

# The Newsletter

## Disease Surveillance and Epidemiology

Definition: Public health surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data about a health-related event for use in public health action to reduce morbidity and mortality and to improve health.

Modern health management requires a collection of different skills (medical, political, technological, mathematical etc.). This requires a forward looking ability of modern risk management to translate health risk factors, incidence, prevalence, and mortality statistics into a health system response for current and potential future population health issues.

Epidemiology first became an issue when human populations began to gather together in towns and cities. Without some form of rudimentary data collection system, controlling outbreaks of infectious diseases would have been impossible. Simple quarantining can contain some diseases that are transmitted from person to person, but more sophistication is required to stop the spread of dis-

eases whose cause is not so obvious.

Infectious disease can cause unnecessary illness, suffering and death, and place a huge burden on society due to cost of direct medical care and lost productivity. When an infectious disease poses a threat to persons (or animals), surveillance and epidemiological data is information for action. Outbreaks have typically been recognized through accumulated case reports on reportable diseases or through clinicians and laboratories that alert public health officials.

Most of us are familiar with case reporting. Case reporting is passive surveillance. It is simple and inexpensive, used daily to quietly monitor for potential problems. Unfortunately, this form of surveillance provides incomplete data so that when a cluster of illness is noted a more active form of surveillance must be initiated. Active surveillance requires that physicians and hospitals be contacted for additional information. Surveillance activities can be weekly or daily depending on the type and intensity

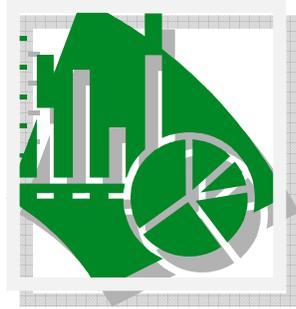


### Special points of interest:

- We are on Facebook (But don't forget to check the website too!)
- Looking for Recipes
- Do you know of a great resource for families?
- MRCs make a difference— Virginia offers special time with the homeless.

of the infectious disease outbreak.

Syndromic surveillance is a new methodology that seeks to identify potential outbreaks through groups of symptoms. Examples are Influenza-like illness or Rash-like illness. The methodology monitors for apparent aberrations of expected numbers of persons with non specific symptoms through physician reports, emergency room reports, calls to nurse helplines and through pharmacy retail sales.



Epidemiology further refines this surveillance by looking at frequency and patterns of occurrence. Frequency refers to the number of cases and the resulting rate allows epidemiologists to compare disease occurrence across different populations.

Pattern refers to the occurrence by time, place, and person. Time patterns may be annual, seasonal, weekly, daily, hourly, weekday versus weekend, or any other breakdown of time that may influence disease or injury occurrence. Place patterns include geographic variation, urban/rural differences, and location such as work sites or schools. Personal characteristics include demographic factors which may be related to risk of illness, injury, or disability such as age, sex, marital status, and socioeconomic status, as well as behaviors and environmental exposures. Pattern epidemiology is also known as descriptive epidemiology.



What is being monitored?

- Respiratory infections [e.g., influenza (both seasonal and pandemic), legionellosis, etc.]
- Gastrointestinal illnesses (e.g.,

norovirus, salmonellosis/typhoid fever, shigellosis, Shiga toxin-producing *Escherichia coli*, campylobacteriosis, botulism, hepatitis A, listeriosis, giardiasis, cholera, etc.)

- Agents that may be used for bioterrorism (e.g., anthrax, tularemia, smallpox, viral hemorrhagic fevers, Q fever, etc.)
- Other conditions of public health importance (e.g., emerging infectious diseases, invasive bacterial infections, drug-resistant infections, outbreaks)
- Infections and other health conditions potentially associated with healthcare facilities

Medical Reserve Corps involvement in surveillance and epidemiology activities may be only occasionally but can be varied. Volunteers can help in the following ways: Support local health departments through working at a vaccine clinics or in the worst case scenario at off-site wards that may be set up by the hospital, Gathering information through interview or community surveys, Screening activities, Picking up samples, and Delivering information. Possible events that have been considered that an MRC may help to monitor are rabies outbreaks, TB outbreaks and a pandemic event.

