

Preparing for Bioterrorism in North Carolina

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THE EVENTS OF LAST FALL reshaped our nation, as the possibility of war on US soil became a reality. What to most of us had once seemed like science fiction was now happening. In the wake of the September 11 attacks, the deadly spread of anthrax where we live and work turned the nation's attention to its public health system. In this new war against terrorism, suddenly the President's most expert advisor was not the Secretary of Defense or the Chairman of the Joint Chiefs of Staff but, instead, a public health physician. Our best weapons against this enemy were not guns and missiles but applied epidemiology, respiratory masks, and prophylactic antibiotics. Public health was leading the charge—but were we adequately prepared for the fight? Did the enemy find a weak flank in our defenses, or, borrowing from President Bush's statement, did they “wake a sleeping giant” in the nation's public health army?

The Red Letter Day for Public Health

The world watched the horrific September 11th attacks on the World Trade Center and the Pentagon. Stunned in front of our televisions, we witnessed the destruction and devastation in New York City as it unfolded: the planes used as weapons, the damage to property, the thousands of people who were hurt. We also saw the tremendous response of emergency workers, healthcare professionals, volunteers, friends, and families. The attack created hundreds of heroes before our eyes. As massive as it was, we knew what had happened, and we knew what it was going to take to help the victims and their families recover. We were all proud as the American people quickly set about doing what had to be done.

October 4th, on the other hand, was different. On that

day the index case of inhalation anthrax was first diagnosed in a Florida man who had vacationed in NC, and the threat of bioterrorism became a reality. In contrast to September 11, this killer was not seen; we didn't know exactly what we were dealing with or how to protect ourselves from it, and we didn't know where the attack was coming from. This new threat was not in a high-rise building televised from another city. This deadly weapon could be delivered right into our homes through the mail. Instantly, all of us could see ourselves as potential targets and victims. Fear spread through every household.



NC Anthrax Investigation

North Carolina was at the center of the initial US anthrax investigation last fall. The Epidemiology Section of the NC Division of Public Health, along with the Florida State Health Department, received the first call from the Centers for Disease Control and Prevention (CDC) notifying us that a diagnosis of inhalational anthrax disease had been confirmed in a 63-year-old resident of Florida. Based on our knowledge of anthrax at the time, scientists believed symptoms of inhalational anthrax appeared one to seven days after exposure—and this patient had spent the three days prior to becoming ill traveling in NC. CDC and the other public health experts believed that the exposure might well have occurred in North Carolina.

NC public health responded quickly and decisively. With the assistance of the index patient's family and the Federal Bureau of Investigation (FBI), we quickly identified his route of travel through NC and the places he visited. The investigation had two main objectives: first, to evaluate the places visited to determine if there was an environmental source of the anthrax exposure, and, second, to see if anyone else had been exposed to the anthrax organisms and become ill. The NC investigation covered eight counties and 19 hospitals. Environmental samples were collected in two of the counties for laboratory analysis. Medical records and laboratory results from the emergency departments and

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intensive care units of all 19 hospitals were reviewed. A case definition consistent with early recognition of anthrax disease was established and a prospective surveillance system set up to identify any new cases that might emerge. The NC investigation was coordinated closely with the CDC, the FBI, and the Florida investigation and was up and running within 24 hours of notification. The urgency of the situation required public health professionals working with hospital personnel to pull and review medical records in the middle of the night.

A few days after the investigation began, it was determined that the exposure of the index case had occurred at his workplace in Florida. The North Carolina investigation continued for seven days to ensure there were no additional cases or contaminated sites in NC. All suspected cases of anthrax disease in the state were subsequently ruled out, and no anthrax organisms were isolated from any of the environmental samples taken as part of the initial investigation.

