## DISASTERS AND PUBLIC HEALTH

By Nicole Lurie, M.D., MSPH, Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services

As National Public Health Week draws to a close, as events in Japan shift toward recovery, they act as an important reminder of how closely tied disaster emergency management is to health. Indeed, medical concerns of citizens are always a preeminent focus of any disaster response.

Regardless of the nature of a particular disaster, the underlying health of affected populations has a significant impact on disaster management.



Populations across the U.S. struggle on a day-to-day basis against a myriad of chronic health conditions such as heart disease, asthma and other common illnesses. With good planning and the implementation of effective public health measures, care of patients with these types of common health conditions can be managed effectively in a disaster without increased negative effects to the health and well being of the affected populations. However, our systems of day-to-day public health must be closely tied with disaster management to ensure that our hospitals and clinics are equipped to handle the surge of patients that often accompanies a major disaster. In order to work well during a crisis, these systems work together on a regular basis. Developing a system for educating the public about prevention of common illness and disease and managing small-scale personal emergencies is a great example of an area public health and emergency management can work together. (next page)

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#### Special points of interest:

- \* Incident Command in everyday use
- \* Revamping the Wachusett MRC
- \* Hurricane season is coming.

## INCIDENT COMMAND SYSTEM

MRC members are strongly encouraged to learn about Incident Command as that is the structure of command that will be put in place during an emergency event. You can access a power point presentation on the FEMA (ICS100/NIMS 700) website. A link is provided on our website: wachusettmrc.org

Although you might not think the Incident Command

System could be useful except in emergencies, it can help organize any event. Its organizational structure can be expanded or contracted as needed, but the basic positions/functions still apply. The "management by objectives", "functional grouping of activities", and "avoiding duplication of effort" concepts are intuitive; in many cases you might not even realize that what you are doing is

following the Incident Command System.

Take, for instance, a typical extended family's holiday dinner. Our matriarch, Grandma, is the Incident Commander. She'd love to have all the kids and grandkids under one roof for a big fancy meal with fried turkey and oyster pie, on Thursday at two in the afternoon. She's provides (next page)

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#### Incident Command-from page 1

her two daughters, Beth and Laura with the time and date, and asks them to organize the big event. They agree to split up the work and have the dinner at Beth's home.

Beth starts figuring out the rest of the menu, how many people will be there, who'll cook what, as well as the ingredients and supplies they'll need - the tactical details. (She's the Operations Section Chief).

Laura makes a list of what they've got at Beth's house, the things she can bring over from hers, what needs polishing before it can be used, what they can borrow and what they'll have to purchase, especially if their brother, Sam, and his little boy, who only eats certain kinds of food, can make it (tracking the status of resources, anticipating future needs - she's the Plans Section Chief).

Laura's husband offers to pay for all the food and decorations if they'll let him watch football instead of washing dishes on the day of the event. (He's Finance Section Chief.) Beth's husband agreed to make sure the turkey fryers are a safe distance from the house and a hose is nearby (Safety Officer).

Laura's oldest is assigned to make sure all of the groceries/ingredients/beverages are on site and ready to be prepared by Wednesday. (She's in Logistics now, but might get reassigned to Ops to help with cooking on Thursday.) Beth's oldest is in charge of china and silverware, supervising the other kids cleaning house and setting up tables and chairs. Plus they've got to get guest rooms ready in case Sam and son make it, or other cousins decide to stay over. (All of these kids are in Logistics – the event needs a lot of support.)

When Thursday arrives not only does everyone arrive but Sam and his son have Sam's significant other and two more children with them. Logistics brings extra chairs spread some things out to another card table. Beth appoints the oldest at each "kids' table" on either side of the main table to keep order and be "in charge" and get whatever those tables need (Division Supervisors – geographically separated but same function).

Although there was no need for a written Action Plan, each person was briefed on the overall plan and given specific tasks/ instructions. The system allowed each person to do the job most appropriate for their skill set, understand how they fit into the whole event, and know that other aspects of the event were being handled. When everybody stays in their own "box" (think of an Org Chart), no one has to try to do everything and the event is a success!

