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House Government Reform Committee
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and International Relations

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Mr. Chairman and members of the Committee: Thank you for the opportunity to testify today on the threat of biological weapons. Two years ago, Mr. Chairman, presiding over a hearing of this same committee on this same subject, you asked: "Are we prepared?" The answer then was no. Your efforts and the efforts of others since then are forcing us to find a better answer—and I thank you for your persistent emphasis of this issue.

Mr. Chairman and members of the Committee: It was challenging to play the part of the president in the exercise "Dark Winter" described by Secretary Hamre. You often don't know what you don't know until you've been tested. And it's a lucky thing for the United States that—as the emergency broadcast network used to say: "this is *just a test*." It is not a real emergency. But, Mr. Chairman, our lack of preparation *is* a real emergency.

During my 24 years on the Senate Armed Services Committee, I've seen scenarios and satellite photos and Pentagon plans for most any category of threat you can imagine. But a biological weapons attack on the United States fits no existing category of security threats. Psychologist Abraham Maslow once wrote: "When all you have is a hammer, everything starts to look like a nail." This is not a nail; it's different from other security threats; and to fight it, we need more tools than the ones we've been using.

Our exercise involved a release of smallpox. Experts today believe that a single case of smallpox anywhere in the world would constitute a global medical emergency. As members of this committee know, a wave of smallpox was touched off in Yugoslavia in 1972 by a single infected individual. The epidemic was stopped in its fourth wave by quarantines, aggressive police and military measures, and 18 million emergency vaccinations to protect a population of 21 million that was already highly vaccinated.

Mr. Chairman, we have effectively only 12 million doses of vaccine in America to protect a population of 275 million that is not highly vaccinated and is therefore highly vulnerable. The Yugoslavia crisis mushroomed from one case; our situation began with 20 confirmed cases in Oklahoma City, 30 suspected cases spread out in Oklahoma, Georgia, and Pennsylvania, and countless more cases of individuals who were infected but didn't know it. We did not know the time, place or size of the release, so we had no way of judging the magnitude of the crisis. All we knew was that we had a big problem and a small range of responses. One certainty was that it would get worse before it would get better. As you know, Mr. Chairman, effective smallpox containment requires isolating those who are sick and vaccinating those who have been exposed. Isolation is difficult when you're not sure who has it; vaccination cannot stop the spread if you don't have enough of it.

Many participants in the exercise would have been much more in their element if we had been dealing with a terrorist bomb attack. The effects of a bomb are bounded in time and place. After the explosion, the nation's leadership knows if you're injured and the extent of the damage. We can begin rebuilding. Smallpox, on the other hand, is a silent, ongoing, invisible attack. It is highly contagious, and spreads in a flash—each smallpox victim can infect ten to twenty others. Because it incubates for two weeks—it comes in waves.

The most insidious effect of a biological weapons attack is that it can turn Americans against Americans. Once smallpox is released, it is not the terrorists anymore who are the threat; your neighbors and family members can become the threat, and can even become the enemy, without strong and effective leadership at every level of government including health officials. The scene could match the horror of the Biblical description in Zechariah (8:10): "Neither was there any peace to him that went out or came in because of the affliction: for I set all men every one against his neighbor."

At the same time, a biological weapons attack cuts across categories and mocks old strategies. For more than two thousand years the first rule of war has been to know your enemy. In military language, this means that when you face a battlefield scenario, you draw up an order of battle—you estimate the number of tanks and planes and troops of the enemy, their intelligence capabilities and other resources. But in this case, the order of battle is our own people, traveling, engaging in commerce, and spreading the disease. And there are few reliable numbers—you don't know who initially released it, how much more they have, or where they are. And the usual responses to an attack are impossible: "Engage the enemy; open fire; stop their advance; bring out the wounded." You can hardly know who is wounded.

