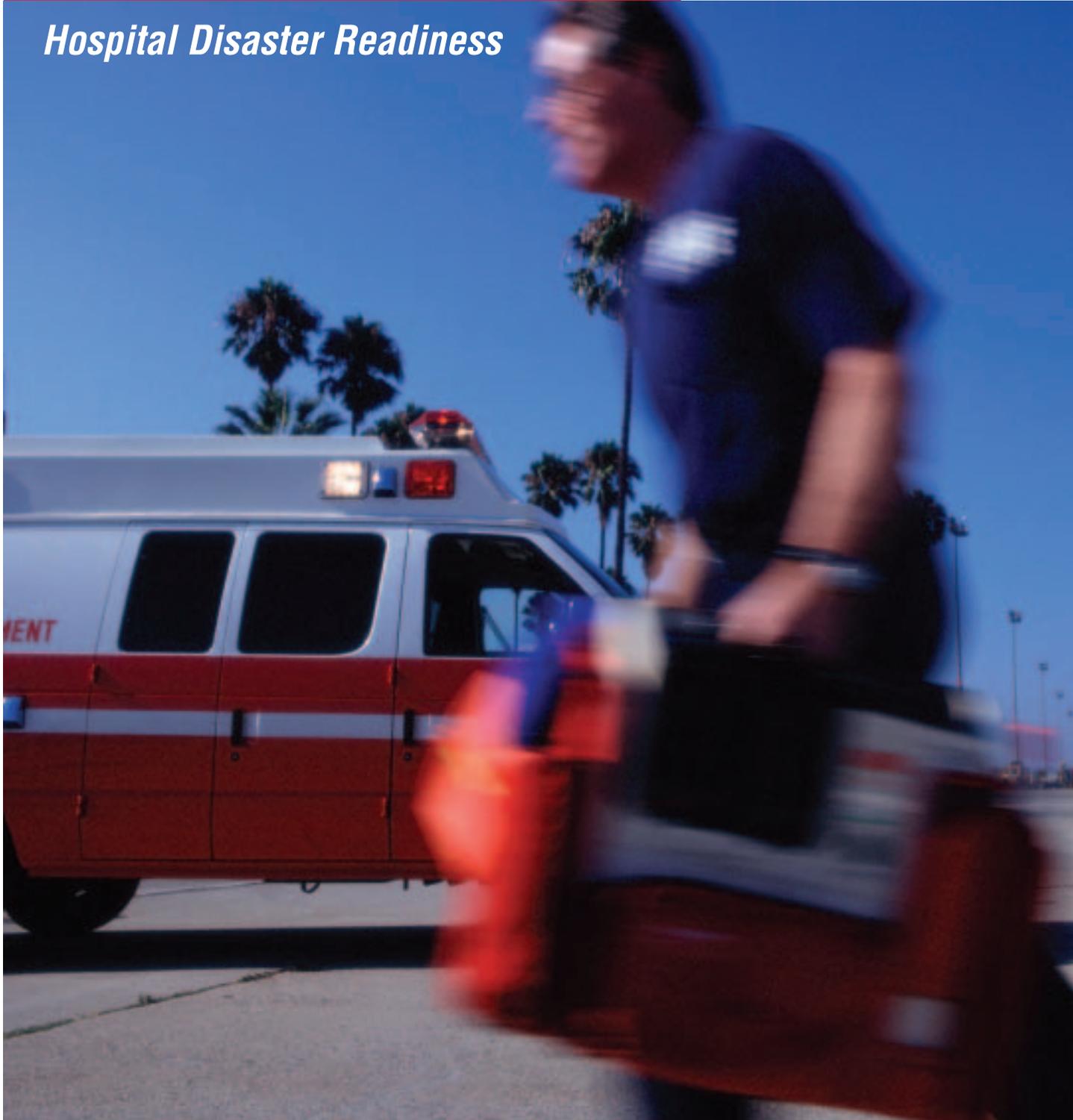




Proceedings for the National Symposium on
Hospital Disaster Readiness



AHA Section for Metropolitan Hospitals

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On February 15, 2002, over 70 metropolitan hospital executives attended a one-day symposium on hospital disaster readiness that was sponsored by the American Hospital Association (AHA). Participants heard how hospitals near Ground Zero and the Pentagon responded to the immediate tragedies, as well as strategies related to ongoing readiness preparations in the event of future biological and chemical warfare, and natural disasters.

As the national leader for America's hospitals, the AHA will continue to develop readiness resources and advocate on behalf on hospitals around funding, regulatory relief, and health care worker protection.