Lessons Learned from the North Carolina Anthrax Experience

The good news is that our public health system responded quickly and effectively. The bad news is that our public health capacity was completely overwhelmed. Laboratory workers, surveillance coordinators, epidemiologists, public information officers, industrial hygienists, nurse investigators, and medical record clerks were all working around the clock. When additional cases of anthrax disease were confirmed in Washington, DC, and New York, North Carolina's eight-county initial investigation quickly expanded statewide. The NC public health system was consumed with the anthrax response even though there were no confirmed cases of anthrax disease in our state and only a trace amount of anthrax found in only one sample—directly linked to a Washington, DC, contaminated postal facility. More than 700 environmental specimens were submitted to the State Laboratory of Public Health for analysis.

The NC public health system is no stranger to emergency operations. Dealing with hurricanes and floods has provided ample opportunity to exercise our response capacity for natural disasters. Unfortunately, hurricane response doesn't translate directly to bioterrorism response. The State Emergency Response Team (SERT), which mobilizes quickly during a declared emergency, was never fully activated during the anthrax crisis. The Governor did not declare a state of emergency in NC.

The traditional role of public health in a natural disaster emergency is primarily reactive. Public health attempts to manage the consequences of the emergency by removing people from harm's way, providing safe and clean shelters for people driven from their homes, and offering support ser-

vices to help people get back on their feet. In the case of a bioterrorism attack, by contrast, the public health role is not just consequence management. It needs to play a more proactive role in preventing and mitigating such an event. A biologic attack is likely to be a covert act. Well-established disease surveillance and data monitoring are essential for early detection and immediate investigation of potential bioterrorism events. The disease surveillance system in North Carolina, however, is inadequate for this purpose. It is not automated, it does not collect data in "real time," and it does not capture all the information needed for early detection. Terrorism is, by definition, a criminal act; therefore ongoing coordination with law enforcement is critical. The area where a terrorist act is being investigated is a crime scene. Any evidence or laboratory samples must be collected and stored under strict rules of evidence, and a well-documented chain of custody must be maintained. The FBI is the lead agency for acts of domestic terrorism in the US. It has a history of working closely with other state and local law enforcement officials; however, it is much less familiar with public health threats and their consequences.

The importance of good communications between response partners cannot be overstated. North Carolina's anthrax response was successful despite the absence of a secure electronic communications system between public health investigation teams in the field and the leadership guiding the response in Raleigh. Public health was forced to rely on outdated and inefficient systems of phone, fax, and e-mail to communicate with its own workforce. Communication with our law enforcement partners was also hampered. Public health is not part of the Criminal Justice Information Network (CJIN), the information network used to share electronic data among various law enforcement agencies—sheriff, police, SBI, FBI, highway patrol, and first responders. CJIN is available in both base stations and mobile operations; however, no such system exists for public health. Traditional forms of communication remained operational throughout the anthrax events last fall, but if the phone system or power supply had been lost, there was no back-up. Coordination and timeliness of the investigation effort would have been severely challenged without good communications.

The public demand for information is another aspect of communications that needs attention. People want and need complete and accurate information during an emergency. The State Emergency Operations Plan calls for a Joint Information Center to be established to provide public information. The lack of such a plan during the anthrax events resulted in inefficient response to public inquiries and to the media. In some cases, public health professionals who were needed to respond to the investigation were unnecessarily tied up responding to routine calls from concerned citizens. Both tasks are essential, and both can be done more efficiently through a coordinated crisis communication plan.

New Challenges in Protecting the Public's Health

The use of biologic agents as weapons of mass destruction is cause enough for us to reinvest in the public health system, which is designed to protect us from these organisms and the diseases they cause. Two other modern trends also compel us to focus on biologic agents: the globalization of disease and the emergence of new organisms.

