

**THE STATE OF PUBLIC HEALTH PREPAREDNESS  
FOR TERRORISM INVOLVING WEAPONS OF  
MASS DESTRUCTION: A SIX-MONTH REPORT  
CARD**

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**HEARING**

BEFORE THE

COMMITTEE ON  
GOVERNMENTAL AFFAIRS  
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

—  
APRIL 18, 2002  
—

Printed for the use of the Committee on Governmental Affairs



U.S. GOVERNMENT PRINTING OFFICE

80-296 PDF

WASHINGTON : 2002

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# CONTENTS

Opening statement:	Page
Senator Lieberman .....	1
Senator Collins .....	3
Senator Cleland .....	4
Senator Bunning .....	7
Senator Akaka .....	8

## WITNESSES

THURSDAY, APRIL 18, 2002

Hon. Tommy G. Thompson, Secretary, U.S. Department of Health and Human Services, accompanied by Jerry Hauer .....	10
Margaret A. Hamburg, M.D., Vice President for Biological Programs, Nuclear Threat Initiative .....	36
Thomas V. Inglesby, M.D., Deputy Director, Johns Hopkins Center for Civilian Biodefense Strategies .....	38
Thomas L. Milne, Executive Director, Governance Support Team, National Association of County and City Health Officials (NACCHO) .....	40

## ALPHABETICAL LIST OF WITNESSES

Hamburg, Margaret A., M.D.:	
Testimony .....	36
Prepared statement with an attachment .....	54
Inglesby, Thomas V., M.D.:	
Testimony .....	38
Prepared statement .....	67
Milne, Thomas L.:	
Testimony .....	40
Prepared statement .....	74
Thompson, Hon. Tommy G.:	
Testimony .....	10
Prepared statement .....	41

## APPENDIX

Article entitled "Public Health Preparedness," <i>Science</i> magazine, February 22, 2002, submitted by Dr. Hamburg .....	66
Chart entitled "Bioterrorism Funding for Selected HHS Agencies" (submitted by Sen. Cleland) .....	83
Chart entitled "Federal Bioterrorism Preparedness and Response Activities" (submitted by Senator Cleland) .....	84
Chart entitled "Sources of Formal Authorities and Responsibilities of Various Federal Agencies In the Event of Bioterrorism—Executive Documents" (submitted by Senator Cleland) .....	85
Chart entitled "Sources of Formal Authorities and Responsibilities of Various Federal Agencies In the Event of Bioterrorism—Statutory Authorities" (submitted by Senator Cleland) .....	86
Questions for the Record and Responses from:	
Hon. Thompson .....	87
Dr. Hamburg .....	91
Dr. Inglesby .....	95
Mr. Milne .....	99



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**THURSDAY, APRIL 18, 2002**

U.S. SENATE,  
COMMITTEE ON GOVERNMENTAL AFFAIRS,  
*Washington, DC.*

The Committee met, pursuant to notice, at 9:35 a.m., in room SD-342, Dirksen Senate Office Building, Hon. Joseph I. Lieberman, Chairman of the Committee, presiding.

Present: Senators Lieberman, Cleland, Akaka, Dayton, Carper, Collins, and Bunning.

**OPENING STATEMENT OF CHAIRMAN LIEBERMAN**

Chairman LIEBERMAN. The hearing will come to order. Good morning and thanks to all of you for being here.

Today, the Committee on Governmental Affairs examines the Public Health System's readiness for a terrorist attack involving biological, chemical, or radiological weapons. This hearing, which was specifically requested by our friend and colleague, Senator Cleland of Georgia, follows up on a session the Committee held last October that exposed a public health system underprepared to respond to a series of biological attacks that had occurred in the form of anthrax sent through the U.S. mail.

I thank Senator Cleland particularly because he has led the way on so many of these issues. You arrived just in time to hear me praising you. It could not be better timing or more well deserved, thanking you for your thoughtful and impassioned work to increase the security of the American people at home. In particular, I want to recognize Senator Cleland's efforts to strengthen our country's ability to respond to biological weapons by crafting legislation that would establish a much needed central coordinating office at the Centers for Disease Control.

Senator Cleland will, I am pleased to say, assume the chairmanship of the hearing as we go forward and I must leave to go on to other commitments.

Let me go back to the anthrax attacks of last fall. Five Americans lost their lives because of their exposure to anthrax last fall. It was a vicious, fast-acting terror weapon that we knew very little about. But our ignorance of anthrax and how it works was compounded by bureaucratic labyrinths that prevented critical information from getting to those who might have helped save lives. Fortu-

nately, the anthrax attack, deadly as it was, was on a relatively small scale. Had it been a wider attack, I think it is clear that the public health system would have been quickly overwhelmed.

Today, we are gathered here to ask for a 6-month assessment of the Federal Government's ability to prepare for and respond to a future attack, and specifically for an update on the coordination between public health and law enforcement agencies, which ran afoul of each other in the midst of last year's terror.

We are very pleased and grateful to have Secretary of Health and Human Services Tommy Thompson return as a witness today to speak about the progress his Department has made on these fronts.

The first thing that we all learned about a biological or chemical attack is that it differs from a conventional terrorist attack and, therefore, requires a different response. A biological attack would probably follow a more insidious course. It is a stealth attack, in effect, that might make itself known slowly and perhaps only intermittently and in places that are disparate, such as doctors' offices, health care clinics, or hospital emergency rooms.

As an oversight committee, it is our duty to ask if the government is prepared to protect American lives should the unthinkable occur, and the answer today, I believe, is that despite some promising progress, Americans are still at risk. Ten major agencies and dozens of bureaus, including the Defense Department and the intelligence agencies, are responsible for threat assessments, surveillance of disease outbreaks, the protection of food and water supplies, developing and stockpiling vaccines, and assisting State and local governments in planning, training, and responding to attack. Secretary Thompson's Department alone has six different agencies involved in response preparation to bioterrorism and chemical terrorism.

The problem is that each of these dozens of offices, as is commonly the case throughout government, communicates with its own particular constituency but too frequently fails to speak and coordinate with other agencies involved in the same undertakings. I must say that if we have learned anything from our examination of homeland security in this Committee over the last 6 months, it is that poor communication and coordination among Federal agencies and between Federal, State, and local governments is clearly one of the greatest impediments to adequately protecting the public.

I know that Secretary Thompson and the administration are aware of the daunting task before them. Since October, the administration has set aside over \$1 billion to help States respond to public health emergencies resulting from terrorism and it has requested an additional \$4.3 billion in the fiscal year 2003 budget, which is an increase of 45 percent over the current fiscal year, and all of it to prevent, identify, and respond to bioterrorist attacks.

Last fall, Secretary Thompson appointed a special assistant to coordinate the agency's bioterrorism programs and HHS has developed a central command center where it can monitor information about bioterrorist attacks and respond accordingly.

As I understand it, the administration also plans to expand CDC's health alert network, which would connect every county

health system in America to CDC through the Internet, and half-a-billion dollars is slated for a program to help local hospitals.

Despite these steps, the Federal Government, I conclude, is still a long way from where we need it to be, and in the longer term, we need to build a more robust public health system with aggressive health surveillance programs to detect the onset of illnesses, and we need better coordination and better support for State and local governments and their health care systems.

So it is up to us. Only the Federal Government can ensure that the necessary programs and structures are in place to protect the American people from a biological, chemical, or radiological attack and we must work together, Executive Branch, Legislative Branch, and private sector and nonprofit private sector. We must work together to make sure we are operating from a position of strength and unity to fulfill our duty in this new post-September 11 age to protect the American people.

Senator Collins.

#### **OPENING STATEMENT OF SENATOR COLLINS**

Senator COLLINS. Thank you, Mr. Chairman, and thank you for calling this hearing to look at the progress that has been made since the anthrax attacks last fall and to assess what remains to be done to strengthen the Public Health System's ability to prepare for and respond to a biological or chemical attack.

The tragic events of last September and October were a powerful reminder of just how vulnerable our Nation is to terrorism and how woefully underprepared much of our public health system was to respond to such an attack. Moreover, the attacks have heightened our fears that we could face an even more devastating attack in the future, including the possibility of a mass casualty attack with a deadly biological agent like smallpox.

Bioterrorism is unlike any other form of terrorism. While explosions or chemical attacks cause immediate and visual casualties, the intentional release of a biological agent, such as smallpox, may at first go unnoticed and, thus, could be far more insidious. It causes a ripple effect that unfolds over the course of days or weeks. If not contained, it can spread to others who were not initially exposed, causing a major epidemic and posing a real threat to the survival of our population.

The long-term threat of biological weapons is very real. Moreover, future advances in technology will not only make these weapons more dangerous, but also make them more accessible and affordable to those who would do us harm. Tragic as they were, the anthrax attacks in the fall were, in effect, a dress rehearsal for what we may very well face in the future.

It is, therefore, extremely important that we take a close look at what happened last fall, as we are doing in this morning's hearing, and analyze dispassionately what went well and what did not.

The hearing held by this Committee 6 months ago in the wake of the terrorist attacks revealed our Nation's lack of preparedness to cope with an attack using a biological or chemical weapon. Witnesses identified a number of weaknesses as well as a number of factors that are critical to the rapid detection and response to such an attack. I remember the testimony that we had about the alert

public health lab in Florida that identified that the first exposure was, in fact, anthrax. Had that sample been sent elsewhere, who knows whether the initial case would have been identified as anthrax as quickly as it was.

Witnesses told us that we need alert health providers who are trained to recognize the symptoms and signs of a biological attack, as well as trained to treat such diseases. We need a core of well trained public health professionals engaged in disease surveillance. We need an adequate supply of necessary drugs and vaccines, something that I know that the Secretary has taken considerable steps to bring about. We need seamless coordination and communication, as the Chairman indicated, in order to avoid the problems that we saw last fall. We need a network of up-to-date public laboratories. And we need strong safeguards to protect our Nation's food and water supplies.

In addition to strengthening our Federal response, we must remember those who are going to be the first responders, our emergency medical personnel, our fire fighters, our police officers, and our labs throughout the country. Those are the people who stand on the first line of defense in the event of any major biological or chemical attack. We must ensure that they have the capacity to identify the signs of an attack and the resources to be prepared.

I am, therefore, pleased to have helped to draft the Bioterrorism Preparedness Act, which passed the Senate last December and is now in conference. This bill takes major steps not only to strengthen our Federal response, but to provide additional substantial new funding to States, local governments, and hospitals.

Mr. Chairman, our world was forever changed on September 11, and unfortunately, the threats of terrorist attacks that were once unimaginable are today horrifyingly real. But just as the terrorist attacks of September and October have caused us great concern and considerable pain, they have also strengthened our resolve. I am confident that we are making progress and I look forward to hearing the Secretary's testimony this morning and I thank you for holding this important hearing.

Chairman LIEBERMAN. Thank you very much, Senator Collins.

Senator Cleland, thank you again for your leadership in bringing this hearing together.

#### **OPENING STATEMENT OF SENATOR CLELAND**

Senator CLELAND. Thank you very much, Mr. Chairman. May I just say that I first got into this whole issue of biological and chemical warfare about 3 years ago in hearing former Secretary of Defense James Schlesinger talk about the new threats we faced. As a fellow member of the Armed Services Committee, you might have been there, too.

It struck me—I shall never forget what he said. We were discussing nuclear weapons and the scientific challenge that produced. You had to have some skill, you had to have some talented people, and you had to have a delivery system, probably a missile system. But Jim Schlesinger said that, in terms of biological and chemical weapons, he said you can make a biological weapon if you can brew beer and you can make a chemical weapon if you can make fertilizer.

That really shocked me. It put me on notice that, in many ways, for terrorists particularly, working off of a low-tech agenda, that the biological and chemical attack was in many ways the poor man's atom bomb, the poor man's weapon of mass destruction. And so I became concerned that the country was not quite adequately prepared to deal with this, in a sense, stealth or under-the-radar attack.

We went through September 11 of last year and we had the attack on the World Trade Center and the Pentagon. We scrambled the jets. Now we are prepared militarily in a second's notice to scramble more jets. Secretary of Defense Rumsfeld has created a four-star command looking after the continental United States, Mexico, and Canada, stationed near the NORAD headquarters in Colorado. We have nerve centers in the Pentagon and the situation room in the White House that addresses itself to an instantaneous response to literally a military or terrorist attack.

My problem is that I do not think we are that well prepared in terms of a biological or a chemical attack and I have been searching for a strategy, searching for the elements of quick response, coordination, cooperation, and communication in our strategy for defending our homeland in case of a biological or chemical attack.

I would like to thank Secretary Tommy Thompson for being here, a friend, and a great public servant.

The state of our public health preparedness for terrorism, I think, is lacking in many ways. We are a country looking for a strategy in how to deal with this issue. I am grateful to you, Mr. Chairman and Senator Thompson, for calling this hearing to assess the progress we have made to date to ensure that our commitment to implementing a strong homeland defense against bioterrorism does not wane.

Even as the anthrax crisis of last fall recedes, and Senator Collins mentioned a health agency in Florida that found that it was anthrax down there in Boca Raton. The interesting story about that is that the doctor reported it to the public health entity in the State of Florida, the State public health operation in Jacksonville, which had just had an employee get training at the CDC on anthrax. They forwarded the spores to the CDC and at 3:30 a.m., the CDC said, it is anthrax.

So in many ways, that kicked off this whole discussion of how does all this work? How does the public health sector work? What is the role of the CDC? What is the role of HHS? What is the role of the FBI, and the law enforcement agencies?

In so many ways, our homeland and its defense as an issue looms as ominously as ever over our heads. I am pleased to continue our ongoing dialogue with Secretary Thompson on the matter of bioterrorism preparedness. I, and I think I speak for all of my colleagues, as well, would like to express our gratitude to you and to your entire team at HHS for your efforts to guide our Nation through a very, very difficult time.

At the outset, I would just like to express my strong conviction that combatting the threat of bioterrorism will demand the commitment and full cooperation of us all, of every relevant resource. Congress and the Executive Branch must work together toward our common goal, and let me signal to you this morning, Mr. Secretary,

my unequivocal desire to work with you and the Department of Health and Human Services and the administration and the Office of Homeland Security and other relevant Federal, State, and local authorities to build a strong national defense and a strategy to deal with bioterrorism.

I would like to commend you and the administration for a number of steps you have already taken. In the next fiscal year, the administration has proposed dedicating an unprecedented \$4.3 billion to HHS's bioterrorism initiative, a 45-percent increase. Mr. Secretary, you have named Dr. D.A. Henderson, the pioneering former Centers for Disease Control and Prevention official who led the campaign to eradicate smallpox, an eminently qualified expert on bioterrorism, to head the new Office of Public Health Preparedness. We are looking forward to seeing how that office relates to the other entities involved in bioterrorism. I think the existence of a coordinating office such as this one is actually essential as a step forward in coordinating the bioterrorism response.

I am particularly interested this morning in hearing more from you, Mr. Secretary, on three issues I would like to explore in depth within the larger subject of our discussion, which bear strongly on our Nation's preparedness to deal with the public health consequences of terrorism involving weapons of mass destruction.

First, I believe we in the Congress have got to provide you and your Department with whatever resources you need and think are necessary to protect our country from bioterrorism. We made a good start when we finalized the budget for the current fiscal year by increasing bioterrorism funds in HHS ten-fold. I must express my concurrence with Senator Frist's guarded assessment, however, that while that is "enough to take us from an unprepared state to a more prepared state," we cannot yet say that the public health sector is actually adequately prepared to deal with the public health implications of terrorism with weapons of mass destruction.

We must keep in mind that we started this race to catch up a lagging public health infrastructure just 3 years ago, and then from a virtual standstill. I think it is, therefore, worth asking whether the administration's proposed increase for bioterrorism defense, significant though it is, is actually sufficient. The magnitude of the threat and the potentially catastrophic consequences of underestimating our needs demand that we ask that question, and I will detail several specific resourcing concerns when we reach the question and answer period.

Second, Mr. Secretary, I look forward to receiving the specific details of HHS's One Department initiative. As I understand it, under the initiative, the Department would consolidate each of the public affairs and legislative liaison offices of all the agencies within HHS into one office for each function under the Secretary. I certainly share a desire to address the communication challenge, particularly in terms of, shall we say, an attack when confusion reigns.

I remember one old sergeant down at Fort Benning told me that war was the most socially disorganized human endeavor. So when one is under attack, the ability to speak clearly in communications, we put a premium on that. It can actually lessen the fear and lessen the terror.

I do have concerns that this proposal, though, while potentially improving the consistency of communication, might have at the same time the undesirable and unintended effect of actually slowing the movement of information from public health experts in the Federal Government to their State and local counterparts, and so I am eager to hear more details from you.

Finally, I believe that today, we have got to address the coordination and communication failures that encumbered the interaction between public health officials and their law enforcement partners in last fall's anthrax crisis. We are not looking here for a witch hunt. We are just looking to figure out exactly where we are and move forward.

My interest this morning is not in placing blame for past failures or in revisiting old ground, but we cannot afford to suffer again the profound disconnect between public health and law enforcement that we saw last fall. I would very much like to hear from you, Mr. Secretary, about what has been done since then to strengthen protocols of coordination and cooperation and communication between public health entities and law enforcement, and I proposed some legislation last year to deal with that and we can get into that.

May I say, in addition, I would just like to offer for your consideration and input, Mr. Secretary, a proposal I introduced in the Senate last week to address what I see as an urgent need for a single center in the Federal Government whose sole mandate is to counter the threat of domestic terrorism, in other words, help the country prepare and then help the country respond. This legislation would create a dedicated National Center for Bioterrorism Preparedness and Response in the CDC.

Why the CDC? It has got 8,000 employees and they are located in 39 different countries around the world. It probably is the finest single public health network in the world and certainly is a great asset to this Nation, and it operates based on several centers that are within CDC. So much of CDC's time now is taken up with planning, executing, and helping to respond to bioterrorism, somewhere around, I think, 40 percent of their time now, except there is no center there to focus their energies and to actually help focus monies and to actually help us all understand how the monies are being spent and see if they are being spent wisely.

In closing, Mr. Secretary, I would like to convey to you my empathy for the difficult task before you. I used to be head of the Veterans' Administration under President Carter. I have sat in your seat many times, not with your specific responsibilities, but I understand the challenges that you face and we look forward to hearing from you this morning. Thank you very much for being here.

Chairman LIEBERMAN. Thank you, Senator Cleland. Thanks very much.

Senator Bunning.

#### **OPENING STATEMENT OF SENATOR BUNNING**

Senator BUNNING. Thank you, Mr. Chairman, and welcome, Secretary Thompson and all other witnesses today.

The anthrax attacks on the Capitol last year gave us a firsthand experience in dealing with a bioterrorist attack and we got to see exactly where our weaknesses were. To put it bluntly, we have a

long way to go in ensuring that our Nation can respond to a large-scale biological or chemical attack. We need better communications, as everyone has said, between the Federal, State, and local governments. We need more training for first responders and we need to be able to swiftly identify the illnesses that are the cause of the attack.

One of the most important things we need during a crisis is honesty. Those responding to a terrorist attack need to be able to admit they do not know everything. The American people are very savvy and the Federal Government will lose all credibility if conflicting and inaccurate information is given. During a public health crisis, it is critical that people have faith in their government that the government is being straight with them.

The President has made preparing for a biological attack a very high priority. As you well know, and it has been stated, in his 2003 budget, the President has requested \$5.9 billion, of which \$1 billion is already up front, to prepare for such an attack. This money would help State and local governments prepare, conduct more research and development, enhance the safety of our food supply, and improve our Federal response capabilities.

All of these are extremely important and I hope that sometime in the near future, we will begin to feel comfortable that our responders are trained, our hospitals are equipped, and that we can handle any attack that might come.

I want to thank our witnesses for being here today and I look forward to gaining their perspective on this important issue. Thank you, Mr. Chairman.

Chairman LIEBERMAN. Thanks, Senator Bunning.

Senator Akaka of Hawaii has also been very active in a leadership role in regard to the threat of bioterrorism and I am happy to call on him.

#### **OPENING STATEMENT OF SENATOR AKAKA**

Senator AKAKA. Thank you very much, Mr. Chairman. Thank you for holding today's hearing on an issue that has occupied the Committee's attention well before the terrorist attacks on September 11 and the anthrax mailings last fall.

As Chairman of the Subcommittee on International Security, Proliferation, and Federal Services, I want you to know that I appreciate the work we have done together in this Committee on Federal efforts to prepare for acts of terrorism. I also wish to thank the Secretary for joining us today. I read your statement with interest, and I want to commend you for moving so quickly in enhancing your efforts and facing the issue of biological and chemical acts of terrorism. As you said, we have lots to do, and we will do it. What I am saying now, we will try to do it together.

Secretary THOMPSON. Thank you.

Senator AKAKA. Thank you, Mr. Secretary.

A clear refrain from the hearings we have held was that a cultural divide existed between the law enforcement and public health communities. It was evident then that the United States lacked a cohesive strategy to respond to terrorist attacks involving weapons of mass destruction. The following points were apparent from our joint hearing in October.

Local first responders lack the resources to respond quickly. Emergency responders must be able to communicate and coordinate seamlessly in the event of terrorist attacks with WMD. Local public health officials lack the capability to detect and identify harmful biological agents rapidly.

At the October hearing, Secretary Thompson and I agreed that current methods were not adequate to deliver continuous monitoring of the air, water, and food supplies of the United States. We are not effectively coordinating biological agent detection research at Federal agencies and academic and industrial laboratories. The Federal Government is not unprepared to deal with WMD terrorism, but preparedness levels are not uniform across the United States.

Much deserved attention has been paid to our crumbling public health sector. However, efforts to improve our public health infrastructure will not automatically trickle down to the medical community. Adequate WMD terrorism training of health care professionals has been hindered by a lack of economic incentives for hospitals and clinics. Local and community hospitals should have the best training and information in order to protect and treat Americans.

I recently introduced legislation, Mr. Chairman, to support the development of technologies to minimize the impact of bioterrorism by alerting authorities and medical personnel to a biological threat before symptoms occur. Another bill I introduced will use existing capabilities in the national disaster medical system to strengthen bioterrorism preparedness and to expand WMD emergency training opportunities for health care professionals. This legislation will continue the dual national goals of advanced biological agent detection technologies and improved emergency medical response training.

Again, I want to welcome the Secretary to the panel and our other witnesses today for our hearing and I look forward to learning what the Department of Health and Human Services has done in its enhancement in the past 6 months to improve our public health and professional medical response to potential terrorist attacks with weapons of mass destruction.

Thank you very much, Mr. Chairman.

Chairman LIEBERMAN. Thank you, Senator Akaka.

Senator Dayton, would you like to make an opening statement?

Senator DAYTON. Mr. Chairman, thank you very much. I would not. I would just like to hear from the witness and I would like to thank him for his continuing excellent service to our Nation following up on his distinguished service as governor.

Chairman LIEBERMAN. Thank you, Senator Dayton.

Secretary Thompson, on behalf of all of us, thanks for the job you are doing, thanks for being here, and we now look forward to your testimony.

**TESTIMONY OF HON. TOMMY G. THOMPSON,<sup>1</sup> SECRETARY, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, ACCOMPANIED BY JERRY HAUER**

Secretary THOMPSON. Thank you very much, Chairman Lieberman. It is an honor to be in front of you. It is a real honor for me to get an opportunity to tell this Committee what the Department of Health and Human Services is doing and has done and will continue to do. Senator Thompson, who is not here, Senator Collins, Senator Cleland, Senator Akaka, Senator Dayton, and Senator Bunning, it is my privilege to be in front of you today and thank you so very much for inviting me.

All of you have been staunch supporters of our efforts on the homefront in this war. We share a commitment and a passion to ensuring that Americans can live their lives in safety and security. Let me begin by thanking you so very much for your dedication and your patriotism.

Building America's preparedness for a bioterrorism attack is absolutely of paramount importance to the security of our country. Should an attack occur, the President is absolutely committed to making sure that we are ready to handle it quickly and successfully. Over the past 6 months, the President has put forth bold plans to build America's homeland security. We appreciate the support of Congress for the administration's supplemental request last year and we appreciate your continued support as we work out a 2003 budget.

As you know, the Department of Health and Human Services and my office have been working at breakneck speed to build our bioterrorism preparedness, particularly since the attacks of September 11. This has included everything from enhancing our pharmaceutical stockpiles to building a stronger public health infrastructure, which all of us have to admit was in disarray and now needs to be bolstered, built, and completed. The speeding up of research and to do medicine and diagnostic tools. We continue to get stronger each and every day and I am extremely proud, Mr. Chairman and Members, to be able to come to you today to report on the progress that we have made with your support.

Today, I would like to update you on some of the measures that the Department of Health and Human Services has taken already to bolster our overall preparedness and our ability to respond. Let me begin with our efforts in strengthening the partnership between the Federal, the State, and the local governments. In short, we are building a much more cohesive public health system and doing so faster than many people thought possible.

Within just 3 weeks after the President signed the supplemental appropriation on January 10, our Department, working almost around the clock, put together a program in structure for dispensing \$1.1 billion to the States for public health system improvements. We are quite confident that no Federal program of similar size has been created so quickly or that money of this caliber was moved out of the Federal coffers so quickly after our legislation became law. But it is a sign of our commitment and our passion to build correctly, but build rapidly.

<sup>1</sup>The prepared statement of Secretary Thompson appears in the Appendix on page 41.

