The Cycle of Disease

Protecting our Workforce and Patients from Emerging Infectious Diseases
Health Center Perspective

Protecting our Workforce and Patients from Emerging Infectious Disease

Bernadette Thomas, APRN, DNP, MPH
Chief Operations Officer, Lynn Community Health Center
Outline

• Background

• Community Health Center Context

• Case Example: Ebola Preparedness

• Training and Education

• Compliance
Outline

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## Definitions

<table>
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<tr>
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<td>Illnesses caused by bacteria, virus, fungi</td>
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<td>Spread from one person to another</td>
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<td>Vector</td>
<td>An organism that transmits a disease or parasite (i.e., mosquito, tick)</td>
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<td>Host</td>
<td>Animal on (or in) which a parasite or organism lives</td>
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<td>Environment</td>
<td>Temperature, humidity, altitude, crowding, housing, neighborhood, water, milk, food, radiation, air pollution, noise</td>
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![Diagram showing the relationship between Host, Vector, Agent, and Environment](Gordis (2014))
Example: Lyme Disease

(a) The tick, *Ixodes scapularis*, has a two-year life cycle in which it requires three blood meals. The tick is infected by its first blood meal, and can pass on the infection to a human in its second.
Emerging Infectious Disease

• New infections resulting from changes or evolution of existing organisms

• Known infections spreading to new geographic areas or populations

• Previously recognized infections appearing in areas undergoing ecologic transformation

• Old infections reemerging as a result of antimicrobial resistance to known agents or breakdowns in public health measures

http://www.cdc.gov/eid/page/background-goals
Example: Zika Virus

How the Zika Virus Enters the Human Population

The virus originates with nonhuman primates in tropical rainforests but can infect humans. Warm, urban environments with standing pools of water attract mosquitoes, and can lead to the virus’s spread.

SYLVATIC CYCLE
- Chimpanzees
- Monkeys
- Baboons

URBAN CYCLE
- Mosquitoes
  - Ae. aegypti
  - Ae. albopictus
- Human Population

It appears that Zika can be transmitted through sexual intercourse, blood transfusion, and in utero.

Sources: CDC, PLOS, Reuters
Credits: David Foster, Laurie Garrett, Doug Halsey, Gabriella Metzner
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# MA CHC Context

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Gordis (2014)
International Migration

UDS Mapper, Community Health Views
MA CHC Context
PCT Below 200% FPL

UDS Mapper, Community Health Views
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EBNHC: Ebola Preparedness
EBNHC: Ebola Preparedness

• Communication Plan
  – Human Resources
  – Intranet
  – Health center-wide
  – Department based
• Role Based Training
  – Algorithms
• EMR (Epic) Enhancements
• Drills
• PPE Kits
Communication Plan

Human Resources

How should I handle employee questions about Ebola?

What if a staff member does report that they or a member of their family has returned from an endemic area?

When can a staff member who has been furloughed return to work?

What can managers do to provide a safe work place for all staff?

If a staff member should need to be furloughed for 21 days in accordance with the CDC requirements how will they be paid?

Credit: Linda Daley, EBNHC
Communication Plan
Employee Intranet
Communication Plan
Patients, Visitors, Families

Facts about Ebola in the U.S.

You can’t get Ebola through air

You can’t get Ebola through water

You can only get Ebola from:
• Touching the blood or body fluids of a person who is sick with or has died from Ebola.
• Touching contaminated objects, like needles.
• Touching infected animals, their blood or other body fluids, or their meat.

If you think you are at risk for Ebola, please alert the closest EBNHC employee.

Información sobre el virus del Ébola en EE. UU.

Usted no puede contraer el virus del Ébola por el aire

Usted no puede contraer el virus del Ébola por el agua

Usted solo puede contraer el virus del Ébola por lo siguiente:
• Al tocar la sangre o los líquidos corporales de una persona que tiene la enfermedad del Ébola o que murió por ella.
• Al tocar objetos contaminados, como agujas.
• Al tocar animales infectados, su sangre, otros líquidos corporales o su carne.

Si usted cree que está en riesgo de Ebola, por favor avísele al empleado del EBNHC más cercano.
Communication Plan
Departmental Checklist

1. Pre-identify the room(s) where a suspected EVD patient would be placed.
2. Develop a communication plan with MA to vacate room(s) if needed.
3. Ensure all staff understand their roles
   – Identify
   – Isolate
   – Transport
Communication Plan
Front Line Staff (1)

• Equipment that enters room, must stay in room.
• At a distance of 3-6 feet, standard, contact, and droplet precautions are needed.
• Avoid examining patient if triage is highly suspicious of EVD.
• Close contact with EVD-suspect requires donning highest level of PPE available.
Communication Plan
Front Line Staff (2)

• Staff members who believe they may have had close, personal contact or breached PPE during an encounter with an EVD-suspect
  – Employee health
  – Occupational health
  – Human resources

EBNHC, Managers Meeting, 11/12/2014
Communication Plan
Is EBNHC prepared?

“EBNHC is prepared. We have workflows in place for every department, and are working to train a core of people use more technical personal protective equipment.”

EBNHC, Managers Meeting, 11/12/2014
Communication Plan
Am I going to catch Ebola?

First: Talk about safety.

Second: “Most people are at very low risk for Ebola. Your risk for contracting Ebola is very low if you have not had direct contact with an infected patient.”

Third: Talk about preparation.

EBNHC, Managers Meeting, 11/12/2014
Communication Plan
What can I do to protect myself?

• Wash your hands.

• Never touch bodily fluids of persons who are sick.

• Never touch your eyes, your nose, your mouth with your hands.

EBNHC, Managers Meeting, 11/12/2014
Role-based Algorithms

“Know your role”

- Check-in Maverick (Vision, Dental, PC, Admin)
- Check-in Gove (PC, ED, Phleb, Pharmacy)
- Paris Street (RW, Employee Health, MAP)
- Contact Center
- Housekeeping
- Nurse/Provider
- Administration
- Pharmacy Maverick
- Pharmacy Gove
- Phlebotomy Maverick
- Phlebotomy Gove
- Referrals
- WIC
Role-based Algorithms

Check-In Maverick (Medical, Dental, Vision)

1. In the past 21 days have you traveled to Guinea, Sierra Leone, Mali, or Liberia?

- Ebola Screening Questions
  - Negative
  - Positive
  - Ask patient to mask if they have a fever or a cough.

