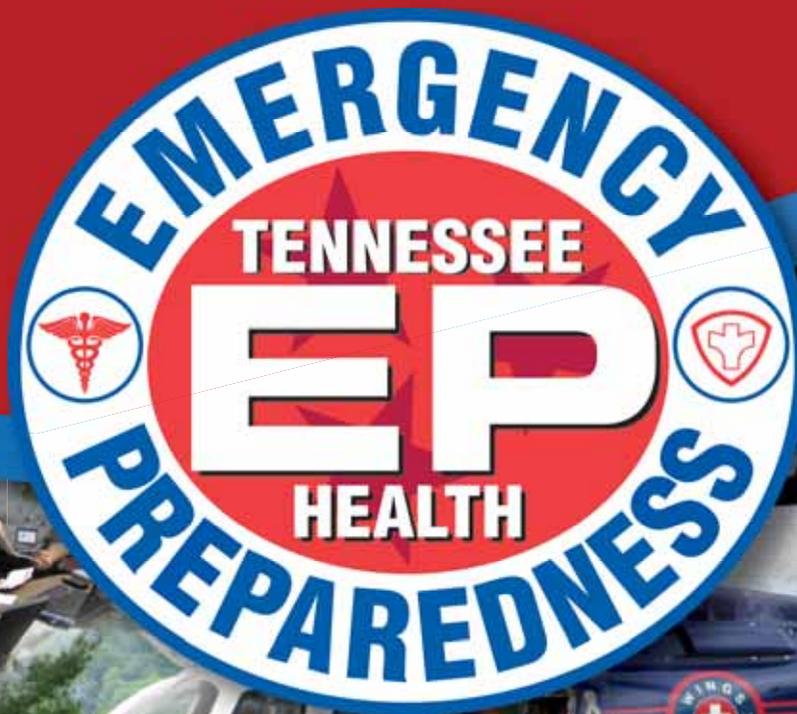
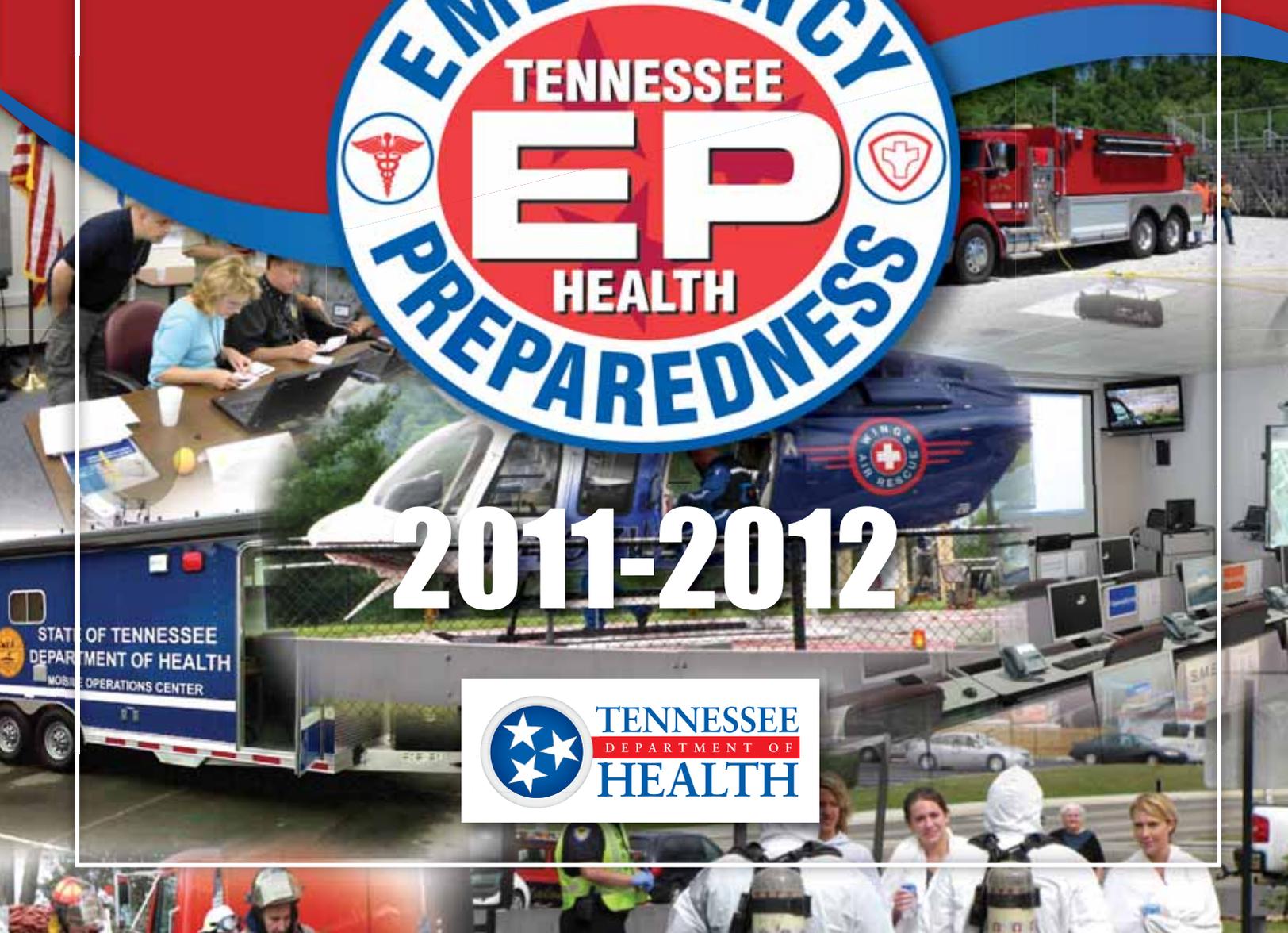


EMERGENCY PREPAREDNESS PROGRAM HIGHLIGHTS



2011-2012



*T*his document provides an overview of the actions, capabilities, and resources of the Tennessee Department of Health's Emergency Preparedness program.



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Emergency Preparedness Mission:

To prepare for, respond to, and recover from health emergencies affecting the State of Tennessee.

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Public Health Capabilities

The Emergency Preparedness program uses the Centers for Disease Control and Prevention (CDC)'s National Standards for State and Local Planning as a planning resource to achieve capabilities needed for public health preparedness.

For Budget Period 1 of the grant cooperative agreement, EP has chosen to focus on five of the fifteen capabilities:

- **Community Recovery***
- **Fatality Management***
- **Information Sharing***
- **Medical Materiel Management and Distribution***
- **Volunteer Management***

The EP program will concurrently address the other capabilities throughout the five year cooperative agreement with changing focus based on assessment of readiness.

Community preparedness is the ability of communities to prepare for, withstand, and recover, in both the short and long terms, from public health incidents.

***Community recovery** is the ability to collaborate with community partners, (e.g., healthcare organizations, business, education, and emergency management) to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems to at least a level of functioning comparable to pre-incident levels, and improved levels where possible.

Emergency operations coordination is the ability to direct and support an event or incident with public health or medical implications by establishing a standardized, scalable system of oversight, organization, and supervision consistent with jurisdictional standards and practices and with the National Incident Management System.

Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders.

***Fatality management** is the ability to coordinate with other organizations (e.g., law enforcement, healthcare, emergency management, and medical examiner/coroner) to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/behavioral health services to the family members, responders, and survivors of an incident.

***Information sharing** is the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, territorial, and tribal levels of government, and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to federal, state, local, territorial, and tribal levels of government and the private sector in preparation for, and in response to, events⁷⁷ or incidents⁷⁸ of public health significance.

Mass care is the ability to coordinate with partner agencies to address the public health, medical, and mental/behavioral health needs of those impacted by an incident at a congregate location.

Medical countermeasure dispensing is the ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations.

***Medical materiel management and distribution** is the ability to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and to recover and account for unused medical materiel, as necessary, after an incident.

Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the healthcare system to survive a hazard impact and maintain or rapidly recover operations that were compromised.

Non-pharmaceutical interventions are the ability to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Such strategies may include isolation and quarantine, restrictions on movement and travel advisory/warnings, hygiene, and social distancing.

Public health laboratory testing is the ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards.

Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents of public health significance.

Responder safety and health capability describes the ability to protect public health agency staff responding to an incident and the ability to support the health and safety needs of hospital and medical facility personnel, if requested.

***Volunteer management** is the ability to coordinate the identification, recruitment, registration, credential verification, training, and engagement of volunteers to support the jurisdictional public health agency's response to incidents of public health significance.

Healthcare Preparedness Capabilities

In addition to the preparedness capabilities above, the Office of Assistant Secretary for Preparedness and Response has identified the following eight capabilities as the basis for healthcare system, Healthcare Coalition, and healthcare organization preparedness in its National Guidance for Healthcare System Preparedness.

- **Healthcare System Preparedness**
- **Healthcare System Recovery**
- **Emergency Operations Coordination**
- **Fatality Management**
- **Information Sharing**
- **Medical Surge**
- **Responder Safety and Health**
- **Volunteer Management**

Healthcare System Preparedness is the ability of healthcare organizations to prepare for, respond to, and recover from public health emergencies and disasters.

Healthcare System Recovery involves the collaboration with Emergency Management and other community partners to develop processes of recovery and return to normal operations.

Emergency Operations Coordination is the ability of healthcare organizations to work with other emergency and community partners during a disaster to coordinate information and resource allocation.

Fatality Management is the ability of healthcare organizations to coordinate with other organizations to ensure the proper handling of human remains and personal effects.

Information Sharing is the ability of healthcare organizations to exchange public health and medical information and situational awareness with other organizations during a disaster.

Medical Surge is the ability of healthcare organizations to provide adequate medical evaluation and care of patients during a disaster that exceeds the limits of normal medical operations.

Responder Safety and Health is the ability of healthcare organizations to protect the safety and health of healthcare workers from a variety of hazards during a disaster.

