Testimony of

Maureen E. Dempsey, M.D., F.A.A.P.
DIRECTOR
MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
Jefferson City, Missouri

Before the

Subcommittee on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
United States Senate

October 17, 2001

Testimony presented by
Maureen E. Dempsey, M.D., F.A.A. P.
Director
Missouri Department of Health and Senior Services

"…and he that will not apply new remedies must expect new evils; for time is the greatest innovator…." The Essay of Sir Francis Bacon, 1601

Good morning, Mr. Chairman and members of the Subcommittee: I am Maureen Dempsey, M.D., director of the Missouri State Department of Health and Senior Services. I would like to thank my Missouri Senator Jean Carnahan for initiating discussions regarding my testimony before you today. It is an honor to be here and I greatly appreciate the opportunity to address the issue of terrorism preparedness.

Dr. Rex Archer, Director of the Kansas City Health Department in Missouri appeared before the Senate Subcommittee on Labor, Health and Human Services, Education and Related Agencies Committee on Appropriations on October 3 and did an exemplary job explaining the importance of the local public health system in the nation's bioterrorism preparedness. Today, I would like to focus on the state public health system and the role of state government in the nation's preparedness and response to bioterrorism.

First, I will briefly describe the foundation to address bioterrorism preparedness that

has been built by the Missouri State Department of Health and Senior Services and to highlight our ongoing planning efforts.

Second, I believe it is essential to discuss the important relationship between the local, state and federal public health agencies in our nation's preparedness for bioterrorism and emergency response.

Finally, I would like to bring focus on several critical needs and present them for the consideration of your Subcommittee and others partners at the federal level as we increase our national, state and local ability to protect the citizens in our communities.

Missouri Department of Health and Senior Services Actions for Bioterrorism Preparedness:

The practice of public health is defined by the alchemy between the underpinnings of science, the mantle of unique governmental roles and responsibilities and the art of community engagement. The core functions of public health define the work that we do on a daily basis and constitute our main areas of experience and expertise. Chief among our roles and responsibilities are risk assessment, trend analysis, prevention, education and rapid response to threats against the health and safety of our citizens. The principles, protocols and practices for response are remarkably similar for both man-made and naturally occurring deadly threats: influenza pandemic with worldwide implications, the innocent transportation of disease by an ailing traveler or the covert release of an agent against an unprotected and unsuspecting population. All are known possibilities - perhaps even probabilities – with unpredictable and unknown timelines. The ultimate goals must be prevention and early intervention. These goals can only be achieved through the use of our only strategic weapons: **systematic advance preparation, rapid detection and early intervention**, all of which require knowledge, education, training and the establishment of effective collaborative relationships with clearly defined roles and responsibilities.

The question before us is the status of our collective preparation for a terrorist event. It is clear that while states have the knowledge and expertise to intervene appropriately and rapidly, few states are prepared for the scope or magnitude of a bioterrorism event. The prevention of such an event is the province of the law enforcement and intelligence communities, but the early detection and the rapid, coordinated response are the province of the states. Both are key to mitigating the effects of the event by reducing morbidity and mortality, preventing secondary transmission and controlling public panic.

The tragic events of September 11 and the subsequent incidents of release of mysterious white powders are a confirmation that unpredictable and deadly threats - once the ingredients of nightmares - are now the basis of our reality. In Missouri we have been preparing for a number of years. That preparation continues now, with a dramatic increase in focused effort. As you all know, Missouri is the Show-Me State. In terms of public health preparedness for a bioterrorism or emergency event, however, I am proud to report that Missouri is not waiting to be shown how to become better prepared. We have taken a proactive and aggressive approach to preparation.

In May of 2000, we created a special Unit for Emergency Response and Terrorism to respond to the potential threat of weapons of mass destruction as well as chemical and biological agents in Missouri. It is staffed by a medical epidemiologist and an emergency coordinator and supported by the expertise of the entire department, including highly trained epidemiologists and communicable disease prevention specialists. This Unit, located in the Director's Office and under my direct oversight, advises the Department on the development, planning, training and implementation of an emergency/ terrorism management plan and coordinates with the state emergency management system regularly.

