



North Carolina
Electronic Disease Surveillance System

NC EDSS Event Deduplication Refresher Training

February 11, 2015

Training Purpose

- Remind users to frequently review and address your jurisdiction's duplicate events!

Training Objectives

- Process overview
- Revised deduplication workflow
- Deduplication report
- Merging duplicates and staff expectations
- How to avoid duplicates

Event Deduplication Process

- Duplicates created by:
 1. **ELR** – missing person info prevents match of high confidence
 2. **Users**
 - Inadequate searching
 - Disregarding system warning during event creation
 - Person deduplication (*state staff only*) – merging person profiles may flag duplicate events

Event Deduplication Process

- NC EDSS algorithm flags events by comparing the event date fields:
 - Date basis that reflects earliest illness identification
 - Earliest specimen collection
 - Date of initial report to public health
 - Create date
- Events flagged within disease-specific time period (i.e., 30 days for chlamydia)



Creating Potential Duplicates

North Carolina Electronic Disease Surveillance System



- You will see the **Potential Matches** screen *prior to* creating new person/event if you try to create new person/event that may be a duplicate
- **Reminder: ALWAYS** click 'Select Person' button to search on person prior to creating a new one

Create Event - Person Information

Event Information

Disease:

Add Person

First Name: Middle Name: Last Name:

Suffix: Maiden/Other Name: Alias:

Mother's Maiden Name:

Birth Date: Gender: Social Security Number:

MM/DD/YYYY

Contact Information

Address Type: Street:

City: State: Zip Code:

County: Country:

Home Phone: Mobile Phone: Work Phone:

Contact Method: Residence Type: Address Status:



Potential Matches

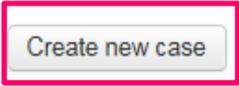
Please review the existing cases before proceeding.

This is the person for the new event you have entered

Entered Information:

Name:	Minnie Testing Mouse
Gender:	Female
Birth Date:	01/01/2001
Social Security Number:	
Address:	225 N Mc Dowell St, Raleigh, NC 27603
County:	Wake County
Country:	USA
Phone:	

Option #1



Matches

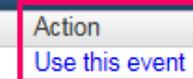
This is the potential person/event match to your new person/event

Matched Record 1

Name:	Minnie Testing Mouse [Details]
External ID:	PCTESIHFMES
Gender:	Female
Birth Date:	01/01/2001
Social Security Number:	
Address:	225 N Mc Dowell St, Raleigh, NC 27603
County:	Wake County
Country:	USA
Phone:	

Events

Event ID	Status	Disease	Create Date	Case status	Action
101050140	Open	Chlamydia (200)	02/06/2016		Use this event Print Event

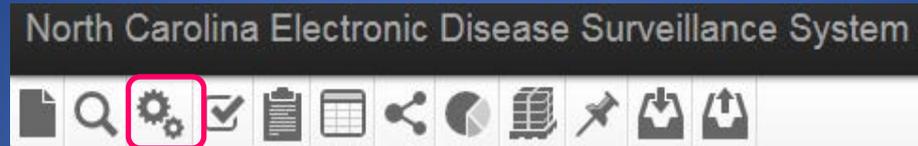


Option #3

Option #2

Event Deduplication Workflow

- One workflow for event dedups



Deduplication/Import Monitors
Failed Imports
Person Deduplication
Person Deduplication - Persons With HIV/AIDS
Person Deduplication - Persons With TB/LTBI
Person Deduplication - Persons Without TB/LTBI or HIV/AIDS Involvement
Event Deduplication
Outbreak Merge

Local and regional users will NOT see the Person Dedup workflows.

Event Deduplication							
Event Deduplication							
Event ID	Create Date	Disease	Name	Gender	Birth Date	Address	Action
170001706	01/28/2016	Chlamydia (200)	sammy jones		07/01/1976	NC	Select
170001673	10/01/2014	Salmonellosis (38)	Corrado Soprano Jr.	Male	02/04/1931	6 House Arrest Lane, Raleigh, NC 27607	Select
170001672	10/01/2014	Salmonellosis (38)	Meadow Mariangela Soprano	Female	05/01/1981	81 Mobby Lane, Raleigh, NC 27612	Select

- Hyperlink added to Event Summary:

Event Summary	
Basic Information	
Event ID:	101050141
Deduplication Status:	Pending Deduplicate