Martha L. Wagaman, GCertPH Public Health Services / Risk Manager FDOH – St. Johns County Health Dept.



## Disasters and Public Health from page 1

Individuals and communities need to understand both how to manage their own health issues on a day-to-day basis as well as how they would manage these issues if a disaster were to strike. Having a public that is educated about how to manage their own health issues during a disaster is a key component to mitigating the health effects of disasters on individuals and communities.

Federal preparedness grant programs emphasize the need for planning, coalition building, and exercises. Yet in order to function effectively such efforts must be integrated in a coordinated fashion throughout health and medical systems, as well as systems of emergency management across federal, state and local levels. While these systems work well together in some communities, as a nation, we need these efforts to be integrated and seamless in every town and every region across the country. We may need to start thinking differently about how we approach preparedness and response - for instance encouraging the healthcare sector to think in a more geographical sense about how resources can be shared between hospitals, or how communities can work together to assess and address acute needs in disaster situations.

One of the challenges we face is that the health communities reside both in public and private sectors. Hospitals and healthcare facilities are businesses, and while it's not always easy for emergency managers and health officers to coordinate seamlessly with one another during a crisis, it's even more difficult for public health entities and the private sector to share information and address needs during the height of a disaster. During the course of the past few years we have seen some successful examples, such as corporate pharmacies working with the federal government to disseminate flu vaccine during H1N1. We know success in this realm is possible, it's now a matter of integrating these practices as a part of day-to-day business so that the system functions naturally in an emergency.

In public health, we want communities to be resilient which they are means being capable of preventing, withstanding and mitigating the stress of a health incident and to recover in a way that restores the community to self-sufficiency, to preincident health levels (or better). I'm sure that's your goal, too. So, please, if you haven't already, reach out to your local hospitals, healthcare facilities and public health offices. Invite them into your exercises and to be part of your planning. And remember that as a citizen, you personally play a key role in this as well by preparing in advance for your own health-related needs and having a family plan to support those needs. It's important to work together and for each of us to be prepared now if we're going to respond effectively as a whole community when every minute counts.

- Nicole Lurie, M.D., MSPH

FEMA Blog April 8, 2012

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I was looking through the archives of the American Journal of Public Health and saw this. May 1930 and the journal had a number of articles on disaster preparedness and response. The article content sounds familiar. Here are a couple of excerpts. Judie

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### **Pre-disaster Preparedness**

CONSIDERING the various public health phases of disaster relief it can best be handled by sub-division into three sections: Pre-disaster Preparedness, Emergency Relief, and Post-disaster Relief (rehabilitation). The committee proposes to consider each as a unit and presents herewith pre-disaster preparedness as relates to the public health engineering aspect of disaster relief.

Disasters affecting cities. towns or rural areas can be classified as to causes:

- 1. Floods, overflows, water damage, tidal waves
- 2. Fires, conflagrations, forest
- 3. Wind, tornado, hurricane, coastal gales
- 4. Explosions, munitions, factories, mines, institutions
- 5. Drought, water supply failures
- 6. Disease outbreaks
- 7. Earthquakes

Any or several of these types of disaster may bring up problems where the mature judgment of the engineer may be of utmost importance in arriving at a prompt, effective solution

Disasters are no longer minor or chance occurrences, but each year they are more widespread, more devastating, more demanding of the harmonious assistance of such agencies as:

1. Official, Governmental Agencies:

Federal, State, County and City Health Departments State Militia or Police organizations

U. S. Army, Navy and Coast Guards

Agricultural, Mining, Forestry Departments

2. Official Relief Agencies:

National or local American Red Cross

3. Unofficial Agencies:

American Legion

Salvation Army

Religious and Fraternal Orders

The problem of harmonizing forces prior to disaster is worthy of our best efforts, and it is hoped that this report may stimulate some thought, if not action.