*Call the Closest Department*
- FM Nurse Access Line (2130)
- OB Nurse Access Line (4734)

FM or OB Nurse
1. Bring EVO Rapid Response Box from your department.
2. If patient appears ill, escort patient to bathroom to perform private triage. Don PPE for triage.
3. If patient appears well and denies fever, cough, vomiting, diarrhea, etc. it is safe to transport patient to a room in your department to perform and document triage.

11/19/14
Role-based Algorithms

1. In the past 21 days have you traveled to Guinea, Sierra Leone, Mali, or Liberia?

   - Positive Responses to EBV Screening Question (Mask Patient ONLY if Fever and/or Cough)
     - Room Immediately (Use All/Negative Pressure, if available)
   - Follow CDC Algorithm (at a distance of 3-6 feet if possible)

   - Ebola Risk Flow Sheet
     - Meets Case Definitions Yes or No
     - Determine Risk
       - 1. High
       - 2. Some
       - 3. Low
       - 4. None

   - If history is highly suggestive of EVD and patient is in no acute distress, do not examine patient.

   - Don PPE Buddy Observes
     - Close Room, Place "Out of Use" sign on door.

   - Decontaminate PPE in plastic bag. Leave plastic bag in room.

   - In full PPE disinfect door handles. Keep door closed for 24 hours.

   - If bodily fluids passed in room, do not entry or leave or disturb. Contact EME for advice.

   - Consult with B omission (of risk)

   - Activate EMS

   - Notify OEC

   - Report to Health Department 817-336-5533 (EAF)
Role-based Algorithms

Phlebotomy Maverick

- Signage Posted
- Registration Slip Modified
- Ask patient to mask if they have a fever or a cough.
- Patient Reports Risk Factor to Pharmacy Employee
  - FM Nurse Access Line (2130)
Communication Plan
Information Technology

EBOLA Check-in

Workflow
When you are checking in a patient for their appointment you will be prompted with two questionnaires. The first questionnaire, Ebola Screening - Questions Asked at Scheduling, will tell you how the patient answered the questions at the time their appointment was scheduled. The second questionnaire, Infection Control, will require you to ask the patient up to six questions.

1. Do you have a Cough?
2. If yes, was the patient given a mask?
3. Do you have a rash that started in the past 7 days?
4. If the patient has a rash did you call the nurse?
5. In the past 21 days, have you traveled to Guineas, Liberia, or Sierra Leone?
6. (If Yes) Do you have a fever?

If the patient answers No to these questions, accept the questionnaire and follow the regular check in workflow. If the patient answers YES to question 5 you are to immediately call a nurse who will come and assist with attending to this patient.

Column One
From the Patient’s Appointment Desk select the correct appointment and click the check in button at the bottom left hand corner.

Column Two
You will be brought to a screen that contains two questionnaires. The first is the questionnaire that was asked at the time of Scheduling the appointment, and the second is specific to

Credit: Corey Hanson, Director of Clinical Applications, EBNHC
Communication Plan
Information Technology

Credit: Corey Hanson, Director of Clinical Applications, EBNHC
Communication Plan
Information Technology

EBOLA Appointment Entry

Workflow
During the appointment booking process you will be prompted to ask the patient if they have traveled to the following countries in the past 21 days: Guinea, Liberia, or Sierra Leone? If they patient answers Yes to this question you will be prompted to ask them if they have a fever. If answers YES to travel questions, generate a High Priority Telephone Encounter to the Department Nurse pool. Also transmit the call to the patient’s Department Nurse Access Line. Do not follow through with booking the appointment.

If the patient has not been to these countries answer No and continue scheduling the appointment as you normally would.

1. **BOOKING THE APPOINTMENT**
   - Begin booking the appointment from the patient’s Appointment Desk. Once you fill in the visit type you will receive a the EBOLA Questionnaire.

2. **EBOLA QUESTIONNAIRE**
   - Only if the patient answers Yes to the first question will you be prompted to ask them if they have a fever.

Remember: SEND A TELEPHONE ENCOUNTER TO THE NURSE POOL IF THE PATIENT ANSWERS YES TO ANY OF THE EBOLA QUESTIONS AND DO NOT CONTINUE BOOKING THE APPOINTMENT.

This bulletin and all previous workflow bulletins can be found on the EBNHC E-Learning Library located at:

Credit: Corey Hanson, Director of Clinical Applications, EBNHC
Communication Plan
Information Technology

EBOLA ONE CLICK

Ebola Questionnaire at One Click
When you are booking an appointment using the one click or walk in functionality you will be prompted to answer the EBOLA Questionnaire. When using the one click functionality you will be prompted with the questionnaire after the appointment has been made. If the patient answers yes to three questions send a telephone encounter to the nurse pool for further follow up. From here you will have to go into the patient’s appointment desk and cancel the appointment.

This will only affect departments that are using One Click: Adult Medicine, Pediatrics, Family Medicine, CDEM, Enrollment, and Member Services.

Before you start
From Windows, double the click the hyperspace icon and log in with your username and password.

1. Appointment Desk
   From the patients Appointment Desk select the one click from the tool bar. Click on the time that the patient would like to arrive in.

2. Select appropriate time and Schedule
   Follow through with booking the appointment.

3. Answer the EBOLA Questionnaire
   When prompted with the Ebola Questionnaire answer the following Questions:
   1. In the last 21 days, have you traveled to Guinea, Liberia, or Sierra Leone?
   2. (If answer to above is yes) Do you have a fever?
   If the patient answers yes to any of the questions send a High Priority Telephone Encounter to the Department Nurse pool for further follow up.

4. Cancel the appointment if the patient answers YES to the EBOLA Questionnaire.
   Cancel the appointment that was made.
   1. Go into the patient’s Appointment Desk
   2. Select the appointment that was just made through one click
   3. On the bottom tool bar select cancel and follow through with canceling the appointment.

Credit: Corey Hanson, Director of Clinical Applications, EBNHC
Training & Drills

Good afternoon,

Since the demand for training is very heavy right now, Brian Pomodoro @Boston EMS has confirmed that a Train the Train session in donning and doffing personal protective equipment (PPE) suitable for Ebola will be held.

The session is scheduled on Weds. November 5th @3:00 – 4:30pm at 10 Gove St., 3rd Floor Conf. Room. Of Housekeeping and Security, only departments that staff medical providers & nurses are required to send this training. It is important that we have representation from each department attend the session.

Please send me your list as soon as possible. Feel free to contact Bernadette with any questions.