Volunteer Management is the ability of healthcare organizations to obtain and utilize healthcare professional volunteers to support the care of patients during a disaster.

EP Services and Activities

All-Hazard Planning

Tennessee supports an all-hazard approach to preparedness and response. This approach encourages individuals to prepare for the disaster most likely to occur. By preparing for one hazard, individuals, families, and communities will have effectively begun preparing for any type of emergency.

Interstate Cooperation

The Tennessee EP program partners with Alabama, Florida, Georgia, North Carolina, South Carolina, Kentucky and Mississippi to prepare for and respond to all disaster events. Together, this partnership is the Federal Emergency Management Agency Region IV Planning Coalition. Tennessee will give support to and receive assistance from other partner states, as needed, in a health emergency.

Strategic National Stockpile (SNS)

The Emergency Preparedness program distributes medicine and medical supplies in the event of a disaster. These items often come from the Strategic National Stockpile, a supply of emergency items. The SNS supplies antibiotics, vaccines, antitoxins, chemical antidotes and medical/surgical items. SNS materials are designed to supplement and re-supply state and local public health resources, as well as other health care agencies in the event of a national emergency. The EP program continues to receive high ratings from the CDC for its level of preparedness to receive the SNS during an act of bioterrorism or a mass casualty event.

Healthcare Preparedness

The EP program continually increases hospital preparedness and response capabilities. It works to increase the surge capacity of healthcare facilities. Surge capacity is the ability to expand care capabilities in response to a great increase in demand. EP sustains all-hazards electronic and communication response tools needed by hospitals for regional and statewide disasters.

Tennessee Disaster Support Network (TDSN)

The Tennessee Disaster Support Network is a web-based resource to assist Tennessee communities in meeting their needs before, during, and after a disaster.

Public Information and Communication

The EP program provides emergency health information, and continues to improve its ability to get emergency information quickly and effectively to all Tennesseans.

Medical Reserve Corps (MRC)

The Medical Reserve Corps serves as the department's volunteer organization. EP's regional MRC units recruit and train medical and general volunteers to support the Tennessee Department of Health, hospitals and medical care providers in a public health emergency. Learn more about becoming a volunteer at <http://health.state.tn.us/volunteer/index.htm>.

Epidemiology

Epidemiologists, experts on diseases that can impact large populations, continuously monitor information that might signal possible disease outbreaks or an exposure to bioterrorist agents. Public health investigation teams conduct outbreak investigations, collect specimens and data and respond to public health emergencies.

Laboratory Capacity

Through TDH Laboratory Services, the EP program provides high quality medical and environmental testing for biologic and chemical agents.

Exercise Program

EP staff work in cooperation with the Office of Homeland Security and TEMA to plan and execute a comprehensive program to test

emergency response strategies. These drills, called exercises, strengthen Tennessee's overall defenses.

Exercises involve public safety, public health and hospital organizations in every Homeland Security District, health department and TEMA region in the state.

Information Technology Systems

EP maintains and utilizes the Tennessee Emergency Medical Awareness, Response and Resources systems. These systems ensure secure electronic data exchange among public health partners' computer systems. These systems include the Tennessee Health Alert Network, the Healthcare Resource Tracking System, the Tennessee Volunteer Mobilizer, and the Tennessee Countermeasure Response Network. Eight Regional Medical Communication Centers serve as a statewide medical communication system.

- **Tennessee Countermeasure Response Network (TNCRN)**

The TNCRN is collaboration between the Emergency Preparedness Program, emergency managers and responders, health care providers, pharmacies, and private entities. This web-based system assists the health community in making fast, well-informed decisions during public health emergencies. Before, during, and after an emergency, TNCRN allows emergency managers and planners to manage patient flow, medication allocation and dispensing, and other resources.

- **Tennessee Health Alert Network (TNHAN)**

The TNHAN is a secure, web based site, consisting of two redundant systems, co-located at two different sites. The system is administrated and utilized both statewide and locally, in the 13 public health regions. There are currently 3,000 professionals from police, fire, hospital, public health, and other emergency response agencies, that are maintained in specific roles, within the TNHAN system. These responders can be alerted through multiple media methods, in the event of an emergency and their response can be tracked. The system is also used as a document repository, for the purpose of storing information pertaining to specific events or for overall response.

- **Healthcare Resource Tracking System (HRTS)**

HRTS is a secure website used by Tennessee healthcare facilities and emergency managers to direct ill or injured patients to appropriate healthcare facilities in the event of an emergency or disaster. HRTS allows healthcare facilities to record and continually update their current availability of beds, specialty services, and resources providing state-wide awareness for emergency managers.

- **Tennessee Volunteer Mobilizer (TNVM)**

The TNVM provides the EP program the capability to alert volunteers and public health staff via automated e-mail, phone, pager, or text message notification. Registered users can edit profile information, upload and maintain training records, access shared calendars, and view posted messages. The system allows for simplified registration for health professionals through an automated process linked to state and national licensure agencies.

Central Office Highlights

TNHAN

The Tennessee Department of Health will soon be completing an upgrade to the Tennessee Health Alert Network (TNHAN) system, originally started in 2005. The Communicable Environmental Diseases and Emergency Preparedness (CEDEP) section will finalize the move of TNHAN to the state's data centers, by the end of September 2012. The system will be built on a Virtual platform, nearly eliminating the need for hardware. The alerting system will consist of redundant sites for resiliency, located at geographically separated state datacenters.

TNHAN will be the one of the key components for meeting CDC Capability 6, Information Sharing requirements. It will provide local, regional, State, and Federal partners with a comprehensive information sharing, collaboration, alerting, and notification solutions.

- Key personnel in public health, emergency management, public safety, fire, law enforcement, and other partner organizations are quickly able to receive alerts of emergent incidents, and to share critical information from a secure web-based portal.
- TNHAN facilitates coordinated inter-jurisdictional planning, response, mitigation, and recovery. The secure document library provides agencies and partners with 24/7 access to incident information, surveillance reports, policies, and procedures.
- Online collaboration tools allow news flashes, announcements, and situation updates to be published in minutes. The robust, highly survivable alerting system supports the rapid notification of Incident Command, emergency responders, emergency managers, healthcare providers, and other personnel.
- TNHAN's unique, flexible directory reflects role, organizational, and jurisdictional structures, providing the ability to rapidly distribute information to critical roles in emergency situations.
- New functions, such as "alert on the fly" capabilities and the ability to now include attachments in email are just some of the enhancements that are available in the new TNHAN.
- New information regarding TNHAN is being distributed and training will begin soon.

Radioactive Strontium Exposure Investigation

In October 2011, and on the urgent request of CDC, CEDEP, Knox County Health Department, TEMA, TDEC and the 45th CST rapidly assessed potential strontium overexposure among east Tennessee residents who previously received Cardiogen-82 Positron Emission Tomography at two Knoxville hospitals. Information gained contributed to a January 2012 FDA press release stating that "improper usage" of the CardioGen-82 generator contributed to excess radiation exposure in patients from two states, rather than a widespread defect in the manufacture of the CardioGen-82 generator. In addition to impacting national decision-making, the Tennessee partners accomplished the unprecedented task of rapid radiation screening on a large number of residents over a short period of time. Experience gained from this event enhanced our ability to respond to radiologic events.

Catastrophic Earthquake Medical Countermeasure Formulary Project

Contributed by Sally Armstrong, Pharm.D. Candidate 2014, Josh Trenary, Pharm.D. Candidate 2014, Paul Petersen, Pharm.D.

Background:

The lack of a defined list of medications and medical supplies needed during an earthquake has been identified as a gap in planning for Tennessee. There will be limited resources and competing demands for affected states in the event of a disaster and it is highly likely supply chains will be temporarily interrupted. Memphis is Tennessee's most densely populated metropolitan area that lies within the New Madrid Seismic Zone. In the event of a major NMSZ earthquake, much of the critical infrastructure including many hospitals in Memphis and west Tennessee may be left inoperable. Many treatment centers may have to evacuate existing patients and identify casualty collection points where other injured persons can be taken and staged for transport. Hospitals outside the affected area will see a large surge in patients transferring from affected hospitals and casualty collection points. This will be a major strain on medical resources including staffing, medications, and medical supplies.

The Goals of the project were to:

- Establish a list of expected injuries associated with catastrophic earthquakes
- Design appropriate medication and medical supply lists to address all identified injury types
- Develop kitting for 50 bed hospital increments using specific logistical considerations

Identified injury types were:

- Trauma, Respiratory, Dermatologic, Exacerbated Chronic Disease States, Joint/Musculoskeletal Pain, Palliative Care, Ocular Injury, Gastrointestinal

Medication Supply Categories:

- Analgesics/Anesthetics, Antimicrobials, Cardiovascular, Pulmonary Rehydration & IV Supplies, General Equipment, Chronic Disease States, Miscellaneous: (Ocular Injury, Psychological)

Survey:

A Comprehensive survey of emergency and medication management experts from across the country was conducted to ensure all acute injuries and chronic disease states were addressed.

Preliminary Results: Based on feedback, changes to the formulary will be made to address:

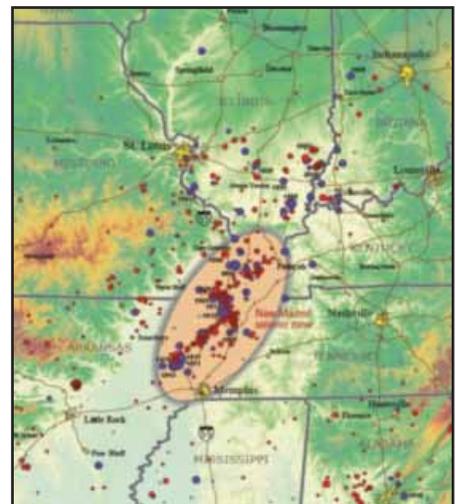
- confusion with acetaminophen dosing and products
- local anesthetic allergies
- the need for more broad spectrum antibiotic coverage

Next Steps:

- review survey feedback
- finalize the formulary content
- develop a kit with standardized quantities of the defined medical countermeasures
- educate hospitals on how to request these types of assets
- exercise the outcomes of this project



July 24, 2010 Earthquake damage Moro Gulf, Mindanao area in the Philippines



New Madrid Seismic Zone

Continuity of Operations

The Tennessee Department of Health (TDH) provides critical functions that must be provided continually to protect the state's residents and visitors. However, natural and manmade incidents periodically cause staffing or material shortages that inhibit the ability to perform the department's legally or ethically mandated duties. The Continuity of Operations (COOP) is a disaster plan developed based on recognition that a wide variety of incidents can dramatically affect normal operations.



