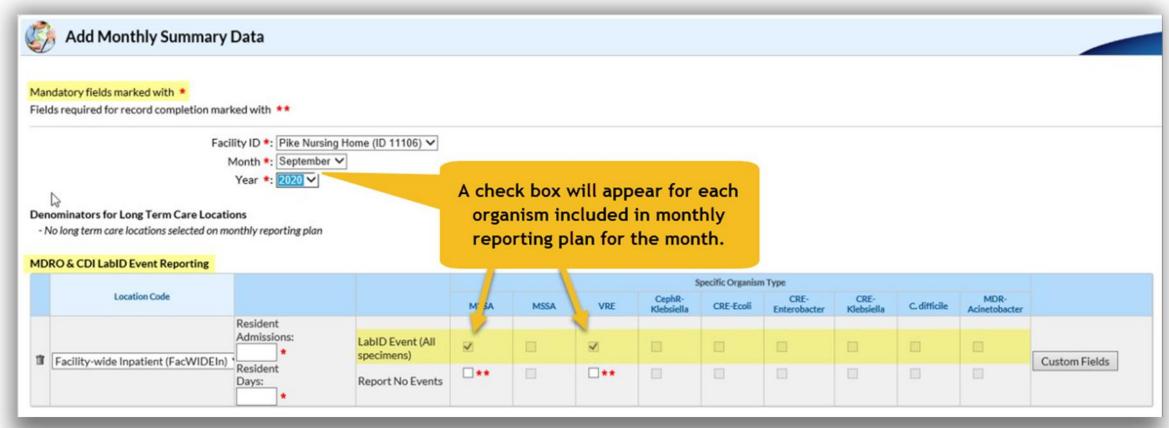
Resident Days: To calculate resident days, for each day of the month, record the total number of residents in the facility. At the end of the month, add the daily counts and enter the total as Resident Days.

- Data may come from electronic medical record, if available.
- Users may also calculate based on facility occupancy.
 - 100 bed facility at 100% occupancy for June: 100 residents x 30 days = 3,000 total resident days
 - 100 bed facility at 90% occupancy for June: 90 residents x 30 days = 2,700 total resident days

				Specific Organism Type							
Location Code			MRSA	VRE	CephR- Klebsiella	CRE-Ecoli	CRE- Enterobacter	CRE- Klebsiella	C. difficile	MDR- Acinetobacter	
Facility-wide Inpatient (FacWIDEIn)	Resident Admissions:	LabID Event (All specimens)	✓	✓							
	Resident Days:	specimens)	_ **							Custom Field	

LabID Events (All specimens)

A grayed-out check-mark will appear for each organism under surveillance for the month (based on selections in the Monthly Reporting Plan)

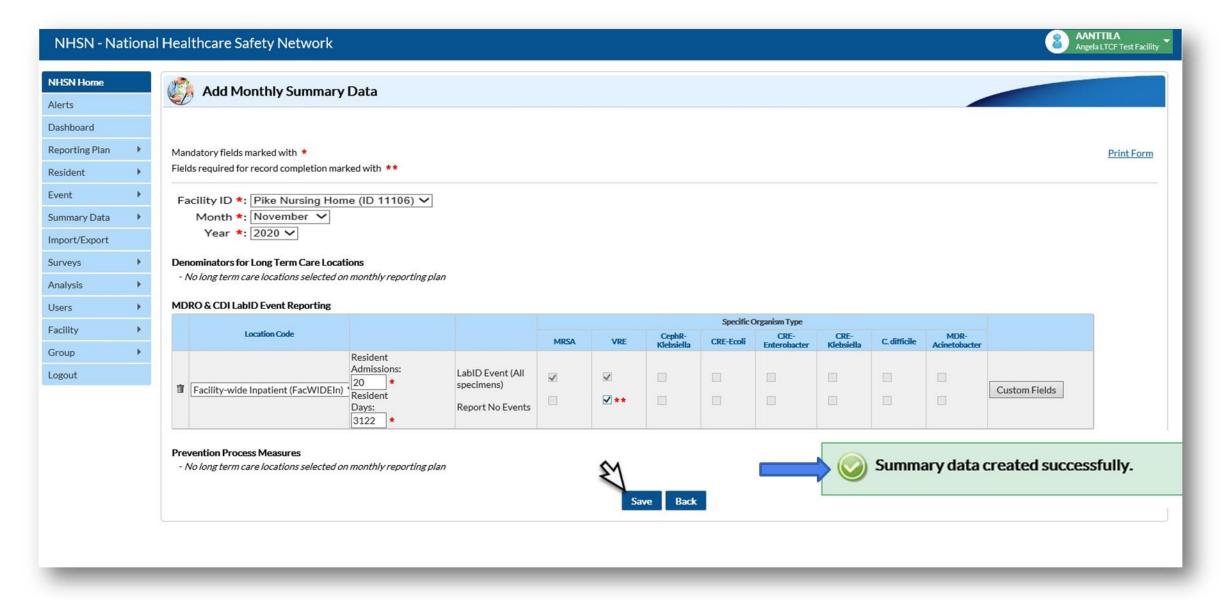


Report No Events:

- A red asterisk will appear next to boxes that require attention.
- User must put a check-mark in the box to validate that <u>no</u> LabID events were identified for the specified organism for the calendar month.
- The box will be grayed out and without red asterisks if at least one event was submitted for that organism during the calendar month.
- If a LabID event is entered for the organism after summary data submitted, the application will auto-update.