All plans are coming together for this year’s emergency drills. The emergency department, plus a non-clinical department in each clinical building, plus a non-clinical department in the medical building. Each department is responsible for one department in each clinical building, with fever, to be prepared in case a patient presenting with travel history to Liberia in the last week, with fever.

We are most benefit out of this learning experience.

Here is the schedule for the departments being drilled:

- Emergency Department: Tuesday Dec. 16 at 11:00AM
- Medical Records: Wednesday Dec. 17 3:00 PM
- Adult Medicine: Thursday Dec. 18, 11:00AM
- Family Medicine: Thursday Dec. 18, 1:00PM

I will send meeting requests to the department heads to ensure it is on your calendar and to confirm that it will be attended prior to the actual drill.

Still looking for a couple of volunteers for any of these times for observers.

Thanks,

Credit: James Hollister, Michael Mancusi, Meg Perkins-Ames, Brian Pomodoro
Ebola PPE Kits (in order of donning):

- Boot/leg covers
- Regular gloves (use department stock, keep 1 box of each size with this box)
- Surgical Mask
- Surgical gown
- Bouffant (not impervious, useful in holding hair away from face)
- Face Shield
- 2nd pair of gloves (in separate bag by size – Small, Medium, Large)
- Disposable BP kits (one of each size – Child, Adult, Large Adult)
- Urinal / Bed pan / Emesis basin (so patient does not need to leave room)

**PPE Kits**

On Backorder:

- Hood
- Commode liner with solidifying agent
- Touchless thermometer

NOTES:

1. Each clinical department has a kit assembled in plastic bags.
2. Please watch the Donning video.
3. Each box also contains one Adult.

EBOLA PPE DONNING (ON)

**Buddy system. Don PPE just outside.**

PREPARE FOR DONNING

1. Identify one Nurse and one Provider to care for the patient.
2. Identify a third person to Guide the Nurse and Provider through the donning / doffing process from outside the "Warm Zone."

DOFF (OFF)

1. Exposed Worker signals that she/he is ready to doff. Worker should have "Hot Zone," just inside patient room, door open.
2. Buddy signals that she/he is ready to observe and assist with doffing. Buddy is standing in "Warm Zone" just outside room. Buddy has easy access to the area just outside the room.
3. Exposed worker identifies a chair or other surface to use for balance while doffing. If a chair or other surface is not inside the "Warm Zone," Buddy will bring one for Exposed Worker to use.
4. The third person signals that she/he is ready to guide exposed worker buddy through the doffing process. Third person is standing outside "Warm Zone."
Outline

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• Case Example: Ebola Preparedness

• Training and Education

• Compliance
Training and Education

• CHC resource challenges
  – Time
  – Money
  – Trainers

• Intervals
  – Orientation
  – Drills
Outline

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# Joint Commission Infection Control

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<td>IC.01.01.01</td>
<td>Organization leaders allocate needed resources for infection prevention and control activities.</td>
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</table>
| IC.01.03.01 | The organization identifies risks for acquiring and transmitting infections.  
  - **EP5 (D):** The organization prioritizes the identified risks for acquiring and transmitting infections. These Prioritized risks are documented. |
| IC.01.04.01 (D) | Based on the identified risks, the organization sets goals to minimize the possibility of transmitting infections. |
| IC.01.05.01 (D) | The organization plans for preventing and controlling infections. |
| IC.01.06.01 (D) | The organization prepares to respond to an influx of potentially infectious patients. |
| Condition                        | Infants | Pregnant Women | Teenagers | Children | Older adults/ Elderly | Baby boomers' | Young/Mid die-age adults | Homeless | Recent Immigrants | Patients with HIV/AIDS | Patient with Hep C | Patients with DM | Patients with CKD | Patients who use IV Drugs | CHC Employees |
|---------------------------------|---------|----------------|-----------|----------|-----------------------|---------------|--------------------------|----------|-------------------|----------------------|-------------------|----------------|----------------|-----------------------------|----------------|----------------|
| Bed Bugs                        | X       | X              | X         | X        | X                     | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Chlamydia                       |         |                |           |          |                       |               |                          |          |                   |                      |                   |                |                |                             |                |                |
| Common Cold                     | X       | X              |           | X        | X                     | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Gastrointestinal Infections     | X       | X              |           | X        | X                     | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Gonorrhea                       | X       | X              |           |          |                       |               |                          |          |                   |                      |                   |                |                |                             |                |                |
| Hep A                           | X       |                |           |          |                       | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Hep B                           |         |                |           |          |                       | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Hep C                           |         |                |           |          |                       | X             | X                        | X        | X                 | X                    | X                 | X             | X             | X                          | X             | X             |
| Herpes Zoster                   |         |                | X         |          |                       |                |                          |          |                   |                      |                   |                |                |                             |                |                |
| HIV                             |         |                |           |          |                       |                |                          |          |                   |                      |                   |                |                |                             |                |                |
| HBV                             |         |                |           |          |                       |                | X                        |          |                   |                      |                   |                |                |                             |                |                |

Credit: N. Bycenski, CHCI
II. Prioritization of risks

i. These risks are prioritized based on: frequency of occurrence, severity of the risk, and/or potential impact of intervention. The following risks are considered to be a priority for 2014-2015. Rationale for this prioritization is also included.

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<th>Rationale for Prioritization</th>
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<td>1. Tuberculosis</td>
<td>Many of the CHC sites are located in communities with high rates of TB. CHC treats patient populations at high risk for TB including patients who are HIV positive, homeless persons, injection drug users, those who are foreign born in countries endemic with TB, and former prisoners. Because of their work with these populations, CHC employees are at risk for TB as well. In April 2014 CHC of New London staff had a patient diagnosed with Active Pulmonary TB. We worked in conjunction with CT DPH and Occupational Health to conduct appropriate screenings. CHC continues to work with DPH for any suspected cases of Active Pulmonary Tuberculosis. With the shortage of INH and PPD solution CHC implemented Direct Observed Therapy protocols for the treatment of latent Tuberculosis. We have created a new sub-committee: Tuberculosis Committee to focus on the infection control and transmission of TB.</td>
</tr>
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### III. Responses to our Goals and Objectives for 2013-2014

