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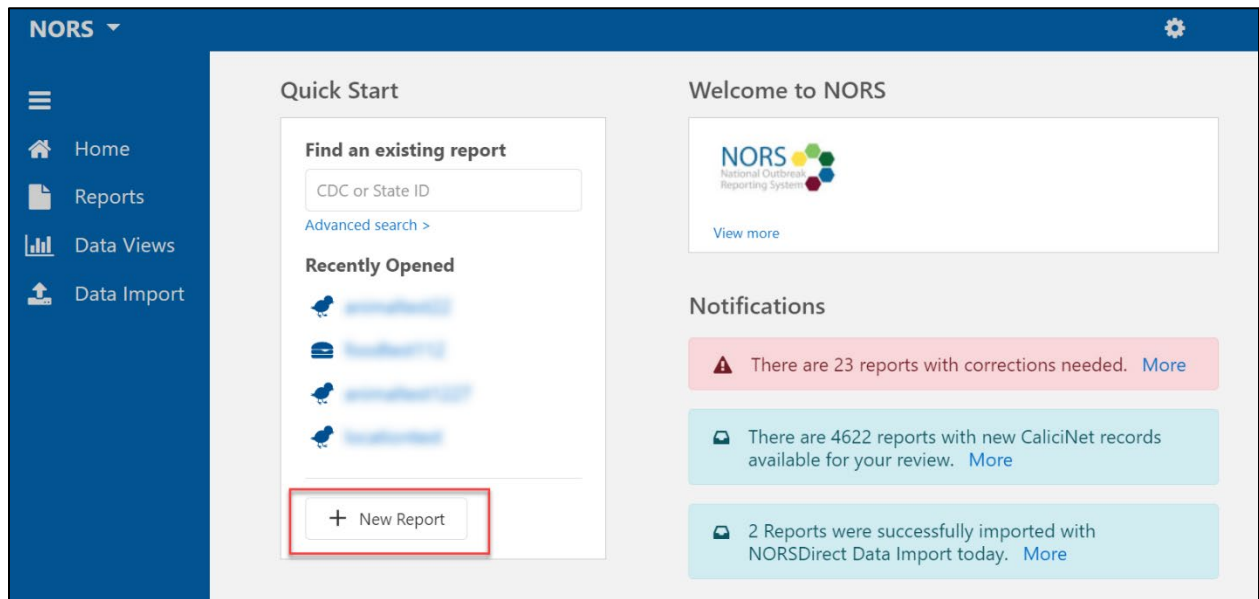
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## INTRODUCTION

This user training document provides instruction on how to create and complete a report in the National Outbreak Reporting System (NORS).

## CREATE A NEW REPORT

A new report can be created in NORS through either the Quick Start menu on the homepage or through the Reports page, by clicking the link labeled “+ New Report” as shown below.



A pop-up will appear containing the **REQUIRED FIELDS** to create a NORS report.

All 5 fields in this pop-up must be completed to save the record as a new report. Values may be updated within the data collection instrument if new information becomes available after further outbreak investigation.

The screenshot shows a 'New Report' dialog box with the following fields:

- State ID:** A text input field.
- Date first case became ill:** A date input field with a placeholder 'mm/dd/yyyy'.
- Primary Cases:** A text input field.
- Transmission Mode:** A dropdown menu.
- Exposure State(s):** A select menu with a 'Select...' placeholder.

At the bottom of the dialog are 'Cancel' and 'Save' buttons.

State ID: Enter the unique state-assigned identification number for the outbreak report. Each ID can be used only once for reports from your site.

Date first case became ill: When this field is selected, a calendar tool will be displayed. Enter the date the first known case became ill by selecting the date in the calendar tool or typing it in the text box using mm/dd/yyyy format.

Primary Cases: Enter the number of primary cases.

Transmission Mode: Select the primary mode of transmission in the drop-down menu.

Exposure State(s): When this field is selected, a select all that apply menu will appear. Click the name or corresponding checkbox of the state(s) where exposure occurred. If exposure occurred in a single state, but cases resided in multiple

states, only select the state where exposure occurred. Once you have made a selection, click anywhere in the browser window to exit the state menu.

To save the entered information as a new NORS record, click "Save." You will be redirected to the data collection instrument for the report.

## ENTERING DATA IN A NORS REPORT

### Navigation and Data Entry

To navigate through a NORS report, you can scroll through the entire report from the beginning or jump to a section of interest by selecting the section header from the navigation pane to the left of the data entry form. The current section will be highlighted in grey in the navigation pane.

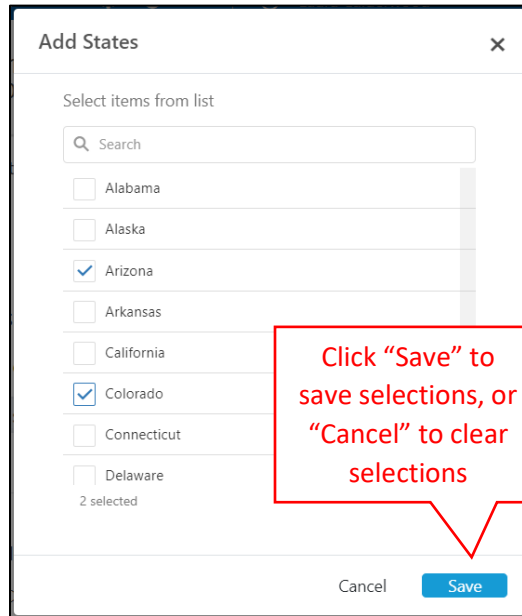
The screenshot shows a navigation pane on the left with the following items: Outbreak, Geographic Location, Primary Cases, Secondary Cases, Laboratory & Environmental, Etiology and Isolates, Settings (highlighted in grey), Animal Contact, Traceback & Recall, Detection & Investigation, Interventions, and Remarks. To the right, the 'Settings' section is visible, containing 'Setting(s) of Exposure' with a dropdown menu showing 'Animal shelter or sanctuary', 'Settings where exposures occurred' with a text area, and 'Setting of exposure remarks' with a larger text area.

Fields currently selected for data entry will appear with a blue highlight and blinking cursor. In the main data entry page, data are saved as it is entered or changed, including when data are cleared or deleted, as indicated by a temporary green checkmark and the word "Saved." Calculated fields will update automatically.

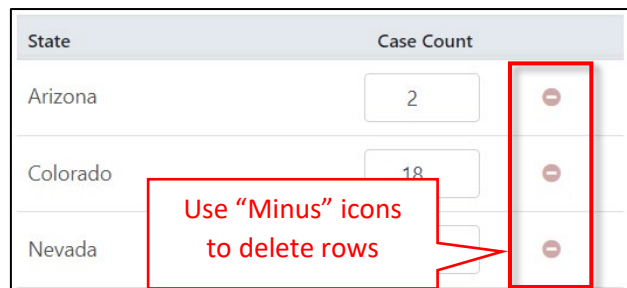
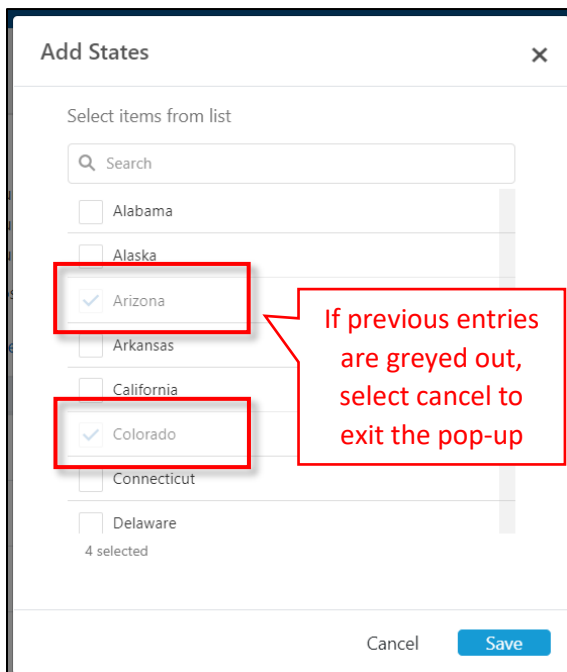
The diagram shows two states of a form. On the left, the 'Female' field is selected with a blue border and a blinking cursor. On the right, the 'Female' field is highlighted with a blue border and contains the number '7'. A green checkmark and the word 'Saved' are displayed next to the field. The 'Male' field contains the number '5' and '(100.0%)' in the first state, and '(41.7%)' in the second state. The 'Unknown sex' field is empty in both states. A red arrow points from the first state to the second state.

Field	Value	Percentage	Status
Male	5	(100.0%)	
Female	7	(58.3%)	Saved
Unknown sex			

In pop-ups with a blue “Save” button, changes are saved when you click “Save” or cleared when you click “Cancel”.



In some pop-ups, you may not be able to delete or uncheck an option; to delete this data you must go back to the main data entry page by clicking “Cancel” and look for a “Minus” icon to clear the data from the corresponding table. See the section on “Relational Tables” below for more detail.



## Updating Required Fields

The required fields—State ID, Date first case became ill, Primary Cases, Transmission Mode, and Exposure State(s)—may be changed at any time as new information becomes available. Once the record is created, Transmission Mode (Primary Mode of Transmission) and Date first case became ill can be found in the Outbreak section, Exposure State(s) can be found under Geographic Location, and Primary Cases (Estimated total primary cases) can be found under Primary Cases.

## Changing the State ID

The State ID may be updated by the report owner on the right-hand side panel by clicking “Change.” See below for additional information on updating the values displayed in the [Side Panel](#).

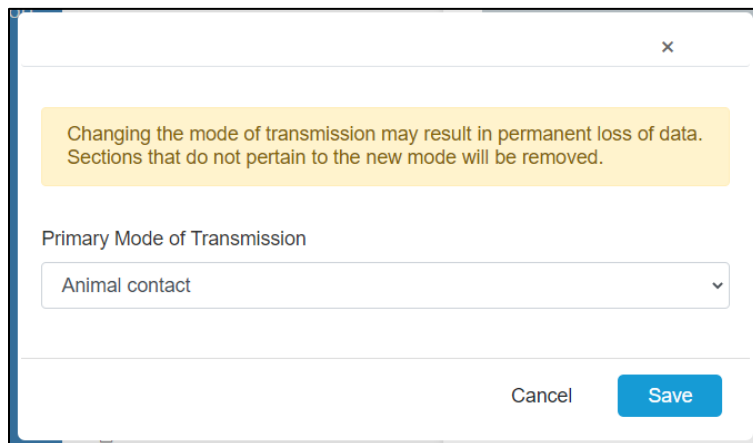
## Changing the Primary Mode of Transmission

To change the primary mode of transmission, click on the text box displaying the current selection. A pop-up will appear with a warning. If you would like to continue, select the new transmission mode from the drop-down and click “Save.” Otherwise, click “Cancel.”

If mode-specific data were entered prior to changing the mode of transmission, this information will be permanently deleted from

NORS. If you would like to save a copy of the report before changing the mode, you may do so by exporting an Excel or PDF file of the report, as described below.

Once the primary mode of transmission is changed, the sections and data fields for the new mode of transmission will be displayed on the data entry page. More information on mode-specific questions is provided in the next section.



## Skip Patterns

The NORS data entry page contains skip patterns so that only data relevant to the selected characteristics of the outbreak are requested. This function allows for a more streamlined data entry page and is intended to eliminate confusion regarding when to answer certain questions.

Please be aware that **data entered for questions that use a skip pattern may be deleted if the previous responses are changed.**

For example, in the section on incubation period, selecting “Unknown incubation period” will hide the Incubation Period table. Data previously entered in the incubation period table will be deleted.

Incubation Period *Among primary cases*

Unknown incubation period

Incubation Period	Number	Increment
Shortest	<input type="text" value="12"/>	<input type="text" value="Hours"/> ▾
Median	<input type="text" value="24"/>	<input type="text" value="Hours"/> ▾
Longest	<input type="text" value="48"/>	<input type="text" value="Hours"/> ▾



Incubation Period *Among primary cases*

Unknown incubation period



Incubation Period *Among primary cases*

Unknown incubation period

Incubation Period	Number	Increment
Shortest	<input type="text"/>	<input type="text"/> ▾
Median	<input type="text"/>	<input type="text"/> ▾
Longest	<input type="text"/>	<input type="text"/> ▾

## Mode-specific sections

Much of the skip logic in NORS branches directly from the mode of transmission. This table shows the sections in NORS and the modes for which they are available.