Commander Jay Roth discusses SHOC operations and COOP planning with Governor Bill Haslam

The Emergency Preparedness Program in CEDEP leads COOP planning, an ongoing process to ensure the performance of “Critical Functions” in the event normal operations are disrupted. These critical functions are duties that provide vital services, exercise civil authority, or maintain the safety and health of the general public. Through the process of identifying and recording these functions, necessary systems, and contact information for responsible personnel, a roadmap is developed for assuring continuation of operations.

Over the last three years alone, the TDH central office has been hampered by flooding, power outages, and severe winter weather. During each episode, the COOP has helped guide TDH operations and has allowed critical functions to continue, thereby allowing TDH to continue to promote, protect, and improve the health and well-being of Tennesseans.

Though the COOP is focused toward large-scale incidents, the principles of COOP planning are followed routinely. Supervisors regularly make sure that if someone calls in sick or if a system crashes TDH will still be able to perform the required task. The department plans for these occurrences by cross-training staff to perform Critical Functions, backing up systems, and maintaining contact information for key staff needed during disasters.

Each employee in TDH and its partner agencies plays an important role in the COOP process and importantly, COOP planning can be seen to be applicable to all individuals, households, and organizations. Each employee must plan and prepare to assure their families are prepared, keep their supervisors informed about their status during an incident, and support COOP efforts during both planning and response phases.

Again, the COOP outlines the responsibilities of individuals who have specific roles during a disaster, but an organization's ability to respond during a disaster or a disruption of services depends on the personal readiness of all its employees. To be ready, there are three things each individual must do:

- **Prepare his or her family in advance**
- **Report his or her status to supervisor after a disaster**
- **Plan to fulfill his or her work responsibilities**

First, Individual and family preparedness is important for continuity planning.

All employees should develop a family support plan that ensures family members will be safe and secure during an emergency situation. Prepare a personal “go kit” that includes the items each family member will need if there is a need to evacuate. An

emergency preparedness kit needs to include food and water for each member of your family for three days, a battery-powered or hand-crank radio, flashlight, spare batteries, first aid kit, can opener, local maps, moist towelettes, toilet paper, garbage bags, and plastic ties for personal sanitation.

Other items to consider include sleeping bags or blankets, paper towels, books, puzzles and games for children and pet food for family pets. A complete list of recommended items for an emergency kit can be found at Ready.gov, FEMA's emergency preparedness Web site.

Emergency supplies can be stored in an easy-to-carry plastic storage container or duffel bag, making them easy to grab and go when an emergency forces you to leave your home. Make sure each family member knows where to meet in an emergency and pick a main emergency contact that lives in another community or state.

Second, know how to report your status and your availability to work to your supervisor. Keep work contact numbers with you and at home and make sure supervisors have more than one way to contact you. Supervisors are expected to report his or her status and the status of each employee up the chain of command. To do this, everyone must know his or her program's communication strategy.

Third, prepare to receive direction from your supervisor about your need to come to work. It may be critical that you come to work to support the public health mission. Conversely, it may be important for you to work from home or support efforts from afar.

Individual actions will determine the success of any Continuity of Operations Plan. Support the planning process in your organization and do your part to ensure its success.

EP Awards:

Commissioner John Dreyzehner addressed the State Emergency Preparedness staff and guests and presented inaugural EP Awards at the second annual EP Statewide Combined Meeting held this year in Franklin, TN June 26-28, 2012.



Dr. Dreyzehner makes comments regarding his vision for preparedness at the EP Combined meeting

Award Winners

- East Regional ERC **Jack Cochran** – Leadership Award
- East Regional Epidemiologist **Tamara Chavez-Lindell** – Above and Beyond Award
- Regional Hospital Coordinator **Alan Bagley**, Medical Reserve Corps Coordinator **Melanie Carswell**, and former Emergency Preparedness Coordinator **Jim Bean** of the Sullivan County Emergency Preparedness Program – the Outstanding Teamwork Award.
- Northeast Regional Emergency Response Coordinator – **Shirley Hughes** Distinguished Service Career Award

Presenting the inaugural EP awards below is Dr. Dreyzehner, Commissioner of the Tennessee Department of Health, along with State Epidemiologist and Director of the Communicable and Environmental Diseases and Emergency Preparedness Section, Dr. Tim Jones, and Craig Shepherd, EP Program Director.



East Regional Epidemiologist **Tamara Chavez-Lindell** receives the “Above and Beyond Award”



East Regional ERC **Jack Cochran** accepts the “Leadership Award”



Regional Hospital Coordinator **Alan Bagley**, Medical Reserve Corps Coordinator **Melanie Carswell**, and former Emergency Preparedness Coordinator **Jim Bean** of the Sullivan County Emergency Preparedness Program were recipients of the “Outstanding Teamwork Award.” Not pictured is Jim Bean



Northeast Regional Emergency Response Coordinator **Shirley Hughes** is presented the “Distinguished Service Career Award.”

Kenneth Palmer, director of CEDEP's Healthcare Preparedness Program, has been appointed to the National Healthcare Preparedness Program Healthcare Coalition Working Group. State healthcare preparedness program directors from Connecticut, Michigan and Tennessee were appointed to this group along with hospital association representatives from Kentucky and Missouri. The group will meet by conference call and will attend a periodic meeting in Washington, D.C. The primary responsibilities of the group are to review and make recommendations for changes to the Healthcare Preparedness Capabilities – National Guidance for Healthcare System Preparedness; determine ways Healthcare Preparedness Program-funded organizations can interact with the Patient Protection and Affordable Care Act; review and make recommendations to the National Healthcare Preparedness Program and serve as a resource to other state Healthcare Preparedness Programs to comply with program capabilities, meet performance measures and develop healthcare coalitions.

RAPID Toolkit

The Rapid Assessment of Populations Impacted by Disasters (RAPID) team completed and distributed a RAPID Toolkit to all regions in the state. The toolkit is intended to facilitate the field survey deployment process by providing all of the materials needed to conduct a CASPER (Community Assessment for Public Health Emergency Response) survey. These include premade trainings in methodology, safety and logistics, plus maps of sampling areas, logistics forms, census data, databases, and survey templates.

PHITr

This new 2012 Concept of Operations Plan (CONOPS) describes the capability of the Tennessee Department of Health (TDH) Public Health Investigation Teams (PHIT). Further, the plan details the activation, staging, workforce organization and structure, PHIT chain of command, and managerial alignment (unity of effort through unified command).

PHIT Teams exist to augment response resources during the breadth of public health events ranging from disease outbreaks to disasters. Though originating in 2002 from the TDH Smallpox Response Teams, PHIT teams have expanded their scope to include preventing or reducing human illness, injury, or death from public health events and disasters. This more encompassing approach allows teams to prepare for and adapt to a variety of foreseen and unforeseen scenarios.

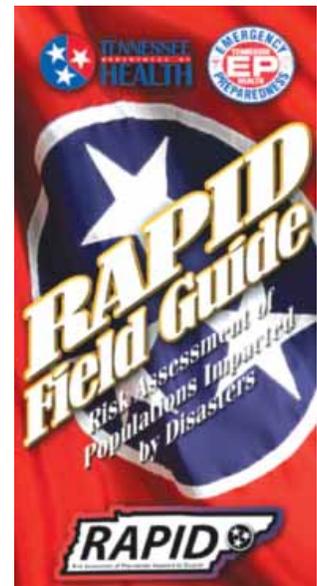
TDH RAPID Team Works to increase State's Capacity to Conduct Rapid Needs Assessments

Tristan Victoroff
Public Health Prevention Service, U.S. Centers for Disease Control and Prevention

Following the TVA coal ash spill of 2008, TDH formed a RAPID Team, an interdisciplinary group tasked with increasing the state's capacity for disaster epidemiology. The RAPID team developed, and recently released, its new CASPER Toolkit to regional and metro epidemiologists across the state. The toolkit contains everything needed for a field team to conduct a rapid needs assessment in a disaster-affected area, quickly and accurately providing emergency management information representative of the larger population. Emergency management agencies can then project needs and allocate resources more strategically to the impacted area. The toolkit includes just-in-time training presentations, a variety of questionnaire templates, as well as census data and cluster maps for all 95 Tennessee counties.

The CASPER is a household survey method using a two-stage cluster sampling design. The technique uses 2010 U.S. Census data to divide a large area, such as a county, into census blocks that can then be randomly sampled. The probability that a block will be surveyed is proportionate to the block's population. Typically, fifteen teams of two individuals will survey the selected blocks using a customized survey instrument with the goal of completing seven household surveys in each of thirty blocks.