By January 31, we gave States 20 percent of their share, 3 weeks after the signing of the law, of the \$1.1 billion program and asked them to get back to us by April 15, which was this week, a comprehensive plan for how they would spend the remaining 80 percent to be able to build a stronger, more unified public health system in their respective State. The vast majority of the States gave us the proposed plans. They came in this week. And the CDC and HRSA are beginning to review them. We have given about 12 States and territories a dozen extensions.

The very infusion of this unprecedented level of money into States is going to force cooperation and the strengthening of our Nation's health system, and I would like to report that we are going to analyze and critique and get back to the States within 30 days all of the reports and give out the remaining 80 percent of the money. That is how fast we are moving.

States, counties, and communities, law enforcement, hospitals, and the medical community are all going to have to come together, and we are forcing them to develop that cohesive, comprehensive public health system that will be able to handle a bioterrorism event, and those efforts are going to be linked and coordinated with the Federal Government, and that is what the comprehensive plan is all about.

And to further strengthen our public health system, the budget for 2003 provides for another \$518 million specifically to build up hospital preparedness. We had \$135 million in the supplemental bill that went out to hospitals under HRSA. Now we are requesting an additional \$518 million to build upon that comprehensive, especially in the area of surge capacity for regional hospitals. We expect this money to be used to upgrade the capacity of hospitals, outpatient facilities, emergency medical service systems, as well as poison control centers to care for victims of bioterrorism.

In addition, the CDC is going to provide support for a series of exercises to train public health and hospital workers on how to treat and be able to control bioterrorism outbreaks together. So, as you can see, one of our highest priorities right now is building a stronger and a much more coordinated public health system that works closely together in a time of crisis. And again, we are moving as fast as possible and getting stronger as each day passes.

A crucial part of bioterrorism preparedness is the development of vaccines and the maintenance of the National Pharmaceutical Stockpile. We are purchasing enough antibiotics to treat up to 20 million individuals for exposure to anthrax. We are purchasing sufficient smallpox—and I would like to point out, when I took over, there was only an order for 40 million doses of smallpox vaccine to be delivered either in 2004 or in 2005. Since I took over, we have increased that 40 to 54 million from one company, 155 million from another company, and we have 15.4 million in our stockpile which can be distilled down five-to-one for 77 million, plus we just picked up an additional 85 million doses from Aventis Pasteur, which will give us well over 286 million doses of vaccine, enough for every man, woman, and child, by October of this year. Nobody thought it could be done.

We are purchasing also additional push packages, going from 400 tons of medical equipment in antibiotics and other medicines, from

400 tons to 600 tons, from eight push packages, which are now strategically located around the United States and in Hawaii, to 12. So we will have much more medicine supplies available and be able to move it. Our plan is to be able to move it within 12 hours, but we were able to move within 7 hours to the City of New York on September 11. That is how fast we are able to respond.

We found that one of the problems was we can move it faster than the local units of government can handle it once it reaches the tarmac at a particular community. So we are now, in our comprehensive planning, we are finding ways in how we can bolster that so not only can we move it rapidly, but the local individuals will be able to dispense and be able to break it down faster to get it to the hospitals and to the areas where it is needed.

We are also taking aggressive steps to improve laboratory security and to be able to protect our food supply that you, Senator, and I have discussed many times, and accelerate the research necessary.

While we are doing a great deal right now to strengthen our infrastructure, we have also made it clear that improving our bioterrorism readiness will be an ongoing endeavor. That is why the President has put forth a bioterrorism budget for HHS of \$4.3 billion, which is a 45 percent increase.

Mr. Chairman, this is the largest one-time investment in the American public health system ever. We are absolutely doing what it takes to make America secure and we are working to ensure that our efforts are coordinated from the highest levels of the Federal Government to the most local levels of health care delivery.

And along with the new monies I just mentioned for hospitals, the President's budget provides \$1.7 billion for the National Institutes of Health for research into new vaccines and diagnostics. We are ready for smallpox, but we want to go to the next level for anthrax. We want to develop a new vaccine that is better than the one that is currently being used. We are also looking for ways for plague, botulism, the hemorrhagic fever viruses, and tularemia. The FDA is also going to see an increase for its review of vaccines and diagnostics and the CDC will see increases for the security of its facilities, as well as updating their badly needed lab capacity.

Nine-hundred-and-forty million dollars for State and local organizations to continue their laboratory capacity, increase epidemiological expertise. We want to get an epidemiologist in every community that has a county of over 150,000. Provide for better electronic communication and more distance learning. And support expanded focus on cooperative training between public health agencies and local hospitals. This includes funding for the Laboratory Response Network, which we have set up, which improves a system now of over 80 public health laboratories specifically. And to be able to develop for identifying pathogens that could be used for bioterrorism.

We are working to connect every major county and metropolitan region with the Health Alert Network. We are at 68 percent capacity right now. We think by the end of this year, with this new money, we can go from 68 percent to 90 percent of the population in the United States to be covered by the Health Alert Network.

Five-hundred-and-eighteen million dollars under the Hospital Preparedness Program to support outbreak response and control. It

includes funding for the training of public health and hospital staffs. The increased focus on local and State preparedness serves to provide the funding where it best serves the interests of this great Nation.

One-point-seven billion dollars for research. The NIH is researching for better anthrax, as I indicated, plague, the hemorrhagic fever viruses, and so on.

Ninety-eight million dollars, and thanks to you, all of you, for supporting this, in order to keep our food supply. I have testified in front of this Committee and others that I am more worried about food pathogens right now because we only inspect less than one percent of the food coming into our Nation. We only have 125 food inspectors, ladies and gentlemen, for 175 ports of entry. It tells us that this is an area that we have to look at. We have been able now, because of your support, to be able to double the number of inspectors we have at FDA. Our budget proposal is going to support a substantial increase in this number of safety inspections for FDA-regulated products that are imported into this country.

A-hundred-and-eighty-four million dollars to upgrade our Federal laboratory facilities and capabilities. This includes money for the completion of a second infectious disease laboratory, an environmental laboratory, an infectious disease bioterrorism laboratory in Fort Collins, one that they can only do research once in a while because of the decrepit conditions of that particular laboratory. I have pictures that I would like to show the Committee and you could see why it is badly needed for this particular laboratory.

We are going to have an environmental toxicology lab and a communication and training facility in Atlanta. This funding will enable the CDC to handle the most highly infectious, Senator Cleland, and lethal pathogens in the world.

We hope the Senate will continue to support the administration's effort to strengthen our public health system throughout the Nation. We need this partnership in a bipartisan way and I thank you for your past support.

Here at HHS, we are strengthening our coordination, as well. When I first arrived a little more than a year ago, I began elevating the bioterrorism efforts into my office and found that there was nobody there when I came in that actually coordinated our activities. I named Scott Lillibridge, Dr. Lillibridge from CDC, as my special assistant on bioterrorism. This was the first time that bioterrorism had been given such attention at the highest levels of HHS.

Since then, we now have created—I took one of my hearing rooms, my big conference room right across from the Secretary's office and I have turned that into the Office of Public Health Bioterrorism, which we are able to monitor things 24 hours a day, 7 days a week from all over the country. We are able to deploy personnel and medicines from there at a minute's notice, which has the task—this office has the task of coordinating and overseeing the bioterrorism preparedness and the response activities of all the various agencies within HHS.

This office coordinates our efforts and makes sure that HHS is coordinated with also the other Federal departments, State and

local governments, and other stakeholders. It also makes sure that our efforts are well executed.

I have assembled a virtual bioterrorism dream team to staff this office. Dr. D.A. Henderson, an internationally acclaimed leader in public health, is the Director, and working side by side and also with me today is Jerry Hauer, a world renown emergency response expert who we were fortunate to get from New York City. Also on the team is retired Major General Dr. Philip Russell, one of the Nation's preeminent virologists, and Dr. Mike Asher, one of our Nation's leading laboratory experts.

We also have strong relationships with our Federal counterparts, most notably homeland security. Tom Ridge and I have a very strong working and personal relationship going back to our days as governors. We and other teams have worked flawlessly together and I am very pleased with our working relationships also with Justice, the FBI, and the Department of Defense. In fact, the Department of Defense, with all their surgeon generals, were over this week in my Department and we were planning how we could interact their research and their medical teams with our medical teams. We work closely together and we share information effectively.

The President is creating a strong and united team for defending our homeland and preparing for our response to an emergency.

Mr. Chairman, you also requested that I mention a component of the President's management agenda that involves the consolidation efforts within the Department. In this budget, we are taking further steps to coordinate a variety of activities by consolidating our human resource, our building and facilities management functions, as well as public affairs and legislative affairs functions. These functions are very splintered right now, even within each agency.

Mr. Chairman and Members, we have over 50 public relations departments. We have over 46 personnel departments. We have over 200 different computer systems. We have five bookkeeping systems. We have some of our computers that have 30-year-old software, and we are trying to bring this now into an integrated system, and that is what the management is all about.

By consolidating and coordinating these operations, we will make sure that we are managing the taxpayers' dollars more efficiently and speaking to Congress and the American public in a clear, confident, accurate, honest, straightforward, and efficient manner.

It is a common sense effort to make sure that when we communicate, it makes sense to the American people and the members of the House and the Senate. And in times of national emergency, clarity and accuracy are absolutely essential.

In summary, our comprehensive effort shows that we are using all our resources at our disposal, from Federal agencies to States and localities, to build the strongest defense and response to bioterrorism. We are doing this quickly and smartly.

Mr. Chairman, the Department of Health and Human Services is absolutely committed to working with you, the Members of this Committee, and Congress, as well as the other Federal agencies, the law enforcement communities, and our State and local public health partners to ensure the health and the medical well-being of

all of our fellow Americans. We have made substantial progress to date in enhancing the Nation's capability to respond to biological or chemical acts of terrorism, but there is much more that we can do and will do to strengthen that response.

In April 1861, as danger loomed before the Union, Abraham Lincoln issued a two-sentence directive to the then-Governor of Pennsylvania who had asked his opinion on what to do. He said, "I think the necessity of being ready increases. Look to it." It is in that spirit of swift, effective preparation for the unknown that we pursue our efforts. We will not rest and we will not falter until America is as prepared as it possibly can be.

So I thank you for your support, Mr. Chairman and Members, very much for your time, as well, this morning. I would be pleased now to answer any questions you or Members of the Committee may have.

Chairman LIEBERMAN. Thanks very much, Secretary Thompson, for all you have done since last you were here. I think we all agree that we have come some way and we have got a ways to go to prepare our Nation to cope with chemical and terrorist attacks.

If I asked you on a scale of one to ten, with ten being the highest level of preparedness, where would you say we are now as a Nation?

Secretary THOMPSON. Once the money is out, I would say we are at six, going on seven.

Chairman LIEBERMAN. OK, so we have come some ways, but we have got to go some ways together yet.

Secretary THOMPSON. Absolutely.

Chairman LIEBERMAN. I appreciate that, and that would be about my estimate if you asked me that question.

Let me ask you about what you said about funding for hospitals to meet surge capacity. First, just for the record and for those who are listening, give us a little bit of a definition of what surge capacity means in this case.

Secretary THOMPSON. Surge capacity means being able to take care of a minimum of 500 to 1,000 individuals immediately in case of an event such as a bioterrorism attack, such as anthrax, such as a chemical spill, such as a chemical terrorist attack, such as a nuclear attack.

What we are doing in that regard, is asking the local health departments to meet with the State health departments and for the State medical system to develop a regional surge capacity right now, within their States, within their comprehensive plans. Then 2 days ago, I met with the surgeons general of the Department of Defense with regard to being able to incorporate—to be able to move in some of their mobile hospitals in case a more calamitous type of event takes place.

So we want to integrate with the Department of Defense. We want to integrate with the State health departments so that we have surge capacities in every region of the country taken care of immediately. We want to make sure this year we are able to have surge capacities in every State, hopefully up to 500, and then, hopefully, up to 1,000 within the next 18 to 24 months.

Chairman LIEBERMAN. So that is the goal now, that within every State, we would have surge capacity up to 1,000 in every State?

Secretary THOMPSON. Yes.

Chairman LIEBERMAN. Do we have—

Secretary THOMPSON. Now, in the case of smallpox, that is different, if I might.

Chairman LIEBERMAN. Yes, please. That is exactly what I was thinking about.

Secretary THOMPSON. With smallpox, what we would like to do—we would like to be able to have a large area to be able to quarantine. We may have a convention center. What we would do, is go in and inoculate—vaccinate the first responders, the medical personnel, and then those that would be sick, if, in fact, there was ever a smallpox outbreak. We would then have concentric circles around which we would vaccinate all those individuals, and then we would build a larger circle, and that is how it was worked out before. So, on chemical emergencies and smallpox, we have different ways and different opportunities as to how we would handle a surge capacity need.

Chairman LIEBERMAN. I think, as I hear you answer the question in that detail, that we have entered a surreal world which you and I would not have guessed we would be talking about a year ago, but it is where we are and I think it is very important that you do exactly what you are doing, which is to work through the scenarios that are worst case so we are ready for them.

I hope that you will push both the administration and us in Congress in terms of funding. As significant as the additional funding requests by the President have been, if you decide that we need more in the years ahead, I just think this has to be now our No. 1 priority. We have to do whatever we can to meet it.

Let me go on to a different area and that is the question about the weakness in our preparedness because of the lack of efficient mechanisms to communicate. One of our witnesses on the next panel in his written testimony points out that the Chief of Infectious Diseases at one of America's best hospitals said that in the midst of the anthrax crisis, he had to get his medical information from CNN. If we had another biological attack today, would those communications problems be any less severe, and if so, why?

Secretary THOMPSON. We have right now 68 percent of the population covered by CDC's Health Alert Network. We are going to be able to expand that this year, up from 68 percent of the population being covered to 90 percent. My goal is to have every health department eventually hooked up to the Health Alert Network.

CDC, and I do not want to question the individuals who are going to be following me in this testimony, but CDC puts out weekly reports to doctors. Their medical report went out on infectious diseases, especially on anthrax. We had weekly communications with doctors and State medical societies and hospitals and emergency workers hooked up with CDC. We are going to be able to expand that, especially with the additional money that is going out, and we are hopeful that we are going to be able to get this information very quickly.

We are also going to be putting exercises out into the States. The health departments—part of the comprehensive plan is that the health departments have got to put an educational program put out by CDC into the hands of emergency workers and the emer-

gency doctors, because that is where the problems would first arise. So we are already taking that into consideration. That is all part of the plans that the States put in.

We have also divided the country up into different areas so that we can send experts in from CDC as well as from our medical assistance teams. We have about 82 medical assistance teams across America right now, about 7,000 personnel that we can send in within hours after an event.

Chairman LIEBERMAN. Is the communication network also going to make use of existing media, television, radio, and satellites?

Secretary THOMPSON. That is one of the new buildings that is going to be built. Hopefully this year, the planning is going to start for a new communication building on the CDC campus. It is one of their next major capital expansions. Also, we have a website that every day has got new information on it through CDC and NIH and through the Department of Health and Human Services.

Chairman LIEBERMAN. Let me ask a final question before my time expires. As you know, during the anthrax crisis, there was some concern about exactly who was speaking for the administration, which led to some confusing and conflicting messages. In the event of an attack today, is it clear who would oversee communication with the public?

Secretary THOMPSON. Yes. Right now, it would be our new Center for Bioterrorism, which is headed by Dr. D.A. Henderson and the doctors that I mentioned, in collaboration with CDC, NIH, and FDA.

Chairman LIEBERMAN. So that Dr. Henderson—

Secretary THOMPSON. That would be the health thing.

Chairman LIEBERMAN. Right.

Secretary THOMPSON. But then the White House would have their spokesperson and Homeland Security would have their spokesperson. But as relates to health information coming out of the Department, it would come out of our Center for Bioterrorism Preparedness.

Chairman LIEBERMAN. I presume, or let me ask, would there be coordination between the three, between that center, Governor Ridge, and the White House?

Secretary THOMPSON. Yes. There is right now and I am sure there would continue to be. I cannot imagine—but as far as the Department, it is well coordinated right now and it would all go up through the Office of Public Health Preparedness.

Chairman LIEBERMAN. Thanks, Secretary Thompson.

My time is up. I am going to yield to Senator Collins and I am going to give the gavel to Senator Cleland, as I have got to go off and participate in a debate on the floor. But I thank you very much and look forward to continuing to work with you.

Secretary THOMPSON. Thank you very much, Mr. Chairman, for being here, and thank you for calling us.

Chairman LIEBERMAN. Senator Collins.

Senator COLLINS. Thank you. Secretary Thompson, let me begin by thanking you for your strong and effective leadership. I think we are very fortunate to have you serving in this critical post at this very challenging time.

I also want to thank you for again recognizing this morning the vulnerability of our Nation's food supply and the gaps in the regulatory framework. As you know from our previous discussions, back in 1998, I chaired hearings in the Permanent Subcommittee on Investigations that looked at the safety of imported foods. We did an in-depth investigation that revealed the statistic that you quoted this morning, that fewer than 1 percent of imported food shipments are inspected, and we also found that the system was very easily circumvented by unscrupulous shippers.

For example, tainted food that was checked at the border and inspected and rejected often was reshipped into the United States through another port. There was port shopping because the food was not required to be destroyed, nor was it clearly marked as rejected.

That gives me great concern, because if the system was that easily circumvented by an unscrupulous shipper, think what a concerted, sophisticated terrorist network could do.

So I am very pleased that there are additional inspectors on the way. I understand that the FDA intends to hire an additional 670 employees, which will include inspectors, scientists, and compliance officers. Given this significant increase in the number of inspectors, do you have a goal for how many inspections will be performed? There are a lot of other steps that need to be taken that are included in the legislation that has passed the Senate, but do you have a goal for increasing the number of inspections?

Secretary THOMPSON. We do not have a goal, Senator. We are going to address that when we get all our inspectors trained. We also want new equipment because we have a very antiquated system right now. You bring food in. It may be tainted. It has to be taken off of a truck or off the airplane, then it has got to be sent to a lab, maybe in Kansas, and then the shipment has to be held, impounded until we get the lab analysis back. We are trying to make sure that we have faster and better lab analysis at the place that the food is taken off, to check it and make sure it is not tainted.

We also, of course, as you know, support your language in the legislation. It is very powerful language as far as shipments coming into ports. We support you for your leadership on that.

The conference committee is working on this particular bill right now. There are a lot of good things in there. We want to be able to reject food at the port of entry, send it back. We want to be able to tell a company or an individual that has sent in tainted food before, prevent them from shipping again. We want to be able to track back where this food is coming from.

All of these provisions are in the legislation. We are hopeful that the conferees will be able to reach an agreement and get it to us because we badly need those tools.

Senator COLLINS. I am very pleased to hear you endorse those provisions, which I worked very hard to have included in the bioterrorism bill. They have been subject to criticism by some. I hope we can hold the line because I believe they are absolutely essential if we are going to improve the safety of imported food and close what I think is a real gap that makes us extremely vulnerable.

I want to follow up on an issue that Senator Lieberman raised. One of the major criticisms of our handling of the anthrax attacks involved the problems of communication and coordination. Obviously, we need to do everything we can to improve communication among the various levels of government as well as providing prompt and accurate information to help professionals and hospitals. I, too, was struck by the statement in the written testimony of the witness to come, who is Chief of Infectious Diseases at one of our Nation's best hospitals, and yet he said that he learned a lot of the medical information from CNN.

Is part of the rationale behind the consolidation plan that you have outlined today intended to improve the flow of information and better ensure health care professionals are receiving consistent, accurate, and clear information?

Secretary THOMPSON. The consolidation would not have much of an impact on that because the information going out to the emergency wards, going out to departments of health, and so on, for medical personnel comes from CDC. That will continue. It has to come from CDC because they are the experts and they are the ones who get the information. It will be better coordinated and it will be faster and better. But right now, we want to make sure we get the Health Alert Network up.

What we are talking about in consolidation is to make HHS more effective. We have over 50 public affairs departments, divisions in the Department of Health and Human Services and it is impossible to get a coordinated and correct dissemination of the information that is necessary to the public out properly. We want this to flow up in collaboration with CDC, NIH, FDA, through the Office of Public Health Preparedness, which is headed by Dr. D.A. Henderson, so that we are able to make sure that it is correct, that it is straight, and is fast and gets out there.

But as far as the medical information, that will come through the Health Alert Network. It will come on the website at CDC. It will come also from the direct communications from the laboratories. We have a communications system set up with 80 laboratories across America, connected with CDC. All of these things will still continue out of CDC.

Senator COLLINS. Thank you. My related question is actually a suggestion that results from a conversation that I had recently with medical director of the Anthem Blue Cross/Blue Shield insurance company. He pointed out to me that Blue Cross/Blue Shield has electronic links and E-mails to virtually every doctor's office and hospital in the United States, and he suggests that in the event of an emergency, it, too, might be a network that the Department could use to disseminate information.

I want to pass that on to you and I was interested to know whether there are any discussions with Blue Cross/Blue Shield or other insurers that might have the infrastructure that perhaps the Federal Government lacks at this point.

Secretary THOMPSON. Absolutely. We are working on that right now. Jerry Hauer has met with the American Association of Health Plans, has met with Blue Cross/Blue Shield, how we can tap into their database. We are doing all these things. We also got the pharmaceutical companies, through all of their agents, distributing in-

formation to doctors' offices on various pathogens and how to discern various infectious diseases, such as anthrax poisoning. And so we are bringing all the private sectors we possibly can, using them for the dissemination of information across America to doctors.

In our plans, we are also going to be setting up information and evaluations in emergency wards across America. These are going to be put out by CDC through the State health departments so that we get this information into the emergency wards of our hospitals so that they will be able to be better educated, be able to discern more quickly anything that might come up. Then they would report that through the Health Alert Network to CDC. They would report it to the laboratories. Those laboratories are connected with CDC and it would be almost instantaneous.

Senator COLLINS. Thank you, Mr. Secretary.

Senator CLELAND [presiding]. Senator Carper, do you have any comments, remarks, or questions?

Senator CARPER. I have some questions, but I do not want to go out of line. I think others were here before me.

Senator CLELAND. Senator Bunning, do you have any comments or questions?

Senator BUNNING. First off, a lot of attention seems to be focused on combatting bioterrorism in an urban setting. However, much of Kentucky, as you might suspect, is not urban. It is rural. How will combatting a bioterrorist attack in a rural setting be different than in a city? Is there anything you are doing to specifically help rural communities?

Secretary THOMPSON. Absolutely. What we are requiring in our planning is we are requiring every State health department to work with the local health departments, to work with the local first responders, and the law enforcement officials to develop these comprehensive plans that are coming in.

Kentucky has sent in their plan this week and their plan is going to be evaluated first by CDC. It is also going to be evaluated by HRSA for their hospitals. Then it goes to our Office of Public Health Preparedness and they will evaluate it and make suggestions, if needed, may approve it, may make suggestions. We have also sent out templates to all the health departments with regard to what are the best practices that we have been able to find so they have something to work from.

In the case of Kentucky, they will be working on how to make sure that rural areas in Kentucky are properly prepared, working with the first responders, the public health departments, as well as everybody else, and we have sent out templates and we have got people from various States, both rural and urban, coming in to offer consultation to us with regard to these plans.

Senator BUNNING. I understand that, Mr. Secretary, but as far as our health care system and public health facilities in Kentucky, most of the rural people have to come to urban areas to get their health care public health services.

Secretary THOMPSON. Right.

Senator BUNNING. Therefore, if some kind of bioterrorist attack would occur, say, in Laurel County, in London, Kentucky, the closest city is Lexington, which is about 65 or 70 miles. A lot of infec-

tion can happen, if it happened to be smallpox, by just going into Lexington. So are you telling me that—

Secretary THOMPSON. In the case of smallpox, we would quarantine that area. We would move in immediately.

Senator BUNNING. If you knew it was there.

Secretary THOMPSON. But we have to find out where it is, and then we move in immediately.

Senator BUNNING. You would quarantine the area that you would find—

Secretary THOMPSON. Immediately.

Senator BUNNING. Immediately.

Secretary THOMPSON. And we would send in people—

Senator BUNNING. And try to spread out a—would it not be—

Secretary THOMPSON. We would be able to ship in medical supplies, medical personnel, and experts from CDC within hours after that takes place. That is what the Health Alert Network is set up to do.

Senator BUNNING. OK.

Secretary THOMPSON. That is what the laboratory analysis is set up to accomplish.

Senator BUNNING. Would it not be better if we inoculated and vaccinated our first responders up front?

Secretary THOMPSON. We are looking at that right now, Senator, but there are problems with the inoculation of the smallpox vaccine.

Senator BUNNING. Sure there are. I mean, if you did 270 million people, you would have 2,000 or 3,000 deaths.

Secretary THOMPSON. That is right.

Senator BUNNING. I understand that.

Secretary THOMPSON. And there are some—

Senator BUNNING. But if you are doing the first responders, you are not doing 270 million people.

Secretary THOMPSON. And that is what we are looking at right now. We have got a group of specialists from CDC and NIH and from my office that are working on this right now, along with State medical societies and input from other medical personnel. They are evaluating right now whether or not first responders should be inoculated.

Senator BUNNING. Well, you are going to have to do it if you have an attack.

Secretary THOMPSON. That is correct.

Senator BUNNING. And as long as it is good for how many years, an inoculation? It used to be 10 years. I do not know what your new or improved version might be, but—

Secretary THOMPSON. The common position is it is good for 10 years, but there seems to be, from the experiments and the evidence we have right now, it is longer than that, Senator Bunning, that there is a residual reserve capability or capacity to prevent smallpox.

