Aggregate Reporting Training

Michigan Department of Community Health
Bureau of Epidemiology
Surveillance Systems Section
Overview of Aggregate Reporting Changes

• Why change aggregate reporting?
  – In anticipation of an influenza pandemic, additional variables needed to be added
  – Greater flexibility for LHDs and MDCH to collect aggregate reports was desired

• How is aggregate reporting different?
  – The new aggregate reporting functions very similarly to individual case entry
  – Aggregate reports can be submitted from multiple sources and by multiple users
  – Counts can be edited after the current MMWR Week
  – Data can be aggregated on either a daily or weekly basis by the MDSS
MDSS Main Page

[Image of MDSS Main Page]

### Case Listings

<table>
<thead>
<tr>
<th>Investigation Status</th>
<th>Disease</th>
<th>Subject</th>
<th>Referral Date</th>
<th>Investigator</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Anthrax</td>
<td>AMY ADAMS</td>
<td>05/16/2007</td>
<td>ELLIOTT, DAWN</td>
<td>Lenawee County</td>
</tr>
<tr>
<td>New</td>
<td>Dengue Fever</td>
<td>ARTHUR FONZERELLI</td>
<td>05/16/2007</td>
<td>ANDERSON, KATHY</td>
<td>Western UP District</td>
</tr>
<tr>
<td>New</td>
<td>Hantavirus</td>
<td>JOE BEUKER</td>
<td>05/16/2007</td>
<td>HARTL, BRIAN</td>
<td>Kent County</td>
</tr>
<tr>
<td>New</td>
<td>Anthrax</td>
<td>YOURA LOONEY</td>
<td>05/24/2007</td>
<td>CARLSON, BRAD</td>
<td>Statewide</td>
</tr>
</tbody>
</table>

Displaying results 2941-2944 of 2944 found

Entering Aggregate Reports
Aggregate Case Entry – Screen 1

Case Investigation

System Administration

Reports

Logout

Aggregate Investigation Information

Reportable Condition*: - SELECT -  
Case Status*: - SELECT -

Cases*:  
Deaths*:  
Reporting Period*: - SELECT -

New Information

Hospitalized(New):  
Isolated(New):  
Quarantined(New):  

Totals

Hospitalized(Total):  
Isolated(Total):  
Quarantined(Total):  

*indicates required items

Continue  Cancel  Help
Aggregate Entry Screen 1 Details

Aggregate Investigation Information

• District health departments need to enter an aggregate report for each county in the district.

• **Reportable Condition:**
  – Displays conditions to be entered in aggregate that are activated on an as needed basis. *Required*

• **Case Status:**
  – Default value of ‘Confirmed’ for all aggregate reports. *Required*

• **Cases and Deaths:**
  – Number of cases and deaths meeting the case definition. *Cases is Required*
  – It is important to enter at least one aggregate report each week for ‘flu-like disease’ reporting. The case count can be 0 and can be edited at a later point in time.
Aggregate Entry Screen 1 Details Cont.

Reporting Period

- Reporting Period is a **Required** Field
- ‘Daily’ or ‘Weekly’: refers to the time period in which the case counts have occurred and 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.
  - 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.
Aggregate Entry Screen 1 Details Cont.
New Information vs. Totals

• **New Information:**
  – Enter the information on the new events that have happened since the last time a report was made.

• **Totals:**
  – Enter the information on the total number of cases that meet the criteria at the time a report is made. These numbers should include the newly reported individuals and any existing individuals who still meet that criteria.

  **Example:**
  • Day 1: 10 people are admitted to the hospital
  • Day 2: 3 people from Day 1 were discharged, but 10 more were admitted.
Aggregate Case Entry – Screen 2

Person Providing Referral
First: John
Last: Smith
Phone (###-###-####): 517-555-1212
Ext: Email:

Source Information
Reporting Source: local public health
Source Description:
Phone (###-###-####): Ext: Email:
Street: 300 S Capitol

City: Lansing
County: Ingham
State: Michigan
Zip:

Case Notes
Test case note for Lyme Disease.

Save & Finish Back Cancel Help
Aggregate Entry Screen 2 Details

• **Person Providing Referral:**
  - Contact information for person entering the report into the MDSS. Will auto-fill with information from user profile, if completed.