The Unit provides oversight and guidance to twelve work groups in the areas of mass care, surveillance, public information, operations, training, outbreak investigations, radiological/chemical response, etc. These workgroups were designed to address weaknesses in the state public health plans and infrastructure identified by observation of the TOPOFF exercise in Denver, Colorado in 2000 and our on state exercises for influenza pandemic preparedness. The work groups are comprised of representatives from the state health department, local public health agencies, as well as state and federal agencies. The final product of these work groups will be a broad emergency/terrorism response plan with updated specific standard operating procedures for the Department. This will prepare us to respond to the immediate emergency needs of the area and to contain and minimize the impact on other citizens and communities within our state.

The State already has in existence an emergency response plan, but the Department will include updates to assure a more coordinated and comprehensive plan. This includes the integration of Department specific new bioterrorism initiatives into the overall state plan. In addition, efforts are already underway to delineate roles and responsibilities for other local, state and federal agencies, as well as to increase the degree of focus and collaboration to assure adequate medical and mental health care.

Missouri, like other states, has always had a disease surveillance system. It has primarily been a passive system with physicians, hospitals and laboratories reporting diseases to their local health departments, which forward them to the state health department. As a result of the terrorist attacks on September 11, I have directed the Missouri Department of Health and Senior Services to implement a vigorous, active syndromic disease surveillance system. Rather than waiting for reports to the state health department, state employees are scheduled three times each week to initiate calls to hospitals, physicians, federally qualified health centers and a host of other sites to tabulate the occurrence of syndromes designed to reflect the early onset of the known bioterrorism agents on CDC's threat list. The improved surveillance program will serve a two-fold purpose: early detection of agents for terrorism, as well as a dramatic increase in reporting for any disease outbreak of natural origin.

In addition to my role as the director of the Missouri Department of Health and Senior Services, I am a practicing pediatrician. Many of the diseases present on the threat list are clinically irrelevant to most physicians, because they do not occur naturally or with sufficient frequency and volume to be readily recognized. From my weekly experience in a clinic serving low-income Missouri children, I know that physicians see many patients with a multitude of nonspecific symptoms – stomach upsets, fever, muscle-aches, and rashes. In the best of worlds, these symptoms would remain nonspecific and for the most part be self-limiting or easily diagnosed and treated. In the new world, they could be the harbinger of something far more deadly. It is imperative that we dramatically increase awareness of these threats and their signs and symptoms, followed by comprehensive ongoing training and education. Through increased awareness, astute evaluations and timely notification, we can assure early intervention, containment and prevention of secondary transmission. There is a new sense of urgency with regard to early identification and notification – and it must come from the front line of medical providers and facilities. It then becomes the responsibility of the state pubic health agency epidemiologists and research staff to recognize abnormal patterns of symptoms and diseases that could indicate a terrorism event in our state.

This will certainly increase both the volume and the complexity of the work that public health performs. Further, it will require additional, detailed reports from those individuals and institutions on the front line of medical care in Missouri communities. Undoubtedly, it will be labor intensive on all fronts. However, the benefits gained through the extra effort will assure the interval between the identification of an event and an appropriate response is markedly shortened. We must make time work for us, not against us. These benefits extend to the citizens

throughout the state by reducing exposure and potential harm.

In terms of Missouri's early planning for possible bioterrorism events, we also signed the first-ever Memorandum of Understanding between a state health department and the Federal Bureau of Investigation. That MOU was signed in 1999 with the FBI and details our agreement to join forces in the investigation of crimes where the use of chemical or biological agents that could affect the public health and safety of Missouri citizens is suspected. Missouri's State Public Health Laboratory currently conducts testing for the FBI in suspect bioterrorism events and is part of the national bioterrorism response network. I can report that the Lab has tested over two-dozen cases of suspected anthrax since signing the MOU. Fortunately, they have been hoaxes but have afforded us the opportunity to see that our working relationship with the FBI is sound and provides a valuable underpinning for the state's bioterrorism preparedness.