An MRC group from California has actually developed an Epidemiology Response Team and training program starting with “Epi for the Non-Epi” building to Case Studies and Reporting Forms. Another group from Rensselaer County has developed a Just –In-Time training. It will be posted on our website:

## Wachusett We are on Facebook!!

Deb Pressey and I, Judie O'Donnell, have launched the Wachusett MRC Facebook page. Although I am not a fan of Facebook because it has the potential for harm, it can be a good tool for instant communication and announcements that have time-frames attached to them. The eventual goal is to have a very professional site with some additional

pages to highlight upcoming events or trainings and pictures of what we have done in our communities.

We are still learning (especially me), so ideas and suggestions are welcome as well as any instructions on how to make these changes happen. As I said, I am still learning and I haven't the ability yet to take all of our email list and enter so

that everyone gets an invite/notification. It only takes the same portion of the list every time and so some of you have received many invites. My apologies. But to those of you who may be feeling shunned as a 'friend', consider this an invite to become 'a friend of the Wachusett MRC' on Facebook. And of course, invite a friend to become a

### Wanted: Recipes!!

Recently, looking through some recipe books, I came across a book entitled Meals for \$7 or less. Great! This would be a great help to find recipes for a menu plan that is simple, nutritious and inexpensive for families. Wrong..as I read through them, I realized that many had ingredients that children would not like or

ingredients that are not something you keep in the house on a regular basis. So back to the original idea...

Two of our volunteers have started a recipe book with recipes that are taste tested, easy to cook and will include nutrition labeling and cost per meal. So here is the appeal! We need a recipe from each volunteer. That is

a potential for over 200 recipes!

So Xerox that gravy stained favorite recipe and send it in to Wachusett MRC PO Box 555, Hubbardston, MA 01452 or email to [wachusettmrc@juno.com](mailto:wachusettmrc@juno.com). The booklet of recipes will be distributed at various events as a give away as part of a public health awareness pro-



### Wanted: Resources!!

Have you had contact with a person, program or agency that has a lot of positives to give to families? We want to know about it then! Why? One of our volunteers has been working with a new program for men, women and their children who are transi-

tioning from military life to civilian life. Presently there is a one pager that lists resources around central Massachusetts. Pretty slim! So we need your help to let us know about any program that is for families or individuals. It can be serious like counseling ser-

vices or it can be a great place to go and have a lot of fun.

You don't have to do anything more than send in a name, address and/or telephone number so we can contact the program. Please swamp the mailbox!! Deadline to publish!!

## *National News: Virginia Beach MRC Helps Homeless Community with Public Health Outreach Activities*



The Virginia Beach MRC (VBMRC) recently partnered with the city of Virginia Beach's Projects in the Assistance for Transition from Homeless (PATH) program to provide ongoing basic first aid training to the homeless community of Virginia Beach. Some of the homeless reside in tents in the woods nearby the resort area and may not have immediate access to healthcare. Therefore, the VBMRC thought this would be a good outreach opportunity to educate this population so that they understand basic first aid and information. Approximately 25 individuals from the homeless community attended weekly meetings to learn first aid. The classes are held at a location owned by a local church called "the Potter's House," which is specifically used for supporting the oceanfront homeless community. During the first aid training classes, individuals are taught practical applications on how to deal with first aid issues, what to do, and what not to do. Some of the biggest challenges the volunteers have encountered so far are questions from individuals who suffer from drug use and mental health issues about suicide attempts, shooting and stabbing issues, and other major real-world issues the homeless population has to deal with because of the circum-

stances they live in.

The partnership with PATH began in 2006 when the VBMRC provided public health services such as flu shots to the homeless during I-Count, PATH's annual sample homeless population count. The MRC volunteers functioned as vaccinators, health screeners, and took the blood pressure of individuals, and helped individuals fill out applications for birth certificates so they can obtain additional services. Through these events, volunteers identified several people with hypertension after blood pressure screenings, and had the PATH program follow-up with their care.