Section	Primary Mode of Transmission
Outbreak	All modes
Geographic Location	All modes
Primary Cases	All modes*
Secondary Cases	All modes*
Laboratory & Environmental	All modes*
Etiology and Isolates	All modes
Settings	All modes*
Animal Contact	Animal Contact only
Fungal Disease Outbreaks	Environmental Contamination only
Food	Food only
Traceback & Recall	Animal Contact and Food
Water	Water only
Detection & Investigation	All modes
Interventions	All modes*
Remarks	All modes

\*Questions within section differ across modes.

## Logic Checks

Logic checks and integrated data cleaning are described in the **User Training Document for Integrated Data Cleaning**. Briefly, as data are entered in NORS, values are checked for logical errors and additional data checks, such as missing values, are tracked. Logical errors will be flagged with a pink banner directly in the data entry form and listed on the right-hand side panel with a blue X icon. Correcting the error will remove the warning from both locations. Some logic checks will prevent finalization of the report. Integrated data cleaning checks that do not involve logical errors will be flagged with a yellow banner in the data entry form and appear in the right-hand side panel without the blue X. These checks require validation during report finalization.

**Dates**

Date first case became ill

Date last case became ill

✖ Last ill date cannot be prior to first ill date. ✖

Sharing 0 0

Status Active

i There are 16 incomplete entry items for this form.

**Outbreak**

- ✖ Last Ill Date - Last ill date cannot be prior to first ill date.



## Relational tables




Relational tables are used in NORS when multiple items are reportable for a given variable, and linked supporting information is needed for each item. For example, in a multistate outbreak, states are added as rows in a table, and the case count for each state is linked back to the corresponding state name. Other relational tables in NORS include Signs and Symptoms, Etiology, Isolates, Animal Vehicle, Food Vehicle, Water Settings, Linked CDC Systems, and Contributing Factors.

- + To add a row of data to a table, click the green “Add” icon to open and complete the pop-up.
- To delete data from a table, click the red “Minus” icon to delete the entire row of data.

[Edit](#) To change the data in a relational data, select the blue, hyperlinked item from the row you would like to edit to open and make changes in the pop-up.

## # cases/cases with info

1. For sections with questions requiring the total # of cases detected and # of cases with info available, please complete both fields when information is available.
2. For “# cases with info available”, enter the number of cases for whom information pertaining to the question was available and enter the # of cases detected of those with information. If no information is available, please enter “0” in the right column only.
3. The # of cases detected should not exceed the # of cases with info available.

Signs or Symptoms <i>Number of primary cases</i>		
<a href="#">+ Add Signs or Symptoms</a>		
Sign or Symptom	# cases	# cases with info available
Vomiting	<input type="text"/>	<input type="text" value="0"/> 
Diarrhea	<input type="text" value="0"/>	<input type="text" value="3"/> 
Bloody stools	<input type="text" value="2"/>	<input type="text" value="3"/> 

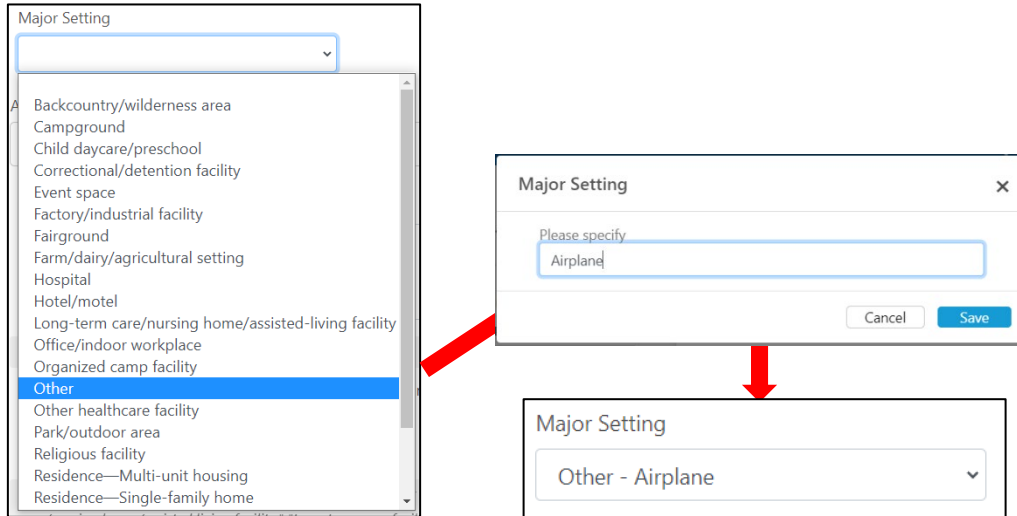
Enter 0 when this information is not known.

## Other (specify)

NORS picklists are not exhaustive and include the option to select “Other” and enter free text values in most cases. There are a few ways the “Other” option can appear in NORS, depending on the question type.

### Drop-down lists

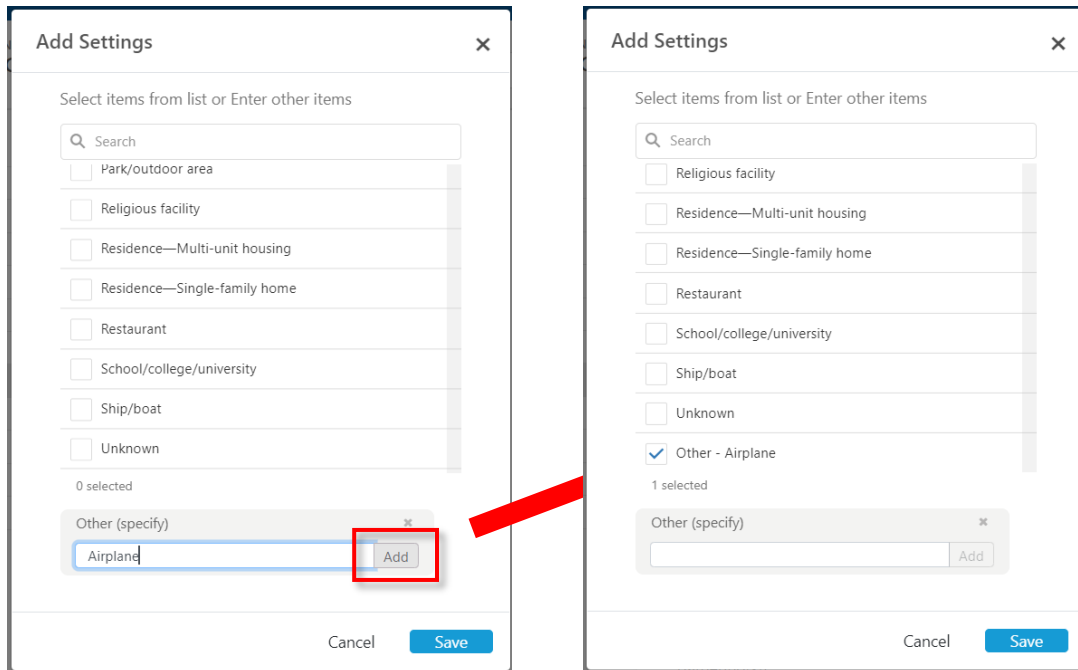
Select “Other” from the drop-down list. A pop-up will appear with a free text field. Specify the value and click “Save.” The specified value will then appear in the original variable field.



## Multi-select lists

In a pop-up or table with multi-select checkboxes, the “Other” option can be found in a grey box below the list. Clicking the box will open a free text field.

**In a pop-up**, specify the data value and click “Add.” The specified value will then appear as a selected value in the list. If applicable, click “Save” to save and exit the pop-up.



**In the interface**, entering an additional item under “Other” will automatically save it to the list, without the need to click “Save” or “Add.”

**Long-term Care Outbreaks** *Complete this section only if "Long-term care/nursing home/assisted living facility," "Long term care facility," or "Assisted Living/rehab" is selected as a setting*

Types of care affected *(Select all that apply)*

- Nursing home/skilled nursing
- Assisted living
- Independent living (in continuous care community)
- Intermediate care
- Memory care

Other

Other long term care facility

## SECTIONS OF INTEREST

### Geographic Location

This section refers to primary cases that resulted from the mode of transmission selected above. Do not include information regarding secondary cases in this section. For more information on definitions and reporting multistate exposure and multistate residency outbreaks, please visit **Appendix B: Reporting Multistate Exposure and Residency Outbreaks**.

### Exposure State

1. When creating a new report, select the state(s) where exposure occurred. If cases were exposed in one state, please just select one state from the drop-down list of states in the “Exposure State(s)” field. If the outbreak resulted from a common exposure that occurred in multiple states, please select all states that apply. You will be able to edit this information if needed after the report has been created in the interface.

The image shows three sequential screenshots of the 'New Report' form. The first screenshot shows the 'Exposure State(s)' field with a 'Select...' dropdown. The second screenshot shows a list of states (Alabama through Delaware) with a red box around the list. The third screenshot shows the same list with 'Arizona', 'Arkansas', and 'California' selected, and a red box around the list. Below the list, the selected states are displayed as tags: 'California x', 'Arkansas x', and 'Arizona x'.

2. Once the report has been created, the Geographic Location section of the report, including states, will be populated. This information can be edited. In this example, since multiple states were selected at report creation, “Exposure occurred in multiple states” has been selected, and the associated state names have been populated below it. Select “Add States” to add additional states or select the “Minus” icon to delete them.

The image shows the 'Geographic Location' section of the report. It includes a 'States' section with three radio button options: 'Exposure occurred in single state', 'Exposure occurred in multiple states' (which is selected), and 'Exposure occurred in a single state but some or all cases resided in different state(s)'. Below this is a 'Specify exposure states' section with a red box around the '+ Add States' button. At the bottom, there is a table with columns 'State' and 'Case Count'. The first row shows 'California' with a red box around a minus icon in the 'Case Count' column.

State	Case Count
California	<input type="text"/> -

3. If the exposure occurred in a single state and some or all cases did **NOT** reside in other states, make sure that “Exposure occurred in a single state,” has been checked, and only one exposure state has been selected.

Exposure occurred in a single state but some or all cases resided in different state(s)

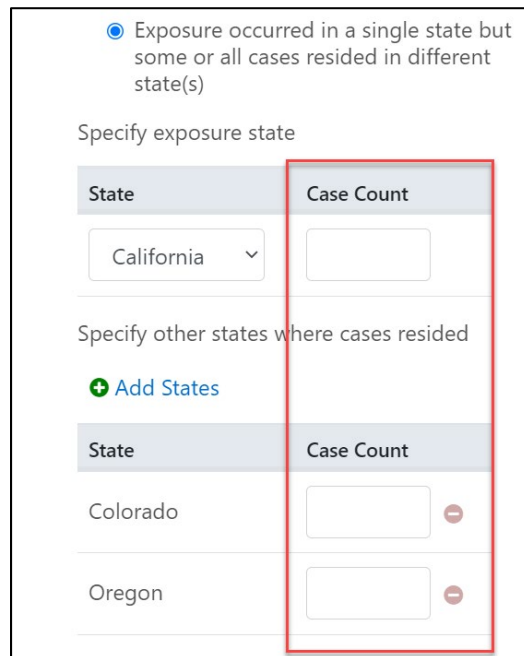
Specify exposure state

State	Case Count
California	

Specify other states where cases resided

[+ Add States](#)

State	Case Count
Colorado	
Oregon	



4. If an exposure occurred in a single state but some or all cases *resided* in different state(s), please check “Exposure occurred in a single state, but some or all cases resided in different (s).” Specify the state where exposure occurred, and specify the other states where cases resided. In the example above, the exposure occurred in California, but cases resided in both Colorado and Oregon.
5. If the outbreak exposure occurred in multiple states or cases resided in multiple states, individual case counts can be added for each state involved, if known. Boxes for case counts will automatically populate alongside each selected state name. Please enter the number of case-patients which resided in each state and visit **Appendix B** for more information on how to report case counts.

## Exposure County

1. Indicate the name of the county where the exposure occurred under “Specify exposure county.”

Specify exposure state

California

Counties

- Exposure occurred in single county
- Exposure occurred in multiple counties
- Exposure occurred in a single county but some or all cases resided in different counties

Specify exposure county

Lake

2. If the exposure occurred in multiple counties in the exposure state, select “Exposure occurred in multiple counties.” The dropdown menu under “Specify exposure counties” will populate a list of all counties within the exposure state; select all that apply. To remove a county, click the “X” next to the county name. In the screenshot to the right, the exposure occurred in both Lake and Kings counties.

