

# **NC COVID**

## **Linking an Event to an Existing Outbreak**

# Agenda

- **Why do we Link?**
- **How to View Links**
- **Linking an Event to an Existing Outbreak**
  - Via Notifications
  - Via the Link Events function
- **Breaking Associated Case/Contact Links**

# Why do we Link?

- **Linking** creates a connection between a person's disease event and...
  - An outbreak of that disease
  - OR
  - To another person's event
- **Linking Events to one another or to an Outbreak...**
  - Allows users to track related events
  - Helps track and prevent disease spread

# How to View Links

- On the **Event Summary** dashboard in the **Basic Information** section, you will find the **Linked Events/Contacts** row
  - This indicates if the event is currently linked with any other Events/Outbreaks and the number of links
    - To view current links or to link an Event/Outbreak, click the **(View)** hyperlink
  - If an event is currently linked to an Outbreak, it will also show as a **Linked Outbreak** in the Notifications section

The screenshot displays the 'Event Summary' dashboard. The 'Basic Information' section includes fields for Event ID (170002340), Disease (Coronavirus (COVID-19)), Person (Orange Skittles), Type (Interactive), Investigation Status (Open), and Linked Events/Contacts (0 linked event(s)/contact(s) with a circled '(View)' link). The 'Notifications' section lists several active outbreaks with links to view them. An orange arrow points to the '(View)' link, and another orange arrow points to the list of outbreaks.

Event Summary	
<b>Basic Information</b>	<b>Notes (Add/Edit   Show My Notes)</b>
Event ID:	170002340
Disease:	Coronavirus (COVID-19)
Person:	<a href="#">Orange Skittles</a> Birth Date: 03/15/1965 ( 56 Male ) Phone: (919) 555-6789
Type:	Interactive
Investigation Status:	Open
Linked Events/Contacts:	0 linked event(s)/contact(s) <a href="#">(View)</a>
Attachments:	0 attachment(s) <a href="#">(Add)</a>
Notifications:	Classification: Probable Event is in workflows <a href="#">[View List]</a> County of residence: Wake County Earliest COVID-19 Diagnosis Date: 07/01/2021 <a href="#">[Show More]</a> <b>Active outbreak: Johnson Random Church June 2021</b> <a href="#">[Link to Outbreak]</a> <a href="#">[Open]</a> <b>Active outbreak: Watauga Public School June 2021</b> <a href="#">[Link to Outbreak]</a> <a href="#">[Open]</a> <b>Active outbreak: Granville Random Church June 2021</b> <a href="#">[Link to Outbreak]</a> <a href="#">[Open]</a> <b>Active outbreak: Durham Some Restaurant June 2021</b> <a href="#">[Link to Outbreak]</a> <a href="#">[Open]</a> <b>Active outbreak: Macon Sporting Event June 2021</b> <a href="#">[Link to Outbreak]</a> <a href="#">[Open]</a>

# Linking to an Outbreak via Notification

- The easiest way to link to an existing outbreak is to find the outbreak in the **Notifications** area of the **Basic Information** section of a person's event
  - Click the [Link to Outbreak](#) hyperlink to select the outbreak
  - Use the [Show More](#) hyperlink if the outbreak is not in the immediate list

Notifications:	Classification: Probable
	Event is in workflows [ <a href="#">View List</a> ]
	County of residence: Wake County
	<b>Earliest COVID-19 Diagnosis Date: 07/01/2021</b>
	 [ <a href="#">Show More</a> ]
	<b>Active outbreak: Johnson Random Church June 2021</b> [ <a href="#">Link to Outbreak</a> ] [ <a href="#">Open</a> ] <b>Active outbreak: Watauga Public School June 2021</b> [ <a href="#">Link to Outbreak</a> ] [ <a href="#">Open</a> ] <b>Active outbreak: Granville Random Church June 2021</b> [ <a href="#">Link to Outbreak</a> ] [ <a href="#">Open</a> ] <b>Active outbreak: Durham Some Restaurant June 2021</b> [ <a href="#">Link to Outbreak</a> ] [ <a href="#">Open</a> ] <b>Active outbreak: Macon Sporting Event June 2021</b> [ <a href="#">Link to Outbreak</a> ] [ <a href="#">Open</a> ]

