



Early Warning Systems - *Epi-X*: A Resource for International Public Health Collaboration

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Pacific NorthWest Border Health Alliance
8th Annual Pacific NorthWest Cross Border Workshop



Mission



To provide **secure**, moderated communications for public health officials to report and discuss surveillance information, disease outbreaks and acute health events including terrorism.



- Secure environment
 - *Epi-X* application resides in CDC's Secure Data Network (SDN)
 - Users are authorized by state/territory/provincial authorizing official
 - User contact information is reviewed and verified at least annually
- Security standards
 - x509 digital certificates (international standard for ensuring user identity)



Total Number of Users



- *Epi-X* 6,039
- US Federal 1,571
- US States 4,468
- Canada 29
- Mexico 11
- Border States/Provinces 2,064



Partners



- Internal CDC programs
 - Division of TB Elimination
 - BioSense
 - Division of Global Migration and Quarantine
- Federal agencies
 - DoD, DoS, DHS, EPA, FDA, HHS, USDA, FEMA
- Partner Organizations
 - **AAPCC** — American Association of Poison Control Centers
 - **APHL** — Association of Public Health Laboratories
 - **ASTHO** — Association of State and Territorial Health Officials
 - **CSTE** — Council of State and Territorial Epidemiologists
 - **NACCHO** — National Association of County and City Health Officials
 - **NASPHV** — National Association of State Public Health Veterinarians
- State and local health departments
- Mexican and Canadian Government



- *Epi-X* can be divided into three main parts by function:
 - Reporting & Surveillance
 - Alerting
 - Exchange of information among peers
 - Forums
 - Comments to reports





Epi-X The Epidemic Information Exchange

Jim Schwendinger
Editor
5/19/2011

View

My Reports
All Epi-X Reports
Epi-X Directory
Epi-X Forum

Contribute

Standard Report
Epi-X Alert
Possible Terrorism Report
EPI-AID Request
EPI-AID Trip Report
HSR Tracking Request

Review

Reports in Review
Awaiting Assignment (0)

Visit

Other Directories
MMWR
Terrorism Preparedness
Homeland Security
Other Resources
State and Local Web Sites
CDC Public Health Partners

My Epi-X Action Items

| Title | Submitted | Status | Review Immediacy | Reviewer Comments | Contributor |
|--|-----------|--------------------------------------|------------------------|-------------------|-------------|
| Tuberculosis Program Evaluation -- East Metro Health District, Georgia, 2010 | 2/26/2010 | past due Editor Now Reviewing | Review within 48 Hours | | Galle |

Epi-X Reports Posted Since 5/12/2011

| Title | Location | Category | Posted |
|--|----------|--|-----------------------|
| <p> DGMQ Measles Investigation: Contact List for Flight AFR 0084 on 05/12/2011</p> <p>The attached file contains names of persons who may have been exposed to Measles on a flight. They were assigned to your jurisdiction for follow up on the basis of available information.</p> <p>Add Comments (0)</p> | WA | Infectious Disease | Unedited 5/19/2011 |
| <p> DGMQ Measles Investigation: Contact List for Flight AFR 0084 on 05/12/2011</p> <p>The attached file contains names of persons who may have been exposed to Measles on a flight. They were assigned to your jurisdiction for follow up on the basis of available information.</p> <p>Add Comments (0)</p> | CA | Infectious Disease | Unedited 5/19/2011 |
| <p> EXERCISE -- CA Golden Guardian 2011 -- Exercise, May 2011</p> <p>EXERCISE: This message is testing the use of Epi-X as a tool to communicate with communicable disease personnel during emergencies. Please see response instructions in the description of this report.</p> <p>Add Comments (0)</p> | CA | Infectious Disease; Environmental Health | 5/18/2011 |
| <p> DGMQ TB Investigation: Contact List for Flight CPA 0872 on 01/29/2011</p> <p>The attached file contains names of persons who may have been exposed to TB on a flight. They were assigned to your jurisdiction for follow up on the basis of available information.</p> <p>Add Comments (0)</p> | TX | Infectious Disease | Unedited 5/18/2011 |
| <p> DGMQ TB Investigation: Contact List for Flight CPA 0872 on 01/29/2011</p> <p>The attached file contains names of persons who may have been exposed to TB on a flight. They were assigned to your jurisdiction for follow up on the basis of available information.</p> <p>Add Comments (0)</p> | CA | Infectious Disease | Unedited 5/18/2011 |