Specify exposure state

California

Counties

- Exposure occurred in single county
- Exposure occurred in multiple counties
- Exposure occurred in a single county but some or all cases resided in different counties

Specify exposure counties

Lake X Kings X

3. If an exposure occurred in a single county but some or all cases resided in multiple counties, select “Exposure occurred in one county, but some or all cases resided in different counties.” Select the county where exposure occurred under “Specify exposure county,” and select the other counties involved in the outbreak under “Specify other counties where cases resided.” In this screenshot, residents of Alameda and Kings counties were exposed in Lake County.

Specify exposure state

California

Counties

- Exposure occurred in single county
- Exposure occurred in multiple counties
- Exposure occurred in a single county but some or all cases resided in different counties

Specify exposure county

Lake

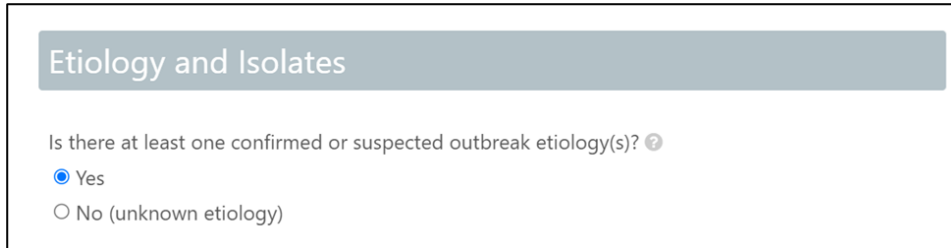
Specify other counties where cases resided

Alameda X Kings X

## Etiology and Isolates

### Etiology

1. To add etiology/isolate information on a confirmed or suspected outbreak etiology, select “Yes.” If there is no confirmed or suspected etiology, select “No (unknown etiology).”



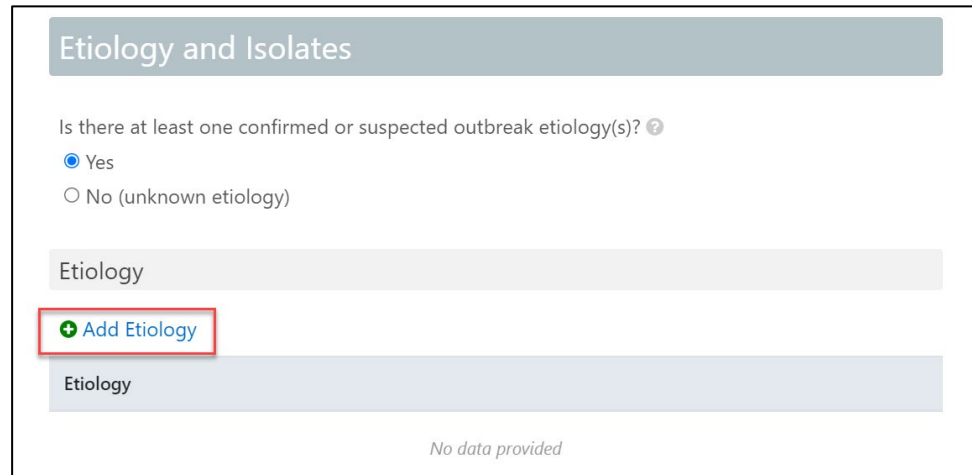
Etiology and Isolates

Is there at least one confirmed or suspected outbreak etiology(s)? ?

Yes

No (unknown etiology)

2. To add information on a confirmed or suspected outbreak etiology, click “Add Etiology.” A pop-up box will appear.



Etiology and Isolates

Is there at least one confirmed or suspected outbreak etiology(s)? ?

Yes

No (unknown etiology)

Etiology

Etiology

No data provided

3. In the “Genus” field, select the genus name for the first suspected or confirmed etiology; chemicals/toxins are also listed in this

category. If the correct genus is not listed in the drop-down, select “Other Bacterium,” “Other Virus,” “Other Parasite,” or “Other Chemical/Toxin” as appropriate and then specify the etiology in the “Other characteristics” field.

4. In the “Species” field, select the appropriate species name for the suspected or confirmed etiology. If more than one species of a single genus is involved in an outbreak (e.g., both *Campylobacter jejuni* and *Campylobacter coli*), enter each one as a separate etiology.

5. In the “Subtype” field, select the serotype or genotype for each suspected and confirmed etiology, if known. If more than one serotype or genotype of a single species is involved in an outbreak, enter each one as a separate etiology. Provide serotypes for all STEC and *Salmonella enterica* outbreaks.

**PLEASE NOTE:**

Etiology data from confirmed norovirus outbreaks may be imported to the Etiology table from CaliciNet. For information regarding the CaliciNet Integration,

please refer to the CaliciNet Integration training document on the NORS website at <https://www.cdc.gov/nors/training/general.html>. If you are entering norovirus as an etiology and there is no matching CaliciNet record, you may manually enter etiology data. The “Subtype” field will be replaced with “Polymerase” and “Capsid” fields to accommodate dual typing data. If no information on either the polymerase or capsid is available, please enter “unknown” in the “Capsid” field.

6. In the “Other Characteristics” field, list any other pertinent characteristics of the outbreak etiology, such as virulence factors, metabolic profile, and additional serotype, or genotype information that may not be captured elsewhere.

7. Indicate the total number of laboratory-confirmed primary cases, including CIDT-positive only and culture-confirmed cases, associated with each etiology reported.

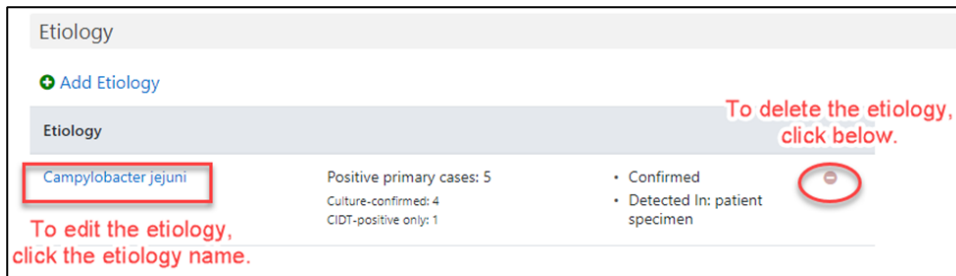
8. Specify whether the etiology listed is a laboratory-confirmed etiology or a suspected etiology for the outbreak. Etiology confirmation guidelines for foodborne outbreaks are located at: [http://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/confirming\\_diagnosis.html](http://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/confirming_diagnosis.html).



9. In the “Detected In” field, select all samples in which the etiology was detected:

- Patient specimen
- Food sample
- Environmental sample
- Food worker specimen
- Water sample
- Animal specimen

10. To edit an etiology, click the corresponding highlighted etiology name to reopen the pop-up window. To delete the etiology, move the cursor onto the corresponding row in the table and click the “Minus” icon that appears there, as in the screenshot below.



## Isolates

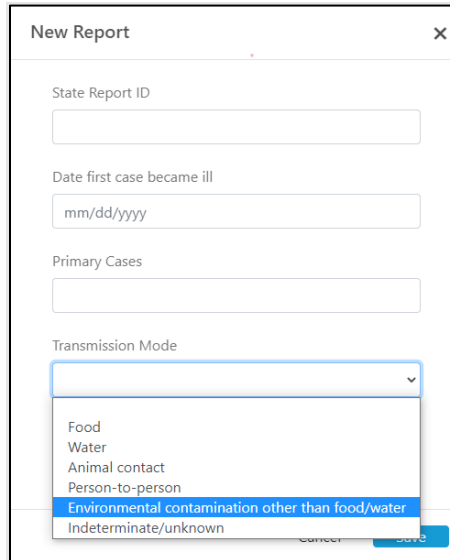
If there is no confirmed or suspected etiology, skip this section. If the etiology is confirmed or suspected, enter isolate/sequence information from PulseNet and CaliciNet, if available. NARMS data will automatically be imported if linked to isolates with information available. Isolate data from CaliciNet and PulseNet may be imported into NORS from those systems directly. For information regarding CaliciNet and PulseNet integration, please refer to the **NORS User Training Document: Integrated CDC Lab Systems**.

For information related to PulseNet, visit: <http://www.cdc.gov/pulsenet/>. For information related to CaliciNet, visit: <http://www.cdc.gov/norovirus/reporting/calicinet/>. For information related to the National Antimicrobial Resistance Monitoring System, visit: <https://www.cdc.gov/narms/>.

## Fungal Diseases

Users can report fungal outbreaks caused by *Blastomyces*, *Coccidioides*, *Histoplasma*, or *Sporothrix* in NORS.

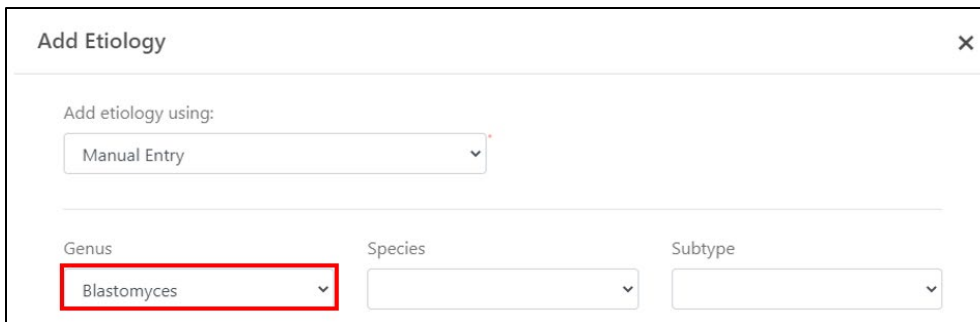
1. To report outbreaks of fungal etiologies, select “Environmental contamination other than food/water” as the transmission mode while creating the report.



The screenshot shows a 'New Report' form with the following fields:

- State Report ID:
- Date first case became ill:
- Primary Cases:
- Transmission Mode: A dropdown menu is open, showing the following options: Food, Water, Animal contact, Person-to-person, Environmental contamination other than food/water (highlighted in blue), and Indeterminate/unknown.

2. Add *Blastomyces*, *Coccidioides*, *Histoplasma*, or *Sporothrix* within the Etiology section.



The screenshot shows an 'Add Etiology' form with the following fields:

- Add etiology using:
- Genus:
- Species:
- Subtype:

- Complete fungal specific questions within the “Fungal Disease Outbreaks” section. This section will only appear when the mode of transmission is “Environmental contamination other than food/water.”

Treatment	# cases	# cases with info available
Treated with systemic antibacterial medication before fungal infection was diagnosed (e.g., oral, IV)	<input type="text"/>	<input type="text"/>
Treated with systemic antifungal medication (e.g., oral, IV)	<input type="text"/>	<input type="text"/>

## Settings

This section provides a brief overview of the Settings section. The fields displayed in this section depend on the mode of transmission and the settings selected. For information on water settings, see the Water section below.

### Setting(s) of Exposure

For environmental contamination, person-to-person, and unknown/indeterminate outbreaks, first select a single major setting from the dropdown list. If the setting of exposure does not fit into any listed categories, select “Other” and type in the name of the setting in the pop-up and click “Save.” This is the setting where the first known cluster of illnesses in the outbreak was exposed. Then select all additional settings where primary cases were exposed.

In the example to the left, a person-to-person outbreak occurred in a group of healthcare facilities with overlapping staff and frequent patient transfers. Hospital was selected as the major setting, and additional facility types were included as other settings. The “Setting of exposure remarks” field was used to provide additional information about the settings.

For food and animal contact outbreaks, select all settings where food was eaten or where animal contact exposures occurred. Provide additional details in the “Setting of exposure remarks” text box.

### Setting(s) of Preparation

For food outbreaks, select all settings where food was prepared in the pop-up. Provide additional details in the “Setting of preparation remarks” text box.

### Associated Events

If exposure was associated with a special event, select “Yes.” A new field will open to specify the type of event. Clicking this field will open a pop-up with the NORS event values. Select the appropriate checkboxes and click “Save.” Selected events will then be displayed in the specify field. To remove an event type, click the grey “X” next to the event name, and select “Delete” in the pop-up to confirm.

If the radio dial for the question, “Was exposure associated with a specific event(s) or gathering(s)?” is changed to “No” or “Unknown” after an event type has already been entered, the type of associated event will be cleared from the report.

### Setting-specific questions

NORS collects additional information on long-term care, school, and correctional or detention facility outbreaks. These sections will only be available when the corresponding setting is selected.