The VBMRC participates in these events because the efforts of the volunteers, "makes a direct impact in our community while providing additional volunteer engagement opportunities. It also makes our MRC unit unique in its public health outreach initiatives that it takes on," says unit director, Jolynn Turner. Turner says it has been an "amazing experience getting to know this group of individuals over the past several years. The VBMRC has continued to build a trusting relationship with the homeless community with our outreach efforts, so much that they now call me the 'flu shot lady' and MRC volunteers 'the people with the red shirts.' The VBMRC looks forward to providing additional public health community outreach opportunities and services to the Virginia Beach homeless population by continuing to work with partners such as PATH and our local churches. (From MRC In Touch national newsletter)

## Local News:

### *Brookline on TV, December 5, 2010*

The town's Medical Reserve Corps is featured on a public-access cable show that recognizes its ability to efficiently deliver emergency care to large groups. Dawn Sibor, the emergency coordinator for the Health Department, and Dr. Suzanne Salamon, a Medical Reserve Corps volunteer, will be on Physician Focus this month. The show is produced by the Massachusetts Medical Society and distributed

to 250 communities across the state, and online at [www.physicianfocus.org](http://www.physicianfocus.org).

You will need to go to "Previous Shows" to bring this specific show on the MRC up for viewing. The program does contain a lot of information about the newly titled Mass-Responds database.

### *Medical Reserve Corps to host teen open house December 10, 2010*

BARNSTABLE — The Cape Cod Medical Reserve Corps will hold an open house Jan. 11 for a new Explorer Post for teens who want to prepare for a medical career.

Explorer Post No. 9/11 is open to teens 14 to 19 years old, Cape Cod Medical Reserve Corps Director Jean Roma said.

Post members will learn practical skills to prepare them for a career in health care,

including CPR, incident command structure and how to assemble their own first-aid kit, she said.

Members will also assist at emergency shelters when needed, she said.

The open house for high school-age students and their parents will start at 6:30 p.m. at the Old Barnstable County Jail on the hill overlooking the county complex on Route 6A in Banstable.



### *In Framingham, a turkey and a flu shot November 23, 2010*

The Framingham Medical Reserve Corps says it plans to administer flu shots on Thanksgiving Day at the Curtis Family Feed.

Mark and Karen Curtis of Medway are continuing their 20-plus-year tradition of feeding the community with a free, hot turkey dinner Thursday at the Eagles Hall, 55 Park St. They also offer delivery service to shut-ins.

The Medical Reserve Corps says it

will be at the Eagles Hall with volunteers from noon to 2 p.m., administering flu shots.



## *Wachusett Medical Reserve Corps*

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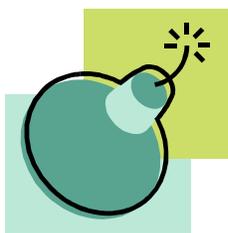
Email: [wachusettmrc@juno.com](mailto:wachusettmrc@juno.com)

Web: [wachusettmrc.org](http://wachusettmrc.org)

## Dirty Bomb!! After the Blast

A public health emergency simulation

<http://www.sph.umn.edu/ce/trainings/online.asp>



During a political rally for Senator Lund, the unexpected happens — a Dirty Bomb! The community needs you to use your public health emergency skills to make decisions on behalf of the responders during the emergency response.

This is how an interactive 3D program starts that was developed by the University of Minnesota Center for Public Health with grants from the CDC. In the simulation, you are asked to complete three missions at three centers: 1. Decontamination 2. Mass Fatalities Operational Sites and 3. Community Assistance Center. Dirty Bomb! After the Blast depicts an example of how some portions of the radiological preparedness and response to such a disaster might proceed.

The primary audience for this training includes: Health care professionals and public health workers (especially state and local health department staff) who are responsible for emergency preparedness and Medical Reserve Corps volunteers. It is a fun activity and please fill out the survey at the end. A link to it will be placed on our website: [www.wachusettmrc.org](http://www.wachusettmrc.org)