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<th>Infectious Risk</th>
<th>2013-2014 Objective</th>
<th>Response</th>
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<td>Chlamydia</td>
<td>Improve rates of reporting incidence of chlamydia among patients to the Infection Control Committee.</td>
<td>This continues to be a work in progress and we will work over this next year to develop a better reporting system through our primary lab Quest Diagnostics.</td>
</tr>
<tr>
<td></td>
<td>Increase early detection and treatment of chlamydia by offering chlamydia screening to all sexually active patients 25 years and younger per CHC policy</td>
<td>We have incorporated screening for and offering screenings for STIs into our nursing visit templates for visits such as pregnancy tests, Depo Provera administration, and Emergency Contraception.</td>
</tr>
<tr>
<td></td>
<td>Increase condom availability to patient to prevent chlamydia</td>
<td>All sites across CHC have condoms readily available to hand out to any patient.</td>
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| Tuberculosis    | Increase staff adherence to annual TB surveillance program such that 100% of employees (not including those who are on leave) are in compliance within 60 days of initiation of the annual screening | Last year we had a 99% compliance rate. |
|                 | Create a Tuberculosis subcommittee to address current concerns with screening and treatment | The committee was formed and revised the new hire and current employee TB screening process. In 2014, CHC |
IV. Goals and Objectives for 2014-2015

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<th>Goal</th>
<th>Objective</th>
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<td>Tuberculosis</td>
<td>Implement New 2 step screening process for new hires.</td>
<td>This new policy will be fully implemented by July 2014.</td>
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<tr>
<td></td>
<td>Implement new TB risk screening questionnaire for existing employees and new hires with a documented history of a positive TB screening test.</td>
<td>By August 2014 we will have implemented the screening questionnaire for existing employees which will be required on an annual basis on their anniversary of hire.</td>
</tr>
<tr>
<td></td>
<td>Fit test employees for the use of N95 masks</td>
<td>By December 2014 we will have fit tested MAs, Nurses, and Providers for N95 masks.</td>
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<tr>
<td>Neisseria Gonorrhea</td>
<td>Develop an educational in-service for providers and nurses on the urgent threat of Gonorrhea and current treatment guidelines for routine treatment and treatment of antibiotic resistance Gonorrhea.</td>
<td>By the end of January 2015 will have developed a webinar for the nurses on the threats posed by Gonorrhea and the two different treatment options.</td>
</tr>
<tr>
<td></td>
<td>Improve testing rates for Gonorrhea</td>
<td>75% of the time that Chlamydia testing is done Gonorrhea</td>
</tr>
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Credit: N. Bycenski, CHCI
Resources

- [www.cdc.gov/ncezid](http://www.cdc.gov/ncezid)
- [www.cdc.gov/eid](http://www.cdc.gov/eid)
- [http://www.cdc.gov/hicpac/pubs.html](http://www.cdc.gov/hicpac/pubs.html)
- [https://e-dition.jcrinc.com/MainContent.aspx](https://e-dition.jcrinc.com/MainContent.aspx)
- [http://www.udsmapper.org](http://www.udsmapper.org)
Health Center Perspective

Protecting our Workforce and Patients from Emerging Infectious Disease

Bernadette Thomas, APRN, DNP, MPH
Chief Operations Officer, Lynn Community Health Center
Infectious Disease Surveillance in Massachusetts and Beyond

Bureau of Infectious Disease and Laboratory Sciences (BIDLS)
Massachusetts Department of Public Health

Larry Madoff, MD
Division of Epidemiology and Immunization and
ProMED-Mail, International Society for Infectious Diseases

Falmouth, MA
3 May 2016
• Disease surveillance for public health
• Emerging Diseases
• Formal public health surveillance
  – Mass DPH systems
• Informal surveillance
  – ProMED and others
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
Acronyms

- **ELR**: Electronic laboratory reporting
  - **LOINC**: laboratory test
  - **SNOMED**: laboratory result
- **HIE**: Health information exchange
- **ISIS**: Integrated Surveillance and Informatics Services
- **EHR**: Electronic health record
- **PHIN**: Public Health Information Network
- **HL7**: Standardized electronic message format for transmitting health data
- **MAVEN**: Massachusetts Virtual Epidemiologic Network (integrated disease surveillance and case management system) = MAEDSS
- **ESPnet**: Electronic Support for Public Health Network
  - **MDPHnet**: Massachusetts Department of Public Health Network
- **HIRP/D1**: Health Information Reporting Portal/ DiagnosisOne
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
Traditional public health reporting

World bodies: UN, WHO, FAO, OIE

Ministry of Health
- Local officials
  - Practitioners
    - Public
  - Practitioners
    - Public
- Practitioners
  - Public
- Labs

Ministry of Health
- Local officials
  - Practitioners
    - Public
  - Practitioners
    - Public
- Practitioners
  - Public
- Labs
Formal Public Health

• Advantages
  – Robust
  – Sensitive
  – Accurate
  – Validation
  – Quantitative

• Disadvantages
  – May be slow
  – Incentives for non-reporting
  – Broken links may lead to non-reporting
  – May miss uncharacterized or novel disease
  – Expensive
Event-based “informal” surveillance: DDD
Informal source surveillance (Biosurveillance, Epidemic Intelligence)

• Advantages
  – Speed
  – Transparency
  – Multiple sources including
    • Clinicians
    • Labs
    • Media, blogs, Internet
    • Official
  – Identifies any event
  – Inexpensive

• Disadvantages
  – Potential inaccuracy
  – Non-quantitative
  – Biases
    • Information richness
    • Language
    • Sensationalism
Mandated Response to Infectious Disease Reports:
Bureau of Infectious Disease and Laboratory Sciences (BIDLS)

- 24/7 response
- Coordination with 351 local boards of health
- Approximately 90 notifiable diseases
  - Measles, meningitis, hepatitis A, HIV/AIDS, STIs, diarrhea in a food handler, BT agents, unusual clusters, emerging infections
National Disease Reporting System

Healthcare Providers - Hospitals - Laboratories - Others

Local Boards of Health

State Health Department

CDC
Office of Integrated Surveillance and Informatics Services (ISIS)

- Staff of 30 epidemiologists/informaticians, biostatisticians, research analysts
- Funded by numerous cooperative agreements and state funding streams including ELC, PHEP, IMM, STD, HIV, TB, SSuN, HRSA/SPNS
- Liaison to each programmatic area within bureau
- Close collaboration with IT staff for MAVEN/HIRP development
## Electronic Data Processing

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</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>3</td>
</tr>
<tr>
<td>Laboratories and hospitals sending paper reports</td>
<td>5</td>
</tr>
<tr>
<td>ESPnet sites transmitting data</td>
<td>4 + MLCHC (testing)</td>
</tr>
<tr>
<td>Electronic laboratory and case reporting throughput</td>
<td>~ 7,000,000*</td>
</tr>
</tbody>
</table>

*2015 annual estimate
What is MAVEN?