### Attack Rates

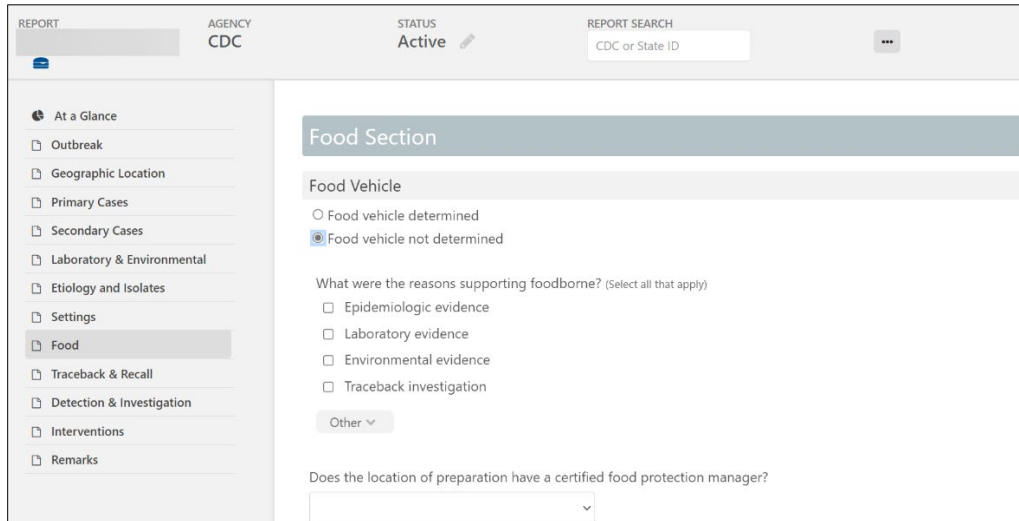
For environmental contamination, person-to-person, and unknown/indeterminate outbreaks that occurred in a single setting, enter the estimated number of persons exposed and ill by group type (residents/guests and staff). The crude attack rate will be calculated automatically and displayed in the column on the right side of the table. If the groups provided do not apply or data using this distinction is unavailable, enter the total number exposed and ill in the top line for residents/guests.

Attack Rates <i>Complete for outbreaks that occurred in a single setting only</i>			
Group	Estimated # exposed <sup>?</sup>	Estimated # ill	Crude attack rate <i>[(estimated # ill / estimated # exposed) x 100]</i>
Residents, guests, attendees, patients, etc.	<input type="text" value="26"/>	<input type="text" value="8"/>	30.77 %
Staff, crew, etc.	<input type="text" value="6"/>	<input type="text" value="3"/>	50.00 %

## Food

This section provides a brief overview of how to complete the Food section and answer food-related questions in NORS. This will include answering Food Vehicle, Ingredient, and Contributing Factors related questions of a NORS foodborne disease outbreak report.

### Food Vehicle

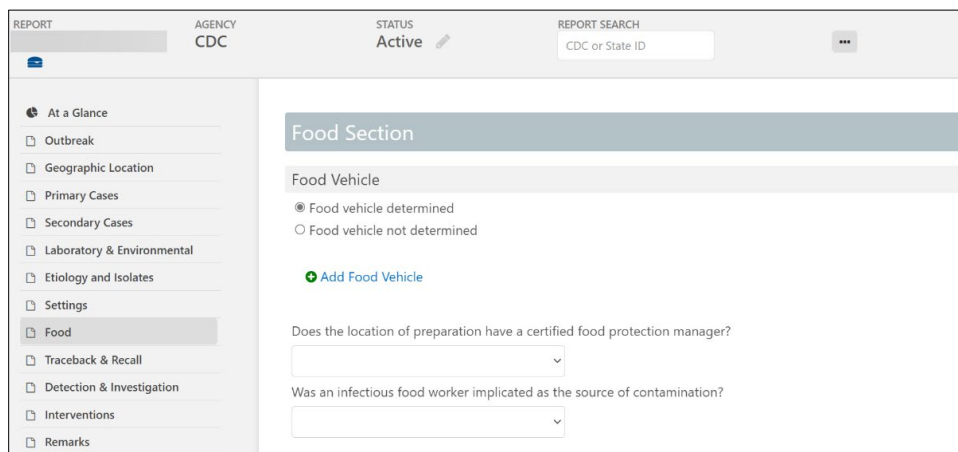


The screenshot shows the NORS interface for the Food Section. The left sidebar contains a navigation menu with 'Food' selected. The main content area is titled 'Food Section' and contains the 'Food Vehicle' section. Under 'Food Vehicle', the radio button for 'Food vehicle not determined' is selected. Below this, there are checkboxes for reasons supporting foodborne: 'Epidemiologic evidence', 'Laboratory evidence', 'Environmental evidence', and 'Traceback investigation'. There is also an 'Other' dropdown menu. At the bottom, there is a question: 'Does the location of preparation have a certified food protection manager?' with a dropdown menu.

If the food is unknown, check the box “Food vehicle not determined.” **NOTE: Do not check this box if the food vehicle is known or if there are multiple suspected food items.**

If the food vehicle is not determined, enter the reason(s) why the outbreak was considered foodborne, with an undetermined vehicle.

If a food vehicle was identified, enter all information about the food vehicle by clicking on “Add Food Vehicle.”

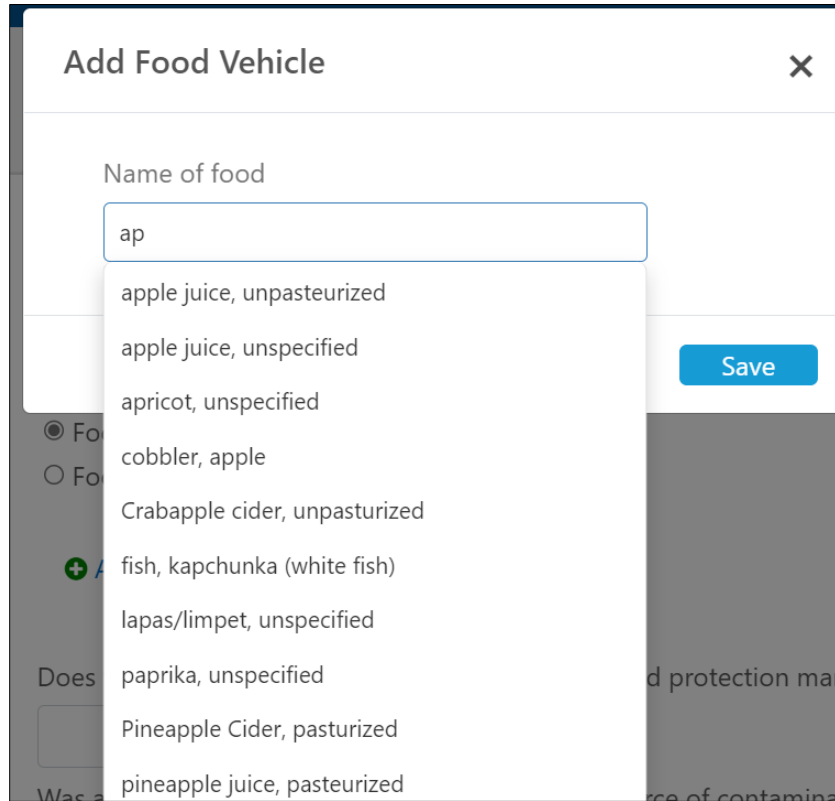


The screenshot shows the NORS interface for the Food Section. The left sidebar contains a navigation menu with 'Food' selected. The main content area is titled 'Food Section' and contains the 'Food Vehicle' section. Under 'Food Vehicle', the radio button for 'Food vehicle determined' is selected. Below this, there is a green button labeled 'Add Food Vehicle'. At the bottom, there are two questions with dropdown menus: 'Does the location of preparation have a certified food protection manager?' and 'Was an infectious food worker implicated as the source of contamination?'.

### Name of Food

The first box asks for “Name of Food.” You can enter the name of the food by selecting from the list provided. If the name of the food is not on the list, you can add it as a new food. However, before you add a new food, double-check the picklist as it is exhaustive. After selecting the food vehicle, answer the

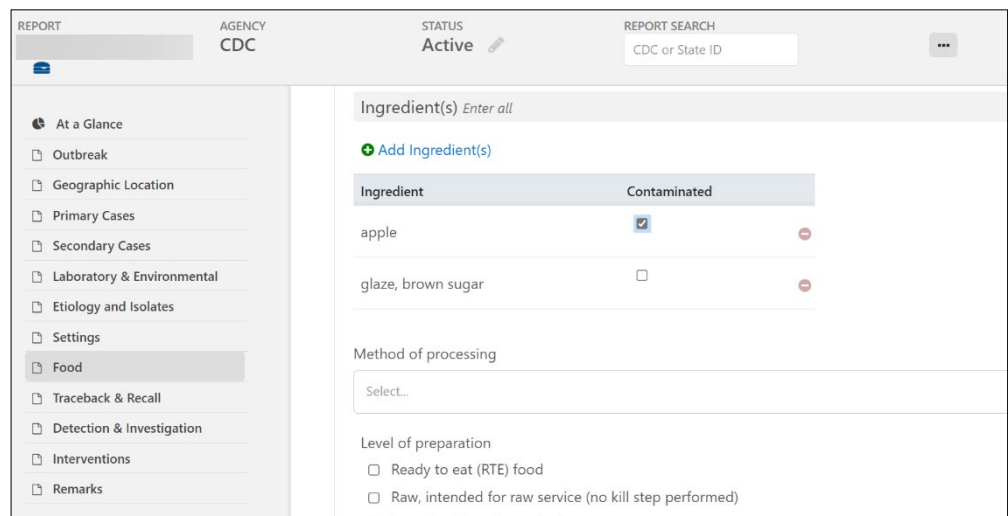
following questions. Choose whether the food vehicle was confirmed or suspected. Then, indicate the reason the reason(s) the implicated food was confirmed or suspected. Multiple selections for the reason(s) the implicated food was confirmed or suspected are permitted. To add another Food Vehicle, click “Add Food Vehicle” and follow the previous steps.



### Ingredients/Contaminated Ingredients

For each food vehicle added, select the ingredient(s) of the food item. For example, if the implicated food was seafood pasta, the ingredients might be mussels, scallops, shrimp, and pasta. After each ingredient is added, select if the ingredient is a contaminated ingredient.

Answer the following questions under each food vehicle added. Select the method of processing, the level of preparation, the method of preparation & service, the type of packaging, if the contaminated food was imported to the



US, if the product was produced under US domestic regulatory oversight, and if the product was sold under US domestic regulatory oversight. After answering questions specific to a food vehicle, select if the location of preparation had a certified food protection manager and if there was an infectious food worker implicated as the source of contamination.

### Contributing Factors

Consult **Appendix D of the NORS Guidance Document** for more detailed definitions, explanations, and examples of each contributing factor.

After consideration of all epidemiological, laboratory, and environmental assessment information available, if the contributing factors for this outbreak could not be determined, check the “Contributing Factors are unknown” box at the top of the section. If this box is checked, the remainder of the contributing factors section will be hidden and then select the reason no contamination source is available to enter.

The screenshot shows the NORS system interface. At the top, there are fields for 'REPORT', 'AGENCY' (CDC), 'STATUS' (Active), and 'REPORT SEARCH' (CDC or State ID). A sidebar on the left contains navigation options: 'At a Glance', 'Outbreak', 'Geographic Location', 'Primary Cases', 'Secondary Cases', 'Laboratory & Environmental', 'Etiology and Isolates', 'Settings', 'Food' (highlighted), 'Traceback & Recall', 'Detection & Investigation', 'Interventions', and 'Remarks'. The main content area is divided into two sections: 'Contamination Factors' and 'Proliferation Factors: Bacterial and fungal outbreaks only'. Each section has a checkbox for 'No [Factor] factors are available to enter' and a link to 'Add [Factor] Factors'. Below these are tables for selecting factor names and their sources. The 'Food' category is selected in the sidebar.

Factor Name	Source(s)
C2 - Poisonous substance or infectious agent intentionally added to food to cause illness	<input type="checkbox"/> Point of Final Prep/Sale <input type="checkbox"/> Before POS Pre-Harvest <input type="checkbox"/> Before POS Post-Harvest <input type="checkbox"/> Before POS Unknown Pre or Post Harvest <input type="checkbox"/> Unknown location
P3 - Inadequate cold holding temperature due to malfunctioning	<input type="checkbox"/> Point of Final Prep/Sale <input type="checkbox"/> Before POS Pre-Harvest

If contributing factors are known, then select all factors that are causally associated with the outbreak. Multiple selections are permitted. Contributing factors are classified into three categories: Contamination, Proliferation, and Survival Factors. Indicate the source of contamination for each food contributing factor by selecting “Point of final prep/sale,” “Before POS Pre-Harvest,” “Before POS Post-Harvest,” “Before POS Unknown Pre or Post Harvest,” or “Unknown location.”

