

North Carolina
Electronic Disease Surveillance System

NC EDSS Person Deduplication Refresher Training

February 9, 2015

Training Purpose

- Increase staff capacity to keep up with person deduplication volume!

Training Objectives

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

Person 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
- NC EDSS algorithm flags records for deduplication review
- Dups scored based on name/DOB/address matches and added to Deduplication workflow



Potential Matches Screen

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- 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
- **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:
NC
County: Country:
USA
Home Phone: Mobile Phone: Work Phone:
Contact Method: Residence Type: Address Status:



Potential Matches

When in doubt... click home!

The following people seem to match the information you have entered. Please review the information below and either select an existing person to use or simply choose to proceed to create a new person in the system.

This is the new person you have entered

Entered Information:

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

Create new case and person

Mark as pending deduplication

Option #1

Matches

This is the potential 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:	

Choose Person (creates new event)

Use entered information

Option #2

Events

Event ID	Status	Disease	Create Date	Case status	Action
101049801	Open	E. coli - shiga toxin producing (53)	01/20/2016		Use this event Print Event

Use this event Print Event

Option #3

Create new case and person

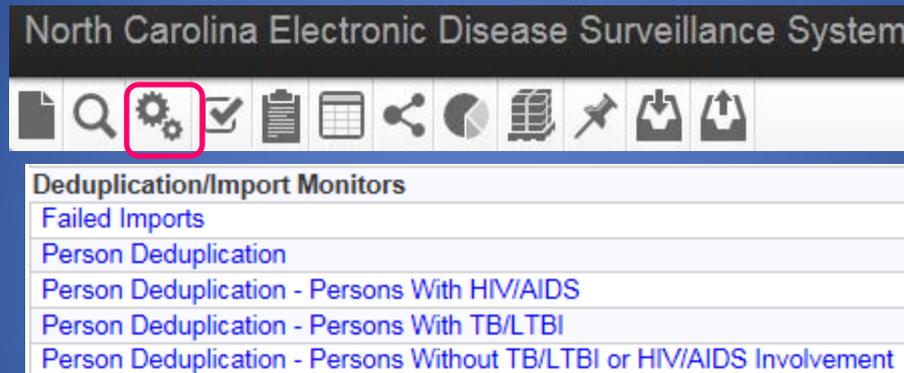
Cancel

Help

Option # 4

Person Deduplication Workflow

- Multiple duplication workflows split out HIV/AIDS and TB/LTBI



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Deduplication/Import Monitors

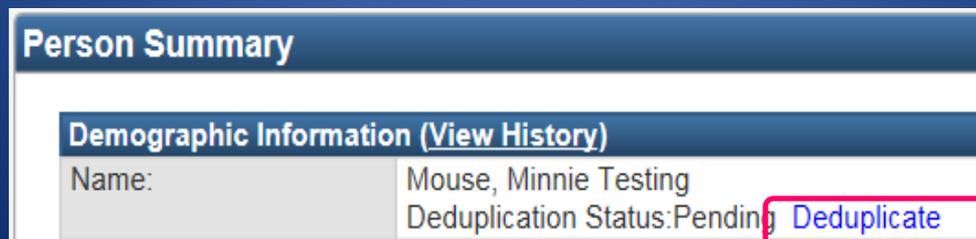
- Failed Imports
- Person Deduplication
- Person Deduplication - Persons With HIV/AIDS
- Person Deduplication - Persons With TB/LTBI
- Person Deduplication - Persons Without TB/LTBI or HIV/AIDS Involvement

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Person Deduplication

Person Deduplication						
Type	Create Date	Name	Gender	Birth Date	Address	Action
Person	01/20/2016	Minnie Testing Mouse	Female	01/01/2001	225 N McDowell St, Raleigh, NC 27603	Select

- Hyperlink added to Person Summary



Person Summary

Demographic Information ([View History](#))

Name: Mouse, Minnie Testing
Deduplication Status: Pending [Deduplicate](#)

Person Deduplication Screen

Updates in NC EDSS as of Jan 2016

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Person Deduplication

Source Record		Matched Record 1 [Score: 100.00] ⓘ	
First Name:	Minnie	Minnie	
Middle Name:	Testing	Testing	
Last Name:	Mouse	Mouse	
View Summary:	Details	Details	
External ID:	PCTESIHNR LU	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 McDowell St	225 N Mc Dowell St	
City:	Raleigh	Raleigh	
State:	NC	NC	
Zip Code:		27603	
County:		Wake County	
Country:	USA	USA	
Home Phone:			
Mobile Phone:			
Work Phone:			
Use as Primary for Merge:	<input checked="" type="radio"/>	<input type="radio"/>	
Select Record for Merge:		<input checked="" type="checkbox"/>	

Keep separate

Merge Type:

- [Select]
- Unverified
- Verified - Phone
- Verified - In Person
- Verified - Additional Documentation
- Verified - External System
- Other