# Demonstration



# Linking to an Existing Outbreak via the Link Events Function

## Linked Events screen

- Filter Linked Events
  - Used to narrow down the events in the Linked Events section, should an event be linked to multiple events
- Linked Events table
  - Lists all events linked to this event
- Link Events
  - Where linking takes place

**Linked Events - Orange Skittles - Coronavirus (COVID-19)**

**Filter Linked Events**

Disease:  Status:

**Linked Events**

Event ID	Person	Status	Create Date	Disease	Link Type	Relationship	Action

Displaying link(s) 0...0 << First < Prev 1 / 1 Next > Last >>

**Link Events**

Operation:

Disease:

Link Type:

Relationship:

**Demographics**

First Name:  Middle Name:  Last Name:

Suffix:  Maiden/Other Name:  Alias:

Birth Date:  Gender:  Social Security Number:

**Contact Information**

Address Type:  Street:

City:  State:  Zip Code:

County:  Country:

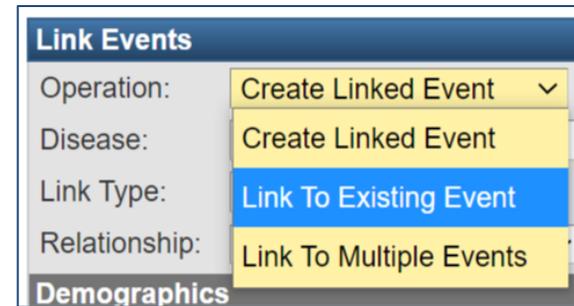
Home Phone:  Mobile Phone:  Work Phone:

Email:

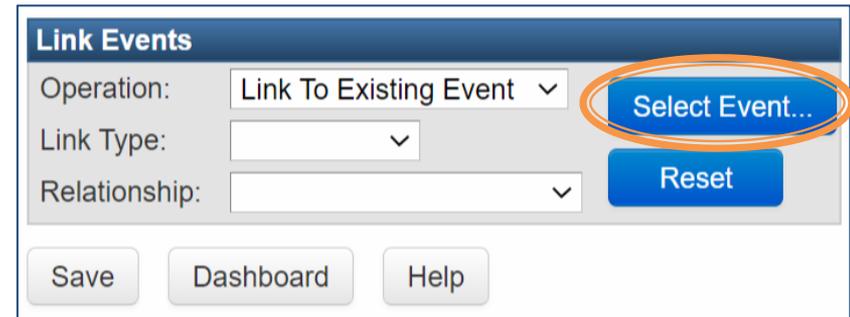
# Linking to an Existing Outbreak via the Link Events Function

Note: This training only reviews linking an event to an existing outbreak

- In the Operation field, select 'Link to Existing Event' from the menu
  - This will change Link Events section format
- Click the Select Event... button
- The Search Case window will open



A screenshot of the 'Link Events' dropdown menu. The menu is open, showing four options: 'Create Linked Event', 'Create Linked Event', 'Link To Existing Event', and 'Link To Multiple Events'. The 'Link To Existing Event' option is highlighted in blue. An orange arrow points to this option from the right.

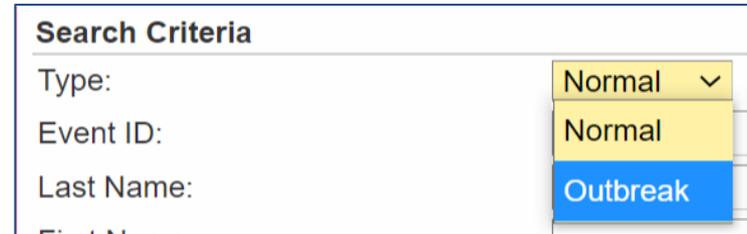


A screenshot of the 'Link Events' form. The 'Operation' field is set to 'Link To Existing Event'. The 'Link Type' and 'Relationship' fields are empty. A blue button labeled 'Select Event...' is circled in orange. Below the form are buttons for 'Save', 'Dashboard', and 'Help'. A 'Reset' button is also present.