### Animal

This section provides a brief overview of how to complete the Animal Contact section and answer animal-related questions in NORS. This will include answering Animal Vehicle questions of a NORS animal contact outbreak report. Please refer to the Animal Contact section of the NORS Guidance Document for additional definitions and further instructions.

## Animal Vehicle

If the animal vehicle is unknown, check “Animal vehicle not determined.” **Note: do not check this box if the animal vehicle is known or if there are multiple suspected animal vehicles.** If the animal vehicle is undetermined, enter the reason(s) why the outbreak was considered animal contact with an undetermined vehicle.

**Animal Contact**

**Animal Vehicle**

Animal vehicle determined

Animal vehicle not determined

If animal vehicle undetermined, reason(s) supporting animal contact (Select all that apply)

Epidemiologic evidence

Laboratory evidence

Environmental evidence

Traceback investigation

Other ▾

If an animal vehicle was identified, select “Animal vehicle determined” and enter all information about the animal vehicle by clicking on “Add Animal Vehicle.” A pop-up window will prompt you to enter the first animal type. If there were multiple animals involved in the outbreak, please enter each animal separately. You can enter the animal type by selecting from the automated suggestions provided, or you can add a new animal type if it is not already on the list. Click “Save” after you have finished entering the first animal type.

**Animal Contact**

**Animal Vehicle**

Animal vehicle determined

Animal vehicle not determined

[+ Add Animal Vehicle](#)

**Add Animal Vehicle** [X]

Animal type

dd

Dog or puppy

Dolphin

Donkey or mule

Prairie Dog

Save



^ Dog or puppy

Animal type

Vehicle confirmed or suspected

Reason(s) confirmed or suspected

Animal(s) experienced diarrhea or illness that could be related to outbreak illnesses?

Animal(s) imported to US?

Did the animal(s) implicated in the outbreak meet any of the following criteria?

- Backyard/residential livestock or poultry
- Commercial livestock or poultry
- Pet/companion animal
- Interactive exhibit animal
- Wild animal/wild game
- Unknown

Other

Answer the following questions specific to animal type. Indicate whether the animal vehicle was confirmed or suspected and select the reason(s) why the animal vehicle was confirmed or selected (multiple selections are permitted). Indicate whether the animal experienced diarrhea or illness that could be related to outbreak illness, if the animal was imported to the US, or if the animal implicated in the outbreak met any of the following criteria (select all that apply).

To add another animal vehicle, click “Add Animal Vehicle” and follow the previous steps. To edit an animal vehicle, click the down arrow to the left of the animal vehicle you wish to edit. To delete an animal vehicle, click the trash icon at the right end of the row.

### Animal Contact

Animal Vehicle

Animal vehicle determined  
 Animal vehicle not determined

[+ Add Animal Vehicle](#)

<input type="text" value="v"/>	Cat or kitten	
<input type="text" value="v"/>	Dog or puppy	

**To edit animal information, click the arrow to see the questions, and make any changes.**

**To delete the animal, click the trash icon.**

## Water

This section provides a brief overview of how to complete the Water section and water-related questions in NORS. This will include answering Sampling Location and Results, Settings, Supporting evidence, Legionella & Other Biofilm-Associated Pathogens, Water Quality Management, and Contributing Factors related questions of a NORS waterborne disease outbreak report.

### Laboratory & Environment – Environmental Investigation

If water samples were tested, add the Sampling Location(s) of the water that was tested. If you do not find the location you need on the list, select “Other,” enter the location manually, and select “Add.” The location will then appear checked on the list, and you can click “Save.”

Add Sampling Location(s) X

Select items from list or Enter other items

Search

- Cooling Tower
- Distribution System - Water Utility
- Faucet/Tap
- Hot Tub/Spa/Whirlpool
- Lake/Reservoir
- Pool
- Shower
- Sink

0 selected

Other ▾

Cancel Save

Other X

Example Add

Sink

Unknown

Other - Example

1 selected

Other ▾

Cancel Save

Indicate if environmental sampling results implicated water as the primary mode of transmission. If yes, indicate if the results implicated the vehicle(s) of transmission.

Did environmental sampling results implicate water as the primary mode of transmission?

Yes

Did the results implicate the vehicle(s) of transmission?

The following table will only appear if you selected “Yes” to whether environmental sampling results implicated water as the primary mode of transmission. Enter a brief description for each environmental sampling result that implicated water after selecting “Yes” or “No” for supporting results. The description is a free text field; please enter specific details, if possible (e.g., water sample from Lake Lanier was taken on 01/01/2023 at 10:00AM and pH was 7.8). If you have an environmental sampling result to add that is not listed, click “Add other sampling result,” type in the result, and click “Add.” The result will then appear on the list, and you can enter a description.

Summarize the environmental sampling results that implicated water in support of the epidemiologic findings

Environmental sampling results	Are there supporting environmental sampling results?	Please describe relevant environmental sampling results (e.g., fecal indicators identified in well water on [insert date].)
Fecal indicators	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
pH	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
Temperature	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
Turbidity	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
Residual/free disinfectant level	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
Combined disinfectant level	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>
Etiologic agent(s)	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>

If historical or other environmental health evidence implicated water as the primary mode of transmission, select “Yes” and enter a description into the free text field. If no other evidence implicated water as the primary mode of transmission, select “No” and the description text box will not appear. Lastly, select “Yes” or “No” if you would like to attach environmental sampling results to the report. If “Yes,” follow the guidelines in the “Attachments” section of this document to upload the results.

Did historical or other environmental health evidence implicate water as the primary mode of transmission?

Yes

Please describe:

Would you like to attach environmental sampling results to this report?

Yes

No

### Settings

Select all “Implicated type(s) of water exposure” that apply to the outbreak. This is not limited to one type of water exposure. Click on the check box(es) next to the type of water exposure(s) that was involved in the outbreak. The options in this section are “Treated recreational water,” “Untreated recreational water,” “Drinking water in public or individual water systems,” “Other exposures to water, including other environmental exposures to water,” and “Undetermined exposures to water”.

Settings

Setting(s) of Exposure and Implicated Vehicle Description: Water

Implicated type(s) of water exposure

Treated recreational water (e.g., in manufactured venues such as pools, spas/whirlpools, hot tubs, spray pads, at-home kiddie pools)

Untreated recreational water (e.g., natural venues such as freshwater lakes, hot springs, marine beaches/oceans)

Drinking water in public or individual water systems (e.g., municipal system, private well, commercially-bottled water, water kiosk), regardless of the exposure pathway (i.e., not limited to ingestion)

Other exposures to water, including other environmental exposures to water (e.g., cooling/industrial, water reuse, irrigation, occupational, decorative/display; includes water consumed from sources such as back-country streams)

Undetermined exposures to water (i.e., the intended purpose or use of the water is unknown or the water exposure category could not be determined)

Add Water venue information including the venue type, subtype, and setting of exposure for each type of water exposure and click “Save.” If multiple venues were implicated, add subsequent venues by clicking on the “Add Venue” link and repeating the process.

**Add Water Venue**
✕

---

Water exposure type

Treated recreational water
▼

Water venue

▼

Water venue subtype

▼

Setting of exposure

▼

How was the water in the venue treated?

▼

Treatment Description

Select...
▼

Other (specify)
▼

What were chlorine stabilizer levels at the time of the outbreak?

Cancel
Save

## Water

In the supporting evidence section, indicate the “Estimated total number of persons with primary water exposure,” regardless of whether they became ill or not. If known, enter the actual number of persons with the primary exposure instead. Then select which evidence implicated the water exposure(s). Options for this include “Epidemiologic data,” “Clinical laboratory data,” “Environmental health data,” and “Prior experience makes this a likely source.” Select all that apply. Finally, select whether data were collected to estimate association.

**Supporting evidence**

Estimated total number of persons with primary water exposure:

What evidence implicated the water exposure(s)? *Select all that apply*

Select...
▼

Were data collected to estimate association (e.g., odds ratio)?

▼

If “No,” or “Unknown” is selected for data collected to estimate association, indicate if water was the common source shared by persons who were ill.

Were data collected to estimate association (e.g., odds ratio)?

No

Was water the common source shared by persons who were ill?

If “Yes” is selected for data collected to estimate association, please provide the epidemiologic data that implicates the water exposure by clicking “Add Epidemiologic Data.”

Were data collected to estimate association (e.g., odds ratio)?

Yes

Please provide the epidemiologic data that implicates the water exposure:

[+ Add Epidemiologic Data](#)

Exposure description	Attack rate	Effect measure
No data provided		

You can report the following information: “Exposure description,” “Attack rate,” “Effect measure,” “Type of effect measure,” “p-Value,” and “95% confidence interval.” Click “Save” when you have entered the available information.

Add Epidemiologic Data

Exposure description

Attack rate

Effect measure

Type of effect measure

p-Value

95% confidence interval

Cancel Save

## Legionella and Other Biofilm-Associated Pathogens

Only complete this section if the waterborne outbreak was associated with *Legionella* or other biofilm-associated pathogens.

Indicate if the outbreak occurred in a facility with any of the following characteristics. Select all that apply and type a characteristic in "Other" if you do not find it on the list.

If the facility had a water management program in place before the outbreak, indicate which elements the program included, and who designed the water management program. Select all that apply for both.

### Legionella and Other Biofilm-Associated Pathogens

Did the outbreak occur in a facility with any of the following characteristics? *Select all that apply*

- >10 stories
- "Green" components (e.g. low-flow engineering)
- Construction in building within the last six months
- Construction nearby within the last six months
- Associated cooling towers
- Other associated aerosolizing devices (e.g., hot tub, decorative fountains, misters)
- Supplemental building disinfection system
- Centralized hot water system
- Unknown
- None

Other

Did the facility have a water management program in place before the outbreak?

Yes

Which of these elements did the program include: Select all that apply

select...

- Multi-disciplinary water management program team
- Diagram of the building's water system
- Identification of control points/locations (e.g., areas of potential Legionella growth and spread)
- Established control limits
- Regular water parameter testing (e.g., disinfectant, temperature, pH)
- Plan for implementing corrective action (tasks taken when monitoring values are outside of control limits)
- Method of plan verification (e.g., pathogen testing, clinical surveillance)
- Documentation of water management program performance and activities
- Unknown
- None

If recommendations were provided to the facility, select all that apply. Finally, indicate if samples were tested for *Legionella* at a laboratory participating in a national proficiency program. If you do not find a recommendation on the provided list, enter it manually in the “Other” box.

Were recommendations provided to the facility to decrease the risk of *Legionella* or other biofilm-associated pathogen exposure?

Yes

please select all that apply:

- Flushing potable water system
- Superheat potable water system
- Implement secondary potable water disinfection system
- Implement point of use filter(s)
- Low level chlorination of potable water system
- Water restrictions (e.g., discontinuing use of showers, faucets, or other water uses)
- Closure of an associated device (e.g., shutdown of a fountain, hot tub)
- Hyperchlorination of potable water system
- Hyperchlorination of recreational water system

Other

Were samples tested for *Legionella* at a laboratory participating in a national proficiency program (e.g., ELITE, ELAP, AIHA)?



## Water Quality Management and Contributing Factors

The next section will vary depending on which implicated type(s) of water exposure was selected in the Settings section. Regardless of water type, indicate if contributing factors are unknown, otherwise, click “Add [Water type] Water Factors” and select which factors were found during the investigation and whether they were “Documented/observed or Suspected.” If you need to add a contributing factor to the list, select “Other,” type in the contributing factor, click “Add,” and then click “Save.” Each “remarks” field contains a single text field for any additional comments about the waterborne disease outbreak investigation.

In this example, treated recreational water was the implicated water exposure. Indicate if the water venue(s) was inspected in the 6 months before the outbreak. If yes, please attach the results to the report.

Recreational Water — Treated Venue

[Water quality management](#)

Was water venue(s) inspected in the 6 months before the outbreak?

[NOTE: If yes, please attach results]

Treated recreational water remarks

[Factors contributing to recreational water contamination or increased exposure in treated venues](#)

Contributing factors are unknown

[+ Add Recreational Water Factors](#)

Factor	Documented/observed or Suspected
<i>(Only select what was found during investigation)</i>	
No items selected	

In this example, untreated recreational water was the implicated water exposure. Indicate if the venue met recreational water quality standards at the time of the outbreak and if you have microbiological water quality testing results collected in the 3 months before the outbreak. If yes, please attach the results to the report.

Recreational Water — Untreated Venue

Water quality management

Did the venue meet recreational water quality standards (e.g., applicable local, state, or Environmental Protection Agency [EPA] criteria) at the time of the outbreak?

Do you have microbiological water quality testing results collected in the 3 months before the outbreak?