- MAVEN is a PHIN-compliant, secure, web-based disease surveillance and case management system for use by the Mass. Department of Public Health Bureau of Infectious Disease and Laboratory Sciences (MDPH - BIDLS) and local Boards of Health (LBOH).
- It captures all data required for surveillance and case management while streamlining business processes for case investigation and surveillance.
- It also interfaces with the HIE for timely and electronic notification of laboratory reports.
  - Transparency and timeliness are the two key features that the system has brought to disease surveillance in Massachusetts.
- MAVEN is an Internet-Based System that uses the encryption technology of the banking industry. It can be accessed from anywhere, so it's only as secure as the user.
  - You should never log on from a public place and only use from home when necessary.
  - Have a strong password that you don't share.
  - Never log in as anyone else.
MAVEN Features

- Complete data capture in single integrated system across BIDLS
- ELR/ EHR interface
- Real-time information sharing
- Disease specific question packages
- Automated triage of information
- Deduplication
  - Person (weighted algorithm)
  - Event (event time periods)
- Co-infection analysis
MAVEN Features

• Workflow management
  — Streamlines business processes for case investigation and surveillance
• Contact investigations
• Outbreak response
• Reports and data extracts

MASSACHUSETTS VIRTUAL EPIDEMIOLOGIC NETWORK
### Report of a Disease Requiring Immediate Response

<table>
<thead>
<tr>
<th>Old</th>
<th>Enhanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Paper</em> lab report</td>
<td>1. ELR <em>automatically</em> feeds MAVEN</td>
</tr>
<tr>
<td>2. Data <em>manually</em> entered</td>
<td>2. Electronic <em>Triage</em></td>
</tr>
<tr>
<td>3. <em>Phone call</em> to LBOH</td>
<td>- LBOH paged/emailed</td>
</tr>
<tr>
<td>4. <em>Fax</em> to LBOH</td>
<td>- EOD is notified</td>
</tr>
<tr>
<td>5. <em>Copy</em> to epidemiologist</td>
<td>3. Case Investigation Completed</td>
</tr>
<tr>
<td>6. Case investigation completed</td>
<td>4. <em>Electronic Information Sharing</em> within MAVEN</td>
</tr>
<tr>
<td>7. Case report form <em>mailed</em> to MDPH</td>
<td></td>
</tr>
<tr>
<td>8. <em>Minimal</em> Case report form data <em>manually</em> entered</td>
<td></td>
</tr>
</tbody>
</table>

Time Frame: 1-2 months

Time Frame: 1-2 weeks
# Report of a Tularemia Case

<table>
<thead>
<tr>
<th>Old</th>
<th>Enhanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Paper lab report</td>
<td>1. ELR automatically feeds MAVEN</td>
</tr>
<tr>
<td>2. Data entered</td>
<td>2. Electronic Triage</td>
</tr>
<tr>
<td>3. Phone call to LBOH</td>
<td>- LBOH paged/emailed</td>
</tr>
<tr>
<td>4. Fax to LBOH</td>
<td>- EOD is notified</td>
</tr>
<tr>
<td>5. Copy to Epi of the Day</td>
<td>3. Electronic Information Sharing:</td>
</tr>
<tr>
<td>6. Case investigation completed</td>
<td>- case investigation completed online</td>
</tr>
<tr>
<td>7. Case report form mailed to MDPH</td>
<td></td>
</tr>
<tr>
<td>8. <em>Minimal</em> Case report form data entered</td>
<td></td>
</tr>
</tbody>
</table>

Time Frame: 1-2 months

Time Frame: 1-2 weeks
Scenario: ISIS receives a Tularemia lab

- Positive lab received either via fax or electronically
  - ISIS data entry staff enters lab into MAVEN
  - MAVEN takes the ELR feed and creates an event in MAVEN
  - MAVEN generates notification to LBOH and EOD for Immediate Disease Events
MAVEN
Tularemia event

Maven Surveillance and Case Management System

Event Summary

Basic Information
- Event ID: 100010605
- Event: Tularemia
- Primary Person: George Jetson, Birth Date: 01/15/1988 (Male), Phone: (777) 888-6666
- Investigation Status: Open
- Linked Events/Contacts: 0 linked event(s)/contact(s) (View)
- Linked Exposure Sites: 0 linked exposure site(s) (View)
- Attachments: 0 attachment(s) (Add)
- Notifications: Event Date: 04/01/2013, Event Status: Confirmed, Event Type: Symptom Onset Date, Age at time of event: 25.21, Age unit: Years

Event Information

Question Packages
- Administrative Package
- Demographic
- Clinical
- Risk/Exposure/Control & Prevention

Massachusetts Department of Public Health

Tularemia

CONFIDENTIAL CASE REPORT

[Extracted relevant information from the report]

[Personal information redacted for privacy]
Case Investigation: coordinated follow-up

Maven Surveillance and Case Management System

Event Summary

| Basic Information | Notes (Add/Edit | Mine) |
|-------------------|-----------------|
| Event ID: 100010605 | 04/24/2013 11:37 AM (Generic) - Test User13 |
| Event: Typhoid | Contacted and spoke with the patient to collect relevant risk history information. |
| Primary Person: George Jenson Birth Date: 01/15/1968 Male Phone: (777) 888-6666 | 04/24/2013 09:25 AM (Generic) - Susan Solva |
| Investigation Status: Open | Spoke with physician and collected symptom information. Message left with LBOH. |
| Linked Events/Contacts: 0 linked event(s)/contact(s) (View) | |
| Linked Exposure Sites: 0 linked exposure site(s) (View) | |
| Attachments: 0 attachment(s) (Add) | |
| Notifications: Event Date: 04/01/2013 Event Status: Confirmed Event Type: Symptom Onset Date Age at time of event: 25.21 Age unit: Years | |

Event Information

Event Data | Lab Results | Persons | Tasks | Event History Trail
---|---|---|---|---

Question Packages

<table>
<thead>
<tr>
<th>QUESTION PACKAGE</th>
<th>PERSON</th>
<th>LAST UPDATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Administrative</td>
<td>George Jenson</td>
<td>04/24/2013</td>
</tr>
<tr>
<td>2. Demographic</td>
<td></td>
<td>04/24/2013</td>
</tr>
<tr>
<td>3. Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Edit Event Properties
## Case Investigation