The CASPER method is especially useful during or immediately after a disaster, when time is limited and reliable information needs to be obtained as quickly as possible. However, CASPERs work equally well in non-disaster settings. For example, TDH, together with the Metro Nashville Department of Public Health, conducted a CASPER in Davidson County last fall to gather information for future emergency planning. Among other notable results, the survey revealed that approximately 11% of households contain someone who would likely need personal assistance to evacuate in an emergency and nearly 60% of



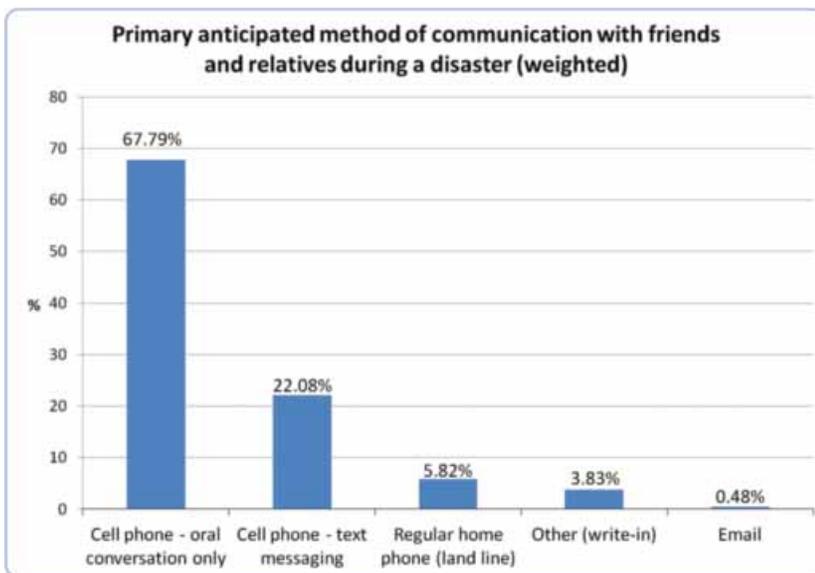
households have no disaster or emergency plan.

TDH is assisting regional and local health departments throughout Tennessee to build the capacity to use CASPERs to assess community needs before a disaster, during a disaster response, or during disaster recovery.

Key findings from November 2011 CASPER survey

1. Only 44% of households describe themselves as even “somewhat prepared” for a disaster (nearly 20% admit to being “not prepared at all.”)
2. 57% of households do not even claim to have an emergency or disaster plan (among the 40% who report having a plan, many have vague plans)
3. Only 55% of households have a working radio with batteries (presumably even fewer have a NOAA weather radio)
4. Approximately 90% of households plan to use cell phones to communicate with friends and family during an emergency (among these, at least 22% are comfortable using text messages)
5. 47% of Davidson County households contain pets (30% of households own dogs), and 87% plan to bring pets with them if they need to evacuate
6. 11% of households contain someone with a condition (medical condition, age, etc) that could impact their ability to evacuate during a disaster
7. About 14% of households reported someone who requires personal assistance daily due to a medical, mobility, or other condition
8. Only 20% of households are familiar with Davidson County’s Smart911 program

CASPER findings that point clearly to actions we can take

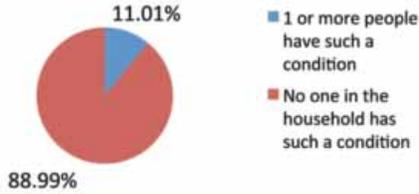


Possible activities:

- Mobile alert system
 - Enroll Metro Department of Public Health in FEMA’s Commercial Mobile Alert System (CMAS). This would be reserved for only the most urgent warnings
 - Establish a more traditional opt-in text message system for disseminating less urgent information (e.g., pointing people to preparedness resources, other health messages)
- 11% of households contain someone with a condition (medical condition, age, etc) that could impact their ability to evacuate during a disaster

➤ Majority of households will use cell phones to communicate during a disaster

Proportion of households that have someone with a condition that could impact evacuation during a disaster (weighted)



➤ About 14% of households reported someone who requires personal assistance daily due to a medical, mobility, or other condition

Response	Percent	95% confidence limit
None of the listed conditions apply	85.83%	85.70% - 85.97%
Requires medication or other essential items to be delivered	5.21%	5.13% - 5.30%
Depends on assistance for daily needs (bathing, dressing, etc)	5.09%	5.0% - 5.17%
Requires full-time care due to medical or other conditions	1.77%	1.72% - 1.82%
Depends on oxygen being delivered	1.60%	1.55% - 1.65%
Requires dialysis or other frequent medical care	.5%	.48% - .53%

➤ Only 20% of households are familiar with Davidson County's Smart911 program

Proportion of households that are familiar with Davidson County's Smart911 program

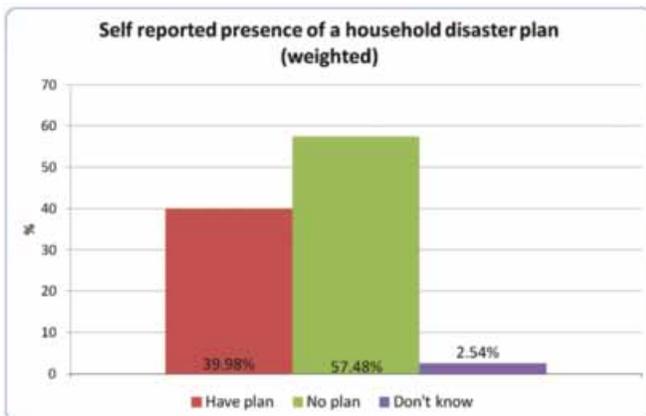
Response	Percent
Familiar	20.16%
Not familiar	79.84%

Possible activities:

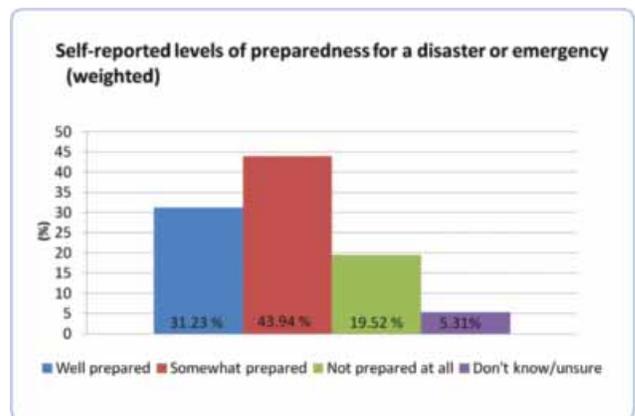
- Multimedia promotional campaign to encourage people to register with Smart 911
 - o Distribute flyers in key locations (health department service areas, pharmacies, community healthcare centers, dialysis centers, assisted living homes, etc.)
 - o Social media
 - Facebook - Smart 911 has a Facebook page, Metro DPH could create one
 - Twitter account
 - Both of these avenues could help to advertise Smart 911 as well as promote preparedness resources in general
 - o Traditional media - press releases with local television news channels, radio

CASPER findings that point to a variety of possible interventions

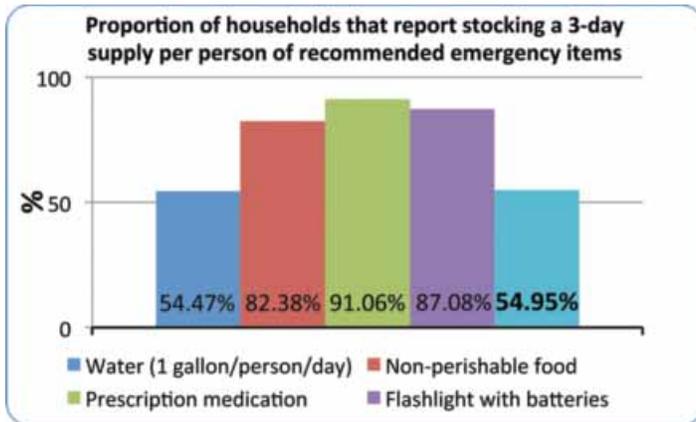
➤ Low proportion of households with emergency plans (finding #2)



➤ Low levels of self-reported preparedness



➤ Low proportion of households with working radios



Possible activities:

- Work through traditional media outlets (local TV, radio) to encourage preparedness planning during peak severe weather season (including preparation of safe room emergency kit, promotion of NOAA weather radios)
- Traditional media campaign could be supplemented with social media promotion
 - Facebook, Twitter
- Promote Skywarn® and e-spotter programs - National Weather Service programs to recruit and train storm spotters
- Promote Ready.TN app for smartphones

CASPER findings that may not have direct solutions; open-ended issues that warrant discussion

- Large numbers of pets
- Relatively obscure information about places to shelter pets during an evacuation scenario

Own animals	Percent
Yes	47.27%
No	1.92%
Type of animals	
Dogs	30.46%
Cats	13.15%
Rabbits	.97%
*Livestock (cows, horses, chickens, goats)	.97%
Fish	.48%
Birds	.48%
Self-reported plans for household animals in the event of an evacuation	
Take animals with us	86.77%
Find a safe place for them	2.37%
Leave them behind with food and water	4.41%
Don't know	4.24%
Would not evacuate	2.20%

Possible activities:

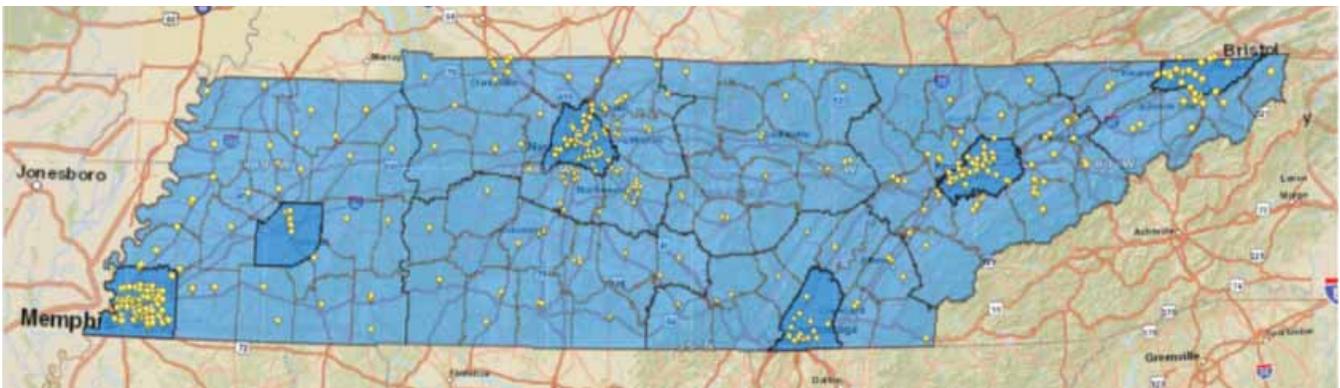
- Compile resources on shelter options available for pets. Currently CDC does have a web page about this, but it sends users down a rabbit hole. We could do some of the legwork of verifying some of the resources and creating maps, contact lists, & general pet emergency information materials
 - Messaging at veterinary clinics, pet shops, big-box pet stores (e.g., Petsmart)
- Encourage promote trainings through FEMA for public health workers for pet sheltering

Emergency Preparedness Section Partners with 545 TN pharmacies to Distribute Medical Countermeasures

Contributed by Laina Stanford and Paul Petersen, Pharm.D., BCPS

Unprecedented in the State of Tennessee, the Emergency Preparedness program has secured new 4-year contracts with local independent and national chain pharmacies in a pre-emptive action to help distribute medical countermeasures from the Strategic National Stockpile. During a declared health emergency such as bioterrorism, pandemic influenza, severe weather, radiation event, or natural disaster, these no-cost contracts allow pharmacies to dispense medications and supplies to the community at no cost to them or their community.