[NOTE: If yes, please attach results]

Untreated recreational water remarks

Factors contributing to recreational water contamination and/or increased exposure in untreated venues

Contributing factors are unknown

[+ Add Untreated Water Factors](#)

Factor	Documented/observed or Suspected
<i>(Only select what was found during investigation)</i>	
No items selected	

In this example, drinking water was the implicated water exposure. Indicate if the drinking water system(s) had any monitoring violations or maximum contaminant level (MCL) violations in the 1 month before the outbreak and if the drinking water system(s) had any violations in the 12 months before the outbreak. If you answered “Yes” to any of these, please provide an explanation in the free text field.

**Drinking Water Systems**

Water quality managment

Did the drinking water system(s) have any monitoring violations in the 1 month before the outbreak?

if **yes**, explain:

Did the drinking water system(s) have any maximum contaminant level (MCL) violations in the 1 month before the outbreak?

Did the drinking water system(s) have any violations in the 12 months before the outbreak? ?

Drinking water remarks

There are additional questions in the drinking water section related to the location in system contributing to contamination. Indicate if there was a problem with the quality of the source water, if water quality was affected by a problem occurring with the water treatment or within the distribution system before entry into a building or house, and if the water quality was affected by a problem occurring after the water meter or outside the jurisdiction of a water utility.

Location in system contributing to drinking water contamination

Was there a problem with the quality of the source water?

Was water quality affected by a problem occurring with the water treatment or within the distribution system before entry into a building or house?

Was water quality affected by a problem occurring after the water meter or outside the jurisdiction of a water utility?

Drinking water contributing factors

Contributing factors are unknown

+ Add Drinking Water Factors

Factor <small>(Only select what was found during investigation)</small>	Documented/observed or Suspected <span style="font-size: small;">?</span>
<i>No items selected</i>	

In this example, the implicated water exposure was classified as other, including other environmental exposures to water. Indicate how the exposure(s) to the water system/source occurred by selecting an option from the drop-down menu. If an exposure is not listed, select “Other,” specify in the free text field, and click “Save.”

Other Exposures to Water, Including Other Environmental Exposures to Water

Implicated water - water exposure description

How did the exposure(s) to the water system/source occur?

- Water was used directly from a freshwater source (e.g., lake/river/stream/roadside spring) for drinking water, sanitation, or hygiene
- Water was piped from a nonpotable freshwater source (e.g., irrigation ditch) for drinking water, sanitation, or hygiene
- Water was used in a heating/cooling unit (e.g., cooling tower, air conditioner)
- Water was used after the tap in a personal care or medical device (e.g., CPAP machine, neti-pot)
- Water was used in an ornamental system/device
- Water was used for factory processes/industrial purposes
- Water was used as part of occupational activities
- Rain water was collected/used for nonpotable purposes
- Grey water was collected/used for nonpotable purposes
- Other

Other exposures to water remarks

Factors contributing to contamination and/or increased exposure to contaminated water

Contributing factors are unknown

[+ Add Other Water Factors](#)

Factor	Documented/observed or Suspected
<i>No items selected</i>	

In this example, the implicated water exposure was undetermined. Indicate which water exposure(s) were suspected in the outbreak by selecting all that apply.

**Undetermined Exposures to Water**

Implicated water - water description

Which water exposure(s) were suspected in the outbreak? (select all that apply)

- Treated recreational water
- Untreated recreational water
- Drinking water in public or individual water systems
- Other exposures to water including environmental exposure to water
- Specific water exposure(s) could not be identified

Undetermined exposure to water remarks

If any contributing factors were documented or suspected for undetermined exposures to water, please describe the contributing factors in the free text box, as shown below.

Factors contributing to contamination and/or increased exposure to contaminated water

Were any contributing factors documented or suspected in this outbreak investigation? ?

Yes v

Please describe the contributing factors below:

## Interventions

This section is applicable to all modes of transmission and refers to interventions that were recommended or implemented during the outbreak.

The screenshot shows a web interface for a report. At the top, there are fields for 'REPORT' (with a dropdown arrow), 'AGENCY' (set to 'CDC'), 'STATUS' (set to 'Active' with an edit icon), and 'REPORT SEARCH' (with a search box containing 'CDC or Stat...'). Below this is a sidebar with a list of menu items: 'At a Glance', 'Outbreak', 'Geographic Location', 'Primary Cases', 'Secondary Cases', 'Laboratory & Environmental', 'Etiology and Isolates', 'Settings', 'Water', 'Detection & Investigation', 'Interventions' (highlighted with a red box), and 'Remarks'. The main content area is titled 'Interventions' and contains two questions with radio button options: 'Were any interventions recommended or implemented to help stop the outbreak?' (options: Yes, No, Unknown) and 'Were any public communications released for this outbreak? (e.g., press release or outbreak notice)' (options: Yes, No, Unknown). Below these is a text field labeled 'Remarks about interventions'.

Indicate if any interventions were recommended or implemented to help stop the outbreak. If you select “No,” explain why in the free text field.

If you select “Yes,” indicate which type(s) of interventions were recommended or implemented.

This is a close-up of the 'Interventions' section. It features a header 'Interventions' and two questions. The first question is 'Were any interventions recommended or implemented to help stop the outbreak?' with radio button options for 'Yes', 'No' (which is selected), and 'Unknown'. The second question is 'Were any public communications released for this outbreak? (e.g., press release or outbreak notice)' with radio button options for 'Yes', 'No', and 'Unknown'. Below the second question is a text field labeled 'Remarks about interventions'.

Interventions are grouped by “Facility/site/venue and equipment,” “People,” “Animals,” “Food,” “Water,” and “Other.” These groupings are designed to organize the interventions and do not reflect what mode of transmission these interventions correspond to. Any intervention can be selected for any mode of transmission. Click on the drop-down arrow to see the intervention types in each category.

### Interventions

Were any interventions recommended or implemented to help stop the outbreak?

Yes  
 No  
 Unknown

What type(s) of interventions were recommended or implemented to help stop the outbreak?

Interventions – Recommended and Implemented

- ▼ Facility/site/venue and equipment
- ▼ People
- ▼ Animals
- ▼ Food
- ▼ Water
- ▼ Other

Interventions – Recommended and Implemented

▲ Facility/site/venue and equipment

Intervention Type	Any point of intervention
<b>Facility / site / venue closed (for at least 1 day)</b>	Any point of intervention <div style="border: 1px solid #add8e6; padding: 2px; display: inline-block;"> <span style="font-size: 0.8em;">▼</span> </div>
<b>Facility / site / venue closed &lt;1 day or partially closed</b>	<ul style="list-style-type: none"> <li style="padding: 2px 5px;">Recommended and implemented</li> <li style="padding: 2px 5px;">Recommended, not implemented</li> <li style="padding: 2px 5px;">Recommended, unknown if implemented</li> <li style="padding: 2px 5px;">Implemented, not recommended</li> </ul>

In this example, water is the mode of transmission (for context) and “Facility / site/ venue closed (for at least 1 day)” is the Intervention Type. Select whether the intervention(s) was “Recommended and implemented,” “Recommended, not implemented,” “Recommended, unknown if implemented,” or “Implemented, not recommended.” For waterborne, person-to-person, and environmental outbreaks, “Any point of intervention” will be the only intervention point available.

In the following example, food is the mode of transmission (for context) and “Menu modified” is the Intervention Type. Select whether the intervention was “Recommended and implemented,” “Recommended, not implemented,” “Recommended, unknown if implemented,” or “Implemented, not recommended” for the point of exposure and other points of intervention (distribution, processing, and source). For foodborne, animal contact, and indeterminate/unknown outbreaks, point of exposure, distribution, processing, and source will have drop-down options for interventions that were recommended and/or implemented.

Interventions – Recommended and Implemented

- ▼ Facility/site/venue and equipment
- ▼ People
- ▼ Animals
- ▲ Food

Intervention Type	Point of exposure	Other points of intervention
<b>Menu modified</b>	Point of exposure <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">▼</div> <div style="border: 1px solid #ccc; background-color: #fff; padding: 2px; width: fit-content; margin-top: 2px;">             Recommended and implemented              Recommended, not implemented              Recommended, unknown if implemented              Implemented, not recommended           </div>	Point of distribution <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">▼</div> Point of processing <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">▼</div> Source <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">▼</div>

Indicate if any public communications were released for the outbreak. If “Yes,” click the box next to each group(s) that released the public communication. Select all that apply. Include any remarks about interventions in the free text field at the end of the Interventions section.

Were any public communications released for this outbreak? (e.g., press release or outbreak notice)

Yes  
 No  
 Unknown

What group(s)?

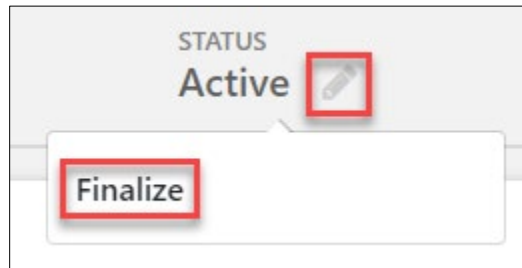
- State/local/territorial health department
- Other state/local/territorial government agency
- Federal government
- Industry
- Facility
- Other

Remarks about interventions



## REPORT FINALIZATION

When you are ready to finalize your report, you will need to change the status from “Active” to “Finalize.” At the top of the report, click the pencil next to “Active” under Status and click “Finalize.”



If you are ready to finalize the report but still have outstanding issues, you will be required to resolve the issues or provide a comment explaining why the report is being finalized with incomplete items.

### Finalize this Report

⚠️ There are 25 entry issues still outstanding

Geographic Location

- Exposure county is required.

Primary Cases

- Number of lab confirmed primary cases has not been provided.
- Sex information has not been provided.
- Age information has not been provided.

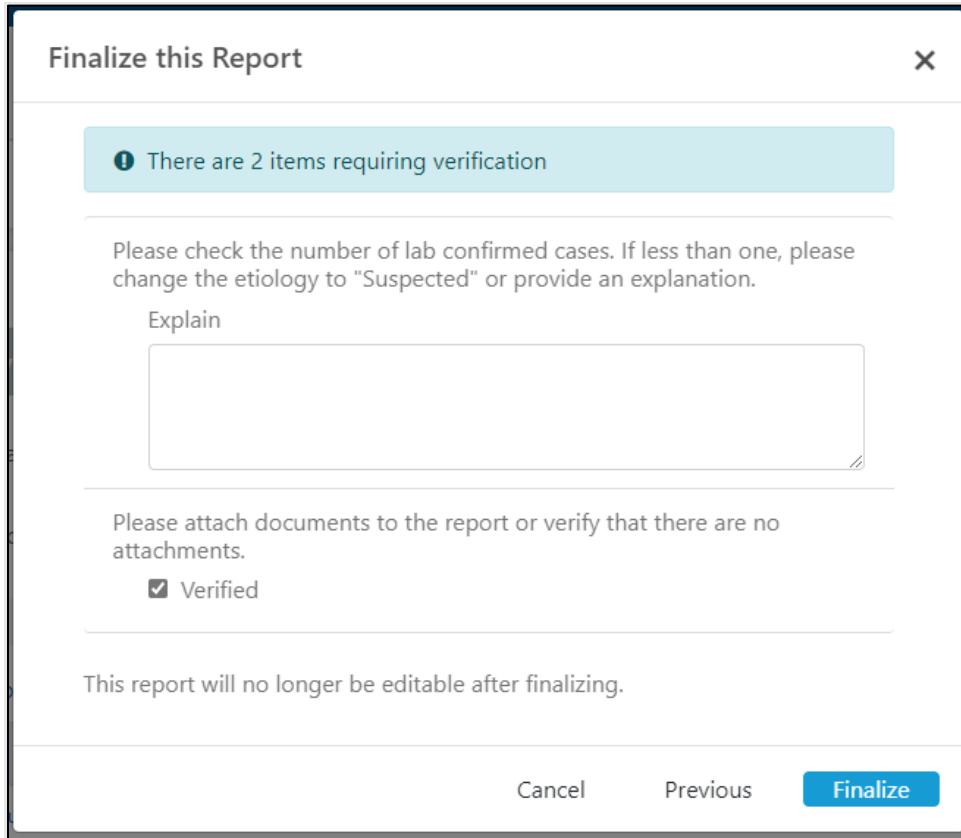
[Show all](#)

Please resolve the items, or provide a comment to explain why this report is being finalized with incomplete entry items.

Comment is required

Cancel **Next**

After resolving the issues or providing a comment to explain any incomplete items, click “Next.” You may have to verify required information and can then click “Finalize.”



**Finalize this Report** [X]

**!** There are 2 items requiring verification

Please check the number of lab confirmed cases. If less than one, please change the etiology to “Suspected” or provide an explanation.