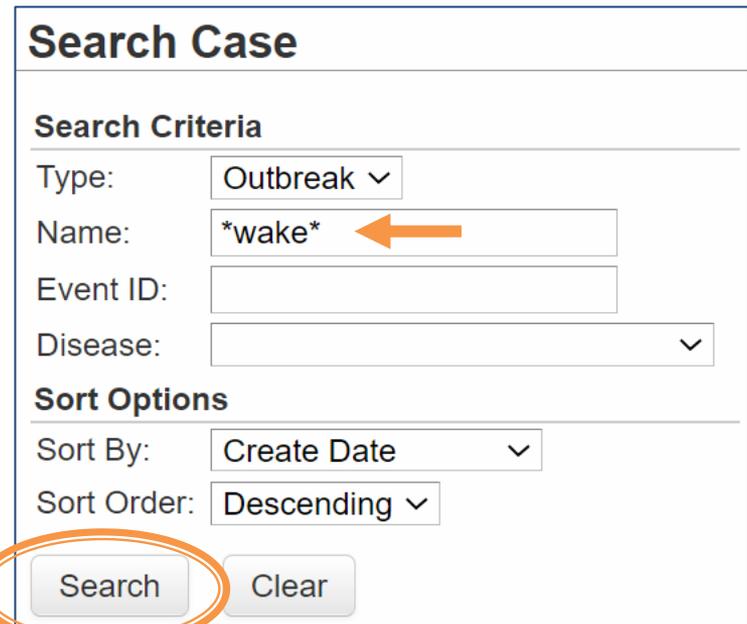
# Linking to an Existing Outbreak via the Link Events Function

## Search Case

- In the Type field, select Outbreak from the menu
  - This minimizes the Search Criteria you can enter
- In the Name field, enter the county in which the Outbreak is located with double wildcards (ex. \*wake\*)
- Click the Search button



A screenshot of the 'Search Criteria' dropdown menu. The menu is open, showing three options: 'Normal' (highlighted in yellow), 'Normal' (highlighted in yellow), and 'Outbreak' (highlighted in blue). An orange arrow points to the 'Outbreak' option.



A screenshot of the 'Search Case' form. The 'Search Criteria' section shows 'Type' set to 'Outbreak'. The 'Name' field contains '\*wake\*' with an orange arrow pointing to it. The 'Event ID' and 'Disease' fields are empty. The 'Sort Options' section shows 'Sort By' set to 'Create Date' and 'Sort Order' set to 'Descending'. The 'Search' button is circled in orange.

# Linking to an Existing Outbreak via the Link Events Function

- Search Results will appear to the right of the Search Criteria

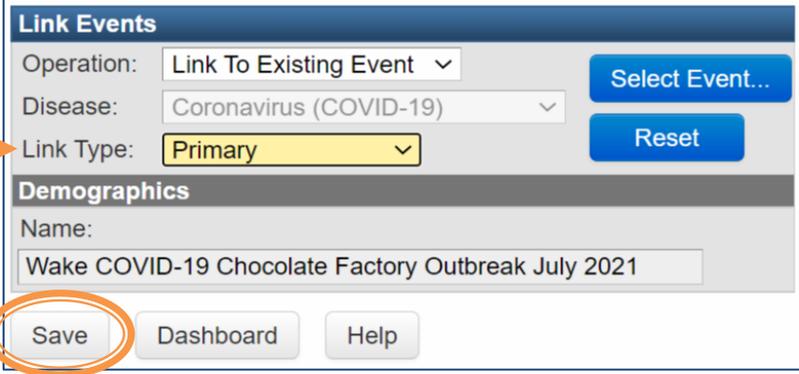
The screenshot displays a web interface for searching cases. On the left, the 'Search Case' section contains 'Search Criteria' and 'Sort Options'. The 'Search Criteria' section includes fields for 'Type' (set to 'Outbreak'), 'Name' (containing '\*wake\*'), 'Event ID', and 'Disease'. The 'Sort Options' section includes 'Sort By' (set to 'Create Date') and 'Sort Order' (set to 'Descending'). Below these are 'Search' and 'Clear' buttons. On the right, the 'Search Results' section shows a table with four entries. The first entry is highlighted in yellow. An orange arrow points from the 'Name' field in the search criteria to the first row of the results table. Below the table, there are 'Showing 1 to 4 of 4 entries', navigation buttons ('First', 'Previous', '1', 'Next', 'Last'), and a 'Select' button circled in orange, along with 'Cancel' and 'Help' buttons.