This network of pharmacies is now part of the Tennessee Countermeasure Response Network (TNCRN). It is composed of 7 local and national pharmacy chains plus 32 independent pharmacies totaling 545 pharmacy locations statewide. Their willing participation in this agreement will be vital to completing the mission of the Tennessee Department of Health and the Emergency Preparedness program. Establishing these critical partnerships before a crisis will help build resilient communities and help secure the health and wellness of Tennesseans.



Emergency Mobile Operations:

The Tennessee Department of Health Emergency Preparedness program recently deployed three specialty trailers outfitted to serve as Mobile Operations Centers (MOCs) in the event of public health or medical emergencies. The MOCs offer self-contained work stations and a full array of technically advanced command and communication services. Each trailer is designed to be deployed independently and can be used in remote areas, or where infrastructure has been damaged by natural or man-made disaster. With these strategically prepositioned capabilities, the Department can help direct the state's response in a wide variety of situations. According to EP Senior Planner, Greg Galfano, "These are great assets for the Department which will allow us to respond rapidly and decisively. They'll be invaluable when they are needed."



Other features of the MOCs include:

- Communications center with radio transceivers tuned to the department's primary and operations channels and frequencies used by other response agencies
- Boom-mounted camera with remote pan, tilt and zoom, and video recording capability
- Independent satellite-based broadband phone and internet system
- Satellite television with access to cable news networks and local broadcast stations.
- Generator and shore input power
- Emergency public address and warning system

Vanderbilt University Medical Center holds Guinness World Record for Most Vaccinations

EP staff worked with VUMC during its October 2011 Flulapalooza. By giving 12,850 flu shots Vanderbilt University Medical Center now holds the world record for the most vaccinations given in eight hours. Vanderbilt was notified by Guinness World Records (GWR) that it more than doubled the previous world record, 6,215, held by San Diego's Kaiser Permanente.

The official goal of the event was to test the Medical Center's emergency mass vaccination plan as if there really were a pandemic. Free flu vaccines were given to University and Medical Center faculty, staff, volunteers and students during a daylong event on Oct. 12. Forty-four nurses at a time, from a labor pool of 138, worked simultaneously at individual stations in the Flulapalooza tent with a separate group of volunteers maintaining patient flow and logistics.

A Centers for Disease Control and Prevention (CDC) principal investigator on large-scale dispensing and emergency response supervised students from Georgia Tech who were on hand to conduct a time-motion study during the exercise. CDC will analyze the information and send recommendations to use for future tests of mass vaccination plans.

The Regions

Jackson-Madison County Highlights

The Emergency Preparedness Program in the Jackson-Madison County Region is:

- Lynn Mooney – Emergency Response Director
- Shanna Shearon – Epidemiologist
- Trent Harris – Regional Hospital Coordinator



Best Practices:

- Mobile vaccination clinics deployed to daycare facilities in the form of P³, the Pertussis Prevention Project.
 - Infant Pertussis case noted in Fall 2011- tracked to exposure from caregiver
 - Alerted Epidemiology Department to lack of immunization coverage in daycare provider population
 - Out of 41 daycares, only 7% kept records on workers, and only two sites had knowledge of Tdap vaccination of workers currently employed
 - Mobile clinic was used to vaccinate onsite
 - 120 adults vaccinated with Tdap and Influenza at 12 locations
 - Along with local media coverage, the project was published in Rural Health newsletter as well as by the Tennessee Public Health Association
- Shiloh 150th Anniversary Reenactment Deployment

JMCR Deployed its Mobile Hospital, March 29-April 1, 2012

- 50,000 participants
 - 218 patients treated onsite
 - 3 airlifted
 - 13 transported by ambulance to local hospitals
- TEMA, Homeland Security, McNairy and Hardin City, EMA, EMS, and Law enforcement, MRC, JMCGH, Medical Center EMS, Decatur and Madison City. Mass Casualty Teams were involved in operations at the event

Special Equipment/Purchases:

- JMCR added two resources of note
 - Mass Fatality Trailer
 - Response Vehicle



The Regions

Nashville-Davidson Highlights

The Emergency Preparedness Program at Nashville Davidson Region include veterans:

- **Rachel Majors – Emergency Response Coordinator**
- **James Woulfe – CRI Coordinator**

And three new PHEP Team Members:

- **Todd Baker – Volunteer Coordinator**
- **Sarwat Ajmal – Epidemiologist**
- **James Tabor – Regional Hospital Coordinator**

Best Practices:

- Approved for the “Nashville Medical Reserve Corps” on June 14, 2012



Nashville Medical Reserve Corps Recruitment at the Tennessee State Fair

- NDR and MCRO finalized a Regional CHEMPACK Plan
- Coordinated and conducted a countywide CASPER in November 2011.
- From CASPER results, purchased over 2500 weather radios for at risk citizens in the NDR
- Participated in over 50 Community Outreach Activities, giving over 5,000 Emergency Preparedness Backpacks to community members
- Earned an LTAR score of 96.
- Participated in planning, coordination and evaluation of Flulupalooza 2011
- Assisted in the sheltering and medical care of over 300 functional needs patients during the Parthenon Towers Assisted Living Evacuation in May 2012.

The Regions

Knox County Highlights

The Knox County Health Department's Emergency Preparedness Program is:

- **Larry Hutsell – Emergency Response Coordinator**
- **Roberta Sturm – Epidemiologist**
- **Al Iannacone – Environmental Epidemiologist**
- **Charity Menefee – Regional Hospital Coordinator**
- **Cindy Lou Sovastion – Volunteer Coordinator**
- **Jennifer Wilson – PHEP Nurse**
- **Sandy Perry – PHEP Executive Assistant**
- **Chris Browning – Network Technical Specialist**

Best Practices:

- Ongoing planning, training, and response partnership with East Region PHEP Department
- Positive cooperative relationship with University of Tennessee
- School and Daycare Influenza Vaccination Project
- CASPER Exercise with chemical spill scenario
- Inventory Resource Management System (IRMS) in use at Knox County
- Strontium Exposure Response
- CIFOR Training held with KCHD and East TN Region
- Third exercise involving the opening of the RSS Warehouse and PODS in Knox County and East TN Region on August 18, 2011
 - o 268 participants
 - o Thirty-one agencies
 - o Six Venues
 - KCHD RHOC
 - ETRO RHOC
 - TDH SHOC
 - RSS Warehouse
 - KCHD SDC (12 agencies participated)
 - Anderson Co. Regional HD, Drive-thru POD

Responses:

April 25, 2011

- RHC responded to the RMCC/UT Hospital Command
 - o Weather Related Electrical Failure
 - o Total diversion including level I trauma

April 27, 2011

- RHC responded to Knoxville/Knox County Emergency Management
- Emergency Operations Center alerted to standby in response to pre-planning for severe weather, flooding in Knox County that could affect hospitals

Special Equipment/Purchases:

- Briefcase radios for the RSS Warehouse, with permanent mounted roof antennas
- UHF radios permanently mounted in POD's
- Enhanced security camera and hand-held radio repeater to improve internal communications for the RSS Warehouse
- Wireless routers for RSS to enhance inventory management
- Updated Syndromic Surveillance Equipment



The Regions

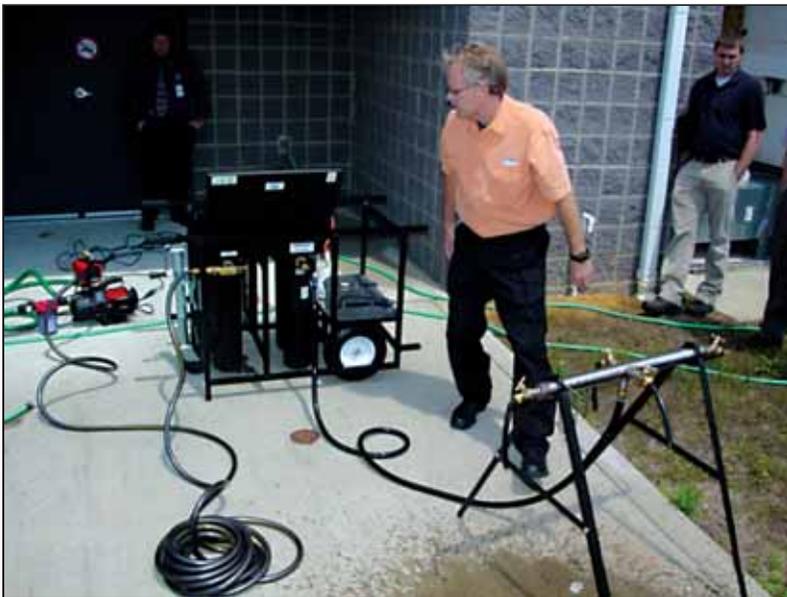
South Central Highlights

The South Central Region Emergency Preparedness program is:

- **Lynn Burns – Emergency Response Coordinator**
- **Dr. David Brumley – Epidemiologist**
- **Christina Knowles – Regional Hospital Coordinator**
- **Michelle Johnson – MRC Coordinator**

Best Practices:

- Community Outreach Information Network (COIN)
 - o Project was adopted by 11 of 12 Health Councils in the South Central Region beginning in May 2011.
 - o The mission of the COIN is that every person who lives, works, or travels through a community should be able to access information in a public health emergency.
 - o The initial goal is to identify at-risk populations in the community and the agencies that serve them to develop a contact list for dissemination if a message in a public health emergency.
 - o Most Health Councils formed a subcommittee, lead by a member of the Health Council. Included governmental and local public service providers, community based organizations, faith based organizations, and public health with a common goal of enhancing communication, response, and recovery efforts.
- MRC 101/Point of Dispensing Exercise/Immunization Requirements for Tullahoma HOSA, January 9th, 10th, 11th, 2012
- Nursing Strike Team Leads to Health Services Response Workshop by Nashville Chapter of the American Red Cross, March 1, 2012
- Homeland Security District Four Cities Readiness Initiative Exercise, April 19th, 2012
- First Water Emergency Purification System Wet Training for South Central Region Hospitals, May 16th, 2012



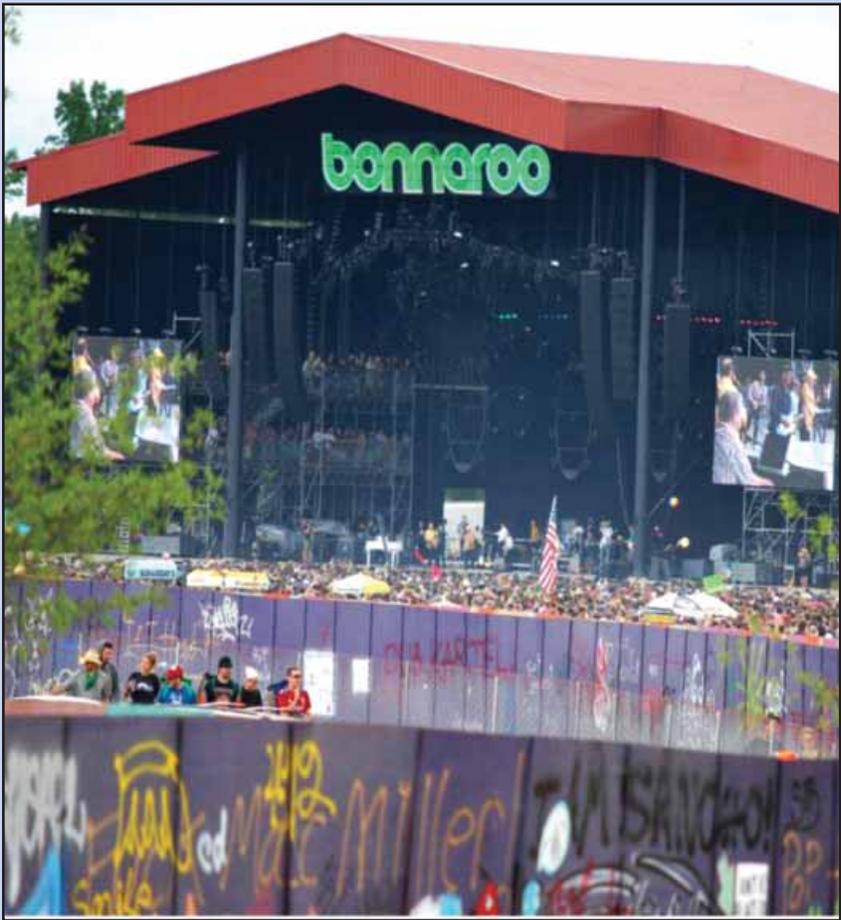
First Water Emergency Purification System Wet Training



TEEX Mass Prophylaxis Preparedness and Planning for MRC Volunteers May 17th and 18th, 2012

National Center for Emergency Preparedness Training
March 5th and June 19th, 2012

Special Report: Bonnaroo



Special Report: Bonnaroo



The 11th Annual Bonnaroo Music and Arts Festival was held on 700 acres of privately owned property in Manchester June 7 through June 10, with TDH working to protect the health and safety of those involved in and impacted by this four-day assemblage of more than 80,000 people needing health, sanitary, fire, police, transportation and utility services.

TDH and the Tennessee Emergency Management Agency facilitated planning for the festival this year. South Central EMS Consultant LeeAnne Boeringer, Emergency Response Coordinator Lynn Burns and Interim Regional Hospital Coordinator Christina Knowles were involved with coordination of medical resources from local EMS services, the local Emergency Management Agency and the three hospitals in Coffee County. Brent Shelton, environmentalist in the South Central Region, began the process of submitting an application for a Mass Gathering Permit for the festival in January 2012. Six South Central Regional General Environmental Health employees worked diligently to coordinate all services required by the Mass Gathering Permit.

According to Shelton, the festival had 237 food vendors this year. In addition to permitting and inspecting those vendors, GEH staff members conducted daily inspections and tests on 22 wells used to provide water resources for the festival. Among the other health needs created by this festival: one-half million gallons of sewage waste was disposed of in a sanitary way, and the Coffee County Health Department set up a tent on site to provide a total of 16,750 condoms to Bonnaroo patrons.

2012 Bonnaroo numbers:

100,000+ ticket buyers, staff, support personnel, volunteers
 16,750 free condoms (Coffee Co. HD)
 1,250 portable toilets
 700 acres
 368 citations issued
 237 food vendors, 6 GEH staff
 48 EMS ALS transports to local hospital EDs
 44 arrests (drug possession & theft)
 22 wells (inspected & tested daily)
 7 air transfers from Bonnaroo (VUMC & Erlanger)
 2 air transfers from local EDs
 1 death

The Regions

Upper Cumberland Highlights

The Upper Cumberland Regional Emergency Preparedness program is:

- **Karen Lynn – Emergency Response Coordinator**
- **Kristi Langford – Regional Hospital Coordinator**
- **Dawn Hickey – Volunteer Coordinator**
- **Debbie Hoy – Epidemiologist**
- **Michelle Zachary – EP Nurse**
- **Kristen Stubbs – Secretary**

Best Practices:

- Medical Reserve Corps
 - o 1006 Volunteers
 - 290 Medical
 - 716 Support
- Tennessee Tech University School of Nursing Partnership
- Special Project – Children in Disasters
 - o Objectives:
 - Assist child care providers in being prepared for a disaster
 - Trained approx 100 daycare workers in past year
 - Additional training scheduled for September 2012
 - Recruit child care and educational professionals as volunteers for Mass Care sheltering operations
 - Involve the community in preparing to support children in the event of a disaster
 - Collect donated critical and developmental needed supplies for infants, toddlers, and school agers to be used in emergency shelters
- Hospital Preparedness
 - o Mutual Aid Agreement among all 12 hospitals
 - o CHEMPACK TTX with 70+ participants across the region
 - o Enhanced regional surge capabilities with
 - mobile hospital
 - Morgue trailer
 - First Water purifier
 - o Wrote and exercised Pharmaceutical Cache plan



First Water purifier



Upper Cumberland Region Mobile Response Unit



Mobile Hospital/Multi-use tent

Training/Exercises:

• **Full Scale CRI Exercise**

o Participants/Venues:

- State lab and 8 hospitals in 2 regions
- UCR, MCR, SCR, and ND RHOCs
- TDH SHOC
- Putnam County: EOC with multiple agencies, CRMC, TTU Closed POD
- Macon County: EMS and EMA
- Smith County: Public POD, EMA, Rescue, Law Enforcement, Riverview Regional Hospital
- EP staff from 12 regions acted as evaluators or timers
- Total: over 500 people, with 103 of those MRC, and 18 agencies participated!

o Messaging completed in the goal of 4 hours

o Call downs and responses, facility set-up completed within prescribed timeframes

o Throughput: Goal-750-1000/hour

- 1685 courses of medication dispensed in 80 minutes
- 1264 courses in 1 hour
- 678 HOH forms/hour
- 4 errors/157 courses= 2.5% error rate
- 2 or more errors could be expected to cause adverse reactions (1.27% of patients)

**Cities Readiness Initiative Full Scale Anthrax Exercise
April 19, 2012**





In their own words...

The project which took the most time and effort in this grant year was the planning for, and execution of, our CRI Full Scale Exercise held on April 19, 2012. The first official planning meeting with all the partners was held on November 2011, though planning in our office began in September. Twenty six agencies, 625 individual players, and 9 exercise contractor personnel were involved. Among others, this group included MRC volunteers, county EMA and EMS, state lab, multiple hospitals, law enforcement and public health employees from 4 public health regions and the central office. The purpose of this Full Scale Exercise (FSE) was to evaluate the ability of participants to open and operate a POD and coordinate medical supply distribution to satellite locations, communicate effectively between Regional Health Operations Centers (RHOC) and the State Health Operations Center (SHOC) and support local and regional hospitals and patient surge. The exercise metrics set by CDC and the goals of the exercise were met. One highlight was the throughput of 1685 courses of medications dispensed in 80 minutes. Another was the successful deployment of the regional pharmaceutical cache with the receiving hospital testing dispensing to employees. Kristi Langford, RHC, developed a plan that has become a template for other regions to use.

Dawn Hickey, MRC Coordinator, while working to recruit and train volunteers, discovered that over 560 of our 1006 volunteers had either attended training or one of our exercises. Some had attended both. She has also engineered a partnership with the TTU School of Nursing, which has helped to strengthen our Closed POD plan with the university and gained faculty help for shelter support.