Explain

[Text input field]

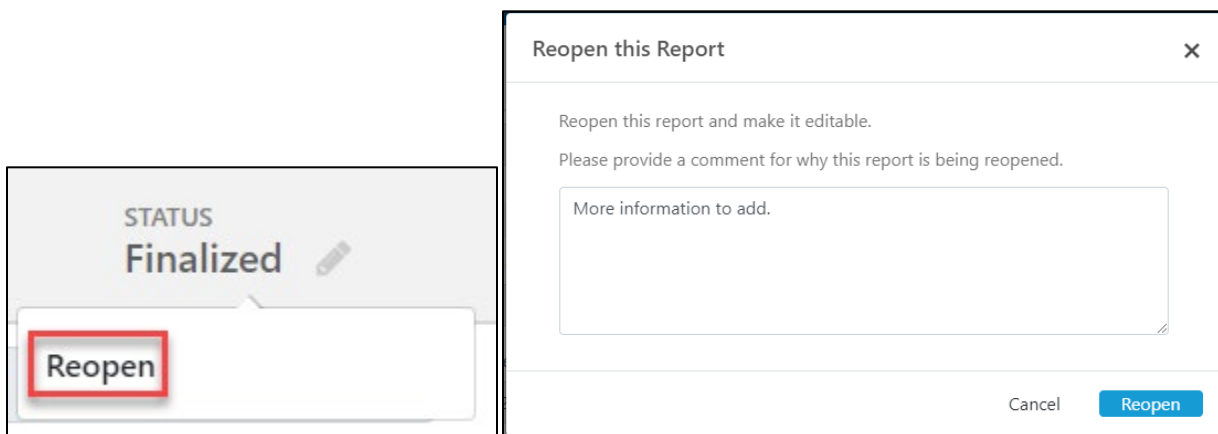
Please attach documents to the report or verify that there are no attachments.

Verified

This report will no longer be editable after finalizing.

Cancel Previous **Finalize**

Once the status is changed to “Finalized,” you will not be able to edit the report. If further information needs to be added, you can click the pencil next to “Finalized” under Status at the top. Click “Reopen” and provide a comment for why the report is being reopened. Then click “Reopen” again. The status will be changed back to “Active,” and you will be able to make edits to the report. Change the status back to “Finalized” when you are finished making edits.



**Reopen this Report** [X]

Reopen this report and make it editable.

Please provide a comment for why this report is being reopened.

More information to add.

[Text input field]

Cancel **Reopen**

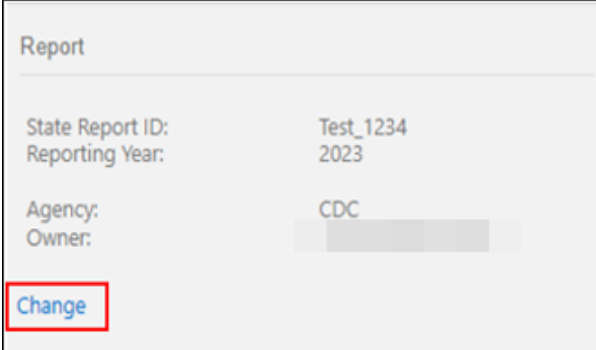
**STATUS Finalized** [Pencil icon]

**Reopen**

## SIDE PANEL

Users can update report information, add comments, review report history and upload attachments on the right-hand panel within the NORS interface.

1. **UPDATE REPORT INFORMATION:** The report owner can change State ID, report owner, or the agency name (within State) for a report using the “Change” option in the side panel.
  - a. Select “Change” on the top right-hand panel under the Report section to change report information.

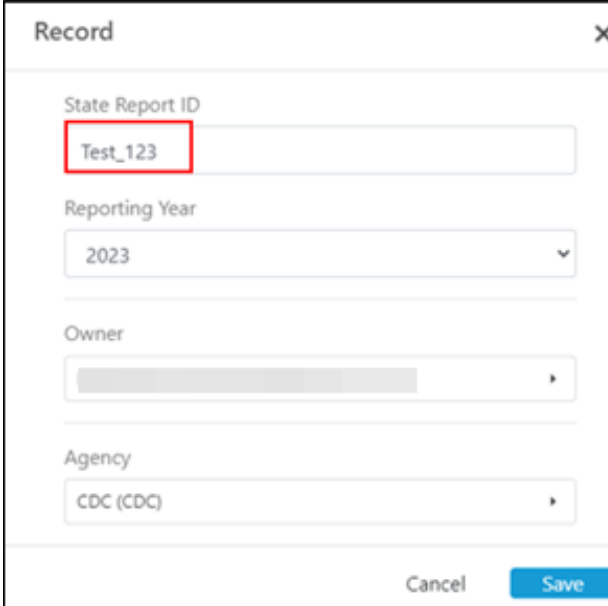


The screenshot shows a side panel titled "Report". It contains the following information:

State Report ID:	Test_1234
Reporting Year:	2023
Agency:	CDC
Owner:	[Redacted]

At the bottom left of the panel, there is a blue button labeled "Change" which is highlighted with a red rectangular box.

- b. Update the required field and click “Save.” Changes will be updated in the Report section.  
**NOTE:** A user cannot update State ID if they are not original owners of the report (i.e., if the report has not been entered by them).

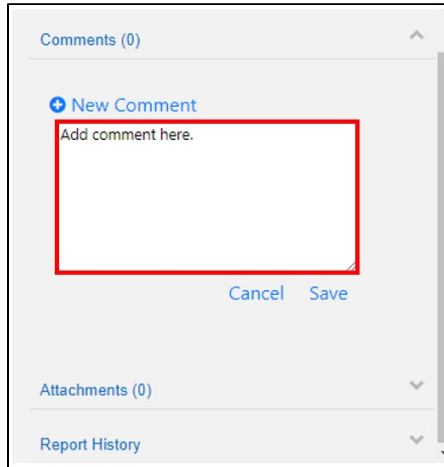


The screenshot shows a dialog box titled "Record" with a close button (X) in the top right corner. It contains the following fields:

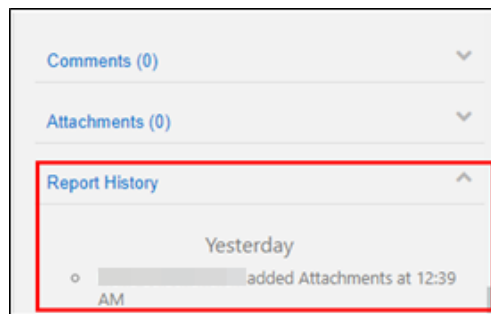
- State Report ID: A text input field containing "Test\_123", which is highlighted with a red rectangular box.
- Reporting Year: A dropdown menu currently showing "2023".
- Owner: A dropdown menu with a redacted selection.
- Agency: A dropdown menu currently showing "CDC (CDC)".

At the bottom of the dialog, there are two buttons: "Cancel" and "Save".

- 1. ADD COMMENT:** To add a comment for a report, select “New Comment” under the Comments section on the right-hand panel of the report. Add a comment in the comment box provided and click “Save.” Comments can be accessible to all users within a jurisdiction and can be edited or deleted after being saved by clicking on the pencil or trash icons next to the comment.



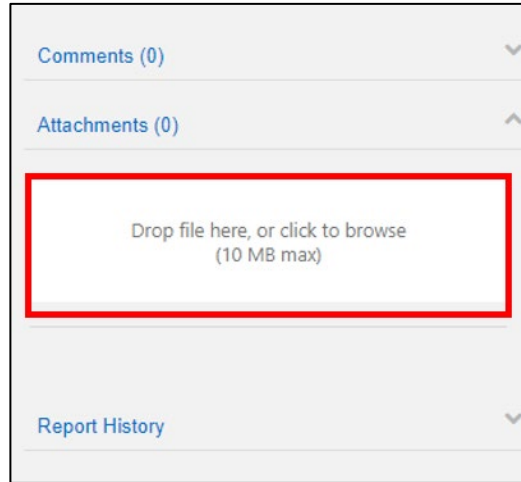
- 2. REPORT HISTORY:** All users within a jurisdiction can review changes made to a report by viewing the “Report History” section.



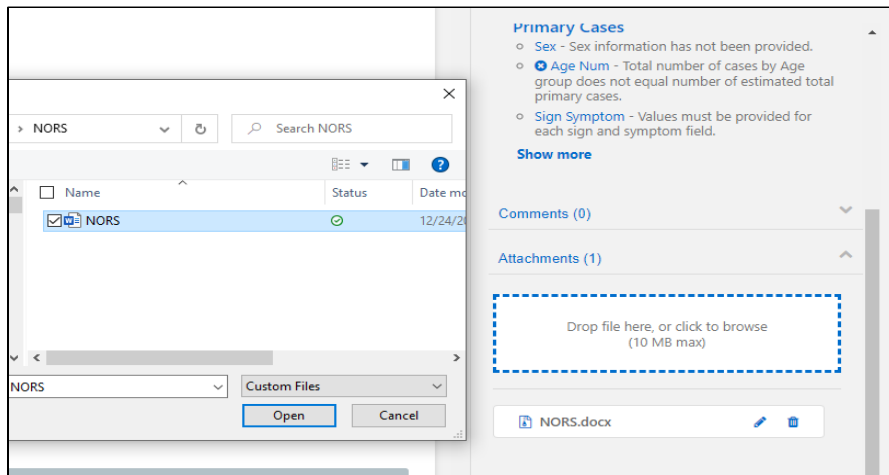
### 3. ATTACHMENTS

Attachments can be uploaded to a report in the “Attachments” section on the right-hand panel.

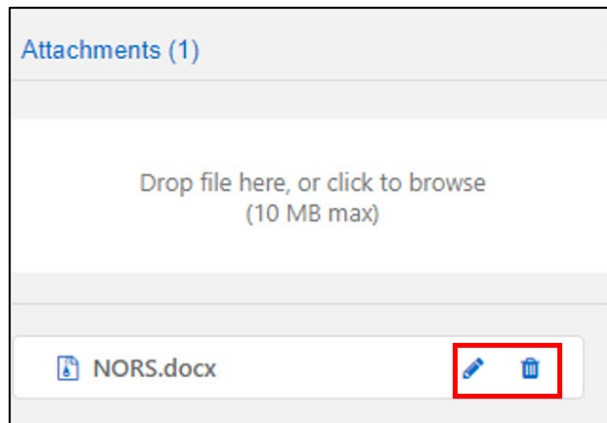
- a. Click the drop-down icon to attach a file to a report.



- b. Drop the file directly into the box or browse and select a file to be uploaded. The maximum file size acceptable is 10 MB.



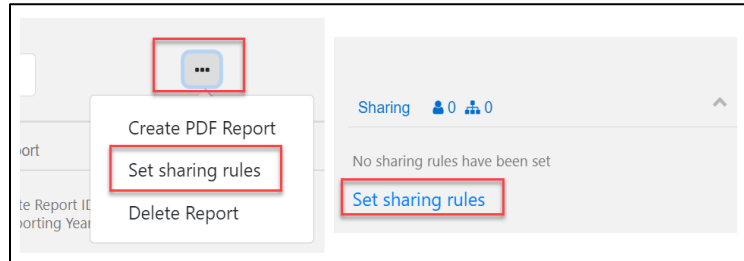
- c. Users can edit the file name or delete the file using the icons next to the attached file.



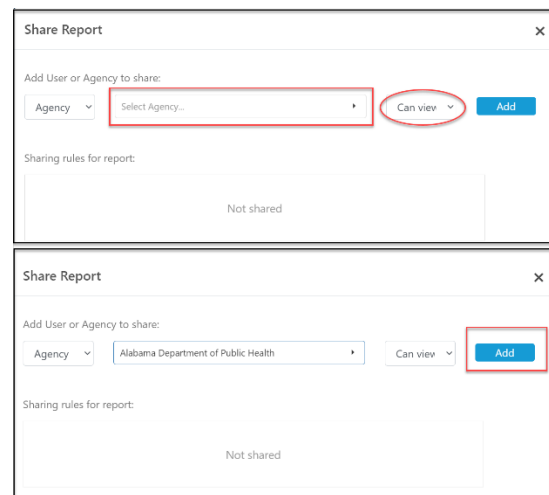
## SHARING REPORTS

Multistate outbreak reports should be shared with all jurisdictions that have cases in their state or where exposure occurred using the NORS “Set sharing rules” feature. To give report access to all agencies in other states involved in the outbreak:

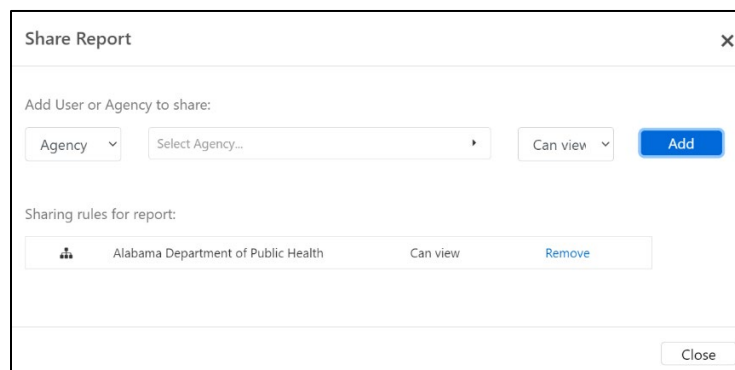
1. Select “Set sharing rules” by clicking the three dots on the top right corner of the report or in the report panel on the right side.



