



# THE NEWSLETTER

## WACHUSETT MEDICAL RESERVE CORPS

### EBOLA AND ENTEROVIRUS D-68

*This article was researched in hopes it will give you accurate information to share with friends, family and those you interact with in your work. Occasionally, the question of MRC involvement comes up on the listserv. The MRC was not developed to be a service to support international endeavors. It was developed to assist locally: working with families, then neighborhoods, then the community as a whole in times of manmade or natural disasters and public health events. The MRC membership can help by making sure that people have accurate information to reduce fears and dispel misinformation. judie*

*Ebola is a recently recognized virus of the Filoviridae family and can cause severe hemorrhagic fever in humans and nonhuman primates. So far, only two members of this virus family have been identified: Marburgvirus and Ebolavirus. Five species of Ebolavirus have been identified: Tai Forest (formerly Ivory Coast), Sudan, Zaire, Reston and Bundibugyo. Ebola-Reston is the only known Filovirus that does not cause severe disease in humans; however, it can still be fatal in monkeys and it has been recently recovered from infected swine in South-east Asia.*

*The first Filovirus was recognized in 1967 when a number of laboratory workers in Germany and Yugoslavia, who were handling tissues from green monkeys, developed hemorrhagic fever. A total of 31 cases and 7 deaths were associated with these outbreaks. The virus was named after Marburg, Germany, the site of one of the outbreaks.*

*After this initial outbreak, the virus disappeared. It did not reemerge until 1975, when a traveler, most likely exposed*

*in Zimbabwe, became ill in Johannesburg, South Africa. The virus was transmitted there to his traveling companion and a nurse. Sporadic outbreaks of both forms of Filovirus have been recorded since that time in several countries of Africa.*

*It appears that Filoviruses are zoonotic and despite numerous attempts to locate the natural reservoir or reservoirs, their origins were undetermined until recently when Marburgvirus and Ebolavirus were detected in fruit bats in Africa. Marburgvirus has been isolated on several occasions from Rousettus bats in Uganda. In an outbreak or isolated case among humans, just how the virus is transmitted from the natural reservoir to a human is unknown. Once a human is infected, however, person-to-person transmission is the means by which further infections occur. Specifically, transmission involves close personal contact between an infected individual or their body fluids, and another person. Because there is no known effective treatment for the hemorrhagic fevers caused by Filoviruses, transmission prevention through isolation precautions is currently the centerpiece of Filovirus control.*

*Ebola is spread through direct contact with blood and body fluids like urine, feces, saliva, vomit, sweat, and semen of a person who is sick with Ebola. Ebola is not spread through the air, water, or food.*

*The time from exposure to when signs or symptoms of the disease appear (the incubation period) is 2 to 21 days, but the average time is 8 to 10 days. Signs of Ebola include fever and symptoms like severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising. Diagnosing Ebola in a person who has been infected for only a few days is difficult, because the early symptoms are nonspecific*

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## Public Health

### Case Counts\*

\*Case counts updated in conjunction with the World Health Organization updates and are based on information reported by the Ministries of Health. As of October 14, 2014 (Updated October 20, 2014)

Total Cases: 9216

Laboratory-Confirmed Cases: 4218\*\*

Total Deaths: 4555\*\*

\*\*Numbers are lower than actual laboratory confirmed cases and deaths because stratified data are temporarily unavailable for Liberia.

to Ebola infection and are seen often in patients with more commonly occurring diseases, such as malaria and typhoid fever.

Symptoms of Ebola are treated as they appear. The following basic interventions, when used early, can significantly improve the chances of survival:

- Providing intravenous (IV) fluids and balancing electrolytes (body salts)
- Maintaining oxygen status and blood pressure
- Treating other infections if they occur

Recovery from Ebola depends on good supportive clinical care and the patient's immune response. People who recover from Ebola infection develop antibodies that last for at least 10 years.