• **Source Information:**
  - **Reporting Source Description:**
    - Free text field to enter name of the reporting source (i.e. Ingham county Health Department or Sparrow Hospital)
  - **Reporting Source:**
    - Drop down field listing: local public health, physician, hospital, NEHC, ACC, LTC, school, and other. *Required*
  - **Address Information:**
    - Complete address information for the reporting source. Will auto-fill address from Primary Physician information in the user profile, if completed. *County is Required*

• **Case Notes:**
  - Same notes field that is on all case reports
  - Stamped with time, date, and User ID.
  - Example Entry: List of reporting sources if being aggregated at the county level (i.e. School A, School B, Hospital A, and Nursing Home C).
Searching and Editing
Aggregate Reports
Aggregate Search

- Will search the new type of aggregate case reports only
  - Does not search legacy aggregate cases
  - Does not search individual case reports

- Allows detailed aggregated searches to be performed
Existing Advance Search

• Aggregate Reports can be included in case listings with individual case reports by utilizing the ‘Include Aggregates’ checkbox on the Advanced Search page.

• Example: User wants to display a listing of individually reported influenza cases and aggregate reports of flu like disease.
### Aggregate Case Listing

- Similar to Individual cases except “Aggregate Entry’ is displayed in place of patient name.
Edit Aggregate Report Details

- Allows editing of all previously entered aggregate report information including case counts.
- To edit an aggregate report, search for the report of interest and click the ‘Edit’ button to view the report.
Notes on Editing Aggregate Reports

- Case Status has a preset default value and should not be edited.
- Investigation Status defaults to ‘Completed.’
  - At the LHD, an Administrator is the only role able to open an aggregate report for editing.
  - Don’t forget to change the aggregate report to ‘Completed’ again after editing is complete!
- Referral Date is not editable, but is being planned for a future release.
Reportable Condition*: Lyme Disease
Case Status*: Confirmed
Investigation Status*: Completed

Aggregate Information
MMWR: 36-2007
Cases*: 15
Deaths:
Reporting Period*: WEEKLY

New Information
Hospitalized(New): 5
Isolated(New):
Quarantined(New):

Totals
Hospitalized(Total): 10
Isolated(Total):
Quarantined(Total):

Investigation Address
Street: 300 S CAPITOL AVE
City: LANSING
County: Ingham
State: Michigan
Zip: 48933
Jurisdiction: Ingham County

Investigation Information
Referral Date: 09/06/2007
Investigation ID: 808669604
NETSS ID: 427213
Assigned to: PRYOR, ANNA / Ingham County
Edit Aggregate Report – Referrer Info

Case Investigation | System Administration | Reports | Logout
---|---|---|---
Cases
New Case
New Aggregate Cases
Searches
New Search
New Aggregate Search
Disease Specific Search
Case Definitions
Alert Rules
Display
Supplemental Forms
User Profile
User Directory

### Case Reporting

#### Person Providing Referral

- **First**: JOHN
- **Last**: SMITH
- **Phone**: 517-555-1212
- **Email**: 

#### Source Information

- **Reporting Source**: LOCALHEALTH
- **Source Description**: 
- **Street**: 300 S CAPITOL AVE
- **Geocode Source**: CGI
- **City**: LANSING
- **County**: Ingham
- **State**: Michigan
- **Zip**: 48933
Notes Page

No change from existing functionality
Audit Page

No change from existing functionality
Exporting Aggregate Reports
Exporting Aggregate Reports

- Data from aggregate case reports can be exported into a .csv format for use in other applications.
- All fields from the aggregate case report data entry screens are included in the export.
- Aggregate case reports are exported by clicking on the ‘Export’ button on the top right hand corner of the MDSS case listings screen.
Export Aggregate Case Reports Example
Aggregate Reports
Aggregate Reports

- Reports summarizing aggregate case counts can be obtained through two methods
  - New Aggregate Report
  - Including aggregate case counts in existing MDSS reports (*This will be included in a future release*)

- Daily reports can be aggregated in reports on a daily, weekly or monthly basis.
- Weekly reports can only be aggregated in reports on a weekly or monthly basis.
Aggregate Reports

Report 10 Aggregate Reports

Time Period
- Month: October
- Year(yyyy): 2007
- Week: 40-2007
- From Date (mm/dd/yyyy): [blank]
- To Date (mm/dd/yyyy): [blank]

Time Interval
- By Month
- By Week
- By Day

Case and Investigation Status
- Case Status: Confirmed, Not a Case, Probable
- Investigation Status: Active, Canceled, Completed

Geographic Area
- Region
- County
- Local Health Jurisdiction

Aggregate Statistics
- Count
- Deaths
- New Hospitalized
- Total Hospitalized
- New Isolated
- Total Isolated
- New Quarantined
- Total Quarantined

Aggregate Conditions
- Condition

Reporting Source
- Source: ACC, LTC, NEHC

*indicates required items
The first release will allow reporting on one variable.