We hope you find the information in the enclosed summaries to be beneficial to you and your hospital or system as you update your readiness plans. We welcome your questions and comments. You may contact John Supplitt, senior director, AHA Section for Metropolitan Hospitals at 312/422-3306.



Stephen H. Velick, Chair
Governing Council
AHA Section for Metropolitan Hospitals
and
CEO
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Plenary Session

Hospital Readiness and September 11th

Mark Ackermann
Senior Vice President and Chief Corporate Services Officer
Saint Vincents Catholic Medical Centers
New York, NY

Mr. Ackermann shared his organization's experience on the front lines at Ground Zero, its readiness for disaster and the ongoing impact on staff and operations.



“Saint Vincents Manhattan received nearly 400 patients in the first two hours of this episode. Are you ready for that? Is your facility ready to handle a mass casualty event?”

*—Mark G. Ackermann
Senior Vice President and Chief Corporate Services Officer
Saint Vincents Catholic Medical Centers of New York*

Saint Vincents Catholic Medical Centers of New York: Response to the Attack on the World Trade Center, New York City, September 11, 2001

Saint Vincents Manhattan is the closest trauma center to the site that was once the World Trade Center. Mark Ackermann, senior vice president and chief corporate services officer of Saint Vincents Catholic Medical Centers of New York, was present at the Manhattan hospital for the September 11 attack and its aftermath. Despite the enormity of the disaster and the impact—both physically and emotionally—on the hospital's patients, employees, and community, Saint Vincents was prepared.

Ongoing Preparedness

“One of the things we learned in 1993 [when the World Trade Center was first attacked], and have been consistent about, is ongoing preparedness,” Mr. Ackermann says. Beyond the internal disaster drills the Joint Commission requires, all seven of Saint Vincent's acute care hospitals participate in annual citywide drills. The health system engages in ongoing discussions, face to face, on a monthly basis, with the Office of Emergency Management, the fire department, the police department, and local hospital associations.

“If this does not happen in your city,” Mr. Ackermann told attendees at the February 2002 National Symposium on Hospital Disaster Readiness, “make it happen now because it really has to. If you don't know the people across the table at those meetings,



you're not going to know them when the time comes. Unfortunately, many of the people we sat across from at the table were killed that day, so we ended up working with their lieutenants, but we knew them as well, and thank goodness for that."

Much of what the hospital learned during the 1993 disaster—including how supplies could be delivered, how traffic should be handled, and how communication could be supported between hospitals and citywide—helped with managing the 2001 attack. For example, in 1993, telephone problems surfaced and ultimately resulted in the purchase of 125 walkie-talkies, which were used on September 11.

September 11

On the morning of September 11, 2001, the CEO of Saint Vincents was conducting a meeting with his hospital presidents in the boardroom of the Manhattan facility. The group heard the sound of a low-flying plane and a loud "thump." Moments later, the emergency room director informed the group that EMS had declared a major disaster, disaster plans were activated in all seven hospitals, and Saint Vincent's paramedics responded.

The president of Saint Vincents Manhattan opened six auxiliary emergency rooms; moved all ER patients upstairs; ordered extra supplies; set up triage teams, stretchers, and wheelchairs on Seventh Avenue; and went into full trauma center major disaster mode. Patients began arriving, some in ambulances with 8-10 victims crammed inside. That was when the second plane hit the South Tower of the World Trade Center.

More patients arrived at the Manhattan facility, while others were transported by ferry to Saint Vincents Staten Island, and still others showed up at Brooklyn and Queens facilities by taxi, bus, and on foot. "There were people being brought everywhere," Mr. Ackermann says. "And the hospitals—it was their finest moment. These are small community hospitals who were taking patients as they got off boats and bringing them to their facilities in these bedroom communities. It really was a plan that worked quite well."

Off-duty employees, physicians, and nurses started coming in. Within the second hour of the disaster, the South Tower collapsed. One of Saint Vincents ambulances was destroyed and two others were badly damaged. The 14 paramedics were missing. "Everything was happening so quickly, you couldn't believe it," Mr. Ackermann said. Patients continued to stream into the Manhattan hospital, as well as Saint Vincent's other emergency rooms. Soon after, the North Tower collapsed. Then, the media started coming in, and regular briefings began.

During the second hour of the disaster, "a great thing happened as I stood on Seventh Avenue," Mr. Ackermann relates. "We were beginning to organize the press and keep the crowd of people back, and New York State troopers worked their way down Seventh Avenue followed by Allegiance trucks and trucks from Cardinal and other suppliers bringing in supplies to our hospital. It was a sight I'll never forget." Mr. Ackermann praises the mayor's foresight and planning, which kept the main arteries open and free of traffic so that burn packs and other needed supplies could be delivered.