There has been concern expressed by many nursing unions and societies about the safety of healthcare workers taking care of these patients. Unfortunately, nurses are at the greatest risk because nurses are the primary caretaker and unfortunately, the risk is not zero. There are sites that provide nursing education on PPE (personal protection equipment). The best is from the University of Nebraska Medical Center under their HEROES program or [http://app1.unmc.edu/nursing/heroes/ppe\\_posters\\_vhf.cfm](http://app1.unmc.edu/nursing/heroes/ppe_posters_vhf.cfm)

**\*\*This site is worth checking out just because you are a member of the MRC, medical professional or not. Very well done and lots of good information on several topics related to responding to public health events.**

For information on ongoing research and vaccine development against the Ebola virus, go to the National Institute on Allergy and Infectious Diseases website: <http://www.niaid.nih.gov/topics/ebolaMarburg/research/Pages/default.aspx>

From the World Health Organization are situation assessments and this URL will take you to the latest in Nigeria which has now been more than 42 days and counting free of new cases. Nigeria had some previous experience to build on from working to eradicate another infectious disease in the country and used this experience to monitor and quarantine.

<http://www.who.int/mediacentre/news/ebola/20-october-2014/en/>

## Enterovirus D-68

Enteroviruses are a large family of viruses responsible for many infections in children. These viruses live in the intestinal tract, but can cause a wide variety of illnesses. There are more than 70 different strains, which include the group A and group B coxsackieviruses, the echoviruses, the polioviruses, Hepatitis A virus, and several strains that just go by the name enterovirus. Even though there are many strains, most illness is caused by about a dozen of them. These viruses can live for days at room temperature. Refrigerating and freezing does not inactivate them. They are, however, easy to kill with heat and with disinfectants.

They cause about 10 to 15 million infections in the United States each year. Tens of thousands of people are hospitalized each year for illnesses caused by enteroviruses. Anyone can get infected with non-polio enteroviruses. But infants, children, and teenagers are more likely to get infected because they do not yet have immunity from previous exposures to the viruses.

Most people who are infected only have mild illness. Symptoms of mild illness may include:

- fever
- runny nose, sneezing, cough
- skin rash
- mouth blisters
- body and muscle aches

Some non-polio enterovirus infections can cause

- viral conjunctivitis,
- hand, foot, and mouth disease,
- viral meningitis (infection of the covering of the spinal cord and/or brain).

Less commonly, a person may develop:

- myocarditis (infection of the heart)
- pericarditis (infection of the sac around the heart)
- encephalitis (infection of the brain)

paralysis  
People who develop myocarditis may have heart failure and require long term care. Some people who develop encephalitis or paralysis may not fully recover.

Newborns infected with non-polio enterovirus may develop sepsis (infection of

## Public Health

### Non-polio Enteroviruses

- Coxsackievirus A
- Coxsackievirus B
- Echoviruses
- [Enterovirus D68](#)  
and other Enteroviruses

the blood and other organs). But this is very rare.

*Non-polio enterovirus infections may also play a role in the development of type 1 diabetes in children.*

*These viruses are very contagious. They move from stool to skin to mouth. They may also be spread by the respiratory route. Because they can live so long on surfaces, they are often spread via infected objects (fomites).*

*Exposure to the virus is by—having close contact, such as touching or shaking hands, with an infected person, touching objects or surfaces that have the virus on them, changing diapers of an infected person, or drinking water that has the virus in it. Touching eyes, nose, or mouth before washing hands, increases the risk for infection.*

*Pregnant women who are infected with an enterovirus shortly before delivery can also pass the virus to their babies. It can be shed (passed from a person's body into the environment) even without symptoms in feces for several weeks or longer after infection and/or from the respiratory tract for 1 to 3 weeks.*

*There is no vaccine to protect for non-polio enterovirus infection. Since many infected people do not have symptoms, it is difficult to prevent enteroviruses from spreading. The best way you can help protect yourself and others from non-polio enterovirus infections is by Washing hands often with soap and water, Cleaning and disinfecting frequently touched surfaces, Staying home from work or school if sick, Avoid touching your eyes, nose or mouth as you may have picked up the virus from surfaces or close contact with some with the virus, Coughing into you sleeve and Keeping your distant from those that are sick.*

