

MDSS Update

Surveillance and Infectious Disease Epidemiology
Michigan Department of Community Health



Overview of Enhanced De-duplication

- Notes are no longer lost during case merge process
- Patient deduplication radio buttons no longer default to unknown values
- Case deduplication screens now include Investigation status, Case Status and onset date.
- During patient deduplication the phone number is automatically being saved to other phone if two numbers exist
- Case histories of people who are candidates to be merged are now displayed during the patient deduplication process.

Overview of Enhanced De-duplication

(continued)

- A new screen has been added to the case deduplication - matches existing case process.
 - The ability to examine all the case details in PDF form (read only) for both cases is now available to improve the process.
 - During the case deduplication - matches existing case process - you can choose which case is kept.
- Added the ability to push an existing case back thru the deduplication process via a dedup button on the case edit screen of each case.

Enhanced Deduplication Patient Dedup Screen 1

Patient Deduplication

Please select the records to merge with the data entered.

Merge	Score	First Name	Middle Name	Last Name	Date of Birth	Gender
	Case Status	Investigation Status	Disease	Referral Date	Investigator	Jurisdiction
<input checked="" type="checkbox"/>	100.0%	JOHN	E	KENNEDY	07/28/1956	MALE
<input type="checkbox"/>	100.0%	JOHNNY 139041		KENNEDY	07/05/1956	MALE
	Confirmed	Completed	Hepatitis C, Chronic	12/02/2008	RICCIARDELLO, MARY	Jackson County
<input type="checkbox"/>	92.06749%	JOHN		KENNEDY	06/08/1962	MALE
	Confirmed	Completed	Hepatitis C, Chronic	02/08/2008	ALFLEN, AMY L	Grand Traverse County
<input type="checkbox"/>	92.06749%	JOHN 163193		KENNEDY	03/21/1976	MALE
	Not a Case	Completed	Hepatitis C, Chronic	01/18/2008	CARLSON, BRAD	Statewide

Cancel

Continue

No Merge

Help

Enhanced Deduplication Patient Dedup Screen 2

Patient Record Merge		
Source	New Data	Existing
Patient Record ID		342938366
Created Date	08/14/2009	12/22/2005
Last Modified Date	08/14/2009	12/29/2005
Patient Status	<input checked="" type="radio"/> OUTPATIENT	<input type="radio"/> OUTPATIENT
First Name	<input checked="" type="radio"/> DANIEL	<input type="radio"/> DANIEL
Middle Name	<input checked="" type="radio"/>	<input type="radio"/>
Last Name	<input checked="" type="radio"/> BONGARD	<input type="radio"/> BONGARD
Date of Birth	<input checked="" type="radio"/> 03/26/1961	<input type="radio"/> 03/26/1961
Gender	<input checked="" type="radio"/> MALE	<input type="radio"/> MALE
Race	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/> UNKNOWN
Ethnicity	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/> UNKNOWN
Home Phone	<input checked="" type="radio"/>	<input type="radio"/>
Other Phone	<input checked="" type="radio"/>	<input type="radio"/>
Parent/Guardian First Name	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/>
Parent/Guardian Middle Name	<input checked="" type="radio"/>	<input type="radio"/>
Parent/Guardian Last Name	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/>
Patient Addresses		
Addresses		6 GRACELAND DR APT 6 HILLSDALE, MI 49242 HILLSDALE COUNTY
Patient Case Information		
Case Status		Confirmed
Investigation Status		Completed
Disease		Hepatitis C, Chronic
Referral Date		12/22/2005
Investigator		GRIFFITH, MELISSA
Jurisdiction		Branch-Hillsdale-St. Joseph

Enhanced Deduplication Case Dedup Screen 1

Case Deduplication for BOB SMITH

Select an existing BOB SMITH case as a match or choose to create a new case from the entered data.

Investigation Status	Case Status	Disease	Referral Date	Onset Date	Investigator	Jurisdiction	
New		Cyclosporiasis	08/13/2009		TBD	TBD	<input type="button" value="Create"/>
New	Confirmed	Cholera	08/10/2009		BENAVIDES, NANCY	Oakland County	<input type="button" value="Matches Existing"/>
Completed	Probable	Chickenpox (Varicella)	11/14/2005	11/03/2005	BIES, SHANE	Oakland County	<input type="button" value="Matches Existing"/>

Enhanced Deduplication Case Dedup Screen 2

Entirely new screen that lets you view and print associated case detail forms and pick which one you want to keep.