Regarding the first, it is no longer adequate to limit our disease control efforts to just our state or our nation. World travel and the international buying and selling of goods mean that a biologic agent could enter our homes from anywhere in the world on any given day. It is possible with today's air travel capacity to transport a dangerous organism around the world in one day, as an intentional act of terrorism or even unintentionally. Some experts suggest this is how the West Nile Virus (WNV) first appeared in the US. WNV has been reported in Africa, Europe, and Asia since the 1930s, but it was not reported in the US until 1999 in Queens, NY. People and organisms are free to move about the world; there has been a four-fold increase in human migration across the globe in the last decade. Approximately 70% of the US population growth in the past decade can be attributed to immigration. Already approximately 46% of tuberculosis cases in the US are among foreign-born residents. North Carolina has one of the fastest growing Hispanic/Latino populations in the country. Between 1990 and 2000, the number of Hispanic/Latinos in this state grew from 76,726 to 378,963 (a 394% increase).¹ The growing Hispanic/Latino population creates new health care challenges for the state. Hispanics/Latinos are more likely to be uninsured than other racial or ethnic groups. Nationally, approximately, one third of US Hispanics are foreign-born. In North Carolina, the Current Population Survey suggests that 53% of Hispanic/Latinos are foreign-born, and 43% are noncitizens (10% have gained their citizenship).² These recent and rapid population changes underscore the importance of thinking globally about health issues in our own state.

The emergence of new organisms is another major challenge facing worldwide disease control. More than 30 new organisms have been identified in the last 30 years, and experts believe there will be at least that many more in the next 30 years. Human Immunodeficiency Virus (HIV) is probably the best known example of a newly identified organism. The HIV/AIDS epidemic has claimed 20 million lives and more than 40 million people are estimated to be living with HIV/AIDS. AIDS is now the leading cause of death worldwide. Influenza is such a rapidly changing and spreading organism that a new vaccination must be formulated each year or two to protect against massive influenza outbreaks. Other infectious organisms, while they are not new, have either defied attempts to eradicate them or are mutating into new forms. A good example of this is tubercu-

losis (TB). At one time, experts believed we could see the elimination of TB in the US by the year 2004. This is no longer true. TB has reemerged in a multidrug-resistant form that makes traditional TB control measures less effective. Also, TB has found new, more susceptible victims in the rising number of immunocompromised populations, such as people living with AIDS.

And, lastly, there are the organisms that we thought we had controlled or even eradicated, which are again presenting a worldwide threat to our health. Smallpox virus is the most notable example. The last documented case of smallpox in the US was in New York in 1947. The US stopped universal immunization against smallpox in 1972, and the World Health Organization declared a victory over smallpox in 1980. However, the organism itself was not eliminated and is thought by many to be in the hands of people who may have reason to consider its use as a weapon of terrorism. During the period when we thought smallpox was eradicated, it was actually taken off the list of reportable diseases mandated by North Carolina law. In response to the events of September 11, it has been put back on the list. The nation is currently debating the need to reinstitute a smallpox vaccine program in the US even in the absence of any known case of smallpox disease anywhere in the world.

North Carolina at Risk

How likely is North Carolina to be a target of terrorist attacks? How vulnerable are we? These questions could be truly answered only if we knew all our enemies and what weapons they possessed. We do know that we are the tenth most populous state in the US, with five major military installations within our borders. If the intent is to disrupt the nation's financial infrastructure in the US, we have a large urban banking center in NC. If the enemy aims to disrupt the world's food supply, NC is a major agricultural state, producing more poultry and swine than any other state as well as many crops for export. We have major corporate research, technology, and healthcare centers. We have two major ports and five international airports. The risk for NC may be hard to quantify, but clearly it exists.

The North Carolina Response

The threat of terrorism will require us to work together in new ways to protect our citizenry and to respond effectively. This will mean working with new partners, sharing information and control in different ways, and integrating the work of multiple state, local, and federal response agencies.