## Public Health and Medical Problems in Disasters

WILLIAM DEKLEINE, M. D., F. A. P. H. A.

Director, Medical Service. American National Red Cross, Washington. D. C.

The emergency period may last only a few days, or continue for several weeks. Refugee camps are generally necessary in large disasters. They are hurriedly set up in buildings or in army tents. Food must be provided through community kitchens and canteen service. Those seriously ill and injured are taken to hospitals in the community, or in neighboring cities. Medical and nursing service, emergency medical stations and increased hospital accommodations

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must frequently be provided, and measures instituted for the protection of the public health. These are emergency needs and must be provided promptly.

The public health and medical problems are not limited to the emergency period. Many of them extend over considerable time and new ones may develop several weeks after the disaster. There may be a sudden increase in illness among the disaster population. Pneumonia and other respiratory infections are not uncommon. Typhoid fever caused by contaminated water, scarlet fever, measles, and smallpox resulting from overcrowding, may occur in epidemic form. Dysentery, particularly in tropical climates, and malaria may increase. Special maternity service must sometimes be provided particularly where the disaster involves a large number of families as in the Mississippi flood. These problems frequently hinder the progress of the rehabilitation program and must be solved before normal living conditions can be restored.

There are two major health problems in nearly every large disaster -safeguarding the health of the disaster area, and providing medical care for the sick and injured. From an administrative point of view these are distinctly separate problems and must be so regarded in organizing the relief work. The first is the duty of the constituted health authorities; the second is the function of the local medical profession and hospitals.

#### **HEALTH COUNCILS-Editorial**

Sympathetic cooperation of a constructive and preventive nature has become recognized as essential if community health and welfare organizations are to serve the public most effectively. As the public health program has broadened with the introduction of new lines of service and the emphasis on education in the principles of hygienic living, consideration has naturally been given to the relative values of different health activities. The Health Council plan has developed to meet the local needs for a co8rdinating and supporting voluntary body of representative public spirited citizens.

The Health Council is usually made up of a lay person and the executive of each private health agency, representatives of public health organizations, and members-at-large. This group constitutes the governing body.

The purposes of the Health Council are primarily as follows:

- 1. To promote the coordination of public and private health work.
- 2. To serve as a forum for the discussion of health and sickness problems, policies, and plans.
- 3. To develop new and to improve present standards of service through joint study of special problems.
- 4. To secure improvement of existing health facilities and services and the establishment of new or additional health facilities or services where needed.
- 5. To give moral support to the existing department of health, in cooperation with the local dental and medical societies.



## Preparedness Guide for Older Adults Released

The preparedness guide, <u>Identifying Vulnerable Older Adults and Legal Options for Increasing Their Protection</u>

<u>DuPring All-Hazards Emergencies: A Cross-Sector Guide for States and Communities</u>, has been released. This preparedness guide on the CDC website highlight topics such as developing plans, partnering and collaboration, building registries, caregiver preparedness, and much more. An older adult preparedness Web portal was developed with the guide, and serves as a one-stop shop for resources, tools, and information related to all-hazard preparedness for vulnerable older adults. To download a PDF copy of the guide and other resources on older adult preparedness, please visit http://www.cdc.gov/aging/emergency/.

## Psychological First Aid

Psychological First Aid is the supportive intervention of choice and one that can be used in the initial aftermath of a disaster to support disaster survivors and responders. NACCHO, in collaboration with the Division of the Civilian Volunteer Medical Reserve Corps (DCVMRC), and the National Child Traumatic Stress Network (NCTSN) developed the MRC Psychological Field Operations Guide(FOG) in 2006. The FOG provides some general guidance on how MRC volunteers can provide support to disaster survivors and their volunteer peers. The FOG can be found at this link: <a href="http://www.naccho.org/topics/HPDP/infectious/upload/PsyFirstAid-2.pdf">http://www.naccho.org/topics/HPDP/infectious/upload/PsyFirstAid-2.pdf</a>.