Event ID	Create Date	Name	Status	Disease
170002341	07/08/2021	Wake COVID-19 Chocolate Factory Outbreak July 2021	Open	Coronavirus (COVID-19)
170002330	06/29/2021	Wake COVID-19 Dunder Mifflin Outbreak June 2021	Open	Coronavirus (COVID-19)
170000260	01/07/2009	Salmonellosis February 2012 Wake	Open	Salmonellosis (38)
170000094	10/01/2008	HepatitisA August 2008 Wake	Open	Hepatitis A (14)

- Click on the appropriate Outbreak in order to highlight it
- Click the Select button, you will be returned to the Linked Events screen

# Linking to an Existing Outbreak via the Link Events Function

- In the Link Type field, select Primary from the menu
- Click the Save button



**Link Events**

Operation: Link To Existing Event

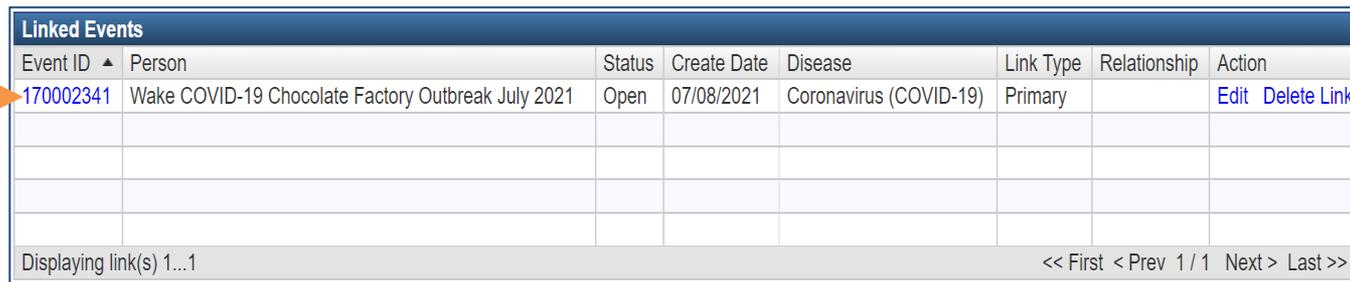
Disease: Coronavirus (COVID-19

Link Type: Primary

**Demographics**

Name: Wake COVID-19 Chocolate Factory Outbreak July 2021

- The Linked Events section shows the linked outbreak

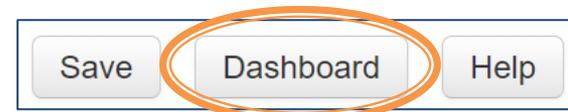


Event ID	Person	Status	Create Date	Disease	Link Type	Relationship	Action
170002341	Wake COVID-19 Chocolate Factory Outbreak July 2021	Open	07/08/2021	Coronavirus (COVID-19)	Primary		<a href="#">Edit</a> <a href="#">Delete Link</a>

Displaying link(s) 1...1

<< First < Prev 1 / 1 Next > Last >>

- Click the Dashboard button to be returned to the Event Summary dashboard



# Linking to an Existing Outbreak

- The Outbreak is now linked to the Event

Event Summary	
Basic Information	
Event ID:	170002340
Disease:	Coronavirus (COVID-19)
Person:	<a href="#">Orange Skittles</a> Birth Date: 03/15/1965 ( 56 Male ) Phone: (919) 555-6789
Type:	Interactive
Investigation Status:	Open
Linked Events/Contacts:	1 linked event(s) contact(s) ( <a href="#">View</a> )
Attachments:	0 attachment(s) ( <a href="#">Add</a> )
Notifications:	Classification: Probable
	Event is in workflows [ <a href="#">View List</a> ]
	County of residence: Wake County
	<b>Earliest COVID-19 Diagnosis Date: 07/01/2021</b>
	<b><a href="#">Linked outbreak: Wake COVID-19 Chocolate Factory Outbreak July 2021</a> [<a href="#">Open</a>]</b>

# Demonstration



# Breaking Associate Case/Contact Links

- When linking a Person's event to an Outbreak, you must check to see if they are already linked to any other Person's event(s)
- If they are, the software will automatically link the other Person's event(s) to the Outbreak – this is called linking associated contacts
- You must then break any links to contacts that are not associated with the Outbreak
  - Example: Orange works at a chocolate factory that had an outbreak. Orange was the primary contact for his wife and child, who also tested positive for COVID. The wife and child never had any association with the chocolate factory, only with Orange. The wife and child should not be linked to the outbreak.