For the participants, this exercise was filled with many such unhappy discoveries and unpleasant insights. Number one: We have a fragmented and under-funded public health system—at the local, state, and federal level—that does not allow us to effectively detect and track disease outbreaks in real time. Two: Since the disease has not been seen in the United States since 1949, very few health care professionals recognize the smallpox virus, so initial cases could be sent back home infectious, even after appearing at doctor's offices and emergency rooms. Three: Lab facilities needed to diagnose the disease are inadequate and out of date. Four: There is insufficient partnership of communication across federal agencies and among local, state, and federal governments. Five: The only way to deal with smallpox is with isolation and vaccination, but we don't have enough vaccines, and we don't have enough room, resources, or information for effective isolation. Six: A biological weapons attack will be a local event with national implications, and that guarantees tension between local, state and national interest. In our exercise, the governor of Oklahoma asked for vaccine for every one of his citizens—as he had to in the interests of his state. The president said no, as he had to in the interests of the nation. Naturally, this will demand a high degree of coordination, because of the diverging interests, and because key players and partners are answerable to different leaders. Seven: Hospitals run at capacity all the time: a surge in patients from smallpox, combined with the inevitable infections of hospital personnel, and the flight of some fearful health care professionals, would create a catastrophic overload. Eight: There will be a dearth of information on this kind of event. My staff and cabinet could not tell me ten percent of what I wanted to know: "How many cases are there right now? How many more are coming? When and where did the first infections take place? Who released it? What's the worst case scenario?"

And there are many tradeoffs. One of the biggest: We have 12 million vaccines; that's enough for one out of every 23 Americans. Who do we decide to vaccinate?

Other tradeoffs are do you take power from the governors and federalize the National Guard? Do you seize hotels to convert them to hospitals? Do you close borders and block all travel? What level of force do you use to keep someone sick with smallpox in isolation? Do you keep people known or thought to be exposed quarantined in their homes? Do you guarantee 2.5 million doses of vaccine to the military; or do you first cover all health care providers? Do you take strong measures that may protect health, but could undermine public support or destroy the economy?

And finally: How do you talk to the public in a way that is candid, yet prevents panic—knowing that panic itself can be a weapon of mass destruction?”

My staff had two responses: “We don’t know,” and “You’re late for your press conference.” I told people in the exercise: “I would never go before the press with this little information, and Governor Keating—who knows about dealing with disaster, said: “You have no choice.” And I went, even though I did not have answers for the questions I knew I would face: “How bad is it?” “What’s the plan?” And “Why, after all this time, isn’t there enough smallpox vaccine?”

Naturally, there are some skeptics anytime you describe a dire threat to the United States. I want to tell the Committee: I am convinced the threat of a biological weapons attack on the United States is very real. As Secretary Rumsfeld said in his confirmation hearings: “I would rank bioterrorism quite high in terms of threats ... It does not take a genius to create agents that are enormously powerful, and they can be done in mobile facilities, in small facilities.” An experiment some years ago, showed that a scientist whose specialty was in another field was able to weaponize anthrax on his first attempt for less than \$250,000.

Hundreds of labs and repositories around the world sell biological agents for legitimate research—and the same substances used in legitimate research can be turned into weapons research. In addition, the massive biological weapons program of the former Soviet Union remains a threat, to the extent that materials and know-how could flow to hostile forces. At its peak, the program employed 70,000 scientists and technicians, and made twenty tons of smallpox. One Russian official was quoted some years ago in the New Yorker saying: “There were plenty of opportunities for staff members to walk away with an ampule.”

According to a very prominent press report, former Soviet biological weapons scientists have been aggressively—and in some cases successfully—recruited by Iran. And Ambassador Rolf Ekeus, who headed the United Nations special commission that investigated Iraq’s arsenal after the Gulf War, and who we are lucky to have on the Board of Directors of NTI, had testified before Congress that in 1991 Iraq had 300 biological bombs.

So the ability of people to acquire or create biological weapons should be clear beyond any doubt. And no one should doubt how lethal biological weapons can be. In 1979, a small amount of anthrax escaped from a Soviet biological weapons lab in Sverdlovsk. Seventy-seven cases were identified. Sixty-six died, and new cases were appearing as late as 47 days after the leak, long beyond what was believed to be the incubation period for anthrax. Anthrax is not contagious. The 66 who died all had direct exposure. If the agent had been smallpox instead of anthrax, it could have been catastrophic.