O & CDI LabID Event Reporting											
						Specific O	rganism Type				
Location Code			MRSA	VRE	CephR- Klebsiella	CRE-Ecoli	CRE- Enterobacter	CRE- Klebsiella	C. difficile	MDR- Acinetobacter	
	Admissions:	LabID Event (All specimens)	✓	✓							Custom Fields
	Resident Days:	Report No Events		**							Custom Fields
	Location Code	Resident Admissions: Facility-wide Inpatient (FacWIDEIn) Resident	Location Code Resident Admissions: LabID Event (All specimens) Resident Resident	Location Code Resident Admissions: + Resident (FacWIDEIn) Resident Resident Resident Resident Admissions: LabID Event (All specimens)	Location Code Resident Admissions: LabID Event (All specimens) Resident Resident	Location Code Resident Admissions: LabID Event (All specimens) Resident Resident	Location Code Resident Admissions: LabID Event (All specimens) Resident Resident Resident	Location Code MRSA VRE CephR- Klebsiella CRE-Ecoli Resident Admissions: + Resident Resident Admissions: Resident Resident Resident Resident Resident Admissions: Resident Resident	Location Code MRSA VRE CephR- Klebsiella CRE-Ecoli Resident Admissions: LabID Event (All specimens) Resident Resident Resident AccephR- Klebsiella CRE-Ecoli Resident Admissions: LabID Event (All specimens)	Location Code MRSA VRE CephR- Klebsiella CRE-Ecoli Resident Admissions: LabID Event (All specimens) Resident Resident Resident Admissions: LabID Event (All specimens)	Location Code MRSA VRE CephR-Klebsiella CRE-Ecoli CRE-Enterobacter Klebsiella C. difficile Acinetobacter Resident Admissions: LabID Event (All specimens) Resident Resident

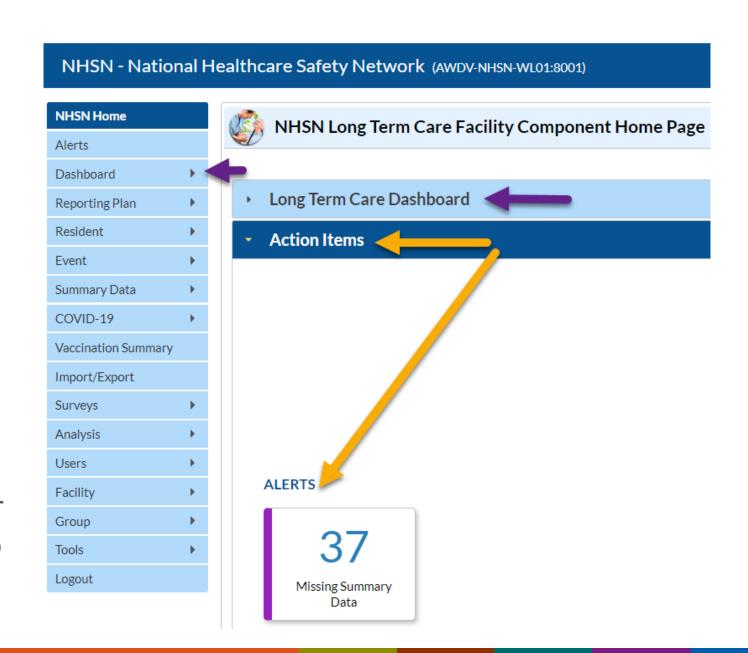
Complete Monthly Summary for MDRO LabID Events



Common LabID Event Alerts on NHSN

Alerts

- Automatic checks in NHSN that remind users of incomplete or missing data.
- Incomplete monthly data will be excluded from any analysis reports until resolved by user.
- Before using the analysis function, make sure to clear all relevant alerts.
- Found on the Home Page, or by clicking on the 'Alerts' tab on the sidebar.