**2. Demographic Package, George Jetson Tularemia**

**Event ID:** 100010605

<table>
<thead>
<tr>
<th>Address Information (Address information below conforms to address when first reported)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street address:</strong></td>
<td>09999 Laughing Road</td>
</tr>
<tr>
<td><strong>City:</strong></td>
<td>Cambridge</td>
</tr>
<tr>
<td><strong>State:</strong></td>
<td>MA</td>
</tr>
<tr>
<td><strong>Zip code:</strong></td>
<td>01716</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employer name:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Employer address:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Employer state:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Occupation:</strong></td>
<td>Unemployed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birth date:</strong></td>
<td>01/15/1988</td>
</tr>
<tr>
<td><strong>Place of birth (country):</strong></td>
<td>USA</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td>Male</td>
</tr>
<tr>
<td><strong>Race:</strong></td>
<td>White</td>
</tr>
<tr>
<td><strong>What is your ethnicity? (You can specify one or more)</strong></td>
<td>Unknown/Not specified</td>
</tr>
<tr>
<td><strong>Is race Hispanic?</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Primary language:</strong></td>
<td>English/Arabic</td>
</tr>
<tr>
<td><strong>Next of kin notes:</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Case Investigation

#### Clinical Package, George Jetson Tularemia

**Event ID:** 100010605

<table>
<thead>
<tr>
<th>Diagnosis date:</th>
<th>04/16/2013</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Did case have symptoms?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom onset date:</td>
<td>04/01/2013</td>
</tr>
<tr>
<td>Abdominal pain:</td>
<td>No</td>
</tr>
<tr>
<td>Anorexia:</td>
<td>No</td>
</tr>
<tr>
<td>Chills:</td>
<td>Yes</td>
</tr>
<tr>
<td>Conjunctivitis:</td>
<td>No</td>
</tr>
<tr>
<td>Cough:</td>
<td>Yes</td>
</tr>
<tr>
<td>Diarrhea:</td>
<td>No</td>
</tr>
<tr>
<td>Difficulty breathing/Shortness of breath:</td>
<td>Yes</td>
</tr>
<tr>
<td>Fatigue:</td>
<td>No</td>
</tr>
<tr>
<td>Fever:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- **Highest temperature:** 103
- **Headache:** Yes
- **Lymphadenopathy:** Yes
- **Malaise:** No
- **Muscle aches/pains (myalgia):** Yes
- **Nausea:** No
- **Pneumonia:** Yes
- **Skin ulcer:** No
- **Sore throat:** No
- **Vomiting:** No

**Other symptoms (specify):**

**Type of infection:** Pneumonic

---

**Add New**
5. Risk/Exposure/Control & Prevention Package, George Jetson Tularemia

Event ID: 100010605

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/No</th>
<th>Date/Location/Other Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubation period for Tularemia is 2 weeks</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>History of tick bites during incubation period?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Did case travel out-of-state or out-of-country during incubation period?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Did case have any exposure to high-risk animals during incubation period?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Animal type: Wild rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From date: 03/26/2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location: Oak Bluffs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City: MA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country: USA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the animal been ill?</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Did case consume any high-risk animal products during incubation period?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Did case have possible laboratory exposure during incubation period?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Did case have any occupational exposure during incubation period?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Please specify: Landscaper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of exposure: mowed over a bunny</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of exposure: 03/26/2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duties:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Case Classification

Once an investigation has been completed, an epidemiologist reviews the lab and all event information and gives the event a final case classification.

<table>
<thead>
<tr>
<th>Disease classification status</th>
<th>Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting source</td>
<td>Case Report Form</td>
</tr>
<tr>
<td>Date</td>
<td>04/25/2013</td>
</tr>
<tr>
<td>CRF reviewed</td>
<td>Yes</td>
</tr>
<tr>
<td>CRF reviewed date</td>
<td>04/26/2013</td>
</tr>
<tr>
<td>Reviewer name</td>
<td>Sue Soliva</td>
</tr>
<tr>
<td>Import status</td>
<td>Acquired in Massachusetts</td>
</tr>
</tbody>
</table>
# Tularemia Case Definition

<table>
<thead>
<tr>
<th>Event Name</th>
<th>TULα</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Time Period</td>
<td>Lifelong immunityα</td>
</tr>
</tbody>
</table>

**Clinical Description (CDC 1999):**
An illness characterized by several distinct forms, including the following:
- Ulceroglandular:
- Cutaneous ulcer with regional lymphadenopathy
- Glandular:
- Regional lymphadenopathy with no ulcer
- Oculoglandular:
- Conjunctivitis with preauricular lymphadenopathy
- Oropharyngeal:
- Stomatitis or pharyngitis or tonsillitis and cervical lymphadenopathy
- Intestinal:
- Intestinal pain, vomiting, and diarrhea
- Pneumonic:
- Primary pleuropulmonary disease
- Typhoidal:
- Febrile illness without early localizing signs and symptoms

Clinical diagnosis is supported by evidence or history of a tick or deerfly bite, exposure to tissues of a mammalian host of *Francisella tularensis*, or exposure to potentially contaminated water.α

**CDC Event Classification (1999):**

<table>
<thead>
<tr>
<th>Confirmed</th>
<th>Probable</th>
</tr>
</thead>
</table>
| A clinically compatible case with confirmatory laboratory results by one of the following:
| 1. Isolation of *F. tularensis* in a clinical specimen; or
| 2. Fourfold or greater change in serum antibody titer to *F. tularensis* antigen.α |
| A clinically compatible case with laboratory results indicative of presumptive infection by one of the following:
| 1. Detection of *F. tularensis* in a clinical specimen by fluorescent assay; or
| 2. Elevated serum antibody titers to *F. tularensis* antigen (without documented fourfold or greater change) in a patient with no history of tularemia vaccination α |
Milestones

- **MAVEN**
  - **2006:** vaccine preventable, zoonotic, viral hepatitis, general epidemiology and enteric diseases
  - **2007:** TB case management and surveillance
  - **2009:** H1N1 response, on-call, rabies, outbreak management
  - **2010:** RIHP module
  - **2011:** ESPnet integration
  - **2014-15:** STI Module, Food Protection Program Modules, Vibrio, HIV, Phase I and II
  - **2016:** Zika, HIV Phase III, programmatic enhancements
  - Over 1,000 active users
    - State: BID and BEH
    - 332 local boards of health
    - Clinical Practitioner Role (proof of concept)
    - Adoption by other states and jurisdictions
Quality Assurance Activities

- Training
- Proficiency
- Data validations
- ELR
  - Daily
  - Monthly
  - Quarterly
- High-level
- Detailed
- Responsive
- Continuous improvement
Enhanced Support for Public Health Practice: ESP
Automated disease detection and reporting for public health

Practice EMR’s → ESP Server
- diagnoses
- lab results
- meds
- vital signs
- demographics

ESP Server → Health Department
- HL7
- electronic case reports or aggregate summaries

JAMIA 2009;16:18-24
MMWR 2008;57:372-375
Advances Disease Surveillance 2007;3:3
Selected Diseases

- Hepatitis A
- Acute Hepatitis B
- Acute Hepatitis C
- Active TB
- Chlamydia
- Syphilis
- Gonorrhea
- HIV
What do we use it for?

