



MICHIGAN DISEASE SURVEILLANCE SYSTEM

APPLICATION USER GUIDE

VERSION 3.3

MAY 2011



## TABLE OF CONTENTS

<b>1</b>	<b>PREFACE—DISEASE SURVEILLANCE SYSTEMS .....</b>	<b>1-1</b>
	MICHIGAN DISEASE SURVEILLANCE SYSTEM VISION (MDSS) — AND THE FUTURE .....	1-2
	CONFIDENTIALITY.....	1-2
<b>2</b>	<b>ABOUT THE GUIDE.....</b>	<b>2-1</b>
	DOCUMENTATION STANDARDS AND CONVENTIONS .....	2-2
	PRINTING THE GUIDE .....	2-3
<b>3</b>	<b>ABOUT THE MDSS APPLICATION.....</b>	<b>3-1</b>
	SOFTWARE REQUIREMENTS & SYSTEM SETTINGS .....	3-1
	ENTERING DATA INTO THE FIELDS .....	3-1
	APPLICATION CHARACTERISTICS .....	3-2
	USING THE KEYBOARD AND MOUSE .....	3-8
	CORRECTING VALIDATION ERRORS .....	3-9
<b>4</b>	<b>ACCESSING &amp; LOGGING INTO THE APPLICATION .....</b>	<b>4-1</b>
	ROLES & PERMISSIONS .....	4-1
	BROWSER CONNECTIONS / SESSIONS.....	4-2
	LOGGING INTO THE APPLICATION .....	4-3
	DESTROY ACTIVE LOGIN SESSION .....	4-6
<b>5</b>	<b>CASE INVESTIGATION MENU .....</b>	<b>5-1</b>
	CASES (VIEWING CASE LISTINGS).....	5-2
	<i>Navigating through the Case Listings</i> .....	5-3
	<i>Changing the Sort Order</i> .....	5-4
	<i>Changing the Search</i> .....	5-5
	<i>Exporting Data</i> .....	5-6
	<i>Viewing/Editing Case Details</i> .....	5-13
	UNASSIGNED CASES (VIEWING) .....	5-87
	NEW CASE (ADDING) .....	5-88
	<i>Investigation/Patient Information (1)</i> .....	5-89
	<i>Demographics (2)</i> .....	5-93
	<i>Referral/Physician/Notes (3)</i> .....	5-96
	<i>Background Processing When Saving Cases</i> .....	5-100
	NEW AGGREGATE CASES (ENTERING AND EDITING) .....	5-113
	<i>Aggregate Investigation/New Information/Totals (1)</i> .....	5-114
	<i>Referral/Source Information/Case Notes (2)</i> .....	5-119
	<i>Viewing/Editing Aggregate Case Reports</i> .....	5-123
	SEARCHES (SAVED) .....	5-125
	<i>Executing a Saved Search</i> .....	5-127
	<i>Editing Saved Searches</i> .....	5-127
	<i>Deleting a Saved Search</i> .....	5-130
	<i>Setting a Saved Search to be your Default Search</i> .....	5-131
	NEW SEARCH.....	5-132



---

	<i>How the Search Process Works (And/Or)</i> .....	5-132
	<i>Defining the Search Criteria</i> .....	5-136
	<i>Creating a New Search (Basic and Advanced)</i> .....	5-136
	NEW AGGREGATE SEARCH .....	5-150
	DISEASE SPECIFIC SEARCH .....	5-156
	<i>Executing a Disease Specific Search</i> .....	5-157
	<i>Exporting the Disease Specific Information</i> .....	5-162
	SEARCH FIELD RECORDS .....	5-166
	CASE DEFINITIONS .....	5-170
	ALERT RULES .....	5-171
	<i>Viewing the Alert Rules List</i> .....	5-174
	<i>Changing the Sort Order</i> .....	5-176
	<i>Creating an Alert Rule</i> .....	5-177
	<i>Editing an Alert Rule</i> .....	5-180
	<i>Deleting an Alert Rule</i> .....	5-182
	DISPLAY SUPPLEMENTAL FORMS .....	5-182
	USER PROFILE .....	5-184
	USER DIRECTORY .....	5-189
<b>6</b>	<b>REPORTS MENU</b> .....	<b>6-1</b>
	REPORT OUTPUT FORMAT .....	6-1
	REPORT DATA RESTRICTIONS .....	6-2
	RUNNING A REPORT .....	6-3
	REPORT PARAMETERS—LIMITATIONS/SELECTIONS .....	6-6
	REPORT DESCRIPTIONS & PARAMETER INSTRUCTIONS .....	6-13
	<i>Report 1: Line Listing</i> .....	6-13
	<i>Report 2: Diseases by Demographics</i> .....	6-16
	<i>Report 3: Diseases YTD</i> .....	6-19
	<i>Report 4: Diseases – 5 Year History</i> .....	6-21
	<i>Report 5: Diseases YTD by Geography</i> .....	6-23
	<i>Report 6: Disease History by Geography</i> .....	6-25
	<i>Report 7: Diseases by Geography</i> .....	6-27
	<i>Report 8: Epi Curve</i> .....	6-29
	<i>Aggregate Case Report</i> .....	6-32
	<i>GIS Map of Diseases by Geography</i> .....	6-34
<b>7</b>	<b>MESSAGES MENU</b> .....	<b>7-1</b>
	VIEWING MESSAGES .....	7-1
<b>8</b>	<b>GETTING HELP</b> .....	<b>8-4</b>
	ACCESSING ONLINE HELP .....	8-4
	USING THE HELP FACILITY .....	8-5
	<i>Viewing Contents</i> .....	8-5
	<i>Viewing the Index</i> .....	8-6
	<i>Performing a Search</i> .....	8-8
	<i>Toggling the Navigator Pane on/off</i> .....	8-10
<b>9</b>	<b>LOGOUT</b> .....	<b>9-1</b>

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THE LOGOUT PROCESS.....	9-1
AUTOMATIC LOGOUT .....	9-1



## 1 PREFACE—DISEASE SURVEILLANCE SYSTEMS

Historically, public health communicable disease surveillance systems have been comprised of disparate paper-based systems, or data collection systems that utilized older technology. The reported data often lacked timeliness and completeness. These systems were not as robust, accurate, or as timely as they needed to be to reliably monitor for disease outbreaks, potential incidents of bioterrorism, or newly emergent infectious diseases.

Surveillance systems in the past were not developed with data integration in mind. Varying architectures, data definitions, and uses led to the creation of individual data sets, often with redundant information and no readily available means of relating to other existing data resources.

To address these issues, the Centers for Disease Control and Prevention (CDC) has initiated efforts to standardize public health data sets and maximize their effectiveness. The Public Health Information Network (PHIN) promotes existing and emerging national standards for the sharing of public health information. These include:

1. Security standards that address the Health Insurance Portability and Accountability Act of 1996 (HIPAA).
2. Standard electronic exporting of health data through Health Level 7 (HL7).
3. The Public Health Logical Data Model.

These standards and guidelines offer public health a new roadmap toward the development of a productive technical infrastructure. With these standards and guidelines, an integrated surveillance system to support public health will ultimately incorporate data from a variety of sources: emergency responders, pharmaceutical retailers, laboratories, hospitals, physicians, schools, and many other resources within the community.

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## **MICHIGAN DISEASE SURVEILLANCE SYSTEM VISION (MDSS) — AND THE FUTURE**

The Michigan Disease Surveillance System (MDSS) is part of an overall vision to enhance decision-making based on the more timely and accurate provision of communicable disease information, and thus, facilitate a more effective public health intervention. The MDSS is designed to become an integral component of a larger surveillance environment for the State of Michigan. This solution will support the communicable disease investigation efforts and those surrounding any acts of bioterrorism.

### **CONFIDENTIALITY**

While modern methods of communication have made our lives easier, they also threaten the privacy and security of personal information.

The MDSS seeks to safeguard the privacy and security of health information by:

- 1.** Governing the privacy of individually identifiable health information
- 2.** Restricting uses and disclosures of protected health information (PHI)
- 3.** Protecting against unauthorized and unnecessary access to protected health information.

All MDSS users have a responsibility to maintain the confidentiality of the stored data within this system.



## 2 ABOUT THE GUIDE

This guide provides comprehensive documentation for the Michigan Disease Surveillance System (MDSS). For additional information, refer to these other documents/files:

1. MDSS Quick Reference Pamphlet
2. MDSS Administration User Guide
3. MDSS System Administration User Guide
4. MDSS User Guide Appendices

The “MDSS Application User Guide” provides an introduction for readers who are unfamiliar with the MDSS. New releases of the MDSS will include an updated version of this document.

The information contained in this document is designed to enhance the user's knowledge and ease their use of the application. This document assumes that the reader is familiar with basic Internet terminology and has the authority to access the application.

The following terms are used interchangeably throughout this guide.

1. **MDSS** and **Application** refer to this communicable disease surveillance system.
2. **Case** and **Investigation** refer to the public health communicable disease event.
3. **Option**, **Link**, and **Hyperlink** refer to the menu and/or options.
4. **Window** and **Screen** refer to the workspace being displayed.



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## DOCUMENTATION STANDARDS AND CONVENTIONS

The documentation standards and conventions used in this guide are:

1. Version numbers with release dates are noted on the second page or on the back cover.

2. Menu names, options, links, and buttons are printed in bold type and capitalized. For example:

Point and click the **CASE INVESTIGATION** menu, and then select **NEW CASE**.

3. Dialog boxes and application window names are enclosed in quotes with the first letter capitalized. For example:

The “Case Listings” screen appears.

4. Important notes are indicated with the word “note,” which is printed in bold italics. For example:

*Note:* This screen is also referred to as “Lab Report Information.”

5. Text that is typed by an end-user appears in Courier font, so you can easily read it in the document. For example:

Lincoln Medical Center

6. Field names appearing in the text of the Guide are typed in italics, so you can easily read them in the document. For example:

*Reportable Condition*

7. Field names and their descriptions are isolated in formatted tables.

8. Footers contain section with page number.



9. Alternating headers contain the Guide's title and chapter name with associated graphics.
10. Every document includes a Table of Contents, an illustration of every application window, with an explanation of the window's purpose, and steps to navigate the window.
11. Every application guide includes tips on using the application, such as entering data into fields, keyboard and editing keys, and application characteristics (such as drop-down menus, radio buttons, checkboxes, etc.). Refer to the section titled, "About the MDSS Application."

## PRINTING THE GUIDE

The "Page Setup" for this guide uses a duplex template for double-sided printing.





### **3 ABOUT THE MDSS APPLICATION**

This section describes the characteristics used within the application. The characteristics, requirements, and settings discussed in this section include:

1. Software requirements & system settings
2. Methods for entering data into the fields
3. Application characteristics such as dialog boxes, drop-down menus, etc.
4. Using the keyboard and mouse
5. Correcting validation errors

#### **SOFTWARE REQUIREMENTS & SYSTEM SETTINGS**

The necessary software requirements and system settings for using the MDSS can be located in Appendix A.

#### **ENTERING DATA INTO THE FIELDS**

When entering data into the fields, the following information describes the recommended methods.



**Table 3-1: Entering Data into the Fields**

ENTERING DATA INTO THE FIELDS	
<b>VALIDATION ERRORS</b>	<p>If the wrong type of data is entered into a field, an error message appears, usually at the top of the screen. It is mandatory that the errors be corrected before the application allows you to continue.</p> <p>Refer to the forthcoming section titled, "Correcting Validation Errors" for additional information.</p>
<b>DATES</b>	<p>The expected format for entering dates is "mm/dd/yyyy." Dates are checked for numerical characters and slashes before being sent for validation. Dates require a 4-digit year (e.g., 2005 instead of 05).</p>
<b>PHONE AND FAX NUMBERS</b>	<p>The expected format for entering phone numbers is xxx-xxx-xxxx. Phone numbers are formatted as the information is entered into the field. As the information is typed, the application inserts the expected dashes within the phone number in their appropriate positions.</p>
<b>ZIP CODES</b>	<p>The expected format for entering zip codes is xxxxx for 5-digit ZIP codes and xxxxx-xxxx for 9-digit ZIP codes. ZIP codes are formatted as the information is entered into the field. As the information is typed, the application inserts the expected dash as appropriate.</p>

## APPLICATION CHARACTERISTICS

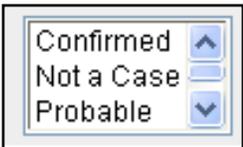
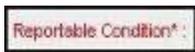
The following table summarizes the common characteristics that can be seen throughout the MDSS. Familiarity with these characteristics will greatly enhance your use of the application.



Table 3-2: Application Characteristics

APPLICATION CHARACTERISTICS	
<p><b>NAVIGATION</b></p> 	<p>Do not use the Internet Browsers <b>BACK</b>, <b>FORWARD</b>, or <b>REFRESH</b> buttons.</p> <p>Use the buttons within the application, such as the <b>BACK</b> and <b>CONTINUE</b> buttons, to navigate the application.</p>



APPLICATION CHARACTERISTICS	
<p><b>DROP-DOWN MENUS AND SCROLLING LISTS</b></p>  	<p>Valid options are displayed when the drop-down menu or scrolling list arrow is clicked. The list will appear in alphabetical order or the most frequently used order.</p> <p>While the options are displayed, you may type the first letter of the word and the highlighter will position on the first occurrence. To locate the next occurrence beginning with that letter, type the letter again.</p> <ul style="list-style-type: none"> <li>Use the <b>SHIFT</b> key to select a <u>sequential list of options</u>. Move the mouse cursor to the first option of the list and click the left mouse button. Then, move the mouse cursor to the last option of the list, hold down the <b>SHIFT</b> key, and click the left mouse button again.</li> <li>Use the <b>CTRL</b> key to select multiple options that <u>are not in sequence</u>. Move the mouse cursor to the first option and click the left mouse button. For each additional option that needs to be chosen, move the mouse cursor to that option, hold down the <b>CTRL</b> key, and click the left mouse button again.</li> <li>Use the <b>CTRL</b> key if multiple selections have been made and you wish to de-select a specific option without losing all of the choices. Move the mouse cursor to that option, hold down the <b>CTRL</b> key, and click the left mouse button. The option will no longer be highlighted.</li> </ul>
<p><b>MANDATORY FIELDS</b></p> 	<p>A field in <b>RED</b> font with an asterisk (*) indicates an entry is required before proceeding.</p>



APPLICATION CHARACTERISTICS	
<b>CHECKBOXES</b> 	A checkbox is a type of data input that provides an active/inactive (enabled/disabled) status.
<b>JAVASCRIPT CALENDAR</b> 	<p>The JavaScript Calendar, also referred to as a “calendar pop-up” displays the current month. Click the date if it is listed within the current month.</p> <p>To scroll back one month at a time, click the [<b>&lt;</b>] button the number of times to scroll backward per month.</p> <p>To scroll ahead one month at a time, click the [<b>&gt;</b>] button the number of times to scroll forward per month.</p> <p>To scroll back one year at a time, click the [<b>&lt;&lt;</b>] button.</p> <p>To scroll ahead by one year at a time, click the [<b>&gt;&gt;</b>] button.</p>
<b>RADIO BUTTONS</b> 	The radio button is an On/Off button. Clicking one button within a group activates it while inactivating all others within the group.
<b>TEXT AREAS</b> 	Text areas allow for data entry using the computer's keyboard. Copy and paste techniques can also be used within text areas.



## APPLICATION CHARACTERISTICS

### DIALOG BOXES



Dialog boxes (sample shown at left) are small interactive windows that display messages that request a response. Within the MDSS, there are several distinct dialog boxes. Examples are:

- **Cancel Confirmation** – Asks for verification whether you really want to cancel.
- **Delete Confirmation** - Asks for verification whether you really want to delete.
- **Date of Birth Reminder Box** – Asks for *Date of Birth* or *Age* information to be added.
- **Data Loss Warning** - Asks for verification of intention to navigate away from the current screen without saving your changes. If you leave the current screen without saving your changes, your data changes will be lost.
- **Confirm Unlock** - Asks for verification of intention to remove a “lock” from a record. A “lock” is used when resolving a Pending Work Queue item, such as a deferred deduplication, so that other users cannot access that record while it is being resolved.
- **Change in Jurisdiction Warning** - Asks for verification of intention to change fields that have an effect on jurisdiction determination.



APPLICATION CHARACTERISTICS	
<b>TOP NAVIGATION BAR</b>	<p>The Top Navigation Bar (TopBar) contains elements that are referred to as menus. Five menus may be available based on your user role and permissions. Each menu has its own Side Navigation Bar (SideBar) of options that will change depending on the menu chosen.</p> <p>The background color behind the menu will change depending on whether the menu is active, inactive, or hovered. The colors are:</p> <ul style="list-style-type: none"><li>• Blue indicates “active”</li><li>• Black indicates “inactive”</li><li>• Green indicates “mouse pointer position” i.e., when the mouse cursor is hovered on top of a menu name, the background turns color.</li></ul> <p>Each menu will be described in a dedicated chapter within this guide.</p>
<b>SIDE NAVIGATION BAR</b>	<p>The Side Navigation Bar (SideBar) displays the available options within the current menu.</p> <p>Each option is underlined representing a hyperlink. A hyperlink is an element that links and displays another screen. When the link is clicked, the coinciding screen appears.</p> <p>The option's background color will change depending on whether the option is active, inactive, or hovered. The colors are similar to the Top Navigation Bar, except inactive is blue instead of black.</p>



APPLICATION CHARACTERISTICS	
<p><b>FOOT NAVIGATION BAR</b></p>	<p>The Foot Navigation Bar (FootBar) displays hyperlinks that are available throughout the MDSS application.</p> <p>Pointing and clicking a hyperlink invokes a new window.</p> <p>Since it opens in a new window, you can close that window and still have the MDSS application window open and available for your use. You can also return to MDSS by selecting it from your status bar located at the very bottom of your monitor display. This action does not close the new window.</p>
<p><b>HELP BUTTON</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Help</div>	<p>The Help button displays the On-Line Help Facility offering instructions on how to use the application. The On-line Help content is identical to the content in this guide.</p>

## USING THE KEYBOARD AND MOUSE

The suggestions in the following table may be of use when using the keyboard and mouse to navigate within the application.

**Table 3-3: Keyboard and Mouse**

KEYBOARD AND MOUSE	
<b>TAB</b>	All the fields have a <b>TAB</b> order. This means when the cursor is in a field and the <b>TAB</b> key is pressed, it will move the cursor to the next field.
<b>SHIFT TAB</b>	By pressing the <b>SHIFT</b> with <b>TAB</b> , the cursor will move backward to the previous field.
<b>ENTER</b>	Pressing the <b>ENTER</b> key (on most windows), executes or processes the active page.



KEYBOARD AND MOUSE	
<b>PAGE UP</b>	The <b>PAGE UP</b> key can be used to move the entire screen or drop-down menu list up depending on where the cursor is positioned.
<b>PAGE DOWN</b>	The <b>PAGE DOWN</b> key can be used to move the entire screen or drop-down menu list down depending on where the cursor is positioned.
<b>HOME</b>	The <b>HOME</b> key can be used to move to the top of the screen.
<b>END</b>	The <b>END</b> key can be used to move to the bottom of the screen
<b>ARROW KEYS</b>	The <b>ARROW</b> keys can be used to move around the screen.
<b>BACKSPACE</b>	The <b>BACKSPACE</b> key can be used within a text box to move backward within the field.
<b>MOUSE CURSOR</b>	Pointing and clicking the left mouse button can be used to get from one field to the next.
<b>VERTICAL SCROLL BAR</b>	Pointing and clicking the left mouse button on the vertical scroll bar moves the window either up or down.
<b>HORIZONTAL SCROLL BAR</b>	Pointing and clicking the left mouse button on the horizontal scroll bar moves the window either left or right.

## CORRECTING VALIDATION ERRORS

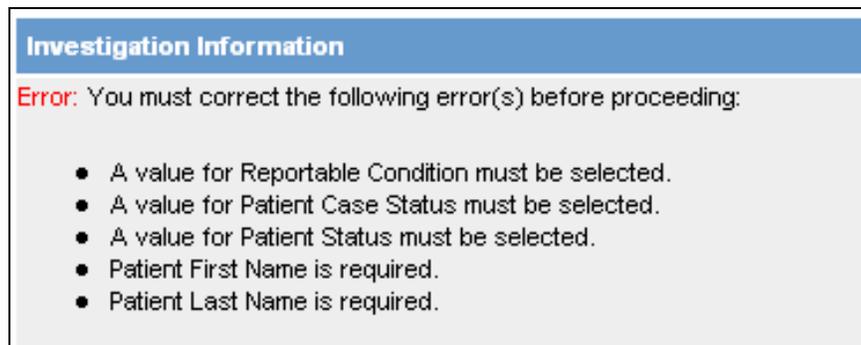
Once you have added or edited data and have clicked on the **SUBMIT** or **CONTINUE** button, a data validation process begins. The MDSS will verify that the field changes do not violate any data validation rules.

When a validation error occurs, the application will inform you of the error and will not allow you to proceed until all of the errors have been corrected or the action is canceled.



1. When an error occurs, the screen reappears with an Error Message displayed at the top. This message will direct you to the problem and explain the nature of the error.

**Figure 3-1: Example Error Message**



2. Point your mouse cursor and click or press the **TAB** key to get to the “erroneous” field as stated in the error message.
3. Type/select the correct values for the field(s).
4. Click the appropriate **SUBMIT** or **CONTINUE** button. When your edits pass the validation rules, the screen will redisplay with the new information or proceed to the next screen.



## 4 ACCESSING & LOGGING INTO THE APPLICATION

Before you can access and start using the MDSS application, you will need to apply for a User-ID. This User-ID is comprised of a role with specific permission(s).

### ROLES & PERMISSIONS

MDSS User Roles determine the tasks that each user can perform within the application. A role is assigned for each new User-ID that is created. Roles relate to the type of work the user performs or else reflects his/her responsibility within the disease reporting application and the jurisdiction within which the required tasks are conducted. Roles enforce the access restrictions that are assigned to disease groups, workflow operations, and administrative functions.

Permissions are also defined in the application to specify the functions each role can perform. Different menus and options may be available depending on the user's role and permissions. Permissions are used to enforce case confidentiality.

Geographic Regions/Areas are defined in the application to enhance system security by assigning access permissions according to responsible user groups.

*Note:* Contact your Administrator if you need additional permissions or feel you need a different role. Additional information is available in the Administration User Guide.

Refer to Appendix B for detailed instructions on “Requesting Application Access for MDSS.”



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## BROWSER CONNECTIONS / SESSIONS

When a browser navigates to the address of an Internet Website and a connection is established, the Website responds by providing a unique identity to that browser connection. This unique identity is referred to as a session.

The MDSS enforces security by requiring that a valid login ID (a.k.a., User-ID) and password be provided before establishing a session. This login ID and password are then tied to the MDSS session; therefore, a user is not allowed multiple concurrent sessions.

Sessions remain active until the Website is instructed to terminate a session. This is accomplished by logging off to exit the application. Using a different Website or simply closing the Browser does not terminate the session.

Logging off from MDSS using the **LOGOUT** menu instructs the website to terminate your session immediately. If you fail to properly log off the MDSS and you attempt to login again before the automatic 60-minute timeout, a screen will appear asking whether you want to destroy/inactivate your previous session. If you respond yes, your previous session will be logged out and if you have not saved changes, you risk losing the entries you made. Refer to the sub-section titled, “Destroy Active Login Session” for instructions.



## LOGGING INTO THE APPLICATION

Assuming you have followed the instructions for requesting application access/registration located in Appendix B, you will be able to access and log into the MDSS.

To start the Internet Browser and log into the application, perform the following steps:

1. Open your browser and type/point the browser to the URL of the State of Michigan MILogin Portal:

MILogin for Michigan.gov emails – <https://miloginworker.michigan.gov/>  
MILogin for Non-michigan.gov emails - <https://milogintp.michigan.gov/>

2. Press the **ENTER** key. The MILogin screen appears.

Figure 4-1: MILogin

Home Help MI.gov

**MILogin**  
for Third Party

Login to your account

\* = Required Fields

\*User ID

\*Password

Login

[Forgot your User ID?](#)

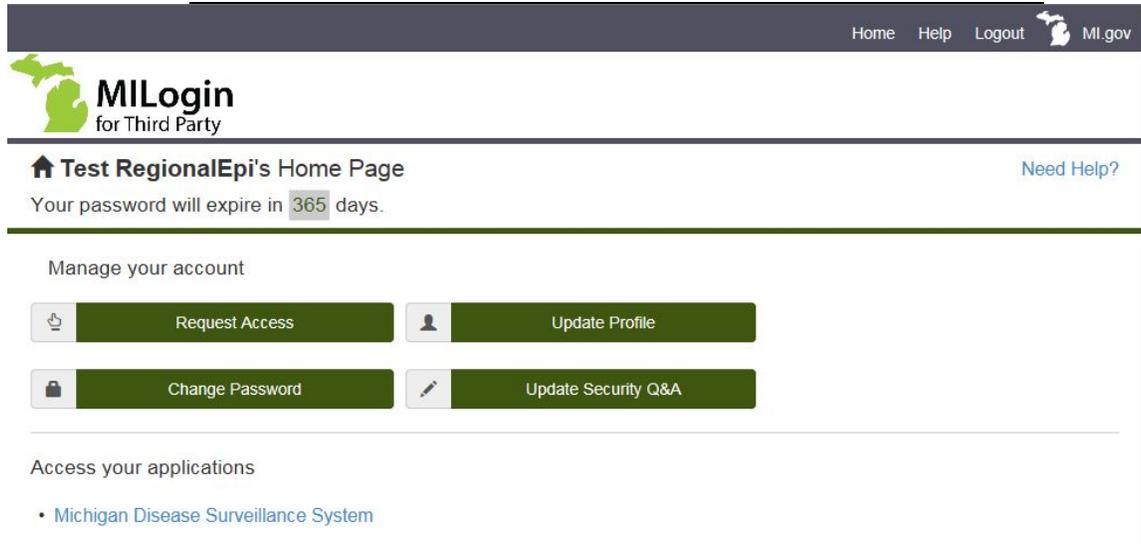
[Forgot your password?](#)

[Need Help?](#)

3. In the fields provided, type your *User ID*, press the **TAB** key, type your *Password*, and click the **LOGIN** button (or press the **ENTER** key). The “MILogin Home Page” screen appears.



Figure 4-2: SOM MILogin Home Page



4. Click on the **MICHIGAN DISEASE SURVEILLANCE SYSTEM** hyperlink.
5. The MILogin “MDHHS Systems Use Notification” screen appears.



## Accessing & Logging into the Application

**Figure 4-3: MDHHS Systems Use Notification**

Terms & Conditions: Michigan Disease Surveillance System ✕

The Michigan Department of Health and Human Services (MDHHS) computer information systems (systems) are the property of the State Of Michigan and subject to state and federal laws, rules and regulations. The systems are intended for use only by authorized persons and only for official state business. Systems users are prohibited from using any assigned or entrusted access control mechanisms for any purposes other than those required to perform authorized data exchange with MDHHS. Logon IDs and passwords are never to be shared. Systems users must not disclose any confidential, restricted or sensitive data to unauthorized persons. Systems users will only access information on the systems for which they have authorization. Systems users will not use MDHHS systems for commercial or partisan political purposes. Following industry standards, systems users must securely maintain any information downloaded, printed, or removed in any format from the systems. When no longer needed, this information must be destroyed in an appropriate manner specific to the format type. All users of the systems give their expressed consent to the monitoring of their activities on the systems. If such monitoring reveals possible evidence of unauthorized or criminal activity, the evidence may be provided to administrative or law enforcement officials for disciplinary action and/or prosecution. By accessing information provided by the Michigan Department of Health and Human Services computer information systems and clicking on the button below, I acknowledge and agree to abide by all governing privacy and security terms, conditions, policies and restrictions for each authorized application.

6. Click the **ACKNOWLEDGE/AGREE** button. The MDSS application opens to the “Case Listings” screen.



Figure 4-4: Case Listings / Opening Screen

**Top Navigation Bar (TopBar)**

**Side Navigation Bar (SideBar)**

**Foot Navigation Bar (FootBar)**

Investigation Status	Disease	Subject	Referral Site	Investigator	Jurisdiction
Active	Pertussis	GERALDO RIVERA	00130004 CARLSON, BRAD	Ingham County	[Edit]
New	Streptococcal Dis, Inv, Grp A	FRANCIS COPPALLA	00130004 CARLSON, BRAD	Ingham County	[Edit]
New	Syphilis - Primary	WILLIAM WELLOGG	00130004 COLLING, JIM	Calhoun County	[Edit]
Active	Hepatitis B, Chronic	GLDA RACKER	00130004 CARLSON, BRAD	Detroit City	[Edit]
New	Saknonellosis	BART SIMPSON	00130004 LUTZKE, MARY	Kent County	[Edit]
New	Saknonellosis	LISA SIMPSON	00130004 LUTZKE, MARY	Kent County	[Edit]
New	Saknonellosis	MAGGIE SIMPSON	00130004 LUTZKE, MARY	Kent County	[Edit]
New	Diatomycosis	BRAD CARLSON	00130004 CARLSON, BRAD	Wayne County	[Edit]
Active	Saknonellosis	JOE SCHMOE	00130004 LUTZKE, MARY	Kent County	[Edit]
Active	Saknonellosis	FRANK WISCHIT	00130004 CARLSON, BRAD	Statewide	[Edit]

This window contains navigation components (Top Navigation Bar, Side Navigation Bar, and Foot Navigation Bar) that are readily accessible on every screen in the MDSS application. Refer to the section titled, “About the MDSS Application” for details regarding these navigation components.

The “Case Listings” screen is an option off of the **CASE INVESTIGATION** menu and is fully documented in its own section titled, “Case Investigation.”

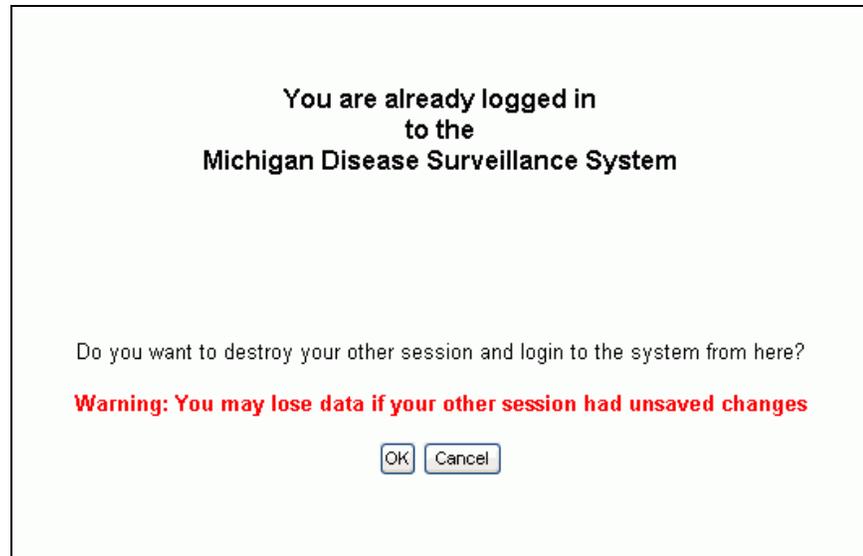
## DESTROY ACTIVE LOGIN SESSION

When a user is logged into the application from one computer and desires to login from a different computer, the first session must be “destroyed” before the new session can begin.

1. Repeat the steps listed in the section titled, “Logging into the Application.”
2. After you click the **LOGIN** button, the “You are already logged in – Destroy Session” screen appears.



Figure 4-5: Already Logged in - Destroy Session



3. You have the option of destroying the previous session and logging in; however, when you destroy the previous session and were entering/editing data without saving it, you will lose the data you were entering.
4. Click one of the buttons:
  - **OK** – to destroy the first active login session so that new active session can begin.
  - **CANCEL** – to NOT destroy the first login session and not begin a new session.





## 5 CASE INVESTIGATION MENU

The **CASE INVESTIGATION** menu contains all of the options to manage cases. You can add, view, change, and search the information stored within the MDSS. The available options are:

- **CASES** – view and manage cases that you have access to, export data, and/or edit Case Details.
- **UNASSIGNED CASES** – verify that a case has been entered into the system while the case waits for additional processing by the health department.
- **NEW CASE** – create a new individual Case Report.
- **NEW AGGREGATE CASES** – create a new Aggregate Case Report.
- **SEARCHES** – view and manage your Saved Searches.
- **NEW SEARCH** – create a new General Search.
- **NEW AGGREGATE SEARCH** – create a new Aggregate Search.
- **DISEASE SPECIFIC SEARCH** – create a new Disease Specific Search.
- **SEARCH FIELD RECORDS** – create a new Field Record Search.
- **CASE DEFINITIONS** – open a browser window to the CDC's web page with current surveillance case definitions.
- **ALERT RULES** – view and manage Alert Rules.
- **DISPLAY SUPPLEMENTAL FORMS** – display and/or print “blank” Disease Specific (PDF) Forms.
- **USER PROFILE** – view and manage your User Profile.
- **USER DIRECTORY** – view a list of MDSS users and their contact information.



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Each option is detailed in its own section within this chapter.

## CASES (VIEWING CASE LISTINGS)

The “Case Listings” screen is accessible from the TopBar's **CASE INVESTIGATION** menu using the SideBar's **CASES** option.

The “Case Listings” screen offers columns of information with details for each case on a separate row. The cases that display are those that you have permission to access and that match your selected default search criteria (more information about “default searches” is forthcoming).

You can perform the following tasks from the “Case Listings” screen. Each task is detailed in subsequent sections.

- Change the **SORT** order of the cases.
- Change the **SEARCH** used to select cases for display on the “Case Listings” screen.
- **EXPORT** case data to your local computer.
- View or Edit the Case Details with the **EDIT** button.

Perform the following steps to utilize the “Case Listings” screen:

1. The “Case Listings” screen appears immediately after logging into the application. If you use a different menu option and desire to return to the “Case Listings” screen, access the window by clicking the **CASE INVESTIGATION** menu. The “Case Listings” screen appears.



Figure 5-1: Case Listings



2. Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited on this page.

Table 5-1: Case Listings Columns

COLUMN	DESCRIPTION
<b>Investigation Status</b>	The progress of the investigation. This field can be system-generated or manually selected.
<b>Referral Date</b>	The date on which the health department became aware of the case.
<b>Patient Name</b>	First and last name of the case.
<b>Date of Birth</b>	Date of birth of the case.
<b>Disease</b>	<i>Reportable Condition</i> assigned to the case.
<b>Investigator</b>	Name of the person assigned to the case.
<b>County</b>	<i>County</i> to which the case is assigned.

## NAVIGATING THROUGH THE CASE LISTINGS

Cases are displayed in groups of ten (10) records per screen. The line that displays “Displaying results **n - nn** of **nnn** found” indicates the range of records (beginning and ending) of the total located; specifically:



- **n** indicates the beginning record number or the group of ten you are currently viewing.
- **nn** indicates the ending record number of the group in increments of 10.
- **nnn** indicates the total number of records found.

Links are available at the top and bottom of the screen to assist in the navigation of the cases.

**Table 5-2: Case Listings Navigation Links**

LINK	DESCRIPTION
[<First]	Displays the first group of 10 record results.
[Next>]	Displays the “next” group of 10 record results. This link is not available if the last group of 10 is currently being displayed.
[Last>]	Displays the last group of 10 record results.
[<Prev]	Displays the “previous” group of 10 record results. This link is not available if the first group of 10 is currently being displayed.
<u>1</u> , <u>2</u> , <u>3</u> , <u>4</u> , etc. (Page Number Links)	Displays the page number of the link you click. The current page number will not appear as a link (no underline under the page number).

## CHANGING THE SORT ORDER

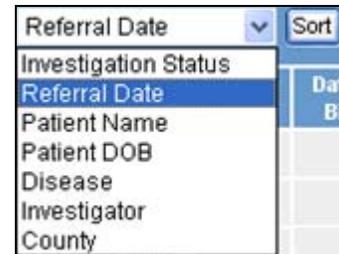
The cases are displayed in order of *Referral Date*, which is the default sort order.

Perform the following steps to change the sort order:

1. From the “Case Listings” screen, point and click on the drop-down menu arrow to the left of the **SORT** button.



Figure 5-2: Changing the Sort Order



2. Select a field by which you would like the cases to be sorted from the list by clicking it.

*Note:* Character fields sort alphabetically (by last name, if applicable) and date fields sort from oldest to most recent.

3. Click the **SORT** button to initiate the sort and the cases will redisplay in the order you specified.

## CHANGING THE SEARCH

The cases that appear on the “Case Listings” screen are based on the search criteria used and your role and permissions. You can select a different Saved Search (or the most recent Temporary Search, if applicable) to change the cases displayed on the “Case Listings” screen. For more information on Searches, see the section titled, “Searches.”

*Note:* When you change the search, the selected search becomes your default search for the duration of your session or until you select another search to become the default.

To change the search, which may limit or expand the number of cases displayed, perform the following steps:

1. From the “Case Listings” screen, point and click on the drop-down menu arrow to the left of the **SEARCH** button.



Figure 5-3: Changing the Search Type

All Open Investigations ▾	Search
All Open Investigations	
My Open Investigations	

2. Select a search from the list by clicking it.
3. Click the **SEARCH** button to initiate the search and the cases will re-display as specified.

## EXPORTING DATA

The MDSS provides two methods for exporting data to your computer:

- Basic Data Export - exports data fields available in the HTML “Case Details” screens.
- Disease Specific Export - exports data fields available in the Disease Specific (PDF) Forms.

*Note:* Please refer to the section titled, “Disease Specific Search” for more information regarding the Disease Specific Export.

The Basic Data Export's subset of data represents the fields that are common to all cases. The Basic Data Export file also contains a “header record” that supplies information about each field exported. By modifying your search criteria, you can select different cases to display and export.

The Basic Data Export allows you to store the exported data on your computer as a CSV (Comma Separated Value) file. This file format can be viewed and opened in a variety of applications such as Microsoft Word, Microsoft Notepad, and Microsoft Excel and can be imported into statistical programs such as SAS, SPSS, and EpiInfo.



*Note:* There is a limitation when using Microsoft Excel 2002. The worksheet is limited in size (65,536 rows by 230 columns). If there are many labs or even a few labs with many results that result in an export file with more than 230 columns, you will not be able to import the whole file into Excel.

## BASIC DATA EXPORT

To perform a Basic Data Export, follow these steps:

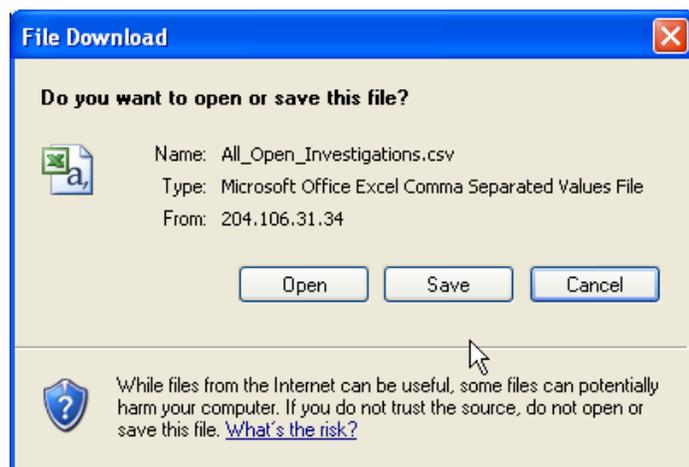
1. From the “Case Listings” screen, select the search that retrieves the cases you wish to export.

Figure 5-4: Case Listings - Export



2. Click the **EXPORT** button. The “File Download” dialog box will appear asking you to confirm your choice to download the export file.

