

# 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



**NAVY AND MARINE CORPS PUBLIC HEALTH CENTER**  
PREVENTION AND PROTECTION START HERE

[WWW.NMCPHC.MED.NAVY.MIL](http://WWW.NMCPHC.MED.NAVY.MIL)

# 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



# RME Module

- The RME module can be queried the same way that encounters are queried for syndromes or D&I categories:

The screenshot displays a web interface for querying data. At the top, a dark blue header contains the word "Query". Below this is a section titled "Current Data Query Selections". Underneath, there is a "Site" field with the value "ALL-MTFs" and a user icon, followed by a link labeled "Site Selection". Below this is a "Next Selections:" section. It features a "Select Data Source:" label and a dropdown menu. The dropdown menu is open, showing a list of options: "Health Encounters", "Health Encounters", "Pharmacy", "Laboratory Orders", "Radiology Orders", "Chief Complaints", and "Reportable Medical Events". The "Reportable Medical Events" option is highlighted with a red border.



# RME Module

- Laboratory 'flags' are based on the *name* of the lab test. Example:

Campylobacter

- 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

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

<u>Service</u>	<u>MEPRS</u>	<u>FMP</u>	<u>Provider</u>	<u>PatCat</u>	<u>Lab Results</u>	<u>More Info</u>
Marine Corps	BHAA	20		M13	A	<a href="#">Lab Results</a> <a href="#">Source File Info</a>



A=Available  
P=Pending  
N=None



# RME Module

**Lab Results**  
**Age:** 18      **Service:**  
**Gender:** M      **FMP:**  
**PatCat Code:**

**Lab Order ID:**      **Requesting Facility:**      **Performing Location Facility:**  
**Test Ordered:** RECRUIT IMMUNITY PANEL      **Ordering Provider:**      **Order Effective Date/Time:** 27/Jan/2015 06:29  
**MEPRS Code:** BHAA      **Order Notes/Comments:**

Collection Date/Time	Certify Date/Time	Set ID	Test Name	Reference Range	Units of Measure	Specimen Source	Body Site/Collection Sample	Test Result	Abnormal Flag	Result Status OBX
27/Jan/2015 06:29	27/Jan/2015 16:23	1	RUBEOLA VIRUS IGG	-	-	SERUM	BLOOD	POSITIVE	-	F

Sensitive Result Flag	Result Notes	Clinical Comments
-	INTERPRETATION(S): NEGATIVE (NON-IMMUNE)	-

- 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

**Add / Edit User Defined Site**

Site Name :

Location :

**Search MTF**

**MTF Search**

Service  Country  Facility Type  US States and Territories

MTF :

<input type="checkbox"/>	<u>MTF</u>	<u>DMIS ID</u>	<u>Service</u>
<input type="checkbox"/>	VIRGINIA BEACH - NBHC OCEANA	0387	N



# User-Defined Sites

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

Items 1-5 of 5

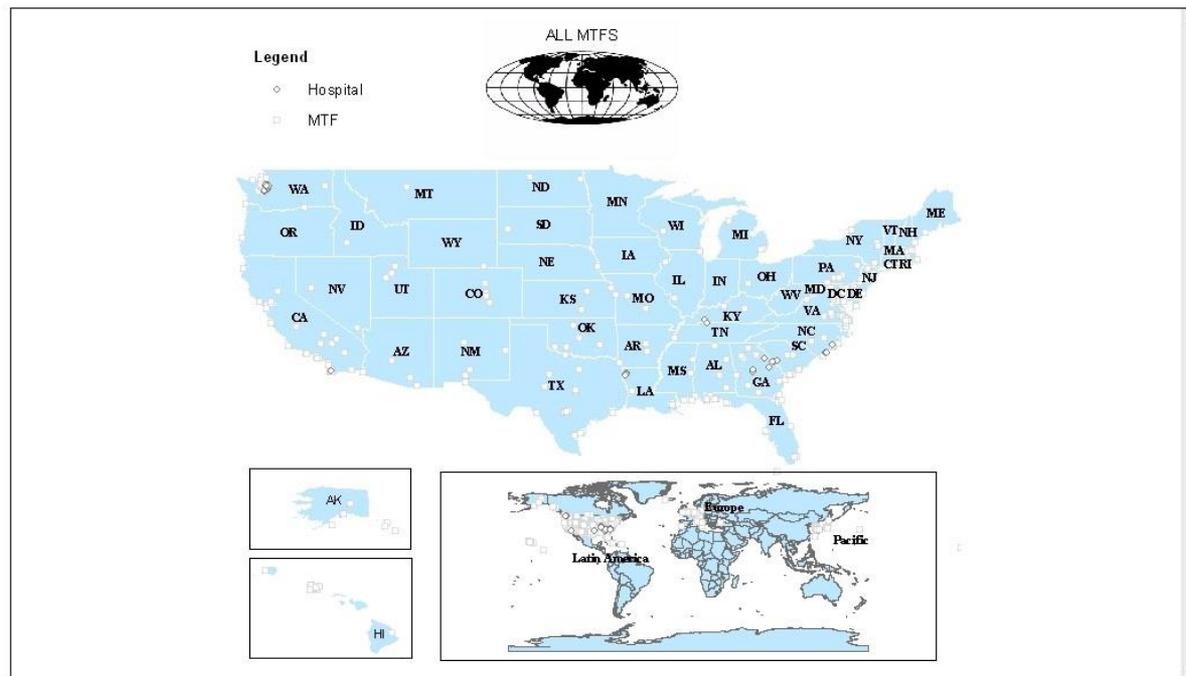
	User Defined Site Name
<input type="radio"/>	NEPMU2
<input type="radio"/>	NEPMU5
<input type="radio"/>	NEPMU6
<input type="radio"/>	NEPMU7
<input type="radio"/>	Portsmouth