- Triage
- Identification of acute infections
- Diagnosis without lab test
- Minimize load for PCPs
- Enhanced surveillance
- Integrated patient care
- Monitoring care continuum
- Automatic alerts
### ILI Data through ESPNet

![ILI Data Graph]

**ILInet Surveillance Network**

*ILI* is a measure of influenza-like illness.

#### Graph Description:

- **Weeks**: 2010 - 2011, 2011 - 2012, 2012 - 2013
- **ILI %**:
  - 0.0
  - 0.5
  - 1.0
  - 1.5
  - 2.0
  - 2.5
  - 3.0
  - 3.5
  - 4.0
  - 4.5
  - 5.0

**Data Table**:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
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<td>week_nurili_in_0</td>
<td>ili_in_5</td>
<td>ili_in_25</td>
<td>ili_in_50</td>
<td>ili_in_65</td>
<td>total_vis</td>
<td>revised_rep</td>
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<tr>
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<td>25116</td>
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<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>860</td>
</tr>
</tbody>
</table>
Most Recent Alert

Published Date: 2016-02-28 23:11:15
Subject: PRO/EDR> Streptococcus, group A, scarlet fever - UK (02): (England) update
Archive Number: 20160228.4056695

STREPTOCOCCUS, GROUP A, SCARLET FEVER - UK (02): (ENGLAND) UPDATE

A ProMED-mail post
http://www.promedmail.org
ProMED-mail is a program of the
International Society for Infectious Diseases
http://www.isid.org

Date: Sat, 27 Feb 2016
Source: Wells Journal [edited]
http://www.wellsjournal.co.uk/8203-Parents-urged-know-Scarlet-Fever-symptoms/story-28819671-detail/story.html

Health officials are urging parents to be vigilant for scarlet fever symptoms following an outbreak in the region. According to Public Health England (PHE) 37 cases of scarlet fever, which commonly affects young children, were reported across the South West last week.

The authority is now urging parents and guardians to be aware of the signs in an effort to catch the illnesses early. PHE is warning parents to look for signs of a sore throat, headache, fever and pinkish rash on the chest. The rash, which appears within a day or 2, can spread to other parts of the body. It usually occurs on the chest and stomach before spreading to other areas of the body, such as the ears and neck.

Initial symptoms also usually include a high temperature (38.3°C/101°F or above), flushed cheeks and a swollen tongue. Symptoms usually clear up after a week and in the majority of cases remain reasonably mild, providing a course of antibiotics is completed. If you think you or your child may have it, see your GP for a proper diagnosis and appropriate treatment.

Although scarlet fever is now a much less serious infection than it used to be, complications can still arise, particularly in those who are not treated promptly. At present, there is no vaccine for scarlet fever.

March and April are typically when the highest number of scarlet fever cases are normally seen, according to the PHE, and they are likely to tail off after a few weeks. But it said it was unclear why substantial increases in cases had occurred in the past 2 years.
Unknown illness: Brazil (Maranhão) outbreak
...The outbreak of a virus that causes fever, red spots in the body and joint pain, remains on alert health authorities of Caxias. The Municipal Health clarifies already aware of the outbreak, which is affecting hundreds of people in the city.

According to the health secretary, Vinicius Araujo, without the test result is not possible to say whether the virus has no connection or with Chikungunya fever. The agency issued a clarification note. Check the note:

"Regarding the virus outbreak that is happening in the city, were not notified to the Chikungunya fever, for all serology requested to date for the LACEN (reference laboratory tests for diagnosis of tropical diseases by the Ministry of Health in São Luís) were negative.

We ask the Secretary of State for Health to send technicians to our city to perform virus isolation research to clarify what type of virus could be circulating. Until next week this team should get.

Meanwhile, it is important that everyone keep the care of prevention of Dengue, for Chikungunya fever is also transmitted by mosquitoes _Aedes aegypti_ infected and, less commonly, by the mosquito _Aedes albopictus_ ".

One Health

Considers disease without regard to species and recognizes the commonality of human and veterinary health
Zoonoses in disease emergence

- 1407 human pathogens
- 58% are zoonotic
- 130 of the 177 recently emerged pathogens zoonotic (RR=2.0)

Event-based biosurveillance

- GPHIN
- HealthMap
- Biocaster
- MediSys
- Argus (RIP)
- EIN (IDSA)
- Geosentinel
- Flutrackers
- Flu Near You
- FAO (EMPRES)
- OIE (WAHID)
- GOARN (WHO)
- Epi-X
• Thank you!
• larry.madoff@state.ma.us
Office of Integrated Surveillance and Informatics Services (ISIS)

- Implement national standards for epidemiologic, surveillance and laboratory data
  - CSTE case definitions
  - ELR: LOINC / SNOMED
  - ensure CDC reporting (PHIN-MS) and PHIN compliance
    - NEDSS Modernization Initiative
- Implement standardized quality assurance/control measures; conduct quality assurance of surveillance data
- Oversee MU activities related to ELR, EHR (including ESPnet), specialized registries, and syndromic surveillance
- Provide analysis and epidemiological assistance; monitor disease trends to guide public health practice
  - collaborative effort with other divisions
- Data, public records, and legal requests
Risk Communication: Infectious Disease

Sarah Darcy
Media Relations Manager, Public Information Officer
South Shore Health System
Recent infectious disease incidents:

SARS/H1N1 flu

Ebola

Zika
What the public needs/wants from your communication

To gain wanted facts
To feel empowered in decision-making
To be included as a participant, not a spectator
To restore or preserve well-being and normalcy
What do people feel in a crisis?

Denial
Fear, anxiety, confusion, dread
Hopelessness or helplessness
Seldom panic
Risk Communication: Infectious Disease

What will be the first concerns and questions around the outbreak?

Are my family and I safe?