Figure 5-5: File Download Dialog Box



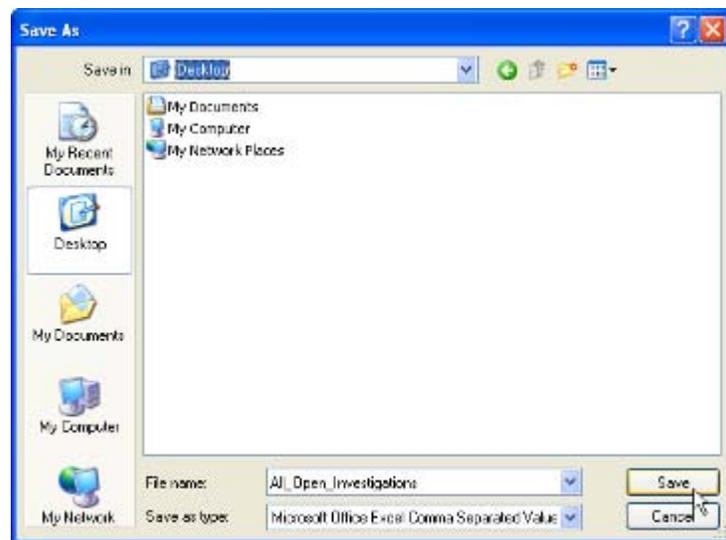


*Note:* There may be a brief waiting interval before the “File download” dialog box appears. The waiting period is relative to the number of cases being exported.

3. Click the **SAVE** button. The “Save As” dialog box appears asking you to select a location on your computer to store the export file.

*Note:* You may also provide a filename if you do not want to accept the default that uses the same name as the name of the search.

**Figure 5-6: Export File “Save As” Dialog Box**



4. Provide the location for the file and either accept the default filename (defaults to the name of the search) or provide your own filename by typing on top of the default.
5. Click the **SAVE** button. Your exported data file will now reside on your computer in the location that you specified.

The exported fields and their labels are listed in the table in field order:



Table 5-3: Basic Data Export Fields

FIELD ORDER	FIELD LABEL	FIELD DESCRIPTION
1	Reportable_Condition	Reportable Condition
2	Case_Status	Case Status
3	Investigation_Status	Investigation Status
4	Investigation_ID	Investigation ID
5	NETSS_ID	NETSS ID
6	Investigator_Last_Name	Investigator Last Name
7	Investigator_First_Name	Investigator First Name
8	Investigator_Jurisdiction	Investigator Jurisdiction
9	Onset_Date	Onset Date
10	MMWR_Week	MMWR Week
11	MMWR_Year	MMWR Year
12	Completion_Date	Completed Date
13	Updated_Date	Updated Date
14	Diagnosis_Date	Diagnosis Date
15	Referral_Date	Referral Date
16	Entry_Date	Entry Date
17	Outbreak_Y_N	Outbreak Yes, No, or Unknown
18	Outbreak_Name	Outbreak Name
19	Patient_Status	Patient Status
20	Patient_Status_Date	Patient Status Date
21	Patient_First_Name	Patient First Name



FIELD ORDER	FIELD LABEL	FIELD DESCRIPTION
22	Patient_Last_Name	Patient Last Name
23	Patient_Middle_Name	Patient Middle Name
24	Patient_ID	Patient ID
25	Investigation_Addr_Street	Investigation Address (Street)
26	Investigation_Addr_City	Investigation Address (City)
27	Investigation_Addr_County	Investigation Address (County)
28	Investigation_Addr_State	Investigation Address (State)
29	Investigation_Addr_Zip	Investigation Address (Zip)
30	Investigation_Addr_Jurisdicti	Investigation Address (Jurisdiction)
31	Investigation_Addr_Geo_Source	Investigation Address (Geocode Source)
32	Investigation_Addr_MI_Geo_X	Investigation Address (Geocode X Coord.)
33	Investigation_Addr_MI_Geo_Y	Investigation Address (Geocode Y Coord.)
34	Patient_Sex	Patient Sex
35	Patient_Race	Patient Race
36	Patient_Ethnicity	Patient Ethnicity
37	Patient_Arab_Ethnicity	Patient Arab Ethnicity
38	Patient_Date_Of_Birth	Patient Date of Birth
39	Patient_Age	Patient Age
40	Patient_Age_Unit	Patient Age Unit
41	Patient_Home_Phone	Patient Home Phone
42	Patient_Home_Phone_Extension	Patient Home Phone Extension
43	Patient_Other_Phone	Patient Other Phone



## Case Investigation Menu

FIELD ORDER	FIELD LABEL	FIELD DESCRIPTION
44	Patient_Other_Phone_Extension	Patient Other Phone Extension
45	Parent_Guardian_First_Name	Parent/Guardian First Name
46	Parent_Guardian_Last_Name	Parent/Guardian Last Name
47	Parent_Guardian_Middle_Name	Parent/Guardian Middle Name
48	Worksites_School	Worksites/School
49	Occupations_Grade	Occupations/Grade
50	Referral_Person_First_Name	Referral Person First Name
51	Referral_Person_Last_Name	Referral Person Last Name
52	Referral_Person_Phone_Number	Referral Person Phone Number
53	Referral_Person_Phone_Ext	Referral Person Phone Extension
54	Referral_Person_Email_Address	Referral Person Email Address
55	Physician_First_Name	Physician First Name
56	Physician_Last_Name	Physician Last Name
57	Physician_Phone_Number	Physician Phone Number
58	Physician_Phone_Extension	Physician Phone Extension
59	Physician_Email	Physician Email
60	Physician_Affiliation	Physician Affiliation
61	Physician_Addr_Street	Physician Address (Street)
62	Physician_Addr_City	Physician Address (City)
63	Physician_Addr_County	Physician Address (County)
64	Physician_Addr_State	Physician Address (State)



FIELD ORDER	FIELD LABEL	FIELD DESCRIPTION
65	Physician_Addr_Zip	Physician Address (Zip)
66	Physician_Addr_Jurisdiction	Physician Address (Jurisdiction)
67	Physician_Addr_Geo_Source	Physician Address (Geocode Source)
68	Physician_Addr_MI_Geo_X	Physician Address (Geocode X Coord.)
69	Physician_Addr_MI_Geo_Y	Physician Address (Geocode Y Coord.)
70	Agg_Case_Count	Aggregate Case Count
71	Agg_Death_Count	Aggregate Death Count
72	Agg_New_Hospitalized_Count	Aggregate Newly Hospitalized Count
73	Agg_New_Isolated_Count	Aggregate Newly Isolated Count
74	Agg_New_Quarantined_Count	Aggregate Newly Quarantined Count
75	Agg_Total_Hospitalized_Count	Aggregate Total Hospitalized Count
76	Agg_Total_Isolated_Count	Aggregate Total Isolated Count
77	Agg_Total_Quarantined_Count	Aggregate Total Quarantined Count
78	Agg_Reporting_Period	Aggregate Reporting Period
79	Agg_Reporting_Source	Aggregate Reporting Source
80	Agg_Source_Description	Aggregate Source Description
81	Agg_School_District	Aggregate School District
82	Agg_School_Name	Aggregate School Name
83	Agg_School_Status	Aggregate School Status
84	Notes	Notes
85*	Lab_1_Test_Name	Lab1 Test Name
86*	Lab_1_Laboratory_Name	Lab1 Laboratory Name



FIELD ORDER	FIELD LABEL	FIELD DESCRIPTION
87*	Lab_1_Report_Date	Lab1 Report Date
88*	Lab_1_Spec_Collection_Date	Lab 1 Specimen Collection Date
89*	Lab_1_Spec_Source	Lab 1 Specimen Source
90*	Lab_1_Spec_Site	Lab 1 Specimen Site
91*	Lab_1_Rslt_1_Rprtd_Test_Nm	Lab 1 Result 1 Reported Test Name
92*	Lab_1_Rslt_1_Coded_Rslt	Lab 1 Result 1 Coded Result
93*	Lab_1_Rslt_1_Alt_Coded_Rslt	Lab 1 Result 1 Alternate Coded Result
94*	Lab_1_Rslt_1_Text_Rslt	Lab 1 Result 1 Text Result
95*	Lab_1_Rslt_1_Numeric_Rslt	Lab 1 Result 1 Numeric Result
96*	Lab_1_Rslt_1_Comments	Lab 1 Result 1 Comments
<b>*Note:</b> If there were additional labs, they would be named Lab 2 Test Name, Lab 2 Laboratory Name, Lab 2 Report Date, etc.		

## VIEWING/EDITING CASE DETAILS

To view and/or edit details for a specific case, perform the following steps:

1. From the “Case Listings” screen, locate the case with the details you would like to view.
2. Click the **EDIT** button (located to the far right of the case). The “Case Details – Case Reporting” tab screen appears.



Figure 5-7: Case Details – Case Reporting

*Note:* When viewing the “Case Details,” the case will be “locked” by the user who first accessed the record. This means other users will be able to view the record but will not be able to make changes. The lock will remain in effect until the first user navigates away from that record. If the session terminates before the lock is released, the lock will be released when the first user's session times out. Refer to the illustration below for an example of a “locked” case.

Figure 5-8: Locked Case



3. The complete “Case Details” are separated into different sections called “tabs.” Depending on the *Reportable*



*Condition* and your role and permissions, not all of the tabs will be available. The complete list of tabs includes:

- **CASE REPORTING** – Contains information regarding the case, patient, and investigation.
- **ADDRESS HISTORY** – Contains information for each of the addresses associated with a patient.
- **DEMOGRAPHICS**—Contains information such as the patient's sex, race, ethnicity, date of birth/age, parent/guardian, work, occupation, school grade, etc.
- **REFERRER**—Contains information regarding the primary physician and the person who made the referral.
- **LAB REPORTS**—Contains information for laboratory reports associated with the patient.

*Note:* Not all laboratory information is necessarily found in the **LAB REPORTS** tab, but may also be found on the **NOTES** tab or the Disease Specific (PDF) Form.

- **NOTES**—Contains “free-form” notes for additional comments or other supporting information regarding the case.
  - **MAP**—Displays an interactive map showing the case's location.
  - **AUDIT**—Contains historical information regarding the changes made to the investigation. This information contains “who made the change,” “what was changed,” and “when the change occurred.”
  - **PERSON HISTORY**—Displays limited information from each case associated with the patient.
-



- 
- **FIELD RECORD**—Contains any Field Records associated with the case.
  - **INTERVIEW RECORD**—Contains the Interview Record associated with the case.
4. To view/edit one of the tabbed sections, click on the tab and continue to its coinciding section below. Otherwise, click a different menu or option to exit.

## CASE REPORTING TAB

The **CASE REPORTING** tab contains information regarding the case, patient, and investigation. Most of the fields of information are entered when the case is created.

Based on your role and permission, you can perform the following tasks from the “Case Reporting” screen:

- View and/or edit case information such as *Reportable Condition, Case Status, Investigation Status, Referral Date, Onset Date, and Diagnosis Date*; or edit patient information such as patient name, status, and status date.
- View, edit, or print the Disease Specific (PDF) Forms.
- De-duplicate a case using the **DEDUP** button.
- Reassign a case to a different investigator.
- Close a case.

Additional information on each of these tasks can be found in the corresponding sections below.

## VIEW/EDIT THE CASE REPORTING TAB

To view and/or edit the “Case Reporting” tab screen, perform the following steps:

---



1. The “Case Reporting” tab screen is the first tabbed screen to appear after clicking the **EDIT** button on the “Case Listings” screen.

Figure 5-9: Case Details - Case Reporting Tab

2. Descriptions for each field and button on the screen are provided in the table. Many of the fields can be edited; however, changing some fields can result in changes being automatically made to other fields. If there are potential automatic changes, they are listed with the field in the table.

Table 5-4: Case Reporting Tab Fields and Buttons

FIELD/BUTTON	DESCRIPTION
<b>Reportable Condition*</b>	Name of disease being reported for the case. This is a required field. Click on the drop-down menu arrow for a list of valid choices.



FIELD/BUTTON	DESCRIPTION
<p><b>Detail</b></p>	<p>Opens the associated Disease Specific (PDF) Form. More information can be found in the section titled, "Using Disease Specific (PDF) Forms." If changes have been made to other fields on this screen, they will not be saved when this button is clicked.</p>
<p><b>Case Status*</b></p>	<p>Refers to the case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance." This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The choices are:</p> <p><i>Confirmed</i> – The case definition has been met for a confirmed case of this disease.</p> <p><i>Confirmed Non-Resident</i> – The confirmed case definition has been met, but the patient is not a resident of Michigan. This <i>Case Status</i> can only be used when the <i>Reportable Condition</i> is Tuberculosis.</p> <p><i>Not a Case</i> – None of the case definitions were met for this disease.</p> <p><i>Probable</i> – The case definition has been met for a probable case of this disease.</p> <p><i>Suspect</i> – Generally, this case classification indicates further investigation is warranted to determine if a case definition can be met, but for the few diseases that have a case definition for a suspect case, "Suspect" can be a final case status.</p> <p><i>Unknown</i> – The person making the referral could not determine whether a case definition is met.</p>



FIELD/BUTTON	DESCRIPTION
<p><b>Investigation Status*</b></p>	<p>Refers to the progress of the investigation. This is a required field.</p> <p><i>Investigation Status</i> can be system-generated or manually selected. During New Case entry, the system automatically sets the status to <i>New</i>. This field is expected to be resolved to <i>Completed</i> or <i>Canceled</i> as a result of the investigation.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The options available for <i>Investigation Status</i> are:</p> <p><i>New</i> – The case has been newly added and needs to be investigated. The case can be edited with this status, and is considered “open.”</p> <p><i>Active</i> – The case is actively being investigated. This is an “open” status.</p> <p><i>Completed</i> – The investigation is complete and the case either meets the confirmed or probable case definition or it has been determined that the case was not a case. The case can no longer be edited with this status and is considered “closed.”</p> <p><i>Completed - Follow Up</i> – The investigation was completed, but now needs additional follow-up. This <i>Investigation Status</i> can only be selected if the <i>Investigation Status</i> was previously <i>Completed</i>.</p> <p><i>Review</i> – The investigation needs to be reviewed.</p> <p><i>Superceded</i> – The investigation has been preempted by an existing case. Superceding an investigation is similar to manually identifying a duplicate record. This is a “closed” status. Investigations closed as <i>Superceded</i> are not reported to the CDC.</p> <p><i>Canceled</i> – The case is closed because it was determined not to be a reportable condition. This is a “closed” status. Investigations closed as <i>Canceled</i> are not reported to the CDC.</p>
<p><b>PATIENT INFORMATION</b></p>	



FIELD/BUTTON	DESCRIPTION
<b>Patient Status*</b>	<p>Indicates the most recently known health and/or institutional status of the patient as of the <i>Patient Status Date</i>. The field is not intended to gather historical case information. This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The options available for <i>Patient Status</i> are: Died, Inpatient, and Outpatient.</p> <p><b>NOTE:</b> If <i>Patient Status</i> is unknown, Outpatient should be selected.</p>
<b>Patient Status Date* (mm/dd/yyyy)</b>	<p>In conjunction with the <i>Patient Status</i>, indicates the most recently known health and/or institutional status of the patient. This is a required field.</p> <p><i>Patient Status Date</i> initially defaults to the system date at the time of new case entry. When any change is made to the <i>Patient Status</i>, the <i>Patient Status Date</i> is set to the system date at the time of that change. Additionally, <i>Patient Status Date</i> can be manually changed.</p> <p>Accept the default date, type the date, or use the JavaScript Calendar to select a date.</p>
<b>First*</b>	First name of the patient. This is a required field.
<b>Last*</b>	Last name of the patient. This is a required field.
<b>Middle</b>	Middle name of the patient.



FIELD/BUTTON	DESCRIPTION
<p><b>Onset Date</b> (mm/dd/yyyy)</p>	<p>Date the symptoms of the disease first appeared. Either type the date or click the JavaScript calendar to select a date.</p> <p><b>EFFECTS OF CHANGING THE ONSET DATE</b></p> <p>The <i>Onset Date</i> is related to other fields within the application, specifically Jurisdiction (via the Investigation Address) and Patient Age.</p> <p><u>Jurisdiction</u>: Case Jurisdiction is based on the Investigation Address at the <i>Onset Date</i> (or the <i>Referral Date</i> if the <i>Onset Date</i> is unavailable). Changes to <i>Onset Date</i> can result in case referral to another jurisdiction.</p> <p><i>Onset Date</i> plays a key role in determining the Investigation Address. The “To and From” dates for the address(es) in the patient’s Address History are compared to the <i>Onset Date</i> to determine where the patient lived when he/she got sick. If a change is made to the <i>Onset Date</i> that results in a change to the Investigation Address, the case could be referred to another jurisdiction.</p> <p>For example, Bob Smith’s Address History shows he lived at an address in County A until January 31, 2003 and then moved to an address in County B beginning February 1, 2003. If a new communicable disease case for Bob is reported with an <i>Onset Date</i> prior to 02/01/2003, the case will be referred to County A. If the <i>Onset Date</i> is changed to be on/after 02/01/2003, the address in County B will be the valid Investigation Address and the case will be referred to that jurisdiction.</p> <p><u>Age</u>: Patient Age is the age at which disease onset occurred, which is not necessarily the patient’s current age. Therefore, changes to the <i>Onset Date</i> can result in changes to Patient Age. If changing the <i>Onset Date</i> results in Patient Age dropping below 18 years, parent/guardian information will become required.</p>
<p><b>MMWR</b></p>	<p>The Morbidity And Mortality Weekly Report (MMWR) week and year for the case. This is a system-generated, read-only field based on the <i>Referral Date</i>.</p>



FIELD/BUTTON	DESCRIPTION
<b>Patient ID</b>	Unique identification number for the patient. This is a system-generated, read-only field.
<b>Diagnosis Date (mm/dd/yyyy)</b>	Date the disease was first diagnosed. Either type the date or click the JavaScript calendar to select a date.
<b>Dedup</b>	Initiates deduplication of the case.  More information can be found in the section titled, "Using the Dedup Button." If changes have been made to other fields on this screen, they will not be saved when this button is clicked.
<b>INVESTIGATION ADDRESS</b> (The fields associated with the Investigation Address are read-only and based on the Patient's Address History and <i>Onset Date</i> .)	
<b>Street</b>	Street address associated with this investigation.
<b>Geocode Source</b>	Describes how the coordinates of the address were determined. For more information, see the section titled, "Geocoding" under "Background Processing when Saving Cases."
<b>City</b>	City associated with this investigation.
<b>County</b>	County associated with this investigation.
<b>State</b>	State associated with this investigation.
<b>Zip</b>	Zip code associated with this investigation.
<b>Jurisdiction</b>	Jurisdiction assigned to this investigation.
<b>INVESTIGATION INFORMATION</b>	
<b>Outbreak (Y/N)</b>	Indicates whether the case is part of an outbreak. Click on the drop-down menu arrow for a list of valid choices. The available options are: <i>Yes</i> , <i>No</i> , or <i>Unknown</i> .
<b>Outbreak Name</b>	Name of outbreak if the <i>Outbreak Y/N</i> field is set to <i>Yes</i> .



FIELD/BUTTON	DESCRIPTION
<b>Referral Date</b>	Date on which the case was referred to the health department. The system generated default value for <i>Referral Date</i> is based on the system date at the time the new case was entered. It can be edited with some limitations: <i>Referral Date</i> cannot be after the <i>Case Entry Date</i> , cannot be more than 90 days prior to <i>Case Entry Date</i> , and <i>Referral Dates</i> from the previous calendar year are locked for editing after May 1 <sup>st</sup> .
<b>Case Entry Date</b>	Date on which the case was entered into the system. This is a system-generated, read-only field.
<b>Investigation ID</b>	Unique identification number assigned to the investigation. This is a system-generated, read-only field.
<b>NETSS ID</b>	Identification number associated with the case that will be sent to and used by the CDC.
<b>Assigned To</b>	Name of the investigator and jurisdiction to which the case has been assigned.
<b>Re-assign</b>	Initiates the re-assignment of the case to a new investigator.  More information can be found in the section titled, "Re-Assigning a Case." If changes have been made to other fields on this screen, they will not be saved when this button is clicked.

3. Make any necessary changes and click one of the available buttons:
  - **RESET** – Erases any changes on the screen up to the previous save and remains on the same screen.
  - **SUBMIT CHANGES** – Begins a validation process and if there are no errors, saves the changes you made and returns you to the same screen.
  - **CANCEL** – Terminates the process of editing and returns to the "Case Listings" screen. If you have



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changed any case information, a “warning dialog” is displayed asking you to verify your intention to cancel.

- a) If you click the **CANCEL** button, you will return to the editing process.
- b) If you click the **OK** button, you will lose any edits you just made.

## USING DISEASE SPECIFIC (PDF) FORMS

The Disease Specific (PDF) Forms are Adobe Acrobat's Portable Document Format (PDF) files that look like the communicable disease forms used in a case investigation. These forms can be used to view, print, and edit (excluding closed cases) an existing case or to enter a new one.

*Note:* You must have Adobe Reader to access the PDF files.

To access and use a Disease Specific (PDF) Form, perform the following steps:

1. To work with an existing case, locate the specific case in which you are interested from the “Case Listings” screen and click the **EDIT** button (located to the far right of the case). The “Case Reporting” tab screen appears.

To enter a new case, click the **NEW CASE** option from the **CASE INVESTIGATION** menu. The first “New Case” entry screen appears.

2. From the “Case Reporting” tab screen or the “New Case” entry screen, click the **DETAIL** button. Adobe Acrobat Reader will start up and open the Disease Specific (PDF) Form associated with the case.



Figure 5-10: Example of a Disease Specific (PDF) Form

The screenshot shows a web browser window with a purple header bar. Below the header are four buttons: 'Activate Form', 'Submit Form', 'Cancel Form', and 'Case Definitions'. The main title of the form is 'Gastrointestinal Illness Case Investigation' by the Michigan Department of Community Health, Communicable Disease Division, for Salmonellosis. The form is divided into two main sections: 'Investigation Information' and 'Patient Information'. The 'Investigation Information' section contains a table with fields for Investigation ID, Onset Date, Diagnosis Date, Referral Date, Case Entry Date, and Case Completion Date. Below this is a row for 'Investigation Status' and 'Case Status' with radio button options: Confirmed, Not a Case, Probable, Suspect, and Unkwn. The 'Patient Information' section contains a table with fields for Patient ID, First, Last, Middle, Patient Status, Patient Status Date, Part of an outbreak?, Outbreak Name, and Case Updated Date.

Investigation Information					
Investigation ID	Onset Date mm/dd/yyyy	Diagnosis Date mm/dd/yyyy	Referral Date mm/dd/yyyy	Case Entry Date mm/dd/yyyy	Case Completion Date mm/dd/yyyy
Investigation Status		Case Status <input type="radio"/> Confirmed <input type="radio"/> Not a Case <input type="radio"/> Probable <input type="radio"/> Suspect <input type="radio"/> Unkwn			
Patient Status	Patient Status Date mm/dd/yyyy	Part of an outbreak?	Outbreak Name	Case Updated Date mm/dd/yyyy	

Patient Information			
Patient ID	First	Last	Middle

3. Click the **ACTIVATE FORM** button to retrieve the saved field values from the database and display them in the form.
4. Type and/or select the data for the fields. Navigation tips for the forms are located in the table below.



**Table 5-5: Disease Specific (PDF) Form Navigation Tips**

ITEM	DESCRIPTION
<b>CURSOR LOCATION POINTERS</b>	
<p><b>Types</b></p> <div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">I</div>    <div style="border: 1px dotted black; padding: 2px 10px;">○ Active</div> </div>	<p>Depending on the position of the mouse pointer focus, the pointer type may change. For example:</p> <p>An “I-beam” pointer indicates text can be entered.</p> <p>An “Open hand” indicates NO text can be entered.</p> <p>A “Finger pointing to a radio button option” indicates your selection once you click the Left mouse button.</p> <p>An arrow pointer indicates you can click on a drop-down menu.</p> <p>A “dotted line” around a radio button indicates cursor focus. If either the <b>SPACE BAR</b> or <b>ENTER</b> key is pressed, the radio button will be selected. If the <b>TAB</b> key is pressed, the next available option will be highlighted.</p>
<b>KEYBOARD KEYS</b>	
<b>TAB</b>	The <b>TAB</b> key moves the cursor to the next available option or field.
<b>SHIFT (with)TAB</b>	The <b>SHIFT</b> with <b>TAB</b> key moves the cursor backward to the previous option or field.
<b>ENTER</b>	<p>The <b>ENTER</b> key (includes the <b>ENTER</b> key on the numeric keypad) accepts the field value change and moves the cursor away from the field.</p> <p>In a multi-line text field, the <b>ENTER</b> key moves to the next line in the same field.</p>
<b>ESC</b>	The <b>ESC</b> ape key rejects (resets) the field value change and moves the cursor away from the field.



5. You may also choose to print the form by using your browser's print option.
6. When you are finished, click one of the following buttons:
  - **SUBMIT FORM** – Begins the validation process and if successful (no errors), this option saves the case to the database.  
You will be returned to the “Case Listing” screen, or you may enter “Patient Deduplication” (if you have deduplication privileges and the case you newly entered matches an existing patient in the system).
  - **CANCEL FORM** – Erases any data changes you have made to the form and returns you to the “Case Listings” screen if you were viewing/editing an existing case or to the “New Case “ entry screen if you were entering a new case.
  - **CASE DEFINITIONS** – Not yet implemented.

## USING THE DEDUP BUTTON

The **DEDUP** button appears on the “Case Reporting” tab screen in the Patient Information section for users with certain roles and permissions.

The **DEDUP** button allows an investigator to send a case back for deduplication. For more information on deduplication, see the section titled, “Deduplication” under “Background Processing when Saving Cases.”

To send a case back for deduplication, perform the following steps:

1. From the “Case Reporting” tab screen, click the **DEDUP** button.



2. A “warning dialog” is displayed asking you to verify your intention to deduplicate the case.
  - If you click the **CANCEL** button, you will return to the “Case Reporting” tab screen.
  - If you click the **OK** button, you will start the deduplication process.

*Note:* The case from which you click the **DEDUP** button will no longer be available in the case listings upon completion of a patient merge or if the deduplication is deferred to the Pending Work Queue.

## REASSIGNING A CASE

Only certain user roles have the ability to reassign a case. If your user role has permission to reassign a case, a **RE-ASSIGN** button appears on the “Case Reporting” tab screen in the Investigation Information section.

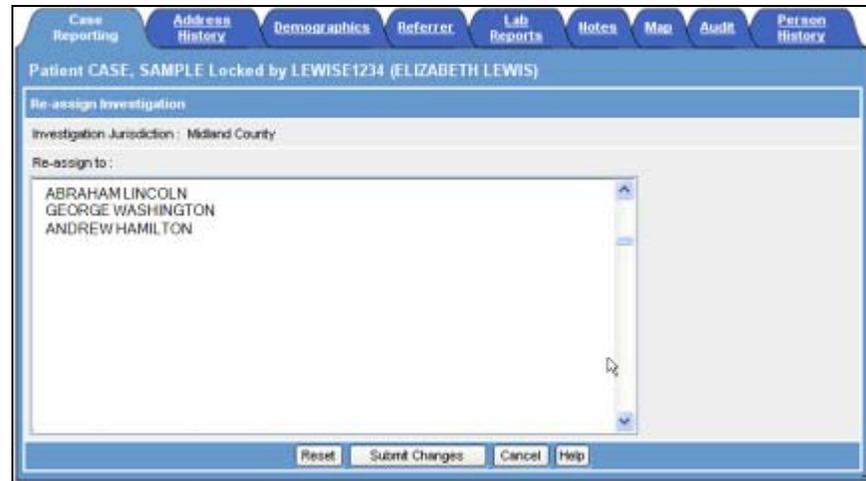
The **RE-ASSIGN** button allows an investigator to assign a case to another investigator in his or her jurisdiction who has permission to see the case. A statewide user may reassign a case to an investigator in the jurisdiction of the case or another statewide user with permission to view the case.

To reassign a case, perform the following steps:

1. From the “Case Reporting” screen, click the **RE-ASSIGN** button. The “Re-assign Investigation” screen appears.



Figure 5-11: Reassign Investigation



2. In the “Re-assign To” section, select the desired Investigator from the list.
3. Click one of the available buttons:
  - **SUBMIT CHANGES** – saves and returns to the “Case Listing” screen.
  - **RESET** – erases any newly selected/unsaved data by reloading the current screen with the previously saved data.
  - **CANCEL** – Does NOT save changes and returns you to the “Case Reporting” tab screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the reassignment process.
    - b) If you click the **OK** button, you will lose any data that you entered.



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## CLOSING A CASE

Only certain user roles have the ability to close a case. Generally, case closure is accomplished at the local level.

A case is closed by setting two field values on the “Case Reporting” tab screen. The fields and closure settings are:

- *Case Status* = Confirmed, Not a Case, or Probable.
- *Investigation Status* = Completed

*Note:* The following diseases can be closed (*Investigation Status* of Completed) with the *Case Status* of Suspect:

Mumps  
Escherichia coli 0157:H7\*  
Shiga toxin, E. Coli, Non O157\*  
Shiga toxin, E. Coli, Unsp\*  
Shiga toxin-producing Escherichia coli --  
(STEC)  
Meningococcal disease  
Legionellosis

A case will be reported to the CDC if it has an *Investigation Status* of Completed and its *Case Status* is anything except Not a Case.

To close an investigation, perform the following steps:

1. From the “Case Reporting” screen, set the *Case Status* field to Confirmed, Probable, or Not a Case.
2. Set the *Investigation Status* to Completed.



3. Click the **SUBMIT CHANGES** button to save the changes to the database.

*Note:* Once a case is closed, the case cannot be edited unless it is reopened by a user with permission to reopen cases. Closed cases can be viewed and/or printed.

## ADDRESS HISTORY TAB

All of the address information associated with a patient can be found in the **ADDRESS HISTORY** tab.

You can perform the following tasks from the “Address History” tab screen:

- View the Address History
- Edit an address
- Create a new address

*Note:* Changing an existing address or creating a new address can cause the case(s) to be referred to another jurisdiction. Before editing or creating an address, review how the Investigation Address is determined and used to establish jurisdiction in the section titled, “About the Investigation Address.”

## ABOUT THE INVESTIGATION ADDRESS

Jurisdiction is assigned based on the Investigation Address. Changing any of the following address fields results in the MDSS reassessing the best possible address source for the Investigation Address. The priority for establishing Investigation Addresses is:

1. Patient address
-



- 
2. Primary physician address
  3. Laboratory report's ordering provider address
  4. Laboratory report's laboratory address

Patient address(es) are stored in the **ADDRESS HISTORY** tab. The “To” and “From” date information establishes the date range for which an address is valid. If the *Onset Date* (or the *Referral Date*, if the *Onset Date* is unavailable) for a case falls within the “To” and “From” date range for a patient address, that address becomes the Investigation Address and is used to establish jurisdiction for the case.

If there are no valid patient addresses for a case, the MDSS will assign the Investigation Address based on the address of the primary physician or address information from electronic laboratory results. If there are no addresses available, the MDSS will assign the case to the State for follow-up.

The following example illustrates how addresses within a case affect jurisdiction: a case without a patient address is assigned to a jurisdiction based on the primary physician's address. Adding the patient's home address will result in referral of the case to the jurisdiction of the patient's address. If the patient's address is in a different jurisdiction than the primary physician's address, the case will be referred to the new jurisdiction. It will no longer be listed within the “Case Listings” of the original jurisdiction and the original jurisdiction will not have access to it. The case will be listed in the “Case Listings” of the new jurisdiction and the new jurisdiction will have access to it.

*Note:* If the patient has or had previous investigations, changes to the address history information can also affect the jurisdiction of those cases.



## VIEWING THE ADDRESS HISTORY

To view a patient’s Address History information, perform the following steps:

1. From the “Case Listings” screen, locate the case whose address you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **ADDRESS HISTORY** tab. The “Address History” tab screen appears.

Figure 5-12: Case Details - Address History Tab

Street	City	State	Case Address	From Date	To Date
700 FULLER AVE NE	GRAND RAPIDS	MI	X		

3. Click one of the available buttons:
  - **EDIT** – displays the “Address Information” screen with the selected address populating the fields for editing. Continue to the section titled, “Editing an Address” for additional instructions.
  - **CREATE NEW ADDRESS** – displays the “Address Information” screen with blank fields to create a new address. Continue to the section titled, “Creating a New Address” for additional instructions.

## EDITING AN ADDRESS

Before editing an address, refer to the section titled, “About the Investigation Address” to review how editing an address can change the jurisdiction of a case. Then perform the following steps:



1. From the **ADDRESS HISTORY** tab, identify the address you would like to change and click the **EDIT** button. The “Address Information” screen appears.

**Figure 5-13: Address Information**

2. Descriptions for each field on the screen are provided in the table. Changing any of these fields can affect the assignment of jurisdiction; additional information can be found in the section titled, “About the Investigation Address.”

**Table 5-6: Address History Tab Fields**

FIELD	DESCRIPTION
<b>Street</b>	Street name and number of the patient's address. Click and type the house number and street name.
<b>Geocode Source</b>	Describes how the coordinates of the address were determined. This field is system-generated and read-only. For more information, see the section titled, “Geocoding” under “Background Processing when Saving Cases.”
<b>City</b>	City name of the patient's address. Click and type the city name.
<b>County</b>	County name of the patient's address. Click on the drop-down menu arrow to view/select a valid county name.



FIELD	DESCRIPTION
<b>State</b>	State name of the patient's address. Click on the drop-down menu arrow to view/select a valid state name.
<b>Zip</b>	Zip code of the patient's address. Click and type the zip code.
<b>From Date</b>	Date the patient took residence at the address. Either type the date or click the JavaScript calendar to select a date.  If the "From" date is blank, the address is considered to be valid "for all dates in the past."
<b>To Date</b>	Date the patient left the provided address. Either type the date or click the JavaScript calendar to select a date.  If the "To" date is blank, the address is considered to be valid "for all dates in the future."

*Note:* When changing an existing address, care must be taken to make sure the address "To" and "From" dates do not overlap with the "To" and "From" dates of any other addresses.

3. Click one of the available buttons:
  - **RESET** – erases any changes from the screen and remains on the same screen.
  - **SUBMIT CHANGES** – saves the edited address information. A "dialog box" appears indicating that you changed data that could affect the case assignment.
    - a) Click the **OK** button to save and continue to the "Address History" tab screen.
    - b) Click the **CANCEL** button to not save and remain on the "Address Information" tab screen.



- **CANCEL** – terminates the process of editing and returns to the “Address History” tab screen. If you have changed any case information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the editing process.
  - b) If you click the **OK** button, you will lose any edits you just made.

## CREATING A NEW ADDRESS

Before creating a new address, refer to the section titled, “About the Investigation Address” to review how creating an address can change the jurisdiction of a case. Then perform the following steps:

1. From the “Address History” tab screen, click the **CREATE NEW ADDRESS** button. The “Address Information” screen appears.

**Figure 5-14: Address Information**

2. Type the data into the fields or click the drop-down menu arrow to select a valid choice. Refer to the previous table for a list of the Address Fields.

*Note:* When adding a new address, care must be taken to ensure that no “To” and “From” dates from any



addresses overlap. Therefore, the “To” and “From” dates of any existing addresses must be designated before adding a new address. This can be accomplished by editing the existing address(es).

3. Click one of the available buttons:
  - **CREATE ADDRESS** – saves the new address information. A “dialog box” appears indicating that you changed data that could affect the jurisdiction assignment for the case.
    - a) Click the **OK** button to save and continue to the “Address History” tab screen.
    - b) Click the **CANCEL** button to not save and remain on the “Address Information” screen.
  - **CANCEL** – Terminates the process of adding a new address and returns you to the “Address History” tab screen. If you have entered any information, a “dialog box” appears asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new address.
    - b) If you click the **OK** button, you will lose any data that you have input and return to the “Address History” tab screen.

## DEMOGRAPHICS TAB

The **DEMOGRAPHICS** tab provides information regarding the patient’s sex, race, ethnicity, phone numbers, date of birth/age, parent/guardian, and work/occupation or school/grade.

While on the “Demographics” tab screen, you can perform the following tasks:

- View/Edit each patient demographic field
-



## VIEWING/EDITING DEMOGRAPHICS

To view/edit the patient’s demographic information, perform the following steps:

1. From the “Case Listings” screen, locate the case whose demographics you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **DEMOGRAPHICS** tab. The “Demographics” tab screen appears.

**Figure 5-15: Case Details - Demographics Tab**

3. Descriptions for each field on the screen are provided in the table.



Table 5-7: Demographics Tab Fields

FIELD	DESCRIPTION
<b>Sex*</b>	Gender of the patient. Click on the drop-down menu arrow to view/select a valid choice. This is a required field.
<b>Race*</b>	Race of the patient. Click on the drop-down menu arrow to view/select a valid choice. This is a required field.
<b>Hispanic Ethnicity*</b>	Hispanic ethnicity of the patient. Click on the drop-down menu arrow to view/select a valid choice. This is a required field.
<b>Arab Ethnicity</b>	Arab ethnicity of the patient. Click on the drop-down menu arrow to view/select a valid choice. This default value is Unknown.
<b>Home Phone and Extension</b>	Home telephone number of the patient and an extension, if applicable. Click and type the information.
<b>Other Phone and Extension</b>	Additional telephone number of the patient and an extension, if applicable. Click and type the information.
<b>DATE OF BIRTH / AGE</b>	
<b>Date of Birth (mm/dd/yyyy)</b>	Patient's date of birth, if available. Click and type the information. <b>Note:</b> If patient's Date of Birth is not available, use the Age field.



FIELD	DESCRIPTION
<p><b>Age at Onset</b></p>	<p>The numeric age of the patient at illness onset.</p> <p>If the patient's <i>Date of Birth</i> is supplied, the MDSS will automatically calculate the patient's <i>Age at Onset</i> and this field will not be editable.</p> <ul style="list-style-type: none"> <li>• <i>Age at Onset = Date of Birth - Onset Date</i></li> <li>• If <i>Onset Date</i> is unknown, <i>Referral Date</i> will be used</li> </ul> <p>If the patient's <i>Date of Birth</i> is not known, <i>Age at Onset</i> can be entered directly by clicking and typing the information.</p> <p><b>Note:</b> <i>Age at Onset</i> does not necessarily reflect the current age of the patient, and <i>Age at Onset</i> does not change over time.</p>
<p><b>Age Unit</b></p>	<p>The units associated with the patient's <i>Age at Onset</i> (in days, months, or years).</p> <p>If the patient's <i>Date of Birth</i> is supplied, the MDSS will automatically calculate the patient's <i>Age Unit</i> and this field will not be editable.</p> <p><i>Age Unit = Days</i>, if the calculated <i>Age at Onset</i> is less than a calendar month increment of the <i>Date of Birth</i></p> <p><i>Age Unit = Months</i>, if calculated <i>Age at Onset</i> is less than 2 years</p> <p><i>Age Unit = Years</i>, if the calculated <i>Age at Onset</i> is greater than or equal to 2 years</p> <p>If the patient's <i>Date of Birth</i> is not known, the <i>Age Unit</i> can be entered directly by clicking on the drop-down menu arrow to view/select a valid choice.</p>
<p><b>PARENT/GUARDIAN (REQUIRED IF UNDER 18)</b></p>	
<p><b>First</b></p>	<p>First name of the under-age patient's parent or guardian. Click and type the information.</p> <p><b>Note:</b> this field is required if the patient's <i>Age at Onset</i> is less than 18 years.</p>



FIELD	DESCRIPTION
<b>Last</b>	Last name of the under-age patient's parent or guardian. Click and type the information. <b>Note:</b> this field is required if the patient's <i>Age at Onset</i> is less than 18 years.
<b>Middle</b>	Middle name of the under-age patient's parent or guardian. Click and type the information.
<b>WORK / OCCUPATION or SCHOOL / GRADE</b>	
<b>Worksites/School</b>	Place of employment or school. Click and type the information.  This field stores the name of the business/company or school where the patient spends the majority of time away from home.
<b>Occupation/Grade</b>	Type of employment or grade if attending school. Click and type the information.  This field stores information specific to the patient's current occupation/school grade or how the patient earns a living (e.g., Daycare provider).