One of the projects we are most proud of is our affiliation with the UCR Children in Disasters Project. This coalition, made up of UCR EP staff, Putnam County EMA, Department of Human Services licensure folks, childcare professionals, and others, has resulted in supplies and developmentally appropriate toys being cached in the region for use in shelters, a team of childcare professionals ready to be deployed, and a significant amount of training for licensed childcare agencies to assist them with improving their emergency plans.

Another project that we are proud to be associated with, and host, is the KY/TN Planning Coalition. This group is made up of regional/district preparedness staff that cover the border counties along with central office staff from both states. We have made significant strides in learning about each other's programs and are now in the process of finalizing a KY/TN Cross-border Activation Protocol which will be tested in September of 2012 in a tabletop exercise. We are also working on a cross-border CASPER.

Our regional hospital coalition, led by Kristi and assisted by our partners at Cookeville Regional hospital, has made great strides in improving our ability to respond to a mass casualty event through the purchase of a mobile hospital unit, a morgue trailer, and a First Water purifier. In addition, we now have a mutual aid agreement among all 12 of the region's hospitals.

One of our most recent projects was to host law enforcement training entitled "Convoy Protection". U.S. Marshals, who work with SNS, came to Cookeville to do the training. U.S. Marshals Tom Boock, Oscar Blythe, and Robert Izgarjan led the training which included classroom study and practical experience in force protection, counter-assault techniques, and convoy counter-ambush drills. County and city law enforcement officers from the Upper Cumberland, THP officers from Knoxville and Cookeville, and law enforcement officers from East and Knox County participated. UCR and East EP staff and Putnam EMA provided support as victims and SNS convoy drivers.

The region completed a Hazards Vulnerability Assessment in all 14 counties and Kristi gathered those from all of our hospitals as well as getting them to do one together to address the hospital aspect. Information from these will be utilized to assist in planning to meet the gaps. We have also hosted training for new public health employees, new MRC volunteers, POD leaders, RHOC staff and MRC leaders, as well as several classes on TTU campus led by Dawn. Monthly hospital visits and participation with FoodNet continues as well.



U.S. Marshals conduct convoy protection drills

The Regions

Northeast Highlights

Northeast Tennessee Emergency Preparedness Program is:

- **Shirley Hughes – Emergency Response Coordinator**
- **Donna Garland Robbins – Epidemiologist**
- **Brenda Greene – Regional Hospital Coordinator**
- **Angie Minor – Volunteer Coordinator**
- **Jim Breeding – IT/Systems Support**
- **Ruth Anne Fuller – Administrative Support**

Best Practices:

- Interagency Organizations
 - o Involvement with Mountain Empire Public Health Coordinating Council (MEPHECC) and Mountain Empire Epidemiologic Task Force (MEETF) committees
- Volunteer Recruitment and Community Education
 - o Colleges, Universities, Senior Citizens Groups
 - o MRC Volunteer Recruitment
 - East TN State University College of Medicine Students
 - o Mentoring of ETSU Masters of Public Health Interns
 - o Healthcare Response to Meth Labs outreach
 - o “Bites of Summer” vector-borne disease conference
- On-going testing and alerting

Events and Responses:

- Outbreak of gastroenteritis among Appalachian Trail Hikers – April, 2012
- Appalachian Service Project on Gastroenteritis – June, 2011
- Cryptosporidium Surveillance 2011 –2012



Northeast Regional Medical Reserve Corps unit was named one of the best MRC units in the country! MRC Coordinator Angie Minor and the Northeast Regional MRC ranked fifth in the nation based on the number of activities reported in 2011. The unit conducted 91 activities during that year including Community Emergency Response Team planning sessions; MRC orientation; a conference on community services for homeless youth; nursing students conducting on-campus emergency preparations and overview of the Incident Command System; radio testing and training for staff; MRC recruitment and more.

Training/Exercises:

- COM-L Training
- CHEMPAK Full Scale Exercise
 - Washington County/Johnson City CHEMPAK Full Scale Exercise, Sept. 7, 2011
- BDS (US Postal Service Biohazard Detection System) Exercise
- Tennessee Hospital Association (THA) Training
- Center for Domestic Preparedness—Mass Casualty Incident



NER CHEMPAK Exercise



Northeast TN Technology LPN Program & ETSU College of Nursing RN Program Support FSE



Washington County/Johnson City CHEMPAK Full Scale Exercise, Sept. 7, 2011





COML Class



Special Equipment/Purchases:

- Smart board
- New desks,
- Additional large screen TVs
- New badging system
- RHOC Generator
- Regional Winlink Kit (purchased by hospitals)
- Regional Emergency Generator and Trailer (purchased by hospitals)



RHOC Generator

The Regions

Sullivan County Highlights

The Sullivan County Region Emergency Preparedness Program is:

- **Mark Moody – Emergency Response Coordinator**
- **Heather Mullins – Epidemiologist**
- **Alan Bagley – Regional Hospital Coordinator**
- **Melanie Carswell – Volunteer Coordinator**

Personnel Changes of Note:

Jim Bean named Sullivan County Emergency Management Director

January 2012, Mark Moody takes over as Sullivan County Health Department Emergency Response Coordinator

Best Practices:

- Bristol Motor Speedway CHEMPAK Forward Placement Project
- Interagency Participation
 - M.E.P.H.E.C.C. (Mountain Empire Public Health Emergency Coordination Council)
 - M.E.M.P.S.C. (Mountain Empire Media/Public Safety Council)
 - IEPC (Interagency Emergency Planning Commission)
 - LEPC (Local Emergency Planning Commission)
- Revision of SNS DOG: Jun-Jul 2012
- Total revision of POD Plans: Jun-Jul 2012
- Revision of SCRHD RHOC SOG: Jun-Jul 2012
- Achieved final score of 95 on TAR review: Jul 2012
- Review, revision or development of Physical/Environmental Safety Policies for SCRHD; Fire, Bomb Threat, Severe Weather, Suspicious Packages/Mail, Telecommunications Failure, Agitated Client, Active Shooter, etc., May- Aug 2012

Training / Exercises:

- Flu Clinic /POD Exercise:
 - MRC Volunteers utilized and given POD roles: October 2011
- All Regional Hospitals attend week-long Decon Training – Anniston, AL September 2011
 - Regional Hospital Decon Response Team development (on-going)



Sullivan County Flu Clinic/POD Exercise

Events and Responses:

- Bristol Motor Speedway response and forward placement of CHEMPAK for 2 races: Mar/Aug 2012
- FunFest Command Center Support: July 2012
- 5 Epidemiological investigations were conducted during the 2011-2012 grant cycle

The work of the Sullivan County Health Department and its EP program has resulted in their receipt of:

- Tennessee Center for Performance Excellence Achievement Award (February 2012)
- 2012 EP Outstanding Teamwork Award (June 2012)

Special Equipment/Purchases:

- 400KW emergency generator for hospital support in Northeast/Sullivan Region: Aug 2011
- Generator Support Trailer



Regional Hospital Generator



Generator Support Trailer

The Regions

East Highlights

East Tennessee Region Emergency Preparedness program is:

- **Jack Cochran – Emergency Response Coordinator**
- **Tamara Chavez-Lindell – Epidemiologist**
- **Brad Parman – Epidemiologist**
- **Wanda Roberts – Regional Hospital Coordinator**
- **Katrina Tyler – Volunteer Coordinator**
- **Tom Lane – Nurse Consultant**
- **Vic Snider – Network Technical Specialist**

Best Practices:

- Developed Training and Exercise Tracking Database
- Partnered with VOAD (Volunteers and EP Fairs)
- On-going Collaboration with Metro Partner – Knox County Health Department
- Monthly meeting of hospitals with RHC
 - All hospitals are involved in decisions regarding how regional funds are allocated

Response to real-time events:

- Two Large Sewage Spills at TDEC Request
- PODS to provide tetanus vaccination following tornados, sewage spills
- Tdap POD in Gatlinburg following raw sewage exposure
- Tdap on site Monroe County RE: Tellico Plains tornado
- Coordinated response to Scott County Hospital Closure
- Strontium response with Knox County Health Department
- TVA Kingston Coal Ash Disaster (Ongoing through 2014)
- Apartment fire at Assisted Living Facility in Roane County
 - All evacuated residents (49) met the definition of Functional Needs
 - Functional needs shelter in operation for five days

Exercises:

- Full-scale PHEP Exercise – Aug. 17 - 18, 2011
 - SNS Warehouse in Knoxville
 - Drive-thru and closed POD plans exercised in Anderson and Knox Counties
 - Result – Re-wrote ETR/KCHD SNS DOG,
 - Developed Drive Through POD template
- Watts Bar Fixed Nuclear Power Plant Graded Exercise – Oct. 19, 2011
- Annual DOE Exercise on Oak Ridge Reservation – June 20, 2012
 - Exercises rotate between 3 facilities on the Reservation -- ETTP exercising this year
- Participated in 15 county-level exercises during FY 2011-2012
- Assisted/Observed 14 Hospital exercises during FY 2011-2012
- Monthly communications drills with TEMA, Hospitals, and RMCC

Special Equipment/Purchases:

- UHF repeater system build out – Hospital Preparedness funds
 - Hospitals all have individual UHF frequencies
 - RMCC and RHOC has ability to talk to all hospitals, EMS, and PODs
- Win-link
 - Allows transmission of e-mail via HAM radio signal
- Backup RHOC equipment for COOP compliance – instant deployment
- RN Strike Team response kits
- Portable HAM radio allow test communications from PODs to RHOC
 - 4 EP staff are licensed HAM operators (Technician Level)

Special Report: RHOC Renovations

Regional Health Operation Centers (RHOCs) across the state have undergone renovation during the past year. East Tennessee Region's RHOC is typical of the resource capability to be found state-wide.