Senator BUNNING. I want to go back to a “60 Minutes” interview last September. You made a statement that the United States was “prepared to take care of any contingency, any consequence that develops, for any kind of bioterrorism attack.” You also said that “we would advise on television, on radio, exactly what to do” and

that we would “have people there within hours to take care of it, set up an action plan and we will implement it.”

In light of all that we have learned about our preparedness to handle a bioterrorist attack during the anthrax attacks, do you think making this generalized statement was a mistake or just premature?

Secretary THOMPSON. I think that we are better prepared—of course, we are much better prepared today than we were then. We were much better prepared than a lot of people thought. There are a lot of consequences that came in. The statement was too broad. But I wanted to make sure that people were——

Senator BUNNING. Well, I understand the calmness and the assuring of the American people.

Secretary THOMPSON. But we responded very effectively, Senator Bunning, and there were billions, in fact, trillions of spores of anthrax that were sent through the mail—and it was the great medical personnel that we had at CDC and the local health departments that prevented a lot more deaths. Am I satisfied with the five deaths? Absolutely not.

Senator BUNNING. No one is satisfied, but I think that attack was limited very well as it turned out.

Secretary THOMPSON. It was, and it was because of the expertise that we had and the preparation that had been made by the Department of Health and Human Services, CDC, and NIH. And now we want to go to the next step.

There is no question, Senator, that the local and State public health system in America needs a lot more infusion of dollars and better preparation. That is why we are demanding these plans be submitted, and we are hopeful with this planning process and the \$1.1 billion that we will be sending out that we can build a local and State public health system that is national in scope, that will be able to handle a bioterrorism attack, and that is what we are getting prepared for. It is a legacy that you can have and the Department can have and America can have.

Senator BUNNING. I pray for you, then, today and into the future, because we not only have to be prepared, we are going to have to be also very fortunate to be able to identify and quickly treat any kind of a bioterrorism attack and I wish you godspeed.

Secretary THOMPSON. Thank you very much, Senator, but if I could just quickly respond, that is why we divided the country up into medical assistance teams, individuals we can activate quickly to be sent in at a very short period of time. That is why we have expanded our push packages from 8 to 12, our medical supplies, our medicines, our medical equipment from 400 tons to 600 tons, and we have reduced the time from 12 hours, hopefully, down to 7 or 8 hours, that we can get 50 tons of medical supplies into Kentucky within 5 to 6 hours after an event. As soon as we are notified, we can dispatch that, and that is what we are hopeful to be able to accomplish and that is the planning that it is working on right now. And we are fairly certain that we can deliver on this.

Senator BUNNING. Thank you.

Secretary THOMPSON. But the problem is, once it gets there, we have got to make sure that the local individuals are going to be able to use that equipment, use the medical supplies, and get it to

the individuals quickly. And that is what the planning process is all about.

Senator BUNNING. Thank you, Senator Dayton.

Senator DAYTON. Thank you, Mr. Chairman. I appreciate the opportunity to speak. Thank you.

Mr. Secretary, first of all, I want to say that what you have described here today is highly commendable. The speed with which you have responded and the progress you have made in terms of getting money out and getting supplies stockpiled, I think, is just outstanding and I think our Nation owes you a debt of gratitude for your efforts on our behalf, so thank you, sir.

Secretary THOMPSON. It was the Department, sir, it was not me.

Senator DAYTON. I understand that, but it starts at the top.

Secretary THOMPSON. Thank you.

Senator DAYTON. But it is a team effort, so I agree with you.

Since you referenced the Kentucky plan, I have to evidence a parochial interest. Has Minnesota submitted a plan? I am not sure of the status.

Secretary THOMPSON. Minnesota asked for a postponement this week.

Senator DAYTON. All right.

Secretary THOMPSON. Minnesota asked for an extension to May 15 to deliver their plan, Senator.

Senator DAYTON. Thank you. You mentioned the money that you have put out to the States and that you will be distributing additionally. In terms of local governments and local hospital units, public health facilities and the like, does that money go through the States to the local or does any of that go directly from your Department?

Secretary THOMPSON. It goes directly from CDC and HRSA to the State health departments to implement their plan. They received 20 percent. Minnesota has received 20 percent of their amount of money. What is Minnesota going to receive? Minnesota will go through the State health department.

But what we are forcing the State health departments to do, in conjunction with the governor, is to work with the city health departments, the county health departments, the hospitals, the State medical system, the first responders, and the law enforcement officials to develop a comprehensive plan for the State of Minnesota, and we have sent out templates of what we think a good plan should provide for. The State of Minnesota will send that.

It will first be evaluated by CDC down in Atlanta. Then it will be evaluated by HRSA. Then it comes up to Washington, DC, where we have 11 teams to evaluate these plans after CDC and HRSA. Experts—doctors and so on from around the country, come in and evaluate the plans and make recommendations, and then they will be in consultation with the State health department officials about those corrections or modifications if there are any. And then the money will go out, hopefully by May 15, to those States that have submitted their plans and had them approved.

We want the money to go out 30 days after a State has submitted a plan, and that is why we set up 11 teams and that is why CDC and HRSA are working this weekend to make the first evaluation.

Senator DAYTON. That is tremendous. Thank you.

Secretary THOMPSON. Minnesota is going to receive \$18,107,000.

Senator DAYTON. If they get their plan in eventually?

Secretary THOMPSON. Yes.

Senator DAYTON. Thank you. It refers more to Governor Ridge's operation than your own, but I just want to ask the same question. I have had some complaints and a lot of concern by local officials in Minnesota that they feel they are out of the loop. They feel they do not have access to information regarding these developments and what their roles are supposed to be. Is that, as it relates to your department, then, the responsibility of the States to communicate with local units of government, as well, or is there a way in which they can directly access information, web pages, answering service, or anything?

Secretary THOMPSON. The way we have got it set up, Senator, we have a web page both at NIH, at CDC, HRS, and the Department of Health and Human Services to get out the information. We have the Health Alert Network, which now is connected with 68 percent of the counties and the population of America. And by the year's end, with the money that is going to be sent out, that should go up to 90 percent.

Then we have what is called the laboratory network in which we have 80 laboratories, all the State laboratories plus some other laboratories, hooked up so that they have instant analysis, can communicate back and forth with one another and with CDC.

And then if an incident breaks out, we will send an expert or experts from CDC immediately. If something would happen in St. Paul and there was an evaluation that there was anthrax, we would then send that to the State lab, send it to the CDC lab, get an evaluation. But in the meantime, we would send a team of experts from Atlanta to St. Paul to work with the local health department in St. Paul in the hospital, the emergency work to go over that patient to find out what needs to be done.

Senator DAYTON. The reference was made to CNN as a source of information. I would say that I received in the first 12 hours a good part of my information from CNN and what I found, and I think other members of Congress found, too, is that our normal communication lines were ruptured or were so overloaded that communication was extremely difficult, sometimes impossible.

You talk about the lines of communication you have established with States and with the public health centers that would be called upon in an emergency. How have you adapted that to the very real possibility that these traditional lines of communication might once again be disrupted or even ruptured?

Secretary THOMPSON. Senator, we think we have taken that into consideration through the planning process and through the Health Alert Network, by expanding that through the websites and through the conference calls.

At the height of the anthrax, we used to have weekly conference calls with CDC and with my office and sometimes with public health department officials. Anybody could call in and be connected. It happened either on a Thursday or a Friday. We also did it with the State medical societies. We did it with the emergency doctors. And those are the kinds of things, when there is an emer-

gency, we would start that once again. But in the meantime, when there is not an emergency, we use the Health Alert Network, the web pages, and what is put out by CDC on a weekly basis on updates on medical analysis.

Senator DAYTON. Thank you, Mr. Secretary. Thank you, Mr. Chairman.

Senator CLELAND. Senator Carper, do you have any comments or questions?

Senator CARPER. I do. Governor, welcome.

Secretary THOMPSON. Senator, how are you?

Senator CARPER. I am fine. How are you, my friend?

Secretary THOMPSON. Good, my friend.

Senator CARPER. Glad that you could be with us today. We have gathered in our capital today, and this week, volunteer firemen and firewomen from around the country. About 250 will be at the National Fire Institute dinner this evening. I think the President is going to come to address them. We are having a ceremony honoring one of our fallen in Delaware, literally in the Capitol this afternoon. In some respects, they are our first line of defense in all kinds of emergencies, as you know.

I would just ask, is there any message or anything that you would especially want me to convey to them on your behalf?

Secretary THOMPSON. I would just say thank you. Thank you for the tremendous job that the men and women of the fire departments, volunteer as well as the paid officials, did during September 11. They were the calming influence in all communities across America. They truly did a yeoman's job and we are in their debt and I just would like to say thank you.

Senator CARPER. I will be happy to convey that.

We had a hearing about, I want to say about 6 months ago when we were reeling with September 11 and then the anthrax attacks and have had an opportunity to do a whole lot. You have been very busy, your folks have, as well, and we thank you for your stewardship and for your leadership in some difficult times.

I know that Senator Kennedy and Senator Frist have introduced legislation, I think it is called the Bioterrorism Preparedness Act. You may have commented on it in your testimony. I would ask you, could you share with me a thought or two that you have on what is good about it and maybe how it perhaps should be changed?

Secretary THOMPSON. I think it is a wonderful piece of legislation right now. It sets up an Assistant Secretary for Biopreparedness Emergency in the Office of the Secretary. That office is currently being handled by Dr. D.A. Henderson. Jerry Hauer is the second in command there.

It also allows us to do a lot for food inspections. It allows us to reject food that has been tainted in the past from a supplier, from a country. It also allows us to trace back the tainted food to the supplier. It also allows us to expand our inspections by giving us some additional personnel that we badly need. It also allows us to have a much better coordinated effort in bioterrorism through the Department of Health and Human Services.

There is another big thing that the Senate, Senator Feinstein was very active in, and this was, of course, on the agents, the special agents. We had a meeting in the White House about it this

week and what we are going to do is we are going to set up a register in the Department of Health and Human Services for all these agents, and then the Department of Agriculture has some of their own agents. We have duplication. And so the Department of Agriculture is going to have a list and be able to find out what agents are being utilized for laboratory investigations, what is being transported, and so on. The Department of Justice will have the opportunity to have instant access to the registers in the Department of Health and Human Services and the Department of Agriculture.

Right now, the law is, Senator, that we can only—the only thing we monitor is the transportation, the transporting of these bio-agents. We do not know how they are used. We do not know if they have been used. We do not know what is in stockpile or so on. And this information, now, that this legislation is going to give us, is going to help us a great deal.

Senator CARPER. Good. In Delaware, we have been working over the last couple of years to put into place a disease tracking system. There is a name for it, the Delaware Electronic Reporting System. It would—

Secretary THOMPSON. It is the best in the country, I might add, Tom.

Senator CARPER. Thanks for saying that. I wish I could take credit. Well, I will take credit for it. [Laughter.]

Secretary THOMPSON. It happened while you were governor, so take credit for it.

Senator CARPER. One of the things I learned as governor is when things go wrong, accept the blame. When things go right, share the credit, so in this case we will give the credit to a lot of other folks.

But I know that your Department is working on, I think, a similar national monitoring system and I was just wondering, how is it going? How far are you along there?

Secretary THOMPSON. We have taken the template from Delaware and we have sent that to all the 50 State health departments saying this is a good example of how to be able to accomplish this objective. And so we have done that in many different areas, in communications, emergency preparations, and surge capacities, and we are sending that out and we are hopeful that they will use these templates to be able to build a very positive, comprehensive plan. But Delaware should get the credit because we have used it and I thank you for it.

Senator CARPER. Thank you. Thanks for sharing that credit.

I have heard some people argue that a system like the one we are talking about, at least on a national level, would not enable us to detect future attacks like last fall's anthrax attacks. I do not know if you agree, and if you do, does this mean it is maybe a less worthwhile investment for us to make as a Nation?

Secretary THOMPSON. What was that, Tom?

Senator CARPER. There are some who said that a system like we have in Delaware and that we are trying to spread across the country would not enable us to detect attacks like the anthrax attacks of this past fall. I do not know if you agree with that assessment, but whether you do or not, I wonder if that tempers at all your beliefs as to whether or not this is a worthwhile investment.

Secretary THOMPSON. I think it is a very worthwhile investment and that is why we are trying to get it incorporated in all the State plans because we think it is important, that information.

We also are looking for new innovations, Senator, on how to detect bioterrorism agents. There are some new innovations out there and we are hopeful to be able to maybe in the future get them in public buildings and the Capitol, and so on and so forth, that could discern if there is anthrax in the area. They have not been perfected yet. There are some out there, but there are a lot of innovations, a lot of new things that are coming to the Department, not only to our Department but the Department of Defense, and hopefully they will be able to discern when there is an agent in the vicinity.

Senator CARPER. I am struck by the number of usually fairly small businesses, small technology businesses, just in my own State who have been to see me to say, we have this technology, we have this device which we think is quite effective, whether it is detecting anthrax or some other agent. We have tried to provide a forum for them through the administration with the help of the Small Business Administration so that they may have an opportunity to present to the administration and the relevant agencies what they have worked on and what they have developed.

I am just seeing what has come out of one little State. I cannot imagine what must be coming out of the rest of the country. My suspicion is that in Minnesota and Georgia and other places, that Senator Cleland and Senator Dayton are hearing from their businesses who are coming up with similar kinds of models that, frankly, we had not thought much about in recent years.

Secretary THOMPSON. I think it is very positive.

Senator CARPER. The last subject is quite a different subject and I will just mention this as an aside. The administration was kind enough, I suspect with your urging, to invite a number of us in the Senate and in the House who were interested in next steps in welfare reform to a forum at the White House this afternoon that I am not going to be able to attend. I mentioned earlier we have a ceremony honoring one of our fallen fire fighters that will be in the Capitol literally right in the time frame that the event at the White House will be occurring on welfare reform. Do not judge my absence as a lack of interest.

Secretary THOMPSON. I know.

Senator CARPER. We look forward to working with you on it. Thanks.

Secretary THOMPSON. Thank you very much, Senator Carper.

Senator CLELAND. I thank all of the Members of the Committee for involving themselves in this discussion today, and again, Mr. Secretary, we thank you very much for your help here.

I just want to get into some basic, fundamental conflicts, if you will, challenges, problems that we need to work out together, and I would like to just say again, I would like to work it out with you, with the Members of the Committee.

Congressman John Lewis has said it beautifully, that we may have come to this country in different ships, but we are all in the same boat now, so we are in the same boat here.

I was just sitting here thinking about the difference, the dramatic difference, I think, between, shall we say, a military/terrorism attack on the country and when that attack goes biological. First of all, I think an attack on the country requires some delivery system. We saw that initially the al Qaeda went after us at the Khobar Towers with a car bomb, then later with a truck bomb at the World Trade Center, the two embassies in Africa, then ultimately a boat bomb against the *U.S.S. Cole*, and finally a plane bomb against the World Trade Center and the Pentagon.

So some overt attack to create mass destruction or confusion, which is the object of terrorism, which makes it so terrifying, requires some kind of delivery system. But if you take that attack biological, that really is very difficult to detect. The delivery system for killing 100,000 people could be one envelope delivered to Senator Patrick Leahy's office. The anthrax spores there, I am told, were enough to kill 100,000 people.

Secretary THOMPSON. That is true.

Senator CLELAND. So I think we have a new ballgame when the attack goes biological or chemical and it is interesting how there is really a dichotomy in law and a dichotomy in many ways in practice that we have now and that we have got to resolve and work out somehow that led to some of the problems, the initial problems with responding to anthrax.

In many ways, I could boil it down this way. One part of our law, based on Presidential directive, says, in effect, the FBI is the lead dog, the lead agent, and HHS is in support of FEMA, a back-up agency, in terms of biological help. The other part of our law, which is actually in law, authorizes the Secretary of HHS to actually initiate certain things—we can get into that—to include investigations.

It is interesting, too, we have a FBI and then we have a bug FBI. The bug FBI is the CDC. They have the epidemiological investigative service. So when things get buggy, they are the agent, in many ways, of expertise. They have been around 50 years there in the CDC.

Secretary THOMPSON. That is right.

Senator CLELAND. What I am trying to do is try to make sense of these great assets and instill or work out some kind of better coordination, cooperation, and communication.

First of all, I think we have got to acknowledge some of the problems. Last fall with the anthrax attack, a bug attack which, thank God, the CDC quickly identified, therein, though, once the CDC identified it, it became this tug of war between public health agencies and law enforcement agencies. Just some examples.

In Trenton, New Jersey, the FBI and public health agencies could not agree on who should take environmental samples, so they both did. In Washington, DC, health officials first learned that there was contamination in several Federal agencies from the news media, I guess CNN.

In New York, law enforcement officials knew but failed to notify city health officials that a suspicious letter had been sent to NBC News until after the first case of infection surfaced. When the FBI took over in Florida after the CDC had identified the substance as

anthrax, when the FBI took over in Florida, press briefings by public health officials halted at the FBI's request.

Another example. Samples collected by the FBI in Washington, particularly in terms of the Daschle letter, were sent to military laboratories, Army labs at Fort Detrick, Maryland, for analysis, not to CDC.

Finally, a Canadian study on anthrax showed that anthrax spores could escape sealed envelopes in large quantities. At least half-a-dozen U.S. agencies knew about this study prior to the anthrax attacks, but because of individual stovepiping of information, turf battles, budget battles, the CDC did not know. The CDC had received, interestingly enough, an E-mail regarding that study on October 9, before the Daschle letter arrived and before anyone at Brentwood fell ill, but no one there read it until November.

The problem is, I think we have a problem. Senator Nunn has indicated something of interest. He played the President in an exercise called Dark Winter put on by Johns Hopkins in June of last year, about 90 days before the attack here on September 11. That was a drill on a smallpox attack in America, and out of that, Senator Nunn testified before the Congress some challenges.

He said, "you have got an inherent conflict between health and law enforcement," and he said, "and to the extent that they have not coordinated beforehand and do not know each other beforehand, before the occurrence took place, you would have a horror show because law enforcement has one set of goals and health officials have another set of goals."

What are those goals? Well, law enforcement deals in secrecy. I understand the FBI wants to keep things secret. The public health entities, from the CDC on down, deal in openness. They want to disclose and disseminate information.

I am concerned that the protocols of response, of communication and coordination between Federal responders in the event of a bio-terrorism attack are not clear.

As I mentioned, executive documents seem fairly straightforward. The U.S. Government interagency domestic terrorism concept of operation plan, called CONPLAN, issued in 2001, sets forth how the Federal Government will respond to a terrorist incident and how the various Federal agencies are to coordinate with one another in the event of such an incident. The CONPLAN draws on and is in accordance with authorities established in two Presidential directives, Directives 39 and 62, the Federal response plan, including a lot of backup.

The CONPLAN designates the FBI as the lead Federal agency for crisis management in the event of domestic terrorism. FEMA is designated as the lead Federal agency for consequence management to ensure that there is only one overall lead Federal agency at a time. And then HHS is in a support role under the CONPLAN.

Now, interestingly enough, another directive that you are caught in is law. It seems that a law, the Public Health Threats and Emergencies Act, gives explicit authorization to the Secretary of HHS to declare a public health emergency on your own, in effect, and in the event of such declaration, to do whatever is necessary to respond to it, including conducting, not merely supporting but

conducting your own investigations into the cause and means and steps to be taken.

It seems under the CONPLAN, the HHS can do only those kinds of things in support, based on request. But the law, the Public Health Threats and Emergencies Act, in effect, says you have authority whenever the public health is in danger.

I think somehow we have got to clarify this. I think you are caught in a bind. There are very real scenarios under which the interest of law enforcement and public health do conflict.

May I say that the FBI, as the lead Federal agency, is generally the first agency to obtain new information. If it decides that a new piece of information has a bearing on public health, it then communicates that to health authorities. As a number of experts have noted, the FBI is not a public health agency. They may not necessarily know what information can be of significance to public health officials.

I would like to know, what is your understanding now of the relationship between the roles of law enforcement and public health in the event of a bioterrorist attack on our country? Do you feel that you have sufficient authority under the law to initiate action, whether through the CDC or some other agency under your command, to, in effect, declare a public health emergency and begin preparing to deal with it?

Secretary THOMPSON. As you know, Senator, I did declare a public health emergency on September 11, and did use that power. But I think it does need clarifying. I think you are absolutely correct. There seems to be some confusion, and so in order to have a more comprehensive way of getting the information out, we have set up what is called advisory committees. These are the committees set up by the State and local health departments and government, emergency management agencies, emergency medical services, Office of Rural Health, police, fire department, emergency rescue and occupational health workers, Red Cross and other voluntary organizations, the hospital community, community health centers, and other health care providers. These are the advisory committees that we have asked the States to put in their comprehensive plans so in case of an emergency, in case of a bioterrorist attack, these committees would come together and be able to distill the information and be able to speak with one voice.

But at the Federal level, I think there is some confusion and if we could sit down with the Department of Justice and Office of Homeland Security, I think we could work it out. But there is very good cooperation. I do not want you to in any way imply from my answer that there is not good cooperation right now.

For instance, we have somebody from CDC, and I do not know if you know this, Senator Cleland, that meets with the FBI every week with regard to new evaluations on anthrax. So we have one of our experts from CDC that meets with an FBI team weekly on their analysis. Jerry Hauer meets with them every other week with regard to the investigation on anthrax. And I meet with the Director and other members monthly as to new developments on anthrax. At the height of it, we met weekly.

So there is great cooperation now, but in the law, in the emergency rules, there is some confusion that I think needs to be clarified.

Senator CLELAND. And it does seem to me that in case of a bioterrorism attack, a chemical attack, you have the agencies, the resources to deal with it and you ought to be the lead dog. There are other entities involved. I am not sure they make it better or worse for you to take the lead. There is now the Office of Homeland Security to coordinate with and now there is Dr. Henderson in your new office that you have created. You have got the CDC. You have got the NIH. You have got FEMA. You have got the FBI.

I think that is my problem, is that we have got about 20 different agencies involved in bioterrorism and what I am trying to do is kind of sort out the protocol here before the next attack. In other words, make sure people basically understand their role and responsibilities when the next time the popcorn hits the fan so that we do not have to go through the drills that we went through last fall.

Secretary THOMPSON. FEMA now defers to the Department of Health and Human Services on anything and everything that deals with bioterrorism, and so that has been—it is not in the rule, it is not in executive order, but that is common practice. And the FBI has been very cooperative. In fact, I have just been corrected. We have a full-time official from CDC working in the FBI right now on the anthrax question.

Senator DAYTON. Mr. Chairman, could I just excuse myself? I am sorry to have to leave. I have a press conference call with the Minnesota press. I apologize for having to go. Mr. Secretary, thank you.

Senator CLELAND. Thank you very much.

Secretary THOMPSON. Thank you, Senator Dayton.

Senator CLELAND. In the *National Journal*, HHS spokesman Kevin Keene is quoted as acknowledging that under the Department's consolidation plan, one agency or one voice or something like that, which is a noble enterprise, but I think we are concerned, I am concerned about whether or not this will add an additional layer of review by the Secretary's office. I mean, I understand about speaking with one voice. I also am interested in speaking with a medical or expert voice as opposed to a political voice.

I just want to get your understanding of whether or not what you are trying to do is going to speed up, where speed is of the essence and communications is of the essence, or slow down information that your Department has that needs to be disseminated to the public.

Secretary THOMPSON. I think it is going to speed it up and I think it is going to be much more effective, Senator. We do not in any way want to infringe upon the scientific utilization of the media. In fact, we encourage it. We want to make sure that CDC continues to have the Health Alert Network, continues to have their Public Affairs Department, continues to put out their MMWR on a weekly basis with information. We want them to continue to set up the conference calls with regard to how we get the information out. All of this is not going to be touched at all.

What we are trying to do—we have got 50 different public affairs departments, 50 public affairs offices within the Department of

Health and Human Services. In the case of a bioterrorism thing, we want to make sure that what is going on in CDC, at NIH, and FDA is coordinated with the new office, and hopefully the Assistant Secretary for Public Health Preparedness, and that is headed by Dr. D.A. Henderson, so that we are able to speak clear, concise, straightforward, directly, and quickly about the effect.

What we did during the height of the anthrax things, we had people like Dr. D.A. Henderson, Dr. Tony Fauci from NIH, Jeff Copeland from CDC, myself, and other individuals who weekly met with the press and we had a teleconference call for any updates with regard to bioterrorism.

We would incorporate that so that CDC, NIH, FDA, and the new office or Assistant Secretary's Office for Public Health Preparedness would be able to coordinate their message and get it out quickly, and usually by a doctor.

Senator CLELAND. Maybe I am just a little stream of consciousness thinking here. When the Secretary of Defense briefs the public, the press, on, say, military operations, he always has, in effect, the Chairman of the Joint Chiefs standing there to answer "military expertise" questions.

It does seem like that in the homeland defense arena, the strategy for defending our homeland, if it becomes a biological issue, there are a number of bugs out there that we can be attacked with. It seems to me your great agency, particularly in the CDC, has the capability to draw upon some expert that knows about that and, in effect, becomes your equivalent of the Chairman of the Joint Chiefs of Staff standing there answering questions about that particular bug or device or gas.

Secretary THOMPSON. That is why we put Jeff Copeland out just about—we made him available every week with regard to talking to CNN and talking to the press. We also made available the Surgeon General, David Satcher, and Dr. D.A. Henderson. They were the spokespeople, and Tony Fauci from NIH. Those were the spokespersons for the Department as relates to the medical provisions of bioterrorism.