# Breaking Associated Case/Contact Links

- Before linking, take note of any event(s) that have previously been linked to the event



Linked Events								
Event ID	Person	Status	Create Date	Disease	Link Type	Relationship	Action	
<a href="#">170002347</a>	Skittles, Green	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Child	<a href="#">Edit</a>	<a href="#">Delete Link</a>
<a href="#">170002348</a>	Skittles, Purple	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Spouse	<a href="#">Edit</a>	<a href="#">Delete Link</a>

Displaying link(s) 1...2 << First < Prev 1 / 1 Next > Last >>

- Link to the Outbreak
  - You will get a warning, click the OK button



# Breaking Associated Case/Contact Links

- After you link the event to the Outbreak you will see it appear in the Linked Events section with the other linked events

Linked Events							
Event ID ▲	Person	Status	Create Date	Disease	Link Type	Relationship	Action
170002341	Wake COVID-19 Chocolate Factory Outbreak July 2021	Open	07/08/2021	Coronavirus (COVID-19)	Primary		<a href="#">Edit</a> <a href="#">Delete Link</a>
170002347	Skittles, Green	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Child	<a href="#">Edit</a> <a href="#">Delete Link</a>
170002348	Skittles, Purple	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Spouse	<a href="#">Edit</a> <a href="#">Delete Link</a>

Displaying link(s) 1...3 << First < Prev 1 / 1 Next > Last >>

# Breaking Associated Case/Contact Links

- Now you need to break the link between the person's associated contacts and the newly linked Outbreak

Linked Events							
Event ID ▲	Person	Status	Create Date	Disease	Link Type	Relationship	Action
<a href="#">170002341</a>	Wake COVID-19 Chocolate Factory Outbreak July 2021	Open	07/08/2021	Coronavirus (COVID-19)	Primary		<a href="#">Edit</a> <a href="#">Delete Link</a>
<a href="#">170002347</a>	Skittles, Green	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Child	<a href="#">Edit</a> <a href="#">Delete Link</a>
<a href="#">170002348</a>	Skittles, Purple	Open	07/08/2021	Coronavirus (COVID-19)	Epi-Linked	Spouse	<a href="#">Edit</a> <a href="#">Delete Link</a>

Displaying link(s) 1...3 << First < Prev 1 / 1 Next > Last >>

- Click on the Event ID for the Outbreak to open the Outbreak Summary dashboard

# Breaking Associated Case/Contact Links

The **Outbreak Summary** dashboard looks very similar to the **Event Summary** dashboard

### Outbreak Summary ✕

Basic Information		Notes <a href="#">(Add/Edit)</a>   <a href="#">Show My Notes</a>
Event ID:	170002341	
Disease:	Coronavirus (COVID-19)	
Name:	Wake COVID-19 Chocolate Factory Outbreak July 2021	
Investigation Status:	Open	
Linked Events/Contacts:	1 linked event(s)/contact(s) <a href="#">(View)</a>	
Attachments:	0 attachment(s) <a href="#">(Add)</a>	
Notifications:	County of residence: Wake County <b>Earliest COVID-19 Diagnosis Date:</b>	

[Edit](#)

- Click on the [\(View\)](#) hyperlink in the **Linked Events/Contacts** row

# Breaking Associated Case/Contact Links

- There can be multiple events in the Linked Events section

Linked Events							
Event ID	Person	Status	Create Date	Disease	Link Type	Action	
170002340	Skittles, Orange	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
170002347	Skittles, Green	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
170002348	Skittles, Purple	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
170002349	Taffy, Pink	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>

Displaying link(s) 1...4 << First < Prev 1 / 1 Next > Last >>

- Locate the event ID's that were linked automatically when you linked your event to the Outbreak and are not associated with this Outbreak

# Breaking Associated Case/Contact Links

- In the Action column click the Delete Link hyperlink to remove the event(s) that should not be linked

Linked Events							
Event ID	Person	Status	Create Date	Disease	Link Type	Action	
<a href="#">170002340</a>	Skittles, Orange	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
<a href="#">170002347</a>	Skittles, Green	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
<a href="#">170002348</a>	Skittles, Purple	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>
<a href="#">170002349</a>	Taffy, Pink	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a>	<a href="#">Delete Link</a>

Displaying link(s) 1...4 << First < Prev 1 / 1 Next > Last >>

- Are you sure you want to delete the selected event link?
  - Click the OK button