### *Specific to Pediatrics*

*Often when parents bring a sick child to the doctor and hear, "It's just a virus," the child has an enterovirus.*

*The most common illness associated with enteroviruses is "non-specific febrile illness." Children with this type of illness*

*have a fever and feel under the weather for around 3 days. Sometimes they have a fever for a couple of days, feel better, and then have another fever for a couple of days. Sometimes the fever is quite high. There may be loose stools, tummy aches, sore throats, headaches, muscle aches, vomiting – or nothing but a fever.*

*During enterovirus season, these viruses are the main cause of rash-illnesses in children. Enteroviruses can also cause respiratory infections, including the common cold, sore throats, and pneumonia.*

*Enteroviruses can cause GI infections, including nausea, vomiting, abdominal pain, and hepatitis.*

*Enteroviruses can cause neurologic infections, including meningitis, encephalitis, and illnesses that cause paralysis. A recent study showed that some children who contracted a certain kind of central nervous system enterovirus infection were at higher risk for the development of ADHD.*

*They can cause arthritis, chest pain, muscle infections, heart infections, testicle infections, newborn infections, and eye infections. Hand, foot, and mouth disease, herpangina, and acute hemorrhagic conjunctivitis are specific diseases caused by enteroviruses.*

*For most children no treatment is needed, except to provide relief of bothersome symptoms. Those with serious infections may need antiviral medications or IV treatments. Antibiotics are not useful for treating enteroviruses or other viral infections.*

*A good reference site for parents is Dr. Alan Greene website: <http://www.drgreene.com/articles/enteroviruses/>*

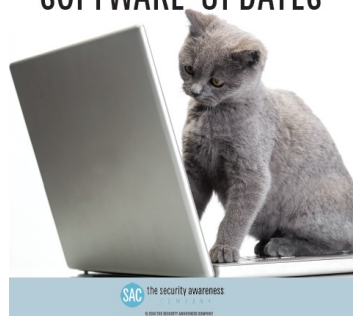


## Emergency Preparedness



Cybersecurity begins with a simple message everyone using the Internet can adopt: STOP. THINK. CONNECT. Take security and safety precautions, understand the consequences of your actions and behaviors online, and enjoy the benefits of the Internet.

## SECURITY CAT IS ON YOUR COMPUTER, INSTALLING YOUR SOFTWARE UPDATES



### **Keep a Clean Machine.**

□ Keep security software current: Having the latest security software, web browser, and operating system are the best defenses against viruses, malware, and other online threats.

□ Automate software updates: Many software programs will automatically connect and update to defend against known risks. Turn on automatic updates if that's an available option.

□ Protect all devices that connect to the Internet: Along with computers, smart phones, gaming systems, and other web-enabled devices also need protection from viruses and malware.

□ Plug & scan: USBs and other external devices can be infected by viruses and malware. Use your security software to scan them.

### **Protect Your Personal Information.**

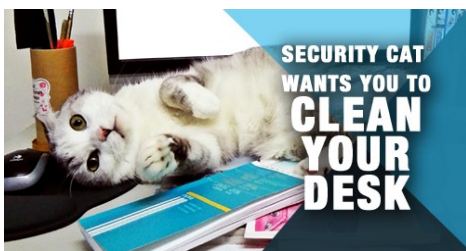
□ Secure your accounts: Ask for protection beyond passwords. Many account providers now offer additional ways for you verify who you are before you conduct business on that site.

□ Make passwords long and strong: Combine capital and lowercase letters with numbers and symbols to create a more secure password.

□ Unique account, unique password: Separate passwords for every account helps to thwart cybercriminals.

□ Write it down and keep it safe: Everyone can forget a password. Keep a list that's stored in a safe, secure place away from your computer.

□ Own your online presence: Set the privacy and security settings on websites to your comfort level for information sharing. It's ok to limit how and with whom you share information.