Senator CLELAND. Experts in the field like Dr. Tara O'Toole, whose colleague Tom Inglesby we will hear from in the second panel, keep telling us that we need to have medical professionals out there answering questions and disseminating information.

Secretary THOMPSON. I agree with that.

Senator CLELAND. It is interesting that in 1993, during the hanta virus outbreak, then-Secretary of HHS Donna Shalala deferred and let C.J. Peters, the Chief of Special Pathogens at the CDC, take the lead and be the voice of the public health establishment. I am sure you get that point.

Budget issues—in 2000, the Congress committed to a 10-year master plan for revitalizing the CDC's World War II era facilities. I have visited those facilities. How did it get to be World War II? Well, first of all, in many ways, you had a little public health operation down there just off the field of a Naval air station and they were basically an Army operation dealing with malaria, and in many ways, that is how that grew there. Actually, back in the 1960's, it was Mr. Woodruff of Coca-Cola fame who worked with Emory to donate some land across from Emory and that became,

in effect, the CDC headquarters. So it just kind of grew, but now very much in need of a master plan to bring it into the 20th Century and out of the World War II era facilities.

In 2000, we put together about \$175 million for buildings and facilities, actually in fiscal year 2001. Last year, after the anthrax attacks, we put together about \$250 million. The President came to the CDC and praised the CDC for its work. That compressed the 10-year plan to about 5 to 7 years, which we felt was proper for the country to begin getting on top of the master plan because we could not wait another 10 years for some terrorist attack.

It seemed to me that the Congress committed at that time to maintaining a funding level of \$250 million per year specifically for CDC in campus buildings and facilities until the plan was complete. After we passed that legislation, we allocated an additional \$46 million for security.

The administration has proposed a total of just \$90 million specifically for the CDC's master plan 2003, and I expressed my concern to you over this meager funding level and you were kind enough to write back. In your response, you wrote that the administration proposes \$184 million for buildings, facilities, and security in fiscal year 2003 across the board, which when combined with \$296 million the CDC received for buildings, facilities, and security last year brings a 2-year total to \$490 million, seemingly close to the needed \$200 million per year.

However, the master plan that Congress committed to is for the upgrading and revitalization of the CDC's buildings and its facilities at its headquarters in Atlanta. Funds for needed security upgrades are not figured into it. Neither are funds for projects that are not located at the headquarters in Atlanta.

Of the \$184 million the administration has proposed for fiscal year 2003, \$74 million is for the construction of an entirely new facility in Fort Collins, Colorado, and \$20 million for security. That leaves just \$90 million for master plan-related projects, a lower amount even than the \$175 million Congress appropriated 2 years ago that will be required to keep us on a 10-year plan.

My question is, where does the administration's proposed budget for the CDC put us in terms of implementing the 10-year plan?

Secretary THOMPSON. Senator, let me tell you that I totally agree with the need to upgrade the CDC campus. I have been there. In fact, I spent a week there as I move my office around to various divisions. One week out of the month, I spend the week in Atlanta at CDC.

There are three campuses at CDC, as you know. There are 24 other rented buildings. A lot of the buildings on those campuses are old, dilapidated, a lot of laboratories, and a lot of security problems. There is no question that the \$250 million is needed. But when you are fighting a war both internationally and domestically through homeland security, you have given so much in dollars, you have to put together the best plan possible.

We are putting \$74 million into Fort Collins, which is a CDC building, which is badly needed. I do not know if you have seen the pictures, but it is absolutely badly needed. In fact, some of the research cannot be done during some of the months of the year because of ventilation and because some of the encroachment of mice

and rats and snakes that get into the building. So that was a top priority. We had to do the \$74 million for Fort Collins.

We have to build a new laboratory, a level four laboratory, at Fort Detrick, and we have to remodel some labs at NIH in Montana for NIH. So we looked at the amount of dollars that we had. We stretched them as far as we could go and that is what we ended up with.

All I can tell you is that I fully support, and hopefully, next year, we will be able to do more for CDC. They need to consolidate and we need to get out of that rental space and we need to consolidate those buildings on three campuses. But with the dollars that we had, we put together the budget. We thought there were higher priorities this year because CDC got a nice tranche of money last year for buildings, and hopefully, next year, we will be able to do a better job.

Senator CLELAND. You can understand the fact that I feel strongly about this and will continue to push in the Senate—

Secretary THOMPSON. I know you do, and I compliment you on it, Senator—

Senator CLELAND [continuing]. For additional monies for the CDC—

Secretary THOMPSON [continuing]. And I want to work with you on it.

Senator CLELAND [continuing]. To stick to that effort that Congress committed itself to and the President, I thought, signed onto to collapse the 10-year master plan into about a 5-year plan because we cannot wait on the next terrorist attack.

I would like to just bounce off you this idea, this concept that I put forward, the National Center for Bioterrorism Preparedness and Response in the CDC. Again, most of the CDC's budget is broken down into allocations to centers—

Secretary THOMPSON. Right.

Senator CLELAND [continuing]. In an effort to enhance coordination, cooperation, and communication, and accountability for these \$6 billion or so we are spending on bioterrorism among 20 different agencies. In an effort to put together a nerve center that would operate 24 hours a day, 7 days a week, and be available to provide our first responders and our citizen with what we need out there, you can understand that after looking at the master plan, I considered that it would be a logical step to put together a center there.

Now, what do we mean by a center? One of the concepts that I had in mind is the concept by Jeff Koplan, the former CDC Director, about a \$65 million center to address the most urgent security deficiencies in the agency. The current headquarters facility and emergency operations center are located in buildings less than 30 feet from a major street. The new, in effect, center, bioterrorism center, would be located in a secure spot and house a secure compartmental information facility for communicating with the Secretary of HHS, the White House, and intelligence agencies during an emergency.

We have that kind of facility in the Pentagon for outright attacks. We do not have that kind of nerve center and facility, situation room, where everybody can be tied in and can communicate to one another really in times of a bug attack or bioterrorism attack

or chemical attack, and it seems to me that that would be a logical step that we would include in the 10-year plan. Do you have any comment on that?

Secretary THOMPSON. Senator, I agree with you. I thought it was a great idea. In fact, we were going to look at reorganizing CDC to accomplish that administratively. But I was dissuaded, not by people up here, but I was dissuaded by the people in Atlanta that that was not a good idea, and they told me the reasons why.

They said that we have bioterrorism in chronic diseases. We have bioterrorism in infectious diseases. We have bioterrorism activities in the National Center for Environmental Health. And we have bioterrorism activities going on at ATSDR for the Superfund. And we have bioterrorism activities going on with the State health departments. We think if you consolidated all of that into one center, that we would lose something in the process.

So since they were the experts, I listened to them and I went along with that. But I have to admit that what you are saying has some merit to it and I would like to work with you and see if we could accomplish both objectives.

Senator CLELAND. I do not want to beat it to death. We are going to have Dr. Inglesby in a few minutes, and his testimony and statement says there is a need for experts from a variety of scientific backgrounds, experts in experimental biology, epidemiology, infectious disease medicine, anthrax vaccine science, and immunology to work together on bioterrorism events. That is his testimony. The CDC center would bring together these experts.

Interestingly enough, in terms of an attack on this country, biological agents could be combined with chemical agents like sarin gas or weaponized in unknown ways. The combined expertise at the center, I think, could help.

Dr. Jeff Koplan, the former Director of CDC, stated that, "Dozens of staff representing several of the laboratories and centers are dedicated to bioterrorism activities, but most do not focus exclusively on bioterrorism." That is the point, I think, you were making.

Secretary THOMPSON. Yes.

Senator CLELAND. It is illogical to expect these staff to be more proficient and effective as a team when 70 percent or more of their time is spent on other duties and 30 percent or less on bioterrorism.

I would just like to put some of these points in the record, and we will hear from Dr. Inglesby in just a moment.

But it is something that I will continue to work on because it does seem to make sense, and also from the private sector, Bernie Marcus, the founder of Home Depot, along with Art Blanc, just donated \$4 million to the CDC for the very purpose of equipping a nerve center like this, and I have noticed that they did not turn that down. [Laughter.]

We will continue to press on in the vineyard.

Secretary THOMPSON. I congratulated him and thanked him very much for that. We appreciate that.

Senator CLELAND. You have been very kind and very cooperative today. We thank you very much. We are in the same boat, and thank you for grabbing your oar and paddling like the dickens.

Secretary THOMPSON. Thank you, Senator Cleland, for having this meeting and thank you for being here, and I want to cooperate with you and work with you on that bioterrorism thing and see if we can work it out so that we can come up with a comprehensive plan.

Senator CLELAND. Thank you, sir.

We will have a 10-minute break before the second panel.

[Recess.]

Senator CLELAND. The Committee will come back to order. I have been told that we will have a vote here momentarily, so let me just move right along.

The Committee has heard an update from Secretary Thompson on the Department of Health and Human Services' public health preparedness for terrorism involving weapons of mass destruction, particularly biological agents. Committee Members have also addressed their concerns and proposals for Congressional action.

We are very fortunate today to have our second panel of bioterrorism and public health experts to respond to our earlier discussion and to share your insights. I am very pleased to introduce our panelists.

Dr. Margaret Hamburg is the Vice President for Biological Programs at the Nuclear Threat Initiative, put together by Ted Turner and run by Sam Nunn. Dr. Hamburg has testified at earlier hearings and has been an invaluable resource on bioterrorism and weapons of mass destruction.

Dr. Tom Inglesby is Deputy Director of the Johns Hopkins Center on Civilian Biodefense Strategies, a wonderful operation, and we thank you very much. Dr. Inglesby is also a physician and specializes in infectious disease medicine. We are glad to have you.

Tom Milne is Executive Director of the National Association of County and City Health Officials and has 15 years of experience as a local public health director in Washington State. Welcome.

We look forward to hearing an update on public health preparedness for bioterrorism. Dr. Hamburg, would you please begin our discussion for our second panel.

**TESTIMONY OF MARGARET A. HAMBURG, M.D.,<sup>1</sup> VICE PRESIDENT FOR BIOLOGICAL PROGRAMS, NUCLEAR THREAT INITIATIVE**

Dr. HAMBURG. Thank you very much, Mr. Chairman, for the invitation today to speak today on the topic of the state of public health preparedness for terrorism involving weapons of mass destruction. Certainly, your leadership and commitment in addressing this challenge come at a crucial time.

Since the events of the fall, considerable new money and attention has been directed towards this problem and they are vital. The response to the anthrax letter attacks surfaced many critical concerns about public health preparedness, particularly with respect to the issues of coordination and communication that the Committee has indicated a strong interest in.

It underscored the difficulties of understanding and coordinating the complex interactions between different agencies of government,

<sup>1</sup>The prepared statement of Dr. Hamburg appears in the Appendix on page 54.

different levels of government, and the private sector, all of which have important roles to play. Responding to this bioterrorist attack required new levels of partnership between public health, medicine, law enforcement, and the intelligence community. However, these communities did not have enough previous experience working together and vast differences in their professional cultures, missions, and needs clashed.

The events of the fall also highlighted the pivotal role of the media and how an open and constructive partnership with the media is paramount in communicating important information to the public and reducing the potential for confusion, fear, and panic.

Last, the management of the crisis was complicated by the fragmented and under-resourced infrastructure for public health and an already strained health care system.

Many things must be done. I have submitted much more detailed formal testimony for the record and I am also submitting a recent editorial I did in *Science* magazine on public health preparedness for the record.<sup>1</sup>

I want to take my time now to mention a few broad concerns related to the problems of coordination and communication.

First, a comprehensive and systematic evaluation of the anthrax response should be undertaken. Surprisingly, this has not yet been done, to the best of my knowledge. Looking within and across the relevant agencies of government, levels of government, and at the relationships of private sector organizations, an informed analysis with identification of gaps in preparedness and response and realistic recommendations for improvement will be of enormous value. A number of entities could undertake this, but there is some urgency to do so before events fade from memory and new priorities overwhelm us, and it cannot just be an individual agency by agency listing of lessons learned but a true cross-cutting analysis.

Clearly, we need comprehensive integrated planning. As Senator Cleland noted, we still need to more clearly define the relative roles and responsibilities of different agencies involved and the mechanisms by which they will interact and work together and do this before we are in the midst of a crisis.

In addition, we still have not adequately prepared top officials to cope with this new type of security crisis. We have not invested adequately in the planning exercises needed to implement a coordinated response, and we have not adequately educated the American people or developed strategies to constructively engage the media to communicate critical information about what is happening and how to protect themselves.

The new Office of Homeland Security is clearly key to such efforts, but there are concerns. It is difficult to imagine how Governor Ridge can successfully bring together and coordinate all the myriad agencies responsible for the different aspects of homeland security without budgetary authority, or at a minimum, budget review and sign-off authority, and cabinet-level status making him at least co-equal to the other members of the homeland security team.

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<sup>1</sup>The Feb. 22, 2002 article entitled "Public Health Preparedness," from *Science* magazine submitted by Dr. Hamburg appears in the Appendix on page 66.

In addition to the Executive Branch, coordination is needed with respect to the activities here in Congress. I am told that literally dozens of committees and subcommittees are involved, and given the complex and multi-disciplinary nature of the problem, it is not surprising that a wide array of committees would have a role to play and completely appropriately. Nonetheless, assuring the comprehensive and well-integrated strategies needed will not occur unless there is equivalent integration, coordination, and communication among committees and leadership on the Hill, and I think this Committee is well positioned to help serve that effort.

As noted by others, key to effective public health preparedness is public health itself. It is an important pillar in our national security framework and must be a full partner at the table. The chair is closer today than it was before, but it still is not full square there. Public health expertise must be a prominent component of the new Office of Homeland Security, and a public health official, in my view, should become part of the White House National Security Council.

And on the ground, there is an urgent need to strengthen and extend the core capacities of our public health system. Our infrastructure—

Senator CLELAND. Dr. Hamburg, we have a vote called. If you do not mind, could you submit that for the record?

Dr. HAMBURG. Certainly.

Senator CLELAND. Dr. Inglesby, could you say some wonderful things to us, and Mr. Milne? I would hate to leave here and let you all hang. Could we move to Dr. Inglesby?

Dr. HAMBURG. Certainly.

**TESTIMONY OF THOMAS V. INGLESBY, M.D.,<sup>1</sup> DEPUTY DIRECTOR, JOHNS HOPKINS CENTER FOR CIVILIAN BIODEFENSE STRATEGIES**

Dr. INGLESBY. Senator Cleland, thank you and the other distinguished Members of the Committee for this hearing.

First, I would like to say that it is important to understand that the anthrax attacks of 2001 produced an extremely complicated set of management problems. CDC had to act faster than it ever had acted before, had to work with public health agencies like it had never done before, communicate with clinicians and nurses like never before, on a scale and a speed which was unprecedented. So there were professionals in all of these agencies, public health agencies, working around the clock, extremely dedicated, with the best intentions and a number of good successes throughout the crisis.

But with all this being said, in my analysis, there are at least three categories of communication breakdowns that are worth calling attention to as we figure out what to do as we move forward. The three categories were the processes of incoming communication, the processes for resolving scientific issues during the crisis, and the processes of outgoing communication.

I mean by incoming communication the processes by which clinicians and doctors who are seeing illnesses or suspected illnesses

<sup>1</sup>The prepared statement of Dr. Inglesby appears in the Appendix on page 67.

could communicate their concerns to public health agencies and to the CDC. In addition to that, there were data streams coming from a variety of directions regarding environmental health data and laboratory data which were coming forward at a pace and of a scale which had never been done before. So simply the task of integrating the data and processing it and forwarding it to public health decisionmakers was a tremendous challenge for public health agencies.

The second category of issues regarded what you mentioned before on the first panel, and that was the processes for resolving the complicated science issues that arose during the crisis. Most people look to CDC for their technical expertise to resolve scientific questions, and that is absolutely appropriate. But during the crisis, we saw science questions that could not be solved by people within CDC alone, and CDC certainly was aware of that and tried to develop processes to answer questions.

But as an example, we ask the question: "Who should get the anthrax vaccine, if anyone?" Of those affected by the anthrax crisis? To answer that question, you needed to know how likely it was that anthrax spores would cause disease after weeks of being in the body dormant? How likely was it that you could diagnose anthrax safely early after the infection begins? How much anthrax vaccine do we have and when will we have more? How safe are the existing anthrax vaccine stocks? All of these questions mandate that we have a variety of scientific competencies at the table, and you have mentioned those already.

Senator CLELAND. Dr. Inglesby, can we have you summarize and move on to Mr. Milne?

Dr. INGLESBY. Absolutely. So I think, in short, the highest level recommendations I would submit for improving communication: (1) improved connectivity between public health agencies and the medical system. There is a breakdown there that is real. Doctors and nurses are not part of the Health Alert Network. So even if we resolve problems of the Health Alert Network, doctors and nurses are still out of the loop.

(2) Clinical information needs to get around the system, as well. Doctors and nurses have a responsibility for figuring out how we are going to get information to each other, and that is a separate problem. Once it is in our system, how do we get to each other?

(3) How do we resolve science questions in the middle of a crisis? How do we communicate better with the public, even if it is bad news? What is the way to do that best?

(4) And finally, exercises are extremely important, and I think a number of initiatives that the Senate has brought up for consideration are extremely useful along these lines. Senator Carnahan has legislation pending, Senator Lieberman has legislation, and so do you, all of which are aimed at addressing some of these deficiencies.

Senator CLELAND. Thank you, Doctor. Mr. Milne.

**TESTIMONY OF THOMAS L. MILNE,<sup>1</sup> EXECUTIVE DIRECTOR,  
GOVERNANCE SUPPORT TEAM, NATIONAL ASSOCIATION OF  
COUNTY AND CITY HEALTH OFFICIALS (NACCHO)**

Mr. MILNE. Thank you, Senator. I am Tom Milne with the National Association of County and City Health Officials. We were asked to provide testimony on two issues. I will be very brief on both.

The first has to do with the relationship between law enforcement and public health. The second is a progress report to you in terms of how the appropriation of Federal bioterrorism funding is translating to action at the local level. Our submitted testimony provides a great deal of detail on both issues.

Just in brief, an effective response at the local level to bioterrorism requires close collaboration between law enforcement and public health, and I am happy to report to you, sir, that is going very well with local law enforcement agencies and local public health. In fact, there is a long history of the two sectors working together.

There are many examples in my testimony. I would highlight one: In the Fulton County Health Department and in the DeKalb County Board of Health in your own State of Georgia, there is an exquisite emergency plan that incorporates law enforcement, public health, and many other first responders.

If there is a problem in collaboration between public health and law enforcement, it is in the lack of clarity in terms of how the various channels of Federal resources can be used at the State and local levels.

Second, in terms of how the funding is translating at the local level, it is too early to tell much. What I can say is there have been mixed results in terms of how the process is going between States and locals. We have concern that enough money will not make it to the local level to make the difference that is needed. We strongly recommend that Federal monitoring of how the resources are ultimately used take place. There are some States where State and local collaboration has been very effective. So there is some hope.

So in very brief summary, the public health infrastructure is critical to bioterrorism, but it also serves dual purposes to building the national public health capacity on a much broader scale.

Senator CLELAND. Wonderful.

Mr. MILNE. Thank you very much.

Senator CLELAND. Thank you all very much. I deeply regret that I have got only 5 minutes left for this vote. You all have been wonderful, very patient. Your testimony means an awful lot to me and we will take it into account.

By the way, the record stays open for a week for any statement or questions or testimony that you want to submit. We have some questions we would like to submit to you for the record.

With that, we thank you very much for coming and thank the staff for putting this hearing together.

The Committee is adjourned.

[Whereupon, at 12:01 p.m., the Committee was adjourned.]

<sup>1</sup>The prepared statement of Mr. Milne appears in the Appendix on page 74.

# APPENDIX



**Testimony**  
**Before the Committee on Governmental**  
**Affairs**  
**United States Senate**

## **HHS Efforts to Coordinate and Prepare for Bioterrorism**

*Statement of*  
**Tommy G. Thompson**  
*Secretary,*  
*Department of Health and Human Services*



For Release on Delivery  
Expected at 9:30 am  
on Thursday, April 18, 2002

Mr. Chairman and Members of the Committee, thank you for inviting me here today, to update you on the Department of Health and Human Services' (HHS) ability to deal with the public health consequences of an attack of terrorism involving weapons of mass destruction. In particular, you asked that I address my Department's coordination and communication with public health agencies and law enforcement in the event of a terrorist attack that has public health implications; and the budgetary requirements of HHS to implement its homeland security measures. Finally, you asked that I discuss the recently initiated consolidation of the communications offices, including legislation liaison and public affairs offices, of all the agencies within the Department.

*Protecting The United States From Terrorist Attacks*

Under the Federal Response Plan, HHS is the lead agency within the federal government for addressing the medical and public health consequences of all manner of mass casualty events whether terrorist-induced, accidental, or naturally occurring.

HHS's preparedness and response to bioterrorist attacks includes a broad range of activities, including epidemic detection and response; maintaining and securing the National Pharmaceutical Stockpile; performing research to improve our methods, training, and health care service delivery; and assisting our state, local and other Federal partners in improving our capability to respond to an emergency. Our HHS- 24 hour-7 days-a-week Emergency Command Center, which I enacted after the events of September 11, includes experts from several HHS agencies and includes two army war college fellows.

We are working closely within the Administration with all our partners to improve Federal response. For example, since the intentional release of anthrax spores, one of the areas on which my Department's Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA) have focused, is the identification and cleanup of contaminated facilities. To assess whether anthrax contamination had occurred, we have refined methods for environmental sampling of air and surfaces. CDC, along with HHS's Agency for Toxic Substance and Disease Registry (ATSDR), has issued recommendations on how to conduct environmental sampling and how laboratories should analyze those samples. In addition, recommendations have been made regarding environmental sampling strategies to characterize the extent of exposure in order to guide cleanup. During the anthrax outbreak, recommendations were distributed to protect first responders, investigators, and cleanup personnel. As contaminated buildings were identified, we provided technical input to EPA and others tasked with cleanup to determine where remediation was necessary. These recommendations have been widely disseminated to federal, state and local health and environmental agencies, and are available at CDC's bioterrorism website (<http://www.bt.cdc.gov>).

I take preparedness efforts very seriously. In fact, I have created the Office of Public Health Preparedness (OPHP) within the Office of the Secretary and recruited as its first Director Dr. Donald A. Henderson, an internationally acclaimed leader in public health. OPHP directs and coordinates HHS preparedness and response activities related to bioterrorism and other public health emergencies. In addition to the Office of Public Health Preparedness' role in

improving the management and coordination of HHS's bioterrorism response, it has served as liaison with key organizations outside HHS (such as the Office of Homeland Security (OHS) and the academic and industrial communities).

Terrorism is both a National and local issue, and HHS is also working to coordinate planning, training, and consequence management actions at State and local levels. The recently awarded cooperative agreements will enhance the terrorism-relevant capabilities of state and local health departments and hospitals across the nation; emphasize state-wide and regional planning; and focus more efforts on training of health professionals and other responders. As work under the cooperative agreements progresses, HHS will collaborate with its state and municipal partners to identify exemplary practices in preparedness planning and encourage that common approaches be taken wherever appropriate. For example, in striving to help states and municipalities strengthen their information technology capabilities, HHS will place a high priority on achieving inter-connected communications systems and databases that can operate in harmony with one another.

The Emergency Supplemental funding HHS recently awarded to State and local health departments for bioterrorism preparedness planning and response includes guidelines which outline critical benchmarks and capacities that must be addressed in order to assure that communities are indeed prepared for any public health emergency. We will also be monitoring state activities closely to ensure accountability of the funding. For example, we have recommended that in order to provide an effective response, working links need to be developed and strengthened between health department staff and law enforcement, by establishing

designated points of contact; cross-training in each discipline; and joint sponsorship and attendance at conferences and other educational forums.

I, and HHS Senior staff, Dr. Henderson in particular, coordinate our anti-terrorism activities closely with the OHS. Dr. Henderson is in frequent contact with Governor Tom Ridge regarding inter-departmental activities as well as specific HHS initiatives. Dr. Henderson recently briefed OHS staff about the awarding of more than \$1 billion to all 50 States, 4 selected major municipalities (the District of Columbia, Los Angeles County, Chicago, and New York City), and the 5 U.S. territories, for state and local preparedness for bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies. In addition, my Deputy Secretary, Claude Allen, participates routinely as a member of the Office of Homeland Security's Deputies Committee, which is the primary senior-level forum for inter-Departmental communication and coordination. Also, several other HHS senior staff participate in more specialized inter-Departmental groups, called Policy Coordinating Committees, that support the work of the Deputies' Committee.

The Department has actively participated on several Homeland Security Council Policy Coordinating Committees which have relevance to both national security and public health. Outcomes of discussions held during committee meetings have contributed to consensus on strengthening information sharing among law enforcement, the intelligence community, and HHS.

Such activities have challenged HHS and other Federal agencies but ultimately have led to better coordination of the complex functions of incident command and consequence

management during a terrorism incident, when both epidemiologic and criminal investigations may be vital to an effective response. Ongoing discussions have led to a better working relationship between our Departments, and I believe will foster timely and effective communication during both assessments of potential threats and during actual times of crisis.