Epi-X: The Epidemic Information Exchange - Windows Internet Explorer

https://epix.cdc.gov/outbreakdisplay.asp?rpt=21891&rpttype=100&action=3

Home | Search | My Profile | My Epi-X | Contact Us | Help | Log Out

CDC The Epidemic Information Exchange

SAFER • HEALTHIER • PEOPLE™

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Salmonella Heidelberg Cases Associated with a Restaurant -- Tarrant County, Texas, April-May 2011

Access and Notification: Make available to all Epi-X users
[Click to see who has viewed this report.](#)

Distribution: Release outside of Epi-X as needed
Contributor's instructions for distributing this report.

Brief Summary of Report: Sixteen cases have been reported to TCPH. An inspection of the implicated restaurant revealed poor food handling practices and sanitation issues. Please report related cases to TCPH at (817) 321 5388.

Description: Tarrant County Public Health (TCPH) is investigating an outbreak of *Salmonella* Heidelberg infections among persons who ate at a local restaurant in Tarrant County, Texas, during April 1–May 7, 2011. Sixteen cases have been reported to TCPH with dates of illness onset ranging from April 14–May 7.

Eleven specimens have tested positive for *S. Heidelberg* by culture; five were epidemiologically linked to the culture-confirmed cases. Pulsed-field gel electrophoresis (PFGE) analysis has been completed for eleven specimens (pattern JF6X01.0051). An inspection of the implicated restaurant revealed poor food handling practices and several sanitation issues.

Local health departments who identify *S. Heidelberg* cases with matching PFGE patterns in persons with recent travel to Tarrant County, Texas, are encouraged to report to their state health departments, who, in turn, are asked to contact TCPH at (817) 321-5388.

Report Category: Infectious Disease: Bacterial, Food Borne

Environmental Health

Type of Cases: Human

Number of Cases:

| | |
|-----------------------|----|
| Actual | |
| Total Ill or Injured: | 16 |
| Hospitalized: | 3 |
| Deaths: | 0 |

Date First Case Became Ill or Injured: 04/14/2011

Cause/Agent: *Salmonella* Heidelberg

Setting: Restaurant

Location: Texas

Other Location Information: Tarrant County

Public Health Actions Taken: Environmental Remediation, Investigation in Progress, Public Education, Revision in Workplace Practices, Surveillance

Linked URLs:
Links to additional information. [▶ CDC's *Salmonella* Information Page](#)

Status Information

Done

Trusted sites | Protected Mode: Off

100%

Selected *Epi-X* Reports



- Anthrax terrorist attacks – 2001
- West Nile Virus – 2002
- SARS – 2003
- Pertussis – 2004
- Hurricanes Katrina & Rita – 2005
- *Fusarium* keratitis from contaminated contact lens solution – 2006
- MDR TB in an overseas traveler – 2007
- Neurological illness among pork processing plant workers – 2008
- Novel Influenza A H1N1 – 2009
 - First cluster reports in Mexico 3/27
 - VAERS reports
 - Peramivir orders
- Haiti cholera – 2010
- Gulf of Mexico Oil Spill – 2010
- Japan Earthquake and Radiation – 2011



- *Epi-X* Editor/Health Communicator Staff
 - 24/7/365 Availability
 - Quick review and posting of reports
 - Initiation of immediate notification of reports as appropriate
 - Support for HAN creation and distribution
- User Support, Training and Outreach
 - Technical assistance & training for users
 - Outreach to partner groups
 - Coordination of system tests



Notification Methods



- *‘Normal Circumstances’*
 - *Epi-X Today* – sent daily as a summary
 - Forums and reports can transmit ‘routine’ information
- Emergency & Urgent
 - Immediate E-mail
 - Alert Notification
 - E-mail (work, home, alpha pager)
 - Cell phone
 - Telephone (work, home, mobile)
 - Numeric Pager



Notification Proficiency Testing



- To ensure system functionality & contact information accuracy
- Most recent systemwide test on 4/3/2008
- All **5,065** users notified for a single report
 - Within 3 hours, 2,454 (48%) users logged on / viewed test report
 - A total of 3,046 users completed the survey
 - User feedback
 - Access *Epi-X* on mobile devices
 - Solve problems with digital certificates
 - Improve the testing process itself
- 10 roles tested during the 2007-08 campaign:

State Epidemiologist

HAN Coordinator

State Public Health Lab Director

Career Epi Field Officer

State Public Health Off

Poison Control Center Director

State Terrorism Resp/Coord

State Public Health Vet

CDC's DEOC

CDC EIS



Epi-X Forums



Epi-X Forum - Windows Internet Explorer
 https://epixforum.cdc.gov/Default.aspx

Home Search Members Calendar Who's On My Profile Help

Welcome Jim Schwendinger (Logout) Control Panel Recent Posts

Home

Epi-X

| Forums | Topics | Replies | Last Post |
|---|--------|---------|---|
| Epi-X Information Information for Epi-X Users, including discussions about accessing Epi-X from BlackBerry devices, notification proficiency testing, and system enhancements. | 16 | 42 | 12/30/2010 In: RE: Epi-X on a BlackBerry By Daniel Drociuk |
| Bioterrorism Surveillance Coordinators For Bioterrorism Surveillance Discussions | 17 | 31 | |
| Developing Events In discussion now: Japan earthquake and radiation concerns. | 7 | 54 | Today @ 10:09 AM In: RE: Recreational Drug Marketed... By Jonathan Lynch |
| Vector-borne Diseases | 30 | 18 | 2 days ago @ 12:31 PM In: FL Arbo Summary Through... By Jennifer Lehman |
| Epi-X Staff | 33 | 74 | 8/31/2010 In: Testing Delete Feature By Amanda Evanson |
| Epi-X Feedback A means for voicing your opinions and suggestions for improving Epi-X. | 13 | 101 | 5/28/2010 In: RE: Receiving Airline... By Sherry Yocum |
| Chemical Terrorism Perspectives This is a workgroup seeking membership from all states. | 33 | 204 | |
| Career Epidemiology Field Officers Career Epidemiology Field Officers information exchange | 11 | 11 | |
| State Public Health Veterinarians General Conference for all State Public Health Veterinarians to exchange information about outbreaks and other public health events. | 2 | 4 | |
| NEHA Epi-Ready Graduates | 2 | 2 | |
| Healthcare-associated Infections (HAI) For state and local health departments to share and archive resources and observations, with the hope of fostering an open and diverse HAI prevention community. | 18 | 91 | Yesterday @ 4:03 PM In: RE: Prevention Collaborative... By Andrea Alvarez |
| Epi-X NPHIC Forum This conference is for members of the National Public Health Information Coalition, designed to help improve public health communications during emergency and non-emergency events. | 33 | 29 | 4/22/2010 In: Epi-X Media Tracking Report... By Jonathan Lynch |

Trusted sites | Protected Mode: Off 100%



Border Health Forums



| Forum Name | Number of Topics | Number of Posts | Latest Post |
|--|------------------|-----------------|---|
| Cure TB - Aguascalientes | 0 | 0 | |
| Cure TB - Mexico | 0 | 0 | |
| Brucella abortus/RB 51 Exposure This forum will serve to share information regarding the potential exposure of Brucella abortus RB-51 from a College of American Pathologist (CAP) Laboratory Survey Preparation (LSP) Program. | 7 | 7 | |
| Tickborne Diseases | 7 | 9 | |
| Trinational: US-Canada-Mexico (EWIDS/SPP/BHI) Border Health Initiative, North American Leaders Summit, and EWIDS area for discussion of trinational issues. | 2 | 2 | |
| Binational: US-Canada (EWIDS/SPP/BHI) Border Health Initiative, North American Leaders Summit, and EWIDS area for discussion of binational (US-Canada) issues. | 42 | 4 | 3/3/2011 In: Regional Syndromic... By Jonathan Lynch |
| Binational: US-Mexico (EWIDS/SPP/BHI) Border Health Initiative, North American Leaders Summit, and EWIDS area for discussion of binational (US-Mexico) issues. | 25 | 2 | 6/26/2010 In: United States-Mexico Media... By Julissa Portillo |
| EASTERN STATES - New Brunswick, New Hampshire, Nova Scotia, Maine, Prince Edward Island, Quebec, and Vermont EASTERN STATES - New Brunswick, New Hampshire, Nova Scotia, Maine, Prince Edward Island, Quebec, and Vermont | 0 | 0 | |
| PACIFIC STATES - Alberta, Alaska, British Columbia, Oregon, Montana, Washington, and Yukon PACIFIC STATES - Alberta, Alaska, British Columbia, Oregon, Montana, Washington, and Yukon | 0 | 0 | |
| CENTRAL STATES - North Dakota, Manitoba, and Saskatchewan CENTRAL STATES - North Dakota, Manitoba, and Saskatchewan | 0 | 0 | |
| HAN Discussion Group | 0 | 0 | |
| SOUTHERN STATES - Arizona, California, Texas, New Mexico, Baja California Norte, Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas SOUTHERN STATES - Arizona, California, Texas, New Mexico, Baja California Norte, Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas | 0 | 0 | |
| Epi-X Editorial Board Discussion Group | 1 | 2 | 2/22/2010 In: RE: 2009 Editorial Board... By Janet Fath |
| State Public Health Law Forum This forum enables legal counsel to government public health agencies to share information about public health law issues, discuss legal concepts and cases, exchange legal resources, and conduct other related activities. | 6 | 11 | 10/21/2010 In: Another Test By Kevin Cartwright |
| Gulf of Mexico Oil Spill Use this forum to share surveillance activities, data, and other concerns. | 1 | 0 | 5/25/2010 In: Gulf State Surveillance By Jeneita Bell |