Even prior to September 11, the state had already begun planning for a bioterrorist attack. North Carolina public health established a Bioterrorism Task Force in 1999, to

The 59 State Agencies Represented in the North Carolina Bioterrorism Team

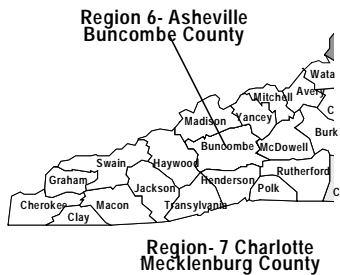
American Red Cross	NC Office of Communication
Area Health Education Center (AHEC)	NC Office of Emergency Medical Services (OEMS)
Buncombe County Health Department	NC Office of Nursing
Carolinas Poison Center	NC Office of Rural Health
Cherokee County Health Department	NC Primary Health Care Association
Craven County Health Department	New Hanover County Health Department
Cumberland County Health Department	North Carolina Health Care Information and Communications Alliance (NCHCICA)
Davidson County Health Department	North Carolina Hospital Association (NCHA)
Durham County Health Department	North Carolina State University
Durham Rapid Response Team 4 (RRT-4)	Pitt County Health Department
Eastern Band of Cherokee Indians	Public Health Regional Surveillance Team 1 (PHRST-1)
Guilford County Health Department	Public Health Regional Surveillance Team 2 (PHRST-2)
Harnett County Health Department	Public Health Regional Surveillance Team 3 (PHRST-3)
Mecklenburg County Health Department	Public Health Regional Surveillance Team 4 (PHRST-4)
NC Attorney General's Office	Public Health Regional Surveillance Team 5 (PHRST-5)
NC Board of Nursing	Public Health Regional Surveillance Team 6 (PHRST-6)
NC Community College System	Public Health Regional Surveillance Team 7 (PHRST-7)
NC Department of Environmental and Natural Resources (DENR)	Special Operations Response Team (SORT)
NC Department of Public Instruction	Union County Health Department
NC Division of Emergency Programs/ NC Department of Agriculture	University of North Carolina at Chapel Hill
NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MH/DD/SA)	University of North Carolina Center for Public Health Preparedness
NC Division of Public Health	University of North Carolina Emergency Department
NC Emergency Management (NCEM)	University of North Carolina Infection Control
NC Emergency Medical Services Advisory Council	University of North Carolina Injury Prevention Center
NC Hospital Association (NCHA)	University of North Carolina Institute of Government
NC Medical Society	University of North Carolina School of Public Health
NC Nursing Association	Wake County Human Services
	Wake Forest University School of Medicine
	Wayne County Health Department

respond to grant opportunities from the CDC. The Public Health Bioterrorism Task Force had representation from state and local public health agencies and other relevant partner organizations. Following the attacks of last fall, Governor Michael Easley organized the NC Terrorism Defense Task Force, which brought together leaders from a broad range of state agencies to ask the important question, "What must North Carolina do right now to increase citizens' protection from the threat of terrorism?" There was talk of new federal funding to assist the states in responding to terrorism, but no one knew how long it would take to get those funds in place. The Governor's task force members were asked to make proposals to the group and the Governor for immediate action.

Public health was a major component of the Governor's Terrorism Defense Task Force. The need for increased capacity to detect and respond to bioterrorism events was clear. The NC Division of Public Health developed the

"Public Health Bioterrorism Risk Reduction and Response Plan" and submitted it to the Task Force. Following discussion and several refinements, the Governor accepted the plan and took it to the NC General Assembly for approval and funding. In November 2001, the Legislature passed House Bill 1471, which approved up to \$30 million from the state's Rainy Day Fund to support the Governor's Terrorism Defense Initiative. Of those funds, \$5.4 million was devoted to building the state's public health capacity in the 2001-2002 fiscal year. Congress has since appropriated additional funds to build public health capacity to respond to terrorism and other public health emergencies. Secretary of the US Department of Health and Human Services Tommy Thompson announced the availability of \$450 million to states and major metropolitan areas to build public health capacity. NC was scheduled to receive \$22.9 million under this grant program. As a result of new federal funding, all but approximately \$500,000 of the \$5.4 million appropriated by the NC

NC Department of Health and Human Services
Primary Response Regions



General Assembly was repaid to the state's Rainy Day Fund.