I also want to emphasize that there have been multiple points of collaboration between HHS and law enforcement. For example, early in the anthrax investigations last fall, the CDC detailed personnel to work with FBI staff, in order to foster better understanding and appreciation of the working culture and criteria involved in criminal investigation, and to enable better understanding of inter-agency protocols and priorities. Since the anthrax attacks, HHS, the FBI, and DOD have developed a shared research agenda, and we have provided assistance to the FBI in the genetic sequence analysis of the anthrax samples collected from the envelopes sent through the mail.

The reality of bioterrorism has made us realize that we must rise to the challenge to work together effectively in the most difficult of circumstances. There are going to be communication and coordination challenges between Federal, state, and local governments. In a time of crisis, all need to work together to get out accurate and timely information to the public, send medicine where needed, and mobilize the medical and rescue personnel needed to respond. We continue to make significant progress in this area.

*Costs of Counter-terrorism Efforts*

Earlier, Mr. Chairman, I alluded to some of the current year funding Congress provided to HHS for its terrorism preparedness activities. The FY 2003 budget request for HHS is \$4.3 billion, an increase of \$1.3 billion, or 45 percent, above FY 2002 and more than triples the FY 02 levels excluding funds from the Emergency Response Fund Supplemental. This budget supports a variety of activities to prevent, identify, and respond to incidents of bioterrorism. These activities are administered through the CDC, the National Institutes of Health (NIH), the Office of Emergency Preparedness (OEP), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Health Resources and Services Administration (HRSA), the Agency for Healthcare Research and Quality (AHRQ), and the Food and Drug Administration (FDA). And, as previously mentioned, these agencies will coordinate with the newly established Office of Public Health Preparedness (OPHP).

In order to create a blanket of preparation against bioterrorism, the FY 2003 budget provides funding to State and local organizations to improve laboratory capacity, enhance epidemiological expertise in the identification and control of diseases caused by bioterrorism, provide for better electronic communication and distance learning, and support a newly expanded focus on cooperative training between public health agencies and local hospitals. This will continue the unprecedented infusion of funds provided this year for State and local health departments and their partners to equip and train themselves to respond to potential acts of terrorism.

The Department has recently received from most States their plans on how they propose to use over \$1 billion awarded at the beginning of this year. States have had access to up to 20%

of these funds for immediate needs, and for developing their bioterrorism response plans. Within thirty working days after the a State plan is received, the Department, with the aid of its host of public health and emergency response experts, will have reviewed these plans, negotiated any needed changes with States and have approved the release of the remaining 80% of funds. States can use these resources for enhancements to labs, communication and surveillance systems, hospital preparedness and emergency response. The FY 2003 budget would provide resources to develop these vital components further, with a specific focus on medical and hospital response, including funding for infrastructure improvements such as infectious disease containment facilities.

Funding for the Laboratory Response Network enhances a system of over 80 public health labs specifically developed for identifying pathogens that could be used for bioterrorism. Funding will also support the Health Alert Network, CDC's electronic communications system that provides Internet connectivity to public health departments in ninety percent of our nations' counties. Funding will be used to support epidemiological response and outbreak control, which includes funding for the training of public health and hospital staff. This increased focus on local and state preparedness serves to provide funding where it best serves the interests of the nation.

An important part of the war against terrorism is the need to develop vaccines and maintain a National Pharmaceutical Stockpile. The National Pharmaceutical Stockpile is purchasing enough antibiotics to be able to treat up to 20 million individuals in a year for exposure to anthrax. The Department is purchasing sufficient smallpox vaccines for all Americans in FY 2002. The FY 2003 budget proposes \$650 million for the National

Pharmaceutical Stockpile and costs related to stockpiling of smallpox vaccines, and next-generation anthrax vaccines currently under development.

Another important aspect of preparedness is the response capacity of our nations hospitals. Our FY 2003 budget provides \$518 million for hospital preparedness and infrastructure to enhance biological and chemical preparedness plans focused on hospitals. The FY 2003 budget will provide funding to upgrade the capacity of hospitals, outpatient facilities, emergency medical services systems and poison control centers to care for victims of bioterrorism. In addition, CDC and FDA will provide support for a series of exercises to train public health and hospital workers to work together to treat and control bioterrorist outbreaks. Today, the United States has one of the world's safest food supplies. However, since the September 11 attacks, the American people have a heightened awareness about protecting the nation's food imports and food supply at home. The FY 2003 budget supports a substantial increase in the number of safety inspections for FDA-regulated products that are imported into the country and a corresponding increase in laboratory capability to support increased inspections. Physical examinations of food imports will double in FY 2002 over the previous year, and double again in FY 2003. We anticipate further progress as new staff becomes fully productive.

The FY 2003 budget also includes \$184 million to construct, repair and secure facilities at the CDC. Priorities include the construction of an infectious disease/bioterrorism laboratory in Fort Collins, Colorado, and the completion of a second infectious disease laboratory, an environmental laboratory, and a communication and training facility in Atlanta. This funding

will enable the CDC to handle the most highly infectious and lethal pathogens, including potential agents of bioterrorism. Within the funds requested, \$12 million will be used to equip the Environmental Toxicology Lab, which provides core lab space for testing environmental samples for chemical terrorism. Funding will also be allocated to the ongoing maintenance of existing laboratories and support structures.

*Efficiency Initiative - HHS Consolidation Efforts*

Finally, permit me to briefly address an HHS initiative aimed at greater efficiency in the operation of our Department. A key objective of the President's Management Agenda is a more responsive, more "citizen-centered" federal government. In few federal agencies is the need for organizational reform more acute than at HHS, where a long history of decentralized decision-making has produced a Department with 13 operating divisions, functioning with relative autonomy. As a result, a complex web of ever-proliferating offices has distanced HHS from the citizens it serves and has produced a patchwork of uncoordinated and duplicative management practices that hinder its efforts to accomplish its mission efficiently. This Administration supports and is committed to solving this problem through my "One Department" initiative, which will eliminate unnecessary layers of bureaucracy and consolidate duplicative functions into unified offices. Streamlining efforts in 2003 will focus on HHS' human resources, public affairs, legislative affairs, and building and facilities management functions.

- *Public Affairs and Legislative Affairs*

The Department has initiated consolidations in the Public Affairs and Legislative Offices as a part of the overall workforce restructuring in HHS. The goal is to improve the accuracy of information to Congress and the public, and improve management efficiencies.

Currently, there are more than fifty public affairs offices and more than 20 legislative offices spread throughout thirteen Operating Divisions. In Fiscal Year 2003, this structure will be streamlined to create one consolidated office for all HHS public affairs, and one for all legislative affairs. Unnecessary layers of bureaucracy will be eliminated, and duplicative functions will be consolidated into unified operations.

HHS is in the process of developing a detailed plan for executing these consolidations. This effort entails working closely with each Operating Division to determine the positions involved, the job duties involved, and how best to restructure the operations within each agency into a coordinated effort. The Assistant Secretaries of Public Affairs and Legislation are currently meeting with the respective directors in each division to gather the necessary information and generate ideas for the transition. Also, the Office of Secretary Executive Office (OSEO) is providing technical assistance on administrative and human resources issues.

While public affairs and legislative affairs functions will be consolidated in the Office of the Secretary, staff associated with these functions will continue to work in the programs in which they have expertise. The goal is to create a cohesive structure that supports the development and execution of clear, timely, and fact-based communication with Congress and

the public. I am confident that these efforts will improve the Department's ability to respond to any potential terrorism or other crises in the future.

- *Buildings and Facilities Management.*

HHS agencies seek to make certain the nation's biomedical research and health care services are conducted in safe labs and hospitals. In the past, NIH, CDC, and HRSA each administered their own building maintenance and construction projects.

HHS' performance in building construction can be improved. One of our challenges as a Department is uneven project planning and oversight. HHS does not have a department-wide performance measure that articulates national priorities for health care facilities. As a result, construction projects often get selected for reasons other than merit, including congressional earmarks. The President's Budget addresses this challenge by:

- 1) Concentrating leadership, programmatic expertise, and project oversight in the HHS Office of the Secretary;
- 2) Instituting a comprehensive framework that prioritizes all capital projects across HHS; and
- 3) Implementing a department-wide measure linked to program outcomes.

The budget consolidates facilities construction and maintenance activities for NIH, CDC, and HRSA in the Office of the Secretary so that HHS can manage buildings competitively across the Department. In 2004, FDA and IHS will be included in this consolidation. This

consolidation will give HHS tremendous flexibility in allocating funding to the highest priority projects and is fully in line with my vision for a unified HHS.

**Conclusion**

The Department of Health and Human Services is committed to working with other federal agencies, the law enforcement community, and our state and local public health partners to ensure the health and medical well-being of our citizens. These efforts also allow us to work toward integrating our respective initiatives into a government-wide framework. Our ongoing relationships with state and local governments have been reinforced in recent years as a result of the investments we have made in bioterrorism preparedness. Without their engagement in this undertaking, we would not be seeing the advances that have been made in recent years.

We have made substantial progress to date in enhancing the nation's capability to respond to biological or chemical acts of terrorism. But there is more we can do -- and will do -- to strengthen the response.

Mr. Chairman, that concludes my prepared remarks. I would be pleased to answer any questions you or members of the Committee may have.



**Testimony of Margaret A. Hamburg, M.D.  
Vice President of Biological Programs, Nuclear Threat Initiative  
Senate Committee on Governmental Affairs  
April 18, 2002**

Mr. Chairman and members of the Committee, thank you for the invitation to discuss the state of public health preparedness for terrorism involving weapons of mass destruction. Your leadership and commitment in addressing this challenge comes at a crucial time.

The tragic attacks of September 11, 2001 and the subsequent use of anthrax as a weapon have made us painfully aware of our nation's vulnerability to terrorism, including bioterrorism. We must acknowledge the reality that neither technical barriers nor moral repugnance will protect us from future acts with enormous potential destructive power. We must also recognize that an event does not need to cause mass casualties, in terms of victims or actual deaths, to still be terrorizing and to drastically disrupt life as we know it, undermine public confidence in government and other critical institutions, create panic-- possibly disorder--and inflict enormous economic consequences.

We cannot afford to be complacent. Now is the time to define and support a clear action agenda for countering the threat of terrorism involving weapons of mass destruction/disruption. My testimony will focus primarily on public health preparedness and response requirements with respect to bioterrorism, although certain aspects of the public health preparedness needs discussed will apply more broadly to the concerns of a chemical or radiological attack.

Over the past several years, a number of important steps have been taken to improve our preparedness against the threat of bioterrorism. Prior to the events of the fall, significant programs and policies were being developed and implemented to address this complex challenge. In fact, many of those proved to be of value in the face of the attacks, including the pharmaceutical stockpile, the Laboratory Response Network, and upgrades to public health infrastructures for disease surveillance and response. Yet it was long recognized that these programs were not enough: many activities desperately needed to be strengthened and extended; others still needed to be developed and put in place.

Sadly, it often takes a crisis to mobilize the full commitment necessary to address a task, even one as important as terrorism readiness. Today, bioterrorism is no longer a hypothetical event. Our nation has experienced its first documented lethal bioterrorism attack, and another attack could occur again at any time, from many potential sources and using many potential biological agents. Furthermore, the magnitude of such an attack could be far greater than what we have experienced to date.

Realistically, it is not possible to fully prepare for every potential, imaginable threat. Nonetheless, it is possible for our nation to shore up its general Biodefense/public health

preparedness to a level at which we can minimize, if not prevent, the potentially catastrophic consequences of a large-scale bioterrorist attack.

#### **Response to Anthrax**

Certainly our recent experiences with anthrax disseminated through the mail can teach us many lessons. These anthrax attacks were, in fact, low intensity, low casualty events compared to what could have happened. While tragic, only 5 people died, yet the letter attacks were destabilizing in ways that extended far beyond the body count, and far beyond the sites where anthrax-tainted letters actually traveled. These anthrax-containing letters were enormously costly in both human and economic terms, and we were inadequately prepared on virtually every level. It is sobering to think how that same anthrax powder introduced into the ventilation system of a major building or two could have produced a horrifyingly worse scenario. Or what might have followed had an attack occurred with a communicable disease agent that spread person-to-person in ever-widening circles of infection and death.

The response to the anthrax events of the fall surfaced many critical issues and concerns. In a fundamental way, it demonstrated significant disconnects between current organizational structures and capabilities and the management needs and operational requirements of an effective bioterrorism response. It underscored the difficulties of understanding and coordinating the complex interactions between different agencies of government, different levels of government, and the private sector – all of which have important roles to play in an effective bioterrorism response. These events also underscored the intertwined legal, ethical, political and logistical difficulties that attend disease control, even when not contagious. In addition, responding to this bioterrorist attack required new levels of partnership between public health and medicine, law enforcement and intelligence. However, these communities did not have enough previous experience working together, and vast differences in their professional cultures, missions and needs clashed. The events of the fall also highlighted the pivotal role of the media, and how an open and constructive partnership with media is paramount in communicating important information to the public and reducing the potential for confusion, fear and panic. Lastly, these events also clearly illustrated that management of such a crisis occurs in the context of a fragmented and vastly under-resourced infrastructure for public health in this nation, and an already strained health care system that faces severe limitations on certain critical resources, including the lack of approved drugs and vaccine, hospital beds, and laboratory testing capacity.

In this time of heightened anxiety and concern, our nation has a real opportunity—and obligation—to make sure that we have in place the right programs and policies necessary to better protect ourselves against this threat, and perhaps to prevent such an attack from occurring in the first place. What is more, there has been a dramatic increase in the resources available to combat this emerging threat. So what needs to be done?

#### **Public Health Preparedness: What is Required?**

Even though our nation has experienced its first lethal bioterrorism attack, we cannot assume that the public and key policy makers truly understand the threat that still looms before us. We need to continue to clearly define the threat. The recent anthrax attack was as close to a traditional HAZMAT type of event as a biological event could be in terms of a defined source, and in the

sense that teams could arrive at the site, define a perimeter, and identify those who required care. But it must be emphasized that there are many potential biological scenarios that could unfold in very different ways, requiring a different focus, different strategies, and different investments. In this attack, the anthrax was delivered through the mail. But there are many other modalities that would lead to an unfolding disease epidemic with an unknown source. We would not know who had been exposed, nor would we even recognize the attack until cases started to appear in health care centers and hospitals across the country.

There is a continuing need to define and communicate the vital set of roles and responsibilities of our public health system in responding to the bioterrorist threat. Experts agree that there is an urgent need to increase the core capacities of our public health infrastructure to detect, track and contain infectious disease. This means providing resources to strengthen and extend effective infectious disease surveillance systems, including trained personnel, enhanced diagnostic laboratory facilities, and improved communication links across all levels of government and in the private sector. To a large degree, these same systems and activities are crucial to detection and response needs in the context of naturally occurring infectious disease threats. This is an example of “dual-use” in the most positive sense. It provides the additional benefit of assuring that some of our most fundamental tools for bioterrorism preparedness and response will be utilized as regularly as possible so that we are not testing new systems and approaches for the first time in the midst of a crisis. Response will begin at the local level, thus we must ensure capacity at that level. This capacity must be supported by state and federal assets and capabilities as needed.

As noted, we need to recognize that the bioterrorism threat is embedded in a set of infectious disease concerns for which we should also be better preparing our nation. At the same time, there are some unique preparedness programs that pertain specifically to the bioterrorism threat, for example the national pharmaceutical stockpile. As the nation moves forward with its plan to expand the national pharmaceutical stockpile, our efforts should be linked with the best possible intelligence about what the real and credible threats are. The stockpile must be linked to a real time distribution system. We need to make much more concrete plans with regard to how we are going to distribute the drugs, vaccination, or other interventions that would need to be rapidly mobilized in a mass casualty situation involving very large numbers of individuals.

We also need to consider how to best to prepare the medical care system to surge rapidly in the event of a mass casualty situation. This will require careful advance planning since most hospitals are operating at or near capacity right now. Systematic examination of local capabilities—public and private sector— and how they can be rapidly augmented by state and federal assets must be part of this effort. There were not enough surviving victims of the New York City September 11 attack to really test the system's ability to respond to a mass-casualty terrorist attack, yet when we read reports in the newspaper of recent studies showing that, on a routine basis, one out of three hospitals in urban settings have their emergency rooms on diversion because of bed and staffing constraints, there is clear cause for concern.

In order to build our knowledge base and better prepare our nation in both the short and long term, we need to define a clear research agenda and invest appropriately to pursue that agenda.

This involves R&D for new drugs and vaccines; improved diagnostics for human samples; improved environmental detection capability; and basic research on how these organisms cause disease and how the human immune system responds. Basic research will be essential for developing better drugs and vaccines. We also need the type of systems research that will help us better understand the issues that have been vexing in the anthrax response over the past couple of months, such as environmental decontamination and personal protection.

Finally, we must focus on prevention—a key tenet of public health—and do everything possible to prevent such an attack from occurring in the first place. A key element of prevention is intelligence. Recent events have led to a commitment to improve overall intelligence collection. The public health and scientific community can and should play an important role in this. There is a desperate need for greater biomedical and scientific expertise to be applied to intelligence data collection and analysis. In addition, members of the scientific community may yield new understandings through routine international scientific activities and collaborations, as well as insights into what information is available in the open scientific literature, including what could be potentially misused or misapplied by those who want to do harm. Similarly, public health professionals may have important insights into infectious disease outbreaks or events of potential significance. As such, these scientists may be crucial to building new expertise in this complex area within the intelligence community.

The scientific medical community will also need to engage on the issue of improving biosecurity in terms of reducing access to dangerous pathogens. Steps have been taken in recent years through the select agent rule at the CDC and some of the new germ bank regulations. But the anthrax situation has demonstrated that we still don't have an adequate handle on whether dangerous pathogens are secured, who is using them, and why. The scientific community needs to mobilize now to help reduce real risks in a way that will not be overly cumbersome to legitimate science and the research enterprise.

We must recognize that while advances in science and technology hold enormous promise for improving health, they also present many opportunities for misapplication or inadvertent harm. The Australian mousepox study is one example of an inadvertent finding that has laid out a road map for others to make an already dangerous pathogen more lethal.

Finally, we need to recognize that there is a great deal that can be done to further secure or destroy dangerous biological materials in the former Soviet Union. We need to expand and accelerate existing Cooperative Threat Reduction (CTR) partnerships (some portion of which is currently on hold), and develop new partnerships with former Soviet scientists who were once part of the bioweapons program but are now under- or unemployed. We have an opportunity through those collaborations to address critical public health and medical issues of mutual concern and reduce the possibility of further development or spread of biological weapons.

### **Challenges for the Future**

In the aftermath of the tragedies this past fall, considerable new attention and financial support is being directed towards combating the threat of bioterrorism, and other possible catastrophic attacks. This is an exciting opportunity, and affords the chance to address many troubling and persistent gaps in public health preparedness. This is a complex challenge and a great deal needs to be done. There will be no quick fixes or simple solutions. Approaches must be comprehensive and investments must be both well directed and sustained, if we are to achieve meaningful and enduring solutions to the problems before us.

The Committee has indicated a serious and appropriate concern as to issues of coordination and communication. In response, I want to raise a set of potential concerns and/or opportunities:

(1) An independent and comprehensive after-action review of the response to the anthrax letters should be undertaken. It is essential to future preparedness and response efforts that a thoughtful, comprehensive and systematic examination of the anthrax episodes/response be undertaken by a qualified, unbiased entity. This must be done in a rigorous fashion, looking within and across the relevant agencies of government, levels of government and at the relationships with private sector organizations. We cannot afford to let these incidents go by without taking formal stock of what happened, what should have happened (but did not), and what needs to be done to improve response in the future. This must be more than a listing of lessons learned. It needs to be a well-researched report, with thoughtful and informed analysis, identification of gaps in preparedness and response, and realistic recommendations for improvement. Such an examination might be something that the Permanent Subcommittee on Investigation might want to consider, or it could be undertaken by an agency such as GAO. The Committee might also seriously consider requesting that such a report be undertaken by a non-governmental entity such as the National Academy of Sciences or an appropriate academic institution. To the best of my knowledge, no such exercise is currently underway in a crosscutting and systematic manner. Recognizing that the saga of the anthrax letters is still unfolding, there is still a real urgency to undertake such a process, before many events fade from memory and before new events and priorities overwhelm us.

(2) Government coordination and communication. The response to anthrax demonstrated many gaps in the effective coordination of government led response activities and the need to enhance our ability in a crisis to gather information and communicate it efficiently to all relevant parties. For example, among the public health agencies at the local, state, and federal levels, concerted efforts were made to work together as a team. Yet these efforts were clearly hampered by inadequate systems for information sharing, jurisdictional issues and the fact that people and facilities were rapidly overwhelmed by the competing demands of response to the crisis. Similarly, communication and coordination between the public health and law enforcement communities followed along the same path, although these were further exacerbated by the differences in mission, goals and professional cultures between these two different, but important elements of an effective response. In those places where efforts had been undertaken ahead of time to create relationships based on trust before the anthrax events of the fall, operations went

more smoothly and information was exchanged with greater regularity and reliability. But the range was enormous.

At the federal level, certainly, attempts were made to increase communication and cooperation during the crisis. For example, the Centers for Disease Control and Prevention sent one of their own up to FBI Headquarters in Washington, DC. But this “foreign exchange” is not ongoing. Processes, systems, funding, and organizational emphasis are not yet in place to support it.

Across many domains, it was evident that effective response requires stronger working relationships across levels of government. While national leadership, guidance and support is essential, it must be recognized that much of the initial crisis response and subsequent consequence management unfolds at the local level. “On-the-ground” local providers – public health and medical professionals, emergency response personnel, law enforcement officials and government and community leaders – provide the foundation of the response and deal with the problem from the moment the first cases emerge until the crisis is over.

A recent GAO report identified over 20 federal departments and agencies as having a role in preparing for or responding to a bioterrorist attack. Similar constellations of diverse agencies might be engaged to respond to other forms of public health emergency. Although efforts have been made to better coordinate federal efforts to combat terrorism, significant fragmentation continues to exist. Opportunities do exist to clarify lines of authority, streamline operations and increase accountability.

One small example recently brought to my attention concerns the fact there are three federal department sponsored assessments, planned or underway, asking states to assess their preparedness status and/or develop plans. The departments involved are DOJ/OJP, HHS and FEMA. Each one has a different purpose and a different approach—all justifiable from a certain perspective. Yet on the receiving end, this can create a confusing picture, and can represent potentially overlapping or competing tasks. It can also mean that important data collected from one assessment may not get shared to improve the programs or policies of other sister agencies. While these assessment/planning activities likely should remain discrete activities, there would be great benefit in central coordination to ensure interaction in the development and implementation of such activities to encourage new efficiency, information sharing, and avoid unnecessary duplication of effort or confusion.

As a nation, we need comprehensive, integrated planning for how we will address the threat of bioterrorism, focusing both on prevention and response. We need to define the relative roles and responsibilities of the different agencies involved, and identify the mechanisms by which the various levels of government will interact and work together. The new Office of Homeland Security is well situated to take on this task, but it remains to be seen whether they have the tools and ability to achieve this important goal. I certainly hope they can. However, it is difficult to imagine how Governor Ridge can successfully bring together and coordinate all the myriad agencies responsible for different aspects of homeland security without budgetary authority—at a minimum, budget-review and sign-off authority—and Cabinet level status making him at least co-equal to the other members of the homeland security “team.”

In addition to the Executive Branch, coordination efforts must be taken with respect to the organization and activities of Congress to address the threat of catastrophic terrorism. At present, I am told literally dozens of committees/subcommittees are exercising oversight, as well as authorizing and/or allocating resources. Given the complex and multidisciplinary nature of the problem, it is not surprising that a wide array of committees would have a role to play. Nonetheless, assuring the kind of comprehensive and well-integrated strategies needed for effective prevention, preparedness and response will not occur unless there is equivalent integration, coordination and communication among committees and leadership on the Hill.

(3) Importance of public health. We must assure a strong and well-functioning public health infrastructure, capable of responding to any and all threatening biological events, including, but not limited to, acts of bioterrorism. This infrastructure needs to be characterized by a well-trained cadre of public health professionals for disease surveillance and investigation, educated and alert health care providers, upgraded laboratories to support identification, and improved communications and coordination among all responding entities, and across the public and private sectors. Funding must support efforts at the local, state and federal levels and must be sustained for the longer term. Investments must include manpower training and support, planning/exercises resources and laboratory improvement and new procedures. It should be noted that dozens and dozens of public health professional were taken away from their normal and often quite essential job functions in other areas of importance to health, leaving those activities unattended, during the response to the anthrax attacks. Similarly, public health laboratories throughout the nation are still trying to catch up after having to test thousands of specimens thought to contain or be covered with anthrax powder.

State and local public health departments represent the backbone of our ability to respond effectively to a major outbreak of disease, including a bioterrorist attack. Yet these public health agencies have never been adequately supported or equipped to fulfill this mission. In fact, many hesitate to call the array of health structures at the state, county, and local level a public health "system," because years of relative neglect and underfunding have left them undercapitalized, fragmented, and uncoordinated. If the public health infrastructure in this country is allowed to fall into further disrepair, we will not be able to respond effectively to future incidents.

Unfortunately, if we look at bioterrorism preparedness efforts to date, necessary public health and related medical care activities continue to be underdeveloped and underfunded. Only a very small percentage of funding has supported activities that truly can be considered core elements of an efficient and effective program to address the bioterrorist threat. Clearly, very substantial new monies will now be available. We must ensure that a significant component of those resources are targeted to address these critical concerns.