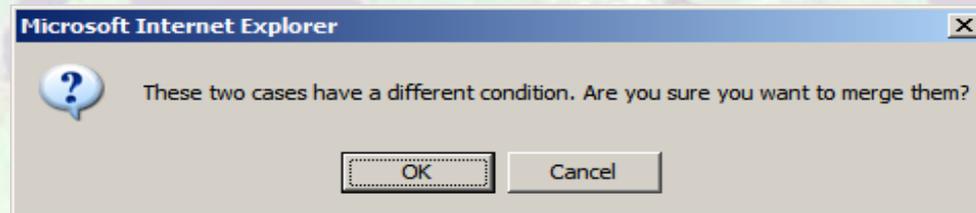
Case Record Merge		
Case	New Data	Existing
Investigation Status	New	Active
Case Status		Confirmed
Condition	Chlamydia (Genital)	Chlamydia (Genital)
Referral Date	08/25/2009	03/27/2007
Onset Date		
Investigator	TBD	SHANEKA,PIERCE
Jurisdiction	TBD	Oakland County
Case Details	View PDF	View PDF
Case to Keep	<input checked="" type="radio"/>	<input type="radio"/>

[Merge](#) [Back](#) [Help](#)

Enhanced Deduplication

Case Dedup Notes

- If you choose to merge two cases with different conditions you will be warned with a popup when you press the merge button.



- Regardless of which case you decide to keep the following fields will be kept from the existing MDSS Case: case status, investigation status, MMWR_week, MMWR_YEAR, Referral date, completion_date and diagnosis_date

Enhanced Deduplication

New Dedup Option

- Added a 'Dedup' button on the first page of the case editing screen.
- This button allows the case to be resubmitted for deduplication.
- Once the button has been pushed everything behaves as if the case had just been entered.

The screenshot shows a web-based case editing interface. At the top, there are navigation tabs: Case Reporting, Address History, Demographics, Referrer, Lab Reports, Notes, Map, and Audit. The main header indicates the patient is 'BIRD, BIG Locked by CARLSONBR (BRAD CARLSON)'. Below this, there are several sections:

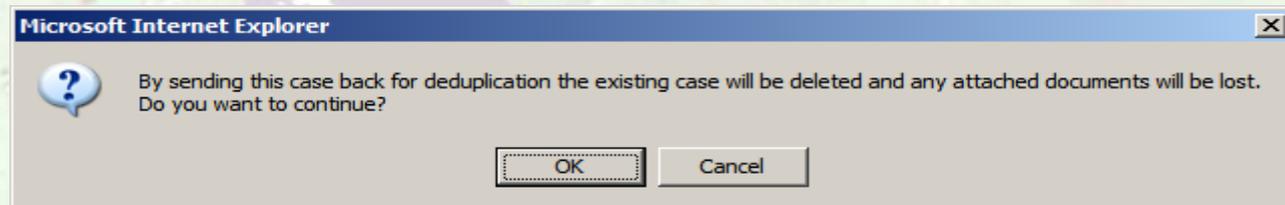
- Reportable Condition*:** A dropdown menu showing 'Campylobacter' and a 'Detail' button.
- Case Status*:** A dropdown menu showing 'Confirmed'.
- Investigation Status*:** A dropdown menu showing 'Active'.
- Patient Information:** Includes fields for Patient Status* (OutPatient), Patient Status Date* (07/22/2009), First* (BIG), Last* (BIRD), Middle, Onset Date, MMWR (29-2009), Patient Id (4289992), and Diagnosis Date. A 'Dedup' button is circled in red in this section.
- Investigation Address:** Includes fields for Street, Geocode Source (MDSS City), City (ANN ARBOR), County (Washtenaw), State (Michigan), Zip, and Jurisdiction (Washtenaw County).
- Investigation Information:** Includes fields for Outbreak Y/N (Unknown), Outbreak Name, Referral Date (07/22/2009), Case Entry Date (07/22/2009), Investigation ID (4290930), NETSS ID (2982), Assigned to (MDSSTES, TEST / Washtenaw County), and a 'Re-assign' button.

At the bottom, there are buttons for 'Reset', 'Submit Changes', 'Cancel', and 'Help'. A note at the bottom left states '*Indicates required items'.

Enhanced Deduplication

New Dedup Option

- Important Notes about the Dedup Button
- If the Dedup button is clicked and there are **no** potential matches identified the user is returned to the case edit screen
- If the Dedup button is clicked and there are potential matches identified a new popup is presented addressing the fact that the existing case will be deleted and that attached documents will be lost.



- Attached documents will not make it thru the dedup process. The work around would be to save the docs before resubmitting the case back on the queue.

Enhanced Deduplication

New Dedup Option

Important Notes about the Dedup Button *Continued*

- The dedup button will only show up for users who have access to the pending work que (i.e. Admins and Epi/CD Nurse job functions).
- **CAUTION** - Sending existing cases back for deduplication is intended for recently added cases on MDSS (those less than 90 days old). Sending older cases back for deduplication will allow you to merge duplicate patients effectively but will result in revised Case Entry Dates that correspond to the date the case was sent for deduplication.

