



Summer 2010
Volume 8 Issue 2

Epidemiology resources short in state health departments

Epi resources	1
Portable Hospital Exercise Held	2
Foodborne Illnesses	3
Dengue Fever Advisory from CDC	3
Rare Fungus May Be Spreading	4
MRC Update	4

A standardized national assessment of state health departments' core epidemiology capacity found that 10% fewer epidemiologists were working in state health departments in 2009 than in 2006. The assessment, conducted by the Council of State and Territorial Epidemiologists (CSTE) also found the percentage of state health departments with substantial-to-full epidemiology capacity decreased in three essential services of public health (ESPH) during the same period.

The three areas included 1) capacities to monitor and detect health problems, 2) investigate them, and 3) evaluate the effectiveness of population-based services. More than 30% of states reported minimal-to-no capacity to evaluate and conduct research for five of the nine epidemiology program areas including environmental health, injury, occupational health, oral health, and substance abuse. The main objectives of the CSTE assessment are to count and characterize the

state-employed epidemiologist workforce and measure current core epidemiology capacity. Standardized assessments began in 2001 and were conducted in 2004, 2006 and 2009.

Some of the information sought by the assessments relate to the four most epidemiology related essential services of public health (ESPH). These include: 1) monitoring health status to identify and solve community health problems; 2) diagnosing and investigating health problems and health hazards in the community; 3) evaluating effectiveness, accessibility, and quality of personal and population-based health services; and 4) conducting and evaluating research for new insights and innovative solutions to health problems.

For more information about the CSTE report and the ten essential services of public health, visit www.cdc.gov/mmwr/preview/mmwrhtml/mm5849a1.htm.

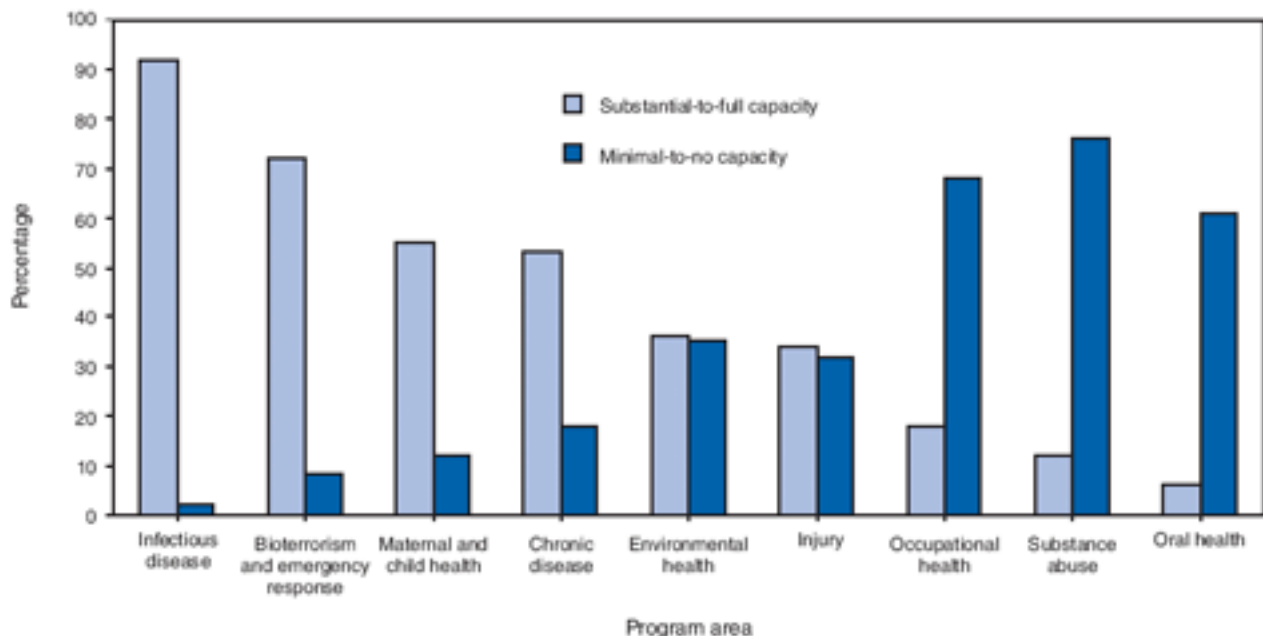


FIGURE 1. Percentage of state health departments reporting substantial-to-full (50%--100%) and minimal-to-no (<25%) capacity in epidemiology and surveillance programs, by program area --- Council of State and Territorial Epidemiologists Epidemiology Capacity Assessment, United States,* 2009



Public Health readies partners and staff for portable hospital deployment

The Georgia Division of Public Health along with the University of Georgia's Institute for Health Management and Mass Destruction Defense (IHMMDD) and Regional Coordinating Hospitals, have begun the multifaceted task of training partners to deploy 50-bed portable hospitals. These hospitals are intended to temporarily replace a hospital that has been rendered unusable, to provide surge capacity or to serve as hydration centers in conjunction with an existing hospital.