We must act on the understanding that public health is an important pillar in our national security framework and public health professionals must be seen as full partners on the American national security team. Public health expertise should be an important and prominent component of the new Office of Homeland Security, and a public health official should become part of the White House national security team.

(4) Increase the capacity of our health care system to provide mass casualty care. Controlling disease and caring for the sick will deeply engage the public health and medical professions. To a very considerable degree, health care in this country is provided through the private and voluntary sector. There are currently many pressures on health care providers and the hospital community that limit their ability to prepare in some of the critical ways necessary for effective planning in the face of the bioterrorist threat. The enormous downsizing that has occurred, the competitive pressures to cut costs, the just-in-time pharmaceutical supplies and staffing approaches, and the limited capacity for certain specialty services such as respiratory isolation beds and burn units that may become critical in a biological or chemical terrorist attack, all need to be recognized and addressed.

We must be realistic about the potential costs that would be incurred by these institutions and individuals, as well as the enormous up-front investments needed if they are truly to prepare. And in many ways, if you are a health care institution today, making those preparatory investments is a high-risk undertaking. By preparing, you are also almost certainly setting yourself up to incur a series of costs that may not be reimbursed after the crisis is over.

Effective public health preparedness demands new partnerships and improved coordination between government and the non-governmental health care providers. It is evident that we must find better ways to strategically support our health care and public health institutions, because of the implications of a bioterrorist attack and also because of the existing demands on the system, as evidenced this past year when a routine flu season overwhelmed hospital capacity in several cities, and the fact that one in three hospitals already turn away traumas because they are already operating beyond capacity.

There is an urgent need to develop programs that target dollars for health care disaster planning and relief, including training, templates for preparedness, and efforts to develop strategies in collaboration with other critical partners for providing ancillary hospital support in the event of a crisis. This could be done either through the army field hospital model or what was done in the 1918 pandemic flu, when armories, school gymnasiums and the like were taken over to provide medical care. We can take advantage of and build upon decades of disaster planning. In so doing, we need to support local and state planning efforts to assess community assets and capabilities, and we need to take a look at what federal support can realistically be brought to bear locally in a crisis. Federal assets that are mobilized in hours that take even longer to appear on scene are by definition part of a secondary response to an event.

(5) We must build on existing, productive systems. Effective strategies must build on existing systems where possible, but build in flexibility and dispense with old systems that simply are not up to the tasks required. We do not want to develop an entire ancillary system for responding to the bioterrorist threat. Rather, we should strive to integrate our thinking and planning into the continuum of infectious disease threats and potential disasters to which public health agencies are already charged to respond. The last thing we want is to find ourselves trying out a plan for the very first time in the midst of a crisis. Instead, we want to find the systems that work in routine activities and then identify what we need to do to amplify or modify them to be

appropriately responsive for these more acute and catastrophic situations.

(6) Budget coordination/robbing Peter to pay Paul? While I could not be more enthusiastic about increasing funding for biodefense, I do want to raise a note of caution that attention be paid to how resources are being allocated and utilized. First and foremost, we must ensure that these new and very significant resources be distributed in a manner that reflects a carefully considered strategic framework for action, accountability for how the resources are actually spent, and sustainability so that we do not have a single infusion of resources with no follow-through. There is no one-shot activity that can rebuild our faltering public health system, provide the needed surge capacity that our health care system will need to cope with a public health emergency or the demands of mass casualty care, or provide the biomedical breakthroughs that will represent new tools for preparedness in the future. Thus far, my impression is that the administration is very mindful of these concerns in how they are structuring their programs and program oversight.

In addition, however, preparing against the threat of bioterrorism requires a multifaceted approach, and as mentioned earlier, critical components may rest on many broader program and systems. The budget process must reflect this concern, and requires comprehensive attention so that unintentional dislocations in capacity or function do not occur. We certainly do not want to inadvertently undermine the very programs and infrastructures that form the foundation of efforts to prevent or respond to a bioterrorist attack.

For example, concerns have been raised that while large sums of money are being put into the public health components of bioterrorism preparedness at CDC, cuts have been proposed for the CDC Emerging Infections Program and other aspects of public health infrastructure support. These programs are all inter-connected. An effective program of public health preparedness for bioterrorism can only be built on a strong, effective and broad based infrastructure for public health.

In a related arena, meaningful response capability for bioterrorism must rest on a robust and flexible health care system. Already we know that most hospitals are operating in a precarious financial environment, with limited ability to “surge” in response to increased demands for care. While new dollars have been targeted to support planning for how institutions and regions might respond in the event of a mass casualty attack, other components of the budget, such as shifts in Medicare reimbursement to hospitals—quite far afield from bioterrorism budgets—may have more profound effects on the stability of these institutions. For urban areas in particular, we will depend on the network of hospitals to provide a number of critical element of public health preparedness, including: clinical and laboratory detection and response through emergency rooms, trauma centers and health care clinics; ongoing medical assessment and care; and medical education and training to ensure that our medical providers can recognize and respond to a range of unfamiliar and unexpected threats. Particularly for these urban hospitals centers, certain proposed cuts in the Medicare program have the potential to severely limit their effectiveness as part of our overall system for public health preparedness and response in a crisis.

(7) Clarify and coordinate legal authorities. In planning for an effective response, an array of legal concerns needs to be addressed. A very basic and still inadequately addressed issue is that

of the declaration of an emergency. What are the existing authorities? Are they public health, or do they rest in other relevant domains? What are the criteria for such a declaration? What are the authorities that still need to be established?

Other outstanding legal questions concern the ability to isolate, quarantine, or detain groups or individuals; the ability to mandate treatment or mandate work; restrictions on travel and trade; the authority to seize community or private property such as hospitals, utilities, medicines, or vehicles; and the ability to compel production of certain goods. Also, questions involving emergency use of pharmaceuticals or diagnostics that are not yet approved or labeled for certain uses need to be answered now. Related to this are the, as yet, unresolved issues of liability and indemnification which have been especially troubling in the context of vaccine development and delivery, for both routine and possible biodefense needs.

These questions involve many different levels of government and sectors of society, many different laws and authorities, and involve many complex intertwined ethical, political and economic issues. In a systematic and coherent way, we must address these pressing issues and concerns - not just what laws are in place or could be put in place, but also what policies and procedures would be necessary to actually implement them.

(8) Coordination and partnership with the media. The media is key to efforts in a crisis to communicate important information to protect health and control disease, as well as to reduce the potential for panic. We have seen both the press and the public receive a crash course on anthrax. They have been fast learners, and for the most part, the media has done a credible and responsible job in communicating this important information. They have also nobly sought to respond to the need of the public for information when our federal institutions were too slow in response. But there must be a clear plan for providing the news media with timely and accurate information. Furthermore, the credible and consistent voice of well-informed health officials is critical to this effort.

It is clear that the ability of the media to mobilize effectively in a crisis is greatly enhanced by a process of ongoing and continuing mutual communication and education in calmer times. We must strive for the development of a set of working relationships grounded in trust - trust that they will be provided with factual information in a timely and appropriate manner, and in turn, that they will use that information in a responsible, professional way. No doubt there will always be tensions between the desire to get out a good story and an appreciation of the complexities, sensitivities and uncertainties inherent in such a crisis. But stonewalling the press or viewing them as the enemy is virtually guaranteed to make the situation worse. The responsibility the members of the media feel to provide the public with needed information as quickly as possible must not be discounted.

(9) Plan, prepare and practice. Perhaps most fundamentally, the anthrax events of the fall demand that we increasingly engage in planning and preparation—across all the domains mentioned above and more. Planning can make a difference, but we could not begin to prepare in the midst of the anthrax crisis. We still have not adequately prepared top officials to cope with this new type of security crisis; we have not invested adequately in the planning and exercises needed to

implement a coordinated response; and we have not adequately educated the American people or developed strategies to constructively engage the media to educate people about what was happening and how to protect themselves.

Prior planning and preparation can greatly mitigate the death and suffering that results from a serious bioweapons attack. As a nation, we need comprehensive, integrated planning for how we will address the threat of bioterrorism, focusing both on prevention and response. We need to define the relative roles and responsibilities of the different agencies involved, and identify the mechanisms by which the varying levels of government will interact and work together. We need true national leadership to address the bioweapons threat to our homeland. Planning efforts must be backed by the necessary resources and authority to translate planning into action. Moreover, we must practice what we plan. Preparations must be exercised, evaluated and understood by decision-makers if they are to prove useful in a time of crisis.

#### **HHS Consolidation of Communications Offices**

In addition to addressing areas of opportunity for improved coordination between federal agencies and other critical partners for public health preparedness and response, the Committee asked the panelists to comment on the proposed consolidation of the communications offices of all the agencies within HHS.

While I do not have first hand knowledge of the exact proposal, I do understand Secretary Thompson's desire to assure that HHS behaves as a unified department composed of a set of agencies, that while extremely varied in their subject matter focus, roles and responsibilities, still works as a team in support of the overall mission of HHS. However, because of the size of the department, the number of discrete agencies, institutes and centers, and the very different objectives and expertise of those component entities, this must be achieved through greater coordination rather than true consolidation. In my view, it would be unrealistic to believe that all of the departmental components could have their communications offices reporting directly to the HHS Secretary's Office. This would neither be logistically feasible or desirable with respect to assuring the communication of often highly technical information in an accurate and efficient manner to others outside the department.

As the management of the anthrax episodes demonstrated, it is generally a mistake to put too much distance between official spokespersons and the subject matter expertise. Most people agree that one of the most glaring deficiencies in the administration's response to anthrax involved the communication strategy. It was ill advised and unhelpful not to have made credible and knowledgeable health officials available early on to explain to both the public and health professional communities, what was happening and why, what they could expect, and to openly discuss what we did and did not know. Instead, inaccurate and sometimes confusing messages were given out. In addition, when official information was not made available in a timely fashion, those voids in information were soon filled with media reports and so-called experts of variable accuracy and quality. In thinking about the restructuring of communications activities within HHS, I caution only that every effort be made to avoid these kinds of disconnects in the future.

**Efforts of NTI**

Encouraging and supporting our government to deter, prevent, and defend against biological terrorism is a central part of our mission at the Nuclear Threat Initiative (NTI) – an organization founded by Ted Turner and guided by a distinguished board co-chaired by him and former Senator Sam Nunn. We are dedicated to reducing the global threat from biological, nuclear, and chemical weapons by increasing public awareness, encouraging dialogue, catalyzing action, and promoting new thinking about these dangers in this country and abroad.

We fully recognize that only our government can provide the leadership and resources to achieve our security and health priorities. But within that context, NTI is:

- Seeking ways to reduce the threat from biological weapons and their consequences.
- 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.
- Considering ways to improve infectious disease surveillance around the globe – including rapid and effective detection, investigation, and response. This is a fundamental defense against any infectious disease threat, whether it occurs naturally or is released deliberately.
- Stimulating and supporting the scientific community in its efforts to limit inappropriate access to dangerous pathogens and to establish standards that will help prevent the development and spread of biological agents as weapons.
- And finally, NTI is searching for ways to help our government and the Russian government to facilitate the conversion of Russian bioweapons facilities and know-how to peaceful purposes, to secure biomaterials for legitimate use or destruction, and to improve security of dangerous pathogens worldwide.

In conclusion, I appreciate all that you are doing to assure the necessary public health preparedness for our nation. To be effective, we will need to define new priorities, forge new partnerships, create new investments to build capacity and expertise, and support new planning. We may never be completely prepared for some of the most catastrophic scenarios, but there is a great deal that can and should be done now.

I look forward to working with you on these important issues and would be happy to answer any questions you may have.

## Public Health Preparedness

**P**ublic health is a cornerstone of health protection and public safety, yet it has long been relegated to the backseat of our nation's priorities for attention and support. We can't let it stay there. The events of September 11 and the subsequent anthrax attacks have brought new urgency to old concerns about the capacity of our nation's public health system. These tragic circumstances may provide the political will to do what should have been done earlier to protect our citizens against significant infectious disease threats, whether naturally occurring or intentionally imposed.

Our complacency arose from different causes. Many assumed that advances in science and medicine made public health programs obsolete; a view reinforced, ironically, because when functioning well, the contributions of public health are often invisible to the public. Public health measures have sometimes been the victim of their own success: We know that there are periodic outbreaks of infectious disease, but the successful prevention or control of each epidemic conceals the years of neglect that have eroded the institutional capabilities of public health agencies and left them ill-equipped to do their jobs.

What is to be done? Local, state, and federal public health agencies working together represent the backbone of effective response to a major outbreak of infectious disease, including a bioterrorist attack. How quickly we recognize threats and act on them dramatically influences our ability to reduce casualties, control contagion, and minimize panic and disruption. Upgrading current public health capacities is vital, but it will require enhanced investment on many levels and must be sustained.

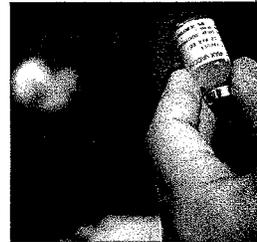
Preparedness for bioterrorist-inflicted outbreaks will surely require certain specialized program elements and policies, but many aspects of this new challenge demand solutions that will apply to a range of naturally occurring infectious disease threats. Wherever possible, effective strategies should build on existing systems that are used routinely and can have dual use. Why develop an ancillary system for the bioterrorist threat? Rather, we should strive to integrate our efforts into the continuum of infectious disease threats to which public health agencies are already charged to respond.

The first requirement is to strengthen the public health infrastructure for infectious disease surveillance and outbreak response: the ability to rapidly detect, investigate, and contain emerging disease. That will require us to train, equip, and extend our workforce, including on-the-ground epidemiologic expertise and enhanced laboratory capability. In addition, communication, including computer connectivity, must be improved to efficiently collect, analyze, and share information among public health officials, other partners, and the public. Beyond these critical domestic needs, successful strategies must include a renewed commitment to improving global disease surveillance and public health.

Effective surveillance depends on health care providers trained to recognize unusual symptoms or disease that may reflect an emerging health problem, including the possible use of a biological weapon. Moreover, physicians must understand their responsibility to report such cases promptly to the health department. A strengthened mutual relationship between public health and medicine is key: Not only must medical providers know to call the health department, they must also know that someone will answer the phone, ready to offer the medical community information, guidance, and support as events unfold.

Managing epidemic disease requires a deep and sustained engagement of the public health system with the medical community. Clearly, it is of little value to have a public health system that can detect disease outbreaks if we cannot effectively deliver medical care to those in need, or the prophylactic treatment or vaccines required for disease control. Whether we face a severe flu season or a bioterrorist attack, we must have plans for a surge of patients in our nation's health care system, where facilities routinely operate at or near capacity. Finally, research remains an essential underpinning of our capacity to combat infectious disease. New investments in fundamental science and applied research must be part of an overall strategy for improved public health preparedness.

Looking to the future, we can expect an increasing array of infectious disease threats. Our public health system will be challenged to confront both routine and unexpected outbreaks of disease, including possible acts of bioterrorism. We have a chance to defend the nation against its adversaries and improve the public health system with the same steps. We must do it.



The anthrax vaccine.

**Margaret A. Hamburg**

Margaret A. Hamburg is vice president for Biological Programs at the Nuclear Threat Initiative and is a former New York City Commissioner of Health.

**UNITED STATES SENATE**  
**Committee on Governmental Affairs**

**Testimony of Thomas V. Inglesby, MD**

**Deputy Director, Johns Hopkins Center for Civilian Biodefense Strategies**

**April 18, 2002**

Mr. Chairman and distinguished members of the Committee, thank you for the opportunity to testify on the subject of Public Health Preparedness for Bioterrorism. I am the Deputy Director of the Johns Hopkins Center for Civilian Biodefense Strategies. The mission of our center is to influence policies and practice in ways that lower the likelihood of mass casualty bioterrorist attacks on civilians, and in ways that would diminish the dire consequences of such attacks should prevention strategies fail. I am also a physician with a specialty in infectious diseases on the faculty of Johns Hopkins Hospital where I have worked for the past 10 years. This Committee has asked me address issues of coordination and communication among federal, state and local public health agencies and to offer comments on overall bioterrorism preparedness.

**Communication and Coordination during the Anthrax attacks**

The anthrax attacks of 2001 produced an extremely complicated set of management problems for public health agencies, with communication and coordination being particularly difficult. CDC had never before responded to a bioterrorist attack, let alone attacks in multiple states. The attacks necessitated rapid interactions between local, state and federal public health agencies on technical issues that evolved quickly. Pre-existing scientific knowledge was limited regarding a number of the complex issues (such as how best to prevent anthrax infection after exposure to the spores or how to assess the risk of an environment contaminated with anthrax spores), also seriously slowing down communication. The attacks required federal, state and local public health agencies to communicate fast changing information and guidelines to doctors, nurses and hospitals –

something without precedent on this scale. No one had anticipated such a widespread need for rapid communication amongst public health agencies or between public health agencies and the medical care delivery system. This was a dynamic and changing context; the events changed as the anthrax cases and information unfolded, and public health agencies had to work very hard to keep up with changing conditions. At times, the need to change public health recommendations multiple times in a single day was unavoidable. There were dedicated public health professionals at the federal, state and local level who were working day and night to make the best interventions. This all being said, it is important to try to understand clearly where communication did not work well and why. There are a number of examples from the anthrax attacks that are useful. I would group communication difficulties of public health agencies during the crisis into three main categories: problems of incoming communication, problems of scientific analysis and decision-making, and problems with outgoing communication.

There were a number of problems with communication of incoming information. There were few efficient mechanisms to get information from where anthrax illnesses were occurring (e.g., the Capitol, Brentwood, NYC media organizations, NJ postal offices, hospitals, etc) to those at CDC, state or local health departments who needed to make real-time decisions and recommendations. In most places, doctors do not often seek guidance from local or state public health agencies, and therefore are not accustomed to sharing or reporting information to public health agencies. They are quite distinct professional communities that have far less routine interaction than is imagined. As a separate issue, tracking and managing the sheer volume of patient laboratory data, environmental testing data of various types and quality was an extremely difficult task for public health agencies. There were scores of environmental tests performed on buildings suspected of being contaminated with anthrax spores. Simply getting the tests performed, processed and the test results forwarded to persons with decision-making responsibility in public health agencies was difficult. The anthrax attacks revealed how challenging it is for public health agencies to acquire and manage the type of incoming health and environmental data needed to make decisions and recommendations in a real-time crisis.

The second set of communication problems were related to the many complicated scientific problems that required new collaborations of experts to address. Most health care professionals, state and local public health agencies and the general public looked to CDC for the answers to technical scientific questions during the crisis. One key example of such a technical question was the role of the anthrax vaccine following the attacks. A recommendation regarding who should receive the anthrax vaccine was necessarily dependent on the answer to many scientific questions, including: how likely is it that anthrax spores could cause disease after being dormant in a body for weeks; would it be a safe alternative approach to wait for signs of anthrax infection and then begin immediate medical treatment; how much anthrax vaccine was actually available and how quickly would new vaccine be produced; and, how quickly would the anthrax vaccine produce immunity; how safe were existing vaccine stocks; and more. For CDC to answer these questions, or even to know what the range of questions should be, required input from experts from a variety of scientific backgrounds: experts in experimental biology, epidemiology, infectious disease medicine, anthrax vaccine science, and immunology. There were many other similarly complicated scientific questions (eg, what is the most effective antibiotic treatment regimen for anthrax; what risks should begin antibiotic prophylactic treatment to prevent disease; who should get the anthrax vaccine; what should be done about contaminated buildings; how likely is it that anthrax spores will leak out of envelopes, etc). For much of the crisis, there were not efficient processes for bringing together these disparate scientific communities to help provide information to CDC or for decision-makers, though processes for doing this did evolve as the crisis progressed. When answers to scientific problems could not be resolved with speed and authority, decisions could not be made, and necessary technical information or recommendations could not be communicated.

A third set of communication challenges were related to problems of outgoing information. Again, it is important to understand that these are complex, systems problems that will take strategy and resources to fix, but it is critical to know what did not go well in order to improve. First, there were not rapid or reliable ways for public health agencies to communicate to doctors and nurses what was happening or what public health was

recommending. Doctors and nurses looked to public health agencies for recommendations on who to treat, vaccinate, and test. Doctors and nurses have told us that during the crisis the information forthcoming from public health agencies was often too slow for what they needed; in other cases, public health agencies were making treatment recommendations quickly, but there were no easy mechanisms for delivering the information to their intended clinical audience. The chief of infectious diseases at one of America's best hospitals said in the midst of the crisis that he was getting had to get his medical information from CNN.

**What is happening now to address these problems**

***Guidance and Grants for Public Health Agencies***

The Appropriations Bill of 2002 appropriated DHHS 10 times the pre-existing funding for bioterrorism preparedness programs, with much of that going to state public health agencies. These grants are being distributed rapidly by DHHS, with benchmarks set that are coherent and comprehensive. Some of those benchmarks are wisely aimed at improving communication capacity. The Office of Public Health Preparedness in HHS is moving with speed and efficiency to get this grant money to public health agencies. The focus on state and local public health agencies is on target; state and local health systems will bear much of the burden for preparing and responding to bioterrorist attacks.

But our expectations for the short term must be realistic. At baseline, public health agencies around the US have a limited capacity to drop everything and immediately begin an outbreak investigation; many cannot even find the human resources to answer an emergency hotline 24 hrs day. We hear that state public health agencies have had literally to put their other work on hold just to respond to the new HHS grants. This looks like a great deal of money to be spending on public health, but in terms of true preparedness for bioterrorism, we need to understand that we are asking public health agencies to now provide a serious component of our national security. And with respect to bioterrorism, we are essentially beginning from a standing start. For years, public health has often been among the first things cut in state budgets. In many locations, it has a broad mission without clear edges, diluting its power and capacity. In the end, this funding is only a

down payment on the ultimate cost of the public health system needed to confront the bioweapons threats of the future.

*Changes at CDC*

CDC is and should remain the federal agency with responsibility for providing technical expertise and resources to state and local public health agencies for biopreparedness. It should be supported in this effort. It is an organization with many dedicated professionals and a home to many great scientists. But we must acknowledge that bioterrorism response is different in key ways from other CDC missions. And it is a tremendous new responsibility. In order for CDC to bring the nation substantial and sustained improvements in bioterrorism preparedness, CDC will require the development of new systems and strategies, and it will need resources commensurate with this responsibility.

**Path forward on improving communication and bioterrorism preparedness**

At the most fundamental level, countering the complex threat of bioterrorism will require strategic planning, funding, human capital and time. Without these, our best intentions will not make us more secure. There are also a number of additional specific initiatives that in my judgment would improve communication among federal, state and local public health agencies prior to and during a bioterrorist attack:

- 1) Connections between public health agencies and medicine need to be greatly strengthened – an issue that can also be called *improved connectivity*. Doctors and nurses need more efficient ways to communicate information to public health officials and vice versa. I think this is more important than sophisticated electronic surveillance systems. It will take will, people and time, because in most places these are very distinct communities. But I cannot conceive of an electronic surveillance system that would have detected the anthrax case in Florida faster than Dr. Larry Bush recognizing a case of anthrax and quickly relaying his concern by phone to Dr. Malecki of his local health dept. Unfortunately, the ability for medicine and public health to connect in that Florida county is the exception not the rule. But we need to work to change that.

- 2) The clinical medical care community should develop systems to more quickly communicate key information within its own organizations and professional societies. Other than television or radio broadcast, no existing information systems that I am aware of could immediately reach a majority of physicians or nurses practicing in a city or state, though some localities are further ahead on this issue than others. An example of a system that developed in response to this type of information need is the daily conference call started by physicians in the DC area to share information on the evolving anthrax crisis. This proved to be extremely valuable to them and eventually was a conduit to send information from their community to public health agencies and vice versa.
- 3) CDC and other public health agencies should design more robust processes for incorporating the various needed scientific competences into decision-making during a crisis. There is no easy fix for this – a new bioweapons attack with different pathogen or via different dissemination technology would require a new combination of competencies at the table. But we think it is important to assume broad outside scientific collaboration will be needed and to plan for it.
- 4) A priority should be placed on improving strategies for communicating with the American public. The importance of communicating comprehensive, current information to the public in the aftermath of such an attack cannot be overemphasized, even if it is disturbing information. It is important to have our medical and scientific leaders who will lead such efforts be exceptionally trained in the difficult skill of media communication. The potential for positive or negative impact is so great that this must be a priority.
- 5) I have been greatly impressed by the value of drills and exercises in preparing for the anthrax attacks. Individuals or organizations that had begun to do bioterrorism preparedness training or exercises prior to the attacks of 2001 consistently reported how useful they have been. New relationships and lines of communication were developed. There was a new understanding of the roles other groups in a bioterrorism response effort would play. While there are certainly examples of poorly designed or inefficient exercises, many more exercises have been of clear value. Exercises should continue to be an important component of bioterrorism preparedness efforts at all levels of public health.
- 6) Moving beyond communication issues, there are an array of other strategic initiatives that will be needed to counter the bioweapons threat. The nation needs regional

health care plans designed to cope with mass casualty attacks. The nation needs a sustained biomedical research and development program aimed at preventing, diagnosing and treating the range of infectious diseases that exist now and those that will be engineered in the future. The nation needs the deep engagement of its biological scientists in and out of government to seek new ways to manage the growing power of this science. And each of these complex and long-term pursuits will require more talent and human resources in government. We cannot accomplish all we need without more human capital.