The new federal funding for public health capacity building provided the opportunity to revisit the Public Health Bioterrorism Risk Reduction and Response Plan developed by the Governor's Terrorism Defense Task Force. Aside from being significantly greater funding, the federal funds are ongoing and not limited to just what could be accomplished immediately. To better represent the broad range of involvement and expertise required to respond effectively to public health emergencies, the Public Health Bioterrorism Task Force was expanded to include more than 135 individuals organized into 12 committees; these are now referred to collectively as the Bioterrorism, or BT, Team. The BT Team took many of the elements of the Public Health Bioterrorism Risk Reduction and Response Plan and expanded it into the NC Public Health All-Hazards Risk Reduction and Response Plan. This plan formed the basis of the NC application to CDC to obtain the new federal funds for public health capacity building.

The North Carolina Public Health All-Hazards Risk Reduction and Response Plan

The Bioterrorism Team developed the NC Public Health All-Hazards Risk Reduction and Response Plan based on five overarching goals, beliefs, and assumptions:

1. *The plan should reinforce North Carolina's core public health capacity*, not create a separate, and therefore redun-

dant, system that "sits on the shelf waiting for a BT event to happen." By strengthening the existing system to detect and respond to *all* kinds of threats to health, the BT Team created the All-Hazards Risk Reduction and Response Plan.

2. *Bioterrorism is a local event.* The first evidence of a biologic attack or any assault on our health is likely to show up in an individual doctor's office or hospital emergency room. This is where the capacity to detect and respond must occur first. Note, however, that this does not mean a bioterrorism event will stay local in its implications or consequences. In some situations it may be possible to understand the event only by combining information at the regional or state level, and, depending on the size of the event, effective response will certainly require additional resources from outside the local community.

3. *The response system must be comprehensive.* This means we must involve many partners and integrate information and response capacity across multiple agencies and types of expertise.

4. *The approach must be regional.* Every citizen in every community in NC deserves protection; however, it is impractical and unnecessary to build the same response capacity to the same level in every county. The risks, the threats, and the needs all vary. A regional approach allows us to build up the system strategically. Also, a regional approach allows us to consolidate experience and expertise between regions.

5. *This is a long-term effort.* There are definitely capacities that must be built up without delay, and we are not delaying. However, rebuilding infrastructure and building new integrated partnerships will take time and additional resources.

Key elements of the NC Public Health All-Hazards Risk Reduction and Response Plan

Public Health Regional Surveillance Teams: The cornerstone of the PH Plan is the creation of seven new Public Health Regional Surveillance Teams (RSTs) statewide to increase the capacity for epidemiologic disease surveillance and emergency response personnel. These seven teams are hosted by a lead local health department in each region. The regions adopted for the RSTs are those previously defined by the seven emergency hazardous materials teams operated by the NC Division of Emergency Management. The regions vary in size containing between 6 and 26 counties (See Figure opposite). Each RST consists of four members; a physician/epidemiologist, a nurse investigator, an industrial hygienist, and an administrative assistant. The seven RSTs are responsible for assessing and building the public health emergency response capacity within each region. A major part of their duties will be to establish relationships with the public health, medical care, law enforcement, and emergency management professionals in each county. Mutual aid agreements exist between counties so that personnel and resources can be shared across county lines and regions if needed.

Office of Public Health Preparedness and Response: The newly organized Office of Public Health Preparedness and Response has been established within the Epidemiology Section of the NC Division of Public Health. This Branch will be under the direction of the new Public Health Bioterrorism Coordinator, a high-level physician with training in epidemiology and experience in emergency management. Other new terrorism-related positions at the state level include a public health veterinarian, nurse investigator/trainer, surveillance physician, industrial hygienist, public information officer, webmaster, and three administrative support positions.