“What I’m most proud of,” Mr. Ackermann explains, “is the housekeepers, the transporters, the nurses, the administrators, the doctors, all working together, knowing what their job is. One person puts on the tag around the patient’s wrist or foot, another person gets them into a wheelchair or on a stretcher, the doctor starts to evaluate—everyone has a job. They knew what their jobs were, they went to their stations, and they did their jobs.”

St. Vincents Manhattan received nearly 400 patients in the first two hours after the attack and the Staten Island facility received more than 200. “But then,” Mr. Ackermann says, “the sirens stopped and the patients stopped arriving. And our employees waited, and they waited, and the stretchers remained empty.” Sadly, the second wave of casualties never came.

All 14 of Saint Vincents paramedics ultimately made it back to the hospital. However, Mr. Ackermann says, “27 other paramedics and rescuers did not make it back to their facilities, 57 police officers never made it back to their precincts, 352 of New York’s firefighters never made it back to their firehouses, and 3,000 civilians never made it back to their homes.”

People Needing Information

Thousands of neighbors and other New Yorkers began to surround the hospital. “Think about this,” Mr. Ackermann explained. “A hundred thousand people in the area surrounding the World Trade Center. Now, those hundred thousand people couldn’t use their cell phones, they were running away

from the scene. Their spouse, their children, their neighbor, their mother, four or five people for each of those hundred thousand were trying to call somewhere to find out if their loved one was at a hospital close by or where they were, because they couldn’t get hold of their loved one. Thousands of families and friends began to arrive at the hospital looking for information on their loved one.”

The New School University located just down the street from Saint Vincents Manhattan opened up its student center to the hospital. With help from colleagues at other hospitals, as well as their own psychiatrists, social workers, telephone operators, and other employees, they set up what became the New York City Family Disaster Center for the first three days of the event.

“I’m happy to tell you,” Mr. Ackermann says, “that I broke every HIPAA rule that was ever written because we—and every hospital in New York—through the Greater New York Hospital Association, shared information about our patients. And I dare anybody in Washington to come tell me that we couldn’t put a list together of those who were being cared for in our hospital so that we could tell those loved ones that their loved one was either in our hospital or another hospital.”

In the three days following the disaster, the New York City Family Disaster Center cared for 6,500 families, before the center was moved to an armory and then to a large pier area in the New York area.

People Needing to Help

Not all of the crowds surrounding the hospital were looking for information. Many had come to help, just because they needed to do something. A neighbor, for example, found a piece of oak tag and wrote on it: “Blood Donors—Line Up Here.” Then, Mr. Ackermann says, “someone else took a broomstick and a brown paper bag and wrote O-positive, and someone else wrote O-negative, and they lined up for two city blocks, between 800 and 1,000 people, wanting to give blood. They lined themselves up in blood donor type. It was an amazing, amazing time.”

A meeting of international trauma surgeons was taking place at one of the hotels in New York and, Mr. Ackermann says, “they all came. They’re not credentialed at your hospital, they’re not credentialed in New York State, and you’ve never seen this person before. So with all due respect, we thanked them and told them where they could go to report to the New York City center that was being set up for health care professionals. Did we do the right thing? I’m not sure. We need to talk about that and think about how we’re going to deal with mass casualty situations, and perhaps the need for people who are not credentialed to work in our facility.”

The hospital also had volunteers of all kinds “just coming in off the street.” They had a list of over 4,000 people who wanted to help. “All we could do for them was take their name and address and promise them we would call them if we needed them. But, clearly, you can’t handle or need that many volunteers. But in a traditional mass casualty

event like this, people will come. You are the hospital, you are the community center at that moment, and they will come and they will want to help. And we need to think about how our volunteer offices can handle that volume and what we can do to help these people feel useful.”

People kept bringing in clothing, restaurants kept bringing in food, and Starbuck’s kept bringing in coffee. “Believe me,” Mr. Ackermann said, “it was all used eventually because people were not able to get back to their apartment for weeks, rescuers needed to have some clothing. It was amazing to see firefighters from California and Arizona, and police officers from Miami, and volunteer firefighters from New Jersey and Pennsylvania and everywhere, literally set up tents, and so all of those things were put to good use.” He added that the “food court” that was set up on Seventh Avenue not only fed hard-working rescue workers; it also gave them a little time to rest, wash out their eyes, and have their lungs checked.

Patients Who Don’t Want to ‘Get in the Way’

Over the days following the attack, more patients came in to Saint Vincents, mostly injured rescue workers or people from the community who were having trouble breathing or who had eye abrasions.

