ANNOUNCEMENTS

- All participants must register for the Monthly Disease Surveillance Trainings in order for us to provide CMEs/CNEs:
  1. Log-on or Request log-on ID/password: https://tiny.army.mil/r/zB8A/CME
  2. Register at: https://tiny.army.mil/r/LEAid/EpiTechFY15
- Communicate with your Service surveillance hub to ensure you get information on future trainings and past recordings: POC info in chat box
- Confirm attendance for today’s training:
  - Enter your name/service into chat box or email your Service hub
  - You will receive a confirmation email within the next 48 hours
  - If you do not receive this email, please contact us
- Please put your phones on mute when not speaking
Making the Most of ESSENCE

Presented by: Courtney Rudiger
Disease Surveillance Monthly Training
26 May 2015
Objectives

- Describe what ESSENCE is and what data are available within the system
- Describe the RME module and its utility
- Describe user-defined sites and syndromes and how these are useful for routine surveillance
What is ESSENCE?

**Electronic Surveillance System for the Early Notification of Community Based Epidemics**

- The DoD’s syndromic surveillance tool (DoDI 6200.03)
- Web based surveillance system
- Recognition of suspected or confirmed medical events or disease outbreaks
What Does ESSENCE Support?

- **DoDD 6490.02E (Comprehensive Health Surveillance)**
  - Medical surveillance systems shall continuously capture data about individual and population health status, and instances of disease and injury.

- **DoDI 6200.03 (Public Health Emergency Management within the Department of Defense)**
  - Ensure appropriate syndromic surveillance is being conducted to assess threats to public health through the use of ESSENCE or other established surveillance systems. On DoD installations in the United States, ensure two trained ESSENCE users are actively monitoring ESSENCE, which is the syndromic surveillance tool for the Department of Defense.
Data in ESSENCE

- Health Encounters (outpatient only)
  - ICD9/ICD10 codes
  - Chief Complaints

- Laboratory

- Pharmacy

- Radiology
Data in ESSENCE

Data are grouped into multiple modules for querying:

- Syndromes
- D&I (Disease & Injury; formerly DNBI)
- RME (Reportable Medical Events)

ESSENCE Syndrome Categories:

- Botulism-like
- Fever (Unexplained)
- Gastrointestinal
- Hemorrhagic Illness
- Influenza-Like Illness (ILI)
- Influenza Specific
- Localized Cutaneous Lesion
- Neurological
- Rash
- Shock/Coma/Death
RME Module

- Queries ESSENCE data for reportable medical events based on the Armed Forces Reportable Medical Events Guidelines (2012)
- ICD-9/ICD-10 codes, laboratory test names
- No alerts function available for the RME module at this time
The RME module can be queried the same way that encounters are queried for syndromes or D&I categories:
RME Module

- Laboratory ‘flags’ are based on the name of the lab test. Example:
  - CAMPYLOBACTER
  - CAMPYLOBACTER AB PANEL
  - CAMPYLOBACTER CULTURE
  - CAMPYLOBACTER ID
  - CAMPYLOBACTER INTESTINALIS AB
  - CAMPYLOBACTER JEJUNI
  - CAMPYLOBACTER JEJUNI AB
  - CAMPYLOBACTER SP.AB
  - SALMONELLA+SHIGELLA+CAMPYLOBACTER CULTURE
  - SALMONELLA+SHIGELLA+CAMPYLOBACTER+ESCHERICHIA COLI O157:H7 CULTURE

- ESSENCE does not interpret results

- Some laboratory tests may not have reportable results
  - Example: IgG tests/immunity tests
## RME Module

Available with Level II access

<table>
<thead>
<tr>
<th>Encounter/Order Date</th>
<th>Disp</th>
<th>PIN</th>
<th>Age</th>
<th>ICD</th>
<th>ICD Description/Test Name</th>
<th>Category</th>
<th>MTF</th>
<th>Clinic Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>27/Jan/2015</td>
<td>OUT:Outpatient</td>
<td>18</td>
<td>n/a</td>
<td>RUBEOLA VIRUS IGG</td>
<td>Measles</td>
<td></td>
<td>Primary Care</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>MEPRS</th>
<th>FMP</th>
<th>Provider</th>
<th>PatCat</th>
<th>Lab Results</th>
<th>More Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Corps</td>
<td>BHAA</td>
<td>20</td>
<td></td>
<td>M13</td>
<td>A</td>
<td>Lab Results</td>
</tr>
</tbody>
</table>

A=Available  
P=Pending  
N=None
• A positive measles IgG is not reportable.
• Test ordered “RECRUIT IMMUNITY PANEL” also indicates immunity testing
RME Module

- Regular monitoring of the RME module allows the user to learn what to expect for the locations they monitor.
- Some “noise” is unavoidable but you learn to look past this.
- Other “noise” can be fixed:
  - Example: A group of Marines is flagged for the reportable event yellow fever with encounters containing the ICD-9 code 060.0
  - A ‘cluster’ of cases for a vaccine-preventable disease is likely a group vaccination and were incorrectly coded with the disease code, not the vaccine code
  - Talk with your immunizations personnel when things like this occur.
User-Defined Sites

- A “site” in ESSENCE is a group of MTFs that can be queried.

