

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

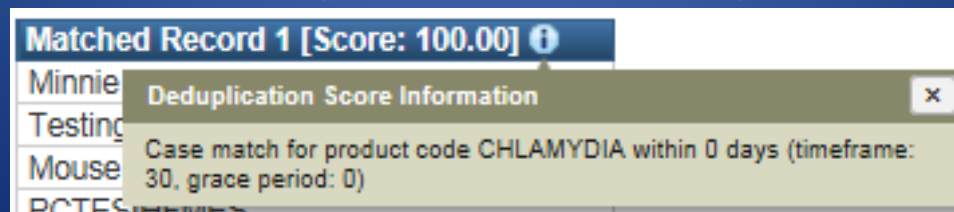
- Process overview
- Revised deduplication workflow
- Deduplication report
- Merging duplicates and staff expectations
- How to avoid duplicates

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:

Contact Information

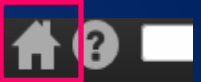
Address Type: Street:

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

Create new case

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 |

Create new case

Cancel

Help

Option #3

Option #2

Event Deduplication Workflow

- One workflow for event dedups

North Carolina Electronic Disease Surveillance System

Icons: File, Search, **Settings**, Checkmark, Clipboard, Calendar, Share, Pie Chart, Database, Pin, Download, Upload

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.

North Carolina Electronic Disease Surveillance System

Home ? Search Megar

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 | 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 | 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

Event Deduplication Screen

North Carolina Electronic Disease Surveillance System

Event and Outbreak Deduplication

| Source Record | | Matched Record T Score: 100.001 | |
|---------------------------|---|--|---|
| First Name: | Minnie | First Name: | Minnie |
| Middle Name: | Testing | Middle Name: | Testing |
| Last Name: | Mouse | Last Name: | Mouse |
| External ID: | PCTESIHFMES | External ID: | PCTESIHFMES |
| Create Date: | 01/20/2016 | Create Date: | 01/20/2016 |
| Gender: | Female | Gender: | Female |
| Birth Date: | 01/01/2001 | Birth Date: | 01/01/2001 |
| Social Security Number: | | Social Security Number: | |
| Street: | 225 N Mc Dowell St | Street: | 225 N Mc Dowell St |
| City: | Raleigh | City: | Raleigh |
| State: | NC | State: | NC |
| Zip Code: | 27603 | Zip Code: | 27603 |
| County: | Wake County | County: | Wake County |
| Country: | USA | Country: | USA |
| Home Phone: | | Home Phone: | |
| Mobile Phone: | | Mobile Phone: | |
| Work Phone: | | Work Phone: | |
| Event ID: | 10105014 Print Event | Event ID: | 10105014 Print Event |
| Disease: | Chlamydia (200) | Disease: | Chlamydia (200) |
| Create Date: | 02/06/2016 | Create Date: | 07/23/2014 |
| Case status: | | 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 | 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"/> | Use as Primary for Merge: | <input type="radio"/> |
| Select Record for Merge: | | 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

Browser tabs: Event and Outbreak Deduplica... Disease Report Printout

Address bar: https://ncedssuat.ncpublichealth.info/MavenAttac

Suggested Sites | Get more Add-ons

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

Investigation Status: Open

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)  | 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  | |
| CDC Event Date sent in the last transmission | | Date Type  |
| CDC Event Date - Next Send | 02/06/2016 | Date Type  Date Event Created |

| CDC Reporting Information | | | |
|---|---|---|--|
| Additional Date for a Reporting Date Basis (includes both Contacts and Cases)  | 01/24/2016 | | |
| Is this event the responsibility of another state or country to report? | No  | | |
| Report to CDC (Send to eHARS for HIV/AIDS) | Yes  | 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 |  Date of Laboratory Testing |
| CDC Event Date - Next Send | 01/24/2016 | Date Type |  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 | First Name: | Minnie |
| Middle Name: | Testing | Middle Name: | Testing |
| Last Name: | Mouse | Last Name: | Mouse |
| External ID: | PCTESIHFMES | External ID: | PCTESIHFMES |
| Create Date: | 01/20/2016 | Create Date: | 01/20/2016 |
| Gender: | Female | Gender: | Female |
| Birth Date: | 01/01/2001 | Birth Date: | 01/01/2001 |
| Social Security Number: | | Social Security Number: | |
| Street: | 225 N Mc Dowell St | Street: | 225 N Mc Dowell St |
| City: | Raleigh | City: | Raleigh |
| State: | NC | State: | NC |
| Zip Code: | 27603 | Zip Code: | 27603 |
| County: | Wake County | County: | Wake County |
| Country: | USA | Country: | USA |
| Home Phone: | | Home Phone: | |
| Mobile Phone: | | Mobile Phone: | |
| Work Phone: | | Work Phone: | |
| Event ID: | 101050141 Print Event | Event ID: | 101050140 Print Event |
| Disease: | Chlamydia (200) | Disease: | Chlamydia (200) |
| Create Date: | 02/06/2016 | Create Date: | 02/06/2016 |
| Case status: | | 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 | 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 |
| Use as Primary for Merge: | <input checked="" type="radio"/> | Use as Primary for Merge: | <input type="radio"/> |
| Select Record for Merge: | | Select Record for Merge: | <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

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

Dashboard

Help

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

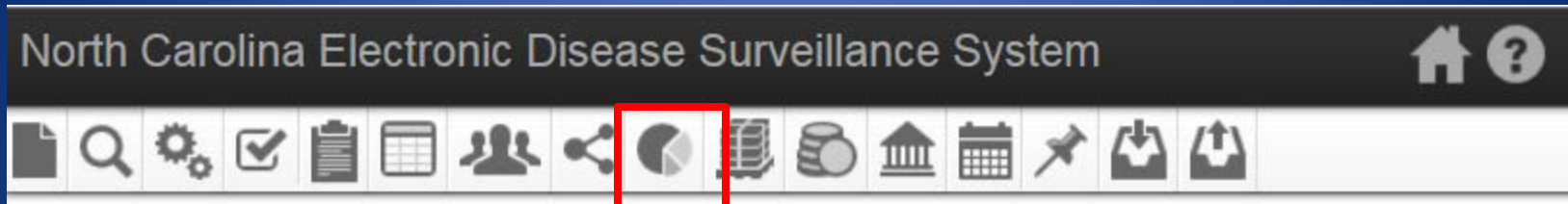
Lower scores require LHD/field staff to verify correct info

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

North Carolina Electronic Disease Surveillance System



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