4. Make any changes and click one of the available buttons:
- **RESET** – erases any changes made and remains on the same screen.
  - **SUBMIT CHANGES** – begins a validation process and if there are no errors, saves the changes you made and returns you to the same screen.
  - **CANCEL** – terminates the process of editing and returns to the “Case Listings” screen. If you have changed any case information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the editing process.



- 
- b) If you click the **OK** button, you will lose any edits you just made.

## REFERRER TAB

The **REFERRER** tab provides information regarding the primary physician and/or the person who made the referral.

You can perform the following tasks on the “Referrer” tab screen:

- View/Edit the referrer information (person submitting referral or primary physician).

## VIEWING/EDITING REFERRER INFORMATION

To view/edit referrer information, perform the following steps:

1. From the “Case Listings” screen, locate the case you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **REFERRER** tab. The “Referrer” tab screen appears.



Figure 5-16: Case Details - Referrer Tab

3. Descriptions for each field on the screen are provided in the table.

Table 5-8: Referrer Tab Fields

FIELD	DESCRIPTION
<b>Referral received via Electronic Laboratory Reporting (Checkbox)</b>	If a checkmark appears in the checkbox, it indicates the case was created when an electronic lab report was received. <b>Note:</b> This is a system-generated field and cannot be edited.
<b>PERSON PROVIDING REFERRAL</b>	
<b>First</b>	First name of the person submitting the referral. Click and type the information.
<b>Last</b>	Last name of the person submitting the referral. Click and type the information.
<b>Phone</b>	Phone number of the person submitting the referral. Click and type the information.



FIELD	DESCRIPTION
<b>Ext</b>	Phone extension number of the person submitting the referral. Click and type the information.
<b>Email</b>	Email address of the person submitting the referral. Click and type the information.
<b>PRIMARY PHYSICIAN</b>	
<b>First</b>	First name of the primary physician. Click and type the information.
<b>Last</b>	Last name of the primary physician. Click and type the information.
<b>Affiliation</b>	Affiliation with which the primary physician is associated. Click and type the information.
<b>Phone</b>	Phone number of the primary physician. Click and type the information.
<b>Ext</b>	Phone extension number of the primary physician. Click and type the information.
<b>Email</b>	Email address of the primary physician. Click and type the information.
<b>Street</b>	Street address of the primary physician's practice. Click and type the information.
<b>City</b>	City name of the primary physician's practice. Click and type the information.
<b>County</b>	County name of the primary physician's practice. Click on the drop-down menu arrow to view/select a valid choice.
<b>State</b>	State name of the primary physician's practice. Click on the drop-down menu arrow to view/select a valid choice.
<b>Zip</b>	Zip code of the primary physician's practice. Click and type the information.



*Note:* If the case is referred as an Electronic Laboratory Report or if a Manual Laboratory Report is added or updated, the MDSS will automatically enter the Ordering Provider's information into the corresponding Primary Physician fields if those fields are not already completed. The Primary Physician fields can be edited without affecting the Ordering Provider information in the Lab Reports.

4. Make any changes and click one of the available buttons:
  - **RESET** – erases any changes and remains on the same screen.
  - **SUBMIT CHANGES** – begins a validation process and if there are no errors, saves the changes you made and returns you to the same screen.
  - **CANCEL** – terminates the process of editing and returns to the “Case Listings” screen. If you have changed any case information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the editing process.
    - b) If you click the **OK** button, you will lose any edits you just made.

## LAB REPORTS TAB

The **LAB REPORTS** tab contains summary information for each of the laboratory reports associated with the patient, not just the case. (A single patient can be the subject of multiple cases.) Therefore, any changes or additions of laboratory reports will appear on all cases for that patient, not just the case that is currently open.

Laboratory tests can be entered into the MDSS from two sources:



- 
- Electronically (via an automatic HL7 import)
  - Manually (via user data entry of a new case or editing of an existing case)

Both electronic and manual lab reports can be viewed on the **LAB REPORTS** tab. On this screen, you can perform the following tasks:

- View Lab Reports (Manual and Electronic Lab Reports)
- Create a New Lab Report (Manual Lab Reports only)
- Edit an Existing Lab Report (Manual Lab Reports only)
- Delete an Existing Lab Report (Manual Lab Reports only)

## ABOUT ELECTRONIC LABORATORY REPORTS

The MDSS is able to receive Electronic Laboratory Report (ELR) files from the MDHHS Bureau of Laboratories and from other laboratories if the message is formatted consistently with HL7 versions 2.3.1 and 2.3.z. Refer to Appendix D for a list of HL7 / MDSS Data Element Mappings and additional information about ELRs.

ELR files are automatically processed several times per day without any user intervention. This process checks for the existence of an ELR file and processes the record(s) contained in the file.

Each record that is received within an ELR file undergoes the same Background Processing (i.e., Geocoding and Deduplication) as manually entered cases. Therefore, an ELR can create a new case within MDSS or it can provide information to an existing case (through the deduplication process).

*Note:* An Electronic Laboratory Report is read-only; it cannot be changed or removed.



When a new case is initiated from an Electronic Laboratory Report, the case must be assigned to a jurisdiction and to an investigator. Electronic Laboratory Reports that are associated with an existing case may provide dissimilar address information. Case assignment and jurisdiction determination are handled as follows for Electronic Laboratory Reports:

- If an ELR is associated with a case and the laboratory report contains patient or physician address information that is different from the patient or physician address information within the associated case, the investigation address could be affected along with the case assignment and jurisdiction.
- If an ELR cannot be associated with an existing case and it does not contain address information, a new case will be created and assigned to the State.
- If an ELR cannot be associated with an existing case and it does not contain patient or physician address information but it does contain the laboratory address, a new case will be created using the laboratory address for jurisdiction determination and case assignment.

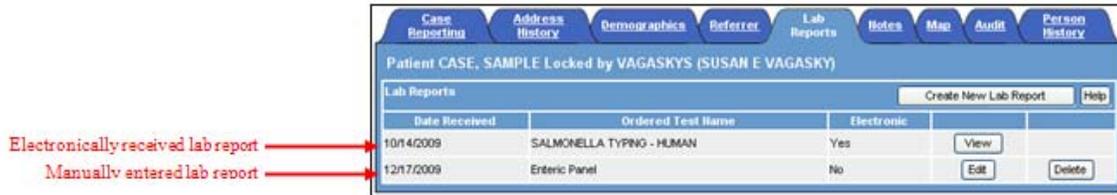
## VIEWING LAB REPORTS

To view all laboratory reports, perform the following steps:

1. From the “Case Listings” screen, locate the case whose lab reports you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **LAB REPORTS** tab. The “Lab Reports” tab screen appears.



Figure 5-17: Case Details – Lab Reports Tab



3. Descriptions for each field on the screen are provided in the table. All of these fields are read-only and cannot be edited on this screen.

Table 5-9: Lab Reports Tab Fields

FIELD	DESCRIPTION
<b>Date Received</b>	Date the lab report was entered manually or received electronically.
<b>Ordered Test Name</b>	Name of the test that was ordered.
<b>Electronic</b>	Indicates whether the lab report was entered manually or received electronically.  Yes = Electronic No = Manual

*Note:* If a lab report was entered manually, you can **EDIT** (or **VIEW**) or **DELETE** the lab report. If a lab report was entered electronically, you can only **VIEW** the lab report.

4. Click on one of the available buttons:
  - **CREATE NEW LAB REPORT** – displays the “Lab Order Information” screen to enter new lab report information. Continue to the section titled, “Creating a New Manual Lab Report” for instructions.



- **EDIT** – (only available for Manual Lab Report) displays the “Lab Order Information” screen to view/edit manually entered lab reports. Continue to the section titled, “Editing an Existing Manual Lab Report” for instructions.
- **DELETE** – (only available for Manual Lab Reports) displays a dialog box asking you to confirm that you want to delete the corresponding lab report.
  - a) Click the **OK** button to confirm the deletion.
  - b) Click the **CANCEL** button to NOT delete the lab report and return to the “Lab Reports” tab screen.
- **VIEW** - (only available for Electronic Lab Reports) displays the “Lab Order Information” screen to view electronic laboratory information. No edits can be made to Electronic Lab Reports. Refer to Table 5-10 for a list of field descriptions. Click **CANCEL** to return to the “Lab Reports” tab screen.

## CREATING A NEW MANUAL LAB REPORT

To create a new Manual Lab Report, perform the following steps:

1. From the “Lab Reports” tab, click the **CREATE NEW LAB REPORT** button. The “Lab Order Information” screen appears.



Figure 5-18: Lab Order Information

Case Reporting | Address History | Demographics | Referrer | Lab Reports | Notes | Map | Audit | Person History

Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS)

**Lab Order Information**

Test Name\*:

Lab Report Date (mm/dd/yyyy):

**Ordering Provider**

First:  Last:

Affiliation:  Street:

City:  County:  State:  Zip:

Phone number:  Ext:

**Laboratory Information**

Name\*:

Street:  Geocode Source:

City:  County:  State:  Zip:

Phone number:

**Specimen Information**

Specimen Collection Date (mm/dd/yyyy):

Specimen Source:

Specimen Site:

Specimen Site Text:

Specimen ID:

Results New Result

Save & Finish New Lab | Cancel | Help

2. Descriptions for each field on the screen are provided in the table.



Table 5-10: Lab Order Information Fields

FIELD	DESCRIPTION
<b>LAB ORDER INFORMATION</b>	
<b>Test Name*</b>	<p>Describes the name of the Ordered Test. This is a required field. Click and type the information.</p> <p><b>Note:</b> MDSS will accept a <i>Test Name</i> value of <code>Unknown</code> for lab reports where detailed source information has not been determined.</p>
<b>Lab Report Date</b>	<p>The date of the lab report. Use the format mm/dd/yyyy or click on the JavaScript calendar.</p>
<b>ORDERING PROVIDER</b>	
<p><b>NOTE:</b> Information entered in this section will be transferred automatically to the Primary Physician section on the <b>REFERRER</b> tab if no physician information is available</p>	
<b>First</b>	<p>First name of the Ordering Provider. Click and type the information.</p>
<b>Last</b>	<p>Last name of the Ordering Provider. Click and type the information.</p>
<b>Affiliation</b>	<p>Name of the Ordering Provider's affiliation. Click and type the information.</p>
<b>Street</b>	<p>Street address of the Ordering Provider's affiliation. Click and type the information.</p>
<b>City</b>	<p>City name of the Ordering Provider's affiliation. Click and type the information.</p>
<b>County</b>	<p>County name of the Ordering Provider's affiliation. Click on the drop-down menu arrow to view/select a valid choice.</p>
<b>State</b>	<p>State name of the Ordering Provider's affiliation. Click on the drop-down menu arrow to view/select a valid choice.</p>



FIELD	DESCRIPTION
<b>Zip</b>	Zip code of the Ordering Provider's affiliation. Click and type the information.
<b>Phone Number and Ext.</b>	Phone number (and extension if available) for the Ordering Provider's affiliation.
<b>LABORATORY INFORMATION</b>	
<b>Name*</b>	<p>The laboratory where the specimen was tested. This is a required field. Click and type the information.</p> <p><b>Note:</b> MDSS will accept a laboratory <i>Name</i> value of <code>Unknown</code> for lab reports where detailed source information has not been determined.</p>
<b>Street</b>	Street address where the laboratory is located. Click and type the information.
<b>Geocode Source</b>	Describes how the coordinates of the address were determined. This field is system-generated and read-only. For more information, see the section titled, "Geocoding" under "Background Processing when Saving Cases."
<b>City</b>	City name where the laboratory is located. Click and type the information.
<b>County</b>	County name where the laboratory is located. Click on the drop-down menu arrow to view/select a valid choice.
<b>State</b>	State name where the laboratory is located. Click on the drop-down menu arrow to view/select a valid choice.
<b>Zip</b>	Zip code where the laboratory is located. Click and type the information.
<b>Phone Number</b>	Phone number for the laboratory. Click and type the information.



FIELD	DESCRIPTION
<b>SPECIMEN INFORMATION</b>	
<b>Specimen Collection Date</b>	The date the specimen was collected for testing. Use the format mm/dd/yyyy or click on the JavaScript calendar.
<b>Specimen Source</b>	The origin of the specimen (e.g., serum, urine, blood, CSF). Click on the drop-down menu arrow to view/select a valid choice.
<b>Specimen Site</b>	The anatomical site from which the specimen was collected. Click on the drop-down menu arrow to view/select a valid choice.
<b>Specimen Site Text</b>	This field is used for additional information describing the specimen site. Click and type the information.
<b>Specimen ID</b>	Identifying number associated with the specimen (25 characters max). Click and type the information.
<b>RESULTS</b>	
<p>Displays the following information for existing lab reports, if available.</p> <p>Reported Test Name</p> <p>Coded Result</p> <p>Alternate Coded Result</p> <p>Text Result</p> <ul style="list-style-type: none"> <li>• Numeric Result</li> <li>• Comments</li> </ul> <p><b>Note:</b> Refer to Table 5-11 for an explanation of these fields.</p>	

3. Fill in at least the “**RED\***” (red asterisk) fields and then click one of the available buttons:
  - **NEW RESULT** – Begins a validation process and if no errors, displays the “New Result” screen. Continue to



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the section titled, “Adding a New Test Result” for instructions.

- **SAVE & FINISH NEW LAB** – Begins a validation process and if no errors, saves the new Lab Report, and returns you to the “Lab Reports” tab screen.
- **CANCEL** – Terminates the process of adding a Lab Report. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the editing process.
  - b) If you click the **OK** button, you will lose any data that you entered and you will be returned to the “Lab Reports” screen.

*Note:* If you have changed any information and attempt to navigate to another screen without clicking the **CANCEL** or **SAVE & FINISH NEW LAB** button, a “warning dialog” appears asking you to verify your intention to leave the screen without saving your changes.

## ADDING A NEW TEST RESULT

To add new laboratory test results, perform the following steps:

1. From the “Lab Order Information” screen, click the **NEW RESULT** button. The “New Result” screen appears.



Figure 5-19: New Result

The screenshot shows a web-based form for entering a new lab result. The form is titled "New Result" and is for a patient named "CASE, SAMPLE" locked by "LEWISE1234 (ELIZABETH LEWIS)". The form includes the following fields:

- Reported Test Name:** A text input field.
- Coded Result:** A drop-down menu.
- Text Result:** A large text area for free-form text.
- Numeric Result:** Three drop-down menus and three text boxes for structured numeric data.
- Comments:** A text area for additional notes.

At the bottom of the form are three buttons: "Add Result", "Cancel", and "Help".

2. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type your data.
3. Descriptions for each field on the screen are provided in the table.

Table 5-11: New Result Fields

FIELD	DESCRIPTION
<b>Reported Test Name</b>	Describes the test name. Click and type the information.
<b>Coded Result</b>	Codes the result from a standardized list of possible outcomes. Click on the drop-down menu arrow to view/select a valid choice.
<b>Text Result</b>	Describes the results with "free-form" text. Click and type the information.
<b>Numeric Result</b>	Provides a means of capturing measured values of the results in a standard way. Click on the drop-down menu arrow to view/select a valid choice and/or click and type the numeric information.



FIELD	DESCRIPTION
<b>Comments</b>	Provides for “free-form” notes to be appended to the reported results. Click and type the information.

4. When finished adding the information, click one of the available buttons:
  - **ADD RESULT** – Begins a validation process and if there are no errors, saves the new Lab Result for this Lab Report and returns you to the “Lab Order Information” screen.
  - **CANCEL** – Terminates the process of adding a lab result. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button on the “warning dialog” appears and you will return to the addition process.
    - b) If you click the **OK** button, you will lose any data that you entered and you will be returned to the “Lab Order Information” screen.

## EDITING AN EXISTING MANUAL LAB REPORT

*Note:* The “Editing” option is not available for Electronic Laboratory Reports.

To edit an existing Manual Lab Report, perform the following steps:

1. From the “Lab Reports” tab screen, locate the Lab Report you want to edit.



- Click on the **EDIT** button (located to the far right of the case). The “Lab Order Information” screen will appear.

Figure 5-20: Edit Lab Report

The screenshot shows a web application interface for editing a lab report. At the top, there is a navigation bar with tabs for Case Reporting, Address History, Demographics, Referrer, Lab Reports, Notes, Map, Audit, and Person History. Below the navigation bar, the patient information is displayed: Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS). The main form is divided into several sections:

- Lab Order Information:** Test Name\* (EXAMPLE TEST), Lab Report Date (mm/dd/yyyy) (01/01/2000).
- Ordering Provider:** First (EXAMPLE), Last (EXAMPLE), Affiliation (EXAMPLE), Street (1 MAIN ST), City (LANSING), County (dropdown), State (Michigan), Zip (48915), Phone number (517-555-1212), Ext (dropdown).
- Laboratory Information:** Name\* (EXAMPLE LAB), Street (100 MICHIGAN ST NE), Geocode Source (CGI), City (GRAND RAPIDS), County (Kent), State (Michigan), Zip (49503), Phone number (616-555-1212).
- Specimen Information:** Specimen Collection Date (mm/dd/yyyy) (dropdown), Specimen Source (dropdown), Specimen Site (dropdown), Specimen Site Text (text field), Specimen ID (text field).
- Results:** A table with columns for Reported Test Name, Coded Result, Numeric Result, Reference Range, and Comments. The Reported Test Name is EXAMPLE. The Coded Result is Pending. There are Edit and Delete buttons for each row. A New Result button is also present.

At the bottom of the form are buttons for Reset, Submit Changes, Cancel, and Help.

*Note:* If you are viewing an electronic lab report, the screen shown above will display with the values “grayed out” indicating that changes are not allowed. To exit, click the **CANCEL** button.



3. If you desire to make changes to the Results, refer to the section titled, “Editing a Test Result;” otherwise, continue to the next step.
4. Make the changes and click on one of the available buttons:
  - **RESET** – Erases any changes that you made and remains on the same screen.
  - **SUBMIT CHANGES** – Begins a validation process and if there are no errors, saves the changes you made and returns to the “Lab Reports” tab screen.
  - **CANCEL** – Terminates the process of editing the lab report and returns you to the “Lab Reports” tab screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the editing process.
    - b) If you click the **OK** button, you will lose any edits that you entered.

*Note:* If you have made changes while on this screen and attempt to navigate to another screen without clicking a button, a “warning dialog” appears asking to verify your intention to leave the screen without saving your changes.

## EDITING A TEST RESULT

To change an existing Lab Test Result, perform the following steps:

1. From the Results section of the “Lab Order Information” screen, locate the “Reported Test Name” whose result you want to edit.



2. Click the **EDIT** button (on the far right of the “Reported Test Name.”) The “New Result” screen appears.

Figure 5-21: Edit Result

Case Reporting Address History Demographics Referrer Lab Reports Notes Map Audit Person History

Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS)

New Result

Reported Test Name : EXAMPLE

Coded Result : Pending

Text Result :

Numeric Result : [dropdown] [input] [dropdown] [input] [input] [dropdown]

Comments :

Reset Submit Changes Cancel Help

3. Point your mouse cursor and click (or **TAB**) to the field you want to change.
4. Make the necessary changes and press one of the available buttons:
  - **RESET** – Erases any changes that you made and remains on the screen.
  - **SUBMIT CHANGES** – Begins a validation process and if there are no errors, saves the changes you made and returns to the “Lab Order Information” screen.
  - **CANCEL** – Terminates the process of editing the Lab Result and returns you to the “Lab Order Information” screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the editing process.
    - b) If you click the **OK** button, you will lose any edits that you entered.



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*Note:* If you attempt to navigate to another screen without clicking **RESET** or **SUBMIT CHANGES**, a “warning dialog” appears.

## DELETING A TEST RESULT

To delete an existing Lab Test Result, perform the following steps:

1. From the Results section of the “Lab Order Information” screen, locate the “Reported Test Name” whose result you want to delete.
2. Click the **DELETE** button (on the far right of the “Reported Test Name.”) A “warning dialog” is displayed asking you to verify your intention to delete this laboratory result.
  - If you click the **OK** button, the laboratory test result will be deleted and you will return to the “Lab Reports” screen.
  - If you click the **CANCEL** button, you will return to the “Lab Reports” screen and your laboratory result will not be deleted.

## DELETING A MANUAL LAB REPORT

*Note:* The “Deleting” option is not available for Electronic Laboratory Reports.

To delete a Manual Lab Report, perform the following steps:

1. From the “Lab Reports” tab screen, locate the lab report you want to delete.



2. Click on the **DELETE** button (located to the right of the lab report). A “confirmation dialog” appears asking you to confirm your intention to delete the lab report.
  - If you click the **OK** button, the laboratory report will be deleted and you will return to the “Lab Reports” tab screen.
  - If you click the **CANCEL** button, you will return to the “Lab Reports” tab screen and your laboratory report will not be deleted.

## NOTES TAB

In the **NOTES** tab, users can add comments in the form of case notes or upload documents containing supplemental information regarding the case.

1. From the “Case Listings” screen, locate the case in which you are interested and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **NOTES** tab. The “Notes” tab screen appears.



Figure 5-22: Case Detail - Notes Tab

Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS)

New Note :

Save Note

Previous Case Notes :

Case Documents Attach New Document

Date	Name	Description
------	------	-------------

Cancel Help

## ADDING A NOTE

To add a note, perform the following steps:

1. From the “Notes” tab screen, point and click in the “New Note” text box to type any comments regarding the case.
2. Click the **SAVE NOTE** button and the comments will appear below in the “Previous Case Notes” area of the screen. Each entry is read-only and marked with the time of entry and User-ID.

*Note:* Once a note has been submitted, it cannot be removed or edited. You must add another note to correct or update a previously saved note.

3. Click the **CANCEL** button to terminate the process of adding a note and return to the “Case Listings” screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the adding a note process.



- b) If you click the **OK** button, you will lose any edits that you entered.

## ADDING A CASE DOCUMENT

To add a case document, perform the following steps:

1. From the “Notes” tab screen, click the **ATTACH NEW DOCUMENT** button. The “Case Document” screen will appear.

Figure 5-23: Case Document Screen

The screenshot shows a software interface with a blue header containing several tabs: Case Reporting, Address History, Demographics, Referrer, Lab Reports, Notes, Map, Audit, and Person History. Below the tabs, the text reads "Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS)". The main content area is titled "Case Document" and features a "File:" label followed by a text input field and a "Browse..." button. Below this is a "File Description:" label followed by a larger text area with scrollbars. At the bottom of the form are three buttons: "Save", "Cancel", and "Help".

2. Click the **BROWSE** button to open the “Choose file” screen.



Figure 5-24: Choose File



3. Locate the file to upload you wish to upload and click **OPEN**.
4. Point and click in the “File Description” text box to type an optional description for the document.

*Note:* The following file types are not allowed as case documents: batch files (\*.bat).

5. Click one of the available buttons:
  - **SAVE** – saves the selected document and file description. If there are no errors, you will be returned to the “Notes” tab screen.
  - **CANCEL** – terminates the process of uploading a document and returns to the “Notes” tab screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the document adding process.
    - b) If you click the **OK** button, you will lose any edits you just made.



## VIEWING OR DELETING A CASE DOCUMENT

Previously saved case documents will be visible in the “Case Documents” area of the “Notes” tab screen. To view or delete a case document, perform the following steps:

1. Locate the case document you would like to view or delete. Click one of the available buttons:
  - **VIEW** – A “File Dialog” box appears. You can immediately **OPEN** the case document or **SAVE** it to your computer. Click **CANCEL** to return to the “Notes” tab screen.
  - **DELETE** – A “warning dialog” is displayed asking you to verify your intention to delete the case document.
    - a) If you click the **OK** button, the case document will be deleted and you will return to the “Notes” tab screen.
    - a) If you click the **CANCEL** button, you will return to the “Notes” tab screen and the case document will not be deleted.
  
2. Click the **CANCEL** button to terminate the process of viewing/deleting a case document and return to the “Case Listings” screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the “Notes” tab screen.
  - b) If you click the **OK** button, you will return to the “Case Listings” screen.



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## MAP TAB

The **MAP** tab displays an interactive map of the investigation address for the case. This functionality is limited by your user role and permissions. The healthcare provider and laboratory roles do not have access to this functionality. A health department user's role and permissions must allow access to a case before it will be displayed on the **MAP** tab. For more information on MDSS user roles and permissions, see Appendix C.

*Note:* The **MAP** tab provides the ability for users to view individually-mapped cases based on their role and permissions. The **REPORTS** menu provides the ability to prepare geographic maps without individual case details.

The investigation address for the current case will appear as a **green** star and any other cases reported during the previous 7 days with the same reportable condition will appear as a **blue** star. Other factors that can affect how a case is mapped include its Onset Date, Referral Date and Geocode Source.

- Cases are mapped based on their *Onset Date*, or *Referral Date* if *Onset Date* is unavailable.
- If the Geocode Source is "CGI," the case will be mapped at the exact location of the investigation address.
- If the Geocode Source is "Zip Code," the case will be mapped at the location of the zip code centroid.
- If the Geocode Source is "City," the case will not be displayed on the map.

See the section titled, "Geocoding" under "Background Processing When Saving Cases" for more information on Geocode Source.



## VIEWING AND NAVIGATING THE MAP

To view and navigate the map with tools such as zooming, panning, extending, adding, or removing layers, perform the following steps:

1. From the “Case Listings” screen, locate the case in which you are interested and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **MAP** tab. The “Map” tab screen appears.

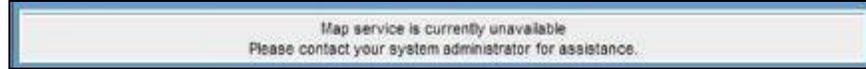
Figure 5-25: Case Detail - Map Tab



*Note:* If the map service is unavailable; i.e., if the server is down for maintenance, the following message will appear:



**Figure 5-26: Map Service Unavailable**



3. A map is generated that displays the case map layer along with the other selected map layers. The map layers are displayed in a stack (appearing like overlaid transparencies).

*Note:* Because of how the map layers are displayed, stars marking the location of cases can be stacked one on top of another without any indication of how many cases are represented at that location.

4. Refer to the table to learn about the Map Navigation Tools.

**Table 5-12: Map Navigation Tools**

ACTION	DESCRIPTION
<p><b>Zoom In</b></p> 	<p>Decreases the aerial view of the map to a more precise location.</p> <ol style="list-style-type: none"> <li>1. Using your mouse, click on the <b>Zoom In</b> icon (located at the top, left of the map screen). Once the icon is clicked, a red border surrounds the icon to highlight the selected option.</li> <li>2. Select the zoom location by clicking inside the map. The location of the mouse click within the map provides the necessary coordinates to redraw the map.</li> <li>3. The <b>Zoom In</b> icon remains highlighted in order to increase the zoom further. To increase the zoom, follow the instructions listed above in Step 2.</li> </ol>



ACTION	DESCRIPTION
<p><b>Zoom to Selected Rectangle</b></p> 	<p>Decreases the area displayed in the map to a user-selected rectangle.</p> <ol style="list-style-type: none"><li>1. Using your mouse, click on the <b>Zoom to Selected Rectangle</b> icon (located at the top, left of the map screen). Once the icon is clicked, a red border surrounds the icon to highlight the selected option.</li><li>2. Select the zoom location by pointing the mouse cursor to the top, leftmost corner of the zoom location within the map display. While continuing to hold down the left mouse key, drag the selection area to the bottom, rightmost corner of the zoom location and release your left mouse key. This selected location provides the necessary coordinates to redraw the map.</li><li>3. The <b>Zoom to Selected Rectangle</b> icon remains highlighted to continue increasing the zoom. To increase the zoom, follow the instructions listed above in Step 2.</li></ol>
<p><b>Zoom Out</b></p> 	<p>Increases the aerial view of the map to a broader location.</p> <ol style="list-style-type: none"><li>1. Using your mouse, click on the <b>Zoom Out</b> icon (located at the top, left of the map screen). Once the icon is clicked, a red border surrounds the icon to illustrate the selected option.</li><li>2. Select the zoom location by clicking inside the map. The location of the mouse click within the map provides the necessary coordinates to redraw the map.</li><li>3. The <b>Zoom Out</b> icon remains highlighted in order to zoom out further. To zoom out again, follow the instructions listed above in Step 2.</li></ol> <p><b>Note:</b> If the map contains several layers, "Zooming Out" may slow the response time as each layer is redrawn.</p>



ACTION	DESCRIPTION
<p><b>Panning</b></p> 	<p>Changes the center of the map to the location of the mouse click. In effect, this moves the map directionally (e.g., north, south, east, or west).</p> <ol style="list-style-type: none"> <li>1. Using your mouse, click on the <b>Pan</b> icon (located at the top, left of the map screen). Once the icon is clicked, a red border surrounds the icon to illustrate the selected option.</li> <li>2. Select the pan location by clicking inside the map. The location of the mouse click within the map provides the necessary coordinates to redraw the map.</li> <li>3. The <b>Pan</b> icon remains highlighted in order to continue panning. To continue panning, follow the instructions listed above in Step 2.</li> </ol>
<p><b>Full Extent</b></p> 	<p>Changes the aerial view of the map to the highest view. The highest view will be the State, if the user has Statewide access. Otherwise, the full extent will be the user's jurisdiction.</p> <ol style="list-style-type: none"> <li>1. Using your mouse, click on the <b>Full Extent</b> icon (located at the top, left of the map screen). Once the icon is clicked, a red border surrounds the icon to illustrate the selected option.</li> <li>2. Click anywhere, inside the map.</li> </ol>

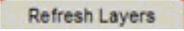
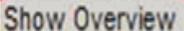


ACTION	DESCRIPTION
<p><b>Show Legend / Show Layers</b></p> 	<p>The <b>SHOW LEGEND</b> and <b>SHOW LAYERS</b> buttons are toggle buttons.</p> <p>The <b>SHOW LEGEND</b> button is located at the top, right corner of the map screen when displaying the Map Layers. This button is not available while the Legend is displayed. The Legend describes the identification markers of each map layer selected.</p> <p>The <b>SHOW LAYERS</b> button is located at the top, right corner of the map screen when the map is displaying the Legend. This button is not available while the Map Layers are displayed. More information about Map Layers can be found below.</p>



ACTION	DESCRIPTION
<p><b>Map Layers</b></p>	<p>Map Layers represent resource locations and administrative boundaries.</p> <p>Using the corresponding <i>Visible</i> checkboxes, Map Layers permit selections of various map elements to be shown within the map.</p> <p>Using the corresponding <i>Labels</i> checkboxes, Map Layers permit the selected layers to be shown with or without their respective textual identifiers.</p> <p>Examples of the layers are:</p> <p>Health Jurisdictions: Boundaries of the local health jurisdictions.</p> <p>Counties: County Boundaries.</p> <p>Cities: Shows the entire area (or polygon) that makes up many of the cities in the state.</p> <p>Some layers, such as <b>Streets</b>, are only available to be selected when you have zoomed in sufficiently.</p> <p>To change the Map Layers, perform the following steps:</p> <ul style="list-style-type: none"> <li>• To select a layer to view, click on the <i>Visible</i> checkbox that corresponds to the layer you would like to view.</li> <li>• To include labels with your layers, place a checkmark in the <i>Labels</i> checkbox that corresponds to the layout that you would like to view.</li> <li>• To remove a layer that you do not want to view, click the <i>Visible</i> checkbox to clear the checkmark by the layer that you would like to remove.</li> <li>• To remove a label, clear the checkmark in the <i>Labels</i> checkbox that corresponds to the label that you would like to remove.</li> <li>• Click the <b>REFRESH LAYERS</b> button to implement your changes.</li> </ul>



ACTION	DESCRIPTION
<b>Refresh Layers</b> 	The <b>REFRESH LAYERS</b> button, located beneath the Map Layers section, works in conjunction with the Map Layers checkboxes. It initiates a new request to CGI to display a new map with the selected layers. This button is not available when displaying the Legend.
<b>Show Overview / Hide Overview</b> 	The <b>SHOW OVERVIEW</b> and <b>HIDE OVERVIEW</b> are toggle buttons.  The <b>SHOW OVERVIEW</b> button (located at the bottom, left corner of the map screen), opens a small window over the bottom, left corner of the depicted map. It shows the general area of the case within the state. The overview area is outlined in red.  The <b>HIDE OVERVIEW</b> button becomes available below the Overview window when it is being displayed. Click the button to remove the Overview window.

5. When finished navigating the map, click another menu/option.

## AUDIT TAB

The **AUDIT** tab provides information regarding changes made to an investigation/case. The date and time, action performed, and investigation status are listed for each change made to the case as well as the user name, jurisdiction, and role of the user making the change.

*Note:* This screen is read-only and cannot be edited.

1. From the “Case Listings” screen, locate the case for which you want to view the **AUDIT** tab, and click the **EDIT** button. The “Case Reporting” tab screen appears.



- Click the **AUDIT** tab. The “Audit” tab screen appears.

**Figure 5-27: Case Detail - Audit Tab**

Patient CASE, SAMPLE Locked by LEWISE1234 (ELIZABETH LEWIS)					
Date Changed	User Name	Jurisdiction	Role	Inv Status	Action Performed
05/24/2005 09:23:45 AM	ELIZABETH LEWIS	Statewide	MDCH-BOE		Add Case
05/24/2005 09:25:01 AM	ELIZABETH LEWIS	Statewide	MDCH-BOE		Update
05/24/2005 09:26:09 AM	ELIZABETH LEWIS	Statewide	MDCH-BOE		Update
10/01/2008 02:24:48 PM	APRIL JOHNROE	Midland County	LHJ		Update
03/04/2010 11:59:51 AM	ELIZABETH LEWIS	Statewide	MDCH-BOE	Active	Update
03/04/2010 01:19:37 PM	ELIZABETH LEWIS	Statewide	MDCH-BOE	Active	Update Address
03/04/2010 02:59:04 PM	ELIZABETH LEWIS	Statewide	MDCH-BOE	Active	Update
03/04/2010 03:39:12 PM	ELIZABETH LEWIS	Statewide	MDCH-BOE	Active	Update
03/04/2010 03:39:12 PM	ELIZABETH LEWIS	Statewide	MDCH-BOE	Active	Add Lab

- Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited.

**Table 5-13: Audit Tab Columns**

COLUMN	DESCRIPTION
<b>Date Changed</b>	Date and timestamp when the case was changed
<b>User Name</b>	Name of the user that made the change
<b>Jurisdiction</b>	Primary jurisdiction of the user that made the change
<b>Role</b>	Role of the user that made the change
<b>Inv Status</b>	Investigation Status of the case when the change was completed
<b>Action Performed</b>	Name of the action taken (see Table 5-14: Description of Actions Performed for more information)

- The possible values for Action Performed and their descriptions are listed in the table below.



Table 5-14: Description of Actions Performed

ACTION NAME	DESCRIPTION
<b>Add Case</b>	User entered a new case for a new patient
<b>Add Case Electronic Lab</b>	Case added via ELR
<b>Add Lab</b>	User saved a new lab
<b>Add Note</b>	User saved a new note
<b>Add Address</b>	User saved a new address
<b>Update</b>	User updated case through HTML screens or PDF form
<b>Update Lab</b>	User updated an existing lab
<b>Update Address</b>	User updated an existing address
<b>Delete Lab</b>	User deleted a lab
<b>Unmerge Case</b>	User unmerged the case
<b>Unmerge Patient</b>	User unmerged the patient
<b>Merged Case*</b>	User merged new case data into an existing case
<b>Case Merge Data</b>	User added the case data that was merged into an existing case
<b>Case Not Merged*</b>	User did not merge the new case with any existing cases for the matched patient



ACTION NAME	DESCRIPTION
<b>Add New Case Data</b>	User added the new case that was matched to an existing patient but not merged with a previous case
<b>Merged Patient*</b>	User merged a new patient with an existing one
<b>Patient Merge Data</b>	User added the patient data that was merged with an existing patient
<b>Patient Not Merged*</b>	User chose to not merge the new patient to any existing patients that were identified as possible matches
<b>deleteLabResult</b>	Note this action may appear for older cases but is logged as part of the Update Lab as of 2005
<b>createLabResult</b>	Note this action may appear for older cases but is logged as part of the Update Lab as of 2005
<b>updateLabResult</b>	Note this action may appear for older cases but is logged as part of the Update Lab as of 2005

*Note:* Actions marked with \* are newly tracked on the “Audit” tab screen, so they will not appear for activities that occurred prior to the Fall 2009 release.

The following examples may clarify the Audit Action Performed Names associated with deduplication.

- Merged Patient and Merged Case:**  
 HCP A enters a new case that is identified as a possible match for another case. LHD User B sees this case in the Pending Work Queue and takes the case through the deduplication processes, eventually merging both the patient and the case. In the “Audit” tab, LHD User B would be listed for the Merged Patient and Merged Case actions, and HCP A would be listed for the Patient Merge Data and Case Merge Data actions.



- **Merged Patient and New Case:**  
LHD User C enters a new case that is identified as a possible match for another case. During deduplication, LHD User C merges the patient with another but defers to an administrator to determine if the case should be merged. LHD Admin D sees the case in the Pending Work Queue and finishes the deduplication process by creating a new case. In the “Audit Tab,” LHD User C would be listed for the Merged Patient, Patient Merge Data, and Add New Case Data actions. LHD Admin D would be listed for the Case Not Merged action.
- **No Merge (New Patient and New Case):**  
LHD User E enters a new case that is identified as a possible match for another case. During deduplication, LHD User E chooses to not merge the patient with any of the possible matches. LHD User E would be listed for the Patient Not Merged action.

## PERSON HISTORY TAB

The **PERSON HISTORY** tab provides limited information from each case investigation associated with the patient. Your role and permissions affect whether additional cases are displayed.

*Note:* This screen is read-only and cannot be edited.

1. From the “Case Listings” screen, locate the case for which you want to view the **PERSON HISTORY** tab, and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **PERSON HISTORY** tab. The “Person History” tab screen appears.



Figure 5-28: Case Detail - Person History Tab

3. Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited from this screen.

Table 5-15: Person History Tab Columns

COLUMN	DESCRIPTION
<b>Investigation Status</b>	Refers to the progress of the investigation
<b>Investigation ID</b>	Unique identification number assigned to the investigation
<b>Disease</b>	Disease being reported for the case
<b>Subject</b>	Patient's first and last name
<b>Referral Date</b>	Date on which the case was referred to the health department
<b>Investigator</b>	First and last name of the investigator assigned to the case
<b>Jurisdiction</b>	Jurisdiction assigned to the case

4. Cases are displayed by *Referral Date* (the default sort order). To change the sort order, click the drop-down menu arrow and select a different field. Click the **Sort** button and the cases will re-display in the order specified.
5. Click the **View** button to display a read-only copy of the Disease Specific (PDF) Form associated with the case.



- Click **ACTIVATE FORM** to display any previously saved information. The fields are read-only and cannot be edited from this screen.
- You may also choose to print the form by using your browser's print option.
- Click **CANCEL FORM** to return to the “Person History” tab screen.

*Note:* The **CASE DEFINITIONS** button is not yet implemented.

*Note:* The **SUBMIT FORM** button is also present, but because the form is read-only this button acts the same as the **CANCEL FORM** button.

6. Click a different menu or option to exit.

## FIELD RECORD TAB

The **FIELD RECORD** tab is only available for cases of sexually transmitted diseases (STDs) and provides access to any Field Records associated with the investigation. Similar to the Disease Specific (PDF) Forms, the Field Record Form is an Adobe Acrobat's Portable Document Format (PDF) file based on the Field Records used in an STD case investigation.

*Note:* You must have Adobe Reader to access the PDF files.

You can perform the following tasks on the “Field Record” tab screen:

- Create a Field Record
- View/Edit a Field Record



To access the “Field Record” tab screen, perform the following steps:

1. From the “Case Listings” screen, locate the case you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **FIELD RECORD** tab. The “Field Record” tab screen appears.

**Figure 5-29: Case Details – Field Record Tab**

Staff	Client	Disposition Date	Disposition	OriginalPatient	Edit
	STD, EXAMPLE			X	Edit
	SAMPLE, SAMPLe				Edit

3. Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited on this screen.