Local, State and Federal Public Health Agency Relationship in Our Nation's Preparedness for Bioterrorism and Emergency Response:

The second issue I would like to discuss with the Subcommittee is the important relationship between local, state and federal public health agencies in our nation's preparedness for bioterrorism and emergency response. First, let me say that I believe this system is not only important for bioterrorism and emergency events, but it is integral in the everyday health of our communities and citizens throughout the United States.

In 1988 – thirteen years ago—The Institute of Medicine published "The Future of Public Health". It was a study undertaken "to address a growing perception among the Institute of Medicine membership and others concerned with the health of the public that this nation has lost sight of its public health goals and has allowed the system of public health activities to fall into disarray." This national report concluded "Public health is distinguished from health care by its focus on communitywide concerns-- the public interest--rather than the health interest of particular individuals or groups." The report pointed out that at the local, state and federal levels, public health focus had shifted dangerously to health care – primary, urgent, and emergency health care to individual citizens – rather than the fundamental public health focus of protecting the community. There is an incipient danger in the trend to medicalize public health that has occurred in the last several decades. Instead of a comprehensive approach to prevention, education and appropriate disease control measures, we have focused on the delivery of palliative cocktails and disease support measures. The implications of their impending failure

are enormous in terms of the cost in human life and to the meaning of public health in the future.

It is interesting to note that between 1900 and 2000, the life expectancy of United States citizens increased by approximately 30 years. The value of public health is indisputably clear when we acknowledge the advances not only in life expectancy, but also in the quality of those years gained. The practice of public health with its focus on disease prevention and health promotion and its ability to establish both causation and the benefits of early intervention, has provided 25 of those years of additional longevity - years that cannot be purchased at any price - through advances in medicine or technology. Improved health care (i.e. successful treatment of disease that have already occurred) accounts for 5 years of the increased life expectancy for our citizens. There exists an interesting paradox between these relative contributions and where we as a nation and as a state allocate our resources. Most funding is directed toward health care services, treatment of existing disease, and research into better treatments. Much, much less is invested in the public health systems and interventions that have proved far more effective in the last century.

We recognized the weaknesses in our Missouri public health system in the early 90's and have been working at both the state and local level to increase the public health infrastructure. We continually ask: "What is the core business of state and local public health agencies – what is it that we must do as governmental agencies that will be left undone if we do not fulfill our public health responsibilities?"

The core functions of public health translate into every daily activity, permeate all levels of the system and provide guidance for all that we set out to achieve. Those functions must be performed as a matter of routine, with the knowledge that we must be prepared to perform them in an extraordinary manner given a bioterrorism or emergency event. Missouri has invested state general revenue funds directly in our local public health partners to assure an adequate infrastructure for concerted response. Despite these efforts, Missouri will only be as safe as our neighbors both here and abroad. According to Laurie Garrett, author of *Betrayal of Trust*: "The idea that the health of every nation depends upon the health of all others is not an empty piety, but an epidemiological fact."

The Missouri Department of Health and Senior Services has been diligently working to train and educate key staff and partners on emergency response. We have dramatically improved our state health department preparedness. We have consistently built strong relationships with our federal partners.

More must be done.

Federal-level Issues to Increase our National, State and Local Ability to Protect the Citizens in Our Communities:

And that brings me to the third and last point of discussion: We request that this Subcommittee and all of our federal partners provide support to states in the form of both resources and leadership on public health's preparation for bioterrorism.

The public health infrastructure must be prepared to prevent illness and injury that would result from biological, chemical or radiological terrorism. Early detection and control depends on a strong and flexible public health system at the local, state and federal levels. Building on the existing infrastructure is critical. We have a long road ahead of us to achieve the capacities – workforce, equipment, supplies, training, information systems - we require in order to detect and respond to an act of terrorism quickly and to prevent the spread of disease. Current resources are wholly inadequate to address the needs associated with this issue. Time is the greatest innovator and in this respect, it is also our greatest enemy.

Our federal partners must be assured adequate manpower with appropriate levels of expertise, coupled with the ability to mobilize rapidly. They represent a critical support to the states, serving as a source of knowledge, information, epidemiologic and technical assistance, as well as providing guidance and leadership on field investigations. Even now, the proposed budget include hundreds of billions for research and direct care, yet only a few scant millions for the primary public health response arm related to bioterroism and communicable disease control. Even without the threat of bioterrorism, adequate resources are needed to assure that we can respond to naturally occurring infections or threats. Once an event has occurred, it is far to late to prepare, hire staff, train them and deploy them – and far to costly in terms of human suffering and threat to life – to delay.