I have no interest in setting off panic; it is important not to overstate this threat. But it is not necessary to overstate the threat to make the point that it is real, it is dangerous, and if it came today it would catch us unprepared.

Michael Osterholm and John Schwartz, in their book "Living Terrors," told about the experience of one doctor who knew his state was one of the best-trained areas of the country for a biological weapons attack. One day he conducted some unscientific research. He discovered that the total city stockpile for dealing with an anthrax attack would not cover even 600 patients. He found that a doctor trained in biological weapons failed to diagnose anthrax when the classic symptoms were described; a doctor in the radiology department failed to recognize inhalation anthrax when shown an X-ray; and a voice mail message describing a bioterrorism concern went unreturned by the state health department for three days.

In fairness, we are making progress. The Clinton administration deserves credit for recognizing that a biological weapons attack is different from warfare or other terrorist threats and targeting funds to address it. That initiative includes strengthening the public health infrastructure, creating a pharmaceutical stockpile for civilian use, a contract to produce new smallpox vaccine, research to develop new and improved diagnostics, drugs and vaccines, helping to train first responders (police and fire departments as well as public health and medical professionals) across the United States, and investing in new technologies to help with biological agent detection.

Under the Bush administration, these efforts are continuing and in some cases, funding is increasing. It is also heartening that last week, Secretary Thompson named a senior advisor on bioterrorism who has directed the program on bioterrorism at the Centers for Disease Control. These are positive steps. Still, we have to do more—and quickly.

Number one: We need to focus more attention, concern and resources on the specific threat of bioterrorism—understanding that it is different in kind from other threats we face. We have to recognize that we have reached a new realm in the dialectic of new weapons and new defenses. In the evolution of warfare, arrows were countered by shields; swords with armor; guns with tanks; and now biological weapons must be countered with medicines, vaccines and surveillance systems.

Two: This means that we need to recognize the central role of public health and medicine in this effort, and engage them as true partners. We must act on the understanding that public health is an important pillar in our national security framework. In the event of a biological weapons attack—millions of lives will depend on how quickly doctors diagnose the illness, report their findings, and bring forth a fast and effective response at the local and federal level. This means, clearly, that public health and medical professionals must be part of the national security team. This is now no longer a matter just for DOD, NSC, CIA and DOE; it must include FDA, HHS, NIH, and CDC.

This may seem obvious enough. But several years ago, when administration officials were meeting to discuss supplemental funding legislation for defense against biological weapons—the presiding official from the Office of Management and Budget greeted the officials from the NSC, and FBI and CIA and DOD, then saw the assistant secretary from Health and Human Services at the table, did a double-take and said: "What are you doing here?" Health officials should not need to be given directions to the White House Situation Room.

Three: We need to engage all levels of government and a broad set of agencies in our efforts to understand and prepare for the threat of bioterrorism. It is critical that we understand our differing roles, responsibilities, capabilities, and authorities, and plan on how we will work together before a crisis. As our NTI bio-defense expert Margaret Hamburg has said: "People should not be exchanging business cards on the first day of a crisis."

Four: We can manage this type of crisis successfully only with a clear strategy for working with the media—not as antagonists, but as key partners in communicating life-saving information and managing public apprehension and panic.

Five: The national pharmaceutical stockpile should be built to capacity as soon as possible—and then dispersed to different sites which must be secured. We don't want to fall victim to a twin attack that releases a bio-agent and simultaneously blows up all our drugs and vaccines.

Six: We need to develop plans for a surge of patients in the nation's hospitals. We've already seen the degree to which hospitals are strained during routine outbreaks of the flu. Most hospitals are operating near, or above, capacity right now.

Seven: Officials at the highest level of the federal government—and at state and local levels—need to participate in exercises like "Dark Winter" to understand the importance of advance preparation. Theatre professionals on Broadway rehearse for months before the real thing. This is one case where life had better imitate art—for the sake of life itself.

Eight: We need to increase the core capacities of our public health system to detect, track and contain epidemics, by providing resources for effective surveillance systems, diagnostic laboratory facilities, and communication links to other elements of the response effort.