#### **The bioweapons threat ahead**

It is essential to analyze what happened in the fall, what went well and what did not, because the threat of bioweapons will only grow with time. Senators Hart and Rudman and the Commission on National Security in the 21<sup>st</sup> Century, in their prescient report on national security, singled out bioweapons as one of the most serious threats to US national survival. Admiral Stansfield Turner has said that bioweapons are one of the only two categories of weapons that have the theoretical capacity to “push the nation to the point of non-recovery.” Bioweapons ultimately represent a survival threat to the nation. The anthrax attacks of the fall were just the prologue to the bigger story of bioweapons. In the years ahead, the biotechnology used to create bioweapons will become far more powerful, more available and less expensive. Engineering, computing, and the capital markets will push biology forward on a rapid trajectory. What used to take a highly skilled team of scientists to accomplish can now be done in rapid fashion with automated kits in an afternoon. Industrial techniques allow the cheap manufacture of pathogens or toxins to tonnage quantities in places around the world.

Already present on the planet are examples of biological knowledge that are disturbing: the methods for making new influenza strains never before seen on earth; the directions for making Ebola virus from non-living fragments of genetic material; the techniques to make anthrax or plague resistant to many or even all available antibiotics; attempts to combine a set of genes from viruses that cannot spread to viruses that can; biological aerosols that might once have harmlessly floated away can be stabilized in the environment and altered to become more easily inhaled. The long-term threat is certainly grave. It is therefore critical to take a dispassionate look at how we have prepared for bioterrorism and what now should be done. In the end, the measure of success is whether our public health and other key government institutions are preparing to address not only more anthrax attacks, but the future of bioweapons as well.



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NATIONAL  
ASSOCIATION OF  
COUNTY & CITY  
HEALTH OFFICIALS

Statement of

**Thomas L. Milne**  
**Executive Director**

on behalf of the

**NATIONAL ASSOCIATION OF COUNTY AND CITY HEALTH OFFICIALS**

before the

**Committee on Governmental Affairs**  
**United States Senate**

Hearing on Public Health Preparedness for Terrorism  
April 18, 2002

Good morning, Mr. Chairman and Members of the Committee. I am Thomas L. Milne. I am honored to appear before you representing the National Association of County and City Health Officials (NACCHO). I have been the Executive Director of NACCHO since 1998 and prior to that spent 15 years as a local public health director for a tri-county agency in Washington State. NACCHO is the organization representing the almost 3,000 local public health departments in the country. Our organization has been deeply involved in national efforts to upgrade state and local public health preparedness for bioterrorism and other public health emergencies. I am here today to share with you some of the lessons we have learned and how much farther we need to go.

Are we prepared for bioterrorism as a nation? Not nearly enough. Local public health departments have long experience in responding to infectious disease outbreaks and other local emergencies with public health implications. We have made progress and learned important lessons about the challenges of bioterrorism preparedness in the last few years. But we have a long way to go to achieve nationally the capacities necessary to detect and respond to an act of bioterrorism quickly and efficiently in order to contain it, prevent the spread of disease and save as many lives as possible.

Local Interagency Planning for Terrorism

The challenge, and potentially the great strength, of bioterrorism preparedness is that it requires a combination of the resources and skills of public health with those of other public safety and emergency preparedness disciplines. Each of these disciplines must have a robust system in place. As our experience with anthrax last autumn has demonstrated, public health leadership, expertise and resources are essential when an act of bioterrorism is suspected or threatened.

Bioterrorism preparedness planning, just as all local emergency planning, is not adequately addressed by taking a plan or set of guidelines off the shelf. The act of planning itself brings together people from public health, emergency response, law enforcement, local hospitals, physicians, and others to develop a plan that suits their own community's circumstances and needs. The act of planning itself, when done correctly, establishes the lines of communication, responsibilities, and authorities that we have seen are so critical following September 11th and it identifies what capacities and resources remain to be developed and put into place.

Across the nation, local public health departments and their communities are learning that partnerships between public health agencies, health care providers and the traditional first responder entities, such as fire, police and emergency services, can be built and are essential for further progress. In order for the diverse public and private agencies in a city or county to work effectively together to respond to an emergency, they must know each other and must have planned together well in advance. They should not be exchanging business cards during a real crisis!

Growing awareness of the unique requirements for bioterrorism preparedness has brought local public health agencies to the table with other first responders, including law enforcement, in many places. It is important to remember that bioterrorism has two dimensions – the biological, where public health expertise is necessary to detect and respond - and terrorism, which is a criminal act requiring law enforcement prevention and response. In many communities, public health agencies are learning about such issues as incident command and preservation of evidence, while law enforcement agencies are becoming aware of the requirements for information and data exchange in epidemiologic

investigations. We expect that these collaborations will continue to grow as more and more localities digest the lessons they learned during the anthrax outbreak and engage in bioterrorism preparedness planning.

It is important to know that such collaboration at the local level is not new. Many local public health departments have good working relationships with their local police, fire, and emergency response agencies. Successful local collaboration has taken place on a large scale in such places as Atlanta, Georgia, Salt Lake City, Utah, and Seattle, Washington in preparation for large international events, such as Olympic Games and a World Trade Organization meeting. On a smaller scale, many health departments, including the one I directed, have worked with police and fire departments for many years for basic emergency preparedness, and to address issues of common concern related to traffic safety, violence prevention, substance abuse prevention, and a host of other issues.

The challenge of bioterrorism preparedness has increased local public health and law enforcement collaboration. For instance, in DeKalb County, Georgia, the Center for Public Health Preparedness of the DeKalb County Board of Health meets monthly with representatives of the police department. The public health department developed a database for the police department to track suspicious package episodes, including the laboratory findings. The police department shares this information electronically with the public health agency to ensure public health analysis and follow-up where necessary. The public health agency has trained the police command staff in the basics of bioterrorism, including likely agents, symptoms, methods of diagnosis and epidemiologic investigation, and prevention and containment of disease epidemics. The police

department is training public health agency staff in proper methods of handling potential criminal evidence. DeKalb County and many other localities are planning for joint information centers in which public health, police, fire and other emergency management personnel will cooperate to ensure consistent, effective communication with the public.

These types of collaboration can take place only when the local leadership of law enforcement and public health have a clear understanding of their respective responsibilities and communicate clearly with each other in regular, timely fashion. This communication should be part of an institutionalized joint emergency planning process and preparedness plans should be jointly exercised on a regular basis. We were reminded during the anthrax outbreaks that there are substantial differences in organizational culture and approach between law enforcement and public health agencies. These can be overcome; indeed, they have been overcome in communities where public health and law enforcement leaders are working together.

At the national level, we see an acute need for coordination of public health preparedness activities undertaken by the Department of Health and Human Services and its state and local partners with other federal emergency preparedness programs, such as those administered by the Department of Justice and FEMA. It is essential that the differing missions of these agencies be well understood by all parties at the state and local levels. Their respective funding streams for terrorism preparedness must enhance each other and must be coordinated at all levels of government in a way that assures maximal appropriate use of the different funding streams. We have a particular concern about the potential expenditure by states or localities of public health preparedness funds on other emergency needs, such as field detection equipment or personal protective

equipment, that have been and should be covered by other programs. We would discourage expenditure of the more limited public health funds for such purposes, unless other funds are clearly not available.

Federal Funding for Local Bioterrorism Preparedness

The federal government and states can and must provide coordination, technical assistance, funds and specialized expertise in bioterrorism and public health preparedness. In the end, though, early detection and initial response to a public health emergency takes place at the local level. Local authorities are the first responders to bioterrorism. Congress provided significant new FY2002 funding for upgrading state and local public health capacities. This will enable the Department of Health and Human Services to send \$918 million out to states and localities. However, at this point in time, funds have not yet reached local public health agencies and most do not know yet how much they will receive from the state, and for what purposes. For that reason, they have not yet been able to hire or train new staff for bioterrorism preparedness. *The sooner that new funds reach the local level, the sooner local public health agencies and their community partners can begin making real, measurable progress.*

NACCHO has two overriding concerns about federal bioterrorism preparedness funding. The first is that federal funds be used to develop capacities where they are needed. In some areas of bioterrorism preparedness, localities look to states to provide the facilities and expertise. Public health laboratories are a good example of where technical expertise should be centralized at the state level. In most respects, however, *bioterrorism preparedness is local* and the funding emphasis should be at the local level. NACCHO is monitoring implementation of the FY2002 funding carefully to determine

whether states will in fact be allocating adequate portions of these funds to build local public health capacity for responding to public health emergencies.

Thus far, the experience of local public health agencies in the states has been mixed. Many are involved to a greater degree than ever before in collaboration with their states to plan how best to use the funds. In a few states, local public health agencies have been informed that, collectively, they will receive more than 50% of the funds that the state receives. Some others, however, are greatly concerned that their communities may benefit very little because the states have not been including them in a meaningful fashion and do not appear to be planning to pass through a significant proportion of the funding. We believe it is critically important that the federal government monitor carefully the uses of these funds, measure their impact at the state and local levels over time, and insist that funds be used to enable localities to build local public health capacities.

Our second concern is that bioterrorism preparedness funding must be adequate, lasting and reliable to enable local public health agencies to build and sustain permanent improvements in their ability to protect their communities 24 hours a day, seven days a week. Most communities do not now have this level of protection. This cannot be achieved in a matter of months. It is a complex undertaking that requires building cooperation and communication not just among traditional public agencies that are accustomed to being first responders, such as local fire, police and emergency management, but also with private health care providers. Because of the complexity of the task, it will take several years to develop sophisticated disease surveillance and response systems and then to implement and staff them with well-trained people. The

funding that is available for this fiscal year represents a down payment on a process of rebuilding that will take many years.

Continuation in FY2003 of this year's \$940 million for upgrading state and local public health capacities is a bare minimum requirement for continuing this large, multi-year task. We have estimated that localities need 10,000 to 15,000 new people to work in public health preparedness. In many places it will take more than one year to locate and train qualified people to achieve those staffing levels. Localities and states need assurances that funding will be both sufficient and sustained, so that state and local public health agencies, some of which are experiencing severe funding constraints and cutbacks, can move forward swiftly. Some are already borrowing from other operating funds or reserves, diverting public health resources from other important ongoing work to prevent disease and protect their communities.

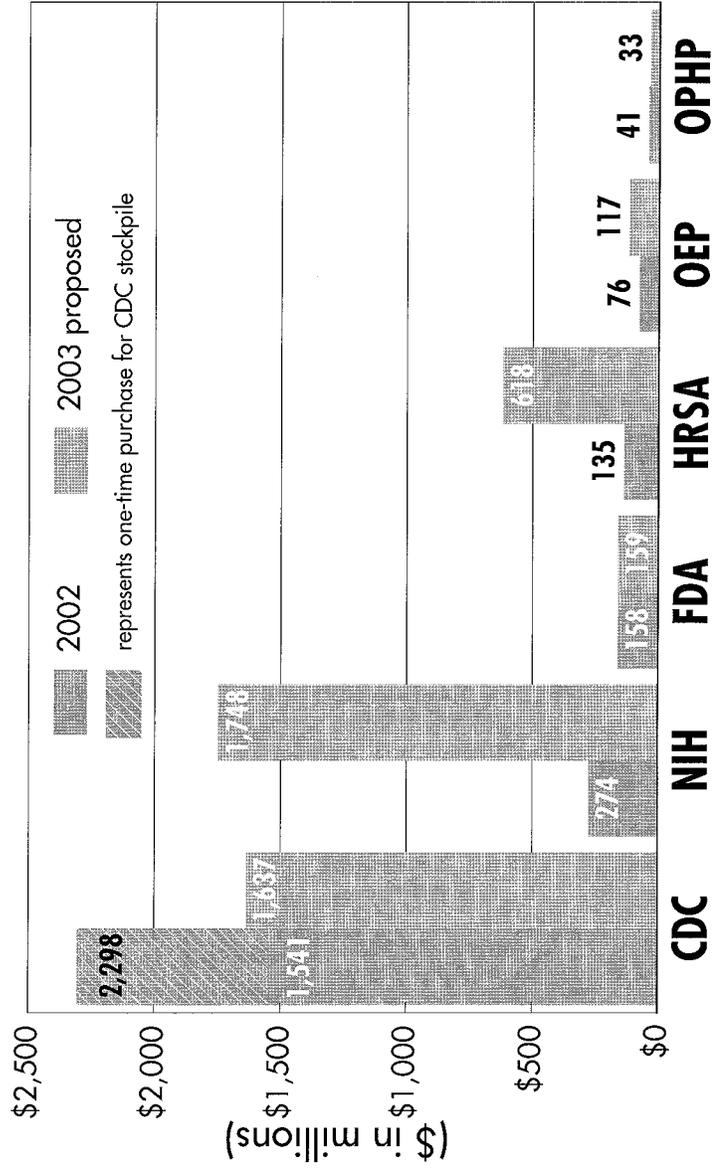
Even when the nation's localities have achieved a satisfactory level of preparedness, continued federal assistance will be essential. Our response plans must be continually refined and exercised, people must be continually trained and re-trained, and sophisticated disease surveillance and information systems and associated hardware will require systematic updating.

A local public health infrastructure of trained people, equipment, facilities and systems is absolutely essential; without it, we simply will not have the necessary capacities for bioterrorism preparedness. However, as we invest in public health infrastructure, we are not just preparing for bioterrorism. We are also strengthening our ability to respond to other public health emergencies. The systems for disease surveillance, for communication, for data management, for interagency planning, for

mobilizing the community to respond, are the same for bioterrorism as they are for any other disease outbreaks or emerging infections such as West Nile virus, E. coli, Hepatitis C, or Lyme disease. They are the same systems needed for response to the public health threats associated with floods, hurricanes, and other natural disasters. These systems have multiple uses, extending even to improving our abilities to address other public health problems more effectively. *Every dollar we spend on bioterrorism preparedness will pay off in countless other ways.*

Mr. Chairman, the local public health department is on the front lines. The local public health system is a necessary component of our national security. NACCHO thanks you for understanding this fact and for your continued support.

# Bioterrorism Funding for Selected HHS Agencies



# Federal Bioterrorism Preparedness and Response Activities

**Department of Defense**

- Provide support in event of emergency which related to biological weapons with civilian population

**Department of Energy**

Analytical studies and technology development

**Department of Commerce**

Develop performance standards for emergency response equipment

**Department of Veterans Affairs**

- Purchase pharmaceuticals for stockpile
- Participate in local emergency planning

**Office of Homeland Security**

Coordinate executive branch's efforts to prepare for and respond to bioterrorism.

**Federal Emergency Management Agency**

Lead Federal Agency for consequence management in the event of bioterrorist attack. Synthesize plans and training. Administers preparedness grants.

**Department of Justice**

**FBI**

Lead Federal Agency for crisis management in the event of bioterrorism. Conducts criminal investigation into bioterrorist attack

**Department of Agriculture**

Detect and prevent introduction of biological agents into food supply

**Department of Transportation**

Health Research Center, first-alert center for all releases of biological agents into environment

**Environmental Protection Agency**

Assist FBI in identification and cleanup of environmental contamination with biological agents

**Other Federal Agencies**

**Office of Public Health Preparedness**

Coordinates all of HHS's bioterrorism preparedness and response activities

- **FDA**
- Safeguard nation's food supply
- Ensure that medical products and drugs are safe and effective
- **HRSA**
- Upgrade hospital preparedness and infrastructure
- **AHRO**
- Research to improve preparedness of health care system for large-scale public health emergency
- **SAMHSA**
- Addresses the psychological impact of bioterrorism

**Department of Health and Human Services**

**Office of Emergency Preparedness**

Coordinates federal response to public health emergencies

**CDC**

- Dispatch disease detectives in emergency who will conduct epidemiological investigations
- Develop and deploy National Pharmaceutical Stockpile
- Administer grants to state and local public health departments for upgrading core capacities for bioterrorism-related research
- Track transfer of dangerous biological agents
- Operate Laboratory Response Network
- Develop health Alert Network
- Develop treatment guidelines
- Support training exercises

**NIH**

Research related to organisms most likely to be used in biological weapons attack

Sources of Formal Authorities and Responsibilities of Various Federal Agencies In the Event of Bioterrorism

**Executive Documents**

- Presidential Decision Directives 39 (June 1995) and 62 (May 1998)
- Federal Response Plan with Terrorist Incident Annex (1992, updated in 1999)
- United States Government Interagency Domestic Terrorism Concept of Operations Plan (CONPLAN) (2001)

**Designate FBI as overall Lead Federal Agency for response to domestic terrorism.**

**Designate FEMA as Lead Federal Agency for consequence management.**

**Designate HHS as lead agency for public health response to terrorism, but acting only in support of FBI and FEMA.**

Sources of Formal Authorities and Responsibilities of Various Federal Agencies In the Event of Bioterrorism

**Statutory Authorities**

- *Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (P.L. 93-288)*

**Authorizes Federal Response Plan**

- *Public Health Threats and Emergencies Act of 2000 (P.L. 106-505)*

**Authorizes Secretary of HHS to declare public health emergency and, in event of such declaration, “take such action as may be appropriate to respond to the public health emergency, including ... conducting and supporting investigations into the cause, treatment, or prevention of a disease...”<sup>29</sup>**

QUESTIONS FOR SECRETARY TOMMY THOMPSON  
SUBMITTED FOR THE OFFICIAL RECORD BY CHAIRMAN LIEBERMAN

"The State of Public Health Preparedness for Terrorism Involving Weapons of Mass Destruction:  
A Six Month Report Card"

April 18, 2002

QUESTION 1: Incentives for Applied Research: One of the key functions of the Office of Homeland Security should be to ensure that we are fully prepared for a terror attack with biological, chemical or radiological weapons.

In that regard, I have introduced a bill, S. 1764, that would have the Office manage incentives to induce biotechnology and pharmaceutical companies to develop countermeasures B diagnostics, medicines and vaccines B to treat those who are exposed or infected by these agents or toxins.

My review finds that we have very few countermeasures for the agents and toxins that might be deployed against us. We were fortunate that Cipro had been developed and approved for anthrax, and that it proved to be effective against the strain of anthrax that was deployed as a terror weapon last October, but we need to recognize that we have no vaccines or drugs for most of the other CBN weapons. Does the Administration agree there is a wide and dangerous countermeasures gap?

RESPONSE: Yes, but that gap is closing

QUESTION 2: The government has funded basic research regarding countermeasures and it should continue to do so. I do not believe, however, that we should rely on this approach for most of the applied research that needs to be done. Does the Administration agree?

RESPONSE: Yes

QUESTION 3: My legislation would provide incentives for investors to fund research at biotechnology and pharmaceutical companies for good business reasons. With these incentives we could rely on the entrepreneurship of private companies to develop the countermeasures we need. It proposes a comprehensive plan of tax, procurement, patent and liability incentives to spur investor funding of this research B all under the control and direction of the Administration.

Does the Administration believe we need to enact incentives to enable the private sector to conduct this research and what is its position on the specific incentives I have proposed be enacted?

RESPONSE: We agree that it will be important to develop incentives to attract the private sector to conduct biodefense research. However, we find the incentives in the current draft legislation too diffuse. They are also too cumbersome and would place undue burden on the agency that would manage the provisions of this legislation.

QUESTION 4: My legislation also provides incentives for the development of research tools powerful enough so that we could quickly develop and deploy a countermeasure to an agent or toxin we had not anticipated, including an agent - genetically modified to evade countermeasures. This may be the most important provision of the legislation.

Does the Administration believe that we need to enact incentives for the development of these research tools as an essential element of our preparedness strategy?

RESPONSE: No, we disagree with this strategy. Such incentives are too vague and undirective. It will be less effective to fund incentives at this early stage in the R&D process. The Administration's existing strategy of funding a broad-based portfolio that supports the best peer-reviewed basic research and technology development will be more effective.

QUESTION 5: Does the Administration believe that the management of these incentives should be vested with the Office of Homeland Security?

RESPONSE: No, the OHS mission is focused on the development and coordination of a national homeland defense strategy, not on management activities.

QUESTION 6: Chain of command: Who will assume responsibility for coordinating efforts within HHS during an acute attack? Your testimony indicated that the Directors of the Office of Public Health Preparedness, the Centers for Disease Control (CDC), the National Institutes of Health, and the Surgeon General would all be involved in a coordinated response. But who will coordinate these efforts? Who will assume responsibility for making public health policy decisions and who will communicate these decisions to the public?

RESPONSE: I am responsible and expect to be personally involved in any domestic public health emergency. Last November, I created the Office of Public Health Preparedness to direct and coordinate HHS preparedness and response activities related to bioterrorism and other public health emergencies. My principal agent on these matters is Mr. Jerome Hauer, the Director of OPHP. Mr. Hauer directs HHS's Emergency Command Center, which is located within my immediate office, and coordinates all response assets of the Department including the National Disaster Medical System, and the National Pharmaceutical Stockpile. During a public health emergency, through the Secretary's Emergency Command Center, HHS leadership would maintain coordination with other command centers within and outside my Department, as well as in the field. In addition, I have assembled a Council of Public Health Preparedness which is

chaired by Dr. D.A. Henderson and includes a distinguished group of public health experts outside of the federal government that can advise me on policy decisions regarding emergency preparedness and response.

I am the principal spokesperson for HHS in respect to all National public health emergencies. In this capacity, I would take advantage of the wealth of expertise to which I have direct access within my Department. Experts I can depend on to assure the delivery of accurate and timely information to the public include the Director of the Office of Public Health Preparedness, the Chairman of the Council of Public Health Preparedness, the CDC and NIH Directors, the FDA Commissioner and the Public Health Service's Surgeon General.

QUESTION 7: Interagency coordination: While your testimony addressed some formal and informal channels of communication between HHS and the Office of Homeland Security and the Federal Emergency Management Agency (FEMA), it is still unclear who will manage these interagency efforts during an attack. How do you propose to share information in a reliable and established way in the midst of the next attack? What are other agencies doing to incorporate HHS expertise?

RESPONSE: In addition to the Office of Public Health Preparedness's role in improving the management and coordination of HHS's bioterrorism response, it has served as liaison with key organizations outside HHS (such as the White House Office of Homeland Security and the academic and industrial communities).

The recently awarded cooperative agreements to enhance the terrorism-relevant capabilities of state and local health departments and hospitals across the nation; emphasize state-wide and regional planning; training of health professionals and other responders; and medical and public health preparedness and response to mass casualty events. As work under the cooperative agreements progresses, HHS will collaborate with FEMA, the Department of Justice, and its state and municipal partners to identify exemplary practices in preparedness planning and encourage that common approaches be taken wherever appropriate. For example, in striving to help states and municipalities strengthen their information technology capabilities, HHS will place a high priority on achieving inter-connected communications systems and databases that can operate in harmony with one another. In order to provide an effective response, working links need to be developed and strengthened between HHS and other Departments; we have begun this process by establishing designated points of contact and have recently created a working group with DOJ and FEMA. Furthermore, several HHS senior staff participate in more specialized inter-Departmental groups, called Policy Coordinating Committees (PCC), that support the work of the Deputies' Committee. The Medical and Public Health Preparedness PCC meets regularly and has encouraged inter-agency collaboration and allows an opportunity for HHS experts to educate other agencies on public health issues relating to bioterrorism.

**QUESTION 8:** Communication interoperability and information sharing: As HHS begins to disburse \$1.1 billion in bioterrorism preparedness funds to state and local health departments, what is being done to insure local entities have the hardware and software needed to interface with the CDC, the Department of Defense, and the Veterans= Affairs Hospitals?

**RESPONSE:** HHS has provided both resources, and standards and specifications to be used by state and local health departments so that information systems will be interoperable and information can be shared. The standards are widely accepted national industry standards, and are therefore accessible to HHS, DOD, and VA systems. The grant guidance requires inclusion of the local health departments as active partners in developing the state preparedness plan for use of federal resources. Finally, CDC is developing an extensive plan to provide technical assistance to state and local partners, including access to independent verification and validation services.

**QUESTION 9:** Surveillance Systems: What is being done to evaluate the effectiveness of current surveillance systems? Is any systematic assessment of CDC=s communication efforts underway to ensure that we improve these systems based upon the lessons learned from the anthrax attacks?

**RESPONSE:** Many states have or will be conducting an evaluation of their infectious disease surveillance systems and communication efforts in response to the work plan requested in the program guidance for the cooperative agreement supplemental emergency funding in FY 2002. (More information on the program guidance for the cooperative agreement with states can be found at <http://www.bt.cdc.gov/Planning/CoopAgreementAward/index.asp> ) One of the items that has been required is 24/7 capability to respond, including an emergency call down roster for notification of response personnel. CDC is conducting a formal evaluation of the system that was used during the World Series in Arizona, which occurred during the anthrax events.

**QUESTION 10:** Coordination with Law Enforcement: You are obviously aware of the difficulty in coordinating the responses of HHS and law enforcement agencies. What steps have been taken to ensure improved coordination?

**RESPONSE:** CDC has established full-time liaison with FBI at their headquarters in Washington D.C. to facilitate coordinated interactions between CDC and FBI. CDC is also planning a joint training course for law enforcement and public health to facilitate the understanding of each organization's mission, methods of investigation, and communications during a response. The first offering of this course is planned for fall 2002. CDC is also working on having law enforcement provide training to the incoming Epidemic Intelligence Service (EIS) class, beginning in 2002.

**April 18 Senate Committee on Government Affairs Hearing  
“The State of Public Health Preparedness for Terrorism Involving Weapons of Mass  
Destruction: a Six-Month Report Card”**

**Questions for Dr. Margaret Hamburg**

**Responses to Questions Submitted for the Official Record by Chairman Lieberman:**

1. I have introduced a bill, S. 1764, that would enact incentives to induce biotechnology and pharmaceutical companies to develop countermeasures — diagnostics, medicines and vaccines —to treat those who are exposed or infected by these agents or toxins.