Public Health Information Technology: Timely and efficient information sharing is critical for both detecting terrorist attacks with biologic weapons and responding appropriately. The information technology infrastructure of the NC public health system has not kept pace with the rapid advances in electronic communications. The Public Health Plan made it possible to establish a secure and robust electronic network between all 100 counties and 86 local health departments. This electronic network forms the backbone of the public health information sharing systems that

are critical to the success of a public health emergency response plan. The IT systems under development include:

(1) *Health Alert Network (HAN).* Currently being piloted in three counties, the HAN is an automated communication system designed to alert the appropriate public health and emergency response officials. It is operational around the clock, highly secure, and completely redundant to assure its effectiveness. An authorized user can create an alert based on predetermined thresholds, which will call, page, fax, and e-mail designated personnel to notify them of an emergency situation. The NC-HAN will be fully operational with all local health departments before the end of the year. Additional partners such as hospitals and law enforcement agencies will be added to NC-HAN as time and resources permit.

(2) *National Electronic Disease Surveillance System (NEDSS).* NEDSS, as the name implies, is a national system to report disease incidence and related health information electronically. The system, under development by the CDC, is currently being tested in Tennessee and Nebraska. North Carolina is among the next tier of states expected to implement the NEDSS base system. Once operational, the system will automatically capture and monitor disease information to detect any unusual trends or disease events.

(3) *North Carolina Emergency Department Data Project (NCEDD).* Patients suffering from symptoms as a result of a covert attack with a biologic agent will likely show up in the emergency departments of local hospitals before the attack or the agent has been fully identified. As was the case with anthrax, these symptoms may be significant but non-specific, such as fever of unknown origin, headache, and malaise. This information may not result in a diagnosis that is reportable and therefore would go undetected. The NCEDD Project is working to establish an electronic surveillance network that is as close to real-time reporting as possible and will capture nonspecific information about patient symptoms. The challenges to creating such a system include no standardized method of collecting and reporting this information between hospitals and no established electronic connection with hospital emergency departments. Currently three North Carolina hospitals are participating in the NCEDD Project. Plans call for expanding the NCEDD Project to 15 additional hospitals in the first year.

Public Health Laboratory: The timely and accurate laboratory analysis of biologic agents is essential both to the public health response and to potential criminal investigations. The equipment and procedures required to safely conduct the laboratory analysis of highly contagious and/or deadly organisms is very complex. Most of these "select agents" as defined by CDC require a Biologic Safety Level 3

(BSL-3) laboratory environment. Some, like smallpox, require a BSL-4 laboratory. The State Laboratory of Public Health is the only BSL-3 laboratory in NC that is a designated part of the Laboratory Response Network (LRN) for the purpose of testing and reporting laboratory analysis of suspected bioterrorism samples. All BSL-4 lab work will be sent to CDC for analysis. In addition to the safety procedures, the State Laboratory must also maintain a strict chain of custody on all laboratory samples to preserve the rules of evidence necessary for law enforcement investigations. The Public Health Plan will accomplish three things in an effort to build laboratory capacity to respond to public health emergencies. First, we will double the capacity of the state's existing BSL-3 laboratory. Second, we will establish three regional satellite labs of the State Laboratory to provide laboratory services closer to potential attacks outside of Raleigh. These regional labs will operate at a BSL-2 level. And, finally, we have established agreements with other public and private non-public health labs in the state to provide surge capacity to back up the State Lab in the event of a large scale emergency.

National Pharmaceutical Stockpile: CDC manages a national program that stockpiles emergency medical supplies and pharmaceuticals that can be delivered to the site of a large-scale emergency anywhere in the US within 12 hours. The National Pharmaceutical Stockpile (NPS) was fully deployed to New York City in response to the World Trade Center attacks in September 2001 and to Houston during the floods of June 2001. The complete NPS "Push Pack" is a 50-ton shipment of carefully packaged and inventoried medical supplies, requiring approximately 5000 square feet of building space and a wide variety of personnel to secure, unload, repackage, and distribute to medical responders. When state and local resources become exhausted, the Governor can request these supplies, in consultation with the State Health Director and the Director of Emergency Management. The NC Division of Public Health is the lead agency to accept delivery of the NPS to the state. The local health department in the county(ies) where the emergency is occurring will be the lead agency for distributing the supplies locally. The NPS is also responsible for distributing the federally controlled supply of smallpox vaccine to the states in accordance with an approved smallpox vaccine plan currently under development.