But two patients stand out for Mr. Ackermann. One had come in 49 hours after the event, after walking down 27 flights of stairs, suffering a heart attack, and going home because “they didn’t think that their chest pain was important enough to come to the hospital. They didn’t want to get in the



way of the people who were really injured.” Another patient, 74 hours after the attack, walked in “with an ankle the size of, I don’t know, it was huge, she had a broken ankle. She had walked down 27 flights, walked home 22 blocks to her apartment, and kept some ice on it so she didn’t get in the way.” Mr. Ackermann emphasizes the need in a large-scale disaster to “reach out to our communities and help them understand that we’re there, prepared to take care of everyone, and that you should come for care no matter how minor you may feel your injury may be.”

Caring for Employees

Saint Vincents Manhattan expanded its grief and trauma counseling significantly in the days that followed the event, “not only for those who were directly involved and those who ran away from the building, but for our neighbors, for the people in the community who had lived through this trauma, and, perhaps most importantly, for our patients and for our employees who for days worked and worked and worked.”

Many of the hospital’s employees worked, not knowing where their loved ones were. Mr. Ackermann’s secretary worked side by side with him for three days knowing that her husband, a firefighter, had been in the first fire truck that arrived at the World Trade Center. Mr. Ackermann emphasizes the need to find ways to offer emotional support to hospital employees following a mass disaster. The tragic impact of such a disaster can be far-reaching, especially for those, like hospital workers, who serve on the frontlines.

He himself has attended 42 memorial services or funerals for friends, loved ones, colleagues, and loved ones of colleagues. “And,” he adds, “I dare say that everybody in New York has been to eight or ten of these services.”

The Anthrax Scare

“The first night when Tom Brokaw went on and talked about his assistant, we had 650 people line up outside of Saint Vincents wanting to be tested for anthrax,” Mr. Ackermann said. “Well, we couldn’t really even register them, so forget reimbursement, but how do you deal with a community need like this?” Saint Vincents set up classrooms to handle 25 people each and had physicians and nurses lead discussions about what anthrax is and the CDC requirements for testing. Ultimately, they had more than 1,200 visits for anthrax concerns and tested a total of 248 individuals.

The Numbers

During the aftermath of the September 11 attacks, Saint Vincents system alone saw more than 1,200 patients in their emergency rooms, with about 800 just at Saint Vincents in Manhattan. They had 148 admissions on the first day, 6,900 visitors to their family centers, and 16,000 phone calls to their crisis line in the first three days. They have more than 8,000 individuals who are now undergoing crisis counseling or psychiatric services.

“We’re very proud of the fact that we’ve now received a \$760,000 grant from the Avon Foundation,” Mr. Ackermann says, “and we have behavioral health psychiatrists and social workers in the three schools closest to Ground Zero. These children in elementary school and

middle school and a high school watched people jump from a hundred stories high. The behavioral health issues are enormous.”

Saint Vincents also signed a contract with the City of New York and received grant funding to have psychiatrists, psychologists, and social workers in each firehouse in lower Manhattan to help firefighters and the families of lost firefighters. Regarding the financial aspects of this disaster for Saint Vincents, as of February 2002, the system had expended or lost revenue totaling \$18 million. This amount may ultimately exceed \$20 million because some of the system’s clinics remained closed for months after the event, the Manhattan emergency room is not seeing the numbers of patients that it did before September 11, and inpatient census in Manhattan is still down.

Reimbursement

Again, as of February at the symposium, Saint Vincents had not received “one penny yet” from FEMA (Federal Emergency Management Agency) or HRSA (Health Resources and Services Administration), though “the money is there and they’re trying to make it flow,” according to Mr. Ackermann.

He explained a process that had gone awry: “There was \$35 million set aside in some of the first money that was put out, and all the hospitals put applications in. And we, for that first period of time, I think it was the first 10 days, put in about \$5 to \$6 million for Saint Vincents Manhattan in actual costs that we had. New York Downtown put in for \$4 or \$5 million in actual costs that they had. And the HRSA people reviewed all those and

thought they were very worthwhile. Well, someone at a higher-up level, after the recommendations were made, decided that they’d put a million-dollar cap on each of those first grants. So hospitals that saw 1,200 patients got a million dollars, and hospitals in Northern Bronx that maybe saw 5 or 8 patients got a million dollars. We need to work on this a little bit, in my humble opinion.” Advocacy efforts have been accelerated with both the American Hospital Association and the Greater New York Hospital Association, he said.

Saint Vincents has also received about \$4 million in philanthropic gifts directly related to September 11. Mr. Ackermann explains, “You really need to work with your development officers after an event like this to be sensitive about how this is done, but it is an opportunity to highlight the work that you did and call upon your donors to be as generous as they can possibly be.”

Lessons Learned and Unanswered Questions

Several lessons have been learned as a result of the tragic events of September 11. Questions have also been raised. Mr. Ackermann says his system is working on its blood donor policy, as well as its policy for volunteers “How do you deal with literally thousands of people that want to help?” and its policy on sharing patient information “We really need to work with our regulators on how we deal with situations like this.”

Other lessons and areas that need more clarity include the following:

Patient access to emergency areas. “The hospitals in New York,” Mr. Ackermann said, “had a very interesting problem. The city was closed for days. Those of us south of 14th Street were in a military zone. Literally. The government took over the area, and patients couldn’t get inside that emergency zone. How do people get treated that need chemotherapy, that need dialysis? How will you get the patients to your facilities?”

Communication issues. “You need to work on communications issues, systemwide, citywide. How will you communicate with each other?” In New York, the plan is for every hospital to have 800 megahertz radios. “We’re going to have the ability to talk to each other even if the phone lines are down, the cell phones aren’t working, and the satellite phones aren’t working.”

Business interruption insurance. “Get your CFOs to look at your business interruption insurance today. Not only are your rates going to go up, probably quadruple over the next year, but you really need to look at that closely. Are your outpatient facilities covered? Are all of your facilities covered? Talk to your private attending physicians—have they ever thought about business interruption insurance? Trust me, our physicians wish they had because many of them didn’t have patients for weeks and weeks and weeks because they were in the federalized zone.”

Workforce issues. “Your employees are going to want to go home and get their families and get the hell out of there. How are you going

to care for your patients? Are you going to let the employees’ families come to you? How are you going to keep your employees in? Will employees stay at the hospital? Will they care for the patients? What about those patients? They all have loved ones at home, too. Are they going to want their families to come and be in the ‘safety’ of your hospital?”

Decontamination. “We’re developing new EMS protocols for the transport of contaminated patients, where they’ll be transported to. Will every hospital in your city take care of contaminated patients? Do you have the facilities to decontaminate them? What we have already done, we now have 20 decontamination units, two near the entrance of the facility, and 18 others with new plumbing under Seventh Avenue that we can literally turn into the street, open up a valve, turn into the street, put up privacy areas, and do 18 shower areas right on Seventh Avenue. We also have a special firehose. God forbid we ever need it, but we can put them up against the wall and start to decontaminate them in that way, if need be.”

Ambulance preparedness. “Have you put Mark 1 kits in your ambulances? Do you have atropine in your ambulances? Are your paramedics able to get into their decontamination suits inside the ambulance? Can they tape their wrists and do all that needs to be done in the ambulance? We’ve now had each of our paramedics go to 36 hours of courses on how to get into those suits that are now in their ambulances, how to use the Mark 1 kits, and it’s an enormous investment that we all have to make, and we believe our investments have been modest.”

Additional Preparedness Plans

Saint Vincents is also developing a data-sharing system that enhances surveillance detection, identifies excess capacity and needed resources, and establishes a regional patient locator system. “All of these things,” Mr. Ackermann insists, “need to be done quickly so that we’re ready when they attack again. And I say *when* they attack again.”

Saint Vincents is developing protocols for incorporation into its seven hospitals and four nursing homes. They are working with the community disaster response system, keeping community members in the loop, and focusing on staff training and purchasing needed pharmaceuticals and medical supplies. Saint Vincents expects to spend \$10 million to prepare the system, but they are, in Mr. Ackermann’s words, “starting modestly. I don’t believe you need to spend a million dollars right away for your facility to do a lot of very good work in education, training, and some basics that can be done.”

‘Freedom Comes at a Price’

Mr. Ackermann closed his presentation with a wish that hospitals undertake disaster preparations “with a spirit of hope and remembrance. We hope that you’ll take some time out of your days, each day, as you prepare, to remember the paramedics, the firefighters, the police officers, and the civilians who have lost their lives in Washington, Pennsylvania, and New York. We are at the front, we’re at the front of a warfare, and we need to prepare our staffs, our facilities, and others for what will come to our cities. And shame on us if we don’t take this seriously and be prepared. We need to know that we live in a great land, but freedom comes at a price, and many people have paid that ultimate price this time. May we all be prepared for what may come next.”

MediSys Health Network **New York, NY**

Developing a Weapons of Mass Destruction Preparedness Plan

Bruce Flanz, Executive Vice President and
COO

and

Mark Marino, Director, Department of
Pre-hospital Care Services

After being the first to recognize the 1999 West Nile Virus (WNV) outbreak, this New York City network assumed