- System-defined sites include:
  - States
  - Countries (OCONUS)
  - Metropolitan areas
  - Army/Navy/Air Force medical regions

- User-defined sites allow the user to group MTFs together in ways that are more efficient for their routine surveillance.
User-Defined Sites

<table>
<thead>
<tr>
<th>Add / Edit User Defined Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Name:</strong> Portsmouth</td>
</tr>
<tr>
<td><strong>Location:</strong> MTF</td>
</tr>
<tr>
<td>![Lookup MTF][1] ![Delete MTF][2]</td>
</tr>
</tbody>
</table>

---

**Search MTF**

<table>
<thead>
<tr>
<th>MTF Search</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service:</strong> Navy</td>
</tr>
<tr>
<td><strong>MTF:</strong> Oceana</td>
</tr>
</tbody>
</table>

![Search][3] ![Select][4]

<table>
<thead>
<tr>
<th>MTF</th>
<th>DMIS ID</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIRGINIA BEACH - NBHC OCEANA</td>
<td>0387</td>
<td>N</td>
</tr>
</tbody>
</table>
User-Defined Sites

New site appears in the list of user-defined sites:

![List of user-defined sites with a new entry labeled Portsmouth added.](image)
User-Defined Sites

Site also appears in list of sites to select for queries:
User-Defined Sites

- Similar to system-defined sites, specific MTF(s) from a user-defined site can be selected from a query.
  - All MTFs will include all MTFs in the selected site for the query.

![Current Data Query Selections](image)

![Next Selections](image)
User-Defined Syndromes

- User defined syndromes allows users to make their own syndrome groups in addition to the predefined syndromes.
  - Can use the following to define a syndrome:
    - ICD9-ICD10 diagnosis codes
    - GC3 codes (pharmacy)
    - CPT codes (laboratory and radiology)
    - Chief Complaint sub-syndrome or keywords
User-Defined Syndromes

- User defined syndromes can be shared among ESSENCE users.
- Note that there is no setting to restrict who can see the syndrome. Once it is shared, it is shared with ALL ESSENCE users.
User-Defined Syndromes

- To search for a shared syndrome:

- A list of all syndromes, both system and user-defined, will appear.
  - List can be searched by syndrome or user name.
User-Defined Syndromes

<table>
<thead>
<tr>
<th>User Name</th>
<th>Syndrome Name</th>
<th>Descr</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELL.ROBERT.Emerson</td>
<td>allergic rhinitis</td>
<td>Test UDS- For Testing user health use</td>
</tr>
<tr>
<td>Vaidya.Ashok.C.</td>
<td>Abdominal Pain</td>
<td>Test</td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Amebiasis</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Anthrax</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Antiviral</td>
<td></td>
</tr>
<tr>
<td>Trivedi.Pramesh.J</td>
<td>ARTHRITIS</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Botulism</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Botulism-like</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Brucellosis</td>
<td></td>
</tr>
<tr>
<td>SYSTEM</td>
<td>Campylobacter infection</td>
<td></td>
</tr>
</tbody>
</table>
User-Defined Syndrome

User-defined syndromes appear at the bottom of the syndrome list when querying syndromes:
User-Defined Sites and Syndromes

- Using these user-defined functions allow for greater versatility for ESSENCE queries.
- Provides the ability to customize both the search area and the illnesses/conditions to those of greatest interest to the user.
- Sharing user-defined syndromes helps customize the use of ESSENCE among users responsible for the same area/region.
More ESSENCE Help and Information

  - ESSENCE Registration Guide
  - Creating a Pneumonia User-Defined Syndrome

  - Note: MHS Learn courses migrate to Joint Knowledge Online (JKO) by 31 May
Contact Information

- **Army:** USAPHC – Disease Epidemiology Program  
  Aberdeen Proving Ground – MD  
  Comm: (410) 436-7605  DSN: 584-7605  
  [usaphc.disease.epidemiology@us.army.mil](mailto:usaphc.disease.epidemiology@us.army.mil)

- **Air Force:** Contact your MAJCOM PH or USAFSAM/PHR  
  USAFSAM / PHR / Epidemiology Consult Service  
  Wright-Patterson AFB, Ohio  
  Comm: (937) 938-3207  DSN: 798-3207  
  [USAFSAMESSENCE@us.af.mil](mailto:USAFSAMESSENCE@us.af.mil)
Contact Information

- **Navy**: NMCPHC Preventive Medicine Programs and Policy Support Department
  - COMM: (757) 953-0700; DSN: (312) 377-0700
  - Email: usn.hampton-roads.navmcpubhlthcnenpors.list.nmcphc-threatassess@mail.mil

- **Navy Environmental and Preventive Medicine Units (NEPMU)**
  - **NEPMU2**
    - COMM: (757) 953-6600; DSN: (312) 377-6600
    - Email: NEPMU2Norfolk-Threat-MedEpi@med.navy.mil
  - **NEPMU5**
    - COMM: (619) 556-7070; DSN (312) 526-7070
    - Email: HealthSurveillance@med.navy.mil
  - **NEPMU6**
    - COMM: (808) 471-0237; DSN: (315) 471-0237
    - Email: usn.jbphh.navenpvntmedusixhi.list.nepmu6@mail.mil
  - **NEPMU7**
    - COMM (international): 011-34-956-82-2230 (local: 727-2230); DSN: 94-314-727-2230
    - Email: NEPMU7@eu.navy.mil