Announcements

• Register for the Epi-Tech Trainings:
  1. Log-on or Request log-on ID/password: https://tiny.army.mil/r/zB8A/CME

  – Please enter your name/service and e-mail into the chat box to the left or email the disease epidemiology program at: USAPHC.Disease.Epidemiology@us.army.mil
  – You will receive a confirmation email within the next 48 hours with your attendance record

• Please mute your phones and DO NOT place us on hold. Press *6 to mute your phone.
ESSENCE Epi-Tech Training

LCDR Rhonda Lizewski
Armed Forces Health Surveillance Center
25 MAR 2014
Objectives

- Brief ESSENCE Background
- Military policy requiring ESSENCE use
- ESSENCE access for new users
- ESSENCE data overview
- ESSENCE nuts & bolts of use for
  - Syndromic Surveillance and Alerts
  - What to investigate
  - Daily case finding
  - Reportable Events
  - Helpful hints
  - Best practices
  - More Training
ESSENCE Background

• Electronic Surveillance System for the Early Notification of Community-based Epidemics
  – Web-based medical surveillance system that utilizes specific detection and alert algorithms
  – Provides structured analysis, ad hoc queries, and create reports
  – Alerts are statistically relevant spikes - not necessarily outbreaks
  – Currently ESSENCE v4 Block 3
MTF ESSENCE Policy

• DoDI 6200.03
  – 2 ESSENCE users per DoD installation CONUS
  – “Maintain close contact and coordination with local ESSENCE monitors and their Service PHC”

• DoDD 6490.02E
  – Comprehensive Health Surveillance references DoDI 6200.03

• Army AR40-5
  – Requires medical surveillance; monitoring ESSENCE fulfills that requirement

• Navy BUMEDINST 3440.10
  – MTFs are required to do surveillance for outbreaks; monitoring ESSENCE fulfills that requirement

• AFI 48-105
  – 1.10.6 states Public health will conduct syndromic surveillance; ESSENCE fulfills that requirement
  – 1.10.6.10 Reviews MTF syndromic surveillance includes respiratory, gastrointestinal, febrile, and dermatological conditions
How to Access ESSENCE

• Acquire your Information Assurance (IA) Certificate
• Forward IA Cert to dhssaccess@tma.ods.mil
• Register your CAC
  – Web based form (See link on Slide 4)
• Military/Government Approval levels:
  – Commander/Supervisor
  – IA/ISO (only if using application on mobile device)
  – DHSS Access Approver
  – DHSS Government Approver (ESSENCE Program Manager or FHP&R Lead)
• Contractor
  – Government Sponsor (your COR)
  – IA/ISO (only if using mobile device)
  – DHSS Access Approver
  – DHSS Government Approver (your COR)
User Profile

Name: Your Name
Rank: 
Title/Position: 
DN: 
Primary Email: your@email
Commercial Phone: 

Application Access Type

Access Requested* ☑ New ☐ Change ☐ Deactivate

Applications

Select Required Application* ESSENCE

Essence Access Level

The official duties of this individual require the following level of access (choose one)*
Who should apply for Level II? If you are unclear, please read here

☐ Level I: User will not have access to any type of patient level data.

☐ Level II: User will have access to patient level data for records associated with the user's relevant Military Treatment Facility and corresponding DMIS ID Family (parent & associated children DMIS ID's). If selecting this Level, complete the fields below (MTF Name, DMIS ID Family). It is essential that the user have a thorough knowledge of Privacy Act and HIPAA rules, restrictions and the proper security clearance.

DMIS ID Family*: [Lookup] MTF Name*

Employment Category

Must choose 1 of the options below:
Employee Category* Select Category
If Other*
ESSENCE Links

• ESSENCE: https://essence.csd.disa.mil

• CAC Registration or to make changes to contact information:


• iDentity AuthenticationServices/ Enterprise CAC Registration Service to submit request:

Helpful Hints

• Do not let the page sit idle for more than a few minutes or the submittal will not go through. An email notification will be sent if the submittal was successful.

• Make sure each Approver is aware of your application.

• Approver should check for email from idm@csd.disa.mil (may be in junk or spam folders).

• Approver follows links with Request ID (and the Approver’s CAC should be registered as well).

• Approver needs to verify info and confirm.

• Problems:
  - Contact MHS Service Desk: servicecenter@dha.mil or 800-600-9332.
ESSENCE Data

Pharmacy data

Chief Complaint data

Outpatient data

Laboratory data

Radiology data

Alert = Statistically relevant spike
ESSENCE Nuts & Bolts

- Sign in with CAC
- “Site Selection” 1st
- Use “Preferences” to create user defined site
## Syndromic Surveillance Alerts List

### Health Encounters Regional Temporal Alerts

<table>
<thead>
<tr>
<th>Alert Date</th>
<th>Syndrome</th>
<th>Detection</th>
<th>Visit Count</th>
<th>Expected</th>
<th>Disp</th>
<th>MTF</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/Mar/2014</td>
<td>Localized Cutaneous Lesion</td>
<td>0.032</td>
<td>1</td>
<td>0.10714</td>
<td>IN</td>
<td>ALL</td>
<td>TimeSeries</td>
</tr>
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<td>07/Mar/2014</td>
<td>Localized Cutaneous Lesion</td>
<td>0.029</td>
<td>8</td>
<td>3.51078</td>
<td>OUT</td>
<td>ALL</td>
<td>TimeSeries</td>
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<tr>
<td>06/Mar/2014</td>
<td>Hemorrhagic Illness</td>
<td>0.038</td>
<td>20</td>
<td>11.64133</td>
<td>OUT</td>
<td>ALL</td>
<td>TimeSeries</td>
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### Health Encounters MTF-Based Temporal Alerts