**Table 5-16: Field Record Tab Columns**

COLUMN	DESCRIPTION
<b>Staff</b>	The <i>Worker Number</i> of the staff member assigned to the current investigation
<b>Client</b>	First and last name of the subject of the Field Record
<b>Disposition Date</b>	Date on which the <i>Disposition</i> was assigned
<b>Disposition</b>	The outcome of the Field Record's investigation
<b>Original Patient</b>	An x indicates the Field Record pertains to the patient in the current investigation



*Note:* The *Original Patient* checkbox is used to indicate whether the patient data from the current investigation should be used to populate the fields when a new Field Record is created. More information on this checkbox can be found in the section titled, “Creating a New Field Record.”

4. Click one of the available buttons:
  - **CREATE A NEW FIELD RECORD** – opens a new Field Record Form. Continue to the section titled, “Creating a New Field Record” for more information.
  - **EDIT** – opens a previously existing Field Record Form for viewing and/or editing. Continue to the section titled, “Viewing/Editing a Field Record” for more information.

## CREATING A NEW FIELD RECORD

To create a new Field Record, perform the following steps:

1. If you want to create a new Field Record for the patient in the current investigation, make sure the *Original Patient* checkbox has a checkmark in it. If the Field Record is for a new person, remove the checkmark by clicking on the checkbox.

*Note:* The *Original Patient* checkbox is deactivated after a Field Record is assigned to the original patient.

2. From the “Field Record” tab screen, click the **CREATE NEW FIELD RECORD** button. Adobe Acrobat Reader will start up and open a new Field Record Form.



Figure 5-30: Field Record Form

Activate Form		Submit Form		Cancel Form		Case Definitions	
<b>STD Field Record</b> Field Record CDC 73.2936S Rev 5/01							
<b>Demographics</b>							
Last		First (and Nicknames)		Middle		Address (Street)	
Home Phone ###-###-####				Cellular Phone ###-###-####			
City		County		State		Zip	Sex <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown
Birthdate mm/dd/yyyy		Age	Age Units <input type="radio"/> Days <input type="radio"/> Months <input type="radio"/> Years			Ethnicity <input type="radio"/> Hispanic or Latino <input type="radio"/> Not Hispanic or Latino <input type="radio"/> Unknown	
Race <input type="radio"/> Caucasian <input type="radio"/> African American <input type="radio"/> American Indian/Alaska Native <input type="radio"/> Hawaiian/Pacific Islander <input type="radio"/> Asian <input type="radio"/> Unknown <input type="radio"/> Other (Specify) _____							

3. Click the **ACTIVATE FORM** button to retrieve any saved field values from the database and display them in the form.
4. Type and/or select the data for the fields. Navigation tips for the forms can be found in Table 5-5.
5. You may also choose to print the form by using your browser's print option.
6. When you are finished, click one of the following buttons:
  - **SUBMIT FORM** – Begins the validation process and if successful (no errors), this option saves the Field Record to the database. You will be returned to the “Field Record” tab screen.
  - **CANCEL FORM** – Erases any data changes you have made to the form and returns you to “Field Record” tab screen.
  - **CASE DEFINITIONS** – Not yet implemented.

## VIEWING/EDITING A FIELD RECORD

To view and/or edit a Field Record, perform the following steps:



1. From the “Field Record” tab screen, determine which Field Record you would like to view and/or edit and click the **EDIT** button (on the far right of the record). Adobe Acrobat Reader will start up and open the Field Record Form (see the figure above).
2. Click the **ACTIVATE FORM** button to retrieve the saved field values from the database and display them in the form.
3. Type and/or select the data for the fields. Navigation tips for the forms can be found in Table 5-5.
4. You may also choose to print the form by using your browser's print option.
5. When you are finished, click one of the following buttons:
  - **SUBMIT FORM** – Begins the validation process and if successful (no errors), this option saves any changes you made to the Field Record. You will be returned to the “Field Record” tab screen.
  - **CANCEL FORM** – Erases any data changes you have made to the form and returns you to “Field Record” tab screen.
  - **CASE DEFINITIONS** – Not yet implemented.

## INTERVIEW RECORD TAB

The **INTERVIEW RECORD** tab is only available for cases of sexually transmitted diseases (STDs) and provides access to the Interview Record associated with the case investigation. Similar to the Disease Specific (PDF) Forms, the Interview Record Form is an Adobe Acrobat's Portable Document Format (PDF) file based on the Interview Record used in an STD case investigation.

*Note:* You must have Adobe Reader to access the PDF files.



You can perform the following tasks on the “Interview Record” tab screen:

- View/Edit the Interview Record for the patient in the current investigation
- View/Edit a Field Record for an identified partner

To access the “Interview Record” tab screen, perform the following steps:

1. From the “Case Listings” screen, locate the case you want to view/edit and click the **EDIT** button. The “Case Reporting” tab screen appears.
2. Click the **INTERVIEW RECORD** tab. The “Interview Record” tab screen appears.

**Figure 5-31: Case Details – Interview Record Tab**

3. Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited on this screen.

**Table 5-17: Interview Record Tab Columns**

COLUMNS	DESCRIPTION
<b>PATIENT INFORMATION</b>	
<b>Pregnant</b>	Patient's pregnancy status



COLUMNS	DESCRIPTION
<b>Diagnosis</b>	<i>Reportable Condition</i> assigned to the case
<b>Interview Date</b>	Date on which the patient was interviewed
<b>Jurisdiction</b>	<i>Jurisdiction</i> to which the case is assigned
<b>Specimen Date</b>	Date on which the specimen was collected
<b>PARTNERS</b>	
<b>Disposition Date</b>	Date on which the <i>Disposition</i> was assigned
<b>Name</b>	First and last name of the partner
<b>Exposure Date</b>	Date on which the partner was last exposed
<b>Disposition</b>	Outcome of the partner investigation

4. Click one of the available buttons:
- **DETAIL** – opens the Interview Record Form associated with the current investigation. Continue to the section titled, “Viewing/Editing the Interview Record” for more information.
  - **ADD FR / EDIT FR** – opens a new Form to create a new Field Record for the partner or opens a previously existing Field Record Form for viewing and/or editing. Refer to the previous sections titled, “Creating a Field Record” or “Viewing/Editing a Field Record” for more information.

## VIEWING/EDITING THE INTERVIEW RECORD

To view and/or edit an Interview Record, perform the following steps:



1. From the “Interview Record” tab screen, click the **DETAIL** button (in the upper left quadrant of the screen). Adobe Acrobat Reader will start up and open the Interview Record Form.

**Figure 5-32: Interview Record**

Activate Form					Submit Form					Cancel Form					Case Definitions									
<b>Interview Record for Gonorrhea/Chlamydia</b> Michigan Department of Community Health																								
Record Information																								
Condition Code					Reinfection?					Investigation ID														
<input type="text"/>					<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown					<input type="text"/>														
Patient Demographics																								
Name					First					Middle					Maiden Name									
Last					<input type="text"/>					<input type="text"/>					<input type="text"/>									
Demographics																								
Birthdate					Age					Age Units					Sex					Marital Status				
<input type="text"/>					<input type="text"/>					<input type="radio"/> Days <input type="radio"/> Months <input type="radio"/> Years					<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown					<input type="text"/>				
Ethnicity																								
<input type="radio"/> Hispanic or Latino <input type="radio"/> Not Hispanic or Latino <input type="radio"/> Unknown																								

2. Click the **ACTIVATE FORM** button to retrieve the saved field values from the database and display them in the form.
3. Type and/or select the data for the fields. Navigation tips for the forms can be found in Table 5-5.
4. You may also choose to print the form by using your browser's print option.
5. When you are finished, click one of the following buttons:
  - **SUBMIT FORM** – Begins the validation process and if successful (no errors), this option saves any changes you made to the Interview Record. You will be returned to the “Interview Record” tab screen.
  - **CANCEL FORM** – Erases any data changes you have made to the form and returns you to “Interview Record” tab screen.
  - **CASE DEFINITIONS** – Not yet implemented.



## UNASSIGNED CASES (VIEWING)

The **UNASSIGNED CASES** option is only available for users assigned to an HCP or Lab Role. It permits HCP and/or Lab users to verify that a case has been entered into the system while the case waits for additional processing by the health department. After the processing is complete, the case will be available in the Case Listings.

To view the “Unassigned Cases” screen, perform the following steps:

1. From the SideBar of the **CASE INVESTIGATION** menu, click the **UNASSIGNED CASES** option. The “Case Work Queue” screen appears.

Figure 5-33: Case Work Queue

Case Work Queue			
Disease	Patient Name	Referral Date	Jurisdiction
Amebiasis	Tom Jones	08/04/2005	

2. Descriptions for each column on the screen are provided in the table. All of these fields are read-only and cannot be edited on this screen.

Table 5-18: Case Work Queue Columns

COLUMN	DESCRIPTION
<b>Disease</b>	Name of the <i>Reportable Condition</i> noted for the case
<b>Patient Name</b>	Patient's first and last names
<b>Referral Date</b>	Date on which the case was reported to the health department <b>NOTE:</b> The list is sorted by <i>Referral Date</i> from oldest to most recent.
<b>Jurisdiction</b>	Jurisdiction to which the case is assigned



- 
3. To exit the screen, choose a different menu and/or option.

## NEW CASE (ADDING)

New cases can be entered into the MDSS application by clicking the SideBar option **NEW CASE** on the **CASE INVESTIGATION** menu.

The following three screens (and the optional **ENTER LAB DATA** button) are used to enter a new case. Each screen is discussed in detail in the following sections.

- Investigation/Patient Information (1)
- Demographics (2)
- Referral/Physician/Notes (3)

Each screen will be validated before allowing you to continue. Refer to the chapter titled, “About the MDSS Application” for additional information regarding Correcting Validation Errors.

To add a new case, perform the following steps:

1. From the SideBar of the **CASE INVESTIGATION** menu, point and click the **NEW CASE** option. The “Investigation/Patient Information” screen appears.



## INVESTIGATION/PATIENT INFORMATION (1)

Figure 5-34: Investigation/Patient Information

Investigation Information	
Reportable Condition*: - SELECT -	Case Status*: - SELECT -
Detail	
Patient Information	
Patient Status*: - SELECT -	Patient Status Date* (mm/dd/yyyy): 11/02/2010
First*: [ ]	Last*: [ ]
Middle: [ ]	
Street: [ ]	
City: [ ]	County: [ ]
State: [ ]	
Zip: [ ]	
Home Phone (###-###-####): [ ] Ext: [ ]	Other Phone (###-###-####): [ ] Ext: [ ]
Onset Date (mm/dd/yyyy): [ ]	Referral Date (mm/dd/yyyy): [ ]
Diagnosis Date (mm/dd/yyyy): [ ]	
<small>*indicates required items</small>	
Continue Cancel Help	

2. Descriptions for each field on the screen are provided in the table.

Table 5-19: Investigation/Patient Information Fields

FIELD	DESCRIPTION
<b>INVESTIGATION INFORMATION</b>	
<b>Reportable Condition*</b>	Disease name being reported for the case. This is a required field. Click on the drop-down arrow for a list of valid choices.
<b>Detail</b>	<p>Opens the associated Disease Specific (PDF) Form. These forms can be used to enter the required information for entering a new case. Refer to the section titled, “Cases – Using Disease Specific (PDF) Forms” for instructions on how to use the forms.</p> <p>If changes have been made to other fields on this screen when this button is clicked, those changes will not be saved.</p>



FIELD	DESCRIPTION
<p><b>Case Status*</b></p>	<p>Refers to the case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance." This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The choices are:</p> <p>Confirmed – It has been determined that the patient meets the case definition for a confirmed case of this disease.</p> <p>Confirmed Non-Resident – The confirmed case definition has been met, but the patient is not a resident of Michigan. This <i>Case Status</i> can only be used when the <i>Reportable Condition</i> is Tuberculosis.</p> <p>Not a Case – It has been determined that the patient does not meet any case definition for this disease.</p> <p>Probable – It has been determined that the patient meets the case definition for a probable case of this disease.</p> <p>Suspect – As an initial indicator that the patient may have this disease, this case classification indicates further investigation is warranted. For the few diseases that have a case definition for a suspect case, "Suspect" can be a final case status.</p> <p>Unknown – The person making the referral could not determine whether a case definition is met.</p>
<p><b>PATIENT INFORMATION</b></p>	
<p><b>Patient Status*</b></p>	<p>Indicates the most recently known health and/or institutional status of the patient as of the <i>Patient Status Date</i>. The field is not intended to gather historical case information. This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The options available for <i>Patient Status</i> are: Died, Inpatient, and Outpatient.</p> <p>If <i>Patient Status</i> is unknown, Outpatient should be selected.</p>



FIELD	DESCRIPTION
<b>Patient Status Date*</b> <b>(mm/dd/yyyy)</b>	<p>In conjunction with <i>Patient Status</i>, indicates the date of the most recently known health and/or institutional status of the patient. This is a required field.</p> <p><i>Patient Status Date</i> initially defaults to the system date at the time of new case entry. When any change is made to the <i>Patient Status</i>, the <i>Patient Status Date</i> is set to the system date at the time of that change. Additionally, <i>Patient Status Date</i> can be manually changed.</p> <p>Accept the default date, type the date, or use the JavaScript Calendar to select a date.</p>
<b>First*</b>	<p>First name of the patient. This is a required field. Click and type the information.</p>
<b>Last*</b>	<p>Last name of the patient. This is a required field. Click and type the information.</p>
<b>Middle</b>	<p>Middle name of the patient. Click and type the information.</p>
<b>Street</b>	<p>Street name of the patient's address. Click and type the information.</p>
<b>City</b>	<p>City name of the patient's address. Click and type the information.</p>
<b>County</b>	<p>County name of the patient's address. Click on the drop-down arrow to view/select a valid county name.</p>
<b>State</b>	<p>State name of the patient's address. Click on the drop-down arrow to view/select a valid state name.  <b>NOTE:</b> If left blank, Michigan is assigned as the default value.</p>
<b>Zip</b>	<p>Zip code of the patient's address. Click and type the information.</p>
<b>Home Phone/ Extension</b>	<p>Home telephone number of the patient and extension, if applicable. Click and type the information.</p>



FIELD	DESCRIPTION
<b>Other Phone/ Extension</b>	Additional telephone number of the patient and extension, if applicable. Click and type the information.
<b>Onset Date (mm/dd/yyyy)</b>	Date the symptoms of this disease first appeared. Either type the date or click the JavaScript calendar to select a date.
<b>Referral Date (mm/dd/yyyy)</b>	Date on which the case was referred to the health department. Either type the date or click the JavaScript calendar to select a date. The <i>Referral Date</i> cannot be after the <i>Case Entry Date</i> and cannot be more than 90 days prior to <i>Case Entry Date</i> .  If no date is entered, the system will assign a default value for <i>Referral Date</i> based on the system date at the time the New Case was entered.
<b>Diagnosis Date (mm/dd/yyyy)</b>	Date the disease was first diagnosed. Either type the date or click the JavaScript calendar to select a date.

3. At a minimum, enter the “**RED\***” (red asterisk) fields.
4. Click on one of the available buttons:
  - **CONTINUE** – begins the validation process and if the validation is successful (no errors), it launches the “Demographics” screen. Refer to the next section for information.
  - **CANCEL** – terminates the process of adding a new case and returns you to the “Case Listings” screen. A “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new case.
    - b) If you click the **OK** button, you will lose any data that you have input.



## DEMOGRAPHICS (2)

The “Demographics” screen appears when the validation process does not find any errors on the “Investigation/Patient Information” screen.

Figure 5-35: Demographics

1. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type your data.
2. Refer to the table for a list of fields and descriptions.

Table 5-20: Demographics Fields

FIELD	DESCRIPTION
<b>DEMOGRAPHICS</b>	
<b>Sex*</b>	Gender of the patient. This is a required field. Click on the drop-down menu arrow to view/select a valid choice.



FIELD	DESCRIPTION
<b>Race*</b>	Race of the patient. This is a required field. Click on the drop-down menu arrow to view/select a valid choice.
<b>Hispanic Ethnicity*</b>	Ethnicity of the patient. Click on the drop-down menu arrow to view/select a valid choice. This is a required field.
<b>Arab Ethnicity</b>	Arab ethnicity of the patient. Click on the drop-down arrow to view/select a valid choice. The default value is <i>Unknown</i> .
<b>DATE OF BIRTH / AGE</b>	
<b>Date of Birth (mm/dd/yyyy)</b>	Patient's date of birth. Either type the date or use the JavaScript Calendar to select one. <b>Note:</b> If patient's <i>Date of Birth</i> is not available, use the <i>Age</i> field.
<b>Age at Onset</b>	<p>The numeric age of the patient at illness onset. If the patient's <i>Date of Birth</i> is supplied, the MDSS will automatically calculate the patient's <i>Age at Onset</i> and this field will not be editable.</p> <ul style="list-style-type: none"> <li>• <i>Age at Onset = Date of Birth - Onset Date</i></li> <li>• If <i>Onset Date</i> is unknown, <i>Referral Date</i> will be used</li> </ul> <p>If the patient's <i>Date of Birth</i> is not known, <i>Age at Onset</i> can be entered directly by clicking and typing the information.</p> <p><b>Note:</b> <i>Age at Onset</i> does not necessarily reflect the current age of the patient, and <i>Age at Onset</i> does not change over time.</p>



FIELD	DESCRIPTION
<b>Age Unit</b>	<p>The units associated with the patient's <i>Age at Onset</i> (in days, months, or years).</p> <p>If the patient's <i>Date of Birth</i> is supplied, the MDSS will automatically calculate the patient's <i>Age Unit</i> and this field will not be editable.</p> <p><i>Age Unit = Days</i>, if the calculated <i>Age at Onset</i> is less than a calendar month increment</p> <p><i>Age Unit = Months</i>, if calculated <i>Age at Onset</i> is less than 2 years</p> <p><i>Age Unit = Years</i>, if the calculated <i>Age at Onset</i> is greater than or equal to 2 years</p> <p>If the patient's <i>Date of Birth</i> is not known, the <i>Age Unit</i> can be entered directly by clicking on the drop-down menu arrow to view/select a valid choice.</p>
<b>PARENT/GUARDIAN (REQUIRED IF UNDER 18)</b>	
<b>First</b>	<p>First name of the under-age patient's parent or guardian. Click and type the information.</p> <p><b>Note:</b> This field is required if the patient's <i>Age at Onset</i> is less than 18 years.</p>
<b>Last</b>	<p>Last name of the under-age patient's parent or guardian. Click and type the information.</p> <p><b>Note:</b> This field is required if the patient's <i>Age at Onset</i> is less than 18 years.</p>
<b>Middle</b>	<p>Middle name of the under-age patient's parent or guardian. Click and type the information.</p>
<b>WORK / OCCUPATION or SCHOOL / GRADE</b>	
<b>Worksites/School</b>	<p>Place of employment or school. Click and type the information.</p> <p>This field stores the name of the business/company or school where the patient spends the majority of time away from home.</p>



FIELD	DESCRIPTION
<b>Occupations/Grade</b>	<p>Type of employment or grade if attending school. Click and type the information.</p> <p>This field stores information specific to the patient’s current occupation/school grade or how the patient earns a living (e.g., Daycare provider).</p>

3. Type or select the value for the fields. Fields displayed in “**RED\***” (red asterisk) are required field entries. You cannot continue to the next section without supplying information for these fields.
  
4. When finished entering data, press one of the available buttons:
  - **CONTINUE** – begins the validation process of the field values and if the validation is successful (no errors), it launches the “Referral/Physician/Notes” screen. Refer to the next section for information.
  - **BACK** – returns you to the previous screen.
  - **CANCEL** – terminates the process of adding a new case and returns you to the “Case Listings” screen. A “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new case.
    - b) If you click the **OK** button, you will lose any data that you have input.

### REFERRAL/PHYSICIAN/NOTES (3)

The “Referral/Physician” screen appears when the validation process does not find any errors on the “Demographics” screen.



Figure 5-36: Referral/Physician/Notes Screen

Referral received via Electronic Laboratory Reporting

**Person Providing Referral**

First :  Last :   
 Phone (###-###-####):  Ext:  Email :

**Primary Physician**

First :  Last :   
 Affiliation :   
 Phone (###-###-####):  Ext:  Email :   
 Street :   
 City :  County :  State :  Zip :

**Case Notes**

1. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type your data.
2. Refer to the table for a list of fields and descriptions.

Table 5-21: Referral/Physician/Notes Fields

FIELD	DESCRIPTION
<b>Referral Received via Electronic Laboratory Reporting (checkbox)</b>	This checkbox is checked if the referral was received from an Electronic Laboratory Report. It is a read-only field and cannot be edited.
<b>PERSON PROVIDING REFERRAL</b>	
<b>First</b>	First name of the person providing the referral. Click and type the information.



FIELD	DESCRIPTION
<b>Last</b>	Last name of the person submitting the referral. Click and type the information.
<b>Phone</b>	Phone number of the person submitting the referral. Click and type the information.
<b>Ext</b>	Phone extension number of the person submitting the referral. Click and type the information.
<b>Email</b>	Email address of the person submitting the referral. Click and type the information.
<b>PRIMARY PHYSICIAN</b>	
<b>First</b>	First name of the primary physician. Click and type the information.
<b>Last</b>	Last name of the primary physician. Click and type the information.
<b>Affiliation</b>	Primary physician's association. Click and type the information.
<b>Phone</b>	Phone number of the primary physician. Click and type the information.
<b>Ext</b>	Phone extension number of the primary physician. Click and type the information.
<b>Email</b>	Email address of the primary physician. Click and type the information.
<b>Street</b>	Street address of the practice of the primary physician. Click and type the information.
<b>City</b>	City name of the practice of the primary physician. Click and type the information.
<b>County</b>	County name of the practice of the primary physician. Click the drop-down arrow to view/select a valid choice.



FIELD	DESCRIPTION
State	State name of the practice of the primary physician. Click the drop-down arrow to view/select a valid choice.
Zip	Zip code of the practice of the primary physician. Click and type the information.
<b>CASE NOTES</b>	
Case Notes (Open Text Area)	Point and click in the text box to type any comments regarding the case.

3. When finished entering field data, press one of the available buttons:
  - **SAVE & FINISH** – begins the validation process of the field values and if the validation is successful (no errors), it begins a series of processes that occur in the background and eventually save the case to the database. Continue to the section titled, “Background Processing When Saving Cases.”
  - **ENTER LAB DATA** – begins the validation process of the field values and if the validation is successful (no errors), it displays the “Lab Reports” screen. Refer to the section titled, “Creating a New Manual Lab Report” for instructions on entering lab report information.
  - **BACK** – returns you to the previous screen.
  - **CANCEL** – terminates the process of adding a new case and returns you to the “Case Listings” screen. A “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new case.
    - b) If you click the **OK** button, you will lose any data that you have input.



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## BACKGROUND PROCESSING WHEN SAVING CASES

Specific background processes are executed before the New Case is actually saved to the database. The processes execute in the following order:

- Geocoding – A process that determines the longitude and latitude coordinates of the investigation address.
- Deduplication – A process of attempting to locate possible duplicate patients and disease report records.
- Jurisdiction/Case Assignment – A process that determines the jurisdiction (region, department, etc.) and then assigns the case.

### GEOCODING

Geocoding refers to the process of identifying an address and determining the longitude and latitude coordinates of that address. The resulting coordinates are used for two important features within MDSS—jurisdiction determination and case maps.

Before Geocoding can occur, the Investigation Address must be determined. Refer to the section titled “About the Investigation Address” for more information.

Once the Investigation Address is determined, the street address is separated into components. The following list is an example of the components that can be identified from a street address:

- House or street number.
- Street name.
- Street suffix (e.g., road, drive, avenue).
- Street direction (e.g., east, west, north).



- Secondary unit descriptors (e.g., apartment, room, building).

Using the official United States Postal Service abbreviations, elongated address components such as “Road” are replaced with the postal abbreviation of “RD.”

The Geocoder requires certain address components in order to return the address coordinates successfully. If the address does not contain the minimal components, MDSS will not call the Geocoder. The following are the minimal required address components:

- House or street number
- Street name
- City or a ZIP code

The Geocoder does not support PO boxes, RR, and RFD addresses. If the address contains this type of information, the MDSS will attempt to determine the jurisdiction based on the city, county, and ZIP code information.

In addition, the Geocoder does not support out-of-state addresses. If the address is an out-of-state address, the case is referred to the State for follow-up.

After the Geocoding process is complete, the MDSS will assign a value to the Geocode Source. This field is read-only and displayed on the “Case Detail - Case Reporting” screen.



Figure 5-37: Geocode Source

Investigation Address					
Street :	1 NORTH STREET	Geocode Source :	CGI		
City :	GRAND RAPIDS	County :	Kent	State :	Michigan Zip : 49508
Jurisdiction : Kent County					

The Geocode Source describes how the coordinates of the investigation address were determined and will reflect one of the following values:

- **CGI** – The address was identified by the State Geocoder. Coordinates and school district information are available.
- **City** – A match was not identified by the State Geocoder. Instead, the county information was retrieved from the database. Coordinates and school district information are not available.
- **ZIP Code** – A match was not identified by the State Geocoder. Instead, the ZIP code information was retrieved from the database. Coordinates for the ZIP Code centroid are available. No school district information is available.
- **(blank)** - A match could not be identified by the State Geocoder or through the various database retrievals. The Geocode Source will not be set for out of state addresses, incomplete address information, or inaccurate address information (e.g., the city name is spelled incorrectly or an invalid ZIP Code is supplied.)

## DEDUPLICATION

Deduplication is the three-step process of identifying and merging duplicate records:

- First, the Master Patient Index (MPI) is used to identify if a newly entered case has any possible matches among existing patients. The MDSS completes this step behind the scenes without additional user input.



- Second, if a possible match is found, a user must compare newly entered patient data with existing patient data to determine whether the patients should be merged. This step is called Patient Deduplication.
- Third, if the patients are merged, then a user must compare the newly entered case data with existing case data to determine whether the cases should be merged. This step is called Case Deduplication.

If a user's Job Function does not include Deduplication permissions, or if the user defers Deduplication, then the case is placed in the Pending Work Queue to be deduplicated at another time. For more information on the Pending Work Queue, see the MDSS Administration User Guide.

*Note:* Health care providers and laboratories that submit referrals will not need to perform Deduplication tasks.

## IDENTIFICATION OF POSSIBLE MATCHES

Once you have clicked the **SAVE & FINISH** button during New Case entry and validation has been successfully completed, the Deduplication process begins. The initial step of the Deduplication process – identifying possible matches – occurs behind the scenes.

The Master Patient Index (MPI) is used for detecting duplicate patient and case entries. When a new case is entered and saved in the MDSS, the MPI helps to determine if the patient information is new or already exists. If a match is NOT found, the MPI will return a new MPI ID to MDSS and a new case will be created. If a patient already exists in the MPI that may match the newly entered information, then the MPI returns the existing patient's information side-by-side with the new patient's information in the Deduplication processing screens and the user determines whether the records should be merged or not.



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Duplicate patients are identified by comparing the following field values for the patient:

- *First Name* - Approximate string comparator (inexact matching algorithm) and Nickname searches.
- *Last Name* - Approximate string comparators (inexact matching algorithm).
- *Date of Birth*
- *Sex*
- *Street Address* - Inexact matching using approximate string comparators (multiple inexact matching algorithms).

As each field is compared, a value is applied to the degree that it matches. Once a value is applied to each field, the values are weighed and the Deduplication Rank is determined. The Deduplication Rank determines whether a record is an exact or inexact match of an existing record. Ranks above a certain percentage are considered an exact match while Ranks below this percentage can be considered an inexact match or non-match.

*Note:* This percentage is set within the Deduplication configuration file.

The Deduplication process uses a subset of the data entered. While the field values in this subset may match exactly, the other field values that are not compared, may not agree. Therefore, exact and inexact matches are treated the same; they both require intervention to resolve potential discrepancies. If the application identifies an exact or inexact match, the Deduplication processing screens will appear.

*Note:* If the user has a Job Function that does not include Deduplication permissions, the case will immediately be sent to the Pending Work Queue for deduplication at a later point in time and the user will be returned to the “Case Listings” screen.



## USING THE DEDUPLICATION SCREENS: PATIENT DEDUPLICATION

In Patient Deduplication, the user determines if the patient already exists in the MDSS. If a possible match is found, the “Patient Deduplication” screen will appear.

Figure 5-38: Patient Deduplication

Merge	Score	First Name	Middle Name	Last Name	Date of Birth	Gender	Case Status	Investigation Status	Disease	Referral Date	Investigator	Jurisdiction
X	100.0%	DEDUPLICATION	MIDDLE	EXAMPLE	01/01/1950	MALE						
<input type="radio"/>	100.0%	DEDUPLICATION		EXAMPLE	01/01/1950	MALE	Confirmed	New	Salmonellosis	10/06/2009	PRYOR, ANNA	Ingham County

The newly entered case is listed first; it only has one row of data. Existing patients that have been identified as a possible match are listed below the newly entered case. Each existing patient will have one row of patient data followed by a row of case data for each associated case.

*Note:* An existing patient without a row of case data is the extraneous patient resulting from a merge using the **DEDUP** button. This patient should not be selected for patient deduplication. For more information, see the section titled, “Using the Dedup Button.”

Refer to the Table for a list of Patient Deduplication fields and their descriptions.

Table 5-22: Patient Deduplication Fields

FIELD	DESCRIPTION
Merge	An X indicates this is the newly entered case that is being reviewed as a possible match for the other patients listed



FIELD	DESCRIPTION
<b>Score</b>	The Deduplication Rank
<b>First Name</b>	First name of the patient
<b>Middle Name</b>	Middle name of the patient
<b>Last Name</b>	Last name of the patient
<b>Date of Birth</b>	Patient's date of birth
<b>Gender</b>	Patient's gender
<b>Case Status</b>	Case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance"
<b>Investigation Status</b>	Progress of the investigation
<b>Disease</b>	Disease name being reported for the case
<b>Referral Date</b>	Date on which the case was reported to the health department
<b>Investigator</b>	First and last name of investigator assigned to the case
<b>Jurisdiction</b>	Jurisdiction assigned to the case

The following steps take you through Patient Deduplication.

1. Review the newly entered patient record with the existing patient record(s) and determine whether the records may be for the same patient.
2. Determine what to do with the duplicate records by clicking on one of the available buttons:
  - **BACK** – returns you to the previous screen without making a decision.



- **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record(s). Pressing this button sends the record to the Pending Work Queue for resolution, and the “Case Listings” screen reappears.
- **NO MERGE** – indicates the new record and the existing record(s) are NOT the same person. Pressing this button creates a new record for the newly entered patient.
- **CONTINUE** – indicates the new record may pertain to an existing record.
  - a) Click the radio button under the **MERGE** column for the existing patient of interest. The “Patient Record Merge” screen appears.



Figure 5-39: Patient Record Merge

Patient Record Merge		
Source	New Data	Existing
Patient Record ID		1462727354
Created Date	10/20/2009	10/06/2009
Last Modified Date	10/20/2009	10/06/2009
Patient Status	<input checked="" type="radio"/> OUTPATIENT	<input type="radio"/> DIED
First Name	<input checked="" type="radio"/> DEDUPLICATION	<input type="radio"/> DEDUPLICATION
Middle Name	<input checked="" type="radio"/> MIDDLE	<input type="radio"/>
Last Name	<input checked="" type="radio"/> EXAMPLE	<input type="radio"/> EXAMPLE
Date of Birth	<input checked="" type="radio"/> 01/01/1950	<input type="radio"/> 01/01/1950
Gender	<input checked="" type="radio"/> MALE	<input type="radio"/> MALE
Race	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/> CAUCASIAN
Ethnicity	<input checked="" type="radio"/> UNKNOWN	<input type="radio"/> NOT HISPANIC OR LATINO
Home Phone	<input type="radio"/>	<input checked="" type="radio"/> 517-335-8165
Other Phone	<input checked="" type="radio"/>	<input type="radio"/>
Parent/Guardian First Name	<input checked="" type="radio"/>	<input type="radio"/>
Parent/Guardian Middle Name	<input checked="" type="radio"/>	<input type="radio"/>
Parent/Guardian Last Name	<input checked="" type="radio"/>	<input type="radio"/>
Patient Addresses		
Addresses	<input checked="" type="checkbox"/> MAKE CURRENT ADDRESS 201 TOWNSEND ST LANSING, MI 48909 INGHAM COUNTY	201 TOWNSEND ST LANSING, MI 48909 INGHAM COUNTY
Patient Case Information		
Case Status		Confirmed
Investigation Status		New
Disease		Salmonellosis
Referral Date		10/06/2009
Investigator		PRYOR, ANNA
Jurisdiction		Ingham County
<input type="button" value="Continue"/> <input type="button" value="Back"/> <input type="button" value="Defer"/> <input type="button" value="No Merge"/> <input type="button" value="Help"/>		

3. The top section of the “Patient Record Merge” screen displays the detailed field values for the records. The left column displays the newly entered patient record and the right column displays the existing patient record.
4. If you do not want to continue the patient merge process with the selected existing patient, click one of the following buttons:
  - **BACK** – returns you to the previous screen where you can select another existing patient for review.



- **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record(s). Pressing this button sends the record to the Pending Work Queue for resolution, and the “Case Listings” screen reappears.
  - **NO MERGE** – indicates the new record and the existing record(s) are NOT the same person. Pressing this button creates a new record for the newly entered patient.
5. To continue with the patient merge, click the radio buttons to select the field values that you want to keep for your merged patient record and then click **CONTINUE** to verify the patient merge. The “Patient Record Merge Confirmation” screen appears.

Figure 5-40: Patient Record Merge Confirmation

Patient Record Merge Confirmation	
Patient Record #1462727354 will be replaced with the merged Patient Record. A new patient record will be created with the following merged patient data.	
Merged Record Details	
Status	OUTPATIENT
First Name	DEDUPLICATION
Middle Name	
Last Name	EXAMPLE
Date of Birth	01/01/1950
Gender	MALE
Race	CAUCASIAN
Ethnicity	NOT HISPANIC OR LATINO
Home Phone	517-335-8165
Other Phone	
Parent/Guardian First Name	
Parent/Guardian Middle Name	
Parent/Guardian Last Name	
Address(es)	201 TOWNSEND ST LANSING, MI 48909 INGHAM COUNTY
Complete Merge   Back   Defer   No Merge   Help	

6. This is your last chance to make the decision regarding the patient merge. Verify the merged patient information is correct and then click one of the available buttons:



- **BACK** – returns you to the “Patient Record Merge” screen where you can change the merged patient information.
- **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record(s). Pressing this button sends the record to the Pending Work Queue and the “Case Listings” screen appears.
- **NO MERGE** – indicates the new record and the existing record(s) are NOT the same person. Pressing this button creates a new record for the newly entered patient.
- **COMPLETE MERGE** – indicates the patient merge should be completed.
  - a) Pressing this button performs the actual patient merge and moves you to the second step of deduplication: Case Deduplication.

## USING THE DEDUPLICATION SCREENS: CASE DEDUPLICATION

In Case Deduplication, the user determines whether the new case matches any existing cases. If the newly entered patient was merged with an existing patient during Patient Deduplication, the “Case Deduplication” screen will appear.

**Figure 5-41: Case Deduplication Screen**

Case Deduplication for DEDUPLICATION EXAMPLE							
Select an existing DEDUPLICATION EXAMPLE 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		Salmonellosis	10/20/2009		TBD	TBD	Create
New	Confirmed	Salmonellosis	10/06/2009	10/01/2009	PRYOR, ANNA	Ingham County	Matches Existing
				Place in Queue		Help	



The newly entered case for the patient (the first record) and all existing cases for the patient (subsequent records) are listed.

Refer to the Table for a list of Case Deduplication fields and their descriptions.

**Table 5-23: Case Deduplication Fields**

FIELD	DESCRIPTION
<b>Investigation Status</b>	Progress of the investigation
<b>Case Status</b>	Case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance"
<b>Disease</b>	Disease name being reported for the case
<b>Referral Date</b>	Date on which the case was reported to the health department
<b>Onset Date</b>	Date on which symptoms first appeared
<b>Investigator</b>	First and last name of investigator assigned to the case
<b>Jurisdiction</b>	Jurisdiction assigned to the case

The following steps take you through Case Deduplication.

1. Review the newly entered case record with the existing case record(s) and determine whether the records may be for the same case.
2. Determine what to do with the duplicate records by clicking on one of the available buttons:
  - **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record(s). Pressing this button sends the record to



the Pending Work Queue for resolution, and the “Case Listings” screen reappears.

- **CREATE** – indicates the new record and the existing record(s) are NOT the same case. Pressing this button creates a new case for the merged patient and the “Case Listings” screen reappears.
- **MATCHES EXISTING** – indicates the new record matches an existing record. Pressing this button moves you to the “Case Record Merge” screen.

Figure 5-42: Case Record Merge

Case Record Merge		
Case	New Data	Existing
Investigation Status	New	New
Case Status		Confirmed
Condition	Salmonellosis	Salmonellosis
Referral Date	10/20/2009	10/06/2009
Onset Date		10/01/2009
Investigator	TBD	ANNA,PRYOR
Jurisdiction	TBD	Ingham County
Case Details	<input type="button" value="View PDF"/>	<input type="button" value="View PDF"/>
Case to Keep	<input type="radio"/>	<input checked="" type="radio"/>
<input type="button" value="Merge"/> <input type="button" value="Back"/> <input type="button" value="Defer"/> <input type="button" value="Help"/>		

3. The same data for the newly entered case is presented again on the left side. The right side displays the existing case data. Click **VIEW PDF** for either the new or the existing data to see the Disease Specific (PDF) Form data for each case.

Figure 5-43: Example View PDF

4. Click **ACTIVATE FORM** to display the previously saved Disease Specific (PDF) Form data. You can print the form by clicking **PRINTER ICON** in the upper left hand corner or by clicking **FILE** and then **PRINT**. To return to the “Case Record Merge” screen, click **CANCEL FORM**.



5. Click the radio button to select the Disease Specific (PDF) Form that you want to save for the merged case and then click **MERGE**.
6. If you do not want to continue the case merge process with the selected existing case, click one of the following buttons:
  - **BACK** – returns you to the previous screen where you can select another existing case for review.
  - **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record(s). Pressing this button sends the record to the Pending Work Queue and the “Case Listings” screen appears.

## JURISDICTION DETERMINATION / CASE ASSIGNMENT

The jurisdiction is determined by the county of the investigation address. If coordinates are not available, county can be determined based on city or zip code.

Each jurisdiction is designated to one of several identified regions within the state. Once the jurisdiction is determined, that value is used to retrieve the corresponding region.

Once the correct jurisdiction is established for a case, the case is assigned to the administrator of that jurisdiction who is designated to receive the automated case assignment. The administrator can then assign that case to any investigator within their jurisdiction.

## NEW AGGREGATE CASES (ENTERING AND EDITING)

Aggregate case reports can be entered into the MDSS using the **NEW AGGREGATE CASES** option.



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The process for adding a new aggregate case report is similar to how new cases are entered, except that you do not need to enter specific patient information and you are restricted to a list of reportable conditions maintained by MDSS system administrators.

The following two screens are used to enter a new aggregate case report. Each screen is discussed in detail in the following sections.

- Aggregate Investigation/New Information/Totals (1)
- Referral/Source Information/Case Notes (2)

Each screen will be validated before allowing you to continue. Refer to the chapter titled, “About the MDSS Application” for additional information regarding correcting validation errors.

To add a new aggregate case report, perform the following steps:

## **AGGREGATE INVESTIGATION/NEW INFORMATION/TOTALS (1)**

1. From the SideBar on the **CASE INVESTIGATION** menu, point and click the **NEW AGGREGATE CASES** option. The “Aggregate Investigation/New Information/Totals” screen appears.