Event Deduplication Screen

Updates in NC EDSS as of Jan 2016

North Carolina Electronic Disease Surveillance System

Event and Outbreak Deduplication

Source Record	Matched Record 1 [Score: 100.00] ⓘ
First Name:	Minnie
Middle Name:	Testing
Last Name:	Mouse
External ID:	PCTESIHFMES
Create Date:	01/20/2016
Gender:	Female
Birth Date:	01/01/2001
Social Security Number:	
Street:	225 N Mc Dowell St
City:	Raleigh
State:	NC
Zip Code:	27603
County:	Wake County
Country:	USA
Home Phone:	
Mobile Phone:	
Work Phone:	
Event ID:	101050141 Print Event
Disease:	Chlamydia (200)
Create Date:	02/06/2016
Case status:	07/23/2014
Question Packages:	01. Administrative: 101 Answers 02. Demographic: 33 Answers 03. Clinical: 56 Answers 04. Risk History: 1 Answers 05. Field Investigation: 39 Answers 06. Case Management: 0 Answers 08. Referrals and Interventions: 0 Answers 11. Case Definition Wizard: 0 Answers 13. Risk Questions - Part 1: 0 Answers
Use as Primary for Merge:	<input checked="" type="radio"/>
Select Record for Merge:	<input type="checkbox"/>

Event Deduplication Screen

North Carolina Electronic Disease Surveillance System

Event and Outbreak Deduplication

Source Record	Matched Record
First Name: Minnie	Minnie
Middle Name: Testing	Testing
Last Name: Mouse	Mouse
External ID: PCTESIHFMES	PCTESIHFMES
Create Date: 01/20/2016	01/20/2016
Gender: Female	Female
Birth Date: 01/01/2001	01/01/2001
Social Security Number:	
Street: 225 N Mc Dowell St	225 N Mc Dowell St
City: Raleigh	Raleigh
State: NC	NC
Zip Code: 27603	27603
County: Wake County	Wake County
Country: USA	USA
Home Phone:	
Mobile Phone:	
Work Phone:	
Event ID: 10105014 Print Event	10105014 Print Event
Disease: Chlamydia (200)	Chlamydia (200)
Create Date: 02/06/2016	07/23/2014
Case status:	
Question Packages: 01. Administrative: 19 Answers 02. Demographic: 23 Answers 03. Clinical: 0 Answers 04. Risk History: 2 Answers 11. Case Definition Wizard: 0 Answers 12. CDC Required Questions: 0 Answers 13. Risk Questions - Part 1: 0 Answers	01. Administrative: 101 Answers 02. Demographic: 33 Answers 03. Clinical: 56 Answers 04. Risk History: 1 Answers 05. Field Investigation: 39 Answers 06. Case Management: 0 Answers 08. Referrals and Interventions: 0 Answers 11. Case Definition Wizard: 0 Answers 13. Risk Questions - Part 1: 0 Answers
Use as Primary for Merge: <input checked="" type="radio"/>	<input type="radio"/>
Select Record for Merge:	<input type="checkbox"/>

Keep separate

Merge selected

Merge fields

Dashboard

Help

How to complete this screen:

1. Hep B or HIV/AIDS?
If Yes, STOP.
2. Print Event to open/print complete event data
 - **Either event already reported to CDC?**
 - **Either event closed?**
If Yes, set as PRIMARY.

Event Deduplication Screen

Print Event

Summary:

Maven Event ID: 101050141
Investigation Status: Open
Disease: Chlamydia (200)
Created by/Date: msanza, 02/06/2016

Patient
Minnie Testing Mouse (Sex:Female)
Address: 225 N Mc Dowell St, Raleigh, NC

Concerns
Initial date of report to public health is missing and is required
Race has not been selected for this person

Administrative QP – CDC Reporting Information

Lab Results

1. Administrative Report Information

Other Report Information (Minnie Testing Mouse Sex: Female)

01. Administrative

Date report entered into system	02/06/2016
NC County of Residence for the Event	Wake County
Date Assigned/Reassigned	02/06/2016
Select the reason for the assignment/reassignment	Original/Initial Assignment
Classification status	Unspecified
Remove this event from my review and approval workflow?	No
Additional Date for a Reporting Date Basis (includes both Contacts and Cases)	02/06/2016
Is this event the responsibility of another state or country to report?	No
Report to CDC (Send to eHARS for HIV/AIDS)	No

Event Deduplication Screen

Event Hyperlink

1. Investigation Status:

Event Summary	
Basic Information	
Event ID:	170001707
Disease:	Chlamydia (200)
Person:	Minnie Mouse Birth Date: 07/04/1976 (39 Female)
Type:	Interactive
Investigation Status:	Closed

2. AdminQP, event reported to CDC?

CDC Reporting Information		
Additional Date for a Reporting Date Basis (includes both Contacts and Cases) i	02/06/2016	
Is this event the responsibility of another state or country to report?	No <input type="button" value="v"/>	
Report to CDC (Send to eHARS for HIV/AIDS)	No <input type="button" value="v"/>	
CDC Event Date sent in the last transmission		Date Type <input type="button" value="v"/>
CDC Event Date - Next Send	02/06/2016	Date Type <input type="button" value="v"/> Date Event Created