The NCTSN had developed a free, 6-hour online PFA course that you may consider using in lieu of a classroom-based training. The course: 1) Puts the individual in the role of a PFA provider in a post-disaster scene 2) Uses multi-media including videos and mentor tips from the nation's trauma experts and disaster survivors 3) Uses innovative e-learning activities, including interactive knowledge check to test your learning, and conversation trees to sharpen your decision making; and is Approved for 6 Continuing Education Credits

NACCHO also has a 70 minute on-line PFA training video available at www.naccho.org/pfa. This training is meant to provide basic awareness of the concept and principles of PFA. Keep in mind that it is not a skills-based training, but is a good introduction to PFA for non-mental health providers.

#### Announcements

Looking for volunteers for the following ongoing activities: We have been going to various Senior groups and presenting short 10-15 minute talk about putting together a go-kit. We have done this in a more formal way talking with groups at Senior centers and at AARP meetings. The Templeton Senior center is on the schedule for May 22. A volunteer is needed. The talk and the go-kits are provided. Call 978-928-3834. We have spoken to seniors in the Rutland, Hubbardston, Athol, Westminster and Ashburnham. We have passed out over 300 start up go-kit bags.

We had only a few students nurses join us this year but this group had initiative and creativity! The following are ideas that anyone of us can do. One student worked with her manager of her apartment building to develop a list of her elderly neighbors. She then met with them and helped them to put together a list of medications and contacts to put into a backpack that contained some personal items. Another student living in a neighborhood with many families with young children, invited the parents over to her home for coffee and tea. She was able to share with them what an emergency kit was and the importance of being prepared for variety of emergencies while the children played together safely under the watchful eye of two teens also doing community service. Two others worked in partnership to develop a program on Lyme Disease. Not only did they do the research and posters, but also put together an outline for the presentation with the idea the posters would be available to any member to use at any time for any group of children.

We are presently revamping the MRC to be more formal in its structure. We have grown and matured as an organization and to move forward to sustainability and increasing partnerships, we must review and revise as needed. A draft business plan was presented at the April 26th meeting and includes some new positions. We will continue to refine this plan, and review our Bylaw and Standard Operation Plan for revisions. If you have a suggestion, idea, something you saw work well in another organization, a concern, or discussion point, please email at wachusettmrs@juno.com or leave a message 978-928-3834.

Watch your emails for opportunities to participate in various trainings or conferences. If you haven't sent us your email address or your email address has changed, please do so. Also don't forget to check the website for updates.

Our email: wachusettmrc@juno.com

Our website: wachusettmrc.org

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## White County, IN MRC Participates in Functional Exercise

A school bus carrying 30 third grade school children broke down in front of the Monticello Farm Products facility in rural Indiana, which produces fertilizer and houses thousands of pounds of an herbicide in nearby rail tank cars. An electrical fire then erupted inside the facility, causing a smoke cloud of toxic herbicide to drift toward the school bus, county jail, and a local high school.

The toxic chemicals, combined with the electrical fire, posed the risk of exposing several thousand residents in the Monticello, Indiana area to deadly chemicals.

Fortunately, this was just a fictional scenario for a functional exercise that the White County Medical Reserve Corps (IN) participated in with other response partners and agencies--such as the local fire department, law enforcement agency, businesses, schools, hospital, American Red Cross, and emergency management agency.

The White County MRC participated in this exercise to test the unit's ability to respond to a chemical exposure in the community and to test the working relationships between all the partners required to address, respond, and recover from the disaster.

During the exercise, the local hospital surge capacity was quickly exceeded by community members who were exposed to the chemical and those who thought they may have been exposed. The role of the MRC was to provide assistance to the Red Cross and the hospital (triage) to relieve the overcrowding of patients.

White County MRC unit coordinator, Ed Gutwein says, "This exercise presented a real opportunity to measure the availability of volunteers that might be expected during a real incident." Gutwein contacted the MRC volunteers by e-mail and asked the volunteers— if it were a real emergency, could they respond immediately, within two hours, or not at all? Gutwein adds, "We were quite pleased with the number of volunteers who did respond and the number who said that they could assist immediately."

