STD Surveillance, Case Management and MAVEN
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Take Away Messages

- The role of ISIS
- MAVEN General Features
- What is an Event in MAVEN
- What is the Person in MAVEN
- MAVEN Vocabulary
  - Dashboard buttons
  - Person tab, Lab tab, Event Data tab
  - Question Packages
What Is Infectious Disease Surveillance?

- **Definition**
  - the routine collection, analysis, interpretation and distribution of data
- **Goal**
  - reduce morbidity and mortality through the control and/or prevention of disease
- **Systematic and ongoing**
Surveillance System Components

- Action
- Distribution
- Data analysis
- Control
- Reporting
- Case Investigation
- Outbreak Investigation
- Epidemiologic Research
Using Surveillance Data

- To monitor disease trends over time
- To rapidly detect increases in disease occurrence
- To implement control measures
- To identify high-risk groups
- To allocate resources & guide public health policy and action
• Creation of Office of Integrated Surveillance and Informatics Services (ISIS) 2004
  – staff of 25-30: epidemiologists, informaticians, and research analysts
  – funded by numerous cooperative agreements and state funding streams including ELC, PHEP, IMM, STD, HIV, SSRI and TB
  – epidemiologist liaison to each programmatic area within Bureau
  – close collaboration with IT staff and BID Divisions
ISIS

Goal of ISIS: Ensure the timely and accurate processing of critical infectious disease information in order for STI Health Navigators, epidemiologists and nurses at the state and local health level to conduct public health investigations.

- implement an **extensible, flexible, dynamic** surveillance system (MAVEN and ELR/EHR) allowing complete data capture for changing public health needs
  - design systems and processes related to information flows; establish business requirements for data, new workflows and reports, model changes, and transmission of data to CDC
  - ensure data collection and informatics standards are consistent with state and national standards
  - provide technical assistance and training for MAVEN users
- serve as single point of contact for disease reporting purposes
- monitor disease trends to guide public health practice
ELR of Infectious Diseases

- Automated electronic reporting of infectious diseases
- Replaces fax, email, and ad hoc electronic data
- Does not eliminate reporting by phone those cases that may require a public health intervention *immediately and upon suspicion*
## Electronic Data Processing

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of clinical laboratories transmitting ELR</td>
<td>72</td>
</tr>
<tr>
<td>Commercial laboratories transmitting ELR</td>
<td>2</td>
</tr>
<tr>
<td>Laboratories and hospitals sending paper reports</td>
<td>2 (smaller hospitals)</td>
</tr>
<tr>
<td>Teleform Case Reports processed*</td>
<td>~ 80,000</td>
</tr>
<tr>
<td>ELR reports</td>
<td>~ 1,500,000</td>
</tr>
</tbody>
</table>
MAVEN - Background

PHIN-compliant, secure web-based disease surveillance and case management system for use by MDPH and local health

- single integrated person-based system
- captures all data elements required for surveillance and case management
- interfaces with the HIE for timely and electronic notification of laboratory reports
- streamlines business processes for case investigation and surveillance
General Features

- Complete data capture in single integrated system across BID
- Disease specific question packages
- Workflow management
- Contact investigations
- Real-time information sharing
- Outbreak response
- Reports and data extracts
- ELR/ EHR interface
This is an Internet-Based System!

• The website uses the same encryption technology as the banking industry
• It can be accessed from ANYWHERE
• Therefore, it’s only as secure as the user:
  - You should never log on from a public place
  - Only use from home when directed to do so by your supervisor (only if absolutely necessary)
  - Have a strong password that you don’t share
  - Never log in as anyone else
Other Security Features

• Access is limited by user’s roles/groups
  - STD Program will not see Epi Program events
  - Local Health Department users see only their residents and only disease events that they have access to – No LBOHs see STD events through MAVEN
  - Some information within events may be limited

• Workflows and reports are restricted based on user
Events in MAVEN are attached to a core set of basic demographic information – we call it the Person