Resources and Capabilities:

- 19 adaptable work stations, assigned by ICS positions
- 4 command staff workstations
- 4 general section chief workstations
- 9 SME workstations assigned as needed
- 15 workstations linked as a phone bank
- Doubles as training facility
- Interactive White Board
- Phones (land and cell)
- Satellite Phone
- VHF radios
- UHF radios
- 800 MHz radios
- HAM and HAM HF radios
- Video Conferencing capability
- WEB-EOC connectivity



ETR RHOC ready for action



RHOC in the classroom mode



ETR RHOC Communications Room

The Regions

Shelby County Highlights:

The Shelby County Regional Health Department Emergency Preparedness Program is:

- **Kasia Smith-Alexander – Emergency Response Coordinator**
- **Rebecca Konnor – Epidemiologist**
- **Amy Howell – Regional Hospital Coordinator**
- **Jennifer Russell – Volunteer Coordinator**

Best Practices:

- Approximately 600 low socio-economic individuals attended the SCRHD Emergency Preparedness Expo. Attendees received go bags, first aid kits, flash lights, pro pacs, and tons of information.
- Attended Baby Expo giving out “sippy” cups, first aid kits, and building blocks to approximately 500 expecting and new parents.
- Participated in over 75 health-related fairs, community outreaches, and presentations impacting ~5000 – 6000 individuals.
- Distributed blankets, pro pacs, and water bottles during SCHD Employee Emergency Preparedness Day.
- Coordinated Lunch N Learn series for the month of February and March.
- Collaborated with Red Birds Baseball Team to promote emergency preparedness through print and radio advertisements.
- Revised ESF 6, 8 and 18 plans

Training / Exercises:

- Flu drive thru POD exercise October 22, 2011
 - o 589 flu vaccines were administered within 4 hours
 - o Enabled SCHD and the community to know what to expect during an actual emergency.
- Bomb exercise November 9th
 - o Mid South Coliseum
 - o ~250 MRC volunteers were utilized

Events and Responses:

- 1000 Heat Related flyers to MIFA distributed by Meals on Wheels,
- Partnership with MLGW to put out heat related tips, etc.
- Weapons of Mass Destruction (WMD)/Mass Casualty Field Training Exercise, November 9, 2011

Special Equipment/Purchases:

- POD boxes for drive thru PODs
- Infant Day Packs
- Patient Tracking system
- CPR training equipment
- Communications trailer

The Regions

Chattanooga-Hamilton County Highlights

The Chattanooga-Hamilton County Emergency Preparedness Program is:

- **Sabrina Novak, MS – Emergency Response Coordinator**
- **Sarah Stuart Sloan – Epidemiologist**
- **Jenny Wolverton – Regional Hospital Coordinator**
- **Vacant – Volunteer Coordinator**

Personnel Changes of note:

- Sabrina Novak is the new Emergency Response Coordinator
- Dawn Ford now working for University of Tennessee Chattanooga

Best Practices:

- Utilized the CASPER methodology within the 5-mile Emergency Planning Zone around Sequoyah Nuclear Plant to determine citizens' readiness and their understanding of emergency information provided by the energy provider.
- Provided tetanus shots after tornados by sending out nurse strike teams
- Participated in the county DART (Disaster Animal Response Team) efforts of containing and housing loose animals after the storms in 2011

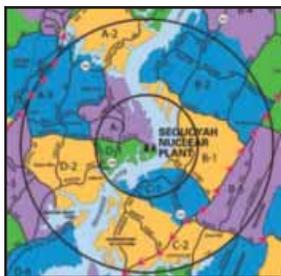


Nurse Strike Teams responding



- Maintain a 25 bed alternate care cache for the Hospital Regional Surge Capacity Cache
- Standardized Emergency Preparedness Wall Charts (codes) in hospitals and other healthcare facilities throughout Hamilton County
- Surveillance activities have allowed effective decision-making between community partners and the health department
 - o Local hospital relied on surveillance data to make HCW mask-use requirements
 - o Surveillance has enhanced communication between providers and the HD, allowing earlier intervention

Training/Exercises:



- CASPER September 2011
 - o Survey of the Sequoyah 5 mi EPZ. Staff and MRC Volunteers were trained in this methodology. Survey results were shared with TVA, TEMA, and HC EMA and they are using data to enhance community preparedness and empowerment.
- Hamilton County Full Scale Exercise—Accidental Chlorine Release September 29, 2011
 - o This exercise increased familiarization amongst agencies of what other participants/agencies would be doing or would need to know.

Special Equipment/Purchases:

- SPOT Chillers
 - o A hospital lost power for an extended period of time during the August 2011 heat wave. Deployment of SPOT Chillers provided air conditioning to patient care areas, and prevented patient evacuation.



- 25 bed alternate care cache for the Hospital Regional Surge Capacity Cache that can be deployed to any hospital in the region to provide an additional bed capacity for three days.



The Regions

Southeast Highlights

The Southeast Region Emergency Preparedness Program is:

- **Robert Goff – Emergency Response Coordinator**
- **Dan Walker – Epidemiologist**
- **Ken Tartar – Regional Hospital Coordinator**
- **Marjorie Neville – Volunteer Coordinator**
- **Eddie Vance – Network Technical Specialist**

Best Practices:

- Response to April 27, 2011 storms
- Radiological exercises
- Response to TB outbreak involving 180 individuals
- East Tennessee functional needs planning
- Public-private RSS partnership



Training/Exercises Accomplished:

- Hospital exercises x2 per facility annually
- Mass Fatality Training, October 2011
- KI Distribution Workshop with Chattanooga-Hamilton County Health Dept., Feb. 1, 2012
- Convoy Security Training, May 31, 2012

Special Equipment/Purchases:

- Rhea Medical Center
 - o water tower
- Copper Basin Medical Center
 - o decon site including water heater and hookup for water source

The Regions

West Highlights

The West Region Emergency Preparedness Program is:

- **Marques Williams – Emergency Response Coordinator**
- **Kevin Morris – Epidemiologist**
- **Vacant – Regional Hospital Coordinator**
- **Lori Barker – Volunteer Coordinator**
- **Tracy Callahan, RN – Nurse Consultant**

Training/Exercises Accomplished:

- Recruiting HOSA students to MRC – ongoing effort
- October 2011 – Members of the West Tennessee Region observed/evaluated
- Memphis/Shelby County’s Drive-thru POD
- February 2012, West Tennessee participated in an Earthquake Exercise in Weakley County where members of the West Tennessee Nurse Strike Teams were deployed to run a shelter as a result of an earthquake. Nurses were also deployed to a bus incident to assist with triage. During this time the West Tennessee Regional Health Office opened the RHOC.
- February 2012 – Communications Test
 - o participated in a Region-wide test
 - o members contacted TEMA and the SHOC, testing various methods of communications
- February 2012 – training with health department staff regarding POD Operations
- NIMS training with staff is an ongoing effort
- April 2012 – Participated in Upper Cumberland’s POD/RHOC Exercise
- June 11th and 18th- Conducted POD Leadership training
 - o Trained over 70 staff members
 - o Tabletop Exercise
- September 24 conducted Full-Scale POD exercise
 - o Relocated RHOC to Jackson-Madison Fairgrounds
 - o Operated RHOC from Mini Mobile Operations Center
 - o Achieved a throughput rate of 477 courses during one hour of POD operation

Regional Exercise photos:



More Regional Exercise photos:



Special Purchases:

- 4 Trailers
 - 2 nurse strike team trailers
 - 2 POD strike teams trailers
 - o Allows for rapid mobilization of equipment to support local, regional and state communities

The Regions

Mid-Cumberland Highlights

The Mid Cumberland Region Emergency Preparedness program is:

- **Blaine Hill – Emergency Response Coordinator**
- **Donald Perry – Epidemiologist**
- **Donita Woodall – Regional Hospital Coordinator**
- **Leslie Fitzpatrick – Nurse Consultant**
- **Glenda Williams – Volunteer Coordinator**
- **George Howes – Volunteer Coordinator**

Best Practices:

- Community Partnership and Collaborations
 - o Homeland Security District V & VII
 - o Hands On Clarksville
 - o Page High School (Williamson County)
 - o Rossvie High School HOSA Club (Montgomery County)
 - o American Red Cross
 - o EMA, EMS, Law Enforcement and Fire Responders in each of the MCR's 12 counties
 - o Establishment of a Medical Shelter at College Hills Church of Christ – Wilson County
 - o Cumberland University, Austin Peay State University and Middle Tennessee State University
 - o Long Term Health Care Facilities in each of the 12 counties within the MCR (Closed POD's)
 - o YMCA
 - o Ft. Campbell Military Post Emergency Preparedness Division
- CASPER TRAINING
 - o 8 Regional employees completed the training and will assist in community assessments
 - o Additional training August 2, 3, 4, 2012, in Cheatham County addressing post-flood awareness and preparedness
- KY/TN Colition
 - o KY & TN Health Departments meet quarterly to address best practice disaster issues that may affect both states
 - o Working to establish triggers to assist in disaster response allowing notification when something happens in either state

Training/Exercises:

- Participated in the April 19, 2012 Homeland Security District 4 – Nashville Cities Readiness Initiative (CRI) – Metropolitan Statistical Area (MSA) Full Scale Exercise
 - o First operation of a RHOC from the “Mini Moc”, the Mobile Operations Center which brings multi-faceted connectivity to a building of opportunity
 - o Hosted SHOC operations on-site relocated from central office to self-contained Mobile Operations Center
 - o Call downs made to volunteers in Wilson County via Volunteer Mobilizer;
 - o Call downs made to all Wilson County Health Department employees and the Mid Cumberland Region RHOC staff utilizing THAN
- Volunteers participated in the March, 2012 planning for the District VII ‘Dirty Bomb’ exercise that took place in Montgomery County; May 10, 2012
- TEEEX Hazmat/WMD Training in Dickson County
 - o Hospitals, fire, law enforcement, health department staff and volunteers participated
- ICS 300 Course allowed all new POD team leader staff to meet the state NIMS requirements



Dirty Bomb Exercise



TEEX Hazmat/WMD Training



"Mini MOC" provided internet, phone, radio, and other functionality during the FSE



SHOC operations for the full scale exercise took place from the MOC