### **Connect with Care.**

□ When in doubt, throw it out: Links in email, tweets, posts, and online advertising are often the way cybercriminals compromise your computer. If it looks suspicious, even if you know the source, it's best to delete or if appropriate, mark as junk email.

□ Get savvy about Wi-Fi hotspots: Limit the type of business you conduct and adjust the security settings on your device to limit who can access your machine.

□ Protect your \$\$: When banking and shopping, check to be sure the site is security enabled. Look for web addresses with "https://," which means the site takes extra measures to help secure your information. "Http://," is not secure

### Resources:

The National Cyber Security Alliance, <http://www.staysafeonline.org/> has NCSAM tools, banners and materials to help home users, K-12 Educators, Higher Education, Small Businesses and more get involved at [www.staysafeonline.org](http://www.staysafeonline.org). You can also follow NCSA on Facebook or on Twitter @STOPTHINKCONNECT and @StaySafeOnline and search #NCSAM to find more cyber safety tips and resources. <http://www.stopthinkconnect.org/>

The Anti-Phishing Working Group (APWG) and National Cyber Security Alliance (NCSA) led the development of the STOP. THINK. CONNECT. campaign. The U.S. Department of Homeland Security provides the Federal Government's leadership for the STOP. THINK. CONNECT. campaign. The tips on this page are from one of their posters that are available for download and worth a look. Some of the topics are cyberbullying, tips for mobile devices, and games on the internet. Some posters are written for adults while others are for children and teens.

Also visit The Security Awareness Company for some cyber tips, tools and Security Cat graphics.

[www.thesecurityawarenesscompany.com/securitycat.html](http://www.thesecurityawarenesscompany.com/securitycat.html)

## VOLUNTEER ACTIVITIES

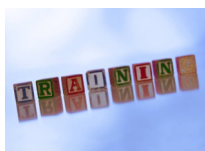


Included below is a list of events/activities undertaken by Medical Reserve Corps units from across the United States, in support of National Preparedness Month which was in September. It represents a handful of good ideas among many.

1. Reach out to local food, home improvement and other retail stores which carry preparedness items. Showcase those items and have a demo on how to make an emergency supply kit. (Atlantic County MRC, NJ)
2. Preparedness Selfie Challenge - Use social media to challenge local officials and community groups to post a "selfie" with their personal preparedness measures - i.e., family meetings places, home supply kits, etc. (Olmsted MRC, MN)
3. Pet Preparedness Day - Contact local and corporate pet stores. Use display items from these stores to create a pet emergency supply kit. Take pictures of pets and give pictures to owners for pet IDs. (Atlantic County MRC, NJ)
4. MRC Prep Day - September is a great month to revisit preparedness stockpiles! Encourage volunteers to review their go kits, bags, car kits, etc. (Warren County MRC, NJ)
5. Partner With Homeowner Associations - Partner with homeowner associations to distribute preparedness information. (Lord Fairfax MRC, VA)
6. Prescription Take Back Day - Host, or participate in, a Prescription Take Back Day or Medication Disposal Event. Distribute preparedness information to participants. (Alexandria Medical Reserve Corps, VA)
7. Prepare Recipe's for Disaster - Host a cook off competition or cooking demonstration with foods found in an emergency preparedness kit. Burlington County MRC & Morris County MRC, NJ)
8. Go Bag Packing - Use MRC volunteers to pack and/or distribute go bags, or preparedness materials to the general public. (Delaware County MRC, DE)
9. MRC Movie Night - Show the movie "Contagion." Host a discussion comparing how the movie might compare to a real response. (Monmouth County MRC, NJ)
10. Use Your Local Libraries! - Using your MRC volunteers, distribute preparedness information to library patrons. Create preparedness displays for the library. (Yates County MRC, NY)
11. Create an E-Ambassador Program - Ask volunteers to distribute preparedness materials/messages via their email networks. Leverage creative ways of information dissemination, like asking volunteers to consider changing their email signatures to include preparedness information and/or relevant links. (Suffolk County MRC, NY)
12. Preparedness for Kids - Focus on preparing kids for emergencies. Develop and market a kid's go-bag. Include a first aid kit, glow sticks, flashlight, preparedness activity books and crayons, etc. Engage parents and children through community outreach or at a local event. (Medical Reserve Corps of North Idaho, ID)
13. Hurricane Quiz Contest - Create a weekly hurricane or winter storm quiz. Make the quiz more challenging each week. Provide the winners, who successfully answer all quiz questions correctly, with a preparedness item for their kit or go bag. (Atlantic County MRC, NJ)
14. Pizza and Preparedness - Who can turn down pizza! Host a pizza and preparedness event. Talk about personal preparedness. Register interested individuals in joining the MRC on site! (Worcester Regional MRC, MA)