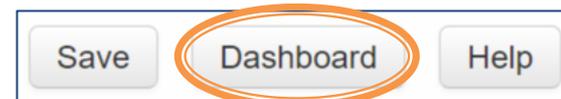
# Breaking Associated Case/Contact Links

- Confirm all events that should not be linked have been deleted from the Outbreak

Linked Events						
Event ID	Person	Status	Create Date	Disease	Link Type	Action
<a href="#">170002340</a>	Skittles, Orange	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a> <a href="#">Delete Link</a>
<a href="#">170002349</a>	Taffy, Pink	Open	07/08/2021	Coronavirus (COVID-19)	Primary	<a href="#">Edit</a> <a href="#">Delete Link</a>

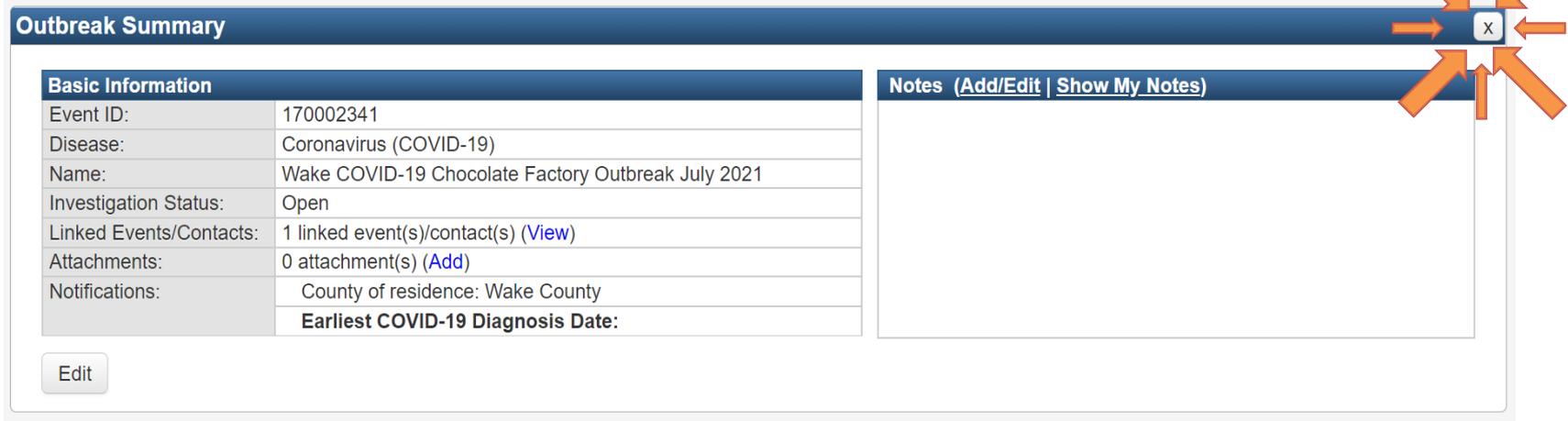
Displaying link(s) 1...2 << First < Prev 1 / 1 Next > Last >>

- Click the Dashboard button to returned to the Outbreak Summary dashboard



# Breaking Associated Case/Contact Links

- Don't forget to be a good NC COVID Citizen and unload the Outbreak!



The screenshot shows a web interface for an outbreak summary. The title bar is 'Outbreak Summary'. Below it is a table with 'Basic Information' and a 'Notes' section. The 'Basic Information' table contains the following data:

Basic Information	
Event ID:	170002341
Disease:	Coronavirus (COVID-19)
Name:	Wake COVID-19 Chocolate Factory Outbreak July 2021
Investigation Status:	Open
Linked Events/Contacts:	1 linked event(s)/contact(s) ( <a href="#">View</a> )
Attachments:	0 attachment(s) ( <a href="#">Add</a> )
Notifications:	County of residence: Wake County
	<b>Earliest COVID-19 Diagnosis Date:</b>

Below the table is an 'Edit' button. To the right of the table is a 'Notes' section with a header '(Add/Edit | Show My Notes)' and a large empty text area. In the top right corner of the interface, there is a close button with an 'x' icon, which is highlighted by several orange arrows pointing towards it.

# Demonstration



# Questions



Training Needs: [ncedsstrainings@dhhs.nc.gov](mailto:ncedsstrainings@dhhs.nc.gov)  
Helpdesk Questions: [ncedsshelpdesk@dhhs.nc.gov](mailto:ncedsshelpdesk@dhhs.nc.gov)