Figure 5-44: Aggregate Investigation/New Information/Totals

Aggregate Investigation Information		
Reportable Condition* : - SELECT -	Case Status* : Confirmed	
Cases* : <input type="text"/>	Deaths: 0	Reporting Period* : - SELECT -
Referral Date (mm/dd/yyyy) : <input type="text"/>		
New Information		
Hospitalized(New): 0	Isolated(New): 0	Quarantined(New): 0
Totals		
Hospitalized(Total): 0	Isolated(Total): 0	Quarantined(Total): 0
<small>*indicates required items</small>		
<input type="button" value="Continue"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>		

2. Descriptions for each field on the screen are provided in the table.



**Table 5-24: Investigation/Patient Information Fields**

FIELD	DESCRIPTION
<b>AGGREGATE INVESTIGATION INFORMATION</b>	
<b>Reportable Condition*</b>	<p>Condition being reported for the aggregate cases. This is a required field. Click on the drop-down arrow for a list of valid choices.</p> <p>Choices are restricted to a list of reportable conditions that are eligible for aggregate case entry. The list is maintained by MDSS system administrators.</p>
<b>Case Status*</b>	<p>Refers to the case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance." This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The choices are:</p> <p><b>Confirmed</b> – It has been determined that the patient meets the case definition for a confirmed case of this disease.</p> <p><b>Confirmed Non-Resident</b> – The confirmed case definition has been met, but the patient is not a resident of Michigan. This <i>Case Status</i> can only be used when the <i>Reportable Condition</i> is Tuberculosis.</p> <p><b>Not a Case</b> – It has been determined that the patient does not meet any case definition for this disease.</p> <p><b>Probable</b> – It has been determined that the patient meets the case definition for a probable case of this disease.</p> <p><b>Suspect</b> – As an initial indicator that the patient may have this disease, this case classification indicates further investigation is warranted. For the few diseases that have a case definition for a suspect case, "Suspect" can be a final case status.</p> <p><b>Unknown</b> – The person making the referral could not determine whether a case definition is met. Follow-up is warranted.</p>
<b>Cases*</b>	<p>Number of cases meeting the case definition. Click and type the information.</p>



FIELD	DESCRIPTION
<b>Deaths</b>	Number of deaths meeting the case definition. Click and type the information.
<b>Reporting Period*</b>	<p>The reporting time period in which the case counts have occurred. This is a required field.</p> <p>Click on the drop-down menu arrow for a list of valid choices. The choices are:</p> <ul style="list-style-type: none"> <li>• Weekly</li> <li>• Daily</li> </ul> <p>This field is used for determining how to aggregate counts for reporting purposes. A single LHJ or reporting site can have multiple entries of information on either a daily or weekly basis</p> <p>During a typical flu season, aggregate reports of 'flu-like disease' should be assigned a 'weekly' reporting period. Multiple aggregate reports from the same weekly reporting period will be aggregated together in the reports. For 'flu-like disease,' the 'daily' reporting period will generally only be used during a pandemic.</p>
<b>Referral Date (mm/dd/yyyy)</b>	<p>Date on which the aggregate cases were referred to the health department. Either type the date or click the JavaScript calendar to select a date. The <i>Referral Date</i> cannot be after the <i>Case Entry Date</i> and cannot be more than 90 days prior to <i>Case Entry Date</i>.</p> <p>If no date is entered, the system will assign a default value for <i>Referral Date</i> based on the system date at the time the new case was entered.</p> <p><b>NOTE:</b> Within the limitations mentioned above, <i>Referral Date</i> can be edited to ensure the aggregate case report is assigned to the proper MMWR Week.</p>
<b>NEW INFORMATION</b>	
<b>Hospitalized (New)</b>	Click and type the number of new hospitalizations that have happened since the last time a report was made.



FIELD	DESCRIPTION
<b>Isolated (New)</b>	Click and type the number of new isolation events that have happened since the last time a report was made.
<b>Quarantined (New)</b>	Click and type the number of new quarantine events that have happened since the last time a report was made
<b>TOTALS</b>	
<b>Hospitalized (Total)</b>	Click and type the total number of hospitalizations that meet the criteria at the time the report is made. These numbers should include the newly reported individuals and any existing individuals who still meet the criteria.
<b>Isolated (Total)</b>	Click and type the total number of isolation events that meet the criteria at the time the report is made. These numbers should include the newly reported individuals and any existing individuals who still meet the criteria.
<b>Quarantined (Total)</b>	Click and type the total number of quarantine events that meet the criteria at the time the report is made. These numbers should include the newly reported individuals and any existing individuals who still meet the criteria.

*Note:* The New Information fields collect data about the incidence of disease during the reporting period, while the Totals fields collect information about the total burden of disease at that time. The example below illustrates the relationship between New Information and Totals.

- Day 1: Ten people are admitted to the hospital.  
     Day 1 Report: Hospitalized (New) = 10,  
     Hospitalized (Total) = 10
- Day 2: Three people from Day 1 were discharged, but ten more were admitted.



Day 2 Report: Hospitalized (New) = 10,  
Hospitalized (Total) = 17

3. At a minimum, enter the “**RED\***” (red asterisk) fields.
4. When finished entering field data, click on one of the available buttons:
  - **CONTINUE** – begins the validation process of the field values and if the validation is successful (no errors), it launches the “Referral/Source Information/Case Notes” screen. Refer to the next section for information.
  - **CANCEL** – terminates the process of adding a new aggregate case report and returns you to the “Case Listings” screen. A “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new aggregate case report.
    - b) If you click the **OK** button, you will lose any data that you have input.

## REFERRAL/SOURCE INFORMATION/CASE NOTES (2)

The “Referral/Source Information/Case Notes” screen appears when the validation process from the “Aggregate Investigation/New Information/Totals” screen does not find any errors.



**Figure 5-45: Referral/Source Information/Case Notes Screen**

**Person Providing Referral**

First :  Last :

Phone (###-###-####):  Ext:  Email :

**Source Information**

County\* :  Reporting Source\* :  Source Description :

School District :  School Name :  School Closed

Phone (###-###-####):  Ext:  Email :

Street :

City :  State :  Zip :

**Case Notes**

1. To enter data into the fields, use your mouse or **TAB** key, to position the cursor in the appropriate field, and type your data.
2. Refer to the table for a list of fields and descriptions.

**Table 5-25: Referral/Source Information/Case Notes Fields**

FIELD	DESCRIPTION
<b>PERSON PROVIDING REFERRAL</b>	
<b>First</b>	First name of the person providing the referral. Click and type the information.
<b>Last</b>	Last name of the person submitting the referral. Click and type the information.
<b>Phone</b>	Phone number of the person submitting the referral. Click and type the information.
<b>Ext</b>	Phone extension number of the person submitting the referral. Click and type the information.



FIELD	DESCRIPTION
Email	Email address of the person submitting the referral. Click and type the information.
<b>SOURCE INFORMATION</b>	
<b>County*</b>	<i>County</i> for which the aggregate cases are being report. Click the drop-down arrow to view/select a valid choice. This is a required field
<b>Reporting Source*</b>	Type of source reporting the information. Click the drop-down arrow to view/select a valid choice. This is a required field.
<b>Source Description</b>	Optional text description of the reporting source. Click and type the information.
<b>School District</b>	When the value, <i>School</i> , is selected for <i>Reporting Source</i> , this drop-down menu is automatically populated with the names of the school districts located in the selected County. Click the drop-down arrow to view/select a valid choice.
<b>School Name</b>	When a value for <i>School District</i> is selected, this drop-down menu is automatically populated with the names of the schools located in the selected District. Click the drop-down arrow to view/select a valid choice.
<b>School Closed</b>	Checkbox indicating whether the selected school is open (unchecked) or closed (checked).
<b>Phone</b>	Phone number of the reporting source. Click and type the information.
<b>Ext</b>	Phone extension number of the reporting source. Click and type the information.
<b>Email</b>	Email address of the reporting source. Click and type the information.
<b>Street</b>	Street address of the reporting source. Click and type the information.



FIELD	DESCRIPTION
<b>City</b>	City name of the reporting source. Click and type the information.
<b>State</b>	State name of the reporting source. Click the drop-down arrow to view/select a valid choice.
<b>Zip</b>	Zip code of the reporting source. Click and type the information.
<b>CASE NOTES</b>	
<b>Open Text Area</b>	Point and click in the text box to type any comments regarding the aggregate case report.

3. Type/select values for the fields. At a minimum, enter the “**RED\***” (red asterisk) fields.
4. When finished entering field data, click one of the available buttons:
  - **SAVE & FINISH** – begins the validation process of the field values and if the validation is successful (no errors), it saves the aggregate case report to the database after completing Geocoding and Jurisdiction Determination/Case Assignment. Refer to the section titled, “Background Processing When Saving Cases” for more information.
  - **BACK** – returns you to the previous screen.
  - **CANCEL** – terminates the process of adding a new aggregate case report and returns you to the “Case Listings” screen. A “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) If you click the **CANCEL** button, you will return to the process for adding a new aggregate case report.
    - b) If you click the **OK** button, you will lose any data that you have input.



## VIEWING/EDITING AGGREGATE CASE REPORTS

Aggregate case reports can be viewed and edited similarly to individual cases. To view and/or edit details for an aggregate case report, perform the following steps:

1. To search for aggregate case reports, use the **NEW AGGREGATE SEARCH** option or use the *Include Aggregates* checkbox on the **ADVANCED** page of a general search. Refer to the section titled, “Searches” for more information.
2. From the “Case Listings” screen, locate the aggregate case report you want to view or edit.

**Figure 5-46: Case Listings Screen – Aggregate Case Report**

Investigation Status	Referral Date	Patient Name	Date of Birth	Disease	Investigator	County	
Completed	01/21/2010	ENTRY, AGGREGATE		Flu Like Disease*	KENT ADMIN, AA	Kent	Edit

*Note:* All aggregate case reports are displayed on the “Case Listings” screen with the same fields as individually entered cases. “Entry, Aggregate” is listed under the Patient Name.

3. Click the **EDIT** button (located to the far right of the report). The “Aggregate Case Report Details – Case Reporting” tab screen appears.

*Note:* When a new aggregate case report is entered into the MDSS, its *Investigation Status* is automatically set to COMPLETED. All of the data can be viewed, but your Job Function must permit the completion of cases to be able to re-open the case for editing.



**Figure 5-47: Aggregate Case Report Details – Case Reporting**

Case Reporting			Referrer	Notes	Audit
Patient ENTRY, AGGREGATE Locked by VAGASKYS (SUSAN E VAGASKY)					
Reportable Condition* :	Case Status* :	Investigation Status* :			
Flu Like Disease*	Confirmed	Completed			
<b>Aggregate Information</b>					
MMWR : 3-2010					
Cases* :	Deaths :	Reporting Period: Weekly Report			
100	0				
<b>New Information</b>					
Hospitalized(New):	Isolated(New):	Quarantined(New):			
0	0	0			
<b>Totals</b>					
Hospitalized(Total):	Isolated(Total):	Quarantined(Total):			
0	0	0			
<b>Investigation Address</b>					
Street :		Geocode Source :			
City :	County :	Kent	State :	Michigan	Zip :
Jurisdiction : Kent County					
<b>Investigation Information</b>					
Outbreak Y/N :	Outbreak Name :				
0					
Referral Date (mm/dd/yyyy) :		Case Entry Date :			
01/21/2010		01/21/2010			
Investigation ID : 1464550347		NETSS ID : 587918	Assigned to : KENT ADMIN, AA / Kent County		
<input type="button" value="Reset"/> <input type="button" value="Submit Changes"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>					

*Note:* Similar to viewing the “Case Details” for an individually entered case, the aggregate case report will be “locked” by the user who first accessed the record and others will only be able to view the record. For more information on locked cases, refer to the section titled, “Viewing/Editing Case Details.”

4. The “Case Details” for an aggregate case report are separated into different sections called “tabs.” To view/edit one of the tabbed sections, click on the tab and continue to its coinciding section below.

*Note:* After editing an aggregate case report, remember to change its *Investigation Status* back to COMPLETED.

- **CASE REPORTING**—Contains information regarding the aggregate case report and investigation. Refer to Table 5-24 to learn about



fields specific to aggregate case reports and to the section titled, “Cases – Viewing/Editing Case Details” for more information.

- **REFERRER**—Contains information regarding the reporting source and the person who made the referral. Refer to Table 5-25 to learn about fields specific to aggregate case reports and to the section titled, “Cases – Viewing/Editing Case Details” for more information.
- **NOTES**—Contains “free-form” notes for additional comments or other supporting information regarding the case. Refer to the section titled, “Cases – Viewing/Editing Case Details” for more information.
- **AUDIT**—Contains historical information regarding the changes made to an investigation. This information contains “who made the change,” “what was changed,” and “when the change occurred.” Refer to the section titled, “Cases – Viewing/Editing Case Details” for more information.

5. Click a different menu or option to exit.

## SEARCHES (SAVED)

The MDSS provides multiple means to search for cases. The **SEARCHES** option displays a summary list of all of your saved searches.

The following tasks may be completed using the **SEARCHES** option:

- Execute a saved search.
- Edit a saved search.
- Delete a saved search (excluding the default).



- Specify a different saved search to be your default search.

To access your saved searches, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the **SEARCHES** option from the SideBar. The “Saved Searches” screen appears.

**Figure 5-48: Saved Searches**

Saved Searches <span style="float: right;">Help</span>					
Search Name	Date Created	Default			
All Open Investigations	11/09/2005	X	<input type="button" value="Search"/>	<input type="button" value="Edit"/>	
My Open Investigations	11/09/2005		<input type="button" value="Search"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

*Note:* When a new user is added to the MDSS application, the system automatically creates two saved searches. “My Open Investigations” searches for all of the open case records that are assigned to the user. “All Open Investigations” searches for all of the open cases within the user’s case viewing permissions.

2. Descriptions for each field on the screen are provided in the table. All of these fields are read-only and cannot be edited on this screen.

**Table 5-26: Saved Searches Field Descriptions**

FIELD/COLUMN	DESCRIPTION
<b>Search Name</b>	Name of the saved search.
<b>Date Created</b>	Creation date of the saved search.
<b>Default</b>	Indicates if the saved search is the default. Only one saved search can be your default search. An X represents the search that is the default.

3. To perform a task, click one of the available buttons:



- **SEARCH** – executes the saved search. Continue to the section titled, “Executing a Saved Search.”
- **EDIT** – edits the saved search. Continue to the section titled, “Editing a Saved Search.”
- **DELETE** – deletes the saved search (excluding the default). Continue to the section titled, “Deleting a Saved Search.”

## EXECUTING A SAVED SEARCH

To execute a saved search, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the **SEARCHES** option from the SideBar. The “Saved Searches” screen appears. Refer to the figure above.
2. Locate the saved search you want to execute and click the **SEARCH** button on the same row. The “Case Listings” screen appears displaying the cases matching the search criteria.

*Note:* In addition to executing a saved search as outlined above, you can also execute a saved search by clicking the **SEARCH** button while editing the search or from the “Case Listings” screen. More information is available in the sections titled, “Editing a Saved Search” and “Cases,” respectively.

## EDITING SAVED SEARCHES

To edit a saved search, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the **SEARCHES** option from the SideBar. The “Saved Searches” screen appears. Refer to the figure above.
-



2. Locate the specific saved search you want to edit, and click the **EDIT** button (located to the right of the saved search summary row). The “Basic Search Options” screen appears.

**Figure 5-49: Editing Basic Search Options**

The screenshot shows the 'Basic Search Options' form. The top section is titled 'Name of Saved Search' with the value 'All Open Investigations' and a 'Default Search' checkbox. Below this are several input fields and dropdown menus: 'Investigation ID', 'Case Status' (with options 'Confirmed' and 'Confirmed-Non Resident'), 'Investigation Status' (with options 'Active' and 'Canceled'), 'Patient First Name', 'Patient Last Name', 'Investigator First Name', 'Investigator Last Name', and 'Investigator Userid'. The 'Reportable Condition' dropdown lists 'Amebiasis', 'Animal Bite', 'Anthrax', and 'Blastomycosis'. The 'Disease Group' dropdown lists 'Rabies', 'VPD', 'Tuberculosis', and 'Meningitis'. There is also an 'Outbreak' field. The 'Date Criteria' section includes 'Onset Date (mm/dd/yyyy)', 'Referral Date (mm/dd/yyyy)', 'Entry Date (mm/dd/yyyy)', 'Birth Date (mm/dd/yyyy)', and 'MMWR Week (ww-yyyy)'. The 'Geographic Criteria' section includes 'Local Health Jurisdiction', 'County', 'Region', and 'Facility' dropdowns. At the bottom are buttons for 'Search', 'Save & Finish', 'Advanced', 'Cancel', and 'Help'.

3. The fields and their descriptions are listed in the section titled, “New Search.”

*Note:* If editing an Advanced Search Option, click the **ADVANCED** button. The “Advanced Search Options” screen appears



Figure 5-50: Editing Advanced Search Options

Name of Saved Search: All Open Investigations (Default Search)

NETSS ID: [ ] Age: [ ] to [ ] Age Unit: Days/Months Zip: [ ]

Include Aggregates:

City: [ ]

Sex: Female/Male Race: African American/American Indian or Alaska Native Ethnic Group: Hispanic or Latino/Not Hispanic or Latino Arab Ethnic Group: Arab/Non-Arab

Investigation Closure Date (mm/dd/yyyy): [ ] to [ ] Outcome: Died/Survived Hospitalized: Yes/No

Case Update Date (mm/dd/yyyy): [ ] to [ ]

Travel History: [ ]

Electronic Laboratory Results

Search Electronic Laboratory Reporting cases only

Search Non Electronic Laboratory Reporting cases only

Search both ELR and non ELR cases

Referring Criteria

Affiliation: [ ]

Laboratory Name: [ ]

Physician First Name: [ ]

Physician Last Name: [ ]

Geographic Criteria

Geographic Extent: [ ] x: [ ] y: [ ] to x: [ ] y: [ ]

Buttons: Search, Save & Finish, Basic, Cancel, Help

4. Edit the fields by typing/selecting from the drop-down menus, and press one of the available buttons:
  - **SEARCH** – Begins a validation process and if there are no errors, the search begins to execute (**but does not save**) with any changes that you may have made. After the search executes, the results appear on the “Case Listings” screen.
  - **SAVE & FINISH** – Begins a validation process and if there are no errors, saves the changes that you made to the search, and returns you to the “Saved Searches” screen.
  - **ADVANCED/BASIC** – Toggles between the Advanced and Basic Search Options.



- a) If the **ADVANCED** button is available, click it to view the Advanced Search Options.
- b) If the **BASIC** button is available, click it to view the Basic Search Options.
- **CANCEL** – Terminates the process of adding or editing and returns you to the “Saved Searches” screen. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the Edit process.
  - b) If you click the **OK** button, you will lose your changes.

## DELETING A SAVED SEARCH

To delete a saved search, excluding the saved default search, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the **SEARCHES** option from the SideBar. The “Saved Searches” screen appears. Refer to the figure above.
2. Locate the specific saved search you want to delete, and click the **DELETE** button (located on the right of the saved search summary row).

*Note:* There is no **DELETE** button next to your default search to prevent it from being deleted. If you want to delete that particular search, you must first assign another search to be you default search (see the section titled, “Setting a Saved Search to be Your Default Search”), and then the **DELETE** button will be available.



3. A “warning dialog” is displayed asking you to verify your intention to delete this saved search.
  - If you click the **OK** button, your saved search will be deleted and you will return to the “Saved Searches” screen.
  - If you click the **CANCEL** button, you will return to the “Saved Searches” screen and your search will not be deleted.

## SETTING A SAVED SEARCH TO BE YOUR DEFAULT SEARCH

To set a saved search to become your new default search, perform the following steps:

1. Locate the search you want to make your default search, and click its respective **EDIT** button. The “Basic Search Options” screen appears.
2. On both the “Basic Search Options” and “Advanced Search Options” screens, there is a **DEFAULT SEARCH** checkbox in the upper right corner. Click the checkbox to insert a checkmark.

**Figure 5-51: Default Search Checkbox**

The image shows a blue dialog box with a white text input field on the left labeled "Name of Saved Search" and a checkbox on the right labeled "Default Search". The checkbox is currently unchecked.

*Note:* Click the checkbox again to de-select it.

3. Click the **SAVE & FINISH** button. The “Saved Searches” screen reappears with the new setting.



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## NEW SEARCH

The **New Search** option allows you to create a new search using either or both the “Basic Search Options” and “Advanced Search Options” screens.

The Basic Search Options provide the fields that are commonly searched for all cases; e.g., *Patient Last Name, Reportable Condition, Investigation Status*, etc.

The Advanced Search Options provide some fields that may be less commonly searched (i.e., demographics or referral fields), as well as allowing searches by case types (aggregate case reports, electronic lab reports, etc) or initiated from a map.

Before creating a New Search, it is necessary to understand some components of the search process:

- How the Search Process Works
- Search Methods
- Defining Search Criteria

## HOW THE SEARCH PROCESS WORKS (AND/OR)

The process of searching relies on the values placed in the search fields, called the user-definable search criteria. The values placed in these fields will be tested against the corresponding data in each case record. Nearly all of the data collected for a case can be included in the search criteria; however, the application will test your roles and permissions in addition to the search criteria before returning a case as a match.

The application uses an **AND** (and) **OR** search methods. Creating search criteria that analyzes data from more than one field will



result in an **AND** search. This type of search reduces the number of cases returned as a match. For example:

- If “Chicken Pox” is selected as criteria for the reportable condition and “John” is defined as criteria for the patient's first name, the system will only match cases that pass both of these tests.
- If “Jane” has “Chicken Pox” and “John” has the “Mumps,” neither of these cases will be returned as a match.

Conversely, creating search criteria that tests for multiple values from the same field will result in an **OR** search condition. This type of search will increase the number of cases returned as a match. For example:

- If “Chicken Pox” and “Mumps” are selected as criteria for the reportable condition, the system will match cases where the reportable condition is either “Chicken Pox” OR “Mumps.”
- If “Jane” has “Chicken Pox” and “John” has “Mumps,” both of these cases will be returned as a match.

In addition, **AND/OR** searches are not exclusive to each other. You can create search criteria that is based on several **AND**, **OR**, and **AND/OR** combinations.

## SEARCH METHODS

Different types of data require different methods of searching. The MDSS utilizes several different methods of searching data fields:

- Single selection
  - Multiple selection
  - Textual
  - Range
-



- Wildcard

The differences of these search methods are described in the table.

**Table 5-27: Search Methods**

SEARCH METHOD	DESCRIPTION
<b>Single Selection</b>	<p>This method of searching provides for one value to be compared to one data field within each case record. The single selection search is the most restrictive method of searching.</p> <p>This method of searching is useful if you want to see one type of case result—perhaps you only want to see cases with a <i>Case Status</i> of <i>Confirmed</i>.</p>
<b>Multiple Selections</b>	<p>This method of searching provides for multiple values to be compared to one data field within each case record.</p> <p>This method of searching is useful if you want to see specific cases that can be one value or another; perhaps you want to see cases with a <i>Reportable Condition</i> of either <i>Mumps</i> or <i>Chicken Pox</i>.</p>
<b>Textual</b>	<p>This method of searching requires the user to type in a word or phrase. This word or phrase will be compared to the corresponding data field within each case record. If this word or phrase exists anywhere within the value of the corresponding field, the case is a match.</p> <p>This method of searching is useful if you want to find all the patients who attend a specific school.</p>



SEARCH METHOD	DESCRIPTION
<b>Range</b>	<p>This method of searching requires multiple search values to be defined, generally a “beginning of range” and an “ending of range.” The range values are inclusive (equal to or greater than the beginning value and less than or equal to the ending value). Additionally, the “beginning value” and the “ending value” are ignored if left blank; i.e., if a “beginning value (date)” was supplied but an “ending value (date)” was not supplied, the system will compare cases where the corresponding date is equal to or greater than the beginning date specified, regardless of an ending date.</p> <p>This type of search method is often used for searching numeric data or dates.</p>
<b>Wildcard</b>	<p>This method of searching uses a wildcard symbol, an asterisk (*), to allow for variations of a value to be returned. It is used on textual fields where the results can be any value that matches the specified value in combination with the wildcard symbols.</p> <p>If the wildcard (*) symbol precedes a character, word, or phrase, the search will return the cases where the value within the corresponding data field ends in that character, word, or phrase.</p> <p>If the wildcard (*) symbol is embedded within a set of characters, a word, or a phrase, the search will return the cases where the value within the corresponding data field begins with the characters preceding the wildcard, and ends with the characters following the wildcard.</p> <p>If the wildcard (*) symbol follows a set of characters, a word, or phrase, the search will return the cases where the value within the corresponding data field begins with the characters preceding the wildcard.</p> <p>This method of searching is useful if you want to account for different spellings of names. For example, searching for a last name of “Sm*th” would return both Smith and Smyth. Likewise, searching for a middle name of “M*” would return both Mary and M.</p>



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## DEFINING THE SEARCH CRITERIA

When building your search criteria, it is important to understand the more search criteria you define, the faster the system will return your results.

When tests are not defined within your search criteria, the system is forced to execute what is commonly referred to as a wide-open search. A wide-open search reads every case record in the database, from the beginning to the end, and is very demanding on the system.

To reduce wide-open searches, indexes were defined when the database was created to organize the data logically. These indexes look for predefined similarities within the case records. These similarities are stored in reference locations that the search can use to narrow the number of case records it must compare. Searching without an index is like looking for a “Smith” in a list of names that is not sorted alphabetically.

It is also important to note that as you add more search criteria, you are less likely to find the cases you are looking for due to misspellings, missing data, etc. Therefore, it is wise to add enough search criteria to identify the desired cases quickly without accidentally excluding cases.

## CREATING A NEW SEARCH (BASIC AND ADVANCED)

To create a new search, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click on the **NEW SEARCH** option from the SideBar. The “Basic Search Options” screen appears.



Figure 5-52: Basic Search Options Screen

Name of Saved Search  Default Search

Investigation ID:  Case Status: Confirmed / Confirmed-Non Resident Investigation Status: Active / Canceled

Patient First Name:  Patient Last Name:

Investigator First Name:  Investigator Last Name:  Investigator UserID:

Reportable Condition: Armebiasis / Animal Bite / Anthrax / Blastomycosis Disease Group: Rabies / VPD / Tuberculosis / Meningitis Outbreak:

**Date Criteria**

Onset Date (mm/dd/yyyy):  to  Referral Date (mm/dd/yyyy):  to

Entry Date (mm/dd/yyyy):  to  Birth Date (mm/dd/yyyy):  to

MMWR Week (ww-yyyy):  to

**Geographic Criteria**

Local Health Jurisdiction: Alcon County / Barry-Eaton / Bay County / Benzie-Leelanau County: Alcona / Alger / Allegan / Alpena Region: 1 / 2 North / 2 South / 3 Facility: ACA\_INTERNS / ALLEGAN GENERAL HOSP / ALPENA GENERAL HOSP / ASPIRUS KEWEENAW HOSP

Search Save & Finish Advanced Cancel Help

2. Descriptions for each field on both the “Basic Search Options” and the “Advanced Search Options” screens are provided in Table 5-28 which follows this set of instructions. More information on how many of the fields are defined, generated, etc. can be found in the section titled, “Viewing/Editing Case Details.”
3. Click the **ADVANCED** button if necessary. The “Advanced Search Options” screen appears.



Figure 5-53: Advanced Search Options Screen

4. Fill in the fields to create the search criteria. Refer to the previous section titled, “Defining the Search Criteria” and/or Table 5-28 for additional assistance.
5. Click one of the available buttons:
  - **SEARCH** – Begins a validation process and if there are no errors, the search executes according to your search criteria. After the search completes, the “Case Listings” screen displays.

*Note:* Using this method, the search criteria are not saved.



- **SAVE & FINISH** – Begins a validation process and if there are no errors, saves the search criteria and returns you to the “Saved Searches” screen.
- **ADVANCED** – Displays the “Advanced Search Options” screen. This button is only available from the “Basic Search Options” screen.
- **BASIC** – Displays the “Basic Search Options” screen. This button is only available from the “Advanced Search Options” screen.
- **CANCEL** – Terminates the process of adding or editing search criteria. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the editing process.
  - b) If you click the **OK** button, you will lose your changes and be returned to the “Saved Searches” screen.

Table 5-28: Basic and Advanced Search Options Fields

FIELD	DESCRIPTION
<b>FIELDS AVAILABLE FOR BOTH BASIC AND ADVANCED</b>	
<b>Name of Saved Search</b>	Click and type the name of the New Search.
<b>Default Search (Checkbox)</b>	The <i>Default Search</i> is used to populate the case listings when you initially log into the system. To designate the current New Search criteria as the default search, click the checkbox. Click the checkbox again to uncheck it and remove the designation. <b>Note:</b> You must have at least one search designated as your default. See the section titled, “Setting a Saved Search to be Your Default Search” for more information.



FIELD	DESCRIPTION
<b>BASIC SEARCH OPTIONS FIELDS</b>	
<b>Investigation ID</b>	Unique, system-generated number assigned to the investigation. Click and type the number.
<b>Case Status</b>	Case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance." Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Investigation Status</b>	Progress of the investigation. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Patient First Name</b>	First name of the patient. Click and type the name, using the wildcard (*) symbol as needed.
<b>Patient Last Name</b>	Last name of the patient. Click and type the name, using the wildcard (*) symbol as needed.
<b>Investigator First Name</b>	First name of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.
<b>Investigator Last Name</b>	Last name of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.
<b>Investigator UserID</b>	UserID of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.
<b>Reportable Condition</b>	Condition reported for the case. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.



FIELD	DESCRIPTION
<b>Disease Group</b>	<p>Group of reportable conditions to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p> <p><b>Note:</b> the <i>Disease Group</i> for a case is stored internally and is not displayed on the “Case Detail” screen. It is only used for searches and reports.</p>
<b>Outbreak</b>	<p>Name designated to identify multiple cases associated with an outbreak. Click and type the name, using the wildcard (*) symbol as needed.</p>
<b>DATE CRITERIA</b>	
<b>Onset Date (From / To)</b>	<p>Date the symptoms of the disease first appeared. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.</p>
<b>Referral Date (From / To)</b>	<p>Date the case was referred to the health department. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.</p>
<b>Entry Date (From / To)</b>	<p>Date the case was entered into the system. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.</p>
<b>Birth Date (From / To)</b>	<p>Patient’s date of birth. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.</p>
<b>MMWR Week (From / To)</b>	<p>MMWR publication week to which the case is assigned. Type the week in the format “ww-yyyy.” One or both weeks can be entered to use a date range.</p>
<b>GEOGRAPHIC CRITERIA</b>	
<b>Local Health Jurisdiction</b>	<p>Local health department to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p>



FIELD	DESCRIPTION
<b>County</b>	County to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Region</b>	Region to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Facility</b>	Facility to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.  <b>Note:</b> a case is assigned to a facility based on the case being entered into the system by an MDSS user assigned to that facility.
<b>ADVANCED SEARCH OPTIONS FIELDS</b>	
<b>NETSS ID</b>	Unique number associated with the case that is sent to and used by the CDC. Click and type the number.
<b>Age (From / To)</b>	In conjunction with the <i>Age Unit</i> field, searches the numeric age of the patient at disease onset. Click and type the age. One or both fields can be entered to search an age range.
<b>Age Unit</b>	In conjunction with the <i>Age</i> fields, searches the numeric age of the patient at disease onset. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.



FIELD	DESCRIPTION
<b>Zip</b>	<p>Zip code of the "Investigation Address." The "Zip" search allows single, multiple, and range selection.</p> <p>To select all zip codes— Do not enter a zip code. All cases will be returned regardless of the "Investigation Address " zip code.</p> <p>To select a single zip code— Type the exact value into the zip code field; e.g., 48910, 48910-0493. Only the cases with the "Investigation Address " zip code will be returned. If the last 4-digits of a 9-character zip code are supplied in the search criteria, only the cases with that exact 9-digit zip code will be returned.</p> <p>To select multiple zip codes— Separate each zip code with a comma; e.g., 48893, 48394. The last 4-digits of a 9-character zip code are ignored in a multiple zip code search.</p> <p>To select a range of zip codes— Zip code ranges are defined by placing a colon between the beginning and ending zip codes; e.g., 48910:48919. In this instance of a range search, you must supply a beginning and ending range. The last 4-digits of a 9-character zip code are ignored in a zip code range search.</p>
<b>Include Aggregates</b>	<p>Displays Aggregate Case Reports along with Individual Case Reports in the case listings. Click the checkbox to include both individual and aggregate cases in the New Search. Click the checkbox again to uncheck it and only display individual cases.</p>



FIELD	DESCRIPTION
<b>City</b>	<p>City of the Investigation Address. The “City” search allows single, multiple, and wildcard searches.</p> <p>To select all cities— Do not enter a city name. All cases will be returned regardless of the “Investigation City.”</p> <p>To select a single city— Type the exact value into the “City “ textbox (e.g., Phoenix.) The search will return all cases where the “Investigation City” is “Phoenix.”</p> <p>To select multiple cities— Separate each city name with a comma (e.g., Tucson, Phoenix.) The search will return all cases where the “Investigation City “ is “Tucson” or “Phoenix.”</p> <p>To select using a partial city name—Type the city name using the wildcard (*) symbol (e.g., Rochester*.) In this example, the search will return all cases where the “Investigation City” is “Rochester” or “Rochester Hills.”</p>
<b>Sex</b>	<p>Gender of the patient. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p>
<b>Race</b>	<p>Race of the patient. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p>
<b>Ethnic Group</b>	<p>Ethnicity of the patient. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p>
<b>Arab Ethnic Group</b>	<p>Arab ethnicity of the patient. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.</p>
<b>Investigation Closure Date (From / To)</b>	<p>Date on which the case was first completed (searches <i>Completion Date</i>). Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.</p>



FIELD	DESCRIPTION
<b>Case Update Date</b> <b>(From / To)</b>	Date on which the case was most recently updated (searches <i>Updated Date</i> ). Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>Outcome</b>	Patient outcome (searches the <i>Patient Died</i> field on the Disease Specific (PDF) Form). Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.  <b>Note:</b> Using this field as search criteria will automatically limit the results to reportable conditions that request this information on the Disease Specific (PDF) Form.
<b>Hospitalized</b>	Patient's hospitalized status (searches the <i>Patient Hospitalized</i> field on the Disease Specific (PDF) Form). Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.  <b>Note:</b> Using this field as search criteria will automatically limit the results to reportable conditions that request this information on the Disease Specific (PDF) Form.
<b>Travel History</b>	This field is not currently available.
<b>ELECTRONIC LABORATORY RESULTS</b>	
<b>Search Electronic Laboratory Reporting Cases Only</b>	When this radio button is selected, the search will only include cases that were entered into the application via an Electronic Laboratory Report (ELR).
<b>Search Non-Electronic Laboratory Cases Only</b>	When this radio button is selected, the search will only include cases that were NOT entered into the application via an Electronic Laboratory Report (Non-ELR).
<b>Search Both ELR and NON-ELR Cases</b>	When this radio button is selected, the search will include BOTH ELR and Non-ELR cases.  Note: This radio button is the default.



FIELD	DESCRIPTION
<b>REFERRING CRITERIA</b>	
<b>Affiliation</b>	The primary physician's affiliation (searches fields of the "Referrer" screen). Click and type the name, using the wildcard (*) symbol as needed.
<b>Laboratory Name</b>	The name of the laboratory (searches fields of the "Lab Reports" screen). Click and type the name, using the wildcard (*) symbol as needed.  <b>Note:</b> This field does not compare against Laboratory Information provided on Disease Specific (PDF) Forms.
<b>Physician First Name</b>	First name of the patient's physician (searches the fields of the "Referrer" screen). Click and type the name, using the wildcard (*) symbol as needed.
<b>Physician Last Name</b>	Last name of the patient's physician (searches the fields of the "Referrer" screen). Click and type the name, using the wildcard (*) symbol as needed.
<b>GEOGRAPHIC CRITERIA</b>	
<b>Geographic Extent</b>	<p>Geographic coordinates of the Investigation Address.</p> <p>Although you can enter the beginning and ending "X" and "Y" coordinates directly into the textboxes, it is very seldom that you would know the exact coordinates that you wish to search.</p> <p>The "Geographic Extent" icon allows you to select your geographic area boundaries using the Map Search functionality.</p> <ul style="list-style-type: none"> <li>Click on the Geographic Extent Icon.</li> </ul>  <p>Continue to the next section titled, "Searching by Geographic Extent " for further instructions.</p>



## USING GEOGRAPHIC EXTENT CRITERIA

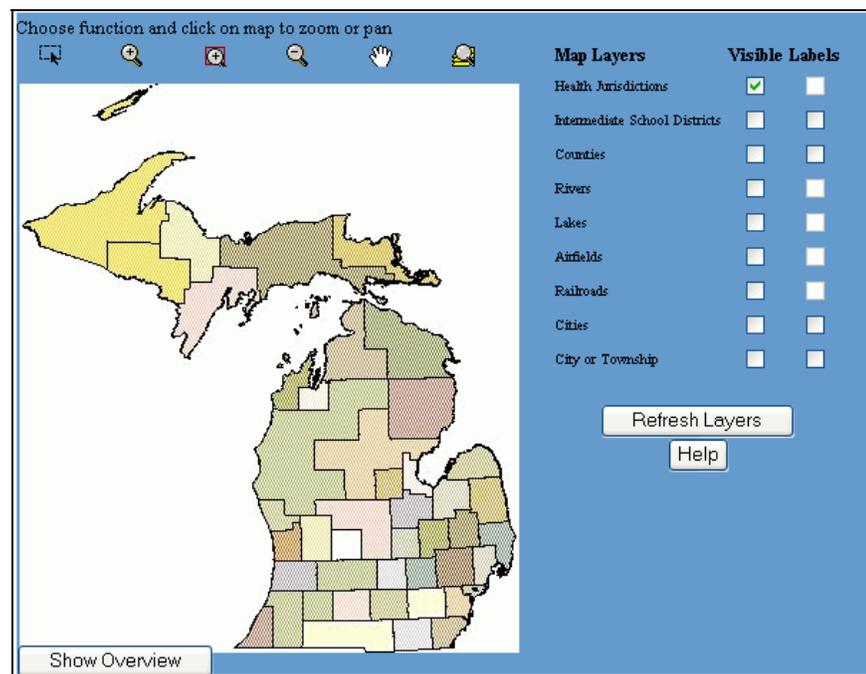
The “Geographic Extent” icon allows you to select your geographic area boundaries using the Map Search functionality.

Figure 5-54: Geographic Extent Icon



1. From the “Advanced Search Options” screen, click on the **GEOGRAPHIC EXTENT ICON**. The “Map Search” screen opens in a new screen.

Figure 5-55: Map Search Screen



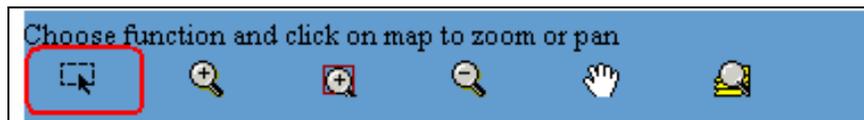
*Note:* The “Map Search” screen will open with the full extent of the map displayed. For Statewide users,



the full extent is the entire State; otherwise, the full extent is the user's jurisdiction.

2. Click the **Select Search Area by Rectangle** icon. This icon is located at the top, left of the map screen (shown below).

**Figure 5-56: Select Search Area by Rectangle Icon**



*Note:* When the icon is clicked, a red border surrounds the icon to highlight the option selected.

3. To select the desired area, perform the following steps:
  - Point the mouse cursor into the top leftmost corner of the map.
  - Click, hold, and drag the left mouse cursor to the bottom rightmost corner of the desired search area.
  - Release the left mouse button.
  - A “confirmation dialog” appears to verify your search area selection.

**Figure 5-57: Map Search Selection Confirmation**



- a) If you click the **CANCEL** button, you will return to the “Map Search” screen for reselection of your search area.
- b) If you click the **OK** button, you will return to the “Advanced” search screen.



4. The beginning and ending “X” and “Y” coordinates will be calibrated and placed within the search fields of the “Advanced Search Options” screen. An example is shown below.