CDC Reporting Information		
Additional Date for a Reporting Date Basis (includes both Contacts and Cases) i	01/24/2016	
Is this event the responsibility of another state or country to report?	No <input type="button" value="v"/>	
Report to CDC (Send to eHARS for HIV/AIDS)	Yes <input type="button" value="v"/>	Date this event marked for report to CDC: 01/29/2016
State case number		When blank, the State Case Number that is used is the NC EDSS Event ID
Date first transmitted to CDC	02/01/2016	
MMWR Date Basis	01/24/2016	
MMWR Week	04	MMWR YEAR 2016
CDC Event Date sent in the last transmission	01/24/2016	Date Type <input type="button" value="v"/> Date of Laboratory Testing
CDC Event Date - Next Send	01/24/2016	Date Type <input type="button" value="v"/> Date of Laboratory Testing

Event Deduplication Screen

North Carolina Electronic Disease Surveillance System

Event and Outbreak Deduplication

Source Record	Matched Record 1 [Score: 100.00] ⓘ
First Name: Minnie	Minnie
Middle Name: Testing	Testing
Last Name: Mouse	Mouse
External ID: PCTESIHFMES	PCTESIHFMES
Create Date: 01/20/2016	01/20/2016
Gender: Female	Female
Birth Date: 01/01/2001	01/01/2001
Social Security Number:	
Street: 225 N Mc Dowell St	225 N Mc Dowell St
City: Raleigh	Raleigh
State: NC	NC
Zip Code: 27603	27603
County: Wake County	Wake County
Country: USA	USA
Home Phone:	
Mobile Phone:	
Work Phone:	
Event ID: 101050141 Print Event	101050140 Print Event
Disease: Chlamydia (200)	Chlamydia (200)
Create Date: 02/06/2016	02/06/2016
Case status:	
Question Packages: 01. Administrative: 19 Answers 02. Demographic: 23 Answers 03. Clinical: 0 Answers 04. Risk History: 2 Answers 11. Case Definition Wizard: 0 Answers 12. CDC Required Questions: 0 Answers 13. Risk Questions - Part 1: 0 Answers	01. Administrative: 19 Answers 02. Demographic: 23 Answers 03. Clinical: 0 Answers 04. Risk History: 2 Answers 11. Case Definition Wizard: 0 Answers 12. CDC Required Questions: 0 Answers 13. Risk Questions - Part 1: 0 Answers
Use as Primary for Merge: <input type="radio"/>	<input type="radio"/>
Select Record for Merge: <input type="checkbox"/>	<input checked="" type="checkbox"/>

Keep separate

Merge selected

Merge fields

Field level side-by-side merging for cases has been disabled because you have some field level security restrictions

Dashboard

Help

3. Keep separate if different events, otherwise...
4. Select Primary record (*maintained in NC EDSS*)
5. Select Record for Merge
6. "Merge selected" to merge Secondary record into Primary

Merging Duplicates

- Matches may be easy to resolve and merge
 - High score, high confidence of a match
 - Obvious data entry errors
 - A user immediately acknowledges accidental duplicate
 - Users may report duplicates, but you may need to verify which data values should be maintained in NC EDSS (i.e., if one event already reported to CDC or closed)

How Event Data Are Merged

	NC EDSS Question	Primary Event Answer	Secondary Event Answer	Merged Event Result
Example 1 <i>(single answer, primary/secondary complete)</i>	Initial Source of Report to Public Health	Lab	LHD Provider	Lab
Example 2 <i>(single answer, primary data blank)</i>	Initial Source of Report to Public Health	Blank	LHD Provider	LHD Provider
Example 3 <i>(mutli-select)</i>	Site of Infection	Torso	Extremities	Torso Extremities
Example 4 <i>(repeatable block)</i>	Did the patient take an antibiotic?	Yes	Yes	Yes
	Specify Name	Azithromycin	Ceftriaxone	Azithromycin Ceftriaxone

NOTE: Only the Primary event investigation trail is retained.

Avoid Creating Duplicates

1. Proper searching:

- Wild cards (*)
- Inexact birthdate
- Search history
- Soundex
- *Search every time you get a lab!*

Search Criteria	
Last Name:	Mou*
First Name:	Min*
Birth Date: (Inexact)	
Search Options	
Search History:	<input checked="" type="checkbox"/>
Search Soundex:	<input checked="" type="checkbox"/>

2. Be alert and don't rush

3. Pay close attention to system warnings on Potential Matches screen (see next slide)

- You can use the Home button to exit Potential Matches screen!

When in doubt, call the NC EDSS Help Desk!