Merge selected

Merge fields

Workflow

Dashboard

Help

Person Deduplication Screen

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Person Deduplication

Source Record		Matched Record	IScore: 100.001
First Name:	Minnie	Minnie	
Middle Name:	Testing	Testing	
Last Name:	Mouse	Mouse	
View Summary:	Details	Details	
External ID:	PCTESIHNRLU	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 McDowell St	225 N Mc Dowell St	
City:	Raleigh	Raleigh	
State:	NC	NC	
Zip Code:		27603	
County:		Wake County	
Country:	USA	USA	
Home Phone:			
Mobile Phone:			
Work Phone:			
Use as Primary for Merge:	<input checked="" type="radio"/>	<input type="radio"/>	
Select Record for Merge:		<input checked="" type="checkbox"/>	

How to complete this screen:

1. Compare and check score
2. Review **Details**
 - Full Person Summary
 - Address Info
 - Events

Keep separate

Merge Type:

- [Select]
- Unverified
- Verified - Phone
- Verified - In Person
- Verified - Additional Documentation
- Verified - External System
- Other

Merge selected

Merge fields

Workflow

Dashboard

Help

Person Deduplication Screen

Details Tab

Browser navigation bar showing the URL: <https://ncedssuat.ncpublichealth.info/viewPartySummary.do?from=deduplication&Part>. The browser tabs include "Person Deduplication" and "Person Summary". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help".

Person Summary

Person Summary	
Name:	Mouse, Minnie Testing
Maiden/Other Name:	
Alias:	
Gender:	Female
Birth Date:	01/01/2001
Death Date:	
Living Status:	Alive
Age:	15 yrs 1 mos 1 dys
Social Security Number:	
Party ID:	PCTESIHNRLU
Create Date:	01/20/2016
Contact Method:	
Residence Type:	
Notes:	

Address Information						
Type	Dates	Address	County	Country	Phone	GIS Info
Home	01/20/2016 - 02/02/2016	225 N McDowell St, Raleigh, NC 27603	Wake County	USA		Latitude: 35.78296, Longitude: -78.6416 [View Map]

Events				
Event ID	Person	Status	Create Date	Disease
101049808	Mouse, Minnie Testing	Open	01/28/2016	Chlamydia (200)
101049802	Mouse, Minnie Testing	Open	01/20/2016	Chlamydia (200)

Buttons: Close, Help

Person Deduplication Screen

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Person Deduplication

Source Record		Matched Record 1 [Score: 100.00] ⓘ	
First Name:	Minnie	Minnie	
Middle Name:	Testing	Testing	
Last Name:	Mouse	Mouse	
View Summary:	Details	Details	
External ID:	PCTESIHNR LU	PCTESIHFME S	
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 McDowell St	225 N Mc Dowell St	
City:	Raleigh	Raleigh	
State:	NC	NC	
Zip Code:		27603	
County:		Wake County	
Country:	USA	USA	
Home Phone:			
Mobile Phone:			
Work Phone:			
Use as Primary for Merge:	<input checked="" type="radio"/>	<input type="radio"/>	
Select Record for Merge:		<input checked="" type="checkbox"/>	

Keep separate

Merge Type: [Select]
Unverified
Verified - Phone
Verified - In Person
Verified - Additional Documentation
Verified - External System
Other

Merge selected Merge fields

Workflow Dashboard Help

3. **Keep separate** if different persons, otherwise...
4. Select **Primary record** (*maintained in NC EDSS*)
5. Select **Record(s) for Merge** into Primary
6. Indicate **Merge Type**
7. **“Merge selected”** to merge Secondary record(s) into Primary **OR “Merge fields”** for field-by-field comparison (see next slide)

Person Deduplication Screen

Merge fields

- “Merge fields” NOT an option when merging >2 persons
- Side-by-side comparison between the Primary and Secondary Party
- Information that is same will be greyed-out
- For options not greyed-out, make selections and click Save

Primary vs. Secondary

Party Fields				
Fields	Primary Party (Select All)			Secondary Party (Select All)
First Name	Minnie	<input checked="" type="radio"/>	<input type="radio"/>	Minnie
Middle Name	Testing	<input checked="" type="radio"/>	<input type="radio"/>	Testing
Last Name	Mouse	<input checked="" type="radio"/>	<input type="radio"/>	Mouse
Suffix		<input type="radio"/>	<input type="radio"/>	
Maiden/Other Name		<input type="radio"/>	<input type="radio"/>	
Alias		<input type="radio"/>	<input type="radio"/>	
Mother's Maiden Name		<input type="radio"/>	<input type="radio"/>	
Birth Date	01/01/2001	<input checked="" type="radio"/>	<input type="radio"/>	01/01/2001
Death Date		<input type="radio"/>	<input type="radio"/>	
Gender	Female	<input checked="" type="radio"/>	<input type="radio"/>	Female
Social Security Number		<input type="radio"/>	<input type="radio"/>	
Living Status	Alive	<input checked="" type="radio"/>	<input type="radio"/>	Alive