Figure 5-58: X and Y Coordinates

Geographic Criteria

Geographic Extent :  x: 590098 y: 363859 to x: 655900 y: 314507

Search Save & Finish Basic Cancel Help

5. Click one of the available buttons:
  - **SEARCH** – Begins a validation process and if there are no errors, the search executes according to your search criteria. After the search completes, the “Case Listings” screen displays.

*Note:* Using this method, the search criteria are not saved.

- **SAVE & FINISH** – Begins a validation process and if there are no errors, saves the search criteria and returns you to the “Saved Searches” screen.
- **ADVANCED** – Displays the “Advanced Search Options” screen. This button is only available from the “Basic Search Options” screen.
- **BASIC** – Displays the “Basic Search Options” screen. This button is only available from the “Advanced Search Options” screen.
- **CANCEL** – Terminates the process of adding or editing search criteria. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the editing process.



- 
- b) If you click the **OK** button, you will lose your changes and be returned to the “Saved Searches” screen.

*Note:* If the Map Service is unavailable perhaps due to the server being down for maintenance, a respective message will appear. If you see a message regarding the map service, call your local system administrator, or wait and try your request later.

## NEW AGGREGATE SEARCH

The MDSS provides the functionality to perform detailed searches of the new aggregate case reports. This search does not search legacy aggregate cases or individual case reports.

The Aggregate Search follows the search processes and criteria described for New Search, but there is only one screen of search options instead of both Basic and Advanced Search Options.

To create a new aggregate search, perform the following steps:

1. From the **CASE INVESTIGATIONS** menu, click on the **NEW AGGREGATE SEARCH** option from the SideBar.



Figure 5-59: New Aggregate Search Screen

The screenshot displays a web-based search interface for case investigations. At the top, there is a field for 'Name of Saved Search' and a 'Default Search' checkbox. Below this, the form is organized into several sections:

- Investigation ID:** A text input field.
- Case Status:** A dropdown menu with options 'Confirmed' and 'Confirmed-Non Resident'.
- Investigation Status:** A dropdown menu with options 'Active' and 'Canceled'.
- Reportable Condition:** A dropdown menu with options 'Flu Like Disease\*', 'Gastrointestinal illness', and 'Head Lice'.
- Outbreak:** A text input field.
- Reporting Source:** A dropdown menu.
- Cases:** Two text input fields for 'Cases: [ ] to [ ]'.
- Deaths:** Two text input fields for 'Deaths: [ ] to [ ]'.
- Date Criteria:** A section with four rows of date pickers: 'Referral Date (mm/dd/yyyy)', 'Entry Date (mm/dd/yyyy)', and 'Case Update Date (mm/dd/yyyy)', each with 'to' and 'from' fields; and 'Reporting Period' and 'MMWR Week (www-yyyy)'.
- Geographic Criteria:** A section with four columns: 'Local Health Jurisdiction' (listing Allegan, Barry-Eaton, Bay, and Benzie-Leelanau), 'County' (listing Alcona, Alger, Allegan, and Alpena), 'Region' (listing 1, 2 North, 2 South, and 3), and 'Facility' (listing ACA\_INTERNS, ALLEGAN GENERAL HOSP, ALPENA GENERAL HOSP, and ASPIRUS KEWEENAW HOSP).
- New Information:** Fields for 'Hospitalized(New)', 'Quarantined(New)', and 'Isolated(New)', each with 'to' and 'from' fields.
- Totals:** Fields for 'Hospitalized(Total)', 'Quarantined(Total)', and 'Isolated(Total)', each with 'to' and 'from' fields.
- Investigator:** Fields for 'Investigator First Name', 'Investigator Last Name', and 'Investigator Userid'.

At the bottom of the form, there are four buttons: 'Search', 'Save & Finish', 'Cancel', and 'Help'. A mouse cursor is visible over the 'Investigator' section.

2. Descriptions for each field on the screen are provided in the table. More information on how many of the fields are defined, generated, etc. can be found in the section titled, “New Aggregate Cases (Entering and Editing).”



Table 5-29: New Aggregate Search Fields

FIELD	DESCRIPTION
<b>Name of Saved Search</b>	Type the name of the New Aggregate Search.
<b>Default Search (Checkbox)</b>	<p>The <i>Default Search</i> is used to populate the case listings when you initially log into the system. To designate the current New Aggregate Search criteria as the default search, click the checkbox. Click the checkbox again to uncheck it and remove the designation.</p> <p><b>Note:</b> You must have at least one search designated as your default. See the section titled, "Setting a Saved Search to be Your Default Search" for more information.</p>
<b>Investigation ID</b>	Unique, system-generated number assigned to the investigation. Click and type the number.
<b>Case Status</b>	Case classification based on the CDC's "Case Definitions for Infectious Conditions Under Public Health Surveillance." Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Investigation Status</b>	Progress of the investigation. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Reportable Condition</b>	Condition reported for the case. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Outbreak</b>	Name designated to identify multiple aggregate case reports associated with an outbreak. Click and type the name, using the wildcard (*) symbol as needed.
<b>Reporting Source</b>	Type of source reporting the information. Click the drop down box arrow to select the desired value.



## Case Investigation Menu

FIELD	DESCRIPTION
<b>Cases</b> (From / To)	Number of cases reported in the Aggregate Case Report. Click and type the number. One or both fields can be entered to search a range.
<b>Deaths</b> (From / To)	Number of deaths reported in the Aggregate Case Report. Click and type the number. One or both fields can be entered to search a range.
<b>DATE CRITERIA</b>	
<b>Referral Date</b> (From / To)	Date the case was referred to the health department. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>Reporting Period</b>	Reporting time period in which the case counts have occurred. Click the drop down box arrow to select the desired value.
<b>Entry Date</b> (From / To)	Date the case was entered into the system. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>MMWR Week</b> (From / To)	MMWR publication week to which the case is assigned. Type the week in the format "ww-yyyy." One or both weeks can be entered to use a date range.
<b>Case Update Date</b> (From / To)	Date on which the case was most recently updated (searches <i>Updated Date</i> ). Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>GEOGRAPHIC CRITERIA</b>	
<b>Local Health Jurisdiction</b>	Local health department to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.



FIELD	DESCRIPTION
<b>County</b>	County to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Region</b>	Region to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Facility</b>	Facility to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.  <b>Note:</b> a case is assigned to a facility based on the case being entered into the system by an MDSS user assigned to that facility.
<b>NEW INFORMATION</b>	
<b>Hospitalized (New) (From / To)</b>	Number of new hospitalizations since the previous report. Click and type the number. One or both fields can be entered to search a range.
<b>Isolated (New) (From / To)</b>	Number of new isolation events since the previous report. Click and type the number. One or both fields can be entered to search a range.
<b>Quarantined (New) (From / To)</b>	Number of new quarantine events since the previous report. Click and type the number. One or both fields can be entered to search a range.
<b>TOTALS</b>	
<b>Hospitalized (Total) (From / To)</b>	Total number of hospitalizations since the previous report. Click and type the number. One or both fields can be entered to search a range.
<b>Isolated (Total) (From / To)</b>	Total number of isolation events since the previous report. Click and type the number. One or both fields can be entered to search a range.



FIELD	DESCRIPTION
<b>Quarantined (Total)</b> <b>(From / To)</b>	Total number of quarantine events since the previous report. Click and type the number. One or both fields can be entered to search a range.
INVESTIGATOR	
<b>Investigator First Name</b>	First name of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.
<b>Investigator Last Name</b>	Last name of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.
<b>Investigator Userid</b>	UserID of the Investigator assigned to the case. Click and type the name, using the wildcard (*) symbol as needed.

3. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type your data to create the search criteria.

4. When done, click one of the available buttons:

- **SEARCH** – Begins a validation process and if there are no errors, the search executes according to your search criteria. After the search completes, the “Case Listings” screen displays.

*Note:* Using this method, the search criteria are not saved.

- **SAVE & FINISH** – Begins a validation process and if there are no errors, saves the search criteria and returns you to the “Saved Searches” screen.
- **CANCEL** – Terminates the process of adding or editing search criteria. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.



- 
- a) If you click the **CANCEL** button, you will return to the editing process.
  - b) If you click the **OK** button, you will lose your changes and be returned to the “Saved Searches” screen.

## DISEASE SPECIFIC SEARCH

The MDSS provides the functionality to locate quickly a case or a group of similar cases. The **SEARCHES**, **NEW SEARCH** and **NEW AGGREGATE SEARCH** functions are used to search the MDSS database for matching cases. However, the first two types of searches limit the selectable criteria to basic case information (fields that are common to all diseases such as the patient’s last name) and the last type of search limits the selectable criteria to information specific to aggregate case reports.

Using the **DISEASE SPECIFIC SEARCH** option as the tool for defining the search criteria expands the selectable criteria to include all of the data collected for a particular reportable condition. For example, you can search the food purchase history among all salmonella cases for particular types of foods or retail sources.

Additionally, this search method allows you to export all of the data associated with the cases including the basic case information and disease specific information. Refer to the section titled, “Exporting the Disease Specific Information” for details regarding the export.

The forms used for a disease specific search look like the communicable disease forms used for individual case reports. These forms are adapted for searching by providing ranges and wildcard search functionality to the fields contained within the form.

*Note:* You must have Adobe Acrobat Reader to access the Disease Specific Search Forms.



## EXECUTING A DISEASE SPECIFIC SEARCH

To execute a disease specific search, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the **DISEASE SPECIFIC SEARCH** option on the SideBar. The “Disease Specific Search” reportable condition selection screen will appear.

Figure 5-60: Disease Specific Search



2. Using your mouse, move to the *Reportable Condition* drop-down menu arrow and select the desired reportable condition.

*Note:* You may select only one *Reportable Condition* for a given search.

3. Click the **SELECT** button. The “Disease Specific Search Form” associated with the selected *Reportable Condition* appears, similar to the one shown below:



Figure 5-61: Disease Specific Search Form

Gastrointestinal Illness Case Investigation					
Michigan Department of Community Health					
Communicable Disease Division					
Salmonellosis					
<input type="button" value="Query Form"/> <input type="button" value="Cancel Form"/>					
Investigation Information					
Investigation ID	Onset Date mm/dd/yyyy to	Diagnosis Date mm/dd/yyyy to	Referral Date mm/dd/yyyy to	Case Entry Date mm/dd/yyyy to	Case Completion Date mm/dd/yyyy to
Investigation Status			Case Status		
<input type="checkbox"/> Confirmed			<input type="checkbox"/> Not a Case <input type="checkbox"/> Probable <input type="checkbox"/> Suspect <input type="checkbox"/> Unknown		
Patient Status	Patient Status Date mm/dd/yyyy to	Part of an outbreak?	Outbreak Name	Case Updated Date mm/dd/yyyy to	
Patient Information					
Patient ID	First	Last	Middle		

4. Type or select the search criteria for the fields. A few examples for defining search criteria for disease specific searches are provided in the table below. More information on searching can be found in the sections titled, “How the Search Process Works (And/Or),” “Search Methods,” and “Defining the Search Criteria” under “New Search.”

Table 5-30: Disease Specific Search Criteria Examples

SEARCH TYPE	PDF EXAMPLE	EXAMPLE RESULTS
<p><b>Open</b></p> <p>To match all of the data stored for the particular field, leave the search form field empty.</p> <p>This search type applies to all PDF fields, not just text fields.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     City                 </div>	<p>Returns all cases regardless of the city.</p>

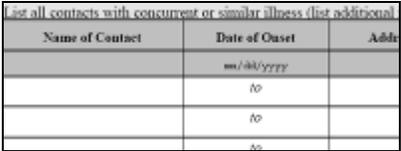


SEARCH TYPE	PDF EXAMPLE	EXAMPLE RESULTS
<p><b>Date Range</b></p> <p>To select a range of values, enter the beginning range in the space preceding the 'to' label and enter the ending range in the space following the 'to' label.</p> <p>Leaving either the first or the second space blank expands the search to include all values preceding the second value or all values following the first value, respectively.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>Patient Status Date</b>  mm/dd/yyyy  01/01/2004 to 12/31/2004</p> </div>	<p>Returns all cases where the <i>Patient Status Date</i> falls on or between 01/01/2004 and 12/31/2004.</p>
<p><b>Numeric Range</b></p> <p>To select a range of values, enter the beginning range in the space preceding the 'to' label and enter the ending range in the space following the 'to' label.</p> <p>Leaving either the first or the second space blank expands the search to include all values preceding the second value or all values following the first value, respectively.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>Age</b>  0 to 17</p> </div>	<p>Returns all cases where the <i>Age</i> falls on or between 0 and 17.</p>
<p><b>Text Wildcard</b></p> <p>To match all data that starts with a particular word or phrase, enter the word or phrase followed immediately by the wildcard (*) symbol.</p> <p>Executing the search without the wildcard (*) symbol will return only exact matches.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>City</b>  Rochester*</p> </div>	<p>Returns all cases where the <i>City</i> is Rochester or Rochester Hills.</p>



SEARCH TYPE	PDF EXAMPLE	EXAMPLE RESULTS
<p><b>Radio Button Fields</b></p> <p>If none or all of the values are checked, cases with any value for that field will be returned.</p> <p>If one or more values are checked, only cases with <u>any</u> of the selected values will be returned.</p>	<p><b>Case Status</b></p> <p><input checked="" type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not a Case <input type="checkbox"/> Probable</p>	<p>Returns all cases where the <i>Case Status</i> is Confirmed or Not A Case.</p>
<p><b>Checkbox Fields</b></p> <p>If none or all of the values are checked, cases with any value for that field will be returned.</p> <p>If one or more values are checked, only cases with <u>all</u> the selected values will be returned.</p>	<p><b>Symptoms</b> (Check all that apply)</p> <p><input type="checkbox"/> No Symptoms <input checked="" type="checkbox"/> Abdominal Pain <input checked="" type="checkbox"/> Chills <input checked="" type="checkbox"/> Fatigue</p>	<p>Returns all cases where the <i>Symptoms</i> include all three selected values: Chills, Fatigue, and Abdominal Pain.</p>
<p><b>Drop Down Menu Lists</b></p> <p>If none or all of the values are selected, cases with any value for that field will be returned.</p> <p>If one or more values are selected, only cases with <u>any</u> of the selected values will be returned.</p>	<p><b>Part of an outbreak?</b></p> <p>Yes</p> <p>N=No Y=Yes U=Unknown</p>	<p>Returns all cases where the value for <i>Part of an Outbreak?</i> is Yes or Unknown.</p>



SEARCH TYPE	PDF EXAMPLE	EXAMPLE RESULTS
<p><b>Table</b></p> <p>Table searches are limited to searching for the data as it was entered on a given row.</p> <p>For efficiency, placing selection criteria on these fields is not recommended. Instead, you can export and view the data in a spreadsheet.</p>		<p>If you are looking for cases where the patient was in contact with “John Doe,” you must supply the name John Doe to the exact row within the contact table where it was entered.</p> <p>Specifying John Doe as the search criteria on the first row of the table will only return cases where “John Doe” was listed as the first contact; it will not return cases where “John Doe” was listed as the second, third, or fourth contact.</p> <p>Additionally, specifying John Doe as the search criteria on each row of the table will only return cases where “John Doe” was listed on every row.</p>

*Note:* When executing a Disease Specific Search, do NOT attempt to copy and paste directly from a Microsoft Word file. This is because special characters are also pasted into the PDF form and cause problems. If desired, you can copy and paste the desired selection into Notepad or any ASCII editor to remove the special characters before copying it into the PDF form.

5. When you are finished supplying the search criteria, click either of the following buttons:
  - **QUERY FORM** – The search executes and launches the “Case Listings” screen to display the search results.
  - **CANCEL FORM** – Closes the Disease Specific Search Form and returns you to the “Disease



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Specific Search” reportable condition selection screen. Any search criteria you entered will not be saved if you select this option.

## EXPORTING THE DISEASE SPECIFIC INFORMATION

The MDSS provides two methods for exporting data to your computer:

- Basic Data Export - exports data fields available in the HTML “Case Details” screens.
- Disease Specific Export - exports data fields available in the Disease Specific (PDF) Forms.

*Note:* Please refer to the section titled, “Exporting Data” under “Cases” for more information regarding the Basic Data Export.

The Disease Specific Export expands the subset of exportable data beyond the Basic Data Export to include all of the data collected for the reportable condition in the Disease Specific (PDF) Form.

The Disease Specific Export is accessible from the “Case Listings” screen after the search results are displayed from a Disease Specific Search. By clicking the **EXPORT** button, the associated Disease Specific (PDF) Form appears.

The form is adapted for exporting by providing checkboxes to select which fields you would like to include in your export file. In addition, the “Disease Specific Export Form” screen allows you to define the column titles for each export field selected.

The Disease Specific Export allows you to store the exported data on your computer as a CSV (Comma Separated Value) file. This file format can be viewed and opened in a variety of applications such as Microsoft Word, Microsoft Notepad, and Microsoft Excel and can be imported into statistical programs such as SAS, SPSS, and EpiInfo.



To utilize the Disease Specific Export functionality, perform the following steps:

1. Follow the steps outlined above in the section titled, “Executing a Disease Specific Search.” The “Case Listings” screen appears with the results of the search.

Figure 5-62: Disease Specific Export Results

Investigation Status	Referral Date	Patient Name	Date of Birth	Disease	Investigator	County	
New	02/25/2005	FLINTSTONE, FRED		Salmonellosis	COLLINS, JIM	Genesee	<input type="button" value="Edit"/>
New	01/26/2010	VANILLI, MILLI	02/02/2002	Salmonellosis	CARLSON, BRAD	Ingham	<input type="button" value="Edit"/>
New	02/01/2010	DOE, JOE Q	09/17/1970	Salmonellosis	MDSTES, TEST	Wayne	<input type="button" value="Edit"/>

2. Click the **EXPORT** button. The “Disease Specific Export Form” screen appears similar to the one shown below.

Figure 5-63: Disease Specific Export Form

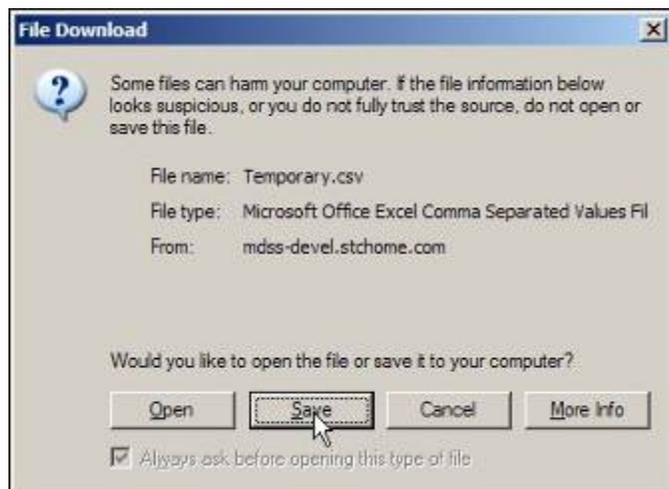
<input type="button" value="Export Form"/> <input type="button" value="Select All"/> <input type="button" value="Cancel Form"/>					
<b>Gastrointestinal Illness Case Investigation</b> Michigan Department of Community Health Communicable Disease Division Salmonellosis					
Investigation Information					
Investigation ID	Onset Date mm/dd/yyyy <input type="checkbox"/> export as	Diagnosis Date mm/dd/yyyy <input type="checkbox"/> export as	Referral Date mm/dd/yyyy <input type="checkbox"/> export as	Case Entry Date mm/dd/yyyy <input type="checkbox"/> export as	Case Completion Date mm/dd/yyyy <input type="checkbox"/> export as
Investigation Status <input type="checkbox"/> export as			Case Status <input type="checkbox"/> export as		
Patient Status <input type="checkbox"/> export as	Patient Status Date mm/dd/yyyy <input type="checkbox"/> export as	Part of an outbreak? <input type="checkbox"/> export as	Outbreak Name <input type="checkbox"/> export as	Case Updated Date mm/dd/yyyy <input type="checkbox"/> export as	
Patient Information					
Patient ID	First	Last	Middle		

3. To select the data fields that you wish to export, perform the following steps:
  - To export all of the fields in the form, click the **SELECT ALL** button located at the top of the form. This button will cause each of the fields on the form to be marked for export.
  - To individually select one or more fields for export, click the appropriate checkbox next to the field. A



- checkmark will be placed in the box when the field is selected. Only the selected fields will be exported.
- You can remove specific checkmarks by clicking the appropriate checkbox again or click the **SELECT ALL** button again to remove all of the checkmarks.
- Default column titles are provided when a field is selected for export. You may supply alternate column titles by overwriting the column title that appears next to the “export as” label within each selected field.
  - Click the **EXPORT FORM** button. There may be a short waiting period (relative to the number of cases being exported) before the “file download dialog” box appears.

**Figure 5-64:** Disease Specific Form File Download Dialog



*Note:* If your browser blocks the download of the export file as shown in the figure below, repeat Steps 2 through 4. In Step 5, press and hold the **CTRL** button before clicking the **EXPORT** button and continue to hold the **CTRL** button until the “Save As” dialog box appears in Step 7.

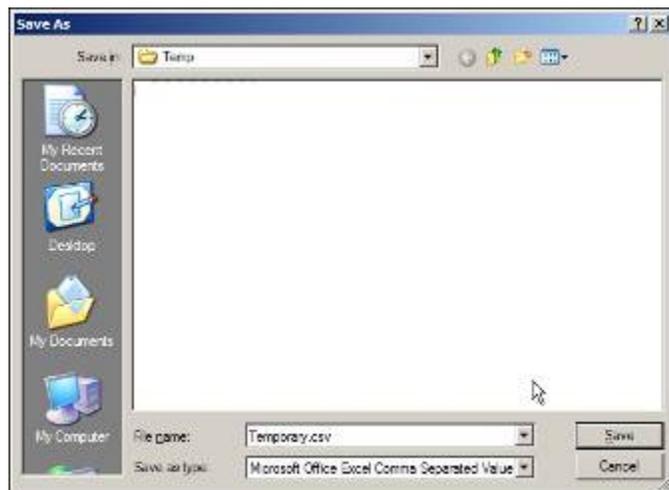


Figure 5-65: Blocked download message



6. Confirm your choice to download the export file by clicking the **SAVE** button.
7. The “Save As” dialog box asks you to name the export file and to select a location on your computer to store the export file. The default file name is “Temporary.csv.”

Figure 5-66: Disease Specific Export “Save As” Dialog



8. Once you have entered the requested information, click the **SAVE** button.
9. Your exported data file will now reside on your computer in the location that you specified. The following is an example of a Disease Specific Export file viewed with Microsoft Excel:



**Figure 5-67: Disease Specific Export Output Viewed in MS Excel**

	A	B	C	D	E	F	G	
1	InvestigationID	NETSSID	JURISDICTION	Onset_Date	Diagnosis	Referral_Date	Case_Entry_Date	Cas
2	4793523	3196	Ingham County	1/20/2010		1/26/2010	1/26/2010	
3	4810943	3205	Statewide			2/3/2010	2/3/2010	
4	5038202	3275	Western UP District	2/8/2010		2/19/2010	2/19/2010	
5	4849541	3220	Western UP District	2/2/2010		2/12/2010	2/12/2010	
6	4807582	3203	Statewide			2/3/2010	2/3/2010	
7	4798119	3199	Wayne County			2/1/2010	2/2/2010	
8	5037537	3274	Western UP District	2/10/2010		2/19/2010	2/19/2010	

## SEARCH FIELD RECORDS

The MDSS provides the functionality to perform detailed searches of the Field Records associated with sexually transmitted disease (STD) cases.

While nearly all users can access the **SEARCH FIELD RECORDS** option, the search will not return any cases if the user’s role and permissions do not allow access to STD cases.

The Field Record Search follows the search processes, methods, and criteria described in the section titled, “New Search,” but the search fields are relevant to those in the Field Record.

To search the Field Records, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click on the **SEARCH FIELD RECORDS** option from the SideBar. The “Field Record Search” screen appears.



Figure 5-68: Field Record Search

2. Descriptions for each field on the screen are provided in the table. More information on searching can be found in the sections titled, “How the Search Process Works (And/Or),” “Search Methods,” and “Defining the Search Criteria” under “New Search.”

Table 5-31: Field Record Search Fields

FIELD	DESCRIPTION
<b>Name of Saved Search</b>	Type the name of the new Field Record Search.
<b>Default Search (Checkbox)</b>	<p>The <i>Default Search</i> is used to populate the case listings when you initially log into the system. To designate the current Field Record Search criteria as the default search, click the checkbox. Click the checkbox again to uncheck it and remove the designation.</p> <p><b>Note:</b> You must have at least one search designated as your default. See the section titled, “Setting a Saved Search to be Your Default Search” for more information.</p>



FIELD	DESCRIPTION
<b>Worker Number</b>	The <i>Worker Number</i> of the staff member assigned to the case. Click and type the number.
<b>Disease</b>	Condition reported for the case. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Disposition</b>	Outcome of the Field Record's investigation. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>First Name</b>	Patient first name. Click and type the name, using the wildcard (*) symbol as needed.
<b>Last Name</b>	Patient last name. Click and type the name, using the wildcard (*) symbol as needed.
<b>DATE CRITERIA</b>	
<b>Examination Date (From / To)</b>	Date on which the case was examined (searches the <i>Date Collected</i> fields in the Examination Table on the Field Record Form). Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>Treatment Date (From / To)</b>	Date on which the case was treated (searches the <i>Treatment Date</i> fields in the Treatment Table on the Field Record Form). Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>Birth Date (From / To)</b>	Patient's date of birth. Either type the date or click the JavaScript calendar to select a date. One or both dates can be entered to use a date range.
<b>GEOGRAPHIC CRITERIA</b>	



FIELD	DESCRIPTION
<b>Local Health Jurisdiction</b>	Local health department to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>County</b>	County to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.
<b>Region</b>	Region to which the case is assigned. Use the scroll button to view the available options. Click (using <b>SHIFT</b> and/or <b>CTRL</b> as needed) to select the desired values.

3. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type your data to create the search criteria.
4. When done, click one of the available buttons:
  - **SEARCH** – Begins a validation process and if there are no errors, the search executes according to your search criteria. After the search completes, the “Case Listings” screen displays.

*Note:* Using this method, the search criteria are not saved.

- **SAVE & FINISH** – Begins a validation process and if there are no errors, saves the search criteria and returns you to the “Saved Searches” screen.
- **CANCEL** – Terminates the process of adding or editing search criteria. If you have changed any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
  - a) If you click the **CANCEL** button, you will return to the editing process.



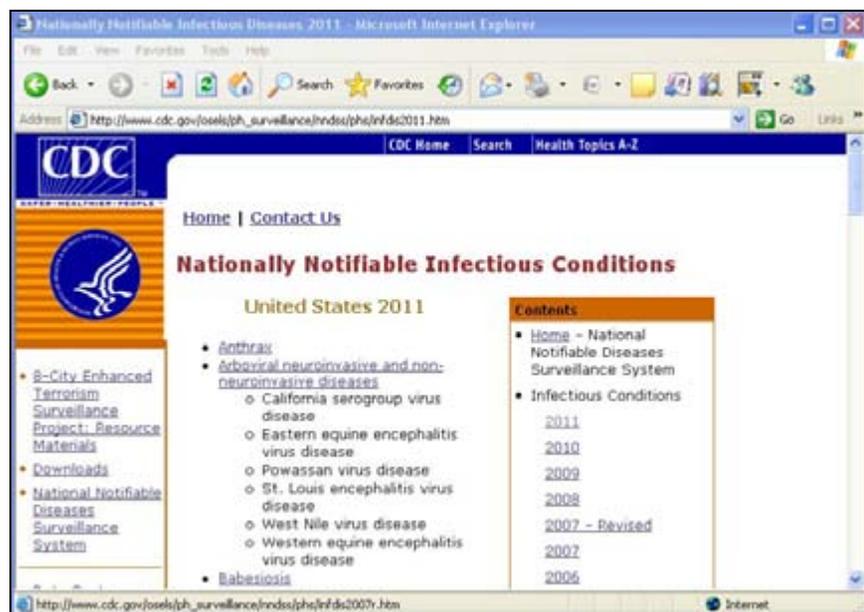
- b) If you click the **OK** button, you will lose your changes and be returned to the “Saved Searches” screen.

## CASE DEFINITIONS

The **Case Definitions** option opens a new browser window to the CDC's web page providing updated criteria to use when reporting an infectious disease.

1. From the **CASE INVESTIGATION** menu, click on the **CASE DEFINITIONS** option in the SideBar. The CDC's Web Page – Case Definitions” screen appears.

Figure 5-69: CDC's Web Page -- Case Definitions



2. You can close the browser window when you are finished with it and your MDSS application window will still be open and available for your use.



## ALERT RULES

MDSS can automatically send alerts to users based on predefined Alert Rules. Alerts inform the user that a predefined count of cases of a selected reportable condition in a certain geography and timeframe has been reached.

MDSS provides an interface allowing users to specify the rules for when an alert is generated. Based on their roles and permissions, users can create alert rules for themselves and/or for other users. The content of the alert itself is pre-specified. Alerts can be sent to users via email only or via multiple methods of transmission including phone, text message, etc. through the Michigan Health Alert Network (HAN).

*Note:* System Administrators can refer to the MDSS User Guide Appendices for instructions on setting the Alert Rule Message Formatting, Email Properties, HAN Properties, etc.

You can perform the following tasks within Alert Rules:

- View the Alert Rules List
- Change the Sort Order
- Create an Alert Rule
- Edit an Alert Rule
- Delete an Alert Rule

Review the following sections, titled “Automatic Generation of Alerts” and “HAN Integration,” which contain background information before working with Alert Rules.



## AUTOMATIC GENERATION OF ALERTS

An alert message is automatically generated when the specified number of cases of a reportable condition has entered the system over the specified timeframe and geographic area. For example, Alert Rules can be defined to send an alert to interested parties when five cases of salmonella are reported in County A in seven days or when one case of anthrax is reported in the state on any one day. The cases do not need to be in a status of confirmed to be considered part of the count.

The timeframe is based on 24-hour periods instead of actual days, and the time and date the case entered the system is considered when determining whether the case occurred within the time criteria. An alert will be generated for each additional new case that enters the system, if it occurs within the specified timeframe.

The e-mail alerts that are initiated via the Alert Rules will be sent to the e-mail address designated in the alert configuration. If designated, the alert will also be distributed via the HAN. More information can be found in the next section titled, “HAN Integration.”

For security purposes, MDSS alerts (both email-only and via the HAN) do not provide complete alert details. Users receiving alerts must log in to the MDSS to determine what case/disease was responsible for activating the alert by checking the Alert Number provided in the alert. Alerts contain the following information:

**Table 5-32: Alert Content**

ITEM	DESCRIPTION
<b>Subject</b>	“Michigan HAN ( <i>Alert Level</i> ) Level Alert M.D.S.S.”



ITEM	DESCRIPTION
<b>Message</b>	“You have received an automated ( <i>Alert Level</i> ) level alert corresponding to Alert Number ( <i>Alert Number</i> ) from the M.D.S.S.  Log into the M.D.S.S for additional information.”
<b>Alert Number</b>	This is the number assigned to the Alert Rule that generated the alert. The Alert Number should be used to identify the detailed information contained in the Alert Rule.

## HAN INTEGRATION

The Michigan Department of Health and Human Services has successfully integrated the automatic alerting functionality of the MDSS with the directory and distribution technology of the Michigan Health Alert Network (HAN).

The automatic generation of a HAN alert from the MDSS and its subsequent distribution to a large group of users should be carefully considered prior to creating a new MDSS Alert Rule. Similar to regular HAN alerts, the level of alert (e.g., Low, Medium, or High) is determined by the MDSS user when the Alert Rule is created. However, in an MDSS initiated HAN alert, selection of alert recipients is limited to defined HAN MDSS Role Groups, which include multiple HAN roles.

HAN MDSS Role Groups have been created for each of the 45 local health departments (and one for the state level) to ensure that the primary local public health staff members responsible for responding to an eminent public health threat are notified of an alert-worthy reportable disease occurrence in Michigan through the MI HAN.

Each local HAN MDSS Role Group includes:

- All Local Emergency Preparedness Coordinators (EPCs)
- All Local PH Health Officers



- 
- All Local PH Medical Directors
  - All Local PH CD Roles
  - Regional Epidemiologists

The state HAN MDSS Role Group includes:

- Surveillance Systems Section - MDSS

To automatically send an MDSS alert through the HAN, the MDSS user must be a Michigan HAN user with a valid HAN User-ID and the authority to send alerts through the HAN. The HAN authority will be confirmed prior to a message being sent through the HAN. If the alert is invalid (i.e. invalid HAN UserID or HAN MDSS Role Group), the HAN will return a message to the MDSS, which will then generate an e-mail message to the user notifying them that there was a failed attempt to send an automated alert through the network.

When the HAN User-ID and HAN MDSS Role Group are confirmed, then all members assigned to that role group will be notified according to their alerting profiles in the HAN (e.g., text pagers and telephones).

## VIEWING THE ALERT RULES LIST

To view the list of Alert Rules, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click on the Sidebar's **ALERT RULES** option. The “Alert Rules List” screen appears.



Figure 5-70: Alert Rules List Screen

Displaying results 1-10 of 13 found  
[|< First](#) [1](#) [2](#) [Next >>|](#) [|Last >|](#)

Alert Rules List									
Alert Rule ID	User ID	Email	Condition	Case Count	Time Span	Geography	Active		
182923	TRAVIS	travis_hoffman@stchome.com	AIDS, Adult	1	1	State	true	<a href="#">Edit</a>	<a href="#">Delete</a>
288781	MARK-ADMIN	mark_grothe@stchome.com	Flu Like Disease	100	3	County	true	<a href="#">Edit</a>	<a href="#">Delete</a>
310020	SHERRIB	Sherri_Bull@stchome.com	AIDS, Adult	15	5	County	true	<a href="#">Edit</a>	<a href="#">Delete</a>
366695	JBRITTON	jason_britton@stchome.com	Brucellosis	2	2	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>
368791	JBRITTON	jason_britton@stchome.com	Brucellosis	2	1	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>
377280	D9	steven_bergom@stchome.com	Creutzfeldt-Jakob Disease	1	1	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>
384351	CARLSONBR	carlsonbr@michigan.gov	Salmonellosis	1	1	State	true	<a href="#">Edit</a>	<a href="#">Delete</a>
385827	ADMINWASHTENAW	gwen.thompson@altarum.org	AIDS, Adult	100	1	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>
385828	ADMINWASHTENAW	gt@abc.def	Anthrax	50	1	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>
385829	ADMINWASHTENAW	ab@abc.degf	Brucellosis	5	1	Local Health Jurisdiction	true	<a href="#">Edit</a>	<a href="#">Delete</a>

[|< First](#) [1](#) [2](#) [Next >>|](#) [|Last >|](#)

- The fields/columns of information are listed in the table. These fields are read-only and cannot be edited on this screen.

Table 5-33: Alert Rules List Fields

FIELD	DESCRIPTION
<b>Alert Rule ID</b>	The system-generated number identifying the Alert Rule.
<b>User ID</b>	The User-ID assigned to the Alert Rule.
<b>Email</b>	The email address that will receive the alert.
<b>Condition</b>	The reportable condition for which the alert will be generated when all of the alert conditions are met.
<b>Case Count</b>	The minimum number of cases that will trigger the alert when all of the alert conditions are met.



FIELD	DESCRIPTION
<b>Time Span</b>	The number of days in which the other conditions must be met to generate the alert.
<b>Geography</b>	The geographic boundary in which the other conditions must be met to generate the alert.
<b>Active</b>	The status of the Alert Rule. This field will display true or false indicating active or inactive, respectively.

3. Determine the action you need to perform and continue to the respective section.

## CHANGING THE SORT ORDER

The alerts are displayed in order of *Alert Rule ID*, which is the default sort order that is created; however, this sort order can be changed.

Perform the following steps to change the sort order:

1. From the “Alert Rules List” screen, point and click on the drop-down menu arrow to the left of the **SORT** button.

**Figure 5-71: Changing the Alert Rules List Sort Order**



2. Click the variable on the list to select the way in which you would like the alerts to be sorted.



3. Click the **Sort** button to initiate the sort and the “Alert Rules List” screen will redisplay with the alerts sorted in the order specified.

## CREATING AN ALERT RULE

To create a new Alert Rule, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the Sidebar's **ALERT RULES** option. The “Alert Rules List” screen appears. Refer to Figure 5-70 for an illustration.
2. Click on the **CREATE ALERT RULE** button (located at the top right-hand side of the screen). The “Create Alert Rule” screen appears.

Figure 5-72: Create Alert Rule

Create Alert Rule	
Userid *	SHERRIB
Email *	
Condition *	AIDS, Adult
Case Count *	
Time Span (days) *	
Geography *	- SELECT -
HAN Userid	
HAN Role Group	
HAN Alert Level	E-mail Only
*indicates required items	
<input type="button" value="Cancel"/> <input type="button" value="Reset"/> <input type="button" value="Create Alert Rule"/> <input type="button" value="Help"/>	

3. Refer to the table for a list of fields and their descriptions:



Table 5-34: Create/Edit Alert Rule Fields

FIELD	DESCRIPTION
<b>Alert Rule ID</b>	This is a read-only identification number automatically assigned to the alert rule after it is created.  <b>NOTE:</b> This field is not available on the “Create Alert Rule” screen, but it will be displayed on the “Edit Alert” screen.
<b>User ID*</b>	The User-ID assigned to the alert. This field is automatically populated with your User-ID. Users with the proper roles and permissions can assign alert rules to a different User-ID. This is a required field. Click on the drop-down menu arrow to view/select a valid choice.
<b>Email*</b>	The email address that will receive the alert. This is a required field. Click and type the information.
<b>Condition*</b>	The <i>Reportable Condition</i> for which the alert will be generated when all of the alert conditions are met. This is a required field. Click on the drop-down menu arrow to view/select a valid choice.
<b>Case Count*</b>	The minimum number of cases that will trigger the alert when all of the alert conditions are met. This is a required field and must be a whole number. Click and type the information.
<b>Time Span (days)*</b>	The number of days in which the other conditions must be met to generate the alert. This is a required field and must be a whole number. Click and type the information.
<b>Geography*</b>	The geographic boundary in which the other conditions must be met to generate the alert. This is a required field. Click on the drop-down menu arrow to view/select a valid choice.



FIELD	DESCRIPTION
<b>Active</b>	The checkbox indicating if the alert rule is active. This checkbox automatically is selected when an alert rule is created. To inactivate an alert rule, click the checkbox.  <b>NOTE:</b> This field is not available on the “Create Alert Rule” screen, but it will be displayed on the “Edit Alert” screen.
<b>HAN User-ID</b>	The HAN User-ID used to distribute the alert via the HAN. Click and type the information.
<b>HAN Role Group</b>	The HAN MDSS Role Group selected to be notified via the HAN. Click and type the information.
<b>HAN Alert Level</b>	The HAN Alert Level at which the alert will be distributed through the HAN. Click on the drop-down menu arrow to view/select a valid choice.  <b>NOTE:</b> Selecting a level of High, Medium, or Low will notify all persons in the HAN MDSS Role Group via the communication method(s) specified by each user in the HAN.

*Note:* Additional information regarding the three HAN fields can be found in the section titled, “HAN Integration.”

4. At a minimum, fill in the “**RED\***” (red asterisk) fields and click on one of the available buttons:
  - **CANCEL** –terminates the process of adding a new Alert Rule and returns to the “Alert Rules List” screen. If you have entered any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) Click the **CANCEL** button if you really meant to cancel. You will lose any unsaved information and be returned to the “Alert Rules List” screen.



- b) Click the **OK** button if you do not want to cancel and remain on the “Create Alert Rule” screen.
- **RESET**– erases any changes made since the previous save and remains on the same screen.
- **CREATE ALERT RULE** - begins a validation process and if no errors, saves the new Alert Rule and returns to the “Alert Rules List” screen. If there are errors, you must correct them before the Alert Rule will save.

## EDITING AN ALERT RULE

To edit an existing Alert Rule, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the Sidebar's **ALERT RULES** option. The “Alert Rules List” screen appears. Refer to the Figure above for an illustration.
2. Locate the Alert Rule you want to view/edit and click on the **EDIT** button (located at the far right side of the rule). The “Edit Alert Rule” screen appears.