Funding for research should be directed at the development of rapid techniques for identification of a variety of pathogens to assure early detection, new biomedical tools to assure rapid diagnosis and new therapeutics such as drugs and vaccine to assure prevention and early treatment.

The public health system must work rapidly to educate and enhance awareness of chemical and biological terrorism among emergency medical service personnel, police officers, firefighters, physicians, nurses, hospitals and other community groups. We must develop and implement joint training exercises to assure adequate

and timely coordination of multi-agency, local, state and federal partner responses during actual events. Demands are high and the needs are great, yet state resources are inadequate to address the multitude of needs. It is essential that all partners have clearly defined roles and responsibilities, recognize those of their partners, develop plans jointly and actively train together far in advance of an actual emergency. If the federal system were to become overwhelmed with requests or rapid transportation is interrupted as it was on September 11, such knowledge and training will allow states to assure that critical response roles are considered in all contingency plans and assumed by the state, if necessary. Only by doing this, will these agencies foster trust and collaboration between each other and within their communities?

States must have adequate equipment and personnel to respond to an actual emergency. We must have a front-line response team prepared to respond, whether the emergency is a result of a terrorist or natural disaster. There must be multiple teams ready to respond on a 24 hour a day basis, 7 days a week. These teams must have expertise in outbreak investigation, epidemiology, emergency response, risk communication, information technology, and laboratory protocols and procedures. Emergency equipment must be available at a moment's notice, at multiple geographic locations.

Resources for response to mass casualties must be made available to hospitals on a regional basis. The state of the health care industry and its current reimbursement system assure that their inventory is ordered on a "just in time" basis. Equipment and supplies are lean with respect to daily needs and will never support a large influx of ill or injured citizens. Interruptions in transportation will prevent the delivery of emergency supplies to areas of need, contributing to much poorer outcomes.

The current state of mental health capacity and funding must be rapidly addressed to assure both the immediate and long-term treatment of the behavioral and psychosocial sequelae of catastrophic or terrorist events.

Public health needs the support of federal agencies to enhance existing disease surveillance systems, build sufficient epidemiologic expertise and enhance capacity to monitor these systems. It is essential that we explore new technology and communications systems that improve efficiency, effectiveness and timeliness of data collection and analysis. State and local public health agencies must have active disease surveillance systems or ongoing computerized collection of data with pre-set thresholds, coupled with human oversight capable of detecting unusual patterns of disease or injury, including those caused by unusual or unknown threat agents. It is important that epidemiologists at state and local health agencies have the necessary

experience, expertise and resources for data collection and analysis to recognize and respond to reports of clusters of rare, unusual or unexplained illnesses. They must have effective, cutting-edge communication systems to ensure delivery of accurate and timely information between local, state and federal agencies.

State public health laboratories across the nation play a crucial role in protecting the health of the population. These facilities must be state-of-the-art and keep up with new technology and testing protocols. They must establish and maintain statewide laboratory networks with private medical laboratories and assure that that laboratory personnel in the private sector are trained to detect possible bioterrorist agents. State laboratories must have the capacity and technology to communicate with the FBI and CDC in matters involving transport and laboratory testing of samples. Missouri is fortunate to have a state legislature that understands the importance of a strong public health laboratory. Money has been appropriated to construct a new state-of-the-art facility to effectively detect and identify biological threats to the citizens of Missouri. Unfortunately, we lack state resources to update our testing equipment, recruit highly trained personnel and assure adequate resources to provide testing 24 hours a day/7 days a week.

I believe one of the most important things we, as state and national leaders, can do is provide quality public educational campaigns. Rapid intervention will require communication and credibility. Should a situation arise that requires quarantine or evacuation, the public will need to hear and to heed those messages and comply immediately. This will require implicit trust and mandates that we must establish effective relationships with the both the media and the public now. We must inform and reassure the public before, during and after a biological attack. We must be proactive in providing information to the public not only about the inadequacies of gas masks or the risks of stockpiling antibiotics, but credible information on ways they can assume responsibility for their protection and that of their families. Currently, there is a dizzying array of "experts" competing for airtime, often with conflicting and inaccurate information, which leaves the public dazed and confused.