Underutilized MDSS Utility

Audit Trail Search

- Available only to MDSS Administrators
- Can search by:
 - User ID
 - Case Status
 - Investigation Status
 - Action Type
 - Reportable Condition
 - Disease Group
 - Audit Date

The screenshot shows the MDSS Audit Trail Search utility interface. The top navigation bar includes tabs for Case Investigation, System Administration, Messages, Reports, and Logout. The left sidebar contains a menu with the following items: Users, User Audit Search, Admin Searches, Pending Work Queue, Review Replaced Patients, Administrative Reports, NETSS Export, NETSS Mappings, SIOMED Mappings, Program Mapping, Job Function Mapping, Lab Table, Aggregate Disease List, and Aggregate Cases. The main content area is titled "Name of Saved Search" and contains several search criteria sections: "User in Audit Log" with a list box containing ADAMIA3377, AGENSG7068, AGHL2006, and AGYD; "Case Status" with a dropdown menu showing "Confirmed" and "Not a Case"; "Investigation Status" with a dropdown menu showing "Active" and "Canceled"; "Action Type" with a list box containing "Add Address", "Add Case", "Add Case Electronic Lab", and "Add Document"; "Reportable Condition" with a list box containing "AIDS, Adult", "AIDS, Pediatric", "Amebiasis", and "Animal Bite"; "Disease Group" with a list box containing "VPD", "Rabies", "AIDS/HIV", and "Tuberculosis"; and "Date Criteria" with a date range selector for "Audit Date (mm/dd/yyyy)" from [] to [] with calendar icons. At the bottom, there are buttons for "Search", "Save & Finish", "Cancel", and "Help".

Creating an Audit Search

MDCH Department of Community Health 

[Case Investigation](#) | [System Administration](#) | [Messages](#) | [Reports](#) | [Logout](#)

[Users](#)
[User Audit Search](#)
[Admin Searches](#)
[Pending Work Queue](#)
[Review Replaced Patients](#)
[Administrative Reports](#)
[Field Record Report](#)
[Interview Record Report](#)

Name of Saved Search:

User in Audit Log:

Case Status :

Investigation Status :

Action Type :

Reportable Condition :

Disease Group :

Date Criteria
Audit Date (mm/dd/yyyy):
 to

Save Audit Search

The screenshot displays the MDCH System Administration interface. The top navigation bar includes 'Case Investigation', 'System Administration', 'Messages', 'Reports', and 'Logout'. The left sidebar contains a menu with items like 'Users', 'User Audit Search', 'Admin Searches', 'Pending Work Queue', 'Review Replaced Patients', 'Administrative Reports', 'Field Record Report', and 'Interview Record Report'. The main content area is titled 'Saved Administration Searches' and features a table with the following data:

Search Name	Date Created			
hep case merge	05/10/2010	<input type="button" value="Search"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

A mouse cursor is positioned over the 'hep case merge' search name. A 'Help' button is located in the top right corner of the table area.

- Can save the search for ongoing use (Quality Assurance purposes)
- Can run as a temporary search (deduped a case and need to reopen, but can't remember the patient last name)

MDSS System Use Statistics

Year	Referrals	Individual Case Reports	Transactions	Unique User Log Ins
2007	83,876	77,686	400,000	----
2008	136,057	104,616	429,848	783
2009	160,326	119,843	618,731	893

- Currently over 900 active users
 - 60% LHD, 25% HCP, 14% MDCH, 1% Submitting Lab

MDSS Electronic Messaging

LABORATORY	2006	2007	2008	2009
MDCH REGIONAL LAB - LANSING	16,407	7,039	13,589	20,723
DETROIT MEDICAL CENTER LAB	1,167	8,652	8,758	8,882
MDCH REGIONAL LAB - DETROIT	1,206	1,323	2,040	1,596
ARUP LABORATORIES	2,100	3,656	2,678	3,314
GARCIA LABORATORIES	--	--	483	--
HURLEY HOSPITAL LAB <i>(3/09)</i>	--	--	--	3,024
MAYO CLINICAL LABS <i>(8/09)</i>				1,548
LABCORP <i>(9/09)</i>				1,226
MDCH REGIONAL LAB – OAKLAND <i>(9/09)</i>				863
Total	20,880	20,670	27,548	41,176

MDSS Next Steps

- Currently gathering input from users on changes to the reports.
- All 8 Regions and 6 MDCH BOE sections have participated in “brainstorming” sessions to identify strengths and weaknesses of existing reports.
- A Healthwatch survey is planned after the focus group data is analyzed.
- If you have suggestions for changes/additions to MDSS reports please forward them to your Regional Epidemiologist.

Common Suggestions

- **General Report Enhancements**
 - Standardize date selection fields on all reports (Onset, Referral, Case Entry)
 - Year to date (YTD) reports should present the option to show YTD data for previous years up until the date entered or for the entire year.
 - Add additional fields to search by in Report #1: Case Entry Date, Outbreak Name, Completion Date, Hospitalization, Death
- **Epi Curve Report**
 - Ability to select multiple diseases or disease groups
 - Stacked bars for each disease in report
 - Stacked bars for different Cases Statuses or Investigation Statuses
- **Admin Report**
 - Add onset/referral date options and the case and investigation status options

MDSS Information Available on the Web

<http://www.michigan.gov/mdss>