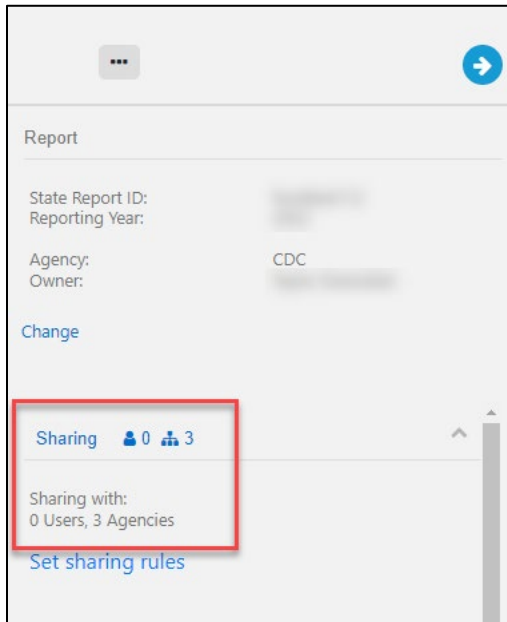
2. Select each agency the report should be shared with from the drop-down menu under “Select Agency,” and specify whether you would like those users to have view or edit access. Click “Add” for the agency to be added.



3. Agencies that the report has been shared with should populate in the box under “Sharing rules for report.” Make sure to add all participating investigating agencies to grant them access to the NORS report and close the window once you have finished sharing with all relevant agencies.



## Viewing Multistate Outbreak Reports Entered by Other Agencies



Reports that you have shared, or that have been shared with you, will be indicated in the “Shared” column on the Reports page; the number of agencies the report has been shared with will also be reflected in the “Sharing” section of the report panel. In the example to the left, the report has been shared with 3 agencies, which you can see reflected in the side panel.

If a multistate outbreak report has been shared with your agency, you can view the report in the NORS interface but may not be able to make changes to the report.

1. From the NORS home page, select “Reports.”

2. Under “Agency,” select the agency that granted read access; completing the other data fields, if known, will further narrow the search results. Alternatively, under “Shared,” select all shared reports to filter to only shared reports.

3. Select the report of interest to view it.

NORS

Home  
Reports  
Data Views  
Data Import

REPORTS

All Reports

Search...

Drag a column header here to group by that column

CDC Report ID	State Report ID	Record Status	Agency	Created	Owner	Mode of Trans...	First Ill Date	Entry Issues	Shared
		Active	CDC			Food			Shared
		Active	CDC			Animal contact			
		Active	CDC			Animal contact			
		Active	CDC			Animal contact			
		Active	CDC			Person-to-person			
		Active	CDC			Animal contact			
		Active	CDC			Animal contact			
		Active	CDC			Food			

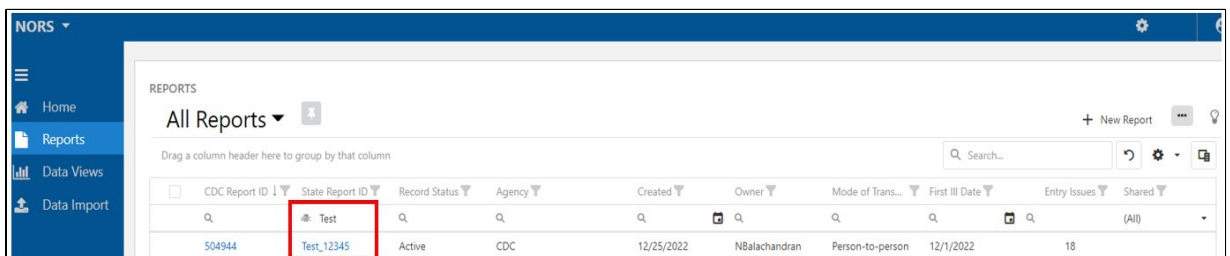
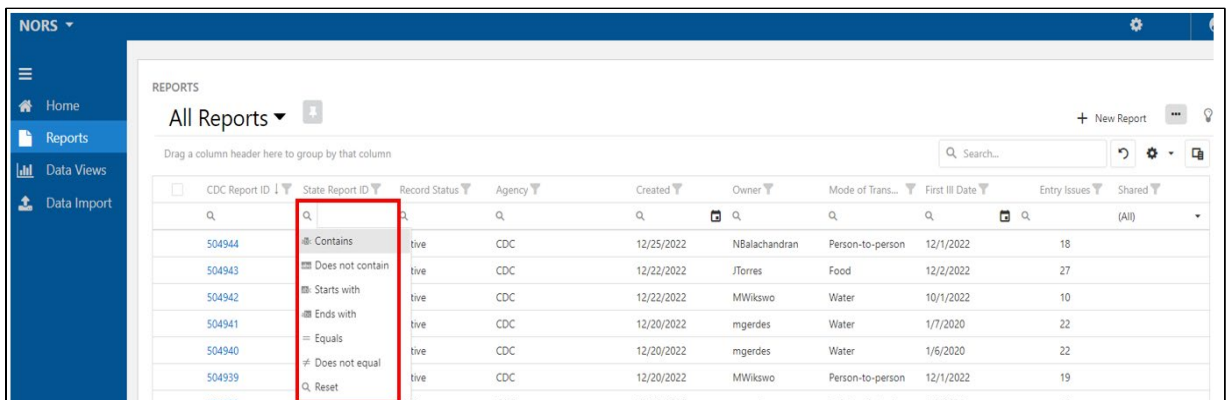
## SEARCHING REPORTS

Users can use the search function on the Reports page to search a report by keywords or complete report IDs.

1. Within the Reports page in NORS, enter a keyword or complete report ID for the report being searched. The required report or reports matching the keywords entered will appear in the table below.



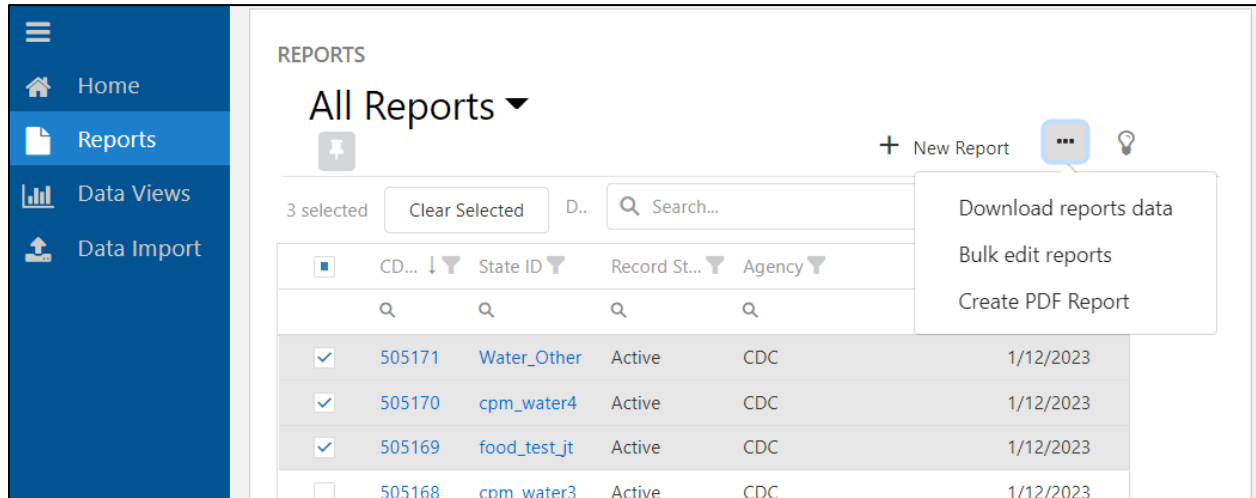
2. Users can also search for keywords within each column with additional filter options highlighted below.





## EXPORTING REPORTS

NORS data can be exported as an Excel file or PDF. To export NORS data, find the report(s) you would like to export using the [Report Search](#) features described above. Select the reports you would like to export using the checkboxes in the left-most column of the Reports table. Then click the [...] button in the top right side of the window next to the lightbulb to show the action menu.

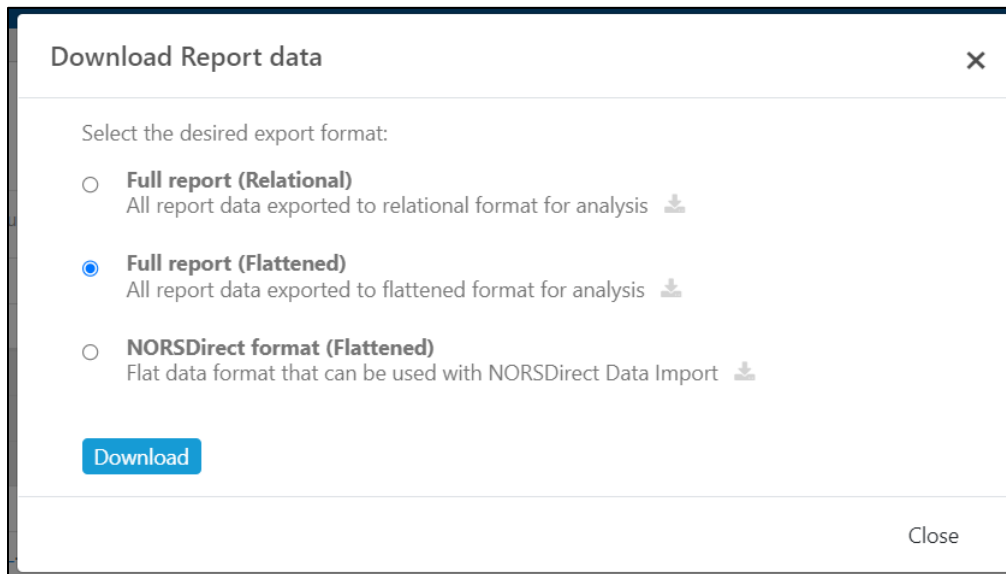


The screenshot shows the 'REPORTS' section of a web application. A sidebar on the left contains navigation links: Home, Reports (selected), Data Views, and Data Import. The main area displays 'All Reports' with a search bar and a table. Three reports are selected, and an action menu is open, showing options: 'Download reports data', 'Bulk edit reports', and 'Create PDF Report'.

	CD...	State ID	Record St...	Agency	
<input checked="" type="checkbox"/>	505171	Water_Other	Active	CDC	1/12/2023
<input checked="" type="checkbox"/>	505170	cpm_water4	Active	CDC	1/12/2023
<input checked="" type="checkbox"/>	505169	food_test_jt	Active	CDC	1/12/2023
<input type="checkbox"/>	505168	cpm_water3	Active	CDC	1/12/2023

### Excel exports

To export data as an Excel file, select "Download reports data." A pop-up will open with options for the formatting of downloaded data. Select the desired format and click "Download."



The screenshot shows a 'Download Report data' dialog box. It contains three radio button options for export formats: 'Full report (Relational)', 'Full report (Flattened)' (selected), and 'NORSDirect format (Flattened)'. A 'Download' button is at the bottom left, and a 'Close' button is at the bottom right.

Select the desired export format:

- Full report (Relational)**  
All report data exported to relational format for analysis
- Full report (Flattened)**  
All report data exported to flattened format for analysis
- NORSDirect format (Flattened)**  
Flat data format that can be used with NORSDirect Data Import

[Download](#) Close

## PDF exports

To export data as a PDF, select “Create PDF Report” from the menu in the top right corner of the NORS window in either the Reports page or from the data entry page of an open report. A pop-up will open with options to include a cover page, summary information, and report details. If the option to include a cover page is selected, you may also customize the title and description of the generated PDF report. Once you have made your selection, click “Create.” You will be redirected to a PDF reader.

To download the PDF, select the download icon from the toolbar and click “PDF.”