What have you found that may affect me?

What can I do to protect myself and my family?

Who/What caused this?

Can you fix it?
Risk Communication: Infectious Disease

Oh, no! He’s in trouble!

Oh, no! I don’t know how to operate the can opener!
Identify your audience(s) and tailor your message to each:

- Patients/Public health consumers
- Families
- Providers
- Staff
- General Public
Risk Communication: Infectious Disease

Keep big picture in mind—what other factors besides concern about the disease, are affecting your audience?

Access to information
Language barriers
Socioeconomic challenges/access to resources
Cultural beliefs
Geography
South Shore Hospital sample Ebola scripting for staff:

Scenario:
A patient/visitor inquires about another patient they witnessed being cared for with protective/isolation equipment.

Recommended Response:
“I can understand your concern. Please be assured that if there is any risk to your safety, we will alert you as soon as possible. I hope you will understand that the privacy of our patients is very important to us, so I am unable to share any information about that patient. What I can tell you is that we strive to maintain a safe environment for all our patients and staff, and what you have witnessed is part of that commitment.”
South Shore Hospital sample holding statement for media:

“South Shore Hospital can confirm that it is dealing with a suspected case of Ebola. As a result, South Shore Hospital is requesting that any member of the public who is not in an emergency situation to please avoid coming to the hospital. If you do need to come to the hospital, please enter through the McKim Family Main Entrance where you will be directed to our urgent care area. A media relations representative will return your call as soon as possible.”
Communication failures

Not tailoring messages for audience understanding
Mixed messages from multiple experts
Information released late
Paternalistic attitudes
Not countering rumors and myths in real-time
Public power struggles and confusion

Source: CDC
Risk Communication Principles

Be prepared to answer with: “I don’t know.”

Avoid bureaucratic speak.

“Based on what we know now . . .”

Be the first to raise the question that hasn’t been answered.

Leaders: share more, expect criticism, inspire others.

Source: CDC
Risk Communication: Infectious Disease

Risk Communication Principles

Be trustworthy

Share information early

Acknowledge the concerns of others, and allow people the right to feel fear

Under-promise and over-deliver

Select a spokesperson who is never condescending

Engage third-party validators and advocates

Source: CDC
Risk Communication: Infectious Disease

Messaging basics:

• Right message from the right person at the right time

• Keep messages simple and consistent across all channels

• The situation is constantly evolving – make sure to keep up, keep people updated and use consistent mediums to do so

• Always communicate what you know, what you don’t know, what you are doing about it, and what people can do themselves to help the situation.

• Use your staff as a communication force - patients are also a communication vector to their families

• Work with your professional associations to get word out

• When situation is over – tell everyone it is over.
Risk Communication: Infectious Disease

Communication Tools

Email
Phone calls
Huddles
Intranet
Risk Communication: Infectious Disease

esplash: 529 College Savings Plan Program Presentation - May 3rd (12-1PM)

Announcing: MyTime

MyTime
MyTime provides colleagues with more control over their timescard, improving communication as colleagues are able to submit missed clockings and time-off requests to leaders. It is the organization’s expectation that colleagues and their leaders approve requests and update clockings/calendars on a daily basis directly through MyTime. The conversion to the MyTime platform will begin on Tuesday, March 22, 2016. Colleagues should continue to badge in and out on badge readers and/or use TimePC (same as today) during the conversion. All clockings and calendars will be converted to the new system. Sometime Tuesday afternoon the “TimePC” link on Route 55 will change to “MyTime” and colleagues will continue to “Quick Badge” using the new link.

Access To MyTime
MyTime will be easy for colleagues to access. There will be a MyTime icon on every desktop, as well as access through the Route 56 portal.

LOG IN REMINDER:
Colleagues will utilize their Network Login and Password to gain access to the new MyTime Application.

Need More Information:
Training Manuals, Quick Guides and Videos are available on Route 55 via the “MyTime News” link for both Supervisors and Employees.

MyTime Frequently Asked Questions (FAQ)

South Shore Hospital’s Boston Marathon Team
Risk Communication: Infectious Disease

Ebola Virus Disease (EVD) Resource Center

Resources For All
- CDC Ebola Preparedness: Emergency Department Training Modules
- CDC Ebola Virus Disease Home Page
- Massachusetts Department of Public Health Ebola Awareness
- World Health Organization (WHO)
- Mass Hospital Association message
- Putting Ebola in Perspective 10-17-14
- Update on Ebola Preparedness 10-24-14

Resources For Colleagues
- Message for Patients - Visitors Regarding Isolation Activities 11-12-14
- Message for Patients 11-12-14
- General Health Advisory Sign - ENGLISH
- General Health Advisory Sign - SPANISH
- General Health Advisory Sign - PORTUGUESE
- General Health Advisory Sign - CANTONESE
- General Health Advisory Sign - VIETNAMESE
- General Travel Response Sign - PORTUGUESE
- General Travel Response Sign - SPANISH

Resources For Clinicians
- Outpatient Ebola Screening Tools, v6 11-26-2014
- South Shore Hospital Ebola Virus Disease (EVD) Screening Algorithm 11-23-2014
- Ebola CME Presentation 10-29-2014
- Checklist for Patients Being Evaluated for Ebola Virus Disease (EVD) in the United States
- AHA Special Bulletin 10/17/14
- Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) 10/20/2014
Communication Tools cont.

News media
Social Media
Face-to-face
Old fashioned legwork
Risk Communication: Infectious Disease

What you should be doing now

Make a plan

Identify people who can help manage communication

Run drills

Type up mock messaging for all communication channels
Risk Communication: Infectious Disease
Risk Communication: Infectious Disease

Questions?
Social Media references

Twitter
How to use Twitter:  https://www.youtube.com/watch?v=N7w5l8OYphA

Facebook
How to use Facebook: https://www.youtube.com/watch?v=jea2-jGUbRs

LinkedIn
How to use LinkedIn: https://www.youtube.com/watch?v=8fpQMma8_O8A

Instagram
How to use Instagram: https://www.youtube.com/watch?v=0NpO1EKMNBw
Zika Virus Communication Resources

Risk communication and community engagement for Zika virus prevention and control
A guidance and resource package for country offices for coordination, planning, key messages and actions


Source: UNICEF
World Health Organization
Pan American Health Organization
International Federation of Red Cross and Red Crescent Societies (IFRC)
Zika Communication Resources

Centers for Disease Control and Prevention (CDC)
Zika Virus

Main web page:

Quick guide for Zika communication: