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# IS THE MEDICAL COMMUNITY READY IF DISASTER OR TERRORISM STRIKES: CLOSING THE GAP IN MEDICAL SURGE CAPACITY

## FIELD HEARING

BEFORE THE

## SUBCOMMITTEE ON MANAGEMENT, INVESTIGATIONS, AND OVERSIGHT

OF THE

## COMMITTEE ON HOMELAND SECURITY HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

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FOR THE RECORD

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# IS THE MEDICAL COMMUNITY READY IF DISASTER OR TERRORISM STRIKES: CLOSING THE GAP IN MEDICAL SURGE CAPACITY

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**Monday, January 25, 2010**

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOMELAND SECURITY,
SUBCOMMITTEE ON MANAGEMENT, INVESTIGATIONS, AND OVERSIGHT,
*Danville, PA.*

The subcommittee met, pursuant to call, at 11:05 a.m., at Danville Borough Council Hall, Danville, Pennsylvania, Hon. Christopher P. Carney [Chairman of the subcommittee] presiding.

Present: Representatives Carney, Bilirakis.

Mr. CARNEY. The Subcommittee on Management, Investigations, and Oversight will come to order. The subcommittee is meeting today to receive testimony on "Is the Medical Community Ready if Disaster or Terrorism Strikes: Closing the Gap in Medical Surge Capacity." First, I would like to thank everyone for joining us today. I would especially like to thank our Ranking Member, Mr. Bilirakis, from Florida. Gus, this is as warm as we could make it in Pennsylvania in January. I am also honored that so many Federal and State experts were able to join us, and I am extremely proud that so many of our outstanding local hospitals are able to participate in today's hearing.

Today, we will examine how the Department of Homeland Security coordinates the Department of Health and Human Services, local hospital facilities, and public health officials in establishing and coordinating a National medical response strategy during an act of terrorism or public health threat, including biological, chemical, or a radiological event. It is my hope that this hearing will yield a clear vision of how hospital systems located in rural communities throughout the country receive vital information from Federal and State government partners leading up to and during natural or man-made disasters, and whether the plan that is currently in place meets their needs.

The need to surge medically is widely recognized as being necessary and the goals for increasing medical surge capacity have long been established, but the ability for any hospital or other health care delivery establishment in the United States to do so is difficult. This is because health care delivery programs are required to create the greatest amount of efficiency with the least amount of waste while medical preparedness activities demand

that resources be stored in advance of an event, thereby decreasing efficiency and intentionally leaving resources unused.

Hospitals often wind up sacrificing the future for the present especially given the current state of the economy. Further, when grant programs provide little funding to cover preparedness activities, preparedness quite literally does not pay in the health care delivery system. We must, however, ensure that every effort is made to prevent as much illness and save as many lives as possible when large scale disasters and acts of terrorism occur. We need only to look at the situation in Haiti to see how important medical surge capacity and preparedness is. It is imperative that we identify areas that are still in need of additional resources and more focused Congressional oversight is required.

In addition to the Commonwealth of Pennsylvania, efforts in other States and territories should be characterized and compared in order to better understand how to increase medical surge capacity without negatively affecting profit margins. Different sectors must partner with each other. When trusted relationships are established information and resources are shared to a much greater extent. Efforts need to be both coordinated and integrated. Public health and health care resources are limited so the efforts of these sectors need to be as efficient as possible.

Finally, standard of care decisions need to be made now on what to do when the number of patients needing treatment far exceeds the number of resources available to treat them. I would like to thank all the witnesses for their participation. I look forward to their testimony. I would also like to thank the Hospital and Healthsystem Association of Pennsylvania, which was kind enough to submit written testimony for the record. The Chair now recognizes the Ranking Member of the subcommittee, the gentleman from Florida, Mr. Bilirakis, for his opening statement.

Mr. BILIRAKIS. Thanks, Chris. I am happy to be here in the district to consider the issue of medical surge capacity, and I will tell you even though I am from Florida, my dad is from Western Pennsylvania, a town called Clairton, and I love this State. You always have a friend in Pennsylvania. Of course, I root for the Pirates and the Steelers. Whether we are talking about urban, suburban, or rural areas, this is a vital topic, and I am pleased that the subcommittee is considering the issue today. I welcome all of our distinguished witnesses here today, including Gary Carnes from my home State of Florida.

I am interested in hearing about the challenges facing Federal, State, and local governments, and the medical community in addressing medical surge capacity and capabilities during a natural disaster, terrorist attack, or other mass casualty event, and in discussing those challenges, I hope our witnesses will provide us with recommendations for what more Congress can do to assist in these efforts. I would also like to hear about the lessons we learned as a result of the H1N1 outbreak last year. Many experts say we dodged the bullet with this pandemic and that it could have been far worse and exceeded our medical capacity to respond successfully.

How did this test current capabilities and what changes will you make to adapt to issues that arose? In light of H1N1's impact on

children, I am particularly interested in learning about the challenges faced by the medical community in caring for children and other special needs populations during this pandemic and in other medical emergencies. Influenza is not the only medical crisis that could push the hospitals and other medical facilities to the edge of their capacity. A radiological or nuclear bomb, a chemical explosion, or a biological attack could cause emergency rooms to be flooded with patients in ways in which hospitals are ill-prepared to respond.

What would your hospital do with radioactive patients, with patients that might be contaminated with anthrax spores? I look forward to hearing from our local witnesses on their ability to surge to meet the special needs of a bio-hazard event. Medical surge is a problem faced by our local communities and health care professionals, but because the ability to care for mass casualties is a homeland and health security matter local efforts must be supported by the Federal Government. That is why I have introduced H.R. 4492, which reauthorizes the Metropolitan Medical Response System Program and allows funding to be used to strengthen medical surge capacity, develop plans, and conduct training and exercises among other vital activities.

In addition, H.R. 4492 authorizes funding to ensure this program reaches its full potential. I look forward to working with our witnesses on additional ways to support medical preparedness and surge capacity efforts. Thank you, Mr. Chairman. I yield back the balance of my time.

Mr. CARNEY. Today's hearing will be divided into two panels. The first panel is comprised of Government witnesses, and the second will be comprised of representatives from hospital facilities. I welcome each of our witnesses to the hearing and to Pennsylvania. Our first witness is Dr. B. Tilman Jolly. Dr. Jolly is the Associate Chief Medical Officer for Medical Readiness in the Department of Homeland Security's Office of Health Affairs. Dr. Jolly began his service with DHS in November 2006. The Office of Health Affairs oversees efforts to coordinate medical first responders, ensures interagency alignment of health and medical preparedness grants, develop policies and programs to enhance all hazardous planning, promote integration of State and local response capabilities, and prepare for and respond to catastrophic events.

Dr. Jolly has practiced emergency medicine in the Washington, DC area for 17 years. He remains Associate Clinic Professor of Emergency Medicine at the George Washington Hospital. In 1992, he completed training at the Georgetown-George Washington combined residency in emergency medicine and is a Board-certified emergency physician. He has been a staff physician at numerous hospitals and continues to practice at Enola Fairfax Hospital, a regional trauma center, for northern Virginia. A native of North Carolina, Dr. Jolly received his undergraduate degree from the University of North Carolina as a Morehead Scholar and has a medical degree from Bowman Gray College School of Medicine at Wake Forest University. He resides in northern Virginia with his wife and four children.

Our second witness is Dr. Gregg A. Pane. Dr. Pane is currently the Director of National Health Care Preparedness Programs for

the U.S. Department of Health and Human Services. The program provides $500 million on grant funding to States and partnerships to improve National hospital and health system preparedness. From 2004 to 2007, Dr. Pane was the director of the District of Columbia Health Department or DOH. In that position, he headed a $2 billion 1,300 staff agency responsible for Medicaid public health programs, health facility and professional board licensing and certification, State health planning, and epidemiology, environmental health, and public health preparedness.

While at DOH, Dr. Pane led the emergency response for anthrax, mercury spills, pandemic flu, the flu vaccine crisis, Katrina evacuees, and the 2005 Presidential inauguration. Dr. Pane was born in Flint, Michigan, and received his undergraduate degree of the University of Michigan at Flint. Dr. Pane holds a medical degree from the University of Michigan and a Master's degree in public health services administration from the University of San Francisco. He has made numerous appearances on local and National media, including CNN, NPR, Fox, CBS, BBC, ABC, and Japanese TV.

Our third witness is Ms. Shannon Fitzgerald. She is the Director of the Office of Public Health Preparedness which supports the Pennsylvania Department of Health's efforts to prepare for and protect against, respond to, and recover from all acts of bioterrorism and other public health emergencies. As OPHP director, Ms. Fitzgerald's responsibilities include developing and administering Pennsylvania's public health preparedness, operations, and bio-terrorism response capability and formulating policy and providing policy direction at the local, regional, and State-wide level.

Prior to coming to the Pennsylvania Department of Health, Ms. Fitzgerald served as the Public Health Preparedness program manager for the Philadelphia Department of Public Health. Ms. Fitzgerald also was previously employed as the emergency preparedness planner for the southeastern Pennsylvania chapter of the American Red Cross. Ms. Fitzgerald received a Master's of city planning and a Master's of government administration from the University of Pennsylvania in Philadelphia, and a Bachelor's of Sociology from the University of Dayton in Dayton, Ohio.

Our fourth witness is Ms. Cynthia Bascetta. Ms. Bascetta serves as Director of Health Care Issues for the Government Accountability office or GAO. She is responsible for leading reviews of programs designed to protect and enhance public health. Ms. Bascetta is currently leading GAO's public health work with a focus on quality of care and disaster preparedness and response. She directs work on diverse issues such as prevention of health care association, associated infections, delivery of mental health services, and access to community health centers.

She has also led reviews of the Federal response to Hurricane Katrina and the attack on the World Trade Center. Before that, she directed GAO's reviews of the effectiveness and the efficiency of VA's health care system and disability compensation programs at the Department of Veterans Affairs and the Department of Defense. She joined the GAO in 1983 after conducting regulatory impact analysis of major occupational health rules at the U.S. Department of Labor. She has a Bachelor's degree in Government from

Smith College and a Master's in applied economics from the University of Michigan, and a Master's in Public Health from the University of Michigan. The University of Michigan is highly represented here today.

Without objection, the witnesses' full statements will be inserted in the record. I now ask each witness to summarize your statement for 5 minutes beginning with Dr. Jolly.

**STATEMENT OF B. TILMAN JOLLY, M.D., ASSOCIATE CHIEF MEDICAL OFFICER FOR MEDICAL READINESS, DEPARTMENT OF HOMELAND SECURITY**

Dr. JOLLY. Thank you, Chairman Carney, Ranking Member Bilirakis. I want to thank you for the opportunity to participate in this field hearing to discuss the important issues of medical readiness and medical surge. I will just summarize my statement over a few minutes because I know we have a lot of important questions to get to. On behalf of Secretary Napolitano, who is very interested in these issues also personally, I would like to take the opportunity to thank you and the subcommittee for your continued work alongside DHS to provider leadership in protecting and ensuring the safety and preparedness of the homeland. I would also like to thank our Federal, State, local, and other partners, and particularly the partners from DHHS, with whom we work every day on a continual basis. This is just sort of an extension of that up here in a different city, but this is a group that we work with daily on all these issues.

Today I am going to address just some basics of medical readiness and medical surge and talk a bit about the Office of Health Affairs in the Department of Homeland Security and the other departments of the Department of Homeland Security that work on these issues. Medical surge is an element of our overall preparedness but one of many critical elements, and as anyone who has worked around hospitals and around health care facilities knows the interconnectedness of those facilities into broader community critical infrastructures is key, especially when a crisis happens. All of the infrastructures need to work together, emergency preparedness, transportation, water, and others to make the system work.

Now what I will talk about are some of the specific local response issues. In fact, Dr. Pane and I both had long experience in health care systems and a system like Geisinger who was very gracious to us this morning to show us their new facility really operates on a surge model every day because things happen for specific hospitals and communities every day from a bus rolling over to a fire to a critical response, and hospitals are quite good at managing their resources locally and even reaching out through mutual aid agreements to their county and regional partners to effect a response, and this something they work on and practice and can teach us a lot about.

But when a large-scale either natural disaster or terrorist event happens, those that you talked about, radiation-related, nuclear-related, biological, chemical, or others, it really requires a regional, National, and sometimes, as we see tragically today, international response to manage and to get the flow of goods, health care to the affected people and sometimes to get those people out of where

they are into definitive care. In these situations, DHS is the overall response manager under the National Response Framework that has been tried and tested in many situations, and also under the framework of the Department of Health and Human Services to lead for what we call ESF–8, Emergency Support Function—8, which is public health and medical which is clearly a key among the 15 emergency support functions.

DHS through the Secretary and through the FEMA administrator lead the overall management of that and work very closely with Secretary Sebelius and her staff to effect these responses. Now our office, the Office of Health Affairs, which is relatively new in the Federal Government, serves as the principal health and medical advisor to both the Administrator of FEMA and to Secretary Napolitano. On a very practical level that occurs almost daily for things like H1N1, for other threats, for emergency response to natural disasters and other like incidents.

Through our Office of Medical Readiness, which resides within my purview, we work with other DHS components and with our Federal partners and with State and local partners to work on some of the integration issues which you have highlighted. We also on an operational basis moved to staff the National Response Coordination Center, the National Operations Center, the Secretary's Operation Center at HHS to improve that coordination flow when there is an operation required and move through that to effect communications. You talked a bit, Mr. Bilirakis, about trusted relationships, and Mr. Carney both, about how those trusted relationships are formed. We are also working in a specific way with some of the fusion centers around the country to try to in effect improve collaboration between public health and the largely law enforcement elements that brought up those fusion centers, and that is a work in progress but I think something that is a goal that the prior Secretary and the current Secretary both endorse and want to move forward on.

Now there is, of course, a pandemic going on and we talk a lot about what we have learned from H1N1. Although after-action is really not the right term to apply to something that is still going on but the process of gathering data and information about how that response happened, what our assumptions were at the beginning of that incident and even before that incident, and how we have learned how to do that communication. We are working very closely with Dr. Pane's office to gather information now. I think we have learned a lot about how to educate the public, how to educate providers, and how to educate communities about how to handle unusual long-lasting biological events, and we look forward to working with you on that. I will close now and just thank you for your time and look forward to working with you and yield to Dr. Pane.

[The statement of Dr. Jolly follows:]

PREPARED STATEMENT OF B. TILMAN JOLLY

INTRODUCTION

Good morning Chairman Carney, Ranking Member Bilirakis, and Members of the subcommittee. Thank you for the opportunity to participate in this field hearing to discuss medical readiness and medical surge issues. On behalf of Secretary Napoli-

tano, I would like to take this opportunity to thank you and the subcommittee for your continued work alongside the Department of Homeland Security (DHS) to provide leadership in protecting and ensuring the security of our homeland. I would also like to thank our Federal, State, local, Tribal, territorial, and private sector partners, including the Department of Health and Human Services (HHS) and others with whom we work every day.

Today I will address medical readiness and medical surge within the scope of overall emergency preparedness and response capabilities. In particular, I will discuss the roles and responsibilities of the DHS Office of Health Affairs (OHA), and highlight key areas of coordination between DHS and HHS.

HHS is the lead Federal agency for public health and medical preparedness and response issues and consequently coordinates and provides the health care and medical response in a major disaster or other catastrophic incident. DHS supports HHS in this mission.

COORDINATION WITH THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

The authorities for mass casualty events are enumerated in several places, including the National Response Framework (NRF) Emergency Support Function—8: Public Health and Medical Services, as well as in statutory authorities. Per the NRF, HHS is the lead Federal agency in preparing, deploying, and providing health and medical care to the public in the event of a disaster or other emergency.

OHA and FEMA both work closely with the HHS Office of the Assistant Secretary for Preparedness and Response and the Centers for Disease Control and Prevention on a daily basis to bolster our ability to effectively prepare for and respond to a major emergency.

DEPARTMENT OF HOMELAND SECURITY RESPONSIBILITIES

The Department of Homeland Security's mission is to secure the country against the many threats we face; should a catastrophic incident occur, DHS leads overall incident management activities.

Medical surge capacity is a critical element of local, State, and National resiliency. Local medical providers deal with localized surge needs on a regular basis. Mutual aid agreements, communications protocols, and coordinated plans, all utilized by skilled professionals enable communities to deal with localized emergencies. The Federal Government will continue to support local capabilities as we assist in the coordination of broader regional capabilities.

The focus of our planning at the Federal level is on crises that overwhelm local and State resources. When a large-scale natural disaster or terrorist incident occurs, the ability to provide urgent and life-saving medical care, through coordinated resources from the local, State, and Federal levels, directly affects the ability to save lives.

Whether the event is the detonation of an improvised nuclear device or an influenza pandemic, the capacity to handle a large number of casualties will be the fundamental standard by which we measure success in our overall response.

In a large multi-casualty event, many emergency departments and hospitals would be overwhelmed with individuals suffering from illnesses and injuries ranging from relatively minor to life-threatening. In this situation, HHS would serve as the lead agency for coordinating health response activities. DHS would be responsible for support to facilitate effective medical response within the context of all the other demands of the event, including law enforcement, environmental, intelligence-gathering, public safety, communications, and search and rescue.

OFFICE OF HEALTH AFFAIRS MEDICAL READINESS AND MEDICAL SURGE ACTIVITIES

Within DHS, OHA serves as the primary advisor to the Secretary and the Administrator of the Federal Emergency Management Agency (FEMA) on medical and public health issues. OHA leads workforce health protection and medical oversight activities, leads and coordinates the Department's biological and chemical defense activities, and provides medical and scientific expertise to support DHS' preparedness and response efforts.

OHA, through its Office of Medical Readiness and in collaboration with other DHS components and Federal departments and agencies, is working on a number of initiatives to improve our Nation's medical readiness. OHA plays an important supportive role in medical and health disaster planning, overseeing the health aspects of contingency planning for all chemical, biological, radiological, and nuclear hazards. OHA supports incident response operations by providing expertise and advice to the Secretary and FEMA Administrator and staff to the DHS National Operations Center and HHS Secretary's Operations Center, and assisting FEMA in eval-

uating State and local medical resource needs and requests during a disaster. OHA also provides medical subject matter expertise to FEMA's Homeland Security Grant Program, including the Metropolitan Medical Response System. OHA works to ensure that grant recipients across the country build medical response and medical surge capabilities by providing guidance and information to grant recipients and medical first responders. OHA is also facilitating medical and public health communities' participation in fusion centers. This coordination is beneficial because the health community can translate and share valuable health information, trends, and issues to inform actionable intelligence.

STATE AND LOCAL RESPONSE

State and local responders play an essential role in the immediate aftermath of a catastrophic event. When a disaster strikes, it is the local first responders who arrive on the scene to provide initial assessment of the extent of the incident, the numbers of casualties, property damage, and resources needed to transport victims. Medical issues are addressed by local EMS, health care facilities, and public health agencies.

Depending on the magnitude of the event, the response activities (including personnel, equipment, and supplies) will expand from local health resources to surrounding regions, State resources, adjoining State resources, and Federal resources. DHS is committed to ensuring that the Federal response, whether it is a medical, environmental, or law enforcement response, is well-coordinated with State and local officials to ensure a seamless and integrated response. The role of the Federal Government is to supplement State and local efforts and to provide assistance when it is needed.

OHA and FEMA work closely with HHS, States, and local authorities to develop inter-State and multi-State agreements to provide supplies, hospital beds, and medical professionals during a catastrophic event. These partnerships are important to ensuring medical surge capacity.

CONCLUSION

Mr. Chairman, thank you for having this hearing today. Medical surge capacity is a significant part of any effective National emergency preparedness and response capability. I would be happy to answer any questions.

Mr. CARNEY. Thank you for your testimony. Dr. Pane for 5 minutes, please.

**STATEMENT OF GREGG A. PANE, M.D., DIRECTOR, NATIONAL HEALTH CARE PREPAREDNESS PROGRAMS, OFFICE OF PREPAREDNESS AND EMERGENCY OPERATIONS, OFFICE OF THE ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE, DEPARTMENT OF HEALTH AND HUMAN SERVICES**

Dr. PANE. Yes. Thank you, Chairman Carney, Ranking Member Bilirakis. It is a pleasure to be here with my colleague, Til Jolly, and others. Dr. Lurry and Dr. Yeski send their regards. We are in the middle of the Haiti response and getting ready for the State of the Union this week, a lot going on. I did want to before I start summarizing my testimony thank you for arranging the tour of Geisinger Medical Center today. I think it was extraordinarily impressive state-of-the-art facility. It is wonderful seeing innovative going on locally, which is what we are hoping to achieve.

Again, I am Gregg Pane. I am Director of the National Health Care Preparedness Program of HHS, which is the Hospital Preparedness Program and the Health Volunteer Program called ESAR–VHP. Again, it is a pleasure to be here. Briefly, as Dr. Jolly alluded to, our HHS Secretary, she is the lead Federal official for public health and medical response. We work very closely with DHS under the National Response Plan and support them in their lead role. This is all, of course, under the National Response Framework with HHS. ASPR, Assistant Secretary for Preparedness

and Response is the entity which coordinates Federal public health and medical assistance to State, local, territorial, and Tribal jurisdictions during an emergency.

Under the framework, HHS and DHS work very closely together, as Dr. Jolly alluded to. We have regular contact and meetings with the Office of Health Affairs, and certainly in times of response DHS and HHS work closely in each other's command centers and speak really daily and we work in each other's operations centers locally at the site of an incident as well. Of course, we work closely with FEMA and their officials. HHS has awarded over $300 million in funding to the State of Pennsylvania and over $477 million to the State of Florida through our combined HHS grant programs. One is the CDC Public Health Emergency Preparedness Program, known as the PHEP program, and the other is ASPR Hospital Preparedness Program known as HPP.

I think PHEP has greatly increased the preparedness capabilities for public health departments across the country and includes targeted funding to support medical surge and the public health workforce. The Hospital Preparedness Program, HPP, is dedicated to enhancing medical surge capacity through cooperative agreements to States based on population. Funding is dedicated primarily for hospital emergency facilities, their communications needs, exercises, fatality management, and a host of other priorities.

I did want to highlight while I was here the Healthcare Facilities Partnership of South Central Pennsylvania, which was one of the HPP demonstration pilots we were able to launch a couple of years ago. It was designed to improve surge capacity in the south central Pennsylvania region. It has provided simulation training to over 1,000 personnel within the 17 institutions in the areas of pan flu, blast/mass casualty and hospital evacuation. I think it has helped promote mutual collaboration and problem solving through Hershey Medical Center and the acute care hospitals in the region to exercise as another contact.

HHS has developed a mechanism to maintain situational awareness for hospital status called the HAvBED system, which is the Hospital Available Beds in Emergencies and Disasters. HAvBEDs are our primary way of understanding what beds are available to States and HHS operations centers, and States and hospitals respond within 4 hours of a request for the bed status. In 2005 the Florida Agency for Health Care Administration established the Emergency Status System, which is fully integrated with HAvBED requirements. This is a web-based system designed to track impact of emergencies on providers, including hospitals, into an effective response to disasters.

As I alluded to, a second part of the Hospital Preparedness Program is the ESAR–VHP program, Emergency System for Advanced Registration of Volunteer Health Professionals, a very important part. This is a National program intended to help health professionals volunteer in public health emergencies and disasters and to ensure the availability of volunteers for quick exchange between jurisdictions. HHS works very closely with States and communicates with them through various means. Our regional emergency coordinators are in regular contact with their counterparts. HPP leader-

ship have regular calls and contact through meetings and calls with our State leaders in Hospital Preparedness.

In addition, ASPR has a frequency of communications with FEMA, DHS, and we work closely with States during calls through their EOC and other mechanisms. Again, I will stop there and just say that our work to enhance medical surge continues to move forward. We thank you very much for your support and leadership in these areas. The responsibility for medical surge capacity is certainly one that is shared at the local, State, and Federal levels and includes private, as well as public partners, and it certainly starts with the individuals at home. So again with your leadership and support, we have made substantial progress. We thank you, and I am happy to take any questions.

[The statement of Dr. Pane follows:]

PREPARED STATEMENT OF GREGG A. PANE

JANUARY 25, 2010

Good morning Chairman Carney and distinguished Members of the subcommittee. I am Dr. Gregg A. Pane, the Director of National Health Care Preparedness Programs in the Office of Preparedness and Emergency Operations, within the Office of the Assistant Secretary for Preparedness and Response (ASPR), U.S. Department of Health and Human Services (HHS). It is a privilege to present to you the progress HHS has made in our Nation's public health preparedness, specifically our work with Federal, State, and local partners to enhance surge capacity within the medical community. I want to also commend this subcommittee for its leadership in holding today's hearing and share your sense of urgency on this important issue.

PANDEMIC AND ALL-HAZARDS PREPAREDNESS ACT

The Pandemic and All-Hazards Preparedness Act (the act) designates the HHS Secretary as the lead Federal official for public health and medical response to public health emergencies and incidents covered by the National Response Plan developed pursuant to section 502(6) of the Homeland Security Act of 2002, or any successor plan, and creates the Assistant Secretary for Preparedness and Response. Under the act, ASPR plays a pivotal role in coordinating emergency public health and medical response efforts across the various HHS agencies and among our Federal interagency partners.

Public health preparedness involves a shared responsibility among our entire Department, our partners in the international community, the Federal interagency, State, local, Tribal, and territorial governments, the private sector, and, ultimately, individuals and families. In addition, we believe that medical surge capacity is part of an all-hazards approach to preparedness. The gains we make in increased preparedness and response capability help us across the spectrum of public health emergencies and disasters.

COORDINATION WITH THE DEPARTMENT OF HOMELAND SECURITY

HHS supports DHS in its role as the lead for the integrated Federal response under the National Response Framework (NRF). Within the NRF, HHS is responsible for coordinating the Emergency Support Function (ESF) No. 8—Public Health and Medical Services and ASPR has been designated by HHS as the office to coordinate the Federal public health and medical assistance to State, local, territorial, and Tribal jurisdictions during an emergency.