- An Event has an Event ID
- A Person has a Person ID
- A Person may have many kinds of events
  - For example, a Person in MAVEN might have a syphilis event, a hepatitis C event and an HIV event
<table>
<thead>
<tr>
<th>Event ID</th>
<th>Person</th>
<th>Birth Date</th>
<th>Status</th>
<th>Event</th>
<th>Create Date</th>
<th>Event Date</th>
<th>Person ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>100009954</td>
<td>George Herbert Clooney</td>
<td>01/09/1952</td>
<td>Open</td>
<td>TB-LTBI</td>
<td>09/24/2010</td>
<td>09/24/2010</td>
<td>PBEEEJWJD Zombie</td>
</tr>
<tr>
<td>100009952</td>
<td>Geraldine Clooney</td>
<td>03/12/1999</td>
<td>Open</td>
<td>Refugee</td>
<td>09/24/2010</td>
<td>09/24/2010</td>
<td>PBEETFLABEBV</td>
</tr>
<tr>
<td>100009951</td>
<td>Melissa Clooney</td>
<td>05/14/1969</td>
<td>Open</td>
<td>Refugee</td>
<td>09/24/2010</td>
<td>09/24/2010</td>
<td>PBEETFJFEBN</td>
</tr>
<tr>
<td>100009921</td>
<td>George Herbert Clooney</td>
<td>01/09/1952</td>
<td>Open</td>
<td>Refugee</td>
<td>09/22/2010</td>
<td>09/22/2010</td>
<td>PBEEEJWJD Zombie</td>
</tr>
<tr>
<td>100005702</td>
<td>George Clooney</td>
<td>05/05/1995</td>
<td>Open</td>
<td>Streptococcus Pneumoniae</td>
<td>02/05/2009</td>
<td>05/17/2008</td>
<td>PBYDZWBZH XYZ</td>
</tr>
<tr>
<td>100004642</td>
<td>George Clooney</td>
<td>05/05/1955</td>
<td>Closed</td>
<td>Lyme Disease</td>
<td>08/19/2008</td>
<td>08/14/2008</td>
<td>PBYDXEZXEMIKA</td>
</tr>
<tr>
<td>100004221</td>
<td>George Clooney</td>
<td>05/05/1955</td>
<td>Open</td>
<td>Lyme Disease</td>
<td>06/25/2008</td>
<td>06/25/2008</td>
<td>PBYDYNFGJYQTHK</td>
</tr>
<tr>
<td>100004065</td>
<td>George Clooney</td>
<td>04/04/1954</td>
<td>Closed</td>
<td>Hepatitis A</td>
<td>06/17/2008</td>
<td>06/17/2008</td>
<td>PBYDYZOGTBZX</td>
</tr>
<tr>
<td>100004030</td>
<td>George Clooney</td>
<td>06/15/1960</td>
<td>Open</td>
<td>Lyme Disease</td>
<td>06/17/2008</td>
<td>06/17/2008</td>
<td>PBYDZHLBJHHG</td>
</tr>
<tr>
<td>100003565</td>
<td>George Clooney</td>
<td>05/05/1955</td>
<td>Closed</td>
<td>Hepatitis A</td>
<td>05/12/2008</td>
<td>05/12/2008</td>
<td>PBYDXEZXEMIKA</td>
</tr>
</tbody>
</table>

Event ID – The random number associated with the event
Person ID – The random number associated with the Person
Which other line contains the same person as the one circled?
Which other line contains the same person as the one circled?
MAVEN vocabulary to know by the end of the demo

Dashboard buttons

Tabs

Question Packages
Tabs

Click on tabs to access different types of information

Event Information

Question Packages

01. Administrative
02. Demographic
03. Clinical
04. Field Investigation
05. Risk History
06. Provider/Patient Interaction Log
Tabs

Event Data tab = Question Packages
Lab Results tab = Laboratory information
Person tab = Name, Gender, Date of Birth, Address

Event Data = specific to the disease event
Lab Results = specific to the disease event
Person tab = spans all disease events affiliated with the individual
Person Tab

- Where Demographic information for the Person is stored
- Where the user can edit the Address, Name, Alias, Gender and Birth date for a Person
- This is where the CURRENT ADDRESS is stored as well as address history
- Updated by anyone with access to any event affiliated with the Person
Lab Tab

• Where Laboratory information is stored and viewed
• Labs are updated by ISIS staff
• Double click on the highlighted line to access more information
Event Data Tab

- Where Question Packages are accessed
- Question Packages are groupings of variables
- Where event specific data are viewed and stored
Question Packages

• Group, view, update and store information for the event
• Double click on the question package to open it
• Hit Save or Cancel
Dashboard Buttons

- Buttons are how the user performs functions such as create a case, search for an event, and view recent events.
- Three for this demo:
  - Paper = create an event
  - Magnifying glass = search for an event
  - Pushpin = list of recently viewed events
Scenario: ISIS receives a Syphilis lab

- Positive lab received either via fax or via electronic laboratory reporting
  - If received on paper: ISIS data entry staff search for the event in MAVEN and enters lab into event or creates new event
  OR
  - If received via ELR: MAVEN automatically appends info to an existing event or creates a new event
- MAVEN generates notification for ISIS staff to review syphilis labs
- If the labs indicate that field investigation is necessary, based on the reactor grid, then ISIS staff update the variable Field Investigation Required to Yes
- The event flows into a workflow for DIS Assignment
Logging in to the Training Site
Splash Screen

### Maven Disease Surveillance Suite - TEST

#### Workflows
- Clinical review required: 1 (0)
- Interview Pending: 2 (0)
- Notification for DIS Assignment: 3 (0)
- Syphilis lab review: 1 (0)

#### Tasks
- No tasks to display

#### Recent Events
- Duck, Donald: Syphilis
- Duck, Danielle: Chancroid
- Duck, Darby: PID
- Duck, Donald: Chlamydia
- Moses, Mickey: Chlamydia

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#### Maven System News

The links to last week's Viral Hepatitis Webinar/Presentation can be found by clicking on the following hyperlinks: PowerPoint and Webinar Recording. You can also find these documents within the Help Section under ePostcards/Webinars.

The Massachusetts TB Program has realigned the Tuberculosis Surveillance Areas (TSAs) and some communities have been re-assigned. This change will be effective May 1, 2014. Please find the new TSA assignments under the Help section.

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#### Maven System Support

If you encounter a problem in Maven, please e-mail lsishelp@state.ma.us Please provide detailed information such as date, time, description, username, contact information, and attach screen shots. If you encounter an error message, copy and paste the details into your email.

Remember to update your security questions and contact information in the event that you need to reset your password. Password reset functionality is accessed through the logon page or by contacting the Virtual Gateway Customer Service, Monday through Friday 8:30 am to 5:00 pm at 800-421-0638 (Voice) and 617-847-6578 (TTY for the deaf and hard of hearing).
Next Steps

- MAVEN Training Site Access
  - Log on to the training site with your username and password
- Online Training
- Homework
- In person training
- MAVEN Proficiency Review