Three Major Forums



- *Trilateral U.S.-Mexico-Canada Forum* – For posting communication of epidemiologic interest to all three countries
- For example: a foodborne outbreak affecting all countries, SARS outbreak, avian influenza or pandemic influenza, etc.
- Potential structure: 3 forum moderators representing U.S., Mexico, and Canada
- Many members at federal, state, and local level with various permissions



Three Major Forums



- *U.S.-Mexico Binational Forum* -
For posting communications of binational significance
- For example: current outbreak of *Salmonella* Saintpaul associated with tomatoes, recent Illinois outbreak of queso-fresco associated *Salmonella*
- Potential structure: 2 forum moderators representing Mexico and the U.S.
- Many members at federal, state, and local level with various permissions



Three Major Forums



- *U.S.-Canada Binational Forum* –
For posting communications of binational significance
- For example: oyster-associated *Vibrio parahaemolyticus* in British Columbia and Washington State
- Potential structure: 2 forum moderators representing Canada and the U.S.
- Many members at federal, state, and local level with various permissions



Other Forums



- Regional Province-State, State-State Binational Forums

Smaller regional or local groups could form forums that include members of the larger forums.

For example, from the membership of the U.S.-Canada Epidemiology forum, there could be a Washington State-British Columbia forum, a Michigan-Ontario forum, a New York-Quebec forum, etc.

Forums could also be based on specific binational projects or subject matter expert groups, eg a laboratory forum, an EWIDS forum.

Similarly, there could be a Baja California-California forum, a Texas-Tamaulipas forum, an Arizona-Sonora forum, etc.

The moderators in state-state or state-province forums would obviously be appropriate representatives of each state or province.

States or provinces could decide whether particular postings merited being also posted on the Binational Forum or Trilateral Forum.

It would be important that information about epidemiologic events of potential general interest be posted on one or more of the larger major forums.



Summary



- *Epi-X*
 - is CDC's only SECURE communication system
 - can be used as a notification system
- *Epi-X* is important because
 - *Epi-X* users are key CDC stakeholders
 - the system can reach one, some or all users at any time
 - users rely on *Epi-X*
- Why *Epi-X* is valued by users
 - in times of crisis & routinely
 - it provides information not available elsewhere
 - it provides verified information
 - It allows for the secure exchange of information



User Feedback



- Information posted on *Epi-X* is reliable and timely.
- Digital certificate management is cumbersome.
- *Epi-X* should be accessible on my mobile device.
- The *Epi-X* Directory is a powerful resource in that it includes the most updated contact information for high level public health officials.
- The daily *Epi-X* Media Tracking Report is very helpful in keeping me informed and assisting me with my daily public health responsibilities.
- *Epi-X* is one of the few programs at CDC that responds when I contact them for assistance.



Questions?



Jim Schwendinger MSN MPH NP

Director, *Epi-X* & Team Lead, *Epi-X* and HAN
Emergency Risk Communication Branch
Division of Emergency Operations
Office of Public Health Preparedness and Response
US Centers for Disease Control and Prevention (CDC)

brt0@cdc.gov

epixhelp@cdc.gov





get ***Epi-X***

For additional information, please visit the *Epi-X* booth in the World Café.