# User-Defined Sites



Site also appears in list of sites to select for queries:



Select System-Defined Site: Select...

Select User-Defined Site: Select...

- Select...
- NEPMU2
- NEPMU5
- NEPMU6
- NEPMU7
- Portsmouth



# 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	
Site	Portsmouth  <a href="#">Site Selection</a>
Data Source	Health Encounters

Next Selections:	
MTF	<div style="border: 1px solid gray; padding: 2px;"><div style="background-color: #4a86e8; color: white; padding: 2px;">All MTFs</div><div style="padding: 2px;">CHESAPEAKE - TRICARE OUTP</div><div style="padding: 2px;">JOINT (AN) EB LITTLE CREEK-F</div><div style="padding: 2px;">NORFOLK - NAS NORFOLK NRM</div></div>
Select Category	<div style="border: 1px solid gray; padding: 2px;">Syndromes</div>
<div style="border: 1px solid gray; padding: 5px 20px; display: inline-block;">Submit</div>	



# 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.

*Add / Edit User-Defined Syndromes*

Syndrome Name : Pneumonia

Description :

Shared

Message from webpage

 Note that by sharing this syndrome, your name and syndrome information will now appear on the Common Area Syndrome page, visible to all other ESSENCE users.

OK



# 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

## Common Area Syndromes (CAS)

### Syndrome Search

Syndrome Name :

User Name :

System Defined Syndromes :  System Syndromes

D&I

RME

User Defined Syndromes :  Shared Syndromes

My Syndromes

tem Page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) |>

	<u>User Name</u>	<u>Syndrome Name</u>	<u>Descr</u>
<input type="button" value="Copy"/>	BELL.ROBERT.Emerson	<a href="#">allergic rhinitis</a>	Test UDS- For Testing use health use
<input type="button" value="Copy"/>	Vaidya.Ashok.C.	<a href="#">Abdominal Pain</a>	Test
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Amebiasis</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Anthrax</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Antiviral</a>	
<input type="button" value="Copy"/>	Trivedi.Pramesh.J	<a href="#">ARTHRITIS</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Botulism</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Botulism-like</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Brucellosis</a>	
<input type="button" value="Copy"/>	SYSTEM	<a href="#">Campylobacter infection</a>	



# User-Defined Syndrome

User-defined syndromes appear at the bottom of the syndrome list when querying syndromes:

Current Data Query Selections	
Site	Portsmouth  <a href="#">Site Selection</a>
Data Source	Health Encounters
MTF	All MTFs
Category	Syndromes

Next Selections:	
<b>Syndrome</b>	Botulism-like <input type="text"/>
<b>Disposition</b>	<ul style="list-style-type: none"><li>Botulism-like</li><li>Fever, Unexplained</li><li>Gastrointestinal</li><li>Hemorrhagic Illness</li><li>ILI</li><li>Influenza Specific</li><li>Localized Cutaneous Lesion</li><li>Neurological</li><li>Rash</li><li>Shock/Coma/Death</li><li><b>NMCPHC Pneumonia Specific</b></li></ul>
<b>Age Group</b>	
<b>Clinic Type</b>	<ul style="list-style-type: none"><li><b>All Clinic Types</b></li><li>ER</li><li>Other</li><li>Primary Care</li></ul>



# 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

- NMCPHC web site: <http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/essence/Pages/default.aspx>
  - ESSENCE Registration Guide
  - Creating a Pneumonia User-Defined Syndrome
- ESSENCE training modules on MHS Learn:  
<https://mhslearn.csd.disa.mil/ilearn/en/learner/mhs/portal/home.jsp>
  - 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.navmcpubhlthcenpors.list.nmcphc-threatassess@mail.mil](mailto:usn.hampton-roads.navmcpubhlthcenpors.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](mailto:NEPMU2Norfolk-Threat-MedEpi@med.navy.mil)
  - NEPMU5
    - COMM: (619) 556-7070; DSN (312) 526-7070
    - Email: [HealthSurveillance@med.navy.mil](mailto:HealthSurveillance@med.navy.mil)
  - NEPMU6:
    - COMM: (808) 471-0237; DSN: (315) 471-0237
    - Email: [usn.jbphh.navenpvntmedusixhi.list.nepmu6@mail.mil](mailto:usn.jbphh.navenpvntmedusixhi.list.nepmu6@mail.mil)
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    - Email: [NEPMU7@eu.navy.mil](mailto:NEPMU7@eu.navy.mil)