Nine: We need to increase funding for biomedical research to develop new vaccines, new therapeutic drugs, and new rapid diagnostic tests for the most threatening bioweapon agents.

Ten: We need to increase our efforts to prevent the proliferation of biological weapons, in part by providing peaceful research options to scientists in the former Soviet Union, who represent the single greatest concentration of expertise in biological warfare in world.

Eleven: We need to encourage the scientific community to confront the sinister potential of modern biological research, and help them devise systems and best practices to prevent dangerous materials and information from falling into the wrong hands.

Twelve: We need to re-examine and modernize the legal framework for epidemic control measures and the appropriate balance with civil liberties—the laws that would apply if we were to find ourselves managing the crisis that would come with a biological weapons attack. These laws vary from state to state and many are antiquated. We need to make sure that they are up-to-date, consistent with our current social values and priorities, and we need to reacquaint high-level officials in all areas of response with the specific authorities these laws provide and how to implement them.

Mr. Chairman: we know how difficult it is to find funding for new initiatives, and public health is often left behind. We need to think about supporting public health activities in the same way we think about our national defense. Congress and the public should understand that funds for disease surveillance, building the pharmaceutical stockpile, and improving the capacity of our health care system will benefit the United States not only in responding to a biological weapons attack, but also by improving our responses to other disease outbreaks. It is rare indeed to have a chance to defend the nation against its adversaries and improve the public health system with the same steps; it is a chance we should take.

Mr. Chairman: helping prepare the United States to deter and defend against a biological weapons attack is a central part of our mission at NTI—the organization founded by Ted Turner, and guided by a distinguished board that Ted and I co-chair. We are dedicated to reducing the global threat from nuclear, biological and chemical weapons by increasing public awareness, encouraging dialogue, catalyzing action, and promoting new thinking about these dangers in this country and abroad.

Specifically, NTI is seeking ways to reduce the threat from biological weapons. We are exploring ways to increase education, awareness and communication among public health experts, medical professionals, and scientists, as well as among policy makers and elected officials—to make sure more and more people understand the nature and scope of the biological weapons threat. We are considering ways to improve infectious disease surveillance around the globe—including rapid detection, investigation, and a fast and effective response. This is a fundamental defense against any infectious disease threat, whether it occurs naturally or is caused deliberately. We are also hoping to support the scientific community in their efforts to limit inappropriate access to dangerous pathogens and establish standards that will help prevent the development and the spread of biological agents as weapons. Finally: we are looking for ways to facilitate the conversion of Russian bio-weapons facilities and know-how to peaceful purposes, secure biomaterials for legitimate use, and improve security for dangerous pathogens.

Mr. Chairman: Enemies don't attack you where you're strong; they target you where you're weak. Enemies of the United States are not eager to engage us militarily; they saw what happened in Desert Storm. They will attack us where they believe we are vulnerable. Today, we are vulnerable to a biological weapons attack. And it is crucial that we prepare with all possible speed, because if an attack comes, and succeeds, there will be others. Preparing is deterring.

Whether the enemy achieves its objectives in the first attack depends to a large extent on how the American people respond. Panic is as great a danger as disease. Some will respond like saints—doing whatever they can, in a spirit of cheerful patriotism, to meet the needs of family and community. Others will respond with panic, perhaps even using guns and violence to get vaccines. Between those two, there will be a broad middle. How they respond will depend largely on what they hear from the president and see from their government.

According to some historical accounts, what pulled America back from financial panic in March of 1933 were three things President Roosevelt did immediately on taking office: he ordered the banks to close temporarily, he proposed emergency banking legislation, and he explained his plan to the public in the first of his regular national radio broadcasts.

If he had not talked reassuringly to the American people, his plan might not have worked. But if he had talked, but had no plan, his talk would not have been reassuring. In the event of a biological weapons attack, no president, no matter how

great his natural gifts, will be able to reassure the public and prevent panic unless we are better prepared than we are right now. If we are well prepared—with the ability to detect the disease quickly, report it swiftly, and isolate and vaccinate all those who came in contact with it—then the president of the United States will address the American people with courage and confidence, and the people will respond in kind. How the president is able to address the public on that day will depend in large part on how we all address this issue today. Thank you.