Figure 5-73: Edit Alert Rule

Edit Alert Rule	
Alert Rule Id	288781
Userid *	MARK-ADMIN
Email *	mark_grothe@stchome.cc
Condition *	Encephalitis, California
Case Count *	1
Time Span (days) *	1
Geography *	State
Active	<input checked="" type="checkbox"/>
HAN Userid	hanid1
HAN Role Group	hanrolegroup1
HAN Alert Level	High
*Indicates required items	
<input type="button" value="Cancel"/> <input type="button" value="Reset"/> <input type="button" value="Submit Changes"/> <input type="button" value="Help"/>	

3. Refer to Table 5-32 for a list of fields and descriptions.
4. At a minimum, you must have data in the “**RED\***” (red asterisk) fields. Make your changes and then click on one of the available buttons:
  - **CANCEL** –terminates the process of editing a new Alert Rule and returns to the “Alert Rules List” screen. If you have entered any information, a “warning dialog” is displayed asking you to verify your intention to cancel.
    - a) Click the **CANCEL** button if you really meant to cancel. You will lose any unsaved information and be returned to the “Alert Rules List” screen.
    - b) Click the **OK** button if you do not want to cancel and remain on the “Create Alert Rule” screen.
  - **RESET**– erases any changes that you made since the previous save and remains on the same screen.
  - **SUBMIT CHANGES** - begins a validation process and if no errors, saves the changes to the Alert Rule



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and returns to the “Alert Rules List” screen. If there are errors, you must correct them before the Alert Rule will save.

## DELETING AN ALERT RULE

To delete an existing Alert Rule, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click the Sidebar's **ALERT RULES** option. The “Alert Rules List” screen appears. Refer to Figure 5-70 for an illustration.
2. Locate the Alert Rule you want to delete and click on the **DELETE** button (located at the far right side of the rule). A “warning dialog” displays asking you to verify your intention to delete this alert.
  - If you click the **OK** button, your alert will be deleted and you will no longer receive notifications from this Alert Rule.
  - If you click the **CANCEL** button, you will return to the “Alert Rule List” and your alert will not be deleted.

## DISPLAY SUPPLEMENTAL FORMS

MDSS offers a means of printing and displaying blank Disease Specific (PDF) Forms using the **DISPLAY SUPPLEMENTAL FORMS** option.

*Note:* You must have Adobe Acrobat Reader v5.0 or higher to access these PDF forms.

To display or print a Disease Specific (PDF) Form, perform the following steps:



1. From the **CASE INVESTIGATION** menu, click on the SideBar's **DISPLAY SUPPLEMENTAL FORMS** option. The “Supplemental Forms” screen appears.

Figure 5-74: Supplemental Forms

Supplemental Forms		Help
A B C D E G H I K L M N P Q R S T V W Y [Next] [Display: All]		
Disease Name		
AIDS, Adult		View
Amebiasis		View
Animal Bite		View
Basic Case Investigation form		View
Blastomycosis		View
Botulism - Foodborne		View
Botulism - Infant		View
Brucellosis		View
Campylobacter		View
Chickenpox (Varicella)		View
Chlamydia (Genital)		View
Cholera		View

*Note:* Up to twelve (12) rows of Disease Specific (PDF) Form names are displayed on the screen.

2. To locate a form that is not currently visible on the screen, perform any of the following using the “hyperlinks” at the top of the screen:
  - Click on the alphabetical letter (i.e., **S** for Salmonella) with which the Disease Specific (PDF) Form name begins.
  - Click on **NEXT** to view the next alphabetical page.
  - Click **PREV** to view the preceding page.
  - Click **DISPLAY: ALL** to view one continuous alphabetical list.
3. Once you locate the form you want to see, click the **VIEW** button (located to the right of the Disease Specific (PDF) Form name). The Disease Specific (PDF) Form appears.



Figure 5-75: Disease Specific Form

Investigation Information					
Investigation ID	Onset Date	Diagnosis Date	Referral Date	Case Entry Date	Case Completion Date
	mm/yy/yyyy	mm/yy/yyyy	mm/yy/yyyy	mm/yy/yyyy	mm/yy/yyyy
Investigation Status			Case Status		

4. You have the option of printing or closing the form.
  - To print a copy of the Disease Specific Form, click the **PRINTER** icon located in the browser's toolbar at the top of the Disease Specific (PDF) Form. A "Print Dialog" box may appear requesting you to select a printer.
  - When you are finished, close the form by clicking the **CLOSE FORM** button located at the top of the Disease Specific (PDF) Form. You will return to the "Supplemental Forms" screen.

## USER PROFILE

The information stored in the User Profile is used to set default values for fields commonly used during new case entry in order to minimize repetitive data entry. Additionally, the User Profile stores the HAN password required for using the HAN alerting feature. More information can be found in the section titled, "HAN Integration" under "Alert Rules."

Completing a User Profile is most beneficial for users who routinely use the same values for the fields in the following areas:

- Referrer Information
- Primary Physician Information



- Laboratory Information
- HAN Alerting Information

To access the **USER PROFILE** option, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click on the **USER PROFILE** option. A read-only version of the “User Profile” screen appears:

Figure 5-76: User Profile - Read-only

User Profile			
<b>Default Referrer Information</b>			
This information will automatically populate fields when referrals are added to the system. Complete these fields only if you routinely use the same referral values.			
First :	<input type="text"/>	Last :	<input type="text"/>
Phone (###-###-####):	<input type="text"/>	Ext:	<input type="text"/>
Email :	<input type="text"/>		
<b>Default Primary Physician Information</b>			
This information will automatically populate fields when primary physician is added to the system. Complete these fields only if you routinely use the same physician values.			
First :	<input type="text"/>	Last :	<input type="text"/>
Affiliation :	<input type="text"/>		
Phone (###-###-####):	<input type="text"/>	Ext:	<input type="text"/>
Email :	<input type="text"/>		
Street :	<input type="text"/>		
City :	<input type="text"/>	County :	<input type="text"/>
State :	<input type="text"/>	Zip :	<input type="text"/>
<b>Default Laboratory Information</b>			
This information will automatically populate fields when new lab-reports are added to the system. Complete these fields only if you routinely use the same lab-report values.			
Lab Name :	<input type="text"/>		
Street :	<input type="text"/>		
City :	<input type="text"/>	County :	<input type="text"/>
State :	<input type="text"/>	Zip :	<input type="text"/>
<b>Default HAN Alerting Information</b>			
This information will automatically populate fields when new Alerts are added to the system. Complete these fields only if you routinely use the same HAN values.			
HAN userid :	<input type="text"/>	HAN password :	<input type="text"/>
<input type="button" value="Edit User Profile"/> <input type="button" value="Reset"/> <input type="button" value="Save Changes"/> <input type="button" value="Help"/>			



- To make changes, click the **EDIT USER PROFILE** button. The “User Profile – Edit” screen appears:

**Figure 5-77: User Profile - Edit**

User Profile			
<b>Default Referrer Information</b>			
This information will automatically populate fields when referrals are added to the system. Complete these fields only if you routinely use the same referral values.			
First :	<input type="text"/>	Last :	<input type="text"/>
Phone (###-###-####):	<input type="text"/>	Ext: <input type="text"/>	Email : <input type="text"/>
<b>Default Primary Physician Information</b>			
This information will automatically populate fields when primary physician is added to the system. Complete these fields only if you routinely use the same physician values.			
First :	<input type="text"/>	Last :	<input type="text"/>
Affiliation :	<input type="text"/>		
Phone (###-###-####):	<input type="text"/>	Ext: <input type="text"/>	Email : <input type="text"/>
Street :	<input type="text"/>		
City :	County :	State :	Zip :
<input type="text"/>	<input type="text" value="v"/>	<input type="text" value="v"/>	<input type="text"/>
<b>Default Laboratory Information</b>			
This information will automatically populate fields when new lab-reports are added to the system. Complete these fields only if you routinely use the same lab-report values.			
Lab Name :	<input type="text"/>		
Street :	<input type="text"/>		
City :	County :	State :	Zip :
<input type="text"/>	<input type="text" value="v"/>	<input type="text" value="v"/>	<input type="text"/>
<b>Default HAN Alerting Information</b>			
This information will automatically populate fields when new Alerts are added to the system. Complete these fields only if you routinely use the same HAN values.			
HAN userid :	<input type="text"/>	HAN password :	<input type="text"/>
<input type="button" value="Edit User Profile"/> <input type="button" value="Reset"/> <input type="button" value="Save Changes"/> <input type="button" value="Help"/>			

- Descriptions for each field on the screen are provided in the table.



**Table 5-35: User Profile Fields and Descriptions**

FIELD	DESCRIPTION
<b>Default Referrer Information (These values will populate the Referrer information upon new case entry.)</b>	
<b>First</b>	First name of the person submitting the referral. Click and type the information.
<b>Last</b>	Last name of the person submitting the referral. Click and type the information.
<b>Phone</b>	Phone number of the person submitting the referral. Click and type the information.
<b>Ext</b>	Phone extension number of the person submitting the referral. Click and type the information.
<b>Email</b>	E-mail address of the person submitting the referral. Click and type the information.
<b>Default Primary Physician Information (These values will populate the Primary Physician information upon new case entry.)</b>	
<b>First</b>	First name of the primary physician. Click and type the information.
<b>Last</b>	Last name of the primary physician. Click and type the information.
<b>Affiliation</b>	Physician's association. Click and type the information.
<b>Phone</b>	Phone number of the primary physician. Click and type the information.
<b>Ext</b>	Phone extension number of the primary physician. Click and type the information.
<b>Email</b>	E-mail address of the primary physician. Click and type the information.
<b>Street</b>	Street address of the primary physician's location. Click and type the information.



FIELD	DESCRIPTION
<b>City</b>	City name of the primary physician's location. Click and type the information.
<b>County</b>	County name of the primary physician's location. Click on the drop-down menu arrow to view/select a valid choice.
<b>State</b>	State name of the primary physician's location. Click on the drop-down menu arrow to view/select a valid choice.
<b>Zip</b>	Zip code of the primary physician's location. Click and type the information.
<b>Default Laboratory Information (These values will populate the Laboratory Reports fields when creating a new Lab Report.)</b>	
<b>Lab Name</b>	Name of the laboratory where the specimen was tested. Click and type the information.
<b>Street</b>	Street address where the laboratory is located. Click and type the information.
<b>City</b>	City name where the laboratory is located. Click and type the information.
<b>County</b>	County name where the laboratory is located. Click on the drop-down menu arrow to view/select a valid choice.
<b>State</b>	State name where the laboratory is located. Click on the drop-down menu arrow to view/select a valid choice.
<b>Zip</b>	Zip code where the laboratory is located. Click and type the information.
<b>Default HAN Alerting Information (The HAN Userid will populate the same field when creating an Alert Rule. The HAN Password is used to verify access to the HAN. More information can be found in the section titled, "HAN Integration" under "Alert Rules.")</b>	
<b>HAN Userid</b>	The user's HAN User-ID. Click and type the information.
<b>HAN Password</b>	The user's HAN password. Click and type the information.

4. Enter data into the desired fields and then click one of the available buttons:



- **RESET**– erases any changes that you made since the previous save and remains on the same screen.
- **SAVE CHANGES** – begins a validation process and if no errors, saves the changes to the User Profile and returns to the “User Profile – Read-only” screen. If there are errors, you must correct them before the User Profile will save.

*Note:* If you have made changes while on this screen and attempt to navigate to another screen without clicking a button, a “warning dialog” appears asking to verify your intention to leave the screen without saving your changes.

- a) If you click the **CANCEL** button, you will return to the editing process.
- b) If you click the **OK** button, you will lose any edits that you entered.

## USER DIRECTORY

The User Directory displays a list of all the users in the system, including jurisdiction, contact information, and current status (i.e., active user, inactive user).

To access the **USER DIRECTORY** option, perform the following steps:

1. From the **CASE INVESTIGATION** menu, click on the **USER DIRECTORY** option. The “User Directory “ screen appears:



Figure 5-78: User Directory

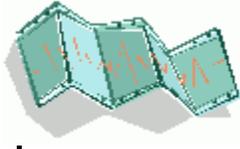
userid	Name	Jurisdiction	Email	Phone	Active
ADAMS	DEBRA L ADY	Calhoun County	bdy@mdssccmh.org	269-385-6200	True
ANDERTSON	TRACY ANDERT	District 2	andert@mdss.org	989-363-8719	True
ALLENBROOK	LYNN ALLENBROOK	Calhoun County	lallen@mdss.org	269-607-8704	True
ALPINA	HEIDI ALPINA	Charle Township	alpin@grandriver.org	231-402-2727	True
ALLENBROOK	KATHY ALLENBROOK	Statewide	kallen@mdss.org	517-235-8138	True
ANDERTSON	JACQUE ANDERTSON	District 2	andert@mdss.org	989-363-8100	True
ANDERTSON	SHARON ANDERTSON	Statewide	andertson@mdss.org	517-235-8007	True
ANTHES	BETH ANTHES	Tuscola County	betha@mdss.org	989-673-8714	True

2. Descriptions for each field on the screen are provided in the table. All the fields are read-only and cannot be edited on this screen.

Table 5-36: User Directory Fields and Descriptions

FIELD	DESCRIPTION
<b>Userid</b>	The user's Userid.
<b>Name</b>	The user's first and last name.
<b>Jurisdiction</b>	The user's primary jurisdiction.
<b>Email</b>	The user's email address.
<b>Phone</b>	The user's phone number.
<b>Active</b>	The user's status. "True" indicates that the user is an active user. "False" indicates that the user is not an active user.

3. Scroll to see the entire User Directory.
4. When done, simply click on another menu option.



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## 6 REPORTS MENU

Selecting the **REPORTS** menu from the TopBar displays all of the MDSS Reports options in the SideBar along with the default report's parameters or "limitations/selection" screen.

The available reports are:

- 1: Line Listing
- 2: Diseases by Demographics
- 3: Diseases YTD
- 4: Diseases 5 Year History
- 5: Diseases YTD by Geography
- 6: Disease History by Geography
- 7: Diseases by Geography
- 8: Epi Curve
- Aggregate Case Report
- GIS Map of Diseases by Geography

### REPORT OUTPUT FORMAT

There may be several reasons to specify a format for the export including perceived audience, method of sharing and requirements for further analysis.

Each report can be presented in three different formats:

- PDF - (Portable Document Format) a non-editable format. This report output will open in Adobe Reader.



- 
- CSV - (Comma Separated Value) - a text file format. This report output is best opened and reviewed in Microsoft Excel or other spreadsheets, but can be viewed with many database and word processing applications.
  - HTML - (HyperText Markup Language) a standard Web page format. This report output will open in a new internet browser window.

*Note:* “Report 8: Epi Curve” does not offer HTML output.

*Note:* The output image for the “GIS Map of Diseases by Geography” Report is automatically opened in a new internet browser window.

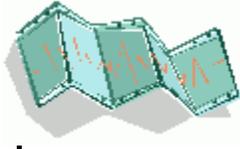
## REPORT DATA RESTRICTIONS

“Report 1: Line Listing” presents patient-level data; therefore, the data that can be viewed/exported by a user is limited by the user’s role and permissions. All other reports present only aggregate-level data and are not limited by a user’s role or permissions. More information on roles and permissions can be found in Appendix C.

Local users will have a Small Cell Count Rule applied to Geographic Levels below the “county” level for geographic areas outside their Local Health Jurisdiction (LHJ). Users from one LHJ can view aggregate count data within other Local Health Jurisdictions, but counts below a certain threshold will not display when the geographic level of detail is city, school district, or ZIP Code in order to minimize the risk of identifying individual cases.

The Small Cell Count Rule displays:

- Counts and rates of less than five as “< 5” rather than the actual value.
- Counts and rates of zero will display as “0.”



- Counts or rates of five or greater will display as the actual count or rate.

## RUNNING A REPORT

Although the report titles differ along with the “limitations and selections,” the process of running a report is the same.

To run a report, follow these steps:

1. Click the **REPORTS** menu from the TopBar. The default report's “limitation/selection” screen appears.

**Figure 6-1: Default Report Limitation/Selection**

2. To choose a different report, click the report's title from the SideBar.
3. To enter data into the fields, use your mouse or **TAB** key to position the cursor in the appropriate field, and type or select the values for the Report Parameters.
4. When you are finished, click one of the available buttons:



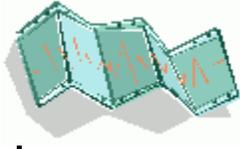
- **VIEW HTML REPORT** – displays the report in HTML format.
  - **VIEW PDF REPORT** – displays the report in PDF format.
  - **VIEW CSV REPORT** – displays the report in CSV format.
  - **RESET** – Erases the values that you have supplied for the report parameters.
5. When you select one of the View Report buttons, the “File Download” dialog will appear asking you to confirm your choice to download the report output file.

*Note:* There may be a short waiting period before the “File Download” dialog appears. The waiting period is relative to the number of cases contained in the report output file.

**Figure 6-2: File Download Dialog Box**



6. Click one of the following buttons:



- **OPEN** – Opens a new window to display the report output as appropriate for the report format selected. You may view and print your report output from this new window. When you are finished, you can close the window by clicking the close button located in the top, right-hand corner.
  - **SAVE** – Allows you to save the report output on your PC in the format selected. Continue to the next step.
  - **CANCEL** – Terminates the process of running and viewing the report and returns you to the “Report Parameter” screen.
  - **MORE INFO** – Opens helpful information about downloading a file.
7. If you have chosen to save your report output file, you will be asked to select a location on your computer to store the report output file and a file name.

Figure 6-3: Save File Dialog Box



8. Once you have entered the requested information, click the **SAVE** button.



9. Your report output file will now reside on your computer in the location that you specified.

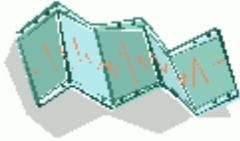
## REPORT PARAMETERS—LIMITATIONS/SELECTIONS

Each report provides a report parameter screen, referred to as the “limitations/selection” screen. Report parameters are used to identify which cases you would like to include or exclude from the report output.

The table below includes parameters listed alphabetically, the report the parameter is used on, and a description of the parameter’s use.

**Table 6- 1: Report Limitations/Selections**

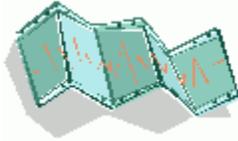
PARAMETER	USED ON REPORT #	DESCRIPTION
<b>Aggregate / Individual Cases</b>	2, 3, 4, 5, 6, 7, and 8	Selects the type of cases included in the report. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the “Aggregate cases only” or “Individual cases only” checkboxes.
<b>Aggregate Conditions</b>	Aggregate	Selects the <i>Reportable Condition(s)</i> included in the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys.
<b>Aggregate Statistics</b>	Aggregate	Selects the aggregate statistic included in the report. Each radio button is exclusive of the other options.
<b>Case and Investigation Status</b>	1, 2, 3, 4, 5, 6, 7, 8, Aggregate, and GIS	Selects the <i>Case Status</i> and/or <i>Investigation Status</i> of cases included in the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys.



PARAMETER	USED ON REPORT #	DESCRIPTION
<b>Demographic Variable 1 and Demographic Variable 2</b>	2	<p>Controls the level of detail by breaking down the count or rate information within the report by the demographic variables provided. Each radio button is exclusive of the other options.</p> <p><b>Sex</b> – provides a breakdown by Male, Female, and Unknown.</p> <p><b>Age Group</b>—provides an incremental age breakdown (e.g., less than 1 year, 1-4 years, 5-9 years).</p> <p><b>Race</b> – provides a breakdown by race (e.g., Caucasian, Asian, African-American).</p> <p><b>Ethnicity</b>—provides a breakdown by ethnic groups of Hispanic or Latino, Non-Hispanic or Latino, and Unknown.</p> <p>The second level, <b>Demographic Variable 2</b> provides the ability to breakdown the count or rate information by the second-level demographic variables provided. Select “NONE” if no further breakdown is desired.</p>
<b>Disease or Disease Group</b>	1, 5, 6, 8, and GIS	<p>Selects the <i>Reportable Condition</i> or the <i>Disease Group</i> of the cases included in the report. Each radio button is exclusive of the other options. Multiple disease or disease group selections are allowed using the <b>SHIFT</b> and <b>CTRL</b> keys. No selection indicates all diseases or disease groups.</p>
<b>Display Columns</b>	1	<p>Selects the case variables to be included on the report. Various checkboxes are available to click/select. You must select one or more checkboxes. To remove a checkmark, click the checkbox.</p>



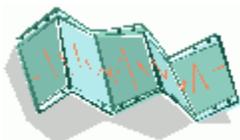
PARAMETER	USED ON REPORT #	DESCRIPTION
<p><b>Display Interval</b></p>	<p>3, 4, 5, and 6</p>	<p>Controls the level of detail by breaking down the count or rate information within the report into columns. Each radio button is exclusive of the other options. Depending on the report, the entries for Display Interval can be:</p> <p><b>By Year</b> – information is presented by year for the selected TIME PERIOD.</p> <p><b>By Month</b> – information is presented by month for the selected TIME PERIOD. If available, choose the FROM month and TO month by clicking on the drop-down menu arrow. Otherwise, data from January to the current month will automatically be displayed.</p> <p><b>By Week</b> – information is presented by MMWR Week for the selected TIME PERIOD. If available, choose the FROM week and TO week by typing the numbers into the blank fields. Otherwise, data from the first to the current MMWR Week will automatically be displayed.</p>



PARAMETER	USED ON REPORT #	DESCRIPTION
<p><b>Geographic Area</b></p>	<p>1, 2, 3, 4, 7, and 8 Aggregate*</p>	<p>Selects the geographic boundaries of cases included in the report. Each radio button is exclusive of the other options. The geographic information selected will compare against the Investigation Address of the case.</p> <p><b>Statewide</b> – cases reported within the state will be included on the report.</p> <p><b>County</b> – cases reported within the selected county(ies) will be included on the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys. If no county is selected, then data for all counties are reported.</p> <p><b>Region</b> – cases reported within the selected region(s) will be included on the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys. No selection indicates all regions.</p> <p><b>Local Health Jurisdiction</b> – cases reported within the selected jurisdiction(s) will be included on the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys. No selection indicates all jurisdictions.</p> <p><b>Zip</b> – cases reported within the listed ZIP code will be included on the report. You must enter the ZIP code into the text box. Multiple ZIP code selections are allowed by separating them with commas. Range of ZIP code selection is allowed by delimiting the starting range from the ending range using a colon (e.g., 48100:48199). The last 4-digits of a 9-character ZIP code are ignored in range searches. No entry indicates all zip codes.</p> <p><b>City/Township</b> – cases reported within the selected city/township(s) will be included on the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys. Selecting both a city and a township acts as an AND operator. No selection indicates all cities/townships.</p> <p><b>School District</b> – cases reported within the selected school district(s) will be included on the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys. No selection indicates all school districts.</p> <p><b>Note:</b> Selecting Zip, City/Township or School District will exclude cases that are not Geocoded to the chosen level.</p> <p>* The Geographic Area section of the Aggregate Case Report operates in the same manner as the Geographic Breakdown section.</p>



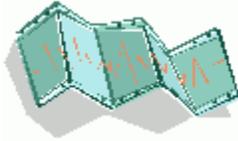
PARAMETER	USED ON REPORT #	DESCRIPTION
<p><b>Geographic Breakdown</b></p>	<p>5, 6, 7, and GIS Aggregate*</p>	<p>Controls the level of detail in the report by breaking down the count or rate information in the report into columns. Each radio button is exclusive of the other options.</p> <p><b>Region</b> – information is presented for each Region in the state (or in the selected GEOGRAPHIC AREA for Report 7).</p> <p><b>County</b> – information is presented for each County in the state (or in the selected GEOGRAPHIC AREA for Report 7).</p> <p><b>City</b> – information is presented for each City in the state (or in the selected GEOGRAPHIC AREA for Report 7).</p> <p><b>Zip</b> – information is presented for each ZIP code in the state (or in the selected GEOGRAPHIC AREA for Report 7).</p> <p><b>Statewide</b> – information from the whole state is presented.</p> <p><b>Local Health Jurisdiction</b> – information is presented for each Local Health Jurisdiction in the selected GEOGRAPHIC AREA.</p> <p><b>School District</b> – information is presented for each School District in the selected GEOGRAPHIC AREA.</p> <p><b>Note:</b> Selecting Zip, City or School District will exclude cases that are not Geocoded to the chosen level. Cases originally entered into LHDSURV will often not have this data as historical data was not Geocoded.</p> <p>* The Geographic Area section of the Aggregate Case Report operates in the same manner as this Geographic Breakdown section but is named differently.</p>
<p><b>Map Type</b></p>	<p>GIS</p>	<p>Selects the type of information contained on the map. Each radio button is exclusive of the other options.</p> <p><b>Count</b> – the report will contain disease count information.</p> <p><b>Cases per 100,000</b> – the report will contain rate information calculated from disease counts and population data from the selected Census Year. The rate information displays cases per 100,000 in population.</p> <p>Counts for the various geographic boundaries are depicted on the map as colors. These colors are associated to count ranges and can be viewed using the SHOW LAYERS button on the GIS map.</p>



PARAMETER	USED ON REPORT #	DESCRIPTION
<b>Reporting Source</b>	Aggregate	Selects the <i>Reporting Source</i> of aggregate case reports included in the report. More than one selection can be made using the <b>SHIFT</b> and <b>CTRL</b> keys.
<b>Table Type</b>	2, 3, 4, 5, 6, and 7	<p>Selects the type of information contained on the report. Each radio button is exclusive of the other options.</p> <p><b>Count</b> – the report will contain disease count information.</p> <p><b>Cases Per 100,000</b> – the report will contain rate information calculated from disease counts and population data from the selected Census Year. The rate information displays cases per 100,000 in population.</p>
<b>Time Interval</b>	8 and Aggregate	<p>Controls the level of detail by breaking down the count or rate information on the report into columns. Each radio button is exclusive of the other options.</p> <p><b>By Month</b>—information is presented for each month in the TIME PERIOD selected.</p> <p><b>By Week</b>—information is presented for each MMWR week in the TIME PERIOD selected.</p> <p><b>By Day</b>—information is presented for each day in the TIME PERIOD selected.</p>



PARAMETER	USED ON REPORT #	DESCRIPTION
<p><b>Time Period</b></p>	<p>1, 2, 3, 4, 5, 6, 7, 8, Aggregate, and GIS</p>	<p>Selects that date range of cases to be included in the report. Each radio button is exclusive of the other options.</p> <p>For Reports 3, 4, 5, 6 and the Aggregate Case Report: the <i>Onset Date</i> for a case must fall within the specified TIME PERIOD range to be included in the report. If the <i>Onset Date</i> is unavailable for a case, the system will compare against the <i>Referral Date</i>.</p> <p>For Reports 1, 2, 7, 8 and the GIS Map of Diseases by Geography: you can use the TIME PERIOD BASED ON parameter to select whether <i>Onset Date</i>, <i>Referral Date</i>, or both are used to select cases.</p> <p>Depending on the report, the entries for Time Period can be:</p> <p><b>Month</b> – limits the report to cases within the month provided. If the “MONTH” radio button is selected, you must choose a month from the drop-down menu.</p> <p><b>Week</b> – limits the report to cases within the MMWR Week provided. If the “MMWR WEEK” radio button is selected, you must provide a valid MMWR week in the format of a two-digit week and a four-digit year (i.e., 23-2004.)</p> <p><b>From Date – To Date</b> – limits the report to cases within the date range provided. If the “FROM DATE – TO DATE” radio button is selected, you must provide a valid date range. Type the date using the format mm/dd/yyyy or select the date from the JavaScript Calendar.</p> <p><b>Year</b> – limits the report to cases within the year provided. If the “YEAR” radio button is selected, you must provide a valid 4-digit year that is not greater than the current year.</p> <p><b>Five Year Period Ending Year</b> – limits the report to cases within the specified year and the preceding four years. The beginning year is automatically calculated from the ending year provided. If the “FIVE-YEAR PERIOD ENDING YEAR” radio button is selected, you must provide a valid 4-digit ending that is not greater than the current year.</p>



PARAMETER	USED ON REPORT #	DESCRIPTION
<b>Time Period Based On</b>	1, 2, 7, 8, and GIS	<p>Selects the date field used to determine if a case should be included on the report. Each radio button is exclusive of the other options.</p> <p><b>Onset Date if available; otherwise, Referral Date</b> – limits the report to cases within the TIME PERIOD entered using <i>Onset Date</i> if available; otherwise, <i>Referral Date</i> will be used. This option is the default selection.</p> <p><b>Onset Date</b> – limits the report to cases within the TIME PERIOD entered using <i>Onset Date</i> only. This option excludes cases that do not have an <i>Onset Date</i>.</p> <p><b>Referral Date</b> – limits the report to cases within the TIME PERIOD entered using <i>Referral Date</i> only.</p> <p><b>NOTE:</b> <i>Referral Date</i> is a required field and is available for all cases. <i>Onset Date</i> is not a required field and is only available if the information has been entered.</p> <p><b>NOTE:</b> Reports 3, 4, 5, 6, and the Aggregate Report do not have this parameter; therefore, these reports automatically use <b>Onset Date if available; otherwise, Referral Date</b> to select cases.</p>

## REPORT DESCRIPTIONS & PARAMETER INSTRUCTIONS

Each report title is listed below along with a report description, and its parameters (limitations/selection) screen. For additional information about making parameter choices on these screens, refer to the section titled, “Report Parameters - Limitations/Selections.”

### REPORT 1: LINE LISTING

This “Line List of Disease Cases for a Given Timeframe and Geographic Location” report creates a patient-level list of all cases that fall within the specified time period, geographic area, and disease information as defined by the report parameters. This is



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the only report that provides patient-level data, and therefore, is the only report limited by the user's role and permissions. You can select the case information that you would like to include in your report output by checking the "Display Columns" checkboxes.

1. Click the report's title, **1: LINE LISTING**, from the SideBar. The report's limitations/selections screen appears.

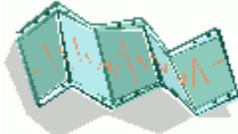


Figure 6-4: Parameters for Report 1: Line Listing

Report 1 - Line List of Disease Cases for A Given Timeframe and Geographic Location

**Time Period**

Month:  Year(yyyy):

Week:

From Date (mm/dd/yyyy):  To Date (mm/dd/yyyy):

**Time Period Based On:**

Onset Date if available, otherwise Referral Date  Onset Date  Referral Date

**Case and Investigation Status**

Case Status:   
Confirmed-Non Resident  
Not a Case

Investigation Status:   
Canceled  
Completed

**Geographic Area**

State Wide  County:   
Alger  
Allegan

Local Health Jurisdiction:   
Barry-Eaton  
Bay County

City:   
Albion city  
Algonac city

Township:   
Ada township  
Adams township (Arenac County)

School District:   
ADDISON COMMUNITY SCHOOLS  
ADRIAN CITY SCHOOL DISTRICT

**Disease or Disease Group**

Reportable Condition:   
Animal Bite  
Anthrax

Disease Group:   
VPD  
Tuberculosis

**Display Columns**

Invest. ID  Name  Age  Birthdate  Sex  Race  Ethnicity  Arab Ethnicity

Street  City  Zipcode  County  Jurisdiction  Region

Reportable Condition  Outbreak  Case Status  Investigation Status

Onset Date  Referral Date  MMR Week/Year

\*Indicates required items

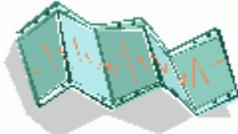
2. Select the **TIME PERIOD** by choosing one of the following three options:
  - Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.



- 
- Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.
  - Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
3. Select the **TIME PERIOD BASED ON** by clicking one of the radio buttons.
  4. Select the **CASE AND INVESTIGATION STATUS** by clicking one or more options from the scroll list.
  5. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
  6. Select the **DISEASE OR DISEASE GROUP** by clicking on the radio button and/or clicking the scroll list to select a valid choice.
  7. In the **DISPLAY COLUMNS** section, click the checkbox for each column that you want to view on the report. Clicking will select (check) as well as de-select (uncheck) the checkbox.
  8. Click one of the available buttons to view your report in the desired format.

## REPORT 2: DISEASES BY DEMOGRAPHICS

This “Table of Diseases by Demographics for a Given Time Period” report creates a table of count or rate information for all diseases that fall within the specified time period and geographic area as defined by the report parameters. The count or rate can be further broken down by demographic information by selecting the appropriate demographic variable radio buttons.



1. Click the report's title, **2: Diseases by Demographics**, from the SideBar. The report's limitations/selections screen appears.

Figure 6-5: Parameters for Report 2: Diseases by Demographics

Report 2 - Table of Diseases by Demographics for a Given Time Period

Aggregate / Individual Cases  
The default is to include both aggregate and individual cases

Aggregate cases only  Individual cases only

Table Type

Counts  Cases Per 100,000 | Census Year: 2000

Time Period

Month: November Year(yyyy): 2010

Week: 44-2010

From Date (mm/dd/yyyy): To Date (mm/dd/yyyy):

Time Period Based On:

Onset Date if available, otherwise Referral Date  Onset Date  Referral Date

Case and Investigation Status

Case Status: Confirmed, Confirmed-Non Resident, Not a Case

Investigation Status: Active, Canceled, Completed

Geographic Area

State Wide  County: Alcona, Alger, Allegan  Region: 1, 2 North, 2 South

Local Health Jurisdiction: Allegan County, Barry-Eaton, Bay County  Zip:

City: Adrian city, Albion city, Algonac city

Township: Acme township, Ada township, Adams township (Arenac County)

School District: ADAMS TOWNSHIP SCHOOL DISTRICT, ADDISON COMMUNITY SCHOOLS, ADRIAN CITY SCHOOL DISTRICT

Demographic Variable 1

Sex  Age Group  Race  Ethnicity

Demographic Variable 2

Sex  Age Group  Race  Ethnicity  None

Indicates required items

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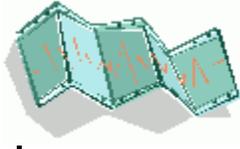
2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting



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the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.

3. Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
4. Select the **TIME PERIOD** by choosing one of the following three options:
  - Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.
  - Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.
  - Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
5. Select the **TIME PERIOD BASED ON** by clicking on one of the radio buttons.
6. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
7. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
8. Select the **DEMOGRAPHIC VARIABLE 1** by clicking on a radio button.
9. In the **DEMOGRAPHIC VARIABLE 2** section, optionally click a radio button or choose **NONE** if no further breakdown is desired.



10. Click one of the available buttons to view your report in the desired format.

### REPORT 3: DISEASES YTD

This “YTD Table of Diseases for a Given Year” report creates a table of year-to-date count or rate information for all diseases that fall within the selected year and geographic area as defined by the report parameters. The count or rate information can be further broken down into time intervals by selecting the appropriate **DISPLAY INTERVAL** radio button.

1. Click the report’s title, **3: Diseases YTD**, from the SideBar. The report's limitations/selections screen appears.



Figure 6-6: Parameters for Report 3: Diseases YTD

Report 3 - YTD Table of Diseases for a Given Year

Aggregate / Individual Cases  
The default is to include both aggregate and individual cases

Aggregate cases only  Individual cases only

Table Type

Counts  Cases Per 100,000 | Census Year: 2000

Time Period

Year (yyyy): 2010

Case and Investigation Status

Case Status: Confirmed, Confirmed-Non Resident, Not a Case  
Investigation Status: Active, Canceled, Completed

Display Interval

By Month  By Week

Geographic Area

State Wide  County: Alcona, Alger, Allegan  Region: 1, 2 North, 2 South

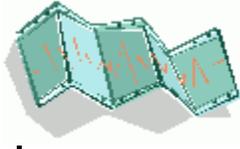
Local Health Jurisdiction: Allegan County, Barry-Eaton, Bay County  Zip:

City: Adrian city, Albion city, Algonac city  Township: Acme township, Ada township, Adams township (Arenac County)

School District: ADAMS TOWNSHIP SCHOOL DISTRICT, ADDISON COMMUNITY SCHOOLS, ADRIAN CITY SCHOOL DISTRICT

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2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
3. Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
4. Select the **TIME PERIOD** by typing the desired **YEAR**.



- 
5. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
  6. Select the **DISPLAY INTERVAL** by clicking the desired radio button.
  7. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
  8. Click one of the available buttons to view your report in the desired format.

## REPORT 4: DISEASES – 5 YEAR HISTORY

This “Table of Diseases Comparing a Given Timeframe for Past 5 Years” report creates a comparison table of count or rate information for all diseases reported for the specified year and the preceding four years within the geographic area as defined by the report parameters. The count or rate information can be further broken down by time intervals by selecting the appropriate radio buttons.

1. Click the report’s title, **4: Diseases – 5 Year History**, from the SideBar. The report's limitations/selections screen appears.



Figure 6-7: Parameters for Report 4: Diseases 5 Year History

Report 4 - Table of Diseases Comparing A Given Timeframe for Past 5 Years

Aggregate / Individual Cases  
The default is to include both aggregate and individual cases

Aggregate cases only  Individual cases only

Table Type

Counts  Cases Per 100,000 | Census Year: 2000

Time Period

Five year period ending Year (yyyy): 2010

Case and Investigation Status

Case Status: Confirmed, Confirmed-Non Resident, Not a Case  
Investigation Status: Active, Canceled, Completed

Display Interval

By Year  
 By Month From month: January through month: November  
 By Week From week: 01 through week: 44

Geographic Area

State Wide  County: Alcona, Alger, Allegan  Region: 1, 2 North, 2 South

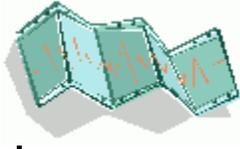
Local Health Jurisdiction: Allegan County, Barry-Eaton, Bay County  Zip

City: Adrian city, Albion city, Algonac city Township: Acme township, Ada township, Adams township (Arenac County)

School District: ADAMS TOWNSHIP SCHOOL DISTRICT, ADDISON COMMUNITY SCHOOLS, ADRIAN CITY SCHOOL DISTRICT

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2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
3. Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
4. Select the **TIME PERIOD** by typing the **ENDING YEAR** of the desired 5-year time span.



5. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
6. Select the **DISPLAY INTERVAL** by clicking the **BY YEAR, BY MONTH, or BY WEEK** radio button.
  - If selecting **BY MONTH**, click the drop-down menu to select the **FROM MONTH** and **THROUGH MONTH**. Monthly information is presented in columns for each year within the 5-year time span.
  - If selecting **BY WEEK**, type the **FROM** and **THROUGH WEEK**. This is the *MMWR Week*. Weekly information is presented in columns for each week within the 5-year time span.
7. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
8. Click one of the available buttons to view your report in the desired format.

## REPORT 5: DISEASES YTD BY GEOGRAPHY

This “Year to Date Disease by Geographic Area and Timeframe for a Given Year” report creates a table of count or rate information for all cases that fall within the selected time period and disease information as defined by the report parameters. The count or rate information can be further broken down by time intervals and geographic boundaries by selecting the appropriate radio buttons.

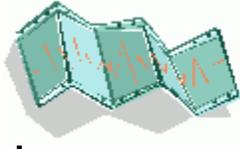
1. Click the report’s title, **5: Diseases YTD by Geography**, from the SideBar. The report's limitations/selections screen appears.