Biologic Agents Registry: On November 28, 2001, the NC General Assembly passed House Bill 1472 to create the NC Biologic Agents Registry. This new law, which took effect January 1, 2002, requires any person in NC who possesses and maintains any amount of any the CDC-defined "select agents" to report such to the NC Division of Public Health. It also requires the responsible party to report any loss or breach in security involving these agents. North

Carolina was the first state in the nation to institute such a law. The registry information is strictly confidential and may be released only by the State Health Director in response to an active law enforcement investigation or to aid a public health disease investigation.

Hospital Preparedness: Early detection of an attack with a biologic agent is critical to limiting the spread of disease; however, a successful covert attack will result in some number of cases that can not be prevented. Depending on the agent and the method of exposure, this number could be quite large. For this reason, there must be a plan for managing the healthcare needs of sick, exposed, and potentially exposed patients. This is also true for other acts of terrorism or public health emergencies that result in large numbers of injured people, such as the attack on the World Trade Centers or the bombing of the Federal Building in Oklahoma City, or, for that matter, natural disasters.

The NC Division of Public Health received a grant of \$3.3 million from HRSA, the Federal Health Resources and Services Administration, to improve hospital preparedness to respond to mass casualty events. North Carolina is building upon an existing system for coordinating trauma care between hospitals called Regional Advisory Committees (RACs). Each hospital in NC is required by law to belong to at least one of seven regional RACs led by a Level 1 Trauma Center in each region. The HRSA grant is funding each RAC to establish a Bioterrorism Committee, assess capacity, and plan for managing mass casualty events involving biologic agents.

The statewide effort to equip and coordinate medical care during emergencies is called the State Medical Response System (SMRS). The SMRS is a three-tiered system based on escalating needs from local to regional to state-level response. Emergency medical equipment and trained personnel will be positioned and ready for deployment at each level in the system. The SMRS is modeled after the National Disaster Medical System (NDMS), which is a federal program to provide additional trained medical personnel for a mass casualty event when the response capacity of the state has been exhausted.

Conclusion

We don't know who sent the anthrax-tainted letters in the fall of 2001. We don't know who else has anthrax in a form that could be used for terrorism purposes. We don't know what other deadly organisms or deadly plots are being contemplated. We don't know if our enemies have new organisms we're not prepared to defend against. All we do know is that the threat is real and it's not over. As we get farther and farther away from September 2001, Americans are slipping back into their normal way of life. The problem

is that “normal” has changed. We must not be complacent. Our enemies are patient. Almost 10 years elapsed between the first attempt at bombing the World Trade Center in New York and the much more devastating tragedy of last September. There are many aspects to being better prepared to respond to terrorism. One that we must address as a nation is public health. The public health system in North Carolina is poised to build upon our existing capacity and the good working relationships we have built with our essential partners. The state’s public health “army” is up for the challenge and preparing for any new battles that await us.

REFERENCES

¹ US Census Bureau, Census 2000. Profile of General Demographic Characteristics for North Carolina: 2000, 1990.

"At CDC, laboratory response capacity has been a high priority, both for biologic agents, as well as chemical toxins, and we have expanded our capacity, expanded our throughput, and we've even opened new laboratory facilities since 9/11 to ensure that we have the full surge capacity that we need to deal with these problems. We're not finished. We've got more expansion and more work to do in the laboratory compartment, but we've certainly taken some giant steps forward, and we're very pleased with those accomplishments."

Julie Gerberding, MD, Director, Centers for Disease Control and Prevention, Atlanta. Press conference, August 27, 2002