Event Deduplication Summary

1. Duplicate event created (by ELR or user)

Search properly to avoid duplicates!

2. NC EDSS flags duplicate (compares event dates, for events within disease timeframe)

3. NC EDSS scores duplicate (100 is a match of high confidence)

Merge usually OK if score high

4. Record added to Event Deduplication workflow

5. Local or regional users reviews and resolves duplicate by merging events

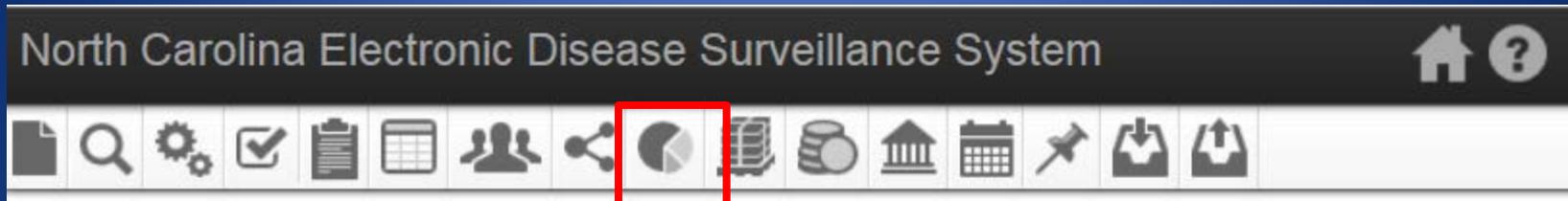
Lower scores require LHD/field staff to verify correct info

Event Deduplication Demo

Questions?

Event Deduplication Report

- To review duplicate records for YOUR DISEASE:



North Carolina Electronic Disease Surveillance System

Maven Reporting

Maven Reporting

Category:

Select Report:

Description: Listing of event in the deduplication workflow queue for any selected disease(s)

Disease:

Output Type:

Event Deduplication Report

1. Use CASE_ID in report to resolve duplicates

Deduplication: Event Deduplication Workflow Report By Disease

Report Time: 02/06/2016 02:22 PM

UNID	CASE_ID	NAME
12314071	100111833	Chlamydia (200)
12316064	100243865	Chlamydia (200)
12316929	100268719	Chlamydia (200)

2. Search for flagged case in NC EDSS search bar

North Carolina Electronic Disease Surveillance System



101049808



3. Navigate to Event Deduplication screen via Deduplicate hyperlink

Event Summary

Basic Information

Event ID: 101050141
Deduplication Status: Pending [Deduplicate](#)

Event Deduplication Screen

Merge fields



Case Field Merge

Primary vs. Secondary

	Primary Case	Secondary Case
01. Administrative		
Just to make the view security falsely be 5 so deduplicate merge attachments use high level	<input checked="" type="radio"/> Yes	<input type="radio"/> Yes
Disease	<input checked="" type="radio"/> Chlamydia	<input type="radio"/> Chlamydia
Show for all STDs	<input checked="" type="radio"/> YES	<input type="radio"/> YES
TO GROUP ALL BACTERIAL STDS	<input checked="" type="radio"/> YES	<input type="radio"/> YES
Date report entered into system	<input checked="" type="radio"/> 02/06/2016	<input type="radio"/> 02/06/2016
NC County of Residence for the Event	<input checked="" type="radio"/> Wake County	<input type="radio"/> Wake County
Date Assigned/Reassigned	<input checked="" type="checkbox"/> 02/06/2016	<input type="checkbox"/> 02/06/2016
Select the reason for the assignment/reassignment	Original/Initial Assignment	Original/Initial Assignment
Classification status	Unspecified	Unspecified
Remove this event from my review and approval workflow?	No	No
Additional Date for a Reporting Date Basis (includes both Contacts and Cases)	<input checked="" type="radio"/> 02/06/2016	<input type="radio"/> 02/06/2016
Is this event the responsibility of another state or country to report?	<input checked="" type="radio"/> No	<input type="radio"/> No
Report to CDC (Send to eHARS for HIV/AIDS)	<input checked="" type="radio"/> No	<input type="radio"/> No
CDC Event Date - Next Send	<input checked="" type="radio"/> 02/06/2016	<input type="radio"/> 02/06/2016
Date Type	<input checked="" type="radio"/> Date Event Created	<input type="radio"/> Date Event Created
Lab review date (local)?		
Lab review date (state)?		
Last date laboratory tests modified		
Date Basis for Deduplication (derived)		
02. Demographic		
First name		
Middle name		

- “Merge fields” NOT an option for all staff!
- Side-by-side comparison between the Primary and Secondary Case
- Information that is same will be greyed-out
- For options not greyed-out, make selections and click Save