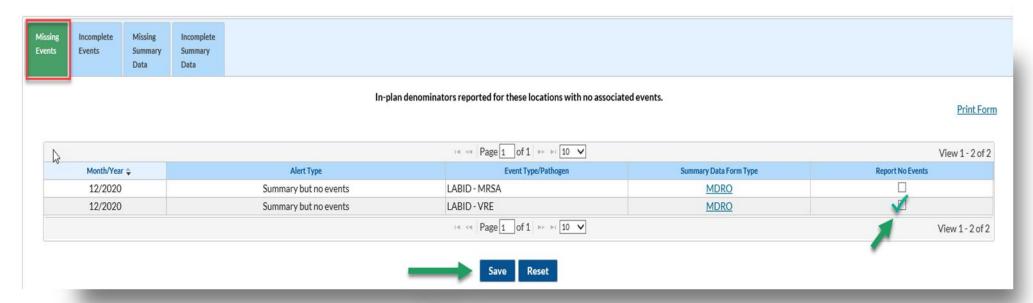


Common Alerts for LabID Event Reporting: Missing Events

LabID event module selected in the Monthly Reporting Plan, but no selected MDRO or CDI events submitted for the month and the "Report No Events" box was not selected on the Monthly Summary page for that calendar month.

To resolve alert:

- ✓ Submit CDI and/or selected MDRO event(s) for calendar month.
- ✓ If no events to report for the month, click box to indicate Report No Events by each event type/pathogen.

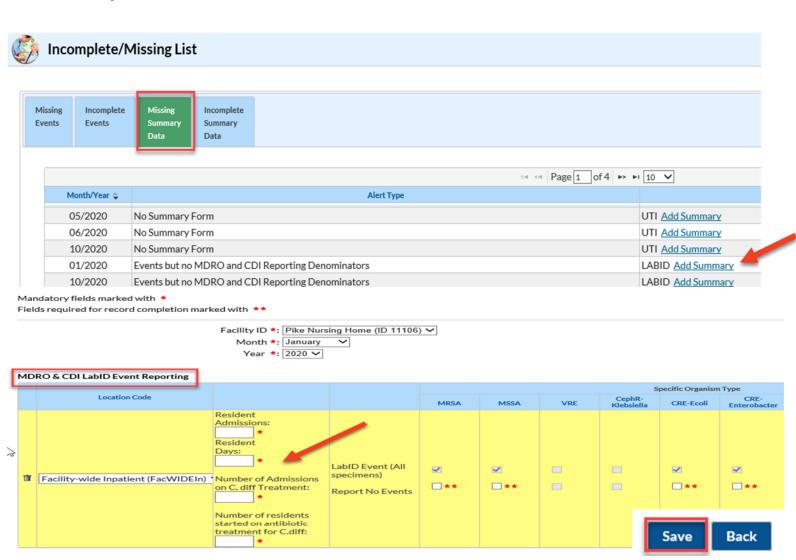


Common Alerts for LabID Event Reporting: Missing Summary Data

Summary Data has not been completed for the calendar month

To Resolve:

- Click "Add Summary" hyperlink
- Enter Summary Data under "MDRO & CDI LabID Event Reporting"
- Remember to click "SAVE" before exiting

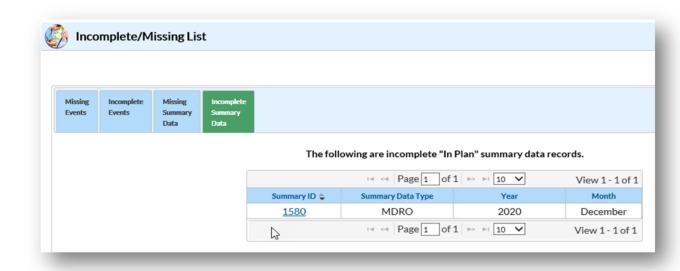


Common Alerts for LabID Event Reporting: Incomplete Summary Data

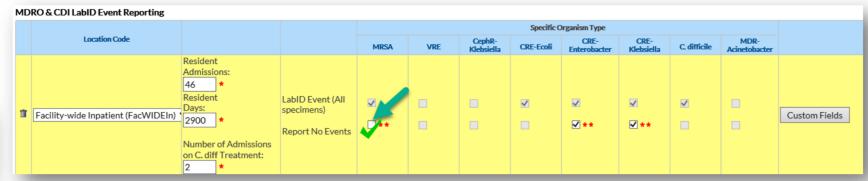
Summary Data page is missing required data for the calendar month

To resolve alert:

- ✓ Click on **Summary ID**
- ✓ Complete missing data fields, as indicated by red asterisk(s)
- **✓** Remember to SAVE before exiting







National Center for Emerging and Zoonotic Infectious Diseases



THANK YOU Questions? nhsn@cdc.gov/

Add "LabID Reporting"
to the subject line in
order to have your
inquiry routed to the
appropriate subject
matter expert

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: NHSN@cdc.gov

Web: http://www.cdc.gov/nhsn

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.