Thirty-five MRC volunteers indicated that they could assist if this was a real incident. Although the White County MRC met the challenge of having a sufficient number of active volunteers, there is concern that during an actual public health emergency, it may be difficult to have this many available.

Gutwein concludes, "This exercise (along with the recent tornadoes in Southern Indiana) drove home the need to have a personal and/or family emergency plan in place. I will be asking our volunteers to work throughout the next several months to help educate and encourage the general public to have an emergency plan. By participating in several summer events and holding town hall meetings about emergency plans, we will have a more prepared county."

From NACCHO In Touch Newsletter April 2012

To view the winter 2012 edition of "In Focus," please visit  $https://\ medical reserve corps. gov/pageViewFldr/NewsEvents/Newsletters.$ 

## Miami-Dade MRC Develops Partnership with the University of Miami

The Miami-Dade (FL) MRC is currently the largest unit in Florida. In order to build on its already large volunteer base, the unit reached out to the University of Miami to plan an event in which new student and faculty volunteers from the university would acquire all the MRC basic training requirements in a single day.

The training consisted of FEMA IS-100, IS-700, and the Florida MRC Core Competencies, with the goal of having all participants leave the training qualified to be Tier 1 Miami-Dade MRC volunteers. That goal was successfully met and once the background screenings are completed, they will all soon have their badges, adding another 102 credentialed MRC volunteers who are committed to keeping their community healthy and resilient.

Most of the participants who attended the training were from either the University of Miami medical, nursing, or public health schools. Several librarians, the university emergency planner for the medical campus, as well as faculty members also took part.

A memorandum of understanding between the University of Miami and the Miami-Dade County Health Department was signed in October 2011. The Miami-Dade MRC unit's partnership with the University of Miami explains that the two entities will work together to respond to public health needs. A closed Point of Dispensing (POD) will be staffed by the Miami-Dade County MRC University of Miami Response Team (MRC UM-RT), a specialized group under the Miami-Dade MRC unit, consisting of university students and staff who respond and participate in public health activities on the campus. The Miami-Dade Health Department will lead trainings and exercises for the MRC UM-RT. In the future, the MRC UM-RT will also collaborate at health fairs and mobile clinics to provide medical aid to the underserved.

Michelle Simanek, MPH, Miami-Dade MRC unit coordinator said that the greatest challenge of the all-day training was trying to accommodate everyone's schedules in order to provide a well-structured learning environment for the participants. She anticipates active participation with the MRC UM-RT because of enthusiasm from health profession students about volunteering in their community. She added, "Most of them are not immersed in a career yet so they have time to volunteer, and they are excited about volunteering because they want to have experience under their belt."

Simanek added, "Our hope is that they will remain MRC members throughout their academic careers and onward into their professional careers, ultimately strengthening the Miami-Dade MRC unit as a whole...aside from the students, the universities themselves have many resources that can be shared with the MRC, such as simulation labs and research centers."

The training was planned by Simanek along with University of Miami faculty, and members of the Florida Department of Health. For more information on this partnership, please contact Michelle Simanek at Michelle\_Simanek@doh.state.fl.us.

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# TOP 10 REASONS HURRICANE SEASON IS LIKE CHRISTMAS



Number Ten:
Decorating the house (with plywood).

Number Nine: Dragging out boxes that haven't been used since last season.

Number Eight:

Last minute shopping in crowded stores.

Number Seven:

Regular TV shows pre-empted for 'Specials'.

Number Six:

Family coming to stay with you.

Number Five:

Family and friends from out of state calling you.

Number Four:

Buying food you don't normally buy . . . and in large quantities.

Number Three:

Days off from work (and school).

Number Two:

Candles.

And the Number One reason Hurricane Season is like Christmas:

At some point you're probably going to have a tree in your house!

Hurricane Season begins June 1.