Figure 6-8: Parameters for Report 5: Diseases YTD by Geography

Report 5 - Year To Date Disease by Geographic Area and Timeframe For A Given Year	
<b>Aggregate / Individual Cases</b> The default is to include both aggregate and individual cases	
<input type="checkbox"/> Aggregate cases only	<input type="checkbox"/> Individual cases only
<b>Table Type</b>	
<input checked="" type="radio"/> Counts	<input type="radio"/> Cases Per 100,000   Census Year: 2000
<b>Time Period</b>	
Year (yyyy): 2010	
<b>Case and Investigation Status</b>	
Case Status: Confirmed, Confirmed-Non Resident, Not a Case	Investigation Status: Active, Canceled, Completed
<b>Display Interval</b>	
<input checked="" type="radio"/> By Month	Through month: November
<input type="radio"/> By Week	through week: 44
<b>Geographic Breakdown</b>	
<input checked="" type="radio"/> Region	<input type="radio"/> County <input type="radio"/> City <input type="radio"/> Zip
<b>Disease or Disease Group</b>	
<input checked="" type="radio"/> Reportable Condition: Amebiasis, Animal Bite, Anthrax	<input type="radio"/> Disease Group: AIDS/HIV, Foodborne, Influenza
View HTML Report   View PDF Report   View CSV Report   Reset   Help	

- By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
- Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
- Select the **TIME PERIOD** by typing the **YEAR**.
- Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
- Select the **DISPLAY INTERVAL** by clicking the **BY MONTH** or **BY WEEK** radio button.



- If selecting **BY MONTH**, click the drop-down menu to select the **THROUGH MONTH**. Monthly information is presented in columns from January of the year selected through the selected ending month.
  - If selecting **BY WEEK**, type the **THROUGH WEEK**. This is the *MMWR Week*. Weekly information is presented in columns from the first *MMWR Week* to the week typed in the “Through Week” field.
7. Select the **GEOGRAPHIC BREAKDOWN** by clicking the desired radio button.
  8. Select the **DISEASE** or **DISEASE GROUP** by clicking on the radio button and/or clicking the scroll list to select a valid choice.
  9. Click one of the available buttons to view your report in the desired format.

## REPORT 6: DISEASE HISTORY BY GEOGRAPHY

This “Single Disease by Geographic Area and Timeframe” report creates a comparison table of count or rate information for all cases that fall within the specified year and preceding four years. The count or rate information can be further broken down by time intervals and geographic boundaries by selecting the appropriate radio buttons.

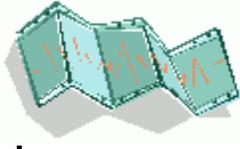
1. Click the report’s title, **6: Diseases YTD by Geography**, from the SideBar. The report's limitations/selections screen appears.



**Figure 6-9: Parameters for Report 6: Disease History by Geography**

Report 6 - Single Disease by Geographic Area and Timeframe	
<b>Aggregate / Individual Cases</b> The default is to include both aggregate and individual cases	
<input type="checkbox"/> Aggregate cases only	<input type="checkbox"/> Individual cases only
<b>Table Type</b>	
<input checked="" type="radio"/> Counts	<input type="radio"/> Cases Per 100,000   Census Year: 2000
<b>Time Period</b>	
Five year period ending Year (yyyy): 2010	
<b>Case and Investigation Status</b>	
Case Status: Confirmed, Confirmed-Non Resident, Not a Case	Investigation Status: Active, Canceled, Completed
<b>Display Interval</b>	
<input type="radio"/> By Year	
<input checked="" type="radio"/> By Month	From month: January through month: November
<input type="radio"/> By Week	From week: 01 through week: 44
<b>Geographic Breakdown</b>	
<input checked="" type="radio"/> Region <input type="radio"/> County <input type="radio"/> City <input type="radio"/> Zip	
<b>Disease or Disease Group</b>	
<input checked="" type="radio"/> Reportable Condition: Amebiasis, Animal Bite, Anthrax	<input type="radio"/> Disease Group: AIDS/HIV, Foodborne, Influenza
View HTML Report   View PDF Report   View CSV Report   Reset   Help	

2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
3. Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
4. Select the **TIME PERIOD** by typing the **ENDING YEAR** of the desired 5-year time span.
5. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.



6. Select the **DISPLAY INTERVAL** by clicking the **BY YEAR**, **BY MONTH**, or **BY WEEK** radio button.
  - If selecting **BY MONTH**, click the drop-down menu to select the **FROM MONTH** and **THROUGH MONTH**. Monthly information is presented in columns for each year within the 5-year time span.
  - If selecting **BY WEEK**, type the desired two digit MMWR Week number in the **FROM WEEK** and **THROUGH WEEK** fields. Weekly information is presented in columns for each year within the 5-year time span.
7. Select the **GEOGRAPHIC BREAKDOWN** by clicking the desired radio button.
8. Select the **DISEASE OR DISEASE GROUP** by clicking the radio button and clicking the scroll list to select a valid choice.
9. Click one of the available buttons to view your report in the desired format.

## REPORT 7: DISEASES BY GEOGRAPHY

This “Table of Diseases by Geographic Location” report creates a table of count or rate information for all diseases that fall within the selected time period and geographic area as defined by the report parameters. The count or rate information can be further broken down by geographic boundaries by selecting the appropriate radio buttons.

1. Click the report’s title, **7: Diseases by Geography**, from the SideBar. The report’s limitations/selections screen appears.



Figure 6-10: Parameters for Report 7: Diseases by Geography

Report 7 - Table of Diseases by Geographic location

**Aggregate / Individual Cases**  
The default is to include both aggregate and individual cases

Aggregate cases only  Individual cases only

**Table Type**

Counts  Cases Per 100,000 | Census Year: 2000

**Time Period**

Month: November Year(yyyy): 2010

Week: 44-2010

From Date (mm/dd/yyyy): [ ] To Date (mm/dd/yyyy): [ ]

**Time Period Based On:**

Onset Date if available, otherwise Referral Date  Onset Date  Referral Date

**Case and Investigation Status**

Case Status: Confirmed, Confirmed-Non Resident, Not a Case

Investigation Status: Active, Canceled, Completed

**Geographic Breakdown**

State Wide  County

Region  City

Local Health Jurisdiction  Zip

School District

**Geographic Area**

State Wide  County: Alcona, Alger, Allegan

Region: 1, 2 North, 2 South

Local Health Jurisdiction: Allegan County, Barry-Eaton, Bay County

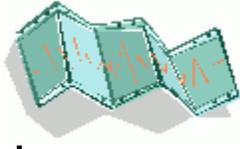
City: Adrian city, Albion city, Algonac city

Township: Acme township, Ada township, Adams township (Arenac County)

School District: ADAMS TOWNSHIP SCHOOL DISTRICT, ADDISON COMMUNITY SCHOOLS, ADRIAN CITY SCHOOL DISTRICT

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2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
3. Select the **TABLE TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio



button and selecting the Census **YEAR** from the drop-down menu.

4. Select the **TIME PERIOD** by choosing one of the following three options:
  - Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.
  - Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.
  - Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
5. Select the **TIME PERIOD BASED ON** by clicking one of the radio buttons.
6. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
7. Select the **GEOGRAPHIC BREAKDOWN** by clicking a radio button.
8. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
9. Click one of the available buttons to view your report in the desired format.

## REPORT 8: EPI CURVE

This “Epi-Curve Graph” report creates a graph in which the number of new cases of the selected disease and geographic area is plotted against the selected time period defined by the report

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parameters. The graph information can be further broken down by time intervals by selecting the appropriate radio buttons.

*Note:* Only the PDF report includes both the graph and data. The CSV report includes the only data, from which a graph may be created using spreadsheet, database, or other software packages.

1. Click the report's title, **8: Epi Curve**, from the SideBar. The report's limitations/selections screen appears.

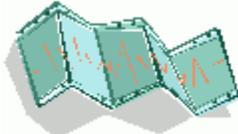


Figure 6-11: Parameters for Report 8: Epi-Curve

Report 8 - Epi-Curve Graph

Aggregate / Individual Cases  
The default is to include both aggregate and individual cases

Aggregate cases only  Individual cases only

Time Period

Month:  Year(yyyy):

Week:

From Date (mm/dd/yyyy):   To Date (mm/dd/yyyy):

Time Period Based On:

Onset Date if available, otherwise Referral Date  Onset Date  Referral Date

Case and Investigation Status

Case Status:

Investigation Status:

Geographic Area

State Wide  County:

Region:

Local Health Jurisdiction:

Zip:

City:

Township:

School District:

Time Interval

By Month  By Week  By Day

Disease or Disease Group

Reportable Condition:

Disease Group:

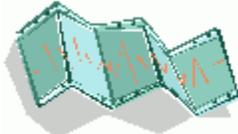
2. By default, reports include both aggregate and individual cases. You can limit this to one or the other by selecting the **AGGREGATE CASES ONLY** or **INDIVIDUAL CASES ONLY** checkboxes.
3. Select the **TIME PERIOD** by choosing one of the following three options:



- Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.
  - Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.
  - Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
4. Select the **TIME PERIOD BASED ON** by clicking one of the radio buttons.
  5. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
  6. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
  7. Select the **TIME INTERVAL** by clicking on one of the radio buttons.
  8. Select the **DISEASE OR DISEASE GROUP** by clicking the radio button and clicking the scroll list to select a valid choice.
  9. Click one of the available buttons to view your report in the desired format.

## AGGREGATE CASE REPORT

This “Aggregate Cases” report creates a table of statistics for aggregate conditions that fall within the selected time period and geographic area as defined by the report parameters. The count or rate information can be further broken down by geographic



boundaries or reporting sources by selecting the appropriate radio buttons.

1. Click the report's title, **Aggregate Case Report**, from the SideBar. The report's limitations/selections screen appears.

Figure 6-12: Parameters for the Aggregate Case Report

The screenshot shows the 'Aggregate Reports' configuration interface. It includes sections for 'Time Period' (Month: November, Year: 2010), 'Time Interval' (By Week selected), 'Case and Investigation Status' (Case Status: Confirmed, Investigation Status: Active), 'Geographic Area' (Region selected), 'Aggregate Statistics' (Cases selected), 'Aggregate Conditions' (Flu Like Disease\* selected), and 'Reporting Source' (ACC selected). At the bottom, there are buttons for 'View HTML Report', 'View PDF Report', 'View CSV Report', 'Reset', and 'Help'.

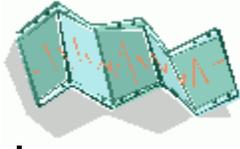
2. Select the **TIME PERIOD** by choosing one of the following three options:
  - Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.



- 
- Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.
  - Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
3. Select the **TIME INTERVAL** by clicking on one of the radio buttons.
  4. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
  5. Select the **GEOGRAPHIC AREA** by clicking the radio button and/or clicking the scroll list to select a valid choice.
  6. Select the desired **AGGREGATE STATISTICS** by clicking the radio button.
  7. Select the desired **AGGREGATE CONDITIONS** by clicking one or more options from the scroll list. This is a required field for this report.
  8. Select a **REPORTING SOURCE** by clicking one or more options from the scroll list.
  9. Click one of the available buttons to view the report in the desired format.

## GIS MAP OF DISEASES BY GEOGRAPHY

This “Map of Disease Counts by Geographic Location” report creates a map with count or rate information plotted by geographic area for the selected time period defined by the report parameters.



1. Click the report's title, **GIS Map of Diseases by Geography**, from the SideBar. The report's limitations/selections screen appears.

Figure 6-13: Parameters for the GIS Map of Diseases by Geography Report

The screenshot shows the 'GIS Report - Map of Disease Counts by Geographic location' parameters screen. It is organized into several sections:

- Map Type:** Includes radio buttons for 'Counts' (selected) and 'Cases Per 100,000', and a 'Census Year' dropdown menu set to '1990'.
- Time Period:** Includes radio buttons for 'Year(yyyy): 2010', 'Month: November' (with a dropdown), and 'Year(yyyy): 2010'. It also has radio buttons for 'From Date (mm/dd/yyyy):' and 'To Date (mm/dd/yyyy):' with date pickers.
- Time Period Based On:** Includes radio buttons for 'Onset Date if available, otherwise Referral Date' (selected), 'Onset Date', and 'Referral Date'.
- Case and Investigation Status:** Includes dropdown menus for 'Case Status' (Confirmed, Confirmed-Non Resident, Not a Case) and 'Investigation Status' (Active, Canceled, Completed).
- Disease or Disease Group:** Includes radio buttons for 'Reportable Condition' (selected) and 'Disease Group'. The 'Reportable Condition' dropdown lists Amebiasis, Animal Bite, and Anthrax. The 'Disease Group' dropdown lists AIDS/HIV, Foodborne, and Influenza.
- Geographic Breakdown:** Includes radio buttons for 'Local Health Jurisdiction' (selected), 'County', 'School District', 'Zip', and 'Region'.

At the bottom of the form are three buttons: 'Create Map', 'Reset', and 'Help'.

2. Select the **MAP TYPE** by clicking the **COUNTS** radio button or by clicking the **CASES PER 100,000** radio button and selecting the Census **YEAR** from the drop-down menu.
3. Select the **TIME PERIOD** by choosing one of the following three options:
  - Click the **MONTH** radio button and then select the month by clicking the drop-down menu. Type the **YEAR** using 4-digits.
  - Click the **WEEK** radio button and type the MMWR Week; e.g., 22-2004.



- 
- Click the **FROM DATE** radio button and either type the date or click the JavaScript calendar to make a selection. Type the **TO DATE** or click the JavaScript calendar to make a selection.
4. Select the **TIME PERIOD BASED ON** by clicking one of the radio buttons.
  5. Select the **CASE STATUS** and/or **INVESTIGATION STATUS** by clicking one or more options from the scroll list.
  6. Select the **DISEASE OR DISEASE GROUP** by clicking the radio button and clicking the scroll list to select a valid choice.
  7. Select the **GEOGRAPHIC BREAKDOWN** by clicking a radio button.
  8. Click one of the available buttons:
    - **RESET** – to erase new selections and remain on the screen to make new selections.
    - **CREATE MAP** – plots the map and displays it in a new browser window. Refer to the illustration below.

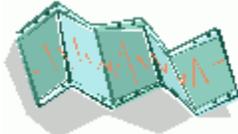
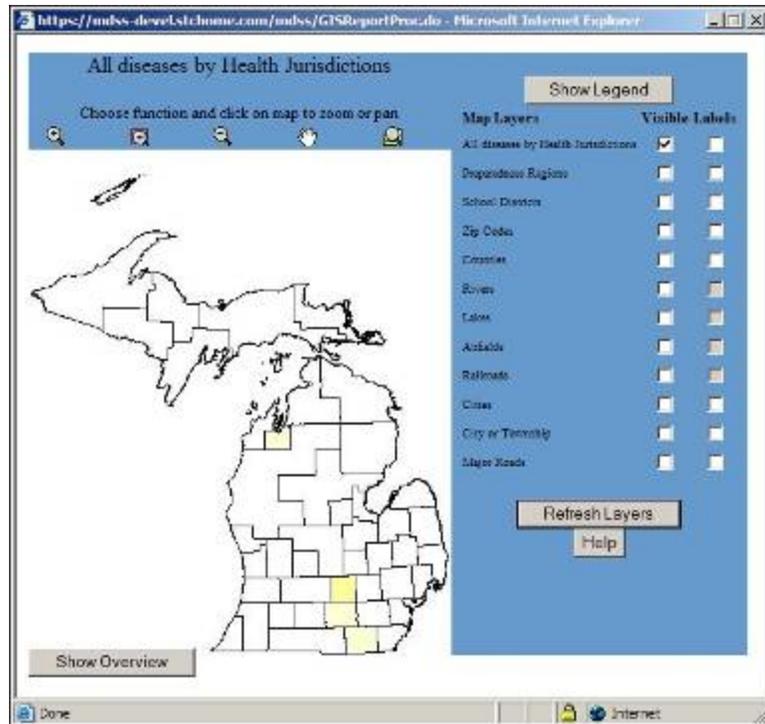


Figure 6-14: GIS Map Example



9. Refer to the chapter titled, “Viewing/Editing Case Details – Map Tab – Navigating the Map” section for instructions on navigating within the map.





## 7 MESSAGES MENU

Selecting the **MESSAGES** menu from the TopBar displays a list of system-wide messages for all MDSS users. All users can view these messages, but only System Administrators can create, edit, or delete them. More information on creating, editing and deleting messages can be found in the MDSS System Administration User Guide.

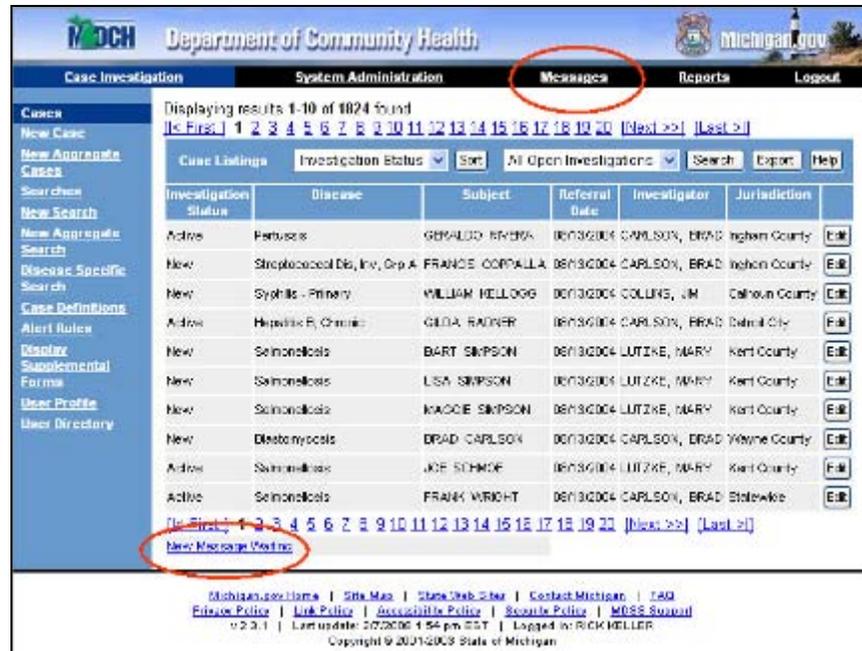
### VIEWING MESSAGES

To view messages, follow these steps:

1. Select the **MESSAGES** menu from the TopBar. You can also click the **NEW MESSAGE WAITING** link, if displayed, at the bottom of the “Case Listings” screen.



Figure 7- 1: Messages Menu and New Message Notification



2. The “Messages List” screen, which shows all messages available for viewing, appears.

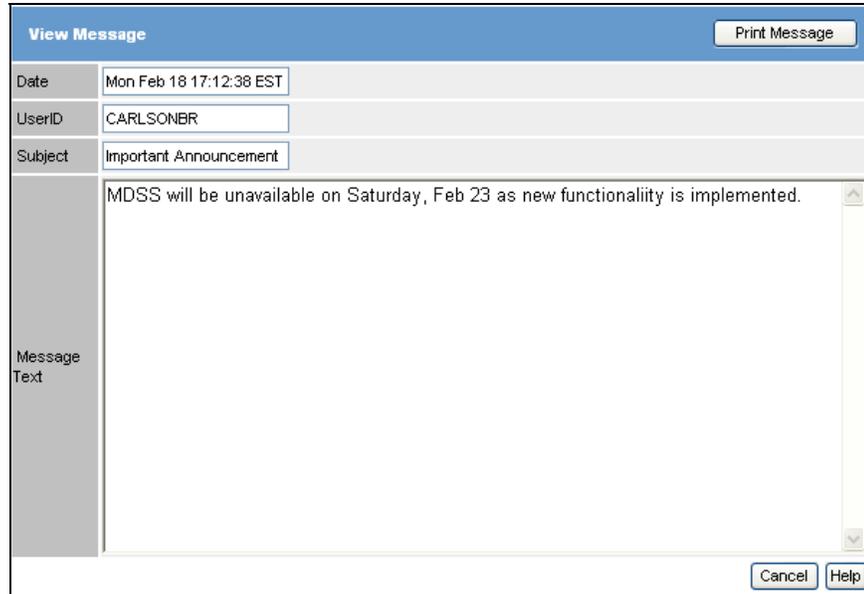
Figure 7- 2: Messages List

Messages List				
Date	User Name	Subject	Active	
Mon Feb 18 17:13:03 EST 2008	CARLSONBR	News from MDCH	true	<a href="#">View</a>
Mon Feb 18 17:12:38 EST 2008	CARLSONBR	Important Announcement	true	<a href="#">View</a>

3. Click **VIEW** to open and read a message.



Figure 7- 3: View Message



4. Click one of the available options:
  - **CANCEL** – returns you to “Messages List” screen.
  - **PRINT MESSAGE** – opens “Print” dialog where you can select a printer and other options for printing the message.
5. You can open other messages or select another menu link from the TopBar or SideBar to exit the “Messages List” screen.



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## 8 GETTING HELP

There are various ways to obtain help when using the application:

- Access the Online Help Facility (described below)
- Refer to the Application User Guide or Quick Reference Pamphlet.
- Contact an MDSS Support Resource:  
[http://www.michigan.gov/documents/MDSS\\_Support\\_Resources\\_87777\\_7.pdf](http://www.michigan.gov/documents/MDSS_Support_Resources_87777_7.pdf)

### ACCESSING ONLINE HELP

The Online Help menu is designed to give the user an online user guide that will explain how to use the application menus and options. It is identical to the printed MDSS Application User Guide.

Selecting the Help button (located throughout the application) opens Online Help in a new browser window.

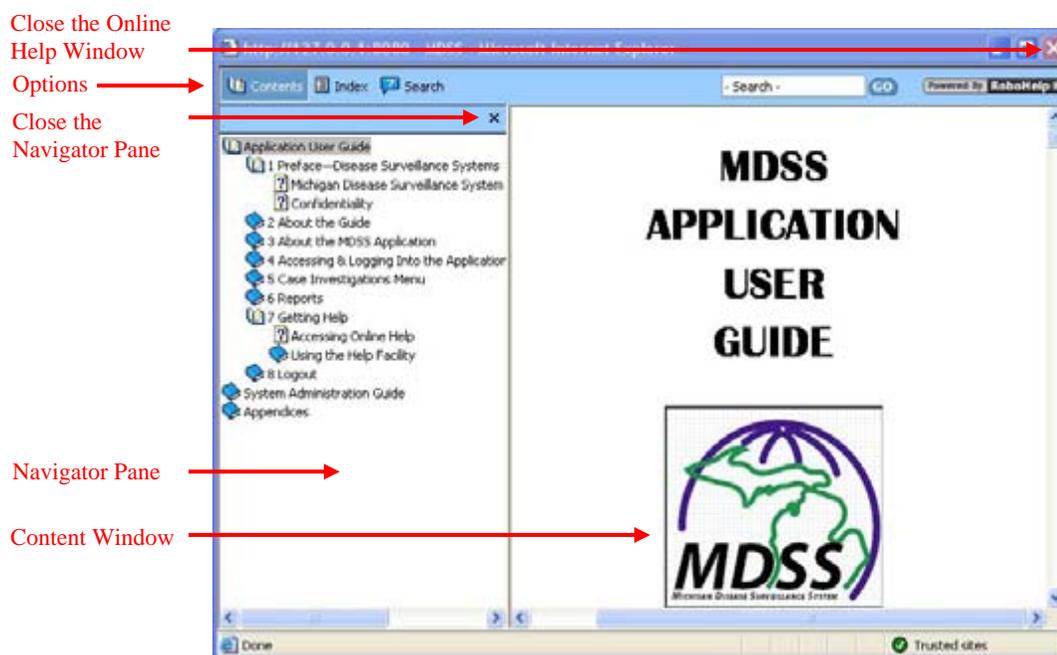
**Figure 8-1: Online Help Button**



Clicking the Help button will open Online Help with the “Table of Contents” displayed within the left navigation pane (referred to as the Navigation Pane) and the screen-specific information displayed in the right-hand content window.



Figure 8-2: Online Help Example



## USING THE HELP FACILITY

While using the Online Help Facility, the following can be done:

- View the Contents
- View an Index
- Perform a Search
- Close the Book

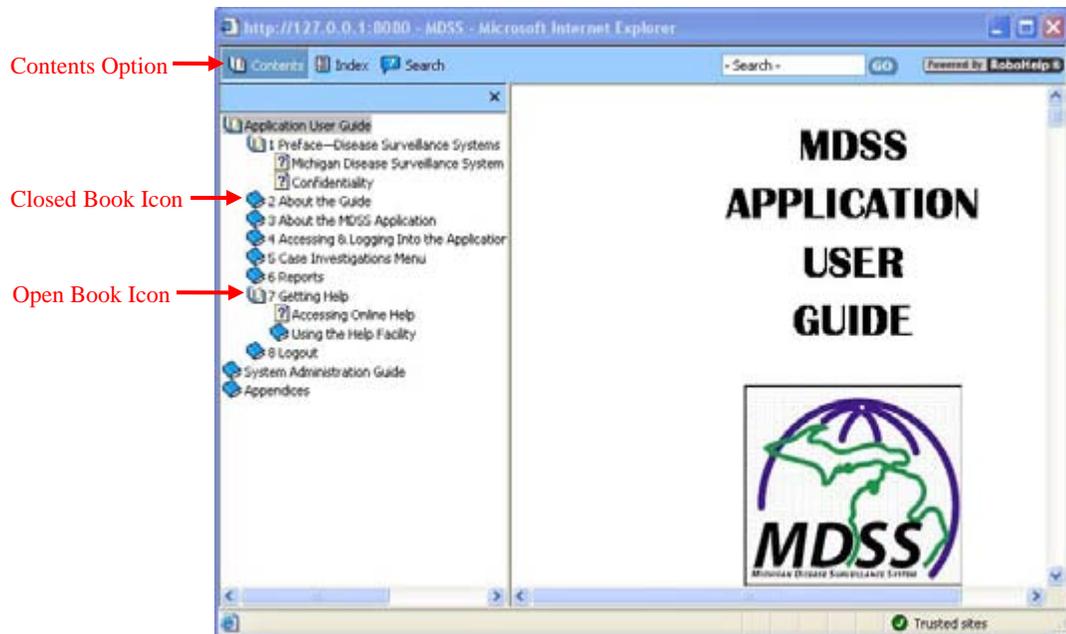
## VIEWING CONTENTS

The Contents option displays the “Table of Contents.” To view the Contents, follow these steps:

1. Click the **Contents** option.



Figure 8-3: Online Help Contents



2. When there is a closed book, click the book icon to view the contents. The closed book will change to an open book indicating the book is open and listing the topics in that book.
3. Point and click the desired topic to view the contents.
4. When you are finished with a topic, you can close the book by clicking on the open book icon.
5. When you are finished viewing Online Help, you can close the window by clicking on the close-window icon located at the top, right corner of the Online Help window.

## VIEWING THE INDEX

The **INDEX** displays an alphabetized list where keywords can be entered. A global search of Online Help is performed to find each occurrence of the keyword.

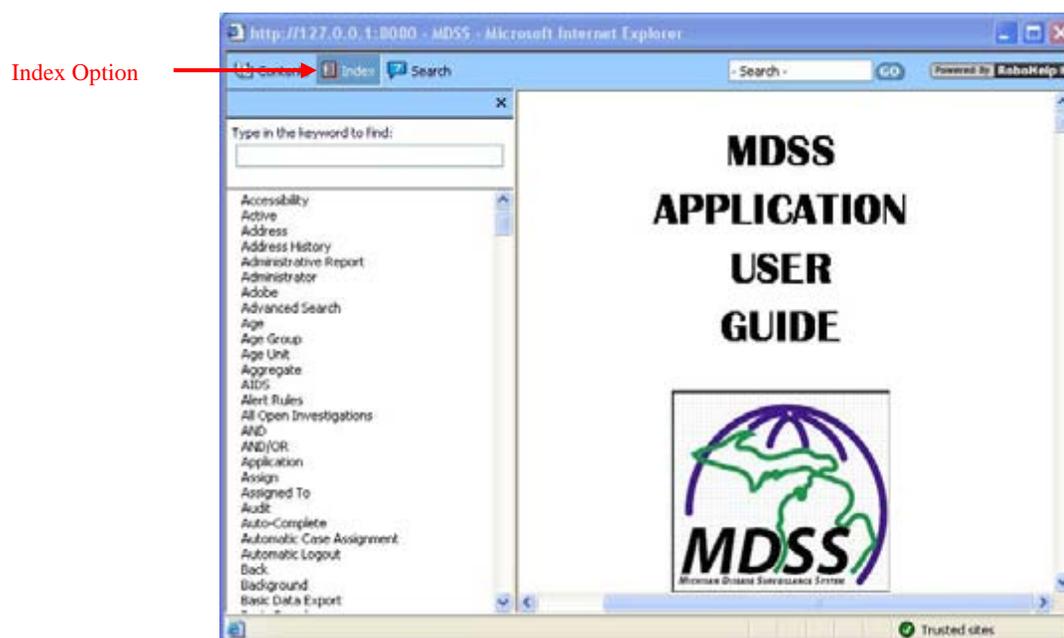


*Note:* Keyword entries are not case-sensitive.

To view the Index information, follow these steps:

1. Click the **INDEX** option.

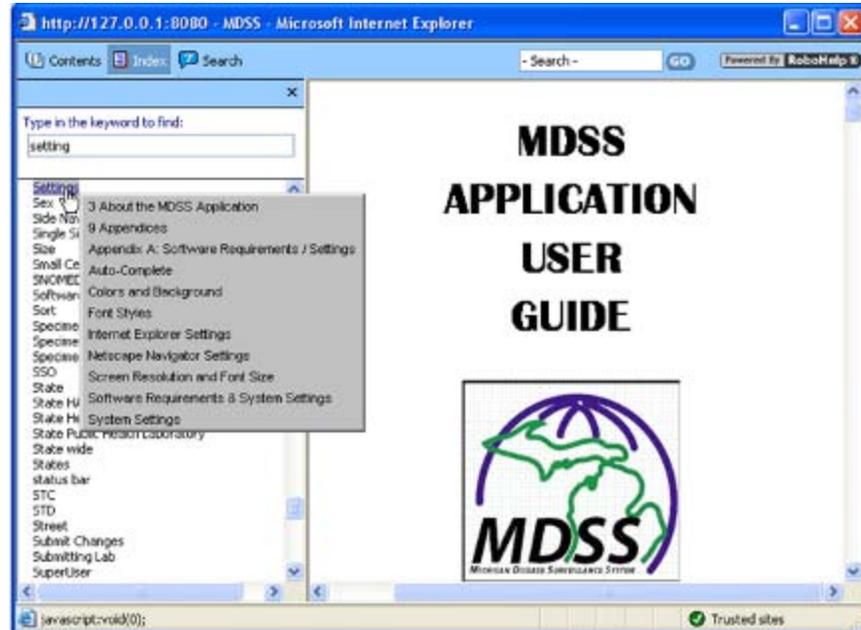
**Figure 8-4: Online Help Index**



2. You can either:
  - Scroll the list to view the contents of the **INDEX**.
  - Type a keyword to immediately reposition the **INDEX** based on the letters you typed. The **INDEX** repositions as the letters are typed and will locate the first occurrence.



Figure 8-5: Index Keyword



3. Point and click on the desired keyword to see the associated topics. In the example above, the window reveals there are multiple topics associated with the keyword “settings.”
4. Point and click the desired topic to view the contents.
5. When you are finished reviewing Online Help, you can close the window by clicking on the close-window icon located at the top, right corner of the Online Help window.

## PERFORMING A SEARCH

The **SEARCH** displays a text field to enter a keyword. A global search of Online Help is performed to find each occurrence of the keyword.

*Note:* Keyword entries are not case-sensitive.



To **SEARCH** Online Help, follow these steps:

1. Click the **SEARCH** option.

Figure 8-6: Online Help Search



2. Type the keyword and press the **GO** key.
3. The search is performed and the “Navigator Pane” fills with the topics.

**Note:** If no matching topics are found, the phrase, “No Topics Found” will appear in the “Navigator Pane.”

4. Locate the desired topic and click it to view it.
5. When you are finished reviewing Online Help, you can close the window by clicking on the close-window icon located at the top, right corner of the Online Help window.



---

## TOGGLING THE NAVIGATOR PANE ON/OFF

You can close the “Navigator Pane” by pressing the “Close-window” icon located at the top, right corner of the “Navigator Pane” window (see Figure 8-2). When the “Navigator Pane” is closed, the content consumes the entire window.

To re-open the “Navigator Pane,” click the **CONTENTS, INDEX** or **SEARCH** option (see Figure 8-2).



---

## 9 LOGOUT

To exit the application, select the **LOGOUT** option from the top navigation bar. Your application session will terminate and you will return to the Application Portal.

If you are done using the Application Portal, make sure you also sign off to prevent unauthorized users from accessing your applications.

### THE LOGOUT PROCESS

The process of logging out performs three important housekeeping functions.

1. It removes any potentially sensitive information that may have been residual from cached files or temporary Internet files on your computer. This is especially important if you are working from a location outside your worksite and others could have access to your computer.
2. It removes your user session and session variables from the server's memory. This speeds up the system by providing additional memory and valuable system resources are freed.
3. It unlocks any case records or Pending Work Queue records that you may have been editing.

### AUTOMATIC LOGOUT

After sixty minutes of continuous inactivity, you will be automatically logged out of the application and the cached files on your local computer will be eliminated. This is referred to as a “session timeout” or a “forced session timeout.”



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When your inactivity time forces a session timeout, any unsaved work will be lost, and a screen will be displayed notifying you that inactivity has forced a logout.

You will be required to log back into the application.

---

## INDEX

### A

action performed ..... 5-74  
address history..... 5-31, 5-33, 5-34  
    create new ..... 5-36  
    edit..... 5-33  
    view ..... 5-33  
aggregate case report ..... 5-113  
    create new ..... 5-114  
    edit..... 5-123  
alerts ..... 5-171  
    create new ..... 5-177, 5-178  
    edit..... 5-180, 5-181  
application See Michigan Disease Surveillance System  
asterisk..... 3-4  
audit..... 5-73, 5-74

### B

back..... 3-3  
background processing ..... 5-100

### C

calendar ..... See javascript calendar  
case ..... 2-1  
case assignment..... 5-113  
case definitions ..... 5-170  
case details ..... 5-13, 5-14  
    edit..... 5-13  
    view ..... 5-13  
case document..... 5-63  
    create new ..... 5-63  
    delete..... 5-65  
    view ..... 5-65  
case listing..... 5-2, 5-3  
case reporting ..... 5-16, 5-17  
    edit..... 5-16  
    view ..... 5-16  
CDC ...See Centers for Disease Control and Prevention  
Centers for Disease Control and Prevention..... 1-1  
checkbox ..... 3-5  
close a case ..... 5-30  
communicable disease surveillance systems ..... 1-1  
CONFIDENTIALITY ..... 1-2

continue ..... 3-3  
control ..... 3-4  
CSV ..... 6-2  
ctrl ..... See control

### D

dates..... 3-2  
DEDUP BUTTON ..... **5-27**  
deduplication ..... 5-102  
    case deduplication ..... 5-110, 5-111  
    identification of possible matches ..... 5-103  
    patient deduplication..... 5-105  
demographics..... 5-37, 5-38, 5-39  
    edit ..... 5-38  
    view..... 5-38  
destroy active login session..... 4-2, 4-6, 4-7  
dialog..... 3-6  
disease specific (PDF) form ..... 5-24, 5-25, 5-26  
    blank ..... See display supplemental forms  
disease specific export ..... See export: disease specific  
display supplemental forms ..... 5-182  
document ..... See case document  
documentation standards ..... 2-2

### E

electronic laboratory report..... 5-46  
ELR..... See electronic laboratory report  
export..... 5-6, 5-7, 5-9  
    disease specific ..... 5-162

### F

field record ..... 5-79, 5-80  
    create new ..... 5-81  
    edit ..... 5-82  
    search..... See searches: field records  
    view..... 5-82  
foot navigation bar..... 3-8  
FootBar ..... See Foot Navigation Bar  
forward..... 3-3

---

<b>G</b>		Login..... 4-3
geocode source..... 5-101, 5-102		<b>logout</b> ..... 4-2, 9-1
geocoding ..... 5-100		automatic..... 9-1
<b>H</b>		<b>M</b>
HAN..... See Michigan Health Alert Network		map ..... 5-66, 5-67, 5-68
Health Insurance Portability and Accountability Act1-1		view..... 5-67
Health Level 7 ..... 1-1, 5-46		MDSS..... See Michigan Disease Surveillance System
help ..... 3-8, 8-4		messages..... 7-1
online..... 8-4		Michigan Disease Surveillance System ..... 1-2
HIPAA..... See Health Insurance Portability and		about..... 3-1
Accountability Act		Michigan Health Alert Network..... 5-173
HL7 ..... See Health Level 7		MMWR ..... 5-21
HTML..... 6-2		mouse..... 3-8
<b>hyperlink</b> ..... 2-1		
<b>I</b>		<b>N</b>
interview record ..... 5-83, 5-84		navigation..... 3-8, 5-3, 5-4, 5-26, 5-67, 5-68
edit..... 5-85		new case entry ..... 5-88
view ..... 5-85		background processing ..... 5-100
<i>investigation</i> ..... 2-1		notes..... 5-61, 5-62
investigation address ..... 5-31		create new ..... 5-62
<b>J</b>		<b>O</b>
javascript calendar..... 3-5		<b>option</b> ..... 2-1
jurisdiction determination ..... 5-113		
<b>K</b>		<b>P</b>
keyboard ..... 3-8		PDF ..... 6-1
<b>L</b>		permissions ..... 4-1
lab test result		<b>person history</b> ..... 5-77, 5-78
create new ..... 5-54		PHIN ..... See Public Health Information Network
delete..... 5-60		phone ..... 3-2
edit..... 5-58		Public Health Information Network ..... 1-1
laboratory report		Public Health Logical Data Model..... 1-1
delete..... 5-60		
laboratory reports..... 5-45, 5-48		<b>R</b>
create new ..... 5-49		radio button ..... 3-5
edit..... 5-56		reassign ..... 5-28, 5-29
view ..... 5-47		referrer ..... 5-42, 5-43
Laboratory reports ..... 5-48		edit ..... 5-42
<b>link</b> ..... 2-1		view..... 5-42
locked..... 5-14, 5-124		refresh ..... 3-3
login ..... 4-3		Report
		Aggregate Cases..... 6-32, 6-33
		GIS Map of Diseases..... 6-34, 6-35
		Report 1
		Line Listing ..... 6-13, 6-15

---

Report 2	
Diseases by Demographics .....	6-16, 6-17
Report 3	
Diseases YTD .....	6-19, 6-20
Report 4	
Diseases - 5 Year History.....	6-21, 6-22
Report 5	
Diseases YTD by Geography.....	6-23, 6-24
Report 6	
Disease History by Geography .....	6-25, 6-26
Report 7	
Diseases by Geography.....	6-27, 6-28
Report 8	
Epi Curve.....	6-29, 6-31
reports .....	6-1
data restrictions.....	6-2
limitations/selection.....	6-6
output formats .....	6-1
parameters	
See reports	
limitations/selection .....	6-6
process of running .....	6-3
roles .....	4-1

## S

screen .....	2-1
search.....	5-5, 5-6
searches .....	5-125
<b>advanced</b> .....	<b>5-129</b> , 5-137, 5-138, 5-139
aggregate.....	5-150, 5-151, 5-152
and/or.....	5-132
<b>basic</b> .....	<b>5-128</b> , 5-136, 5-137, 5-139
create new .....	5-132, 5-136
default .....	5-131
disease specific .....	5-156, 5-157
field records.....	5-166, 5-167
geographic extent.....	5-147
methods.....	5-133, 5-134
saved.....	5-126, 5-127, <b>5-130</b>

search criteria .....	5-136
security.....	1-1
settings.....	3-1
shift .....	3-4
side navigation bar .....	3-7
Side Navigation Bar .....	4-6
SideBar.....	<i>See Side Navigation Bar</i>
small cell count rule .....	6-2
software .....	3-1
sort.....	5-4, 5-5
MILogin.....	4-3

## T

tabs.....	5-14
top navigation bar.....	3-7
Top Navigation Bar.....	4-6
TopBar .....	<i>See Top Navigation Bar</i>

## U

unassigned cases .....	5-87
URL .....	4-3
user directory .....	5-189, 5-190
user profile .....	5-184, 5-185, 5-187
edit.....	5-186
user role .....	<i>See roles</i>

## V

validation error.....	3-2, 3-9
vision .....	1-2

## W

window.....	2-1
-------------	-----

## Z

ZIP codes .....	3-2
-----------------	-----

---