Currently there are 8 portable hospitals in Georgia, to be shared among the 18 public health districts. Request for deployment of the portable hospitals could be made by a regional coordinating hospital in conjunction with the district public health director and the state public health officer.



Above: Hand carts are helpful when unloading the tents from the trailers.

will receive training along with public health, Emergency Management Agency personnel, and hospital personnel in erecting and operating the hospital assets.

The University of Georgia IHMMDD is assisting the regional coordinating hospitals and public health in writing the standard operating guide for the hospitals. Medical Reserve Corps (MRC) and Citizen Emergency Response Team (CERT) volunteers

On February 10, EMS Innovations held a training exercise for setting up the hospital at Georgia Mountains Center in Gainesville. The EMS Innovations team led the exercise which gave volunteers and staff the opportunity for hands-on experience in unpacking, inflating and equipping the structures. Specific instructions were provided for assembling the medical equipment and for maintaining the structures. The group then deflated the structures and repacked the hospital in the trailers. This initial training exercises will be followed by full-scale exercises in other health districts around the state.



Above: Almost completed hospital is ready for equipment.



Right: Generators will supply power for air conditioning and all hospital equipment.

Bottom: Volunteers listen for more instructions on how to position the hospital rooms. The bed racks (dark blue units), air conditioning units, and additional hospital rooms have been unloaded and prepositioned for installation.





CDC: Foodborne illness remains a danger in the U.S.

Data collected through the Centers for Disease Control and Prevention's Foodborne Diseases Active Surveillance Network, known as FoodNet, highlights the need for new food safety strategies. While the rates of most of the nine foodborne illnesses tracked by FoodNet saw a decline after intervention in 1996 until 2004, most have not shown any change from 2004 to the present.

The Foodborne Diseases Active Surveillance Network (FoodNet) conducts population-based surveillance in ten states for laboratory-confirmed cases of infection caused by *Campylobacter*, *Cryptosporidium*, *Cyclospora*, *Listeria*, *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC), including STEC O157, *Shigella*, *Vibrio*, and *Yersinia*.

FoodNet is the principal foodborne disease component of the CDC's Emerging Infections Program (EIP). FoodNet is a collaborative project of the CDC, ten EIP sites (California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New Mexico, New York, Oregon, and Tennessee), the U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA). The project consists of active surveillance for foodborne diseases and related epidemiologic studies designed to help public health officials better understand the epidemiology of foodborne diseases in the United States.

U.S. Food and Drug Administration officials have stated that FoodNet data are also important in helping the FDA design food safety policies and programs to reduce foodborne illnesses. Overall food safety is the responsibility of the USDA's Food Safety Inspection Service and the FDA.

Vibrio infections, associated with eating raw or undercooked shellfish, (especially oysters) increased 85% compared with the first three years of surveillance. This is of concern because, while the overall number of *Vibrio* infections is a small percentage of all foodborne illnesses, the infection may cause serious illness or death, particularly in people with weakened immune systems.

Salmonella incidence reduction is the furthest from reaching the national goal. This could be because *Salmo-*

nella is spread in a variety of foods and also through non-foodborne routes. *Salmonella* can be spread by poultry, meat, eggs, produce and processed foods, as well as by contact with certain animals like baby chicks, small turtles and reptiles.

For most foodborne infections, the rates were highest in children under 4 years of age and can cause short-and-long-term health issues. People over 50 years of age had the highest rates of hospitalizations and deaths, emphasizing the need for individuals over 50 to get diagnosed and treated quickly after becoming ill. For more information about foodborne illnesses visit: www.cdc.gov/media/pressrel/2010, www.fsis.usda.gov, or www.fda.gov.