ASPR works closely with the Department of Homeland Security's Office of Health Affairs (OHA) and the Federal Emergency Management Agency (FEMA). At the Headquarters level, ASPR and OHA have weekly telephone meetings to discuss issues and activities of mutual interest. During times of response, DHS and FEMA participate in the ESF No. 8 teleconferences and they send liaison officers to the HHS Operations Center. HHS also sends liaison officers to the FEMA National Response Coordination Center and to the FEMA Regional Response Coordination Center in the affected area. At the Regional level, HHS has regional emergency coordinators who work closely with the FEMA Regional Administrators to coordinate Federal preparedness and response activities within the region. HHS and DHS continue to work on coordinating our grant assistance to States. We have an established

working group which is coordinating the programmatic aspects of our respective grants programs. Within each of these important coordination mechanisms, Federal interagency partners also report their activities for group discussion and integration.

REGIONAL EMERGENCY COORDINATORS

HHS has worked diligently to partner with State, Tribal, territorial, and local officials to enhance their level of preparedness and to ensure they can see how HHS will respond to disasters. ASPR Regional Emergency Coordinators work with State/Tribal/territorial officials from the Departments of Health, Emergency Management, and Homeland Security to coordinate and enhance preparedness within the region. HHS Centers for Medicare & Medicaid Services (CMS) regional representatives also take an active role at the local level for hospital preparedness.

To better serve Hospital Preparedness Program (HPP) recipients, ASPR began hiring regional coordinators for the HPP program last year and is scheduled to have a coordinator in each of the 10 HHS regions by the end of this fiscal year.

ENHANCING STATE AND LOCAL PREPAREDNESS

The Department has awarded over $350 million in funding to the State of Pennsylvania through the ASPR Hospital Preparedness Program (HPP) and the Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness Program (PHEP). Funding has been allocated for the upgrading of State and local medical surge capacity, including hospital emergency care, communication, exercises, and fatality management. A summary of fiscal year 2009 funding provided to Pennsylvania under these programs is below:

| Program | Fiscal Year 2009 Funding |
|---|---|
| Hospital Preparedness Program | $14,103,046 |
| ESAR–VHP in PA | 60,000 |
| Public Health Emergency Preparedness Program | 22,975,362 |

HOSPITAL PREPAREDNESS PROGRAM

The Hospital Preparedness Program (HPP) is a program dedicated to enhancing medical surge capacity *(http://www.hhs.gov/aspr/opeo/hpp).* Funding allocations are made through formula cooperative agreements to States based on population, and through competitive grants. HPP funding comes from annual appropriations, as well as certain supplemental appropriations, including $90 million from the Supplemental Appropriations Act 2009 (Pub. L. 111–32) and the Emergency Supplemental Appropriations Act to Address Hurricanes in the Gulf of Mexico and Pandemic Influenza, 2006 (Pub. L. 109–148). Generally, HPP funding is dedicated for hospital emergency facilities, communications, exercises, and fatality management. Priorities for Medical Surge that were evaluated as part of the State plan review are as follows:

- States have the ability to report available beds which is a requirement in the 2006 Hospital Preparedness Program Cooperative Agreement;
- Effective use of civilian volunteers as part of the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR–VHP) and Medical Reserve Corps (MRC) programs;
- Planning for Alternate Care Sites;
- Development of Health Care Coalitions that promote effective sharing of resources in surge situations; and,
- Plans for providing the highest possible standards of care in situations of scarce resources. ASPR partnered with the HHS Agency for Healthcare Research and Quality (AHRQ) in the development of a *Community Planning Guide on Mass Medical Care with Scarce Resources.*

HPP DEMONSTRATION PROJECT

Beginning in September 2007, as part of the HPP program discussed above, an HPP demonstration project called the *Healthcare Facilities Partnership of South Central Pennsylvania,* was initiated in Hershey, Pennsylvania. The Partnership was designed to improve surge capacity and to enhance community and hospital preparedness for public health emergencies in defined geographic areas within the South Central Pennsylvania region and was successful in achieving the following goals:

1. Enhanced situational awareness of capabilities and assets in the South Central Region of Pennsylvania;
2. Develop and pilot test advanced planning and exercising of plans in the Region;
3. Complete written Medical Mutual Aid Agreements between health care facilities in the Region, with a special emphasis on hospitals;
4. Develop and strengthen Partnership relationships through joint planning, frequent communication, simulation, and evaluation of preparedness;
5. Ensure National Incident Management System (NIMS) Compliance, including for the 14 new NIMS activities, for all hospitals in the Region;
6. Develop and test a plan for effective utilization of ESAR VHP volunteers.

The Partnership provided exercise solutions through the development and facilitation of three high fidelity simulations. To date it has provided simulation training to over 1,000 personnel within the 17 institutions in the subject areas of: Pandemic Influenza Epidemic, Blast/Mass Casualty, and Hospital Evacuation. It also promoted mutual collaboration and problem solving with the acute care hospitals through frequent exercises.

Recognizing the importance for continued training and evaluation in the areas of preparedness, the Partnership will use a mobile training and evaluation vehicle, called "Lion Reach" to provide a multitude of training opportunities for the South Central Pennsylvania Region. The Lion Reach training vehicle will support the partnerships on-going efforts to sustain the gains already achieved.

ESAR–VHP

The Emergency System for Advance Registration of Volunteer Health Professionals (ESAR–VHP) is a National program intended to help health professionals volunteer in public health emergencies and disasters and to ensure the availability of volunteers for quick exchange between jurisdictions. The ESAR–VHP program is working to establish a National network of systems, each maintained by a State or group of States, for the purpose of verifying the credentials, certifications, licenses, and hospital privileges of health care professionals.

ESAR–VHP in the State of Pennsylvania is known as the State Emergency Registry of Volunteers in Pennsylvania, or SERVPA, which is fully operational. Pennsylvania meets the ESAR–VHP compliance requirements and works to continue adopting and implementing the *Interim ESAR–VHP Technical and Policy Guidelines, Standards, and Definitions.*

PUBLIC HEALTH EMERGENCY PREPAREDNESS PROGRAM

From fiscal year 2002–fiscal year 2009, the Public Health Emergency Preparedness (PHEP) program has provided $245 million to the State of Pennsylvania. This amount includes targeted funding to support medical surge and the public health workforce. The PHEP may be found at *www.bt.cdc.gov/cotper/coopagreement.*

Generally, this program has greatly increased the preparedness capabilities of public health departments:

- All States can receive and evaluate urgent disease reports 24/7, while in 1999 only 12 could do so.
- All States now conduct year-round influenza surveillance.
- The number of State and local public health laboratories that can detect biological agents as members of CDC's Laboratory Response Network (LRN) has increased to 110 in 2007, from 83 in 2002. For chemical agents, the number increased to 47, from 0 in 2001. Rather than having to rely on confirmation from laboratories at CDC, LRN laboratories can produce conclusive results. This allows local authorities to respond quickly to emergencies.
- All States have trained public health staff roles and responsibilities during an emergency as outlined in the Incident Command System, while in 1999 only 14 did so.
- All States routinely conduct exercises to test public health departments' ability to respond to emergencies. Such exercises were uncommon before PHEP funding.

PHEP has helped to improve the preparedness capabilities of the State of Pennsylvania through the following initiatives:

*Citizen Education and Preparedness Outreach Campaign (CEPOC)*

The Pennsylvania Department of Health (PA DOH), Office of Public Health Preparedness (OPHP) along with the Pennsylvania Emergency Management Agency (PEMA) and other State agencies worked together to implement a multi-year CEPOC. This CEPOC is designed to reach all Pennsylvanians and provide all-haz-

ards public health education information. The focus of the PA DOH CEPOC is to mitigate mortality and morbidity and minimize public health infrastructural damages during a manmade or natural event.

The Pennsylvania Emergency Management Agency (PEMA), with support from the Pennsylvania Department of Health (PA DOH) and other State agencies, created a centralized emergency planning resource repository that provides consistent preparedness messaging in the Commonwealth, called READYPA. READYPA provides direction and information to citizens and communities on the importance of being prepared by highlighting personal preparedness strategies. The theme of the campaign is: Be Informed, Be Prepared, and Be Involved. A phone line, 1–888–9–READYPA, was launched in January 2009.

*Special Medical Needs Response Plan*

Pennsylvania drafted a Special Medical Needs Response Plan—a comprehensive, standardized special medical needs response plan with a county and regional approach that is completely integrated into Pennsylvania's emergency response program. It is designed to guide local response efforts, identify the population, their location, and their needs and resources for an effective and timely emergency response. Temple University has pilot tested the draft Special Medical Needs Evacuation and Response template and Special Populations Planning Guide for first responders. The guide is designed to be a tool for local responders in developing a localized plan specific to the communities they serve. With this tool, the local, regional, and State response agencies will have a framework to further assist in developing localized plans for their target communities with special needs, including providing adequate staffing during an emergency, and allowing sufficient time to train the responders

COMMUNICATION

HHS employs a variety of mechanisms to ensure that communications with States remains operational at all times. Most of our communications are directed to the State Health Departments who then distribute that information to local organizations. Our Regional Emergency Coordinators are in regular communications with their State counterparts. Our HPP leadership conducts monthly calls with their grant recipients, usually the State HPP project officer, monthly. During responses within a State, ASPR increases the frequency of the communications with the States. We have liaison officers in the State EOC. After responses, we conduct after-action sessions to assess our response and we invite State/local representatives to provide input.

With regard to communications with clinicians, HHS conducts teleconferences with providers who can then speak with subject matter experts. For example, during the on-going H1N1 pandemic, CDC conducted calls with providers to answer questions regarding the disease and its treatment. ASPR held teleconferences with critical care clinicians to discuss the care of patients who required intensive care. HHS also conducted calls with CMS to inform hospitals about their options regarding alternate care sites and other capacity expanding mechanisms.

Other mechanisms to communicate with our State, local, Tribal, and territorial partners incorporate electronic means. CDC has both the Health Alert Network, which sends out electronic notices of health-related issues of interest and the Epi-X program, which notifies State epidemiologists of disease outbreaks of interest and provides an electronic bulletin board for them to hold discussions.

Both CDC and ASPR have websites which contain updated information on preparedness and response. Individual providers, as well as the general population have access to critical information relating to preparedness and response.

*HAvBED*

HHS also has developed a mechanism to maintain situational awareness of hospital status. The "Hospital Available Beds in Emergencies and Disasters" (HAvBED) was developed by HPP in conjunction with the Agency for Healthcare Research and Quality as a means of collecting surge bed status in the time of a disaster. Use of this system (or compatible systems) is required by the Hospital Preparedness Program. Originally, this system required reports of available beds, including a count of available adult and pediatric general beds and ICU beds, to State and HHS emergency operations centers within 4 hours of request. During the H1N1 pandemic, the system was modified to collect information that might indicate health care system stress, as reflected by emergency department status and anticipated supply shortages. This information has been collected weekly. Within 48 hours of collection, information is analyzed and any concerns are passed back to State Health Departments through the RECs for action.

The declaration by the President of H1N1 as a National emergency, coupled with the Secretary's Declaration of a Public Health Emergency, provides authority under section 1135 of the Social Security Act, to temporarily waive legal provisions or modify certain Medicare, Medicaid, CHIP, and HIPAA requirements if necessary, in order to provide hospitals with needed flexibility in emergency or pandemic situations to deal more effectively with patient surge needs rather than restrictive paperwork. This move has been welcomed by local hospitals, many of whom can now make requests of CMS for 1135 waivers in the event that increased patient loads due to H1N1 affect the availability of health care items and services. These requests are reviewed by CMS within 24 hours and can be granted retroactively to the beginning of the emergency period (that is, back to October 23, 2009) if necessary.

HOMELAND SECURITY PRESIDENTIAL DIRECTIVE–21

Homeland Security Presidential Directive (HSPD)–21, "Public Health and Medical Preparedness," established a National Strategy for Public Health and Medical Preparedness. The Strategy aims to improve the Nation's ability to plan for, respond to, and recover from public health and medical emergencies and calls for the continued development of a robust infrastructure—including health care facilities, responders, and providers—which can be drawn upon in the event of an emergency. HSPD–21 also requires the "establishment of a robust disaster health capability requires us to develop an operational concept for the medical response to catastrophic health events that is substantively distinct from and broader than that which guides day-to-day operations."

To this end, HHS has also led the development of the National Health Security Strategy (NHSS), the first comprehensive strategy focusing specifically on protecting people's health in the case of an emergency *(www.hhs.gov/aspr/opsp/nhss).* Called for in PAHPA, the NHSS is designed to strengthen and sustain health and emergency response systems and build community resilience thereby enhancing medical surge capacity at all levels of community. The NHSS calls for active collaboration among individuals, families, and communities (including private sector and all governmental, non-governmental, and academic organizations) to implement strategies to prevent, protect against, respond to, and recover from any type of large-scale incident having health consequences.

The National Health Security Strategy addresses additional steps that must be taken to ensure that adequate medical surge capacity, including a sufficiently sized and competent workforce available to respond to health incidents; a sustainable medical countermeasure enterprise sufficient to counter health incidents is fostered; and increased attention to building more resilient communities and integrating the public, including at-risk individuals, into National health security efforts. HHS is also leading the development of an NHSS Implementation Plan to identify the steps that are needed to enhance medical surge capacity.

*Emergency Care Coordination Center*

The Emergency Care Coordination Center (ECCC) was established in response to the Department's identification of the pressing needs of the Nation's emergency medical system *(www.hhs.gov/aspr/opeo/eccc).* The ECCC takes a regional approach to assist and strengthen the U.S. Government's efforts to promote Federal, State, Tribal, local, and private sector collaboration and to support and enhance the Nation's system of emergency medical care delivery. It is a collaborative effort involving the DoD, DHS, Department of Transportation and Department of Veterans Affairs. Its vision is exceptional daily emergency care for all persons of the United States and its mission is to promote Federal, State, local, Tribal, and private sector collaboration to support and enhance the Nation's emergency medical care.

The ECCC strengthens our Nation's ability to respond to mass casualty events. The ECCC assists the U.S. Government with policy implementation and guidance on daily emergency care issues and promote both clinical and systems-based research. Through these efforts, ASPR and its Federal partners will improve the effectiveness of pre-hospital and hospital based emergency care by leveraging research outcomes, private sector findings, and best practices. The ECCC promotes improved daily emergency care capabilities to improve the resiliency of our local community health care systems.

CONCLUSION

Our work to enhance medical surge continues to move forward. The responsibility for medical surge capacity is shared at the local, State, and Federal levels and includes private as well as public partners. HHS has provided funding and guidance to our Pennsylvania State partners and we have actively engaged in workshops and

exercises with our State and local partners to advance preparations. With the leadership and support of Congress, we have made substantial progress. The threats to public health remain real, and we have much left to do to ensure that we meet our mission of a Nation prepared.

Mr. CARNEY. Thank you, Dr. Pane. Ms. Fitzgerald for 5 minutes, please.

**STATEMENT OF SHANNON FITZGERALD, DIRECTOR, PENNSYLVANIA OFFICE OF PUBLIC HEALTH PREPAREDNESS, PENNSYLVANIA DEPARTMENT OF HEALTH**

Ms. FITZGERALD. Okay. Thank you, and, good morning, Chairman Carney and Ranking Member Mr. Bilirakis. My name is Shannon Fitzgerald, and I am the Director of the Office of Health Preparedness with the Pennsylvania Department of Health as the department's lead on matters related to public health preparedness and response. Secretary Everette James has asked me to address the important issue of medical surge capacity and answer any questions you may have. Thank you very much for this opportunity. Medical surge capacity is a broad subject with many areas of focus, and today I am going to focus on four specific areas of medical surge capacity and how the Pennsylvania Department of Health has contributed to enhancing medical surge capacity across the State.

The four areas are defined in a 2008 GAO report authored by Ms. Bascetta sitting next to me here, and they include increasing hospital capacity, including beds, workforce, equipment, and supplies; identifying and operating alternative care sites when hospital capacity is overwhelmed; registering and credentialing volunteer medical professionals; and planning for appropriate altered standards of care in order to save the most lives in a mass casualty event. The department works diligently with health care, Government, and non-profit partners to build and support medical surge capacities and capabilities throughout the State.

The first area of medical surge capacity that I will discuss is increasing hospital capacity. Since 2002, the Pennsylvania Department of Health has received funding from the Department of Health and Human Services, their hospital preparedness program, and we have pushed significant funding directly out to hospitals in order to improve individual hospital capacity. In 2009–2010, we received over $14 million in funding and almost 60 percent was distributed directly to 175 hospitals with emergency departments. Hospitals over the past several years have used this funding to improve their preparedness at the hospital level and need the hospital preparedness program capabilities, including personal protective equipment and decontamination and improving pharmaceutical caches, et cetera.

In addition, we have used our funding to enhance our laboratory capacity and have purchased two bio-safety level three mobile laboratories which can be deployed anywhere within the Commonwealth within a matter of hours. Verifying the availability of hospital resources during an emergency is essential, and the way that we identify resources such as equipment and supplies, as well as hospital beds, is through a State-owned and operated database called FRED, or our Facility Resource Emergency Database. We

use the system FRED to collect data and upload it into the Federal HAvBED system during the 2009 H1N1 influenza response.

Another example of how we have contributed to increasing medical surge capacities through a burn training program, and we have established both a burn training program, as well as purchased additional burn supplies in the northeastern part of the State, and there has been 24 burn carts that have been pushed out throughout the northeastern part of the State which really allows through the training and the burn cart allows patients to receive critical care within the first 24 hours prior to being able to be transported to a burn facility.

The second area of medical surge capacity is alternate care sites, and we have purchased mobile medical assets, including portable hospitals and medical surge trailers, which can serve as alternate care sites wherever there is a need in the Commonwealth. Currently, we have eight portable hospital systems and 19 medical surge trailers that can be deployed on a moment's notice. The third area of medical surge capacity is volunteer medical professionals. Pennsylvania is meeting the Federal ESAR–VHP requirement to recruit and train medical professionals through out State Emergency Registry of Volunteers in Pennsylvania or SERVPA. Currently, we have over 6,400 registered volunteers and 63 percent of those are medical professionals. We recently deployed several of them to assist us with our H1N1 at mass vaccination clinics.

Another personal resource that we support through our Federal funding is the State Medical Response Team, and that is a team that has purchased equipment and supplies and they train personnel and they are ready to deploy. They are similar to the Federal DMAP program but it is a local resource. We also have a robust medical surge personnel resource through our Emergency Medical Services system. Over 54,000 EMS personnel assist with over 1.8 million patient transports per year. We used our Emergency Medical Services personnel to help supply surge resources once again during the 2009 H1N1 event. They assisted with mass vaccinations at our clinics.

The final area of surge capacity is altered standards of care, and we are in the process of finalizing a nine volume medical surge capacity guidance document that is intended to provide a coordinated State-wide health and medical surge strategy and direction to the wide audience of health care practitioners, health care facility or systems administrators, community-based public health and public safety partners and responders. We plan on rolling out this guidance document later this spring, and one of the volumes addresses the very important piece of modified delivery of care with health care and scarce resources. So we look forward to rolling out this guidance document and then working with our partners throughout the State to train on it and to hold discussions on how to implement medical surge and altered standards of care State-wide. Thank you very much for this opportunity to present today. I am happy to take your questions.

[The statement of Ms. Fitzgerald follows:]

PREPARED STATEMENT OF SHANNON FITZGERALD

JANUARY 25, 2010

Good morning Chairman Carney and Members of the House Committee on Homeland Security's Subcommittee on Management, Investigations, and Oversight. My name is Shannon Fitzgerald and I am the Director of the Office of Public Health Preparedness, with the Pennsylvania Department of Health (department). As the department's lead on matters related to public health preparedness and response, Secretary Everette James has asked me to address the important issue of medical surge capacity and answer any questions that you may have. Thank you for this opportunity.

Medical surge capacity is a broad subject with many areas of focus. I am going to focus on four specific areas of medical surge capacity and how the Pennsylvania Department of Health has contributed to enhancing medical surge capacity across the State. The four areas are defined in the June 2008 United States Government Accountability Office report to Congressional Requests titled, "Emergency Preparedness, States are planning for medical surge, but could benefit from shared guidance for allocating scarce medical resources." The four areas include: "(1) increasing hospital capacity, including beds, workforce, equipment, and supplies; (2) identifying and operating alternate care sites when hospital capacity is overwhelmed; (3) registering and credentialing volunteer medical professionals; and (4) planning for appropriate altered standards of care in order to save the most lives in a mass casualty event."[1]

The department works diligently with health care, Government, and non-profit partners to build and support medical surge capacities and capabilities throughout the State.

The first area of medical surge capacity that I will discuss is increasing hospital capacity. Since 2002 Pennsylvania has received the Department of Health and Human Services, Office of the Assistance Secretary for Preparedness and Response, Hospital Preparedness Program (HPP) funding. This funding must be utilized to exercise and improve preparedness plans for all-hazards and enhance the capacities and capabilities of health care systems. In the 2009–2010 HPP grant year, the department received over $14 million in HPP funding. Almost 60% of the funding was distributed to 175 hospitals with emergency departments for preparedness activities. The hospitals are required to utilize this funding to meet the HPP overarching requirements that include, National Incident Management Systems, Needs of At-Risk Populations, Education and Preparedness Training and Exercises, Evaluation and Corrective Actions; Level One Sub-Capabilities including, Interoperable Communication Systems, Tracking of Bed Availability, Emergency System for Advance Registration of Volunteer Health Professionals also called ESAR–VHP, Fatality Management, Medical Evacuation/Shelter in Place, Partnership/Coalition Development; and Level Two-Sub-Capabilities including, Alternate Care Sites, Mobile Medical Assets, Pharmaceutical Caches, Personal Protective Equipment, Decontamination, Medical Reserve Corps and Critical Infrastructure Protection. Hospitals have utilized the HPP funding since 2002 to meet these objectives and to purchase medical surge items including, but not limited to the following:

- supplies and equipment to support medical surge activities (i.e., beds, cots, ventilators, linens, evacuation sleds and chairs, trauma kits, burn supplies, utility carts, wheel chairs, automatic external defibrillators, and suction units);
- negative pressure isolation supplies and equipment;
- pharmaceutical caches of medications to provide prophylaxis to staff members and their families during disaster situations;
- communication and information technology equipment (i.e., radios, telephones, computer equipment, televisions, electronic notification boards);
- facility support supplies and equipment (i.e. emergency generators, incident command needs, mobile medical assets, portable lighting, security items, trailers);
- personal protective equipment for staff;
- decontamination supplies and equipment;
- education and training expenses;
- exercise expenses;
- laboratory surge equipment; and
- conduct emergency preparedness and response planning.

[1] GAO–08–668 "Emergency Preparedness: States are planning for medial surge, but could benefit from shared guidance for allocating scarce medical resources," June 2008.

The department has enhanced our laboratory capacity with the purchase of two biosafety level 3 (BSL–3) mobile laboratories which can be deployed to any site in the Commonwealth within hours. The mobile laboratories are equipped with robotic prep-stations and real-time polymerase chain reaction (PCR) instrumentation for rapid pathogen identification. All of the equipment can be powered via landline or on-board diesel generators. The mobile laboratories can conduct swine and avian influenza testing and test for select agents, toxins, and chemical terrorism agents.

Verifying the availability of hospital resources during an emergency is essential. The department uses the State-owned and operated Facility Resource Emergency Database (FRED) to notify hospitals of potential events and to collect real-time data from hospitals, using a web-based application. The system can collect any data required for the event, including the availability of various types of hospital beds, including adult intensive care beds, medical/surgical beds, burn beds, pediatric beds, etc. The system can also collect data on the number of ventilators and pharmaceuticals available. The department tests this system on a monthly basis and utilizes this system to collect the bed data (Hospital Available Beds for Emergencies and Disasters/HAvBED) required by the U.S. Department of Health and Human Services during the 2009 H1N1 influenza response.

Another example of how the department has contributed to increasing medical surge capability is through a burn training program. The department has provided funding to support burn training for over 1,200 medical providers throughout the Commonwealth. The 8-hour course is designed to ensure pre-hospital and hospital personnel are ready in the event of accidents or disasters involving burn injury. The course provides guidelines in the assessment and management of the burn patient during the first 24 hours post-injury until the patient can be transported to one of the limited number of burns beds in the Commonwealth or country. The Department has also provided funding for the creation of a burn surge program in the Northeast region of Pennsylvania. This program provides a higher level of burn care at 24 regional hospitals and three mobile surge facilities in the Northeast region. The grant funded the creation of 27 burn carts for use at these hospitals and facilities. Each cart contains supplies and information to care for up to three moderately burned patients for 3 days. Training on the use of the carts for burn care was provided by the Lehigh Valley Health Network's Regional Burn Center to each hospital receiving a cart.

The second area of medical surge capacity is alternate care sites. The Pennsylvania Department of Health has purchased mobile medical assets, including portable hospitals and medical surge trailers, which can serve as alternate care sites wherever there is a need in the Commonwealth.

The Department has purchased eight portable hospital systems to increase the medical surge capacity in the Commonwealth. Each of these systems comes in two 28-foot trailers and contains all of the supplies and equipment needed to set up 50 hospital beds in a tent capable of providing a negative pressure environment. Each system has the materials necessary to care for up to 350 patients (or one patient per bed for 1 week). The portable hospitals increase the State-wide bed capacity by 400 beds and can be set up anywhere in the Commonwealth, thus increasing the number of available alternate care sites and allowing flexibility for the alternate care sites to be placed where most needed.

The eight systems are stored in geographic locations throughout the State and can been entirely deployed within 90 minutes of arrival on the scene utilizing a crew of not more than six individuals. Each system includes the following medical surge equipment and supplies:

- supplies for receiving and classification (i.e., office supplies, tables, chairs, walkie talkies, and megaphones);
- medical and patient care supplies;
- mortuary supplies;
- diagnostic supplies;
- housekeeping equipment and miscellaneous supplies;
- transportation system (one climate controlled trailer for medical supplies and equipment and one trailer for support materials); and
- support equipment (i.e., hospital tents, heater, negative pressure capability, generators, waste systems, water systems, and oxygen systems).

The Pennsylvania Department of Health has also purchased nineteen medical surge trailers. Each of these trailers contain the supplies and equipment needed to set up 50 medical cots in a fixed facility. The medical equipment and supplies are assembled, stored in trailers, and pre-deployed to geographic locations throughout the Commonwealth. This resource utilizes a standard-size basketball court, as well as the perimeter of the court to place additional supplies or equipment. Each trailer will include the following medical surge equipment and supplies:

- supplies for receiving and classification (i.e., office supplies, table, chairs);
- medical and patient care supplies; and
- transportation system (trailer).

In addition to the mobile medical assets mentioned in this testimony, most hospitals have identified alternate care sites for short-term and long-term emergencies. Many hospital designated sites are located within the hospital campus or hospital-owned facilities off campus.

To support medical surge operations within a hospital setting and at alternate care sites, the department has tested and is in the process of implementing a patient tracking system. The Commonwealth-wide patient tracking system relies on bar-coded bands that will be placed on patients at a mass casualty scene. The bands are read by a scanner and important limited patient information will be loaded into a web-based application viewable by emergency response partners.

The third area of medical surge capacity is volunteer medical professionals. The Pennsylvania Department of Health is meeting the Federal Emergency System for Advance Registration of Volunteer Health Professionals (ESAR–VHP) requirement through its State Emergency Registry of Volunteers in Pennsylvania (SERVPA) program. Pennsylvania has established an on-line registry for volunteers interested in responding to or assisting with a disaster or other emergency. The registry collects basic information from volunteers in advance of an emergency response situation. The registry verifies health care professional licenses with an automated link with the Department of State's licensure registry. SERVPA currently has 6,400 registered volunteers. Over 63% of the volunteers registered are health care personnel. In addition, Pennsylvania has 14 Medical Reserve Corps (MRC) teams with almost 3,000 volunteers.

Another personnel resource to support medical surge needs are the three State Medical Response Teams (SMRTs) which are supported by the department. The SMRTs have purchased supplies and equipment and have trained personnel that are ready to deploy to a mass casualty or other emergency within a couple of hours to assist with patient triage and patient care. The SMRT from southeastern Pennsylvania deployed to the G–20 event in Pittsburgh in 2009. The combination of resources provided by the SMRT and an EMS Strike Team could have provided patient support for up to 350 patients per hour, including 24 burn patients, without tapping any of the local medical and hospital resources.

Pennsylvania has a robust medical surge personnel resource within the emergency medical services (EMS) system. Over 54,000 EMS personnel assist over 1.8 million patients per year. The EMS system is organized into 16 Regional EMS Councils, 1,014 ambulance services, 517 quick response services and 63 air ambulances. The Department supports 150 EMS Strike Teams made up of six EMS personnel each. These Strike Teams can be taken out of service and deployed without impacting local service delivery. Several EMS Strike Teams were deployed to Louisiana to support the efforts to respond to Hurricanes Katrina (2005) and Gustov (2008). EMS personnel have been trained on how to stand up and operate the portable hospitals and medical surge trailers and are the first line of personnel to be deployed with these systems.

The department deployed many of these volunteer health professional resources to assist with the H1N1 public health vaccination clinics during the 2009 H1N1 influenza pandemic.

The combination of these volunteer and professional groups, and other strategies employed by hospitals, including having staff work 12-hour shifts, provide an extensive network of trained personnel to support a medical surge event.

The final area of medical surge capacity is altered standards of care. The Pennsylvania Department of Health is in the process of finalizing a nine-volume (chapter) medical surge capacity guidance document intended to provide a coordinated, Statewide health and medical surge strategy guidance and direction to a wide audience, including health care practitioners, health care facility or system administrators, community-based public health and public safety planners and responders, volunteers, as well as local, regional, and State agencies. All nine volumes have been drafted and vetted through a multidisciplinary working group consisting of representatives from public health, emergency management, and hospital. The following subject areas are covered in the nine volumes:

- Volume I: System of Systems Approach: A comprehensive overview;
- Volume II: Management System: The seamless integration of multiple levels of medical direction, control, communications, and coordination;
- Volunteer III: Alternate Care Sites: The use of a community-based triage system to maximize load-sharing and reduce surge pressures;
- Volume IV: Modified Delivery of Healthcare with Scarce Resources: Providing the best possible medical care to the largest number possible;

- Volume V: Transportation System: Building depth and redundancy for Emergency Medical Services (EMS), mortuary affairs, and vendor-managed materiel movement throughout the system and among patient care facilities;
- Volume VI: Resource Management System: Measures to ensure protracted and sustained operations of health care facilities and alternate care sites;
- Volume VII: Mass Fatality Management System: Leveraging community mortuary affairs assets for the dignified and environmentally safe handling and disposition of remains;
- Volume VIII: Community Outreach and Education System: Coordinating a mutually supportive public information network and campaign to achieve desired results; and
- Volume IX: Behavioral Health Support System: Providing comfort and psychological care to responders, patients, and families.

Volume IV addresses the modified delivery of health care with scarce resources. It is intended to assist health care organizations in preparing for emergency situations where resources are inadequate to meet the necessary health care needs in the usual manner, compelling a change in health care delivery strategy. The objectives for modified health care delivery include the following:

- maintain a physically and medically safe environment for staff, current patients, and visitors, and protect the functional integrity of the health care organization;
- achieve and maintain optimal medical surge capacity and capability with available resources;
- modify health care delivery, through managed change, to maintain a safe environment and achieve the best possible medical outcomes; and,
- return to normal operations as rapidly as possible and return response resources to ready status.

In addition to the medical surge guidance document, the department's Emergency Operations Plan describes Pennsylvania's plan for facilitating the organization, mobilization, and operation of health resources in response to natural or man-made incidents, including a medical surge capacity annex describing the operations plan for the portable hospital systems and medical surge trailers. The department works closely with heath care partners to develop, implement, and support emergency preparedness trainings and exercises that demonstrate medical surge capacity.

Building and sustaining medical surge capacity is a multi-jurisdictional effort requiring leadership and coordination. We will continue to work with our partners at the Federal, State, and local level to collaborate on medical surge capacity preparedness activities.

On behalf of Secretary James, thank you for inviting the Department of Health to present this testimony. I am happy to answer your questions.

Mr. CARNEY. Thank you, Ms. Fitzgerald. Ms. Bascetta, 5 minutes, please.

## STATEMENT OF CYNTHIA A. BASCETTA, DIRECTOR, HEALTH CARE, GOVERNMENT ACCOUNTABILITY OFFICE

Ms. BASCETTA. Good morning, Mr. Chairman, and Mr. Bilirakis. I am very pleased to be here today to discuss GAO's work on emergency preparedness, which we put on our list of urgent issues last year. As you know, the use of anthrax is a deadly weapon in the wake of the attack on the World Trade Center, Hurricane Katrina, pandemic flu, and potential for other disasters have raised concern about the ability of our Nation's health care systems to respond to natural and man-made mass casualty events. In such events, local or regional health care systems may be overwhelmed and unable to deliver services consistent with established standards of care. The ability of health care systems to surge was the subject of our June, 2008 report and is the basis for my remarks today.

We examined Federal support to the States to prepare for the four key components and again their increasing hospital capacity, operating alternate care sites, mobilizing volunteers and following altered standards of care, which I would now like to refer to as crisis standards of care. This is the new term for this. It was recently

issued in an IOM report, Institute of Medicine, report. As you know, the Department of Homeland Security has the overall responsibility for managing National emergency preparedness and the Secretary of HHS is the lead for all Federal public health and medical responses to public health emergencies including that surge.

States have the important responsibility for producing emergency preparedness plan in coordination with local and regional entities and both DHS and HHS are responsible for supporting those efforts. DOD and VA also assist State and local governments under certain conditions. To do our work, we focused on the hospital preparedness program and guidance from the Agency for Health Care Research and Quality. We analyzed cooperative agreements and mid-year progress reports for 20 States, and we selected two States from each of HHS' ten regions, the ones with the most and the least hospital preparedness funding. We included Pennsylvania in our sample because it had the most funding for region three from HHS, and for this statement we also updated the status of HHS' response to our recommendation.

We found that many States have made progress in preparing for medical surge but also reported significant challenges. All 20 were developing bed reporting systems and most were coordinating with DOD and VA medical facilities to expand the number of hospital beds. At the same time, shortages of medical professionals raised some significant concerns about staffing those beds. Similarly, almost all of the States in our review were selecting facilities such as schools and churches for alternate care sites. Some, including Pennsylvania, also reported purchasing medical mobile facilities as you have just heard, and many States also reported that they developed plans for equipping and staffing their alternate care sites.

However, they told us they needed guidance and assurance from CMS that they would be reimbursed for care provided at alternate care sites. CMS officials told us that they prefer to approve payment on a case-by-case basis after visiting sites because those facilities are not accredited. Regarding volunteers, most States reported that they had begun registering volunteers by profession in electronic registries although they had not all checked the volunteers' credentials. They were concerned that some medical volunteers might be reluctant to join a State registry if National deployment were to become a possibility. Other States also reported double counting of volunteers and more than one database, such as the Medical Reserve Corps and Disaster Medical Assistance Teams.

In contrast to the progress made on the first three medical surge components only 7 of the 20 States at the time of our review had adopted or were drafting crisis standards of care. Many States reported the difficulty of addressing medical, legal, and ethical issues involved in allocating scarce resources such as pharmaceuticals and ventilators during a disaster. Some States reported using guidance from AHRQ but most reported that more Federal guidance would be helpful in deciding how to make these life and death decisions. We recommended that HHS serve as a clearinghouse for sharing crisis standards of care guidelines developed by individual States and medical experts.

In commenting on our draft report, HHS was silent on our recommendation but we are pleased to report that HHS has recently taken steps to design such a clearinghouse and in addition they funded an IOM study that I referred to earlier. It was published in September, 2009 and provides guidance for establishing crisis standards of care. I would be happy to answer any questions you have.

[The statement of Ms. Bascetta follows:]

PREPARED STATEMENT OF CYNTHIA A. BASCETTA

Mr. Chairman and Members of the subcommittee: I am pleased to be here today to discuss our work examining both the Federal assistance provided to States and the States' own efforts to help build the "surge capacity" of the Nation's health care system to respond to mass casualty events. The September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon, the anthrax incidents during the fall of 2001, and the H1N1 influenza pandemic of 2009 have raised public awareness and concern about the ability of the Nation's health care systems[1] to respond to bioterrorism[2] and other mass casualty events.[3] In a mass casualty event the ability of local or regional health care systems to deliver services consistent with established standards of care[4] could be compromised, at least in the short term, because the volume of patients would far exceed the available hospital beds, medical personnel, pharmaceuticals, equipment, and supplies. The Nation's health care system was tested by last year's H1N1 pandemic and may be challenged to respond to a large-scale public health emergency if there is a resurgence of the H1N1 influenza virus or some other strain of influenza in 2010.

Following a mass casualty event, health care systems would need the ability to "surge," that is, to adequately care for a large number of patients or patients with unusual or highly specialized medical needs. Providing such care would require the allocation of scarce resources and could occur outside of hospitals and other normal health care delivery sites. Through literature reviews and interviews with experts and professional associations, we identified four key components related to preparing for medical surge in a mass casualty event: (1) Increasing hospital capacity, including beds, workforce, equipment, and supplies; (2) identifying and operating alternate care sites[5] when hospital capacity is overwhelmed; (3) registering and credentialing volunteer medical professionals; and (4) planning for appropriate altered standards of care[6] in order to save the most lives in a mass casualty event.

Federal and State entities both play roles in preparing for emergency preparedness. The Department of Homeland Security (DHS) has the overall Federal responsibility under the Homeland Security Act of 2002 for managing National emergency preparedness.[7] In December 2006, the Congress passed the Pandemic and All-Hazards Preparedness Act (PAHPA). PAHPA designated the Secretary of Health and Human Services as the lead official for all Federal public health and medical responses to public health emergencies, including medical surge.[8] Under the Federal

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[1] By health care systems, we mean both public health and medical systems, including hospitals.

[2] A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, to make them resistant to current medicines, or to increase their ability to be spread into the environment. Biological agents can be spread through the air, through water, or in food.

[3] A mass casualty event is a public health or medical emergency that could involve thousands, or even tens of thousands, of injured or ill victims.

[4] A standard of care is the diagnostic and treatment process that a provider should follow for a certain type of patient or illness, or certain clinical circumstances. It is how similarly qualified health care providers would manage the patient's care under the same or similar circumstances.

[5] Alternate care sites deliver medical care outside of hospital settings for patients who would normally be treated as inpatients.

[6] The term "altered standards" generally means a shift to providing care and allocating scarce equipment, supplies, and personnel in a way that saves the largest number of lives, in contrast to the traditional focus of treating the sickest or most injured patients first. For example, it could mean applying principles of field triage to determine who gets what kind of care, changing infection control standards to permit group isolation rather than single-person isolation units, changing who provides various kinds of care, or changing privacy and confidentiality protections temporarily.

[7] See Pub. L. No. 107–296, 116 Stat. 2135 (2002).

[8] Pub. L. No. 109–417, § 101, 120 Stat. 2831, 2832 (2006) (codified at 42 U.S.C. § 300hh).

plan for responding to emergencies,[9] States have responsibility for producing emergency preparedness plans in coordination with regional and local entities, and both DHS and the Department of Health and Human Services (HHS) are responsible for supporting their efforts. In addition, the Department of Defense (DOD) and the Department of Veterans Affairs (VA) are expected to assist State and local entities in emergencies. A DOD directive authorizes local military hospitals to coordinate with State and local entities to plan for emergency preparedness, and DOD hospitals are authorized to accept civilian patients in a mass casualty event.[10] VA policies and procedures allow VA hospitals to participate in State and local emergency planning, and by statute VA may provide medical care to non-veterans in a mass casualty event.

My statement today is based largely on our June 2008 report entitled *Emergency Preparedness: States Are Planning for Medical Surge, but Could Benefit from Shared Guidance for Allocating Scare Medical Resources* [11] and includes some updated information. In the June 2008 report, we examined the following questions: (1) What assistance has the Federal Government provided to help States prepare their regional and local health care systems for medical surge in a mass casualty event? (2) What have States done to prepare for medical surge in a mass casualty event? (3) What concerns have States identified as they prepare for medical surge in a mass casualty event?

In carrying out the work for our June 2008 report examining what assistance the Federal Government provided to States to help them prepare their regional and local health care systems for medical surge in a mass casualty event, we reviewed and analyzed National strategic planning documents. We also analyzed reports related to medical surge capacity issued by various entities, including the Agency for Healthcare Research and Quality (AHRQ), Centers for Disease Control and Prevention (CDC), Office of the Assistant Secretary for Preparedness and Response (ASPR), and the Joint Commission.[12] In addition, we obtained and reviewed documents from ASPR to determine the amount of funds awarded to States through its Hospital Preparedness Program's cooperative agreements. We also interviewed officials from ASPR, CDC, and DHS to identify and document criteria and guidance given to States to plan for medical surge. To determine what States had done to prepare for medical surge in a mass casualty event, we obtained and analyzed the 2006 and 2007 ASPR Hospital Preparedness Program cooperative agreement applications and 2006 mid-year progress reports (the most current available information at the time of our data collection for the June 2008 report)[13] for the 50 States.[14] We also reviewed the 15 sentinel indicators from these reports.[15] Although ASPR's 2006 guidance for these mid-year progress reports did not provide specific criteria with which to evaluate recipients' performance on these sentinel indicators, we identified criteria to analyze the data provided for 5 of the indicators related to one of four key components—hospital capacity—from either ASPR's previous program guidance or DHS guidance.[16] In addition, we obtained and reviewed 20 States' emergency preparedness planning documents relating to medical surge and interviewed officials from these States responsible for planning for medical surge. We selected the 20 States by identifying 2 States from each of the 10 HHS geographic regions—one with the most ASPR Hospital Preparedness Program funding and one

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[9] The National Response Framework details the missions, policies, structures, and responsibilities of Federal agencies for coordinating resource and programmatic support to States, Tribes, and other Federal agencies.

[10] DOD Directive 3025.1, *Military Support to Civil Authorities* §§ 4.6.1.2 and 4.5.1 (Jan. 15, 1993).

[11] GAO, *Emergency Preparedness: States Are Planning for Medical Surge, but Could Benefit from Shared Guidance for Allocating Scare Medical Resources,* GAO–08–668 (Washington, DC: June 13, 2008).

[12] The Joint Commission is an independent, non-profit organization that evaluates and accredits more than 15,000 U.S. health care organizations and programs, including DOD and VA hospitals.

[13] The 2006 program year for the Hospital Preparedness Program was September 1, 2006, to August 31, 2007. The 2007 program year was September 1, 2007, to August 8, 2008.

[14] While the Hospital Preparedness Program awards funds annually to 62 entities—the 50 States; 4 municipalities, including the District of Columbia; 5 U.S. territories; and 3 Freely Associated States of the Pacific—we limited our review to the 50 States.

[15] Sentinel indicators are smaller component tasks of critical benchmarks, which measure program capacity-building efforts such as purchasing equipment and supplies and acquiring personnel. For example, for the benchmark "Surge Capacity; Beds," one of the sentinel indicators is the number of additional hospital beds for which a recipient could make patient care available within 24 hours. ASPR requires that States report on 15 sentinel indicators.

[16] Two of the 15 indicators—total number of hospitals State-wide and total population State-wide—were used as denominators to analyze the 5 indicators.

with the least funding. These selection criteria allowed us to take into account population (program funding was awarded using a formula including, in part, population), geographic dispersion, and different geographic risk factors, such as the potential for hurricanes, tornadoes, or earthquakes. We obtained and reviewed DOD and VA policies and interviewed officials regarding their participation with State and local entities in emergency preparedness planning and response. To determine what concerns States identified as they prepared for medical surge, we interviewed emergency preparedness officials from the 20 States on their efforts related to four key components. We also asked what further assistance States might need from the Federal Government to help prepare their health care systems for medical surge. The information from these interviews is intended to provide a general description of what the 20 States have done to prepare for medical surge and is not generalizable to all 50 States. We conducted the performance audit for the June 2008 report from May 2007 through May 2008, and updated certain information on the status of HHS's actions to respond to our recommendations by interviewing an HHS official, in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. A detailed explanation of our methodology is included in our June 2008 report.

In brief, we found that the Federal Government provided funding, guidance, and other assistance to help States prepare for medical surge in a mass casualty event. From fiscal years 2002 to 2007, the Federal Government awarded the States about $2.2 billion through ASPR's Hospital Preparedness Program to support activities to meet their preparedness priorities and goals, including medical surge. Further, we reported that the Federal Government developed, or contracted with experts to develop, guidance that was provided for States to use when preparing for medical surge and that ASPR project officers and CDC subject matter experts were available to provide assistance to States on issues related to medical surge. In reporting on State activities, we found that many States had made efforts related to three of the key components of medical surge, that is, increasing hospital capacity, planning for alternate care sites, and developing electronic medical volunteer registries, but fewer had addressed the fourth component, planning for altered standards of care. For example, in our 20-State review, we found that all were developing bed reporting systems to increase hospital capacity and 18 reported that they were in the process of selecting alternate care sites that used either fixed or mobile medical facilities. However, fewer of the States—7 of the 20—had adopted or were drafting altered standards of medical care to be used in response to a mass casualty event. In reporting on concerns States identified as they prepared for medical surge, we found that State officials in the 20 States we surveyed reported that they continued to face challenges related to all four key components of medical surge. For example, some States reported that although they could increase numbers of hospital beds in a mass casualty event, they were concerned about staffing those beds because of current shortages in medical professionals, and some States reported that they had not begun work on altered standards of care guidelines, or had not completed drafting guidelines, because of the difficulty of addressing the medical, ethical, and legal issues involved in making life-or-death decisions in advance of a disaster about which patients would get or lose access to scarce resources.

To further assist States in determining how they will allocate scarce medical resources in a mass casualty event, we recommended that the Secretary of HHS ensure that the department serve as a clearinghouse for sharing among the States altered standards of care guidelines that have been developed by individual States or medical experts. In commenting on a draft of our report in May 2008, HHS, DHS, DOD, and VA concurred with our findings. HHS was silent regarding our recommendation. However, in October 2009, an HHS official reported that the agency was designing a web portal to serve as a clearinghouse on preparedness and response, with an emphasis on the allocation of scarce medical resources, in part as a result of GAO's recommendation. In January 2010, an HHS official reported that efforts to design and develop the web portal were continuing.

THE FEDERAL GOVERNMENT HAS PROVIDED STATES WITH FUNDING, GUIDANCE, AND OTHER ASSISTANCE TO PREPARE FOR MEDICAL SURGE

In June 2008, we reported that from fiscal years 2002 through 2007, HHS awarded States about $2.2 billion through ASPR's Hospital Preparedness Program[17] to support activities to strengthen their hospital emergency preparedness capabilities, including medical surge goals and priorities.[18] ASPR's 2007 Hospital Preparedness Program guidance specifically authorized States to use funds on activities such as the development of a fully operational electronic medical volunteer registry and the establishment of alternate care sites. We cannot report State-specific funding for the four key components of medical surge because State expenditure reports did not disaggregate the dollar amount spent on specific activities related to these components. During fiscal years 2003 through 2007, DHS's Homeland Security Grant Program also awarded the States funds that were used for a broad variety of emergency preparedness activities and may have included medical surge activities. However, most of these DHS grant funds were not targeted to medical surge activities, and States do not report the dollar amounts spent on these activities.

The Federal Government developed, or contracted with experts to develop, guidance for States to use in preparing for medical surge. DHS developed overarching guidance, including the *National Preparedness Guidelines* and the *Target Capabilities List.* The *National Preparedness Guidelines* describes the tasks needed to prepare for a medical surge response to a mass casualty event, such as a bioterrorist event or natural disaster, and establishes readiness priorities, targets, and metrics to align the efforts of Federal, State, local, Tribal, private-sector, and nongovernmental entities. The *Target Capabilities List* provides guidance on building and maintaining capabilities, such as medical surge, that support the *National Preparedness Guidelines.* The medical surge capability includes activities and critical tasks needed to rapidly and appropriately care for the injured and ill from mass casualty events and to ensure that continuity of care is maintained for non-incident-related injuries or illnesses.[19] In addition, ASPR provided States with specific guidance related to preparing for medical surge in a mass casualty event, such as annual guidance for its Hospital Preparedness Program cooperative agreements, guidance for developing electronic medical volunteer registries, and guidance to develop a hospital bed tracking system. For example, ASPR's electronic medical volunteer registries guidelines provide States with common definitions, standards, and protocols, which can aid in forming a National network to facilitate the deployment of medical volunteers for any emergency among States.

Additionally, we reported that HHS worked through AHRQ and contracted with non-Federal entities to develop publications for States to use when preparing for medical surge. For example, AHRQ published the document *Mass Medical Care with Scarce Resources: A Community Planning Guide* to provide States with information that would help them in their efforts to prepare for medical surge, such as specific circumstances they may face in a mass casualty event. This publication notes that a State may be faced with allocating medical resources during a mass casualty event, such as determining which patients will have access to mechanical ventilation. The publication recommends that the States develop decision-making guidelines on how to allocate these medical resources. To support States' efforts to prepare for medical surge, the Federal Government also provided other assistance, such as conferences and electronic bulletin boards for States to use in preparing for medical surge. For example, States were required to attend annual conferences for Hospital Preparedness Program cooperative agreement recipients, where ASPR provided forums for discussion of medical surge issues. Furthermore, ASPR project officers and CDC subject matter experts were available to provide assistance to States on issues related to medical surge. For example, CDC's Division of Healthcare Quality Promotion developed cross-sector workshops for local communities to bring their

[17] An additional $218 million was provided to four large municipalities, five U.S. territories, and three Freely Associated States of the Pacific for a total of approximately $2.5 billion. Over the 2-year period, fiscal years 2004 and 2005, HHS also awarded an additional $200,000 to 48 States for electronic medical volunteer registries development through this program.

[18] Since January 2006, HHS also had awarded the 62 recipients an additional $400 million in two phases and a supplement to prepare for a pandemic influenza outbreak. The funds were awarded to accelerate their current planning efforts for an influenza pandemic and to exercise their plans. These funds included $75 million in August 2007 that could be used, in part, to develop pandemic alternate care sites and to conduct medical surge exercises.

[19] For example, one of the activities is to receive and treat surge casualties. One of the critical tasks associated with this activity is to ensure adequacy of medical equipment and supplies in support of immediate medical response operations and for restocking requested supplies and equipment.

emergency management, medical, and public health officials together to focus on emergency planning issues, such as developing alternate care sites. A detailed list of Federal guidance and conferences is included in our June 2008 report.

MANY STATES HAVE MADE EFFORTS TO INCREASE HOSPITAL CAPACITY, PLAN FOR ALTERNATE CARE SITES, AND DEVELOP ELECTRONIC MEDICAL VOLUNTEER REGISTRIES, BUT FEWER HAVE PLANNED FOR ALTERED STANDARDS OF CARE

In June 2008 we reported that States were making efforts to expand hospital capacity. We found that more than half of the States met or were close to meeting the criteria for the five surge-related sentinel indicators for hospital capacity that we reviewed from the Hospital Preparedness Program 2006 mid-year progress reports,[20] the most recent available data at the time of our analysis for the June 2008 report.[21] Twenty-four of the States reported that all of their hospitals were participating in the State's program funded by the ASPR Hospital Preparedness Program, with another 14 States reporting that 90 percent or more of their hospitals were participating. Forty-three of the 50 States had increased their hospital capacity by ensuring that at least one health care facility in each defined region could support initial evaluation and treatment of at least 10 patients at a time (adult and pediatric) in negative pressure isolation[22] within 3 hours of an event. Regarding individual hospitals' isolation capabilities, 32 of the 50 States met the requirement that all hospitals in the State that participate in the Hospital Preparedness Program be able to maintain at least one suspected highly infectious disease case in negative pressure isolation; another 10 States had that capability in 90 to 99 percent of their participating hospitals. Thirty-seven of the 50 States reported meeting the criteria that within 24 hours of a mass casualty event, their hospitals would be able to add enough beds to provide triage treatment and stabilization for another 500 patients per million population; another 4 States reported that their hospitals could add enough beds for from 400 to 499 patients per million population. Finally, 20 of the 50 States reported that all their participating hospitals had access to pharmaceutical caches that were sufficient to cover hospital personnel (medical and ancillary), hospital-based emergency first responders, and family members associated with their facilities for a 72-hour period; another 6 States reported that from 90 to 99 percent of their participating hospitals had sufficient pharmaceutical caches.

We also reported in 2008 that in a further review of 20 States, all 20 States reported that they had developed or were developing bed reporting systems to track their hospital capacity—the first of four key components related to preparing for medical surge. Eighteen of the 20 States reported that they had systems in place that could report the number of available hospital beds within the State. All 18 of these States reported that their systems met ASPR Hospital Available Beds for Emergencies and Disasters (HAvBED) standards.[23] The two States that reported that they did not have a system that could meet HAvBED requirements said that they would meet the requirements by August 8, 2008.[24] We also reported that of the 10 States with DOD hospitals, 9 reported coordinating with DOD hospitals to plan for emergency preparedness and increase hospital capacity and 8 reported that DOD hospitals in their State would accept civilian patients in the event of a mass casualty event if resources were available.[25] Additionally, of the 19 States that have VA hospitals, all reported that at least some of the VA hospitals took part in the States' hospital preparedness programs or were included in planning and exercises

[20] The 2006 program year was from September 1, 2006, to August 31, 2007; therefore, information provided in the mid-year progress reports was reported as of March 2007.

[21] Four of the States we reviewed provided sentinel indicator information as of April 2007, one State as of August 2007, and another State as of September 2007.

[22] Negative pressure isolation rooms maintain a flow of air into the room to ensure that contaminants and pathogens cannot escape from the room to other parts of the facility and to protect the health of workers and other patients.

[23] Among other standards, HAvBED systems are required to report on seven categories of staffed available beds. The seven bed categories are intensive care, medical and surgical, burn, pediatric intensive care, pediatric, psychiatric, and negative pressure isolation. HAvBED systems are also required to report on emergency department diversions, decontamination facilities available, and ventilators available. ASPR allows each State to use Hospital Preparedness Program funds to develop its own bed tracking system as long as the system meets HAvBED requirements.

[24] ASPR required all recipients to complete the development of their bed tracking system by August 8, 2008.

[25] DOD Directive 3025.1, section 4.5.1 authorizes military officials to take necessary actions to respond to civilian requests for assistance in emergencies, which may include accepting civilian patients. This decision can be authorized by DOD or, in cases of urgent need, by the commander of the local military hospital.

for medical surge.[26] VA officials Stated that individual hospitals cannot precommit resources—specific numbers of beds and assets—for planning purposes, but can accept nonveteran patients and provide personnel, equipment, and supplies on a case-by-case basis during a mass casualty event.[27] Twelve of the 19 States reported that VA hospitals would accept or were likely to accept nonveteran patients in the event of a medical surge if space were available and veterans' needs had been met, and one State reported that some of its VA hospitals would take nonveteran patients and others would not.

We further reported in June 2008 that 18 of the 20 States reported that they were in the process of selecting alternate care sites, and the two remaining States reported that they were in the early planning stages in determining how to select sites. Of the 18 States, 10 reported that they had also developed plans for equipping and staffing some of the sites. For example, one State had developed standards and guidance for counties to use when implementing fixed alternate care sites and had stockpiled supplies and equipment for these sites. Another State, which expects significant transportation difficulties during a natural disaster, had acquired six mobile medical tent facilities of either 20 or 50 beds that were stored at hospital facilities across the State. One of the two States that were in the early planning stages was helping local communities formalize site selection agreements, and the second State had drafted guidance for alternate care sites.

Our June 2008 report also noted that 15 of the 20 States reported that they had begun registering medical volunteers and identifying their medical professions in an electronic registry, and the remaining 5 States were developing their electronic registries and had not registered any volunteers. Officials from 4 of the 5 remaining States that had not begun registering volunteers reported that they anticipated registering them. An official from the other State reported that State officials did not know when they would begin to register volunteers. Of the 15 States that reported they were registering volunteers, 12 reported they had begun to verify the volunteers' medical qualifications, though few had conducted the verification to assign volunteers to the highest level, Level 1. At Level 1, all of a volunteer's medical qualifications, which identify his or her skills and capabilities, have been verified and the volunteer is ready to provide care in any setting, including a hospital.

In our 20-State review of efforts related to the fourth key component, we reported that 7 States had adopted or were drafting altered standards of care for specific medical issues. Three of the 7 States had adopted some altered standards of care guidelines. For example, one State had prepared a standard of care for the allocation of ventilators in an avian influenza pandemic, which one State official reported would also be applicable during other types of emergencies.[28] Another State issued guidelines in February 2008 for allocating scarce medical resources in a mass casualty event that call for suspending or relaxing State laws covering medical care and for explicit rationing of health care to save the most lives, and required that the same allocation guidelines be used across the State. Of the 13 States that had not adopted or drafted altered standards of care, 11 States were beginning discussions with State stakeholders, such as medical professionals and lawyers, related to altered standards of care, and 2 States had not addressed the issue. One State reported that its State health department planned to establish an ethics advisory board to begin discussion on altered standards of care guidelines. Another State had developed a "white paper" discussing the need for an altered standards of care initiative and planned to fund a symposium to discuss this initiative.

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[26] VA is authorized to furnish hospital care or medical services as a humanitarian service to non-VA beneficiaries in emergency cases. See 38 U.S.C. § 1784; 38 CFR §§ 17.37, 17.43, 17.95, 17.102. VA is also authorized to provide care and services during certain disasters and emergencies. See 38 U.S.C. § 1785; 38 CFR § 17.86.

[27] According to a VA General Counsel memorandum (Guidance on Entering into Mutual Aid Agreements, July 23, 2003), hospitals can also enter into mutual aid agreements in which VA hospitals and local entities agree to assist each other during disasters and emergencies. These agreements often include provisions to accept patients from other hospitals if the transferring hospital has an overwhelming number of patients or if the transferring facility does not have the resources for patients who require specialized medical treatment. However, these mutual aid agreements must state that the agreement is limited by certain VA obligations that may take precedence over the agreement to assist local hospitals during an emergency, such as VA's obligations under the National Disaster Medical System and its obligations to assist DOD during a time of war or National emergency.

[28] A ventilator mechanically moves oxygen into and out of the lungs of a patient who is physically unable to breathe on his or her own, or whose breathing is insufficient to maintain life.

STATES REPORTED CONCERNS RELATED TO ALL FOUR KEY COMPONENTS WHEN PREPARING FOR MEDICAL SURGE

In June 2008, we reported that even though States had made efforts to increase hospital capacity, provide care at alternate care sites, identify and use medical volunteers, and develop appropriate altered standards of care, they expressed concerns related to all four of these key components of medical surge.

*Hospital capacity concerns.* We reported that State officials raised several concerns related to their ability to increase hospital capacity, including maintaining adequate staffing levels during mass casualty events, a problem that was more acute in rural communities. While 19 of 20 States we surveyed reported that they could increase numbers of hospital beds in a mass casualty event,[29] some State officials were concerned about staffing these beds because of current shortages in medical professionals, including nurses and physicians. Some State officials reported that their States faced problems in increasing hospital capacity because many of their rural areas had no hospital or small numbers of medical providers. For example, officials from a largely rural State reported that in many of the State's medically underserved areas hospitals currently have vacant beds because they cannot hire medical professionals to staff them.

*Alternate care site concerns.* Some State officials reported that it was difficult to identify appropriate fixed facilities for alternate care sites. Officials from two States reported that some small, rural communities had few facilities that would be large enough to house an alternate care site. Officials from some States also reported that some of the facilities that could be used as alternate care sites had already been allocated for other emergency uses, such as emergency shelters. Some State officials also reported concerns about reimbursement for medical services provided at alternate care sites, which are not accredited health care facilities, and concerns regarding how certain Federal laws and regulations that relate to medical care would apply during a mass casualty event for care provided at alternative care sites.

*Electronic medical volunteer registry concerns.* We reported that some States reported that medical volunteers might be reluctant to join a State electronic medical volunteer registry if it is used to create a National medical volunteer registry. PAHPA requires ASPR to use the State-based registries to create a National database. According to State officials, some volunteers do not want to be part of a National database because they are concerned that they might be required to provide services outside their own State. Officials from one State reported that since PAHPA was enacted, recruiting of medical volunteers was more difficult and that the Federal Government should clarify whether National deployment is a possibility. ASPR officials said that they would not deploy medical volunteers nationally without working through the States. Additionally, some States expressed concerns about coordination among programs that recruit medical volunteers for emergency response. Officials from one State reported that Federal volunteer registration requirements for the Medical Reserve Corps (MRC)[30] and the electronic medical volunteer registry programs had not been coordinated, resulting in duplication of effort for volunteers. Officials from a second State reported that a volunteer for one program that recruits medical volunteers is often a potential volunteer for another such program, which could result in volunteers being double-counted. This may cause staffing problems in the event of an emergency when more than one volunteer program is activated.

*Altered standards of care concerns.* Some State officials reported that they had not begun work on altered standards of care guidelines, or had not completed drafting guidelines, because of the difficulty of addressing the medical, ethical, and legal issues involved. For example, in 2005 HHS estimated that in a severe influenza pandemic almost 10 million people would require hospitalization,[31] which would exceed the current capacity of U.S. hospitals and necessitate difficult choices regarding rationing of resources.[32] HHS also estimated that almost 1.5 million of these people would require care in an intensive care unit and about 740,000 people would require mechanical ventilation. Even with additional stockpiles of ventilators, there would

[29] Officials from the remaining State reported that they did not know how many beds were available State-wide above the current daily staffed bed capacity.

[30] MRC is a Federal program within the U.S. Surgeon General's Office, which is in HHS. MRC units are community-based and organize and utilize volunteers to, among other things, prepare for, and respond to emergencies. MRC volunteers include medical and public health professionals as well as other community members, such as interpreters and legal advisers.

[31] By comparison, seasonal influenza in the United States generally results in 200,000 hospitalizations annually.

[32] Department of Health and Human Services, *HHS Pandemic Influenza Plan* (Washington, DC, November 2005).

likely not be a sufficient supply to meet the need. Since some patients could not be put on ventilators, and others would be removed from ventilators, standards of care would have to be altered and providers would need to determine which patients would receive them. In addition, some State officials reported that medical volunteers are concerned about liability issues in a mass casualty event. Specifically, State officials reported that hospitals and medical providers might be reluctant to provide care during a mass casualty event, when resources would be scarce and not all patients would be able to receive care consistent with established standards. According to these officials, these providers could be subject to liability if decisions they made about altering standards of care resulted in negative outcomes. For example, allowing staff to work outside the scope of their practice, such as allowing nurses to diagnose and write medical orders, could place these individuals at risk of liability.

While some States reported using AHRQ's *Mass Medical Care with Scarce Resources: A Community Planning Guide* to assist them as they developed altered standards of care guidelines, some States also reported that they needed additional assistance. States said that to develop altered standards of care guidelines they must conduct activities such as collecting and reviewing published guidance and convening experts to discuss how to address the medical, ethical, and legal issues that could arise during a mass casualty event. Four States reported that, when developing their own guidelines on the allocation of ventilators, they were using guidance from another State, which had estimated that a severe influenza pandemic would require nearly nine times the State's current capacity for intensive care beds and almost three times its current ventilator capacity, requiring the State to address the rationing of ventilators. In March 2006 the State convened a work group to consider clinical and ethical issues in the allocation of mechanical ventilators in an influenza pandemic.[33] The State issued guidelines on the rationing of ventilators that include both a process and an evaluation tool to determine which patients should receive mechanical ventilation. The guidelines note that the application of this process and evaluation tool could result in withdrawing a ventilator from one patient to give it to another who is more likely to survive—a scenario that does not explicitly exist under established standards of care. Additionally, some States suggested that the Federal Government could help their efforts in several ways, such as by convening medical, public health, and legal experts to address the complex issues associated with allocating scarce resources during a mass casualty event, or by developing demonstration projects to reveal best practices employed by the various States.

In May 2008, the Task Force for Mass Critical Care, consisting of medical experts from both the public and the private sectors, provided guidelines for allocating scarce critical care resources in a mass casualty event that have the potential to assist States in drafting their own guidelines. The task force's guidelines, which were published in a medical journal,[34] provide a process for triaging patients that includes three components—inclusion criteria, exclusion criteria, and prioritization of care. The exclusion criteria include patients with a high risk of death, little likelihood of long-term survival, and a corresponding low likelihood of benefit from critical care resources. When patients meet the exclusion criteria, critical care resources may be reallocated to patients more likely to survive.

## CONCLUDING OBSERVATIONS

In our June 2008 report, we noted that though States had begun planning for medical surge in a mass casualty event, only 3 of the 20 States in our review had developed and adopted guidelines for using altered standards of care. HHS has provided broad guidance that establishes a framework and principles for States to use when developing their specific guidelines for altered standards of care. However, because of the difficulty in addressing the related medical, ethical, and legal issues, many States were only beginning to develop such guidelines for use when there are not enough resources, such as ventilators, to care for all affected patients. In a mass casualty event, such guidelines would be a critical resource for medical providers who may have to make repeated life-or-death decisions about which patients get or lose access to these resources—decisions that are not typically made in routine circumstances. Additionally, these guidelines could help address medical providers'

[33] The group brought together experts in law, medicine, policy making, and ethics with representatives from medical facilities and city, county, and State government.

[34] The task force included officials from DHS, HHS, ASPR, CDC, DOD, and VA. See *Asha* V. *Devereaux et al.,* "Definitive Care for the Critically Ill During a Disaster: A Framework for Allocation of Scarce Resources in Mass Critical Care: From a Task Force for Mass Critical Care Summit Meeting, January 26 to 27, 2007, Chicago, Il.," *Chest* (2008): 133, 51–66.

concerns about ethics and liability that may ensue when negative outcomes are associated with their decisions. In its role of assisting States' efforts to plan for medical surge, HHS has not collected altered standards of care guidelines that some States and medical experts have developed and made them available to other States. Once a mass casualty event occurs, difficult choices will have to be made, and the more fully the issues raised by such choices are discussed prior to making them, the greater the potential for the choices to be ethically sound and generally accepted.

Mr. Chairman, this concludes my prepared statement. I would be happy to answer any questions you or other Members of the subcommittee may have.

Mr. CARNEY. Thank you for your testimony, and I would like to thank each of the witnesses for their testimony. We will now go to the questions. Mr. Bilirakis and I will ask questions for 5 minutes each to the panel alternating back and forth, and we will take as long as it takes. I will start, this question is for Dr. Jolly and Dr. Pane both. How do you see, and I know you mentioned this in your opening statements, but how do you see DHS and HHS working together in practical terms, something beyond the National Response Framework? I know how it is supposed to work on paper but in practical terms, how do you see it?

Dr. JOLLY. I will start on a very practical level. Part of this is driven really by the day-to-day workings between the department, between the part of DHS, the operations director at FEMA, and parts of HHS, ASPR, CDC and other parts that really work through issues on a day-to-day basis that have not risen to crisis levels or result in planning or preparedness or exercises. For large-scale events, it is well recognized that well worked out that DHS is the lead for overall management and the health and medical aspects are led by HHS, but they are obviously interplayed among those that we facilitate. It is hard to work out all the details of that over time, but as we work more and more on this it gets smoother during incidents, and I think each one of these teaches us what is going to happen on the next one. Dr. Pane.

Dr. PANE. Let me just add, Mr. Chairman, that I couldn't agree more with what Dr. Jolly is saying. Having been an ER doc myself for a lot of years and a hospital executive and State health department director who got these grants, I think one of the most important things we can do in Washington is to walk the talk. We ask our wardees to coordinate and drill and work together, and I think we need to do the same thing, so it is very important that we do that. We have a lot of activities going on with the DHS, as well as within our own department in CDC trying to be sure we are coordinated and working through issues proactively. There is regular contact, as Dr. Jolly alluded to, because the Office of Health Affairs and various parts of HHS on a host of things.

Certainly in times of response as I allude to in my testimony we are in the command centers together working very closely with our regional and emergency coordinators, with Homeland Security officials in the State, as well as in the National center during a disaster. In addition, we have a working group that we are part of that is working to coordinate grant guidance and others things, so we have a group that is looking at the MRS system, looking at UASI dollars, looks at the CDC TEF dollars, looks at our SUP dollars, and tries to take a look at are we doing a coordinated grant notice, coordinated metrics, is it appearing to States that we are walking the talk.

I know when I got those dollars, that is how I acted with them. I am glad to get them from various parts of the Federal Government, but it is your job at the State level or local level to make music in the orchestra. We are giving you sections. You need to make the music here locally. So it is very important. It is a job that is too important not to succeed in, so we take great pride in trying to work through some of those issues and make a more coordinated Government so we have a more effective response locally.

Mr. CARNEY. What is the nature of your relationship beyond the National response plan? You talk about daily contacts. Characterize that, please.

Dr. JOLLY. With or without a document called the National Response Framework, which is obviously a very important document, on a daily basis we have, for instance, planning groups on anthrax response, on H1N1 response. Well before the beginning of this pandemic on a regular basis the interagency meetings among DHS, HHS, and all our other interagency partners happened on a very regular basis to plan for the various contingencies of a pandemic, and then on specific issues such as vaccine distribution or countermeasure distribution, or surveillance, different parts and different subject matter experts. The people on the ground who really know the most about these specific issues get together sometimes daily, sometimes weekly, go to meetings together, and not just for the sake of meetings but to really see how the assets that the DHS has and the assets that HHS has, and, most importantly, the assets that State and local officials have that are partially funded by the Federal Government and locally funded can work together.

Mr. CARNEY. Ms. Bascetta, both DHS and HHS have surge responsibilities. How are they doing from GAO's perspective in coordinating those?

Ms. BASCETTA. This is a subject that we are still looking at, and specifically we have on-going work on lessons learned from the recent—the most recent response to the first two waves of the pandemic. We noted in our work on pan flu that clarification of the rules and relationships between those two departments in particular but also other Federal agencies and components within HHS is important to continue to work on and to refine. I have a couple of experiences with DHS and HHS in other work that I conducted. One was on the case of the tuberculosis traveler who boarded a plane and went overseas. There was actually a very successful story as result of that where CDC and Customs and Border Patrol Control with DHS kind of had a rocky start working together originally because they came at the problem from very diverse points of view.

But they learned a tremendous amount through that experience, and I think it is that daily interaction, person to person, certainly not at the higher levels, that is important in forming the kinds of relationships we need to have successful response.

Mr. CARNEY. I will explore that in my next question, but now Mr. Bilirakis for 5 minutes.

Mr. BILIRAKIS. Thank you, Mr. Chairman. The first question is for Dr. Jolly. Is the medical community prepared if disaster or terrorism strikes as the title of this hearing offers, and also is the medical community capable of handling a bioterrorism attack such

as anthrax or smallpox while concurrently responding to a pandemic? Won't the same resources that are currently stretched thin face even greater strain, and what needs to be done to make our preparedness better and how are we identifying existing gaps and capabilities and who is charged with correcting them?

Dr. JOLLY. That is a very comprehensive question. Hopefully, I can provide a very comprehensive answer. The medical community is a very broad community, and it is not just the emergency medical community or critical care community, but the broad medical community, including nursing, physician assistants, administrators, the public health community. You know, there are many, many large challenges that we could potentially face. I think the medical community still has work to do. There is still educational work. There is still training work. There is still planning and exercise work that the community needs to do to surge beyond the day-to-day hard work it is doing right now. These are not a group of people who are sitting still waiting for the next thing to happen.

We are prepared in the mist of a pandemic were other things to happen. Our preparation continues for those. Our preparedness continues for those. Any concurrent hazards would be a challenge but those are things we think about. We never think about just doing one thing at a time. As we work through this, I think there are many things to work on, both coordination, which sounds a bit like a bureaucratic term, but it has real meaning, getting emergency preparedness, law enforcement, other critical infrastructures, together with the medical community to really broaden the definition of what health care surge really is beyond just the four walls of one or more hospitals.

There is much more we can work on with you, and I think the models of the prior MMRS program, over 110 in the country, serve to model some of those workings locally, and I think we can broaden that Federally.

Mr. BILIRAKIS. Would you like to add something, sir?

Dr. PANE. Just briefly, I would add that as Dr. Jolly has said this is a complicated thing, and what we have tried to do over the years, and I have seen it myself as an ER doctors, and I am sure Til has as well, I think it has never been better but we still have a ways to go. I mean we have come a long, long way thanks to your support in Congress. Some of these dollars we have been able to put out to States, we really, I think, improved coordination and guidance. But the real action, I believe, is with State and localities and hospitals, docs, other health professionals, and also working with the emergency management community, police, fire, and others. A lot of that has happened through various trainings and exercises, which I think is the key.

We contract for a couple of studies with the University of Pittsburgh Medical Center, the Center for Security, and they have looked at both our programs, and I think what they have said is the best thing that we have done and we should keep doing is getting people to work together, talk together, drill, exercise, training, increase that comfort level as the GAO said. That is, I think, key in disasters. Being able to respond to any hazard is having that experience of walking though the problem and actually taking real-life exercises, doing after-action report, what happened, what we

can do better. A lot of that goes on, and I think we are making tremendous headway, but we certainly have a way to go, sir.

Mr. BILIRAKIS. Anyone else that would like to respond to that?

Ms. BASCETTA. I will just add two things. One very concrete thing is that our vaccine technology is very antiquated. We still have egg-based production and we really need to move forward on what is happening to develop cell-based technology so we can get vaccines produced much more quickly. The second thing is that the question is always how well are we prepared and prepared for what. We are always well prepared for what just happened, but it is hard to anticipate what is coming down the pike. As the Chairman said in his opening remarks, balancing the costs and benefits of that preparation is really a tough nut to crack. I would like to think about also building in resilience. You want to make the assumption that things are going to happen but they are, and figuring out the flexible ways to be resilient and to respond with minimizing the disaster is an important framework to begin focusing on.

Mr. BILIRAKIS. Thank you. Dr. Jolly, given that the hospital preparedness is a local issue and that the Federal Government support this effort is provided by the Department of Health and Human Services, what role does the Office of Medical Readiness play in ensuring that hospitals are able to increase their surge capacity?

Dr. JOLLY. As you said, the primary funding and support for hospital preparedness resides within Health and Human Services, and they do quite a good job at that. As you know, FEMA has a number of grant and training programs, some of which are applicable simply to health care systems and more which are more broadly applicable across communities. One of the important roles of our office is to look at those grant functions to work with FEMA and to look at them from a health perspective. Our office is working with offices with ASPR, the Assistant Secretary for Preparedness Response, to try to coordinate some of those grant time lines, some of the guidance, and try to make sure that the FEMA grant programs consider health aspects of what they are doing and tie better so that local officials, as Dr. Pane used to be, can make some sense out of the various pools of money that are coming to them.

Mr. BILIRAKIS. Thank you. Thank you, Mr. Chairman.

Mr. CARNEY. Okay. Ms. Bascetta, let us return to the line of questions from before. How is the coordination going? You were talking about the tuberculosis case. We seem to learn going forward after an event happens how to respond. Is that the best model?

Ms. BASCETTA. No, it certainly isn't but the reality is that 9/11 is still a relatively recent event, and we have learned a lot from it and from Katrina and from pan flu, and overcoming the silos within departments and across departments is something that really requires practice. I think we have learned the lesson of practice, as Mr. Pane said. Many experts who have studied disaster response have pointed out that getting to know each other on the day of the response isn't going to work, and I think the lesson of exercising is pretty clear.

Mr. CARNEY. This is for everybody here, including Ms. Fitzgerald. We are going to get to you, don't worry. When talking about exercising—as somebody who has been in the military for a lot of years now, we exercise a lot of different scenarios, a lot of different things. We do it all the time when we train. How often do you exercise? Is the exercise adequate? Is it reflective of reality? Those are the things that we are really concerned with. So, Dr. Jolly, why don't you start and we will just work down the table?

Dr. JOLLY. I think that exercising just for exercising's sake is not a good idea. I think we are increasing our number of exercises. FEMA, the National Exercise Division within FEMA maintains the Homeland Security Exercise and Evaluation Program, which is an interagency effort to coordinate those exercises. I think as we move toward more realistic exercises, it is important to exercise sometimes to a point of failure in the exercise and to have the leaders that are in those exercises go through very difficult rather than scripted I know what I am going to do situations. I think the leadership of the National Exercise Division is thinking about—is moving in that direction as all of us in Government from principals, the Cabinet members, down through the operators in the departments.

Dr. PANE. The training aspect and exercise is the core of the Hospital Preparedness Program, and we are looking for hospitals to actually work together. This is the Hospital Disaster Plan we are talking about. This is actually groups of hospitals or health facilities in a region along with other professionals in the larger emergency management community working together. We have specific exercise requirements, and a lot of us are geared toward that regional concept as well as State-wide activities in the larger emergency management community with DHS and FEMA. There is a lessons-learned entity through DHS called LLIS, Lessons Learned Information System, I believe, which we upload all these things, and we are trying to single out the health part of that and make it more easy to use and get that word out because it is probably the primary thing we can do.

Those of you who watched the game last night in watching the defense, we do an all-hazards approach because we want to be ready for anything offense throws at us whether it is a chem, a bomb, pan flu, so that the core things of drilling and exercising together, the training aspects, the communication system, calling up volunteers, some of the same principles would be used for many things. We try to emphasize that and keep pushing it to get better to perform its metrics and work groups, NIMS requirements, the National Information Management System, we work with hospitals to enhance that. So a lot of that activity is going into exercises and making it better to get a better yield.

Ms. FITZGERALD. There are so many opportunities for exercising across the State of Pennsylvania, both at the individual hospital level, at a county and municipal level, engaging the county and municipal emergency management engaging at a regional level and then obviously engaging at the State-wide level. From a State health department perspective on a regular basis we are encouraging communications exercising so we are testing our 800 megahertz radio system. We are testing our ability to feed data into our

facility's database so that we are prepared for something like the H1N1 event.

We test our equipment so we purchase the portable hospitals. It is not rocket science to put up one of the portable hospitals but on a regular basis we need to pull them out and make sure that everything is still working, so we are exercising that. Ultimately, there are so many pieces of our all-hazards plan that need to be trained to an exercise that this is an on-going effort year after year after year to continue to work at the individual hospital level as well as at the regional level.

Mr. CARNEY. What is your relationship with the Federal Government when you do these exercises?

Ms. FITZGERALD. We absolutely report our exercises to the Federal Government.

Mr. CARNEY. Do they participate? Is there any participation?

Ms. FITZGERALD. Absolutely. They are always willing to come in and participate in our exercises, so at least once a year we probably have Federal representation at one of our exercises.

Mr. CARNEY. Okay. We will get back to you. It is Mr. Bilirakis' turn.

Mr. BILIRAKIS. Thank you, Mr. Chairman. This is for Dr. Jolly. The MMRS program supports the integration of emergency management, health, and medical systems into a coordinated response to mass casualty incidents caused by any hazard including pandemic influenza. Successful MMRS grantees reduced the consequences of a mass casualty incident during the initial period of response by having augmented existing local operational response systems before the incident occurs. How are we utilizing the MMRS system to respond to shortages in vaccine and personal protective equipment such as the N95 respirator masks?

Dr. JOLLY. Well, the MMRS system, as you know, has a long history of coordinated functions among the various services within a community. Over 100 communities are MMRS cities and work law enforcement, fire, EMS, and hospitals to create a coordinated local and then regional function. The specific shortages or potential shortfalls in some of the PPE and some of the pharmaceuticals are not really a function of the MMRS, but they are important in analyzing the needs for those and also sometimes in distributing. At least one of our MMRS jurisdictions asked to help with a local community vaccine distribution which they had expertise in Maine, I believe it was, to provide the services that a local college couldn't provide but they had people who needed a vaccine, so they do serve as a resource to provide those services when they are needed and then be prepared when large things happen.

Mr. BILIRAKIS. Thank you. Dr. Pane, approximately 800,000 doses of H1N1 vaccine were recalled last month. Most of these doses were used in young children ages 6 months through 3 years old. The reason for the recall was that tests show that the vaccine might not have been potent enough to protect against the virus. What caused this failure and how has it been corrected? Doesn't this error further strain existing medical surge capacity resources, and are we doing enough to protect our Nation's children, and all high-risk groups for that matter?

Dr. PANE. I will have to get back to you on some of the details of that through our BARDA, Biomedical Advance Research and Development Authority, part of HHS and part of ASPR, that is really dealing with countermeasure development. I can tell you, Mr. Bilirakis, as Cynthia Bascetta mentioned, we are still dealing in a primary world of non-manufacturers, and we are still in an egg-based as opposed to cell-based technology. I know BARDA, a lot of their work has been geared toward expanding through contracts and incentives the manufacturing base to get more vaccine today and the, second, to move toward cell-based.

In terms of H1N1, I think everybody in the room has probably read about the development was slowed. It didn't grow as fast. All viruses are a little different. While I think it turned out to be safe and effective and it is still being promoted—in fact, I was sitting, I think, in the hotel last night, and I saw a Pennsylvania about H1N1, to go get it, so we really work closely with State and local public health to recommend the use of that. I think the overwhelming evidence is the vaccine is safe. Certainly, this time around, I think without BARDA and the work HHS has done, it would have been even slower getting out. We always assume that something like this would happen overseas. We have had months to get ready and this happened in our back yard and we had to develop things rapidly, so I think all said and done the vaccine was gotten out as quickly as we could, and lucked out this wasn't a real serious virus.

But your point is well taken. We need to improve our ability to manufacture vaccines quickly and safely get them out. The safety among children is key. In fact, we are dealing right now with—there is a commission on children disasters that have issued a number of recommendations that we are trying to incorporate into our guidance and other means, and certainly vaccine is one of them. So I think your question is timely and accurate and it is very important to the public that vaccines are safe and timely. I know as a father and as a local public health official myself that that was one of the key things that you want to pay a lot of attention to and do your best to advocate and I think our States are doing a good job with it and we need to continue that.

Mr. BILIRAKIS. Thank you. Why don't I wait till the next round, Mr. Chairman?

Mr. CARNEY. Dr. Pane, just in the last round of questions the LLIS was mentioned. Does HHS actually use the LLIS, the Lessons Learned Information System?

Dr. PANE. We do, and I think we have agreed that this is the vehicle we want to use, and so we are going to work even harder to encourage hospitals to get this information put in and then to have a health section because it comes in all kinds of preparedness and disaster exercises, so it would be most helpful for health and medical. We are going to continue to promote that, so, yes, we believe we can use it. We also, of course, have other means of gathering best practices and having dialogue with our States, and I won't go into that now because I know your time is limited. But when I arrived, best practices identification and innovation was something I think we could do a better job of finding them, working with our States to recognize them, and promoting their adoption faster be-

cause there is great work going on, as we have seen here today, and we need to be sure those lessons learned when something goes wrong, but also when something needs happening or something innovative is happening around the country for a problem, we want others to know about it.

Mr. CARNEY. Okay. I want to shift gears just a little bit now and talk about the altered standards of care crisis, whatever you want to call it, from all your perspectives. How do we address this, Dr. Jolly and Dr. Pane, in terms of medical surge? What are your perspectives on this?

Dr. JOLLY. I would acknowledge what our colleagues from GAO have found, and these are difficult issues. This is more as a position as a Homeland Security official to think that there are somewhat different standards or crisis standards in a large-scale incident than on a day-to-day basis are difficult things to work through legally and morally and ethically and practically. This is the sort of thing you do train for and think about. You think about what is going to happen if I have to take care of 20 people at once and I don't have enough to do it or 100 people or 1,000 people at once, and I don't have enough people to do it. I think that we need to consider these issues and think through them. This is something we are happy to support, support HHS, which was clearly in these sorts of situations. The greater community, the greater society has a role to play and I think in practical terms were one of these things to be carried out.

Our department, HHS, and many others would be involved in some of the decision-making and the communications of this because there is also an issue of having the public understand what we all are facing and being open and honest with the public.

Dr. PANE. All our work at HHS, basically the raison d'etre, if you will, is geared toward helping the health system meet surge capacity and deliver the best quality care no matter what hits us and no matter how much. Our guidance is really geared towards hospitals and states optimizing the use of resources whether it is the community, the docs in the community, clinics, primary care sites, alternative sites of care to being able to call up medical volunteers, share ventilators, work together to share resources to take on whatever hits us and keep the standard of care high. That said, for standards of care, and we did agree with Ms. Bascetta' report that the GAO report was excellent. It is an important issue.

It is also important to note detailed standards of care are happening locally. The Federal Government does not set standards of care, but we can do guidance and best practices, and I think we need to do more in this area. One thing that HHS has done is contracted, as was mentioned, with the Institute of Medicine, an esteemed group, and they issued or are issuing or finalizing some guidance in alternative standards of care. There is going to be a second part of that report. I know, as was mentioned, the Agency of Healthcare Research and Quality was contracted for and they issued a guide. I think some States have used that.

We are also trying to collect lessons-learned or innovations that I mentioned earlier in this area. Some States are ahead of others in fatality management planning or alternative standards and we want to capture those, so a lot of activities there. But I just wanted

to emphasize our goal is to deliver the top notch and best care we can under any scenario and expand to do it. Alternative standards of care is one aspect of that, and we are going giving it more attention.

Mr. CARNEY. Ms. Fitzgerald, please.

Ms. FITZGERALD. From a State health department perspective, we see our goal as taking the Federal guidance as well as some of the other best practices that the States have started to develop and make sure that our health care partners across the State are aware of these materials and that we hold forums to have discussions prior to an emergency so that we can better be on the same page during the emergency because these discussions are tricky and involve a variety of professionals that need to come to the table. So in developing this guidance document that is almost ready to be released, it will initiate a lot of great conversations across the State so that health care professionals and emphasis can be more on the same page prior to the emergency and, therefore, be better ready to respond and take care of the patients during an emergency.

Mr. CARNEY. From your perspective, should the altered care plan come from the States upward or from the Federal Government downward? Should each State have its own standard, should each locality have its own standard or should it be——

Ms. FITZGERALD. Well, I think one of the challenges when you talk about standards of care is that in the end is it becomes a very individualized patient-physician decision at the bed side, and so I think when you are talking about standards of care you are really needing to talk about modified health care delivery based on certain circumstances, and so I think the guidance that the Federal Government and the State governments can put out to identify possible scenarios and possible responses to the scenarios is the best thing we can do to provide support to the individual physician at the bedside.

Mr. CARNEY. Ms. Bascetta, please.

Ms. BASCETTA. Thank you. From our perspective, as you have heard, once an event occurs there are going to be very difficult choices that need to be made. The best example is what would have happened in pan flu if it had been much more virulent and we had needed to take people off of respirators, decide, you know, who was going—decide how has the best chance of survival and will get care is essentially what we are talking about, something we are not used to in this country. So we don't think that it is the Federal Government's responsibility to set those standards, but it does play an important role in providing guidance. We seen this IOM report, which we haven't fully evaluated it but we see it as a very important step in providing that general guidance to the States, but we do think that there needs to be a heavy local component.

The most important thing is to remember that as fully and as transparently we can discuss these issues above-board before an event then the greater the potential is that the choices that we will be making will be ethically sound, and, more important, generally accepted by the public.

Mr. CARNEY. Thank you. We will explore that again. Mr. Bilirakis.

Mr. BILIRAKIS. Thank you, Mr. Chairman. Ms. Fitzgerald, in the event of an emergency in surrounding States like New York and New Jersey, Pennsylvania might experience an influx of patients and evacuees. Are Pennsylvania's hospitals prepared to receive these patients if need arises?

Ms. FITZGERALD. Hospitals have spent the last many years considering surge options and developing plans to manage surge. I think that hospitals will have an easier time managing surge from another area than when the entire State might be affected through a pandemic, for example. We know that hospitals are extremely busy every day and don't have a lot of immediate resources for surge, but I think hospitals have done a lot of planning to plan for surge. In addition, we have a lot of resources throughout the State that can be brought in to assist with the hospital or patients could be dispersed throughout the State. So while I think there is always more planning and training and exercising that we need to do, I think hospitals have done a lot of great work to prepare for a surge.

Mr. BILIRAKIS. How does Pennsylvania handle issues surrounding the credentialing medical personnel that may wish to volunteer during a disaster or terrorist attack? What issues might medical professionals from outside the Commonwealth face in trying to volunteer in Pennsylvania? Last, what issues may medical professionals from Pennsylvania face in trying to volunteer in other States?

Ms. FITZGERALD. Pennsylvania has developed the Statewide Emergency Registry for Volunteers in Pennsylvania called SERVPA. It is a database that connects directly to our Department of Licensure so that we are able to verify medical licenses and nursing licenses when people register in our system and we are able to verify that as we to deploy a volunteer. So we are able to easily verify people who volunteer within the State. As far as sending volunteers to other States, obviously we can share our credentialed volunteer's information with other States if they are deployed to other States.

As far as allowing volunteers to work in Pennsylvania, that is an agreement we would have to have with another State. So I think we have done a lot of planning around this issue but I think there is additional planning we can do to make sure it would be a smooth transition to allow people from other States to work in Pennsylvania.

Mr. BILIRAKIS. Thank you. I yield back, Mr. Chairman.

Mr. CARNEY. Thank you, Mr. Bilirakis. On the crisis standards of care issue, Dr. Pane, what is HHS' recommendation on the standard? You haven't signed on necessarily to a more National element. Do you have a thought on this?

Dr. PANE. Yeah, I think the whole concept of alternative standards of care, crisis standards of care, it is an important issue and we are trying to take that on. The States and others have raised that, GAO. It is certainly part of what you do in a disaster. You need to consider all your options and standards of care. Should you be overwhelmed is certainly one of them. So to put a little more meat on the bones there and get more enlightened guidance, I think both based on the current science and also what the con-

sensus is was mentioned, a practitioner—as you know, in Government, and I feel as a local health director, I could only do what the public believed in and supported.

So in order to do that, you really have to get the science thing down but you have to get the concepts that are accepted by a large majority of people and health professionals, so I think that is what the IOM, HHS contracting with them to bring together that kind of a group of experts to move that ball down the field, and there will be more to say about that, and also the AHRQ project. But, again, as was mentioned, this is a local issue. Standards of care and the nuances are set. Even vaccines, CDC issues a list of priorities but in H1N1 States had to make decisions between the lines, and this happens all the time. So we rely on our States and local professionals to make the hard, tight, close decisions, but certainly from the Federal side we can draw experts and come up with guidance and some of the principles, things that work that will enable that process and make it better.

Mr. CARNEY. Ms. Fitzgerald, I had a question in terms of just a numbers question. What is the surge capacity for the mobile hospitals for the State now, do you know? How many beds can we bring to bear if need be?

Ms. FITZGERALD. Yes. Each of the eight portable hospitals has 50 beds that can take care of up to seven patients a day, so they can each take of care up to about 350 patients a week, and so it brings significant surge capacity that is also mobile so that we can move it where I believe we need to in the State. In addition, the 19 medical surge trailers also have 50 beds in each of the trailers. The difference is the medical surge trailers don't come with their house basically, and you would set up the medical surge trailers in a fixed facility such as a gymnasium.

Mr. CARNEY. We had the pleasure this morning of visiting Geisinger and looking at sort of the remote care that they—the I system—that they have to help remotely care for patients. Do you see that coming on-line or do you see any hope for that in terms of surge capacity?

Ms. FITZGERALD. I had seen that system I guess today for the first time so I haven't, I apologize, thought a lot about that system, but I was——

Mr. CARNEY. You can kind of free associate here, if you like, from your position.

Ms. FITZGERALD. I was really impressed with that system and I think it looks like there is a lot of opportunity for being able to expand the number of patients that can be cared for.

Mr. CARNEY. That was my impression as well, but hearing it from the professionals would be great. Ms. Bascetta, in your estimation from the GAO's perspective, what are the top two or three challenges that you see in terms of preparedness and surge capacity and that sort of thing, and how do we address them?

Ms. BASCETTA. One is related to the decline in the economy that we are experiencing. Public health departments have been chasing the same kinds of budget cuts that other State functions face so that is a matter of funding, and it is all dollars. The places that are particularly hidden as situations are surveillance and finding clinical access to especially low-income, low-income people. We have

talked a lot about crisis standards of care, and we see progress being made in an area. We would like to be able to see States take advantage of the IOM report and the Federal clearinghouse if and when it is actually put on-line to get some things down on paper ahead of disasters, and continuing to learn from experiences like Katrina and pan flu in particular is a very, I think, fruitful area for us to continue pursuing.

Mr. CARNEY. Given the scarce resources that you just mentioned, where would you focus those scarce resources right now to get the most bang for the buck?

Ms. BASCETTA. That is a good question. I think that the all-hazard perspective and making sure that there are a lot of things where dual use is really important, making sure that surveillance isn't compromised, that there is basic public health access functions for the low-income populations where people with chronic conditions are not compromised so that you are faced with a disaster. You have got an ability to do the kind of triage that you need in the local area continuing to shore up the basic public health functions. I think that is important because that is the piece that needs to interact with law enforcement and other responders.

Mr. BILIRAKIS. Thank you. Dr. Jolly, are the incident management assistant teams that Secretary Napolitano spoke of assisting the MMRS system and providing effective support at the local response, and is HHS supporting the MMRS system with supplies from the National strategic stockpile?

Dr. JOLLY. Well, in response, there is a complex group of response elements that would all come into play. Incident management assistant teams are part of the FEMA response framework. We support that. Other departments support that. To take Federal leadership into a region and they go on the ground in various crises, including one that is on the ground in Haiti now to assist with that part of the Federal response, the MMRI systems work within the State and the local level and our local resources that are designed to build up the response immediately before those IMATs can get there. The strategic nationals stockpile, should it be needed, is a CDC asset and assets from that either medical countermeasure or PPE medical equipment, other things that are in the S&S be needed, those would quickly be lost and brought into a State and then distributed in accordance with State guidelines for how those things get distributed. So it is essentially a response web for how those things get distributed, so it is essentially a response web that all works together, starting at the local level at the most basic level of response and building up to include the various Federal assets that are there.

Mr. BILIRAKIS. Thank you. Dr. Pane, is there a shortage of N95 respirator masks in the health care setting, and what is driving that shortage, if one exists? Is it cost, product capability and/or allocation? Where is the perceived bottleneck occurring and is there enough vaccine available to not only health care workers but law enforcement in a timely manner to ensure that personnel protection if there is personal protection if there is any shortage of N95 respirator masks for them?—so a concern about the protection, yes.

Dr. PANE. Congressman, I may need to get back to you on some of the details on this. The CDC is really the lead on this, but it

definitely is an area that was recognized and is being looked at by them. On the N95 masks, I know the big issue that was discussed, and I think my colleagues were on these calls as well, had to do with when do you use N95, who needs it and when versus a more simple mask which are readily available. I think a supply of ventilator, N95 masks, and regular masks is important. The main issue, and I think CDC is working on this, I don't know if there was a final conclusion, there was some difference between what the OSHA standards were regarding N95 masks and perhaps the response standards, so the only issue—there is enough depending on what the criteria is. If the criteria move a little, there may be a shortage. So I think the CDC—we will have to get back to you on if there is final guidance or where they stand in that process but it all came down to when is it appropriate clinically to use a regular mask. I think it is prolonged periods of intense contact with folks who are infected you would use an N95 versus a regular mask, so that is the status of that as far as I can tell right now.

Mr. BILIRAKIS. Thank you, sir. Thank you, Mr. Chairman. I yield back.

Mr. CARNEY. Thank you. We will close this panel of the hearing on this, my last couple of questions. Dr. Pane, since funding for hospital preparedness programs, hospital preparedness programs is, I think we would all agree, not as great as it should be. How concerned are you that States and Tribal entities and localities have what they need? Will they be able to build and maintain a medical surge capacity? What impediments are we facing here? Is there a formula for funding you think each hospital should have? Is there some way that we can adequately assess where we are in terms of being able to address and respond to any kind of need, be it natural or man-made?

Dr. PANE. Mr. Chairman, I share your thoughts and concerns on that. We know, as I mentioned earlier, the States, the incredible stress they are under now with the economics and other issues, and we try to be responsive to them. In our guidance, we made it a 3-year planning cycle rather than a 1-year, which was brought up. We made it a July-to-July budget cycle, which is no easy matter for HHS, but we did get that through to try and make it better and stretch those dollars further. It is a formula-based program. Essentially its population is how you get your share, and then at the State level though they determine the allocation and planning based on your needs, what priorities and which hospitals or which health facilities get the dollars.

You can give it to entities besides hospitals, but I think historically given the amounts it mostly went to hospitals to work on. We thank you and Congress for giving us an extra supplement of $90 million this year to put out for H1N1 which was a supplement. I know CDC got some extra dollars as well. We also did a small grant to many of the States on the health volunteer program, the ESAR–VHP program, to kind of move that ball along. So you are right though. We need to walk and chew gum and have multiple use for these things and get the maximum bang out of the buck here, and I think our State is doing a great job and we are going to continue—whatever you provide, we got a way to spend it and

we will try to get the maximum out of it to have localities prepared, which is what this is all about.

Mr. CARNEY. So you are going to tell me how much more you actually need then, right?

Dr. PANE. Write a check and we will spend it. We did a few years ago have a partnership program which funded the Hershey——

Mr. CARNEY. Sure.

Dr. PANE. You know that, and we welcome your support and we appreciate what you have done for us.

Mr. CARNEY. Okay. Well, I would like to thank the panel for their testimony and for answering the questions we put before them. I am almost certain that the subcommittee and perhaps the larger committee will have further questions. We will address them in a letter to you. Please respond in a timely fashion if we do so. This panel stands adjourned. We will reconvene in 15 minutes. Thank you.

[Recess.]

Mr. CARNEY. The second panel will begin now and I would like to welcome the second panel witnesses. Our first witness is Dr. John Skiendzielewski. He serves as an emergency room physician and Director of the Emergency Medicine Service Line for the Geisinger Health System in Danville. He attended St. Joseph's College and Temple University School of Medicine. He has worked at Geisinger since finishing residency and served as residency director before becoming department director. Dr. Skiendzielewski served on the ACEP board of directors from 1998 to 2003. He has also published over 20 articles. He currently lives in Danville, Pennsylvania with his wife, Kathleen.

Our second witness is Dr. Michael N. O'Keefe. Dr. O'Keefe was appointed President and CEO of Evangelical Community Hospital in September 2004 after serving the hospital previously as Executive Vice President and Chief Operating Officer, and Vice President of Operations. He holds a Master's of Public Administration degree from the American University and a Bachelor of Arts degree from St. Lawrence University of Camden, New York. Prior to working at Evangelical, Dr. O'Keefe served as Vice President for Operations at Newark-Wayne Community Hospital in Newark, New York from 1984 to 1991, and was the Administrative Assistant for Professional Services and Director for Health-Related Services for the Community General Hospital of Syracuse, in that position from 1977 to 1984. Dr. O'Keefe lives in Lewisburg with his wife, Gail, and they have three grown children.

Our third witness is Mr. Robert A. Kane, Jr. Mr. Kane has worked at Susquehanna Health in many capacities since 1974. He currently serves as the Vice President of Operations and is responsible for the Williamsport Regional Medical Center's emergency department, paramedic department, adult and pediatric hospital program, the family medicine residency program, and all of Susquehanna Health's emergency preparedness programs. Bob has been managing many of these programs since 1988. Pertinent education experience includes an MBA from Bucknell University in 1996, a BS in Business Administration from Upper Iowa University in 1984, Liberal Arts studies at Lycoming College in 1981, a certification in the health care leadership course at the Center for Do-

mestic Preparedness from Aniston, Alabama, 2006. We are familiar with all those places.

Our fourth witness has traveled to Pennsylvania from St. Petersburg, Florida at the invitation of our Ranking Member, Mr. Bilirakis. At this time, I will give Ranking Member Bilirakis the pleasure of introducing his witness.

Mr. BILIRAKIS. Thank you, Mr. Chairman. I am pleased to introduce Mr. Gary Carnes, President and CEO of All Children's Health System in St. Petersburg, Florida. Mr. Carnes joined All Children's Hospital in 1997 as its Executive Vice President and Chief Operating Officer and has held his current position since 2002. Prior to his service with All Children's, Mr. Carnes held positions at St. Anthony's Health Care and Ramsey Health Care Corporation, another excellent institution. Mr. Carnes has a Bachelor's of Science in Allied Health Professions and a Master's of Business Administration in Finance. Founded in 1926, All Children's Hospital is the only specialty licensed children's hospital on Florida's west coast. In 2007, it was named for the fourth consecutive time among the top 25 children's hospitals in the United States and the best in Florida by Child magazine.

Earlier this month, All Children's moved into its new state-of-the-art facility. In addition to enhancing day-to-day patient care, this new facility has features that will be central during a natural disaster, terrorist act, or other mass casualty event, God forbid we have one. For instance, the emergency center and the new facility is more then triple the size of the emergency room in the old hospital. The central energy plant that is part of the new complex is designed to keep the hospital fully functioning with air conditioning, and of course in central Florida we got to have air conditioning, for up to 3 weeks in the event of a disaster or power interruption. In addition, the building's helipad was designed to accommodate military aircraft which will enhance the hospital's ability to receive patients arriving on all types of helicopters during an emergency.

I welcome Mr. Carnes to our subcommittee. I look forward to the unique perspective you will bring to this hearing. Thank you, Mr. Chairman. I appreciate it.

Mr. CARNEY. Thank you, Mr. Bilirakis. If there is no objection, I would like to submit for the record written testimony that was received from the Hospital and Healthsystem Association of Pennsylvania. Hearing no objection, the written statement will be entered into the record.

[The information follows:]

STATEMENT OF THE HOSPITAL & HEALTHSYSTEM ASSOCIATION OF PENNSYLVANIA SUBMITTED FOR THE RECORD BY CHAIRMAN CARNEY

JANUARY 25, 2010

The Hospital & Healthsystem Association of Pennsylvania (HAP) represents and advocates for the more than 252 acute and specialty care hospitals and health systems across the Commonwealth of Pennsylvania, and the patients they serve. HAP appreciates the opportunity to present testimony regarding closing the gap in medical surge capacity in Pennsylvania, the Nation's sixth most populous State.

Pennsylvania's proximity to the Nation's capital and other metropolitan areas, such as New York City, make it a vital part of the Mid-Atlantic Region. However, these characteristics, combined with Pennsylvania's unique geography, also make it

vulnerable to natural and man-made risk, along with being susceptible to the effects of a larger regional incident.

Currently, health care systems are operating at or near capacity. Rural, suburban, and urban areas in the commonwealth each face the challenge of little flexibility for absorbing a substantial surge in demand for care. Current guidance suggests that a community, including hospitals, should be prepared to self-sustain for up to 72 to 96 hours before Federal relief resources may arrive.

Federal money that has been allocated for medical surge has been supportive of building medical surge capacity in Pennsylvania, especially enhancing event management. Over the past several years, hospitals have purchased decontamination units and supplies; radios for communication, triage tags, and established limited stockpiles of supplies and pharmaceuticals. Overarching emergency plans have been developed and exercised. Lessons learned from exercises have provided an opportunity to improve emergency plans and staff training. Hospitals and health systems have been working on flexible strategies to accommodate internal medical surge capacity. While hospitals have thought about the flexibility to accommodate medical surge, capacity to accommodate surge must continue to be expanded and grown.

The H1N1 outbreak illustrates how hospitals found the flexibility to accommodate a medical surge. Hospitals established alternate treatment sites for influenza-like illnesses outside of the emergency department. One hospital used an adjacent building to the emergency department to direct anyone with influenza-like illness to be screened at that location before entering the emergency department. Other hospitals established trailers on hospital property to be the sole location to screen and treat influenza-like illness. Other hospitals established clinics to treat influenza-like illness in other non-patient care areas in their facility. As they worked to address increased outpatient volume because of H1N1, hospitals used supplies from their in-house stockpiles. Hospitals relied upon plans that were exercised and revised. Staff was familiar with plans that were activated due to training and exercises.

However, hospitals faced challenges during the H1N1 outbreak, including supply shortages of N95 respirators and antiviral pharmaceuticals. Some hospitals experienced double or more of normal emergency department visits due to H1N1, stretching staff and other resources as they cared for patients.

Continued Federal disaster preparedness funding will help hospitals to expand medical surge in Pennsylvania. Dedicated funding for medical surge capacity planning targeted to the regional level is critical. Four key areas to focus expansion of medical surge capacity include staff, resources, facilities, and infrastructure:

STAFFING

In Pennsylvania, there are multiple databases, such as SERVPA, to access additional staff in a medical surge scenario. HAP suggests it is appropriate to move forward from the databases to organizing and training individuals listed in the databases for possible medical surge scenarios.

RESOURCES

As the H1N1 outbreak grew, hospitals used their limited stockpile of N95 respirators and antiviral pharmaceuticals. Hospitals shared the challenges and concerns about the inability to receive ordered materials due to a 6- to 8-month backorder. HAP suggests that public policymakers examine avenues to provide a robust supply chain of needed resources to health care facilities in the event of a peak demand that could occur in an outbreak, such as H1N1, or in a major disaster.

FACILITIES

Hospitals have examined ways to create surge capacity within their own facilities and campuses. Hospitals also have worked with community partners to determine where alternate care sites could be located. HAP suggests that the multi-disciplined community planning efforts for medical surge continue.

INFRASTRUCTURE

When hospitals surge into non-traditional patient care spaces, such as a lobby, it is necessary to determine how to support the needs of medical care that may occur there such as oxygen, suction, and cardiac monitors. The same holds true if an alternate care site is opened in a school or library. How is medical care supported in that venue? HAP suggests that efforts should continue regarding how to support alternate care sites on hospital campuses, as well as off-campus sites such as a library or school.

HAP and its member hospitals and health systems appreciate the opportunity to submit testimony and to provide the Pennsylvania hospital and health system community's perspective on medical surge. HAP supports continued Federal funding for disaster preparedness to enable hospitals and health systems to respond to health care needs that can arise during major public health crises, natural disasters, or other disaster events.

HAP looks forward to future discussions on this important issue.

Mr. CARNEY. I would like to thank each of you witnesses for your testimony. I will remind you that you will have 5 minutes to sum up beginning with Dr. Skiendzielewski.

**STATEMENT OF JOHN J. SKIENDZIELEWSKI, M.D., DIRECTOR, EMERGENCY MEDICINE SERVICES, GEISINGER MEDICAL CENTER, DANVILLE, PENNSYLVANIA**

Dr. SKIENDZIELEWSKI. Thank you. Good afternoon, Mr. Chairman, and Mr. Bilirakis. I would first like to discuss Geisinger's emergency preparedness efforts, and then outline our efforts in conjunction with our community partners, and conclude by offering several observations and recommendations. Geisinger has a long and rich history of leadership and disaster planning that dates back at least 30 years. At that time we developed a five-county disaster plan and exercises were conducted with a significant number of community partners. Within a six-hospital consortium there were annual drills of inter-hospital disasters. Since 1998, we have participated in the east central Pennsylvania regional task force.

These counties worked to define groupings by their natural mutual aid alliances. Each task force consists of representatives from emergency medical services, law enforcement, emergency management agencies, fire/rescue, and hazardous material response teams. Our emergency management programs are focused on addressing a wide variety of potential disasters or incidents that may affect the community. These include natural disasters, man-made disasters, and technological events. We conduct an annual review of our hazard vulnerability by considering incident probability, impact on a facility, and services at our current preparedness level.

We have adopted a variety of response templates appropriate to the disaster events that we might face. We drill and exercise our response to many of these situations each year. In addition to mass casualty trauma events a few other examples include handling radiologically-contaminated injured patients, decontamination of chemically-contaminated patients, as well as floods, blizzards, and other internal and external disasters. We have worked with both the State and Federal Government in relation to the strategic National stockpile program. One of the Pennsylvania Department of Health Medical Surge Equipment Caches portable trailers is based at the Danville Ambulance Service.

We have developed a detailed system-wide pandemic response plan. This plan remains in effect today at this time due to the H1N1 pandemic. We continue to focus on increasing our surge capacity through development of alternate care-site plans. We continue to serve as a non-metropolitan resource for patients from terrorist acts that may occur. With five medical helicopters, we can provide a redistribution function of critical patients from other areas to our tertiary/quaternary care centers. We have developed and maintained effective relationships with our community part-

ners, including local fire, police, EMS, county emergency management, local emergency planning committees, hospital support zone group, regional task forces, and others.

With regard to emergency preparedness, the region demonstrates a high level of collaboration rather than competition. We have participated together with community partners in joint planning, training, and exercise events. Based on our emergency preparedness experience, I would like to offer the committee several observations and recommendations to consider to help strengthen hospital disaster planning and response. No. 1, rural disaster planning and execution is significantly different from urban disaster planning and execution and poses significant and unique challenges. Our EMS services are dependent to a great extent on volunteers making attendance at planning meetings and participation in drills and exercises very problematic. Our recommendation: Make additional planning and coordination funds available to address the specific emergency preparedness challenges faced by rural health providers.

No. 2, the current medical surge equipment caches include many items with finite shelf-life. Future emergency preparedness funding may be exhausted simply to keep supply and response equipment current. Our recommendation: Provide dedicated supplemental funding to account for aging equipment stockpiles that will need to be replaced. No. 3, the current emergency preparedness grant funding formula that allocates funding to hospital providers does not account for the size of the facility's emergency department or if it has a trauma center designation. Our recommendation: Amend the current funding distribution formula to account for the size of the hospital ED and for trauma center designations to appropriately direct additional disaster funding to larger and more specialized facilities.

No. 4, costly security measures and upgrades needed to deal with disaster surge in at-risk locations have not been allowed as approved grant expenditures for several years. Recommendation: Authorize security and infrastructure protection as acceptable expenditures under future emergency preparedness grants. No. 5, we are in the process of developing and implementing an electronic intensive care unit or e-ICU program. As the e-ICU program grows and reaches out to regional hospitals, it will become a valuable asset in confronting any mass casualty disaster.

Our recommendation: Provide seed funding for e-ICU programs to enhance image transfer capabilities, including connectivity to regional hospitals to expand surge capacity. We appreciate the support and direction that has allowed us to enhance our disaster planning efforts over the recent years. Thank you, and I will be happy to answer any questions you may have.

[The statement of Dr. Skiendzielewski follows:]

PREPARED STATEMENT OF JOHN J. SKIENDZIELEWSKI

JANUARY 25, 2010

Good afternoon Congressman Carney and Members of the committee. Thank you for the opportunity to comment on Geisinger Medical Center's emergency preparedness efforts. My name is John Skiendzielewski and I am an emergency medicine physician and director of the Emergency Medicine Service Line for the Geisinger

Health System in Danville. I am joined today by Dr. Al Bothe, Geisinger Medical Center's executive VP and chief medical officer.

Geisinger Health System is a fully-integrated health care delivery system that includes a multidisciplinary physician group practice with system-wide aligned goals, successful clinical programs, a robust information technology platform, and an insurance product (Geisinger Health Plan). Geisinger's service area covers a 41-county region in central and northeastern Pennsylvania with a population of approximately 2.6 million. Research, education, and community service are also integral parts of Geisinger's mission. Geisinger Medical Center in Danville is the system's flagship hospital. Geisinger Medical Center is the region's tertiary/quaternary care hospital. It is staffed by more than 350 specialists and subspecialists and is the education site for residents and fellows in 28 specialties. The medical center is home to a Level I trauma center with a pediatric designation, centers for heart, cancer, and brain diseases, stroke and transplant programs and the Janet Weis Children's Hospital, Weis Research Center, and the Henry Hood Center for Health Research.

I would first like to discuss Geisinger's emergency preparedness efforts and then outline our efforts in conjunction with our community partners and conclude by offering several observations and recommendations.

Geisinger has a long and rich history of leadership in disaster planning that dates back at least 30 years. At that time, a regional 5-county disaster plan was developed, and exercises were conducted with a significant number of community partners. Within a 6-hospital consortium, there were annual drills of inter-hospital disasters, including triage exercises and inter-hospital communications.

Since 1998, we have participated in the East Central PA Regional Task Force (ECTF) that was formed in response to the threat of the use of weapons of mass destruction. This is one of nine regional task forces in Pennsylvania, originally known as Regional Counter-Terrorism Task Forces. The counties worked to define groupings by their natural mutual aid alliances. Each task force consists of representatives from emergency medical services, law enforcement, emergency management agencies, fire/rescue, and hazardous material response teams. This is a partnership with various State and Federal officials having regional responsibilities from such agencies as the Federal Bureau of Investigation, Bureau of Alcohol, Tobacco, and Firearms, Pennsylvania State Police, National Guard, Environmental Protection, and others.

Since 9/11/2001, we have adopted a command and response system known as the Hospital Incident Command System. This system is modeled after and integrated with the National Incident Management Framework. Funded through Federal emergency funds, numerous employees have received disaster training as well as on response procedures for a wide variety of disaster types.

Our emergency management programs are focused on addressing a wide variety of potential disasters or incidents that may affect the medical community. These include natural disasters, man-made disasters, and technological events. We conduct an annual review of our hazard vulnerability by considering incident probability, impact on the facility and services, and the current preparedness level. We develop and modify our emergency response plans based upon risk determination that is ranked using this methodology. We have adopted a variety of response templates appropriate to the disaster events we might face. We drill and exercise our response to many of these situations each year. In addition to mass casualty/trauma events, a few other examples include handling radiologically-contaminated injured patients, decontamination of chemically-contaminated patients, as well as floods, blizzards, and other internal and external disasters.

A number of emergency communication enhancement projects have been completed. These include the establishment of the State-wide radio system linking hospitals and emergency response agencies and the establishment of the Facility Resource Emergency Database or FRED. These tools provide additional valuable key links to enhance communication and coordination activities during a disaster.

We have worked with both the State and Federal government in relation to the strategic National stockpile program. This program is beneficial when disasters generate an increased need for supplies and medications beyond what may be available through normal vendor channels. One of the Pennsylvania Department of Health MSEC (Medical Surge Equipment Cache) portable trailers is based at Danville's Ambulance Service's station. In addition, we provide medical direction to Danville Ambulance and other EMS units (including ambulances, tactical police medical units, and police department defibrillator programs).

We have developed a detailed system-wide pandemic response plan. This plan remains in effect at this time due to the H1N1 pandemic. This information is also shared with surrounding hospitals and higher education institutions.

We continue to focus on increasing our surge capacity through development of alternate care site plans. Also, we have focused on increasing our self-sustainability during a disaster.

We continue to serve as a non-metropolitan resource for patients from terrorist acts that may occur near us. With 5 medical helicopters, we can provide a redistribution function of critical patients from other areas to our tertiary/quaternary care centers.

We have developed and maintained effective relationships with our community partners, including local Fire, Police, EMS, County Emergency Management, Local Emergency Planning Committees, Hospital Support Zone Group, Regional Task Forces, and others. With regard to emergency preparedness, the region demonstrates a high level of collaboration rather than competition. We have participated together with community partners in joint planning, training, and exercise events. We have established memorandums of understanding or MOU's with the regional task forces. These documents provide guidelines for the sharing of equipment and staff in disaster situations. Within our task force, 16 hospitals have signed the MOU.

We have developed local hospital support zones. For example, the local zone that includes Danville involves 8 hospitals, emergency management agencies, visiting nurse agencies, the American Red Cross and others. This is a sub-set of the 7-county task force. The support zone serves as a valuable forum for sharing information, planning, and support activity. This group generally meets 4 times per year.

Based on our emergency preparedness experience I would like to offer the committee several observations and recommendations to consider to help strengthen hospital disaster planning and response.

(1) Rural disaster planning and execution is significantly different from urban disaster planning and execution and poses significant and unique challenges. For the most part rural areas in the Commonwealth do not have large countywide police, fire, or EMS services. They are also dependent to a greater extent on volunteers to provide a wide range of response services making attendance at planning meetings and participation in drills and exercises problematical. Most small to mid-size rural hospitals do not have staff dedicated to emergency management nor do they have specific emergency management budgets.

*Recommendation*.—Make additional planning and coordination funds available to address the specific emergency preparedness challenges faced by rural health providers.

(2) The current medical surge equipment caches include items with finite shelf life. Items such as protective gear, medical supplies and battery-powered sources have expiration dates that will increasingly require replacement of aging stockpiles. Future emergency preparedness funding make be exhausted simply to keep supply and response equipment current.

*Recommendation*.—Provide dedicated supplemental funding to account for aging equipment stockpiles that will need to be replaced.

(3) The current emergency preparedness grant funding formula that allocates funding to hospital providers does not account for the size of the facility's emergency department or if it has a trauma center designation. This "one-size-fits-all" approach does not adequately direct emergency preparedness funding to larger facilities that would be expected to handle a larger proportion of disaster cases.

*Recommendation*.—Amend the current funding distribution formula to account for the size of the hospital ED and for trauma center designations to appropriately direct additional disaster funding to larger facilities.

(4) Security measures and upgrades needed to deal with disaster surges in at-risk locations including access controls, surveillance cameras, biometric ID systems and related equipment are costly but have not been allowed as approved grant expenditures for several years.

*Recommendation*.—Authorize security and infrastructure protection as acceptable expenditures under future emergency preparedness grants.

(5) One critical shortage in our region is the lack of specialized hospital facilities to care for burn patients. Currently, Geisinger and other hospital emergency departments are initially treating and stabilizing burn patients in preparation of transfers to recognized burn centers out of the region. We are in the process of developing and implementing an electronic intensive care unit ("e-ICU") program to link by telemedicine to the burn unit at Lehigh Valley Hospital. As the e-ICU program grows and reaches out to regional hospitals it will become a valuable asset in confronting any mass casualty disaster.

*Recommendation*.—Provide evaluation and planning resources to consider the status of burn patients within the region. Provide seed funding for e-ICU pro-

grams to enhance image transfer capabilities, including connectivity to regional hospitals to expand surge capacity.

We appreciate the support and direction that has allowed us to enhance our disaster planning efforts over the recent years. We hope that our input here today helps in crafting future response capabilities to meet and mitigate the potential hazards and disasters that we may face in the future. Thank you. Dr. Bothe and I would be happy to answer any questions you may have.

Mr. CARNEY. Thank you. Dr. O'Keefe for 5 minutes, please.

**STATEMENT OF MICHAEL N. O'KEEFE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, EVANGELICAL COMMUNITY HOSPITAL, LEWISBURG, PENNSYLVANIA**

Mr. O'KEEFE. Good afternoon. Thank you for your invitation to testify today. If I may, let the record show Dr. O'Keefe was my father. I am Michael O'Keefe. I serve as the Chief Executive Officer of Evangelical Community Hospital in Lewisburg, Pennsylvania in Union County. First, I want the Subcommittee on Homeland Security and the State and Federal taxpayers to be assured that the resources that have been allocated for preparedness especially since 9/11 have not been wasted. Since that time, there has been much attention paid and advances made in the application of technology, surge capacity, security, communication, collaboration between and among State, regional, and local agencies and organizations.

Pre-9/11 conditions. The inception of the Regional Counter Terrorism Task Forces actually began in 1999. Through funding from PEMA, the nine regional State-wide groups began to conduct meetings and explore ways to coordinate and acquire equipment and supplies that would have interoperability within the counties. In the north central region hospitals and other agencies were not included in the early stages. PEMA monies were primarily used to fund meetings for the county emergency management coordinators, not to purchase supplies or expand outreach to other agencies.

Prior to 9/11 Evangelical Community Hospital had little focus on terrorism. The concept of preparing for a chemical, biological, radiological, or nuclear explosive or CBRNE event was extremely remote. The hospital, relatively speaking, had not personal protective equipment for such an event. There was no facility, fixed or portable, for mass decontamination nor were there any plans in place or exercises done. It is probably safe to assume that most rural hospitals were in similar situations. In addition, the means for mass communications were poor. During inter-hospital disaster drills the priority complaint was always lack of communication. The category that was rated the most important, yet rated the lowest. In those pre-9/11 drills the mass casualty events were almost always some type of wreckage and occasionally a small amount of hazardous material was included. Exercising for chemical, biological, radiological, nuclear explosive was never even considered.

Post-9/11. After 9/11 the regional task force realized the need to include more agencies and give them a more prominent role. Committees were formed around law enforcement, fire, search and rescue, hazardous materials, hospitals and pre-hospital services, training, and equipment. Each committee appointed a chair that reported to an executive board. After the creation of the Department of Homeland Security, funding for the regional counterterrorism task force came from the Federal Government and no longer from

the State agency, even though funds were still distributed through PEMA. This Federal funding allows a large amount of dollars to come into the individual regions.

A small amount is used for administration and the remainder is dedicated to the purchase of equipment and supplies for each of the previously-mentioned committees. The equipment purchased includes such items as decontamination trailers, mass casualty trailers, hazardous materials trailers, and prime movers. Just recently oxygen generators were purchased for each mass casualty trailer. There is a state-of-the-art mobile Incident Command Post for the region. There is a mass fatality trailer and high-tech hospital monitoring detection equipment.

Supplies have been purchased that meet specific needs of each committee. In addition to supplies, personal protection equipment have been provided to outfit the many region wide responders who may be dispatched. Training is the second pillar necessary for a reliable response. In the years just after 9/11 it was evident that materials for response were greatly lacking and most of our funding was applied to those needs. Training was not the main concern. However, in the past 2 years North Central Regional Task Force has devoted as substantial amount of their budget to supporting training. Region-wide drills can be extremely costly. Nonetheless, consultants were hired to develop and manage major exercises. These included two Strategic National Stockpile drills, and a mass casualty drill has been contracted for the spring. This has all resulted from the focus of the Department of Homeland Security since 9/11. Preparedness has indeed been enhanced.

For hospitals, after the creation of the Department of Homeland Security, funding streams were made available to other agencies in addition to the equipment and supplies that were available through the regional task forces. The Pennsylvania Department of Health received Federal monies that are distributed to each of the State's hospitals. Previously known as the HRSA Grant, the grant is now known as the Hospital Preparedness Program or HPP. Since its inception in 2003 Evangelical Community Hospital has purchased level B and level C personal protective equipment. There is enough level C equipment to suit 40 Emergency Department staff for response to a CBRNE event. Evangelical Hospital now has six level III hazardous materials technicians certified through the HPP grants and enough level B personal protective equipment to outfit all of them. There are additional level C hazardous materials techs working as paramedics but most of them were trained prior to 9/11.

Funding has also enabled Evangelical Community Hospital to build state-or-the-art fixed decontamination facility. It has a dedicated HVAC system that extends to an isolation room in the Emergency Department. This will protect the hospital from secondary contamination. It includes a holding tank to capture possible contaminated water and other products that will drain during the decontamination process. As stated, Evangelical Hospital now had a certified team to manage decontamination operations. Decontamination surge capacity can also be increased by mutual aid with a local fire department, the county EMA, and the Bureau of Pris-

ons in Lewisburg. This provides additional certified manpower along with a nine-station portable contamination system.

Prior to 9/11 Evangelical Hospital had no pharmaceutical stockpile in the event of a pandemic. Through HPP funds the hospital pharmacy now maintains a cache large enough to support the hospital's staff and their immediate families. Once again, this contributes to our surge capacity by enabling more staff to respond. A large cache of antibiotics is also on hand to protect staff in the event of a bio-terrorism attack. A mandate from the Department of Health requires recipients of the HPP Grant to have surge capacity of 20 percent of their census. With 133 licensed beds Evangelical Hospital exceeds that goal with 27 beds available. The hospital has purchased enough beds and cots for mass care, as well as supplies designed to supplement a surge. We have also designed plans to surge up to 170 casualties above our census.

Mr. CARNEY. Mr. O'Keefe, if you could wrap it up.

Mr. O'KEEFE. Thank you.

[The statement of Mr. O'Keefe follows:]

PREPARED STATEMENT OF MICHAEL N. O'KEEFE

JANUARY 25, 2010

Members of the U.S. House of Representatives Committee on Homeland Security: Thank you for your invitation to testify. My name is Michael O'Keefe and I serve as CEO at Evangelical Community Hospital in Lewisburg, PA, Union County.

I understood our charge today is to discuss the steps that area hospitals have taken to prepare in the event of either a natural disaster or an act of terrorism. Specifically, are local hospitals ready? What challenges exist regarding our current medical and surgical capacity? And, can we identify ways to improve coordination among affected organizations?

First, I want the subcommittee on Homeland Security and the State and Federal taxpayers to be assured that the resources that have been allocated for preparedness, especially since 9/11, have not been wasted. Since that time, there has been much attention paid and advances made in the application of technology, surge capacity, security, communications, and collaboration between and among State, regional, and local agencies and organizations.

I. PRE-9/11 CONDITIONS

*Regional Counter Terrorism Task Forces*

The inception of the Regional Counter Terrorism Task Forces actually began in 1999. Through funding from PEMA, the nine regional State-wide groups began to conduct meetings and explore ways to coordinate and acquire equipment and supplies that would have interoperability within the counties. In the North Central region hospitals and other agencies were not included in the early stages. PEMA monies were primarily used to fund meetings for the county emergency management coordinators, not to purchase supplies or expand outreach to other agencies.

*Hospitals*

Prior to 9/11 Evangelical Community Hospital had little focus on terrorism. The concept of preparing for a chemical, biological, radiological, nuclear explosive (CBRNE) event was extremely remote. The hospital, relatively speaking, had no personal protective equipment (PPE) for such an event. There was no facility, fixed or portable, for mass decontamination nor were any plans in place or exercises done. It is probably safe to assume that most rural hospital were in similar situations.

In addition, the means for mass communication were poor. During inter-hospital disaster drills the priority complaint was always lack of communication. The category that was rated the most important, yet rated the lowest. In those pre-9/11 drills the mass casualty event was always some type of wreckage and occasionally a small amount of hazardous materials was included. Exercising for chemical, biological, radiological, nuclear explosive (CBRNE) was never considered.

II.POST-9/11

*Expansion of the North Central Counter Terrorism Task Force*

After 9/11 the regional task force realized the need to include more agencies and to give them a more prominent role. Committees were formed around law enforcement, fire, search and rescue, hazardous materials, hospitals and pre-hospital services, training, and equipment. Each committee appointed a chair that reported to an executive board.

After the creation of the Department of Homeland Security, funding for the regional counterterrorism taskforce came from the Federal Government and no longer from the State agency, even though funds are still distributed through PEMA. This Federal funding allows a large amount of dollars to come into the individual regions. A small amount is used for administration and the remainder is dedicated to the purchase of equipment and supplies for each of the previously mentioned committees. This can be a complicated process.

Equipment purchased includes such items as decontamination trailers, mass casualty trailers, hazardous materials trailers, prime movers. Just recently oxygen generators were purchased for each mass casualty trailer. There is a state-of-the-art mobile Incident Command Post for the region. There is a mass fatality trailer and high-tech hospital monitoring and detection equipment.

Supplies have been purchased that meet the specific need of each committee. In addition to supplies, personal protection equipment (PPE) has been provided to outfit the many region-wide responders who may be dispatched.

Training is the second pillar necessary for a reliable response. In the years just after 9/11 it was evident that materials for response were greatly lacking and most of the funding was applied to those needs. Training was not the main concern. However, in the past 2 years North Central Regional Task Force has devoted a substantial amount of their budget to supporting training. Region-wide drills can be extremely costly. Nonetheless, consultants were hired to develop and manage major exercises. These included two Strategic National Stockpile drills. A mass casualty drill has been contracted for the spring.

This has all resulted from the focus of the Department of Homeland Security since 9/11. Preparedness has indeed been enhanced.

*Hospitals*

After the creation of the Department of Homeland Security, funding streams were made available to other agencies in addition to the equipment and supplies that were available through the regional task forces. The PA Department of Health receives Federal monies that are distributed to each of the State's hospitals. Previously known as the HRSA Grant, the grant is now known as the Hospital Preparedness Program or HPP. Since its inception in 2003 Evangelical Community Hospital has purchased "level B" and "level C" personal protective equipment (PPE). There is enough "level C" to suit 40 Emergency Department staff for response to a CBRNE event. Evangelical Community Hospital now has 6 level III hazardous materials technicians certified through the HPP grants and enough "level B" PPE to outfit all of them. There are additional level C hazardous materials techs working as paramedics but most of them were pre-9/11.

Funding has also enabled Evangelical Community Hospital to build a state-of-the-art fixed decontamination facility. It has a dedicated HVAC system that extends to an isolation room in the Emergency Department. This will protect the Hospital from secondary contamination. It includes a holding tank to capture possible contaminated water and product that will drain during the decontamination process. As stated, Evangelical Community Hospital now has a certified team to manage decontamination operations. Decontamination surge capacity can also be increased by mutual aid with the local fire department, the county EMA, and the Bureau of Prisons at Lewisburg. That provides additional certified manpower along with a 9-station portable decontamination system.

Prior to 9/11 Evangelical Community Hospital had no pharmaceutical stockpile in the event of a pandemic. Through HPP funds the Hospital pharmacy now maintains a cache large enough to support the hospital's staff and their immediate families. Once again, this contributes to our surge capabilities by enabling more staff to respond. A large cache of antibiotic is also on hand to protect staff in the event of bio-terrorism attack.

A mandate from the Pennsylvania Department of Health requires recipients of the HPP Grant to have surge capacity for 20% of their census. With 133 licensed beds, Evangelical Community Hospital exceeds that goal with 27 beds available. The hospital has purchased enough beds and cots for mass care, as well as supplies de-

signed to supplement a surge. We have also designed plans to surge up to 170 casualties above census.

One percent of HPP funds are required to be spent on training and exercises. This year's grant funding provides $450.00 for training. Evangelical Community Hospital far exceeds the $450 allocated for training when executing just one drill. Our hazardous materials drill held annually during the Little League World Series involves Evangelical Community Hospital staff and coordinates with nine other agencies including the Red Cross, PEMA, Lewisburg Board of Prisons, Union County EMA, Bucknell University, local Fire Departments and local businesses. This type of coordination and outreach by a small rural hospital was never even considered prior to 9/11.

Other areas that have vastly improved since 2001 are communication and technology. As previously stated, communication is always the most critical yet poorest performing function of disaster preparedness. Since 9/11 the hospital has acquired the 800 MHz radio along with "biokey". That system is located in the hospital's relatively new command center. Additional med radios have been purchased to aid prehospital services in a surge response. At no expense to the hospital. Evangelical Community Hospital, along with all PA hospitals, now subscribe to technological communication systems such as Realtime Outbreak Disease Surveillance (RODS), Facility Resource Electronic Data (FRED), Infection Surveillance (PA Neiss), and mass reporting (PA Han). Hospitals have also acquired a Telephone Priority Service (TPS).

III. WHERE DO WE STAND TODAY

*Response Reliability*

Since 9/11 hospitals have been provided an opportunity to obtain a large inventory of supplies and equipment. Hospitals in the NCTF have been given the privilege of training and exercising with some of this inventory.

However, a critical concern is response reliability. Real-time response in disasters such as Katrina have shown that 50% to 80% of responders and health care workers will not report to work if there is a perceived threat to their immediate families. Responder support must not be assumed or taken for granted.

For example, when Evangelical Community Hospital sets up a 9-station decontamination system we are prepared to handle approximately 100 casualties in an hour. But there are never enough responders to work all nine stations. Our decontamination rate is cut dramatically. Would this occur in a real CBRNE event? It is a difficult question to answer. Without enough responders all the equipment, supplies, and technology go unused. Careful planning breaks down and a course for failure begins to spiral.

There is no easy solution. Response reliability stands as the most critical yet most questionable unmet need. Hospitals are much better prepared in the categories of supplies, equipment, pharmacy caches, communications, etc. If there is a topic of concern that Pennsylvania needs to focus upon today, it is finding a solution to response reliability.

In closing, on behalf of Evangelical Community Hospital and our Director of Environmental Safety and Security, I am confident that the Hospital is committed to disaster preparedness, as well as execution should disaster or terrorism strike. We remain steadfast in our partnerships and collaborations with State, county, and township officials, as well as with our membership in the North Central and East Central Task Forces.

Mr. CARNEY. Mr. Kane, please, for 5 minutes.

## STATEMENT OF ROBERT A. KANE, JR., VICE PRESIDENT OF OPERATIONS, SUSQUEHANNA HEALTH, WILLIAMSPORT, PENNSYLVANIA

Mr. KANE. I would like to thank Chairman Carney and committee Members for the opportunity to provide this testimony. This topic is at the forefront of our emergency preparedness efforts at Susquehanna Health. I am representing Susquehanna Health in Williamsport, which is made up of Williamsport Hospital, Divine Providence Hospital and our Critical Care Hospital, Muncy Valley. Our emergency preparedness planning has a long history of understanding the serious consequences of disasters being at the fore-

front of disaster preparation. In 1989 we opened the region's first hazardous materials decontamination center and it had been in a continual state of readiness since. Hurricane Gustav hit Louisiana in September, 2008 and Susquehanna Health sent personnel to aid in hospital evacuations the days before and after the storm hit.

Our Prehospital Medical Director and emergency room physician, Dr. Frailey, who is with me here today, provided medical direction for our team. Dr. Frailey is one of our regional experts with the following experience: 25 years as a naval flight surgeon and primary responsibilities to preplan for mass casualty incidents, a medical specialist with Pennsylvania Task Force One, the regional medical director in Lycoming, Tioga, and Sullivan County, and instructs advanced life support, international trauma life support, PEMA blast injuries, forensics, and crush injury classes and many others.

In 2009, the Department of Health purchased portable hospitals to assist regions in their readiness. We were the first in the State to set up and use the portable hospitals to prepare for the biggest threat to our region in regards to mass casualty, the Little League World Series. Every August, Williamsport is in the international spotlight which carries a heavy responsibility for our emergency preparedness team to accurately forecast and to take the necessary steps to mitigate potential man-made or natural disasters. Little League World Series more than doubles the population of Williamsport and a mass casualty incident is a very real danger that we must consider.

We are here today to outline several key areas that would be relevant to your House subcommittee. In many ways, Susquehanna Health is prepared to deal with a mass casualty incident that happens in our community. Annually, we meet with our community partners to identify external vulnerabilities and update our emergency operations plan to mitigate these threats. Our surge capacity is assessed and systems including pre-defined locations throughout our three hospitals. Full-scale exercises and drills identify our areas for improvement and practices. ASPR grant funding helps to mitigate our identified needs regarding supplies and equipment. Our planning efforts also identify our own internal vulnerabilities.

Our two emergency departments serve over 60,000 patients a year with 43 treatment rooms. Susquehanna Health has started a major construction project that will nearly double our emergency department treatment capability. Our geographic location as a regional population center in the heart of a large rural tract implies that we will only be able to depend on ourselves to service our population during the initial stages of a mass casualty incident. Lycoming County contains over 1,200 square miles of territory. Our closest trauma center is 45 minutes away by ground. During a mass casualty, we, and many other rural facilities will be challenged to maintain nurse-to-patient ratios, particularly during a sustained incident such as a pandemic.

In July, 2009, Pennsylvania initiated a ban on mandatory overtime. While this is lauded as a positive step forward in protecting health care workers and patients, its wording places burdens on emergency preparedness. In response to the many factors effecting health care organizations nationally, hospitals are becoming leaner in staffing, thereby reducing any depth for initial and sustained

mass casualty operations. Any expectation of rural hospitals to staff alternate care sites during an event is unrealistic and would further deplete our nurse-to-patient ratios and jeopardize patients and staff. Many hospitals, Susquehanna Health included, use a just-in-time supply inventory system due to limited storage space and as a cost savings measure. This limits us further during a sustained mass casualty incident.

In general, open space to expand services into is limited throughout our hospitals. Specialty centers within hospitals have their own unique regulations that further limit our available spaces. Severe weather and mountainous terrain are identified as hazards and can also be contributing factors delaying aid to our region in a disaster. Our finite community resources force us to plan on little to no law enforcement or security available during a mass casualty incident. Lack of immunity from prosecution to physicians and other health care providers may further limit our response to a disaster for fear of prosecution.

This statement also holds true in regards to our rural hospitals receiving casualties from a disaster in a large population center. If a mass casualty event happened in a large population center and we were asked to receive patients from it, we would have time to prepare ourselves and to set up our surge beds, create real-time staffing plans, and work with our community providers.

Mr. CARNEY. Mr. Kane, thank you. You are at 6 minutes now.

Mr. KANE. Okay.

[The statement of Mr. Kane follows:]

PREPARED STATEMENT OF ROBERT A. KANE, JR.

JANUARY 25, 2010

I would like to thank Chairman Carney and committee Members for the opportunity to provide this testimony regarding the medical community and medical surge capacity. This topic is at the forefront of our emergency preparedness efforts at Susquehanna Health. I am representing Susquehanna Health in Williamsport which is made up of Williamsport Hospital, Divine Providence Hospital, and our Critical Access Hospital, Muncy Valley. Our emergency preparedness planning has a long history of understanding the serious consequences of disasters and being at the forefront of disaster preparation. In 1989 we opened the region's first hazardous materials decon center and it has been in continual state of readiness since. Hurricane Gustav hit Louisiana in September, 2008 and Susquehanna Health sent personnel to aid in hospital evacuations the days before and after the storm hit. Our Prehospital Medical Director and emergency room physician, Dr. Greg Frailey provided medical direction for our team. Dr. Frailey is one of our regional experts with the following experience: 25 years as a naval flight surgeon and primary responsibilities to preplan for Mass Casualty Incidents, a medical specialist with Pennsylvania Task Force One, the regional medical director in Lycoming, Tioga, and Sullivan County, and instructs Advanced Trauma Life Support, International Trauma Life Support, PEMA blast injuries, forensics, and crush injury classes and many others. In 2009 the Department of Health purchased portable hospitals to assist regions in their readiness. We were the first in the State to set up and use the portable hospitals to prepare for the biggest threat to our region in regards to mass casualty: The Little League World Series. Every August, Williamsport is in the international spotlight which carries a heavy responsibility for our emergency preparedness team to accurately forecast and take the necessary steps to mitigate potential man-made or natural disasters. Little League World Series more than doubles the population of Williamsport and a Mass Casualty Incident (MCI) is a very real danger that we must consider.

We're here today to outline several key areas that would be relevant to your House Subcommittee. In many ways Susquehanna Health is prepared to deal with a mass casualty incident that happens in our community. Annually, we meet with our community partners to identify external vulnerabilities and update our emer-

gency operations plan to mitigate these threats. Our surge capacity is assessed and mass casualty plans are updated at this time as well. Surge beds are identified in our clinical data systems including pre-defined locations throughout our three hospitals. Full-scale exercises and drills identify our areas for improvement and best practices. Assistant Secretary for Preparedness and Response (ASPR) grant funding helps us mitigate our identified needs regarding supplies and equipment. Our planning efforts also identify our own internal vulnerabilities.

Our two emergency departments serve over 60,000 patients a year with 43 treatment rooms. Susquehanna Health has started a major construction project that will nearly double our emergency department treatment capacity. Our geographic location as a regional population center in the heart of a large rural tract implies that we will only be able to depend on ourselves to service our population during the initial stages of an MCI. Lycoming County contains over 1,200 square miles of territory. Our closest trauma center is 45 minutes away by ground. During a Mass Casualty, we, and many other rural facilities, will be challenged to maintain nurse-to-patient ratios, particularly during a sustained incident such as a pandemic. In July, 2009, Pennsylvania initiated a ban on mandatory over time. While this is lauded as a positive step forward in protecting health care workers and patients, its wording places burdens on emergency preparedness.

In response to the many factors affecting health care organizations nationally, hospitals are becoming "leaner" in staffing, thereby reducing any depth for initial and sustained MCI operations. Any expectation of rural hospitals to staff alternate care sites during an MCI is unrealistic and would further deplete our nurse-to-patient ratios and jeopardize patients and staff. Many hospitals, SH included, use a just-in-time supply inventory system due to limited storage space and as a cost-savings measure. This limits us even further during a sustained mass casualty incident. In general, open space to expand services into is limited throughout our hospitals. Specialty centers within hospitals have their own unique regulations that further limit our available spaces. Severe weather and mountainous terrain are identified as hazards and can also be contributing factors delaying aid to our region in a disaster. Our finite community resources force us to plan on little to no law enforcement or security available during an MCI. Lack of immunity from prosecution to physicians and other health care providers may further limit our response to a disaster for fear of prosecution.

This statement also holds true in regards to our rural hospitals receiving casualties from a disaster in a large population center. If an MCI happened in a large population center and we were asked to receive patients from it, we would have time to prepare ourselves and set up our surge beds, create real-time staffing plans, and work with our community partners. Our limitations to offer assistance would include our liability concerns, and the ban on mandatory overtime. Would we be able to mandate staff overtime if the disaster was declared in another community and didn't directly affect us? Additionally, with few exceptions, there is no current memorandum of understandings between our regional hospitals and others around the State.

The information and direction coming from the Federal Government helps to define the expectations for MCI preparation. The Center for Domestic Preparedness in Anniston, Alabama offers high quality and targeted training on the impact of disasters on hospitals and other organizations. SH has sent 40 staff for training at the CDP and continues to schedule our leadership to prepare us for the future and stay up-to-date on the latest trends and best practices. The National Incident Management System (NIMS) courses help tie our National disaster response to the local efforts of all agencies involved and helps define everyone's responsibilities. The NIMS concept is very broad-based and offers a defined framework for response. It also leads to confusion at the local level and Federal agencies give conflicting guidance on matching training to positions in health care organizations. Much of the NIMS training is geared towards the fire service. We have made great strides towards full NIMS integration with our community partners but further development is needed to adapt NIMS to health care organizations.

Health care looks to the State and Federal Government to help satisfy our unmet needs during a disaster or MCI. What can the State and Federal Government do to help?

- Currently we are under the conflicting purview of many regulatory agencies to include the Joint Commission, Department of Health, PEMA, FEMA, DHS, HHS, and CMS, all with independent views, and competing interests. Give health care an equal voice in these organizations to ensure that health care needs are anticipated and met.
- Immediate clinical and support staffing during an MCI.

- Financial support to stockpile medications and equipment for an MCI and rapid delivery of additional medical supplies.
- Rapid and mass airlift capabilities with the ability to handle critical patients.
- Rapid deployment of an incident management team or liaisons to hospitals in the initial hours of a disaster with the authority to request Federal resources.
- National phone banks/information hotlines to assist overburdened hospital staff during an MCI or disaster. Rural hospitals will not have the physical capability to handle the volumes of phone calls associated with an MCI.
- Ease EMTALA regulations during a disaster that is not Federally or State-declared.
- Provide funding for Information Technology emergency communication initiatives to support the transfer of patients, and, give care to patients not known to the health care entity.
- Insure all rural hospitals have employee mass notification systems in place.
- Provide Federal templates for health care emergency operations plans and mass casualty incident management to be adopted at the State and local levels.
- Provide funding, mandates, and direction to local health care (not necessarily associated with hospitals) in the planning for mass casualty care. For example: Medical offices, surgery centers, GI centers, eye centers all have nursing, physicians, and other health care workers, but won't necessarily make themselves available to help a hospital if there is a disaster since they are not mandated to do so.

In closing, I would like to thank Chairman Carney and committee Members for the opportunity to provide this testimony and Congressman Carney's staff for their assistance and guidance. Susquehanna Health considers itself fortunate to be able to maintain a high degree of emergency preparedness, but we also acknowledge the obstacles we face as a rural health care system with finite human and material resources at hand. Our efforts in planning and hazard mitigation can only sustain us in the short term and we will look to our State and Federal officials for a rapid and coordinated response to assist us should the need arise.

Mr. CARNEY. Mr. Carnes, please, for 5 minutes, 5 minutes.

**STATEMENT OF GARY A. CARNES, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ALL CHILDREN'S HEALTH SYSTEM, ST. PETERSBURG, FLORIDA**

Mr. CARNES. Thank you, Mr. Chairman and Mr. Bilirakis, for inviting me, and to this subcommittee. I think actually Congressman Bilirakis gave most of my summary when he introduced me. I am here representing primarily children in the land of hurricanes. But remember in Haiti 50 percent of the population is under 18 years of age, so children are a huge factor in disasters and often overlooked. Emergency preparedness is not something that happens when an impending incident is out there. It must be built in to design staffing and it must be funded. Not all hospitals will be equally called upon during a disaster. Safety net hospitals, which is what we refer to them in Florida, freestanding children's hospitals, trauma centers, universities, sole community providers almost always get the first wave of victims during any kind of disaster or incident.

The integrity of the building and maintenance of public utilities is not assured at all as we saw in Katrina. Buildings were often intact but nobody could, and if there were no utilities to care for patients and therefore patients had to be removed by helicopter from many, many facilities. It took a long, long time to remove those patients. Lack of heating, ventilating, and air conditioning makes hospitals mostly unusable and in fact causes them to become a sick building over time. Few hospitals in the United States can maintain 100 percent of their utilities. Most States require only basic emergency electric circuits, red plugs, as we call them in the business, to be maintained.

Patient receipt and removal is a key as you saw in Katrina. Clinical readiness is another issue. The required medical and surgical expertise doesn't just happen. It must be recruited, paid to be retained, on call and available, and has to be kept current for its skills. A little bit about the All Children's story. We just opened less than a month ago a brand new 259-bed quaternary regional freestanding pediatric facility and ambulatory complex. The cost was $403 million. Protection was providing category 4 and 5 hurricanes, and not all category 5 because some products didn't come right at that time so we built it to the highest standards we could. All exposed surfaces were built to withstand high impact wind and objects. Our central energy plant provides 100 percent redundant power for all utilities, potable water, sewage removal through underground systems, and we have about 160,000 gallons of diesel onsite underground.

The patient rooms were built for redundant medical gases and electric. Our bed number can go, in the need of a surge, our bed number for inpatients could go from 259 to 456 beds by just simply bringing in more beds and equipment. Our emergency center rooms can double from 27 patient exam rooms to be able to take care of 54 due to the equipment size. Trauma rooms can be increased from two to six. Our helipad can handle large and multiple patient military size aircraft to remove patients or bring patients as needed. As a trauma center, we maintain the full slate of on-call subspecialists. The cost of this call pay, other preparedness costs, are expected to exceed $6 million per year at our hospital. There is little funding for many State or Federal agencies to help pay for these costs.

In relation to a couple questions that were asked earlier, we did build permit decontamination stations into our building that can handle 24 patients at a time for chemical and other types of insult, and a 28-bed unit of ours can be converted to total negative pressure capability in 10 minutes, therefore, confining or quarantining patients and their contaminants in a room rather than having them exposed to the rest of the hospital. That ends my summary.

[The statement of Mr. Carnes follows:]

PREPARED STATEMENT OF GARY A. CARNES

JANUARY 25, 2010

GENERAL COMMENTS

The comments contained herein generally apply to pediatric hospitals and health care. However, the same issues, concepts, and recommendations apply to adult health care.

Handling the human injury and illness results of disasters and terrorist strikes does not and will not fall equally to all hospitals. Key "safety-net" hospitals in each community will be called upon to meet the initial patient surge demands. These facilities must be built, prepared, equipped, and staffed differently. These specialized services require specialized capabilities to be available 24 hours/day, every day of the year. This is an extremely costly proposition for those hospitals willing to make this part of their mission.

FACILITIES

Most hospitals in the United States would not be able to accommodate the facilities/physical plant needs for surge patients resulting from a major disaster or terrorism strike. In fact, in the case of a known and impending potential disaster (hur-

ricane for example) many facilities are looking to transfer critically ill and fragile patients to hospitals better able to withstand the potential insult.

The integrity of many facilities could be significantly compromised by storms or a tornado, let alone a terrorist strike. Because of the age of facilities, most hospitals are vulnerable. Just review the effects of one storm—Hurricane Katrina.

A great lesson learned from Katrina was the fragility of public utilities and the devastating effects upon hospitals when utilities are disrupted. Most hospitals in the United States have only limited, emergency power for critical systems and equipment. They cannot produce potable water, move sewage, or maintain environmental control over temperature and humidity. During Katrina, many hospital structures remained well enough intact to provide care, but the building became unsafe and "sick" due to loss of environmental integrity.

Generally, most hospitals cannot accommodate patient transfer by helicopter. In the case of flooding or other surface disruption, helicopter transport may be the only way to deliver or move patients. Even in those hospitals where helicopter transport can be accommodated, helipads are often on the roof and cannot handle the weight or rotor span of large, multi-patient craft. This was a significant complicating factor during Katrina. Moving patients one at a time by helicopter is extremely inefficient, costly, and potentially dangerous.

Finally, very few hospitals maintain redundant equipment, supplies, or materials on-site for disaster use. Extra space to adequately accommodate patient influx is almost non-existent.

CLINICAL CONSIDERATIONS/REQUIREMENTS

The vast majority of hospitals in the United States simply cannot adequately react to disasters or terrorist strikes that result in large numbers of patients with significant injury, trauma, or illness.

The "average" emergency room is not equipped to accommodate a significant surge. Generally, only certain hospitals (free-standing children's, designated trauma centers, university/teaching) functioning as true "safety-net" hospitals, have the capacity or available clinical expertise to handle a surge of critically ill or injured patients.

In addition to building and systems issues previously discussed, the availability of medical and clinical personnel is also a significant issue. The "readiness cost" just to have certain clinical expertise on staff and available, before the first patient is ever seen, can easily cost a hospital millions of dollars per year. Trauma, general, orthopaedic, otolaryngologists, ophthalmologists, and anesthesiologists must all be immediately available as surgical specialties. Necessary medical specialists include internal medicine, infectious disease, radiology, laboratory, pediatricians, and emergency medicine.

Today, most all of the above specialists demand "call pay" to be available. Additionally, hospitals must also assure the availability of significant non-physician clinical (advanced nurse practitioners, nurses, techs, etc.) and support staff to provide adequate response and care. These readiness costs for a safety net hospital are staggering—multiple millions of dollars per year.

THE ALL CHILDREN'S HOSPITAL STORY

We recently opened a new 259-bed state-of-the-art quaternary children's hospital and ambulatory building, supported by a complex central energy plant, in St. Petersburg, Florida. The cost to construct this facility was $403 million. We estimate the extra cost to upgrade the facility to meet needed disaster preparedness and patient surge requirements was at least $25 million. Documents showing improvements we made are attached to this report, but a short list is:

- Central Energy Plant and Fuel Tank Farm—100% redundancy to maintain total environmental integrity and all utilities for at least 2 weeks;
- Upgraded helipad to facilitate large patient transport craft;
- Improved and storm-rated windows, protective walls, and roofing;
- Permanent decontamination stations;
- Additional built-in medical gas and electric for surge capabilities;
- Redundant emergency communications.

Just to be a trauma center, our readiness (preparedness) costs exceed $6 million per year. About one-half is paid as physician call pay, and the other half for required additional staff, supplies, and equipment. Very little Government financial support is received to offset these costs. Maintaining trauma readiness is a key benefit to accommodate patient surge due to a disaster or terrorist strike.

Specific surge capabilities, built into the new facilities to accommodate patients from disasters and strikes, include:

- Emergency Center equipped and sized to go from 27 to 54 patients;
- Neonatal Intensive Care could be increased from 97 to 132 beds;
- All other inpatient rooms could increase from 162 to 324 beds;
- An entire 28-bed unit can be easily converted to negative pressure, allowing the quarantine and control of infectious patients;
- Redundant warehouse storage to maintain and rotate supplies and stores for disaster requirements.

These capabilities, as previously noted, were not inexpensive. But as the only free-standing, quaternary, regional pediatric center on the west coast of Florida, we felt these "upgrades" were necessary to maintain services to the population.

We cannot move our patients during a disaster or terrorist strike—no other facility can provide all the necessary clinical services. We usually receive a minimum of forty (40) patient transfers to All Children's when a storm is approaching. These are sent by other facilities who fear they will not be able to provide the necessary care.

We are fortunate to have been able to build our new hospital to accommodate most surge capabilities. We are likely one of few hospitals in the United States that can adequately meet these demands. Paying for this "readiness capability" is expensive and an on-going struggle.

Mr. CARNEY. Thank you, and I thank everyone for their testimony. Since I understand you are on a tight time frame, Mr. Carnes, I will yield the first round of questions to my good friend, Mr. Bilirakis.

Mr. BILIRAKIS. I would like to welcome the entire panel, and I want to address my first round of questions to you, Mr. Carnes. I know you have to catch a plane. All Children's Hospital, everybody knows now, just completed a successful move into a new state-of-the-art building. It is a fantastic facility. If you ever come to Tampa Bay, please come and visit us. A couple questions. What new capabilities will you have in this new facility?

Mr. CARNES. From a clinical standpoint, not a lot of new clinical programs because we were already providing certain programs in a State that no one else even provided from a day-in, day-out clinical programmatic area such as transplants and things like that. But from emergency preparedness the fact that we can stay as an island for 2 weeks or more due to the backup redundant systems we have built makes us totally different than currently any other hospital in Florida. So unless there is an earthquake or a tornado rips the building apart or it is a bomb or something like that, we can produce all water, electric, move sewage. We can do everything that is needed.

We also built into the capability a redundant warehouse and what we do is we move stores into the warehouse, bring them into the hospital and replace those, so we have an on-going rotation of stores, but it serves as an duplication of stores and supplies on-site so that if needed we cannot take delivery for quite some time and still maintain our ability to care for patients. We also included in the building, we built an interstitial floor so that there is no air handling equipment or anything like that exposed to the environment. They are all in the middle of the building on an enclosed fourth floor, so they can't be reached by sunlight, wind, damage, those kinds of things.

Mr. BILIRAKIS. You probably addressed this to a certain extent but what unique challenges to treating children or other special needs populations present during an emergency?

Mr. CARNES. For most hospitals, they don't have the variety or sizes of equipment and supplies needed to take care of kids every-

where from newborn up to adolescents, and that is probably the biggest challenge that hospitals have is not the supplies necessarily but also clinical expertise to recognize conditions in children and then treat them properly.

Mr. BILIRAKIS. Very good. The H1N1 outbreak this fall disproportionately impacted children, as everyone knows. What impact did it have on operations at All Children's?

Mr. CARNES. We had about a 40 percent increase in emergency room traffic for about 3 months, mostly related to H1N1. We have to move one of our—we had to maintain our primary emergency room, this was in the previous facility, for those patients and moved to a secondary waiting room for other patients, which really was part of our lobby. So in the new building we have designed our emergency room with three or four different waiting rooms, a main waiting room and then built into it three or four separate sub-waiting rooms where we can put patients of different types. As I mentioned, we can double the amount of our emergency room capabilities simply by rolling in more beds if we need to.

Mr. BILIRAKIS. Thank you, Mr. Chairman, I appreciate it.

Mr. CARNEY. Thank you, Mr. Bilirakis. Mr. Carnes, I think I am asking this question on behalf of your Pennsylvania colleagues. Certainly I am interested. What is the source of your funding for that hospital?

Mr. CARNES. We put $200 million of our own cash into it and we took debt for $200 million. We basically had no debt on our old building so it was all new debt. Our old building was about 42 years old. We did receive for our helipad upgrade from FEMA, we received three-quarters of a million dollars. That was the delta between what our helipad would have cost us and the oversized helipad. We also through HHS received $4.9 million, I think it was, to make sure we had the most up-to-date diagnostic equipment in the radiology suite that we wanted.

But we had already—also I—invested fully in a full electronic medical record system. We have tele-medicine capability to all our facilities on the west coast of Florida and we have full picture archiving and transmission and receipt of diagnostic images on that system too.

Mr. CARNEY. Very impressive. This question is for the entire panel. In an effort to prepare for and medically respond to a large-scale disaster, whatever it may be, man-made, natural, whatever, there has got to be a true partnership between the Federal Government, the State government, and the local hospitals. From your perspective, for the whole panel, does that relationship exist, and, if not, what do we need to do? Dr. Skiendzieleski.