My review finds that we have very few countermeasures for the agents and toxins that might be deployed against us. We were fortunate that Cipro had been developed and approved for anthrax, and that it proved to be effective against the strain of anthrax that was deployed as a terror weapon last October, but we need to recognize that we have no vaccines or drugs for most of the other CBN weapons.

My legislation would provide incentives for investors to fund research at biotechnology and pharmaceutical companies for good business reasons. With these incentives we could rely on the entrepreneurship of private companies to develop the countermeasures we need. It proposes a comprehensive plan of tax, procurement, patent and liability incentives to spur investor funding of this research - all under the control and direction of the Administration.

Do you believe that incentives like these need to be enacted to induce these companies to undertake this research?

There is an urgent need for deeper engagement of the pharmaceutical and biotechnology companies in the development of new and improved diagnostics, medicines and vaccines to combat the threat of bioterrorism. In fact, this is a broader concern with respect to the need for new drugs, vaccines and diagnostics to address a range of naturally occurring infectious disease threats, including long-standing but under-addressed disease concerns, emerging infections and antibiotic resistant organisms. It is clear that simply relying on market forces has left huge gaps in our armementarium against infectious disease threats. Success in these areas will require a greater degree of public-private partnership to support research and development efforts, as well as new incentives to bring the pharmaceutical and biotech industry fully on board.

The incentives proposed in S. 1764 certainly represent the kind of new thinking and strategies that need to be applied in these critical areas of R & D. However, I do not have the expertise to advise whether this is the specific set of approaches that will achieve success in engaging private sector activity. Clearly, the response and input of the pharmaceutical and biotech companies will be of enormous value in determining how best to shape incentives, but I applaud your commitment to pursuing this effort and can emphasize the pressing need to achieve meaningful solutions.

**April 18 Senate Committee on Government Affairs Hearing  
“The State of Public Health Preparedness for Terrorism Involving Weapons of Mass  
Destruction: a Six-Month Report Card”**

**Questions for Dr. Margaret Hamburg**

**Responses to Questions Submitted for the Official Record by Senator Cleland:**

1. In your opinion, is the CDC’s bioterrorism preparedness and response program presently organized in an optimal manner? If not, what organizational changes would you recommend? What is your assessment of my proposal (S. 2115) to create a dedicated National Center for Bioterrorism Preparedness and Response in the CDC?

In my opinion, the CDC’s bioterrorism preparedness and response program is not organized in an optimal manner. Although the matrix management model utilized throughout the CDC has experienced some success, it has not proven to be as efficient or effective in addressing the broad array of bioterrorism-related problems, issues and requirements. The current organizational structure is characterized by resources and personnel spread throughout the CDC. Furthermore, leadership for the bioterrorism initiative has been buried within the CDC bureaucracy, rather than emanating from the office of the Director, or at a minimum, reporting directly to the CDC Director. The diffuse quality of the program and lack of clearly identified and empowered central leadership proved problematic in the midst of the anthrax events of fall 2001.

In addressing the question of organizational change to improve CDC bioterrorism efforts, several important factors must be taken into account, including a thorough comprehension of the current operating environment, as well as resource shortfalls, historical under-funding, and lack of emphasis on considerations peculiar to the field of public health. It must also be recognized that many of the programs necessary for effective bioterrorism preparedness and response are also essential for combating an array of naturally occurring infectious disease threats. We do not want to inadvertently undermine those important efforts as we strengthen bioterrorism programs; nor do we want to create duplicative systems. What is more, the bioterrorism programs for infectious disease recognition, investigation and response cannot stand alone because they are intimately intertwined with natural threats—it may in fact be difficult to distinguish, especially early on, whether an outbreak is intentional or of natural origin.

In addition to the organizational structure issues, several other steps are also key to the ultimate success of the CDC bioterrorism initiative. First, greater political and fiscal focus must be brought to bear. This is difficult and complicated considering the diffuse nature of the program as it exists currently. Second, the system of resource accountability and distribution must be coupled with institutionally recognized power to maintain accountability. Third, those with responsibility for program success must be given the authority and resources necessary to carry out their charges.

A number of organizational options for the bioterrorism preparedness program at CDC come

to mind, including: (1) maintenance of the status quo, (2) keeping the program under the auspices of the director of the National Center for Infectious Diseases (NCID), but with the program's director having dual reporting to the NCID Director and to the Director of the CDC, (3) moving the program out of NCID altogether and having it reside in the Office of the Director of the CDC, or (4) creating a new national center dedicated to bioterrorism preparedness and response. Maintaining the status quo is an unacceptable alternative, as the status quo has proven to be just barely adequate in responding to the anthrax events of the fall. Having the program remain in NCID, but report directly to the CDC Director undermines the NCID Director's authority and will result in confusing command and control issues. Therefore, it is also an unattractive solution. Moving the program out of NCID and up to the Office of the Director of CDC is an option that has been exercised in the past with other programs, with varying degrees of success.

The creation of a new center dedicated solely to bioterrorism preparedness and response, as described in S. 2115, is another possible option that deserves further exploration. However, one must be cautioned against believing that the establishment of a new center in and of itself will be sufficient to address the intricacies of bioterrorism preparedness and response. The concerns regarding effective organizational change listed earlier must be addressed before, during, and after the center has been established. While appealing in theory, the creation of a new Center raises many questions about how you would really define the array of programs that would be housed in the Center (because of the "dual-use" nature of much of the expertise and programs) and how it would be implemented. There are also legitimate concerns that it may create unnecessary new bureaucracy and duplications of certain activities. Nonetheless, despite all those caution, the concept of greater centralization, visibility and support for bioterrorism activities is an urgent and essential need.

Under separate cover, I am sending you a copy of a study of organizational issues at CDC undertaken by the Chemical and Biological Arms Control Institute (CBACI). Michael Moodie, the director of the study would be delighted to speak with you in greater detail about this study and his insights.

2. In your view, do existing statutes and Executive documents provide sufficient clarity regarding the roles and responsibilities of public health and law enforcement actors in the event of a bioterrorist attack? If not, what changes to present law would you recommend? What is your assessment of my legislation (S. 1650, the *Public Health Emergencies Accountability Act*), which is intended to clarify these roles and responsibilities?

In my view, existing statutes and Executive documents provide varying levels of clarity regarding the roles and responsibilities of public health and law enforcement actors in the event of a bioterrorist attack. This is complicated by the fact that much of public health law—and the tools for its implementation—exist at the State level, and may vary considerably from State to State. The declaration of a public health emergency should never take place without the determination of public health officials and a bioterrorist-related declaration should most certainly only be made in a similar fashion, of course including significant consultation among the public health, medical, law enforcement, and intelligence communities. In responding to a public health crisis—whether a declared emergency or

not—essential public health measures to contain and control the threat must be implemented in a timely and appropriate way. Sometimes this may be at odds with the needs or desires of law enforcement. It is very important that the public health and law enforcement communities work together to examine where and when these kind of situations may emerge and develop protocols for addressing them. Key to these efforts is also the development of deeper understanding of the goals and procedures of each others work so that necessary accommodations can be achieved. These are not insurmountable problems, but they depend on close working relationships, trust and appreciation of each others separate but overlapping missions and needs.

Current law provides for public health to take the lead in public health emergencies. Current law also provides for law enforcement to take the lead in handling acts of terrorism. Biological terrorism is unique in that it requires the engagement of both communities. The level of public health emergency is immaterial. Acts of biological terrorism will require assets, capabilities, and capacities unique to both communities (i.e. neither community is completely equipped to conduct all response efforts on its own). This means, for example, that neither the CDC nor the FBI could adequately investigate an act of bioterrorism, let alone respond to the resultant public emergency, as individual entities.

The requirement listed in S. 1650 for the lead agency to keep all relevant authorities, including the Congress, fully, currently, and completely informed does not take into account the huge bodies of data and knowledge that could potentially be applied to and result from a bioterrorist situation. It would, therefore, be impossible to fully, currently, and completely inform all relevant authorities. Instead, those discrete elements of information that other partners and authorities need should be identified, and mechanisms to communicate it put into place ahead of time.

3. Are you comfortable with law enforcement officials determining in the event of a bioterrorist attack what information is pertinent to public health officials and what information is not, as in current practice? If not, do you have any recommended changes?

As stated above, both the public health and law enforcement communities will respond in the event of a bioterrorist attack. It is clear that relevant information can and should be shared between these communities. In order to make this determination, officials who have this charge should be required to have a full understanding of the needs of their partner communities. For example, a public health professional should be on staff at the FBI and make the determination as to what information would be most useful to the CDC. Similarly, a law enforcement professional should be on staff at the CDC and make the determination as to what information should be provided to the FBI. These professionals will have to work on developed trust-based relationships both within these organizations, as well as with their counterparts. It is not acceptable for law enforcement, in isolation, to determine what information is pertinent to public health officials and what information is not. They do not have the expertise to make those determinations and such a process can (and almost certainly will) result in critical information being lost to public health officials, hindering their ability to understand the full dimensions of the problem, investigate it and design and implement the necessary strategies for disease containment and control. This may result in preventable death, disease and disruption. It may, in fact, also undermine the ability of the law enforcement community to identify the perpetrator and prosecute the case.

QUESTIONS FOR THOMAS V. INGLESBY  
SUBMITTED FOR THE OFFICIAL RECORD BY CHAIRMAN LIEBERMAN

*"The State of Public Health Preparedness for Terrorism Involving Weapons of Mass  
Destruction:  
A Six Month Report Card"*

April 18, 2002

I have introduced a bill, S. 1764, that would enact incentives to induce biotechnology and pharmaceutical companies to develop countermeasures – diagnostics, medicines and vaccines to treat those who are exposed or infected by these agents or toxins.

My review finds that we have very few countermeasures for the agents and toxins that might be deployed against us. We were fortunate that Cipro had been developed and approved for anthrax, and that it proved to be effective against the strain of anthrax that was deployed as a terror weapon last October, but we need to recognize that we have no vaccines or drugs for most of the other CBN weapons.

My legislation would provide incentives for investors to fund research at biotechnology and pharmaceutical companies for good business reasons. With these incentives we could rely on the entrepreneurship of private companies to develop the countermeasures we need. It proposes a comprehensive plan of tax, procurement, patent and liability incentives to spur investor funding of this research – all under the control and direction of the Administration.

Do you believe that incentives like these need to be enacted to induce these companies to undertake this research?

Dr. Inglesby's Answer:

For many of the most serious diseases that could be caused by biological weapons, there exists no preventive vaccine, or no drug treatment, and/or no rapid diagnostic test. I would commend Senator Lieberman for his effort to create an array of new incentives aimed at encouraging the talent of the private sector to help address these vulnerabilities.

Most of the serious bioweapons that might be used against the US in the near term would cause diseases that occur quite rarely in our country. This rarity, in large part, has led to far less research and development focused on these diseases than for many others. In addition, there is essentially no market demand here or elsewhere in the world for biotechnological products that could be developed to cure or prevent the majority of the most serious potential bioweapon-induced diseases. The result is that we have few tools of modern medicine and biological science to prevent or respond to a number of the planets most lethal infectious diseases. There are many examples of these unmet vulnerabilities: in the case of botulism, there is only a tiny reserve of anti-toxin on hand in the nation, and what is available would need to be given in the earliest time period

after an attack to be of high value; in the case of plague, there is no vaccine that can prevent victims from developing pneumonic plague after aerosol exposure; in the case of anthrax, strains resistant to multiple antibiotics could be developed and used in future attacks; and, for a number of viral diseases like Ebola and Marburg, there is no vaccine, no treatment and no easy way for labs to diagnose them.

I strongly agree that the development of vaccines, treatments and diagnostic tools for these diseases of greatest concern should be a top short-term priority of the US biodefense strategy. Over the longer-term, a focus must also be on developing novel mechanisms to improve human immunity and response to infectious disease. Certainly, the nation's research agenda to counter bioweapon-induced vulnerabilities will need to adapt with time. We will need to anticipate and remain vigilant for evolving pathogen and toxin threats as well as for the trends in science that might further deepen the bioweapons threat. The talent of the private sector will be crucial in these endeavors.

The National Institute for Allergy and Infectious Diseases of the National Institutes of Health received an increase in the FY02 budget for research directly related to bioweapon-induced diseases. The President has requested a substantial increase in this research funding initiative in his FY03 budget, a request which I believe is highly commendable and deserving of support. The NIH has world-renowned scientists, laboratories, infrastructure and research programs that will lead this effort. However, it is also clear is that the private biotech and pharmaceutical companies need to be engaged in this effort in order for the nation to most rapidly and successfully address the many great vulnerabilities we face. The tremendous bioscience expertise that resides in the private sector is particularly important in the drive to develop, study and license biotechnological products – such as vaccines, antibiotics, and diagnostics test.

Experts from the biotechnology community have relayed to me and to other colleagues the possible concerns and questions they have about deepening engagement in this effort. Will the demand for new Biodefense related biotech products be sustained? How will they know their products will be purchased by agencies of government in the US or abroad? Will their companies face liability concerns if the product is utilized after a bioterrorist attack and is less than perfect in its results? Will they have intellectual property rights? Many of the best biotech and pharmaceutical companies in the nation have more than enough potential drugs, diagnostic tests or other products to pursue to keep them financially secure and very busy in the years ahead. Pursuing the next cholesterol-lowering drug or antidepressant may yield a company tens or hundreds of million dollars.

For all of these reasons, I would commend Senator Lieberman's pursuit of legislation that seeks to create tax, patent, and liability incentives aimed at encouraging the engagement of biotech and pharmaceutical companies in an effort to diminish the bioweapons threats the nation now faces. They will be a critical element as the nation moves forward to diminish the threat of bioweapons.

## April 18 Senate Committee on Governmental Affairs Hearing

*“The State of Public Health Preparedness for Terrorism Involving Weapons of Mass  
Destruction:  
A Six-Month Report Card”*

Questions for Dr. Thomas Inglesby to be submitted for the official Record  
by Senator Max Cleland

1. In your opinion, is the CDC's bioterrorism preparedness and response program presently organized in an optimal manner? If not, what organizational changes would you recommend? What is your assessment of my proposal (S. 2115) to create a dedicated National Center for Bioterrorism Preparedness and Response in the CDC?

Dr. Inglesby's Answer:

For a variety of reasons, prior to the anthrax attacks of 2001, I believe the Bioterrorism Preparedness and Response Program at CDC had not been given the resources, personnel and authority sufficient to meet the new and critical national security responsibilities it had been given. Its budget and personnel resided in a number of distinct Centers at CDC, diminishing its capacity to build the robust, new programs need. During and after the anthrax attacks of 2001, CDC announced that it had made and would continue to make changes to improve its ability to prepare and respond to the bioterrorist threat. The objectives, details and timing of these changes are not yet sufficiently clear to me for me to be able to comment on them.

What I can say is that the nation clearly needs a robust Biodefense program at CDC that provides scientific expertise and technical assistance to state and local public health agencies in key areas (eg, infectious disease, environmental assessment, epidemiology). CDC provides this form of scientific and technical expertise on many issues routinely, and it is the federal health agency with the best connections and routine interactions with health agencies across the country. There is no reasonable alternative for these functions at the federal health agency level. The new CDC Biodefense initiative should have dedicated budget and personnel sufficient to meet its many nationally important responsibilities.

Senator Cleland's proposal to create a new Center at CDC clearly seeks to strengthen CDC's bioterrorism Preparedness program in order to meet these substantial new responsibilities. This objective is highly commendable. I believe the duties and responsibilities described in his proposed legislation are essential functions of a new CDC Biodefense initiative. Whether these functions could best be accomplished by consolidating the former CDC Bioterrorism Response and Preparedness efforts into a new Center or into one existing Center is not yet clear to me. There are virtues and drawbacks to either approach and I hesitate to take a position without undertaking more analysis of the issue. What is clear is that whatever the organizational design of the new

**Bioterrorism initiative at CDC, it will need to have the capacities, resources, management structure and functions consistent with programs important to national security.**

2. In your view, do existing statutes and Executive documents provide sufficient clarity regarding the roles and responsibilities of public health and law enforcement actors in the event of a bioterrorist attack? If not, what changes to present law would you recommend? What is your assessment of my legislation (S. 1650, the *Public Health Emergencies Accountability Act*), which is intended to clarify these roles and responsibilities?

**Dr. Inglesby's Answer:**

Senator Cleland's legislation (S 1650) intends to improve response capacity and communication following a bioterrorist attack, objectives which I strongly support. It is certainly the case that communication between and among agencies during the crisis could have been faster and broader. Communication between responding agencies and Congress is also of high importance. Within health agencies the communication problems were largely related to difficulty acquiring information from the scene of the attacks, difficulty making scientific judgments about the novel and complex questions that were evolving, and difficulty disseminating recommendations and other information to the public and to other components of the health care system. Many of these communication problems may not need legal remedies so much as the building of new organizational systems to gather, process and move information. While I commend the Senator for the objectives of this legislation, it is difficult for me to whether such legislation will more substantively improve the communication problems we saw at the time of the anthrax crisis than will improving specific capacities within the public health and medical systems.

3. Are you comfortable with law enforcement officials determining in the event of a bioterrorist attack what information is pertinent to public health officials and what information is not, as in current practice? If not, do you have any recommended changes?

**Dr. Inglesby's Answer:**

Information that is relevant to the safety and health of potential victims of bioterrorist attacks needs to be quickly disseminated to public health officials, medical experts and the public themselves. It is difficult to imagine a context in which public health information of this relevance should be held back. It is logical that decisions regarding what information is important to the public's health (and therefore needs to be made available to the public) should be made by experts in public health.

**Responses of Thomas L. Milne to Question Posed by Chairman Lieberman  
Submitted for the Record of Hearing, "The State of Public Health Preparedness for  
Terrorism Involving Weapons of Mass Destruction: A Six-Month Report Card"  
Senate Committee on Governmental Affairs  
April 18, 2002**

*QUESTION:*

I have introduced a bill, S. 1764, that would enact incentives to induce biotechnology and pharmaceutical companies to develop countermeasures – diagnostics, medicines and vaccines—to treat those who are exposed or infected by these agents or toxins.

My review that we have very few countermeasures for the agents and toxins that might be deployed against us. We were fortunate that Cipro had been developed and approved for anthrax, and that it proved to be effective against the strain of anthrax that was deployed as a terror weapon last October, but we need to recognize that we have no vaccines or drugs for most of the other CBN weapons.

My legislation would provide incentives for investors to fund research at biotechnology and pharmaceutical companies for good business reasons. With these incentives we could rely on the entrepreneurship of private companies to develop the countermeasures we need. It proposes a comprehensive plan of tax, procurement, patent and liability incentives to spur investor funding of this research – all under the control and direction of the Administration.

Do you believe that incentives like these need to be enacted to induce these companies to undertake this research?

*RESPONSE:*

In general, pharmaceutical companies seem oriented toward development of products that: 1) will have an assured and large market; and 2) present limited liability to the manufacturer. These objectives are understandable. However, market forces do not support the development and production of products for which the market is not assured, is small, and/or which represents potential liability of some significance.

Diagnostics, medicines, and vaccines specifically targeted to agents of bio-terrorism would seem to fall into the category of products directed to an unknown market. It is conceivable that the country will experience few or even no further bio-agent events. Thus, it is likely that research and production in this area will be limited, and/or that products developed for this unknown market will be exceedingly expensive. This analysis would support the argument for investment incentives to induce manufacturers to develop products needed to detect, diagnose, mitigate, and resolve human risk associated with bio-agents that might be used by terrorists.

Let me add a concern, however. The actual risk of further bio-events is unknown. The anthrax events of last October, as dangerous and disruptive as they were, actually resulted in relatively little loss of life. While one can speculate that the use of other potential bio-agents, such as smallpox virus, could lead to thousands or hundreds of thousands of deaths, the real risks of the intentional release of such agents is unknown. But there are other naturally occurring diseases that pose known, immediate risks to life and for which the production of vaccines and medications is also problematic.

For example, there has been a great deal of difficulty in securing adequate supplies of influenza vaccine on a timely basis in each of the past three years. Only three pharmaceutical firms manufacture the vaccine, and they cite risk, production difficulties, and changing (cyclical) levels of infections as problems. In both of the past two years, many health departments and local physicians' offices had difficulty securing any vaccine early enough to meet patient demand and to assure immunity among those at highest risk, including the elderly and people with chronic diseases. On the other hand, national food chains and drugstore chains were able to get supplies for "mall immunization clinics" which seldom reach the at-risk populations.

Other vaccines for which adequate supplies are difficult to secure include Tetanus-diphtheria (Td), pneumococcal, and varicella. Reports of shortages of measles-mumps-rubella (MMR) vaccine are beginning to be heard. In some regions of the country, local public health officials are beginning to warn private physicians to limit use of Tetanus-diphtheria vaccine to emergency situations. In Baltimore this past year, local school officials were requesting that the county health department consider waiving school entry requirements related to childhood immunizations because supplies of critical vaccines simply weren't available.

National action is necessary to address these problems, each of which relates to naturally occurring and potentially life-threatening diseases. People who have not been immunized against tetanus invariably die; deaths have been rare in recent years owing to aggressive immunization programs, but immunization schedules are becoming impossible to keep, given the shortage of this vaccine. Further, we've been most fortunate that the influenza infection rates have been unusually low in each of the past two years. It is not unusual for 100,000 deaths to occur annually from influenza; without the vaccine in those years with higher infection rates, that number could easily double or triple. The influenza epidemic of 1918 took 675,000 lives in the U.S. alone, and over 25 million worldwide. Clearly, production of the vaccine should be considered a public health priority.

One solution to these problems might be to provide incentives for the development and production of vaccines and drugs for which there are relatively low and/or variable levels of need, where production challenges exist, or where exposure to liability is relatively high and not ameliorated effectively by other laws. Your bill, S. 1764, would likely be improved by adding provisions to address development and production of such products.

I have been deeply troubled by the industry's apparent reluctance to accept responsibility for addressing critical health needs of the country through production of products that don't generate an acceptable profit. Just as the nation is reevaluating the many steps it must take to improve homeland defense, so must it reevaluate how to ensure the availability of necessary vaccines, which are a "public good" just as are our other defenses against natural or intentionally-caused epidemics of disease.

**Responses of Thomas Milne to Questions Posed by Sen. Max Cleland  
Submitted for the Record of Hearing, "The State of Public Health Preparedness for  
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Senate Committee on Governmental Affairs**

**April 18, 2002**

*QUESTION:*

In your opinion, is the CDC's bioterrorism preparedness and response program presently organized in an optimal manner? If not, what organizational changes would you recommend? What is your assessment of my proposal (S. 2115) to create a dedicated National Center for Bioterrorism Preparedness and Response in the CDC?

*RESPONSE:*

NACCHO has been pleased by the responsiveness of CDC to the bioterrorism preparedness needs of local public health officials. We believe that CDC's guidance for the cooperative agreements with states for state and local public health capacity-building properly incorporates much important work in bioterrorism preparedness that has taken place in the last several years. We believe that strong leadership that brings together all of CDC's centers is essential to ensuring the best possible coordination of the agency's expertise.

As Sen. Cleland's summary of S. 2115 indicates, improved public health capacities are important to addressing all public health threats and emergencies, not just a deliberate act of bioterrorism. NACCHO believes that building these capacities and assuring their most efficient use requires a highly interdisciplinary and cooperative approach within CDC. We would be concerned about any form of organization that would create or perpetuate a categorical, or "stovepipe" approach to improving public health capacity by assessing or improving capacities with respect to just one type of public health problem. Every CDC Center can and must engage in the over-arching objectives of improving disease surveillance, epidemiology, laboratories, improving information and communication systems, and developing the public health workforce.

*QUESTION:*

In your view, do existing statutes and Executive documents provide sufficient clarity regarding the roles and responsibilities of public health and law enforcement actors in the event of a bioterrorist attack? If not, what changes to present law would you recommend? What is your assessment of my legislation (S. 1650, the *Public Health Emergencies Accountability Act*), which is intended to clarify these roles and responsibilities.

*RESPONSE:*

We agree with Sen. Cleland that the leadership in an emergency should be determined by judging which leadership has the greatest applicable expertise to the situation at hand. Moreover, as Sen. Cleland notes, constant communication and cooperation is essential throughout the duration of any emergency. In an event of bioterrorism or other public health emergency, it is absolutely essential that a credible public health leader act as the public

spokesperson. At the local level, models for effective leadership and cooperation in emergencies between public health, law enforcement, emergency management, other responders, and political leadership exist. Determination of lead responsibility should be made at the local level among the agencies with such responsibilities. No single model for emergency response leadership can work successfully across the thousands of communities in the country, each of which is structured and resourced differently from the next. The single most critical characteristic of successful emergency leadership is that it be planned in advance and exercised regularly.

*QUESTION:*

Are you comfortable with law enforcement officials determining in the event of a bioterrorist attack what information is pertinent to public health officials and what information is not, as in current practice? If not, do you have any recommended changes?

*RESPONSE:*

Public health officials need constant, current, complete information in order to assess and respond most effectively to an act of bioterrorism. It is highly important for public health officials to be aware of law enforcement concerns about preserving the integrity of criminal investigations and to respect those. However, effective public health practice requires access to all information and the ability to judge its relevance independently. The public safety demands no less.