CDC warns of potential Dengue infection for returning Haiti relief workers

Conditions in Haiti following the January 12 earthquake have increased opportunities for mosquito breeding sites and have likely increased human exposure to mosquito borne illnesses. Dengue fever is endemic in Haiti and workers responding to previous disasters have experienced high rates of dengue infection. A CDC health advisory advises physicians to evaluate travelers returning with a febrile illness from Haiti. These cases should be reported to the local health department or to the CDC.

Dengue fever is characterized by high fever plus two or more of these symptoms: headache, retro-orbital pain, joint pain, muscle or bone pain, rash, mild hemorrhagic manifestations (nose or gum bleed, petechiae, or easy bruising) and leukopenia.

Dengue fever is spread by infected *Aedes aegypti* mosquitoes and cannot be passed from human to human. The CDC reports that there are approximately 100 million cases of dengue fever worldwide each year. For more information visit www.cdc.gov/dengue/



Deadly airborne fungus expected to spread in U.S.

According to the CDC, a deadly airborne fungus that first appeared in the state of Washington in 2006 has now spread southward to Oregon and Northern California and is expected to continue to spread. The fungus, *Cryptococcus gattii*, originates in the soil and is associated with the eucalyptus tree species. When the soil is disturbed the fungus can become airborne and cause pneumonia or meningitis when inhaled by humans. While the microbial pathogen can cause significant illness and death, it is very rare. Only about 50 people in the United States have been infected with the fungus since 2006, but of those diagnosed with the illness, 10 have died. All of the reported U.S. cases have occurred in Washington, Oregon and California.

It is important to note that an individual has to inhale the fungus to become infected. Of those exposed to the fungus, few get sick and most of the cases in the U.S. have been people with weakened immune systems. For those

who become ill, the onset of symptoms varies and could be from two to eight months. The four most common symptoms of infection include severe headache, fever, chills, and shortness of breath. While some people who got sick from exposure to the fungus have exhibited just one of the symptoms, most have all four. Infections can be treated with anti-fungal agents, but no vaccine is available for *C. gattii*.

Officials at the CDC stress that there is cause for concern and awareness but not alarm. The benefits of exercise from out of doors activity far outweigh the risk of becoming infected with *C. gattii*. However, physicians should be aware of the symptoms and watchful for individuals that have visited the Pacific Northwest and exhibit any of the symptoms.

C. gattii was discovered in British Columbia, Canada in 1999 before moving into the U.S in 2006. Previously it was typically known to be found in the tropics and sub-tropics, although it has spread to Latin America, parts of Europe and parts of Southeast Asia. For more information, visit <http://www.cdc.gov/eid/content/15/8/1185.htm>

MRC highlights

Northeast Georgia Mountains MRC volunteers participated in the Hall County Chamber of Commerce 5K Corporate Challenge on April 23, 2010 in Gainesville. Volunteers participating were Deanna Jones of Dahlonega and Trina von Walder of Athens. The 5K Corporate Challenge is an annual event that promotes healthy lifestyles.

On February 10, NEGM MRC volunteers participated in a portable hospital deployment drill. Debbie Edwards and Michael Riemcar, both of Gainesville learned how to unload the hospital equipment from the trailer, set up the equipment and then repack for storage in the trailers.

If you would like more information about the Medical Reserve Corps or want to become a member of the local MRC, please sign up at www.servga.org.



Flooding creates home safety concerns

Spring and summer storms can cause low-lying areas to flood and create hazards for homeowners. Recent news reports from flood areas have shown water covering cars and buildings. Rushing water can quickly carry people away from safety and cause injury or death. Of course when homes are flooded, they can become contaminated with toxic substances that mix with the flood water. Cleaning supplies and other chemicals stored in the home can also mix with water that invades homes during a flood. People should not enter standing flood water, but wait for it to recede. In flooded areas, standing water can create breeding pools for mosquitoes, so it is important to eliminate standing water to decrease mosquito breeding sites. Flooded homes may also grow mold, making it important to have water-damaged homes inspected before beginning repairs.

THE SENTINEL

is a bi-monthly publication of District 2 Public Health Emergency Preparedness 1280 Athens Street, Gainesville, Georgia 30577 770-535-5743

David N. Westfall, M.D., MPH, CPE
District Health Director

Mark Palen
Emergency Preparedness Director

Nina Cleveland-Hall
Emergency Preparedness Specialist

Donna Sue Campbell
Emergency Preparedness Liaison

Dave Palmer
Emergency Preparedness PIO
Editor of *The Sentinel*
dbpalmer@dhr.state.ga.us