Not only must we have leaders at the highest level providing messages which allay public concern, these messages must be coordinated at all levels of the system – federal, state and local. We need to be united in our voice and consistent in our message. Information must be up-to-date, accurate and specific. Our credibility depends upon it – and it is critical to remember that the public's safety, security and perhaps their life may depend on their trust in us and the timeliness and accuracy of our messages.

We have no special forces, no reserve forces and no public health guard troops to rely upon. I cannot emphasize more strongly that absent prevention, we have only a limited number of weapons in our armamentarium: **advance preparation, rapid detection and early intervention**.

States must have credible and timely information from the FBI, the CDC&P and other federal partners in order to plan, prepare and mobilize. For example, when investigations become criminal the information flow halts, thus preventing state and local public health agencies from intervening appropriately. While we may not need to know all of the details, certain information is critical in protecting the public's health. We can participate in delivering consistent messages to the public that do not conflict with those of our federal partners and do not so clearly make us seem to be out of the loop – creating discomfort at the professional and the public level. Knowledge of outbreaks or unusual events in other areas of the country and the world allows states to develop contingency plans for specific agents or scenarios, enhancing the quality and scope of our preparation and response. It has not escaped our attention that unless public health does an exemplary job at early detection and intervention, first responders, medical personnel and public health outbreak workers will rush headlong into disaster – or flee in panic.

The final request I would make of you is to consider the development of a rational, national vaccine manufacture and distribution system. We must have the support of the federal government and elected officials to assure the availability of critical vaccines in order to adequately protect our public health workforce, our medical community, and our most vulnerable populations against vaccine-preventable diseases.

It is a national tragedy that we are unable to protect our populations in peacetime with preventatives such as vaccines. Last fall, the United State did not have an adequate supply of vaccine, distributed in a timely manner to meet the needs of the influenza season. There are hints of shortages and delays this year as well, further compounded by steep price increases. We cannot assure that those most in need receive the vaccine or receive it in a timely fashion. An already vulnerable population is at greater risk of disease and death.

We are entering our second year of tetanus vaccine shortage – with most of our current stockpile having been sent to New York – and we are no longer routinely vaccinating adolescents. We have just spent four weeks of confusion regarding availability of childhood vaccines such as DTaP, which prevent potentially deadly diseases such as diphtheria, tetanus and pertussis. The media reported the initial

notice of potential vaccine shortage. In the subsequent weeks, we have had great difficulty obtaining guidance and direction. It remains unclear as to the vaccine's availability and recommendations for its use have not been clarified. We must educate our private health care providers to assure adequate protection, but have no clear direction to proceed. We need credible, timely information.

Many of our relationships with health care providers have been damaged by lack of coordination, leadership, guidance, consistency and support. Providers will need to implicitly trust our messages regarding vaccine protocols, as well as signs, symptoms, treatment and reporting for bioterrorism. Many of these providers feel that public health has not done enough in the arena of vaccine supply and distribution, health communication and education – and are therefore, disinclined to participate actively.

I believe that now is the time for the federal government to examine our system of vaccine production and distribution. I do not know the answer, but I know the question for all of us must be "Is a supply and demand, profit-driven market place system the right system in the United States for producing and distributing vaccines that are essential to the health and protection of our citizens?"

We need a rational, national vaccine policy. I would call on Congress to begin the discussion and help us answer this question to ensure that not only are emergency vaccines available to fight bioterrorism, but that our day-to-day vaccines are available and distributed to keep our citizens healthy and protected.

Thank you for this opportunity to meet with you today. Thank you for your leadership on this important issue.

I am confident that the federal, state and local public health systems and the citizens and communities in this great county will be better prepared as a result of your work and the work of other public servants. As we often say in Missouri, we have a known problem and the best people are working on it. In Missouri and throughout the country, that includes thousands of dedicated public health personnel.

Thank you.