Contact Point Fields - Home				
Fields	Primary Party (Select All)			Secondary Party (Select All)
Street 1	225 N McDowell St	<input checked="" type="radio"/>	<input type="radio"/>	225 N Mc Dowell St
Street 2		<input type="radio"/>	<input type="radio"/>	
City	Raleigh	<input checked="" type="radio"/>	<input type="radio"/>	Raleigh
State	NC	<input checked="" type="radio"/>	<input type="radio"/>	NC
Zip Code	27603	<input checked="" type="radio"/>	<input type="radio"/>	27603
County	Wake County	<input checked="" type="radio"/>	<input type="radio"/>	Wake County
Country	USA	<input checked="" type="radio"/>	<input type="radio"/>	USA
Home Phone		<input type="radio"/>	<input type="radio"/>	
Mobile Phone		<input type="radio"/>	<input type="radio"/>	
Work Phone		<input type="radio"/>	<input type="radio"/>	
Pager		<input type="radio"/>	<input type="radio"/>	
Email		<input type="radio"/>	<input type="radio"/>	
Secondary Email		<input type="radio"/>	<input type="radio"/>	
Fax		<input type="radio"/>	<input type="radio"/>	
Contact Method		<input type="radio"/>	<input type="radio"/>	
Address Status		<input type="radio"/>	<input type="radio"/>	
Residence Type		<input type="radio"/>	<input type="radio"/>	

Person Deduplication Screen (if >2 matched records)

Matched Record 1 [Score: 100.00] Matched Record 2

Minnie	Deduplication Score Information Name match (45.00): Normalized name match DOB match (30.00): DOB match Address match (25.00): Address match
Testing	
Mouse	
Details	

Person Deduplication

Source Record	Matched Record 1 [Score: 100.00]	Matched Record 2 [Score: 81.25]
First Name:	Minnie	Minnie
Middle Name:	Testing	Testing
Last Name:	Mouse	Mouse
View Summary:	Details	Details
External ID:	PCTESIHNRLU	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 McDowell 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:		
Use as Primary for Merge:	<input checked="" type="radio"/>	<input type="radio"/>
Select Record for Merge:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Selected: 2 / 2

Keep separate

Merge Type:

- Select
- Unverified
- Verified - Phone
- Verified - In Person
- Verified - Additional Documentation
- Verified - External System
- Other

Merge selected

Dashboard

Help

Person Deduplication Report

- To review duplicate records for YOUR DISEASE:



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Maven Reporting

Maven Reporting

Category: Deduplication Reports

Select Report: Deduplication: Person Deduplication Workflow Report By Disease

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

Disease:

- Brucellosis (5)
- Campylobacter infection (50)
- Chancroid (100)
- Chikungunya
- Chlamydia (200)

Output Type: Excel w/Parameters

Run Report Dashboard Help

Person Deduplication Report

1. Use CASE_ID in report to resolve duplicates

	A	B	C	D	E	F	G	H	I
1	Report Name:	Deduplication: Person Deduplication Workflow Report By Disease							
2	Disease:	Chlamydia (200)							
3	Report Time:	02/02/2016 01:01 PM							
4									
5	CASE_ID	UNI ID	FIRST_NAME	LAST_NAME	FULL_NAME	BIRTH_DATE	CREATE_DATE	EXTERNAL_ID	NAME
6	101049808	115122551	Minnie	Mouse	Minnie Testing Mouse	1/1/2001	1/28/2016	PFNERWSIFDNK	Chlamydia (200)

2. Search for flagged case in NC EDSS search bar

North Carolina Electronic Disease Surveillance System   101049808 

3. Navigate to Person Deduplication screen via Deduplicate hyperlink

Person Summary

Demographic Information (View History)

Name: Mouse, Minnie Testing
Deduplication Status: Pending [Deduplicate](#)

Merging Duplicates

- Matches may be easy to resolve and merge
 - Score of high confidence
 - Obvious data entry errors
 - A user immediately reports accidental duplicate
 - Users may report duplicates, but you may need to verify which data values should be maintained in NC EDSS (i.e., determine current address or correct SSN)

Verifying Duplicate Information

- SMEs/Help Desk may need **verification of data...**

1. Use Admin Trail

Date Assigned/Reassigned ▾	01/27/2016  Add New	
Group: (You cannot change your group selection unless you clear this entry by erasing the Date Assigned)	Wake STD  	Local patient identifier <input type="checkbox"/>
* Select the reason for the assignment/reassignment	Reassign to LHD from State ▾	
Authorized Reporter	M Sanza	Phone number <input type="checkbox"/>
Classification status	Confirmed ▾	
Notes	This is a possible duplicate person. Please review the LHD chart or contact the provider to verify which person profile should be used. Contact the Help Desk and they will address the person <u>deduplication</u> or you may reassign the event to the state with a note indicating your findings	
Remove this event from my review and approval workflow?	No ▾	

2. Contact user investigating case directly via email (copy another user in that jurisdiction if appropriate)

Note: Do NOT include PHI in emails or voicemail, use event IDs!

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!

Person Deduplication Summary

1. Duplicate person created (by ELR or user)



2. NC EDSS flags duplicate (matching name, DOB, address)



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



4. Record added to Deduplication workflow and report



5. Help Desk or state staff follow-up (via admin trail or direct follow-up with user)

Search properly to avoid duplicates!

Merge usually OK if score high

Lower scores require LHD/field staff to verify correct info

Person Deduplication Demo

Questions?