## OTHER INFORMATION

**Meetings, Trainings and Announcements**

We have been very busy this summer and fall with many activities from leadership meetings to flu clinics to

community events to senior fairs to talking with various groups about putting go kits and other emergency supplies together to working with students to providing posters to schools encouraging children to wash their hands! Whew!!

We have made new contacts and have been invited into new places. We will be building on these new contacts. We are also planning new trainings and in the winter newsletter hopefully will have some confirmed dates, speakers and places.

*Meetings:* December 8 is the State MRC Leaders meeting to be held at the Fire Academy in Stow.

*Special notes:* Seven of our newest members to the MRC spent anywhere from 5 to 8 hours each attending an animal shelter training with the Central Mass DART program. The first half was classroom and the second half was a hands on activity demonstrating how to set up and work in an animal sheltering scenario.

Jennifer Benoit handled a table by herself at the Senior Fair in Fitchburg and did a great job including making contacts with 3 other agencies. The agencies left their business cards asking for a presentation to introduce the MRC program to their staff.

Suggestions had been made to give out sunscreen at our summer events. Found a great little flyer to go with the sunscreen. In the end 360 tubes of sunscreen were passed out mostly at the Sterling Fair and at the Gardner Sidewalk Sale. Hot sunny days!

Starting with the Winchendon Celebration to the Rutland Senior Fair, the final total of volunteer participation is close to 50 and many others had indicated an interest but were unable because of conflicts. Thank you everyone who were able to help!

Please check the website and your email for periodic updates. Have an idea or saw something that you would like to share, call or email. Would love to hear about it. Think of the positive effect 400 volunteers could have with 400 ideas!!

**If your community is having an event, let us know. And of course we need volunteers to help cover the table display. Give us a call or email your idea or if you are available to help in your community or a nearby community and thank you everyone!**

Is your youth group or Scout troop looking for a program that will help prepare them to help others in need? To learn a skill that they can share or use during an emergency? If you would like to teach a group for first aid or CPR or Babysitting for youth, let us know and we will support you. We have many 'experts' who can share their experience with you to help you in your planning.

**And Finally...Do you have your winter supplies updated and together? Have that flashlight with fresh batteries? Have extra blankets and sweatshirts in your box of supplies for that cold winter night? Have a crank or battery radio ready, set, go? How about extra food supplies and water? Don't forget extra water for washing or for flushing the toilet.**

**Check the Ready.gov site for a great list of supplies, a list for special needs and of course a list for the dog or cat.**



# WACHUSETT MEDICAL RESERVE CORPS

PO Box 555  
Hubbardston, MA 01452

Tel: 978-928-3834

E-mail:  
wachusettmrc@juno.com

Website:  
www.wachusettmrc.org



*Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has.*

*Margaret Mead*



«First Name» «Last Name»

«Home Address»

«City» «State» «Zip»

## ***MRC Values...***

### **I CARE:**

*Innovation: We search for creative solutions and manage resources wisely.*

*Collaboration: We use teamwork to achieve common goals & solve problems.*

*Accountability: We perform with integrity & respect.*

*Responsiveness: We achieve our mission by serving our residents & engaging our partners.*

*Excellence: We promote quality outcomes through learning & continuous performance improvement*