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<tr>
<th>Alert Date</th>
<th>Syndrome</th>
<th>Detection</th>
<th>Visit Count</th>
<th>Expected</th>
<th>Disp</th>
<th>MTF</th>
<th>Links</th>
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<tbody>
<tr>
<td>11/Mar/2014</td>
<td>Gastrointestinal</td>
<td>0.002</td>
<td>2</td>
<td>0.14286</td>
<td>IN</td>
<td></td>
<td></td>
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<tr>
<td>11/Mar/2014</td>
<td>ILI</td>
<td>0</td>
<td>3</td>
<td>0.25000</td>
<td>IN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/Mar/2014</td>
<td>ILI-Alt Case Def</td>
<td>0</td>
<td>3</td>
<td>0.25000</td>
<td>IN</td>
<td></td>
<td></td>
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<tr>
<td>11/Mar/2014</td>
<td>Influenza Specific</td>
<td>0.019</td>
<td>1</td>
<td>0.03571</td>
<td>IN</td>
<td></td>
<td></td>
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<tr>
<td>10/Mar/2014</td>
<td>Rash</td>
<td>0.044</td>
<td>1</td>
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<td>0.60714</td>
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What to do when you see a flag
**Data Details**

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<th>Encounter Date</th>
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<th>PIN</th>
<th>Age</th>
<th>ICD</th>
<th>ICD Description</th>
<th>Syndrome</th>
<th>MTF</th>
<th>Clinic Type</th>
<th>MEPHS</th>
<th>FMP</th>
<th>Provider</th>
<th>PatCat</th>
<th>Lab Results</th>
<th>More Info</th>
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<tr>
<td>15/Jan/2014</td>
<td>OUT: Release w/ Limit</td>
<td>20</td>
<td>707.99</td>
<td>unspecified viral infections</td>
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<tr>
<td>15/Jan/2014</td>
<td>OUT: Release No Limit</td>
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<td>480</td>
<td>Acute rhinopharyngitis (common cold)</td>
<td>ILI-Alt Case Def</td>
<td>Other</td>
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<td>30</td>
<td>NH1</td>
<td>N</td>
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<td>382.9</td>
<td>Otitis media unspecified</td>
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<td>496</td>
<td>Pneumonia, organism unspecified</td>
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<td>Other</td>
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<td>20</td>
<td>NT1</td>
<td>N</td>
<td>Source File Info</td>
<td></td>
<td></td>
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</tbody>
</table>
What to Investigate

• Verify the case
• Verify the diagnosis
• Is it reportable?
  – Armed Forces Reportable Medical Events Guidelines and Case Definitions 2012
• Will a formal epidemiologic investigation take place?
  – Unit SOP
How to Use ESSENCE for Daily Case Finding

• Monitor alerts

• Query page
  – Choose the data source
  – Reportable Medical Events

• Check in DRSi to see if the cases are already reported or if they correspond to the case-finding module in DRSi

• If necessary, investigate and enter report into DRSi

• Consider exporting large number of cases to excel
# Rep Event Surveillance

<table>
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<th>Encounter/Order Date</th>
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<th>Service</th>
<th>MEPRS</th>
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<td>21</td>
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<td>099.41</td>
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<td>Chlamydia</td>
<td>Other</td>
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<td>Chlamydia</td>
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Check the Lab Result

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<th>Collection Date/Time</th>
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<th>Set ID</th>
<th>Test Name</th>
<th>Reference Range</th>
<th>Units of Measure</th>
<th>Specimen Source</th>
<th>Body Site/Collection Sample</th>
<th>Test Result</th>
<th>Sensitivity</th>
<th>Abnormal Flag</th>
<th>Result Status</th>
<th>Sensitivity Flag</th>
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<td>URINE</td>
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<td>-</td>
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</tr>
</tbody>
</table>
Enter into DRSi if Rep Event
A few helpful hints

• To export, click on:
  – Spreadsheet (excel)
  – PDF (document)
  – CSV (text file)

• Make sure pop-up blocker is off
A few helpful hints

• Matrix
• Charts- export by right clicking “download chart”
• Create graphs
• Configuration
• Right click on graph
• Export
Best Practices

• Follow your command SOP
• If no SOP consider creating one
• Daily monitoring of alerts and Rep Events
• Investigate alerts and Rep Events
• Match ESSENCE Rep Events and DRSi
• Remember to be in communication with the lab, providers, and your PH CoC as well as Local and State PH
More ESSENCE Training

• In the ESSENCE program under “References”
  – 5 Training videos

• MHS Learn
  – Certificate available
  – 4 Modules 1 hour each (or less)
References in ESSENCE

- Syndrome definitions
  - Lists all the ICD9 and future ICD10 codes in the syndrome
- Explanation of the detector algorithms
- Data dictionary
  - MEPRS codes
  - Patient Category
  - Data Glossary
- ESSENCE History
- User Guide
- Training
- FAQ
- MHS Help Desk
- What’s new
Stay current and give feedback!

• DHSS updates to ESSENCE
  – https://public.govdelivery.com/accounts/USMHDHSS/subscriber/new

• Send suggestions for improvement to
  – servicecenter@dha.mil
  – YOUR comments are what drives ESSENCE improvements!
Contact Information

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

• Navy: Contact your cognizant NEPMU
  NEPMU2:  COMM: (757) 950-6600; DSN: (312) 377-6600
  Email: NEPMU2NorfolkThreatAssessment@med.navy.mil
  NEPMU5:  COMM: (619) 556-7070; DSN (312) 526-7070
  Email: ThreatAssessment@med.navy.mil
  NEPMU6:  COMM: (808) 471-0237; DSN: (315) 471-0237
  Email: NEPMU6ThreatAssessment@med.navy.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
  episervices@wpafb.af.mil
Thank You for Your Attention