Follow up releases will allow reporting on multiple variables as the example shows.
Aggregate Cases Added to Existing Reports

* This functionality will be released at a later time
Example Report

Report 3: YTD Table of Diseases for a Given Year
Report generated: 05-29-2007
Year: 2005
Display Interval: 8 weeks
Report Type: Counts

Case Status: Confirmed
Case Type: Individual, Aggregate
Investigation Status: Active, Completed, New
Geographic Area: The State of Michigan

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<thead>
<tr>
<th>Disease Group</th>
<th>Disease</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS/HIV</td>
<td>AIDS, Aggregate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>AIDS, Pediatric</td>
<td>0</td>
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<td>HIV, Adult</td>
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<td>HIV, Pediatric</td>
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<td>0</td>
<td>0</td>
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<td>AIDS/HIV</td>
<td>Subtotal</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Foodborne</td>
<td>Amebiasis</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>15</td>
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<tr>
<td></td>
<td>Botulism - Foodborne</td>
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<td>5</td>
<td>7</td>
<td>5</td>
<td>24</td>
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<td></td>
<td>Escherichia coli 0157:H7</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>10</td>
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<td></td>
<td>Giardiasis</td>
<td>52</td>
<td>58</td>
<td>51</td>
<td>57</td>
<td>57</td>
<td>265</td>
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<tr>
<td></td>
<td>Listeriosis</td>
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<td></td>
<td>Salmonellosis</td>
<td>44</td>
<td>50</td>
<td>66</td>
<td>62</td>
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<tr>
<td></td>
<td>Shiga toxin, E. Coli, Non 0157</td>
<td>0</td>
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<td>0</td>
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<td>0</td>
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<tr>
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<td>Shiga toxin, E. Coli, Unsp</td>
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<td>0</td>
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<td>2</td>
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<tr>
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<td>Yersinia enteritis</td>
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<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Foodborne</td>
<td>Subtotal</td>
<td>100</td>
<td>103</td>
<td>104</td>
<td>100</td>
<td>212</td>
<td>973</td>
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<tr>
<td>Meningitis</td>
<td>Meningitis - Aseptic</td>
<td>73</td>
<td>41</td>
<td>44</td>
<td>60</td>
<td>66</td>
<td>264</td>
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<tr>
<td></td>
<td>Meningitis - Bacterial Other</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Meningococcal Disease</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Streptococcus pneumoniae, Inv</td>
<td>26</td>
<td>52</td>
<td>66</td>
<td>66</td>
<td>40</td>
<td>223</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Subtotal</td>
<td>114</td>
<td>106</td>
<td>109</td>
<td>124</td>
<td>105</td>
<td>555</td>
</tr>
<tr>
<td>Other</td>
<td>Animal Bite</td>
<td>89</td>
<td>86</td>
<td>118</td>
<td>147</td>
<td>126</td>
<td>544</td>
</tr>
<tr>
<td></td>
<td>Anthrax</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<td></td>
<td>Staphylococcus</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

* This functionality will be released at a later time
Additional Notes on Aggregate Reporting
Next steps

• Using the new aggregate entry screens, report aggregate “flu-like disease” to MDCH once a week.
  – It is important to report by the close of business on Friday to ensure the counts are assigned to the proper MMWR week (referral date is not editable)
  – Only the fields marked with an asterisk (*) are required (n=6); LHDs may fill out the other fields as desired

• MDCH may request, in the future, that other reportable conditions are entered in aggregate. Additional information will be shared if this is necessary.

• LHDs may elect to enroll schools and/or daycares on the MDSS as healthcare providers and ask them to report individual and aggregate cases on a weekly basis.
  – LHD will be responsible for training and managing local users
What about the legacy aggregate reports?

- Existing “Aggregate Cases” link will be removed for LHD users
  - MDCH users will continue to add HIV and TB numbers in aggregate through the System Administration module

- All users will still be able to run reports containing legacy aggregate counts
More Information?

Contact Your Regional Epidemiologist

- OR-

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MDSS Information Available on the Web
http://www.michigan.gov/mdss