Dr. SKIENDZIELEWSKI. I think you are correct. I think that if something happens immediately I think our response is we initially do the best with what we have and what we can. We try to hold on, hold on till the cavalry arrives. I think over the last several years the cavalry has come through for us. Pennsylvania has certainly developed through our communications network and through the local hospitals and through the caches that we have available enabled us to hold on and go a little beyond that. In the case of a significant even which would exceed even those types of re-

sponses, I think FEMA then would have to come in and take place. I am not exactly sure that I am confident about that part of it.

Mr. CARNEY. Sure. Sure. Mike O'Keefe.

Mr. O'KEEFE. Thank you. I think it is important that representatives of various agencies need to meet and develop relationships under non-stressful circumstances before they need to meet and take action in a crisis situation. I think at a local level, I think we are very fortunate. Evangelical Hospital is located in the North Central Task Force region, which includes I think seven counties and 11 hospitals. We are very fortunate because of our unique geographical location, we also have a mutual alignment with the east central, which would be Geisinger Medical Center and Sunbury Hospital and like that in our area. So I think at the local level we have good rapport and a good relationship.

I think a concern that I would have would be complacency between the State and the Federal level. I think it is important that, as I mentioned, organizations and representatives of different agencies, meet and develop relationships so they will know who to call and what their capabilities are again in non-stressful situations because unfortunately a crisis situation is going to happen.

Mr. CARNEY. Next.

Mr. KANE. My answer is very similar. If you just look at the agencies involved, you have got Joint Commission, Department of Health, PEMA, FEMA, DHS, HHS, and CMS. These agencies all have a different purview and regulations. If you just take the regulations that we come under related to Joint Commission and Department of Health, and they review us regularly, their requirements are different, and there should be some uniformity in this area.

Mr. CARNEY. That is interesting.

Mr. CARNES. We in Florida face every April 1 basically the beginning of another hurricane season so we are pretty accustomed to planning for and trying to come up with plans to mitigate the problems of a disaster of that type. The States has an active program in Florida. They have an annual conference for disaster preparedness, and FEMA, I believe, does send people to participate in that. But like the others there is always that question about the alphabet soup of agencies and whether they will all be coordinated. We saw a little problem with that when the hurricane came through Homestead a few years ago, and we certainly saw problems when Katrina went through New Orleans. But I would say in our State we just, due to where we are and what we face, we have probably a little closer relationship with FEMA because they are in our State quite a bit more maybe than they are other States.

Mr. CARNEY. Thank you. Mr. Bilirakis.

Mr. BILIRAKIS. I have a couple more questions for Mr. Carnes. What lessons from the recent move can you use to enhance your evacuation or other disaster plans?

Mr. CARNES. Well, I think we learned that nothing is as easy as it looks sometimes, and that you need to be prepared and even more prepared. We spent 2 years just planning to move the patients on paper, doing mock moves, putting patients in beds and moving them, kids of workers and things. We did that many times, and I think that helped us during the day of the move. That is the

kind of thing that will help us if we ever have to move patients, I think, during a storm, but we tried to build in as many redundant and safety features into the hospital as we could. It cost us at least a minimum of $25 million more to do that and probably more than 10 percent of the cost of the hospital if we had counted for all the delta between what we could have gotten by with and what we ended up doing.

Mr. BILIRAKIS. Would you please share us the experiences All Children's has had trying to access Federal funds for increasing surge capabilities and making improvements to respond to the community needs in general?

Mr. CARNES. Yes. As I mentioned, we did receive two grants, one from FEMA for the helicopter pad, and one from HHS for some diagnostic equipment. The issue we ran into, and it even kept going through the stimulus funding, was that we began this project, planning this project, more than 7 years ago, and it took us about 3.5 years to build the project. Because we had already put caissons in the ground, we hadn't built the building yet or anything, but we had started to put the foundation in, we were told we were ineligible for a lot of the Federal funding to do some of the things we did simply because we had already begun the project, and they did not approval status over that project because it was already designed, obligated, et cetera, et cetera, even though they told us that they would have liked a lot of the things that we did. We weren't eligible for the funding because the project had already physically begun.

We were able to get the helicopter pad through your office and Congressman Young's office and a few others because we had not actually started construction on the helicopter pad at the time so that is why we were able to get the little bit of money from FEMA to help offset that additional cost.

Mr. BILIRAKIS. Thank you. For the entire panel, how frequently does your hospital exercise its emergency response plans?

Dr. SKIENDZIELEWSKI. The Joint Commission requires us to have our response, our disaster plans, at least once yearly where we actually have casualties, mock casualties, enter the hospital. In addition to that, we also will have drills on other portions of our plant. We have a nuclear power plant about 20 miles away, and every year we work on decontamination with the nuclear power plant. We do mock weather disaster drills. We will do mock infrastructure failure drills, and these are all done at least annually. In addition, we will have actual events which can occur. We mobilized our Incident Command System last summer when we had a water leakage in one of our pipes, so we look for opportunities in order to do that in order to maintain our preparedness and our capabilities.

Mr. BILIRAKIS. Thank you. Dr. O'Keefe.

Mr. O'KEEFE. I think most hospitals, as the doctor said, almost on a daily basis go through exercises that can only be replicated in a drill situation. We actually have better response on a day-by-day basis than we do when we have drills per se because people in the back of their mind they know it is a drill. It is an exercise. At the same time all the emergency departments seems to be ready in case that unfortunate bus accident happens or in this part of the country if a loaded buggy gets hit unfortunately we need to be able

to handle things like that. But really the drills, we do exercises in concert with other area facilities on a regular basis throughout the course of the year utilizing not only health department but also local agencies as well.

One concern, if I could go back over here as well regarding that, is our critical concern, is response reliability. Unfortunately, it has been shown through Katrina that 50 to 80 percent of the responders sometimes health care workers will not report if they are concerned about their families, their immediate families may be in danger. So responders' support must not be taken for granted or just assumed that it is automatically going to be there. That is something we need to work on and just keep in the forefront of our minds as well.

Mr. BILIRAKIS. Thank you.

Mr. KANE. At Susquehanna Health we have invested in a coordinator of emergency preparedness that specifically focuses full-time on drills and training. He is with us here in the audience today. He was at Hurricane Gustav as part of our response team. We drill multiple times a year. We have something going on probably monthly. Probably most important in our system is the fact that we have sent 40 individuals to training at the Center for Domestic Preparedness in Aniston, Alabama for the Incident Command Training, and that is a big part of our process.

Mr. CARNES. We—as a trauma center, we are pretty much ready 24 hours a day, 7 days a week, to take whatever happens. As I mentioned, we have all needed subspecialties on call. We have made some arrangements for some people to sleep in during disasters so that we can keep staffing people, and we have set our plan so that if you are there and come in, you are not leaving until we can replace you so it is—and people sign up for it. It is a known plan so we try to do that. In addition to just being ready as a trauma center, we have at least two of our home full drills a year of our emergency preparedness. The county also has an all-hospital drill date at least once a year and you get mock casualties from that. We never know what the casualties will be until they get there.

Then as a hurricane State, we are almost always at least once or more times a year call our plan into process just simply because we don't know where a storm is going to go. With our new emergency system, our central energy plant, we have obligated ourselves to run that thing for a full day once a month just to make sure that it is operating properly.

Mr. BILIRAKIS. Thank you. Thank you, Mr. Chairman.

Mr. CARNEY. This is primarily for the Pennsylvania contingent. It is great to hear that each one of the hospitals does the drilling, does the preparation for what is likely to affect us, and thankfully we almost never deal with a hurricane. We deal with remnants of hurricanes occasionally but usually not the full force. Do you do this as individual hospitals or do you work together in preparing for something that might happen regionally? Susquehanna, do you talk to Evan, and, Evan, you talk to Geisinger, and, Geisinger, do you talk to Susquehanna and back and forth when you do these plannings?

Dr. SKIENDZIELEWSKI. As I mentioned, we started doing this 30 years ago. We developed an inter-hospital plan including Evan. It didn't extend quite up to Williamsport but it did include Muncy Valley Hospital. We think that it is essential when we plan to have communications, and the reason that we did this plan in that way is because of resources that needed perhaps to be shared. We needed to know where is the best place to take patients, to accept patients, and that seems to work out very well for us.

Mr. O'KEEFE. I would echo that, and also we may not have the hurricanes that Florida has, but Interstate 80 seems to be a break point in weather. I remember a couple years ago there was a massive wreck, series of wrecks up there, that I believe all the hospitals in the area were called upon to react to, a weak link or Achilles heel, if you will, through this. We do also participate with the other area facilities on planning for this, as well as trying to coordinate response. But a weak link that may—and I can go back and emphasize what Dr. Skiendzielewski mentioned is that the rural area, rural situations, the emergency responders oftentimes are volunteers, and that is very difficult to draw upon, I will say Monday through Friday 9:00 to 5:00. Even sometimes nights and weekends they can be bare bone as well, but that is an area of need to somehow help shore that up.

Mr. KANE. I would add to what has been said with, yes, I think there needs to be more planning communication between the hospitals and the rural area. One of the recommendations we had in our testimony was for the Federal or State support to provide a way for hospitals to get together to do more cooperative planning. There is plenty of planning code within counties. There is planning amongst county providers. There is county plans and so on. There is regional plans, but most of those are focused between how the hospital deals with school systems or counties or public of whatever, but as far as what happens supporting each of the hospitals in the area, it is mostly done by hospitals that are closer together. It should be more regional.

Mr. CARNEY. Have you ever planned—I am sorry, Mr. Carnes. I will get to you in a second. Have you ever planned between the three of you and other hospitals, say Shamokin and Sunbury and Muncy, as one event? Has that ever happened?

Mr. O'KEEFE. Yes, we have.

Mr. CARNEY. How often do you do that?

Mr. O'KEEFE. Probably not often enough compared to the subcommittee here, but we have had mutual facility exercises where we have even had observers in from the State level making sure that those are coordinated events. For example, if it was the Bureau of Prisons or if it was at the local nuclear power plant, we have coordinated activities and exercises.

Dr. SKIENDZIELEWSKI. Yeah, that was the whole premise of that inter-hospital plan that everybody works together to make it happen.

Mr. CARNEY. But you do exercise. It is one thing to plan. It is a whole other thing to actually do it. I appreciate that. Mr. Carnes, and I assume you have the same kind of relationship with hospitals in your region?

Mr. CARNES. Yeah, as I said, our county does formal planning, our region does formal planning and formal exercising so twice a year in the county and once a year on a regional basis we do formal exercises and get different patients in. We just see what comes in during those, but, yeah, we do that in Florida.

Mr. CARNEY. You have all mentioned, perhaps, and I hope it is not, but it sounds like there might be an increasing shortage in emergency medical technicians and first responders. Is that your experience?

Dr. SKIENDZIELEWSKI. Well, I don't know if they are not—if they are decreasing, but again the rural area is just so much different than the urban area, and what we find is our volunteers now sometimes are working two jobs, and they just don't have the time to do ahead and volunteer as much as they would like. To compensate, a lot of our ambulance companies, EMS services now, are hiring people so they do have to employ some folks and then fill in with volunteers on shifts when they still are able to do so. So it is changing a bit but I think that we still have enough people that are interested I doing it such that that is not a real issue for us although I am sure that if we were able to assure the availability by having more paid positions that would put us at better stead.

Mr. CARNEY. Is there any sense of the number of how short we are in terms of responders? Do we have enough but we just don't have it at the right times, we don't have enough?

Dr. SKIENDZIELEWSKI. I don't have a real sense of that, sir. I know that people in this area when somebody needs to go, they go.

Mr. O'KEEFE. One of the other compounding factors, it is a backhanded compliment, is that the expectations, the training, the regular annual updates that have to happen are becoming more onerous. It is a good thing because the people that respond are that much more skilled and better trained but it is extra demands on their time when they are already busy people.

Mr. KANE. I can only respond to our area of Northeastern Pennsylvania. I can't think of any volunteer fire company in our area that wouldn't say there wasn't a serious staffing shortage related to EMT personnel. It is a significant issue, and as a hospital system, we become a staffing company basically to provide staffing to those local ambulance services.

Mr. CARNES. We are an urban area. There is really not a lot of volunteer fire and other types of organizations. They are mostly paid, and they do respond if they are required but making sure they stay is another issue sometimes. Our bigger issue for us is that, and this has to do just with pediatrics, is the shortage and the impending real critical shortage of pediatric specialty care people. There are only about 12 people, 12 people graduating from training program and pediatric neurosurgery in the United States this year, about 12 in orthopedics, so if you look at spreading those across 50 States, 43 freestanding children's hospitals, and probably a couple hundred other places that have some pediatric beds it is a real problem. It is going to be a real problem for those in the future as the population grows, and there are a variety of bills before Congress to do some things about the training programs and the

universities, but for pediatrics it is a significant problem in the future.

Mr. CARNEY. Thank you. Mr. Bilirakis.

Mr. BILIRAKIS. Thank you. This is for the entire panel, but I know, Mr. Carnes, you have to leave. I don't want you to miss your plane, so if you can address it first. What are the three most important things that could be done to increase hospitals' ability to surge? What assistance can be provided by the Federal Government? This is your chance. Not simply in terms of funding, but also in terms of personnel, guidance, or other resources, what more could the Federal Government do to assist you to enhance your medical surge capacity?

Mr. CARNES. Well, if you don't want to talk about funding for buildings, people. I mean you have to have the people. No matter how good of a building, you still have to have the people in there, and for pediatrics there is a significant shortage of those people, not just physicians but mid-level practitioners, nurses, those kinds of people. There is just not a lot of pediatric training for people done in their primary education whether they are physician, nurse, or whatever they might be. So additional training slots for a variety of physician and non-physician for hospitals. The other is better coordination, I would say, with different agencies and quick strike response when there is a problem. We have built for the inevitable that we would be alone 2 weeks. I don't think that will ever happen just due to where we are and the assistance I know we will get. But you have to—the government, whether it is State, local, Federal needs an ability, I believe, to have a quick strike response with food supplies, fuel, whatever might be needed or to transfer patients from facilities that can't make into facilities it can.

Even during a normal hurricane, we generally get 40 to 50 patients transferred to us long before the storm ever gets there who are medically fragile patients in long-term care facilities and things like that, so our sense is we will go up 40 to 50 even during any storm, and they get there in a variety of ways, not all of them very good, sometimes just brought by their families in a car because they are concerned, so those things could be—if they were better planned and better executed would help the patients and the response, I believe.

Mr. BILIRAKIS. Thank you.

Mr. KANE. I appreciate the question because I wasn't able to answer and give my recommendations earlier. First of all, I would say three. Financial support to stockpile medications and equipment for mass casualty incidents and rapid delivery of additional medical supplies is paramount. Two, I would say rapid deployment of an Incident Management Team or liaisons to hospitals in the initial hours of a disaster with the authority to request additional Federal resources. Third, I would probably say something that reinforces what I said earlier, provide Federal templates for health care emergency operations plans and mass casualty incident management to be adopted at the State and local levels so we have some uniform templates.

Mr. BILIRAKIS. Thank you very much.

Mr. O'KEEFE. I think Mr. Kane hit on some of the critical components. Some of the things I would add to that would be consistency

of information technology, not only capabilities but also the language that is necessary between institutions and organizations. Likewise, even just communication capabilities, as I pointed out, that is often the greatest need but it is often the weakest link there as well, so I think those would be additional pressing needs that need to be addressed or could be better served.

Dr. SKIENDZIELEWSKI. I think Mr. O'Keefe was looking at my expressions here. ITF, I think, is huge. Working an emergency department day-by-day, there is a tremendous amount of redundancy that we have to accomplish when caring for critically ill or injured patients. Folks get expensive tests done at one hospital, and then they come to ours sometimes they are repeated because their X-ray information just doesn't talk to ours. I think that if we could find some way to universally connect infrastructure, that would certainly help a great deal, and it would help with the communications part of it as well.

Mr. BILIRAKIS. Thank you very much. I yield back the balance.

Mr. CARNEY. In addition, I want to echo what you have all said. I think we need real broadband in a big way through here. I think that would facilitate all of this, and I know that is something we are all focused on in Washington is getting that done. I am not sure how to phrase this. I am kind of happy Mr. Carnes has departed because he is from the urban area. Is there a difference between urban and rural in terms of resourcing for natural disasters or man-made disasters? Is there a difference in the funding that comes and how it is looked at in terms of need?

Dr. SKIENDZIELEWSKI. Sure. I think that the two biggest things that we are talking about when we talk about rural versus urban is, first of all, the distances that are involved. In Philadelphia where I grew up, there is a big hospital probably 2 miles away from one another. Here, we have situations of transport and terrain and weather. Our helicopters are—the reason why we have five helicopters is to overcome those obstacles. When you have a huge incident, and maybe it is just a bus that turns over, nevertheless that is a significant, significant issue for us in the rural area because of the transport that is involved.

The second, again coming back to the capabilities of the pre-hospital care providers that you have. One of the key things that you have to do when there is a mass casualty incident is to do triage. In order to do triage well, you have to do triage on more or less a regular basis. One of the things that our helicopters provide us with is real experience pre-hospital care, medics, and nurses on the helicopter that can get to the scene and do that. However, if it is bad weather, we very well may be relying upon someone who has very little experience or very little training in this crucially important portion of our response.

I think in the urban areas, I think they see this quite frequently and so that certainly is a difference. Then you have your choice when you are in a city of which trauma center you are going to go to. Are you going to go to Jeff, are you going to go to Penn, are you going to go to Hahnemann? Well, you know, here if you are making those choices, you are talking about an hour's helicopter ride perhaps to go some place else. So I think there are really vast differences.

Mr. KANE. I think Dr. Skiendzielewski said that very well. I would add one of our recommendations was the National Phone Banks information hotlines to assist overburdened hospital staff during an incident. Rural hospitals will not have the physical capability to handle the volumes of phone calls associated with these types of events.

Mr. CARNEY. Does being in a rural area mean that you don't get enough information, do you think, do you not get adequate funding because it is urban versus rural? Is there any formula that would make sense that would fit when we are talking about Federal funding and State funding?

Mr. O'KEEFE. We probably would need to have our chief financial officers here because I think you are leading with our chin as far as feeling as though it is rural versus urban, and feeling as though in central Pennsylvania, speaking for myself but I think my colleagues would agree, this is a lower cost area to provide care, and, therefore, we also receive what I am going to say is a disproportionate decrease or discount in what we are funded.

Mr. CARNEY. Okay. For emergency preparedness for your ability to respond.

Mr. O'KEEFE. Across the board.

Mr. CARNEY. Okay. Dr. Skiendzielewski, do you want to add to that? You are not going to touch that one? Okay. Mr. Kane, you said that you would like more guidance on the Federal Government? We don't have enough guidance for you? What sort of guidance would you like to see?

Mr. KANE. Well, that is always a double-edged sword but what I am specifically referring to is uniformity and in templates and in how we approach emergency preparedness planning and how we respond to it, what the requirements are, how will we be inspected by different agencies that have expectations of us. So it is guidance in coming up with something that is equitable among all rural institutions and that it is effective in helping us cooperate with each other.

Mr. CARNEY. There are a number, as you are aware, of Federally prepared response criteria and plans out there. Are they not helpful?

Mr. KANE. Not for the rural areas.

Mr. CARNEY. I see.

Mr. KANE. I think there is a big difference.

Mr. CARNEY. Okay. Mr. Bilirakis.

Mr. BILIRAKIS. Thank you. The outbreak of the pandemic flu we have been experiencing has been seen as a test case by many experts to demonstrate how well prepared we are for a large-scale medical crisis. I have a couple questions here, and for the entire panel. What lessons did you take away from the H1N1 pandemic this fall? Did it test your surge capacity? Did your hospitals face overcrowding in a waiting room area or intensive care units? Did your hospitals face staff shortages due to the illness either of the personnel or their families? Whoever would like to start first.

Mr. KANE. I guess I will lead off on that. As far as additional volumes, we probably had an additional 25 percent volume in the emergency department which translates to about 60 patients a day at that time which definitely stresses any rural system. Some of

the things that we learned, immediate education for a lot of folks with flu-like symptoms to stay home rather than coming to the hospital is important. We actually developed a surge capacity area next to the emergency department as a result of this so that we can easily provide more treatment areas as needed.

The challenge in this is having enough provider staff available during these events, and while there has been some ease in how we credential additional staff to come in and do that, there are still legal and liability implications about bringing staff into an institution that aren't regularly working there who are not employed by the institution so from the State level we are allowed to bring in additional folks. The question has not been answered yet related to the liability of not doing an exhaustive screening of providers coming in to a facility.

Mr. O'KEEFE. Volumes in our emergency department during the first or second wave did increase probably about 15 or 20 percent. Fortunately, not many of those resulted in admissions, in patient admissions. We were able to actually care for most of those people. Our concern is the communication that happens. Unfortunately, sometimes the media can heighten some concerns, and we want to make sure that the appropriateness of the words that are delivered to the population are that they can understand, wash your hands, stay at home, like that. We were also able to make alternate site arrangements so that we could segregate those individuals who thought they had some type of a flu-like illness so that they were not congregated in the emergency department main waiting room proper so we could try to isolate them and begin appropriate care on an earlier basis.

Dr. SKIENDZIELEWSKI. I think some of our experience echoes some of the numbers that you have heard from Williamsport and from the Evangelical Hospital as far as our increases in patients seen. What I have learned from this was that in this instance you can't put together a plan and then that is the plan. As an emergency physician, we are used to being a little shifty in trying to do things on the fly, and that is exactly what we did with the flu in emergency medicine. Things would change from day to day. There would be new directives out on who to treat, who not to treat, should you do a test, should you not do a test. You needed to basically apply those and do updates every 24 hours.

Based on that, I think that helped us get through some of the issues that we faced. I think the health system in general did a great job as far as getting their employees vaccinated and getting the patients in their—we have multiple primary care sites through the region, and those folks were getting their primary care patients vaccinated. The message went out. If you have the flu and you are not in one of the high-risk groups then probably you should stay home and take care of yourself, and that message got out early very well.

We did not see any staff shortages, I think mainly because 90 percent of our folks got vaccinated, and the other 10 percent washed their hands all the time and wore masks. We made the patients that came in and visitors that came into the hospital all had to—if they had any signs or symptoms of flu, they had to wear

masks as well, so I think we did a great job at mitigating the effects of this for ourselves.

Mr. O'KEEFE. If I can, just one more quick comment about that. I think because you can see it coming, we actually participate, Evangelical along with Geisinger, Sunbury, Bloomsburg hospitals, and the like, Bucknell University, Susquehanna University, Bloomsburg University in coordinating efforts planning for what can we do, so to your points about preparation and anticipating some of this, I think some of those actions ahead of time play off to the benefit of the community at large.

Mr. KANE. We had a similar experience in our three hospitals, the local, Lycoming College, Penn College and other local facilities. We cooperated with each other on what we were doing and what we were communicating. That was very important.

Mr. BILIRAKIS. Thank you. Yield back the balance. I don't have any time left.

Mr. CARNEY. Yeah, there is always the possibility that we will have some kind of mass casualty event in New York or Philadelphia or even Tampa for that matter. Do you share information back and forth of hospitals in those regions? Do you exercise with them? Is there some kind of planning that might go on in case they had to evacuate citizens or patients?

Dr. SKIENDZIELEWSKI. The best we had was the FRED system which is basically a Pennsylvania-based system. We don't regularly do drills from that extent to Philadelphia and those areas.

Mr. CARNEY. Outside the FRED system, which can be flawed at times, I think it works decently but it can be flawed, have you developed kind of those interpersonal relationships? Is there a phone call? Is there somebody you can go talk to and say, look, you know, this has happened. Can you take on 50 or however many folks?

Dr. SKIENDZIELEWSKI. I am not sure about 50, but certainly we have personal contacts with folks in Philadelphia and Pittsburgh and Allentown area, Scranton, their hospital in the valley as well, and certainly we haven't been asked to do that, but certainly if they were overwhelmed we certainly would respond. The fact that we have the transportation capabilities with our five helicopters puts us in a good position in order to assist with that if we were asked to do so. We were put on standby for 9/11. As a matter of fact, if we needed to respond there we would have been able to go ahead or else backfill some of the EMS facilities in New Jersey that went into New York. So we are always ready to help in those instances.

Mr. CARNEY. So from that perspective God forbid another 9/11 happened, are you all, I wouldn't say on the hook, but are you all prepared or in some kind of chain to respond if there are ripple effects this far west?

Dr. SKIENDZIELEWSKI. I don't think that there is a formal chain that has been developed but certainly we will be ready.

Mr. O'KEEFE. I know that Evangelical Hospital had two of our nine emergency room physicians just spent the last week in Haiti along with five of the nursing staff, so not only is it our own homeland that we are ready to respond to but as necessary beyond as appropriate.

Mr. KANE. We also had emergency physicians from two of our emergency departments that are in Haiti. We responded to Gustav, as I mentioned earlier, and I do think there is communication back and forth, but I think there could be a more planned formal process of drilling with other institutions further away.

Mr. CARNEY. Well, gentlemen, I want to thank you for your time and your testimony. I think it is valuable to get the perspective of the folks on the ground who could be impacted. The challenges you face in the rural area certainly—there is a lot of rural hospitals out there in this country, not just in the tenth district of Pennsylvania certainly. Your perspectives are most appreciated. If we have further questions, we will contact you and I anticipate there will be further questions. But with that, this subcommittee stands adjourned. Oh, excuse me.

Mr. BILIRAKIS. I wanted to thank the city of Danville for hosting us here today, and I want to thank our Chairman here who—I know you hear a lot of horror stories of Washington, DC about the lack of bipartisanship but it doesn't happen in this subcommittee. We work together, and it should be that way all over particularly with Homeland Security. I understand, Chris, you are working on maybe having a hearing in Florida. I know that is a great sacrifice during this time of year but we look forward to you coming down. Thanks so much.

Mr. CARNEY. Thank you, Mr. Bilirakis. With that, the subcommittee stands adjourned.

[Whereupon, at 1:50 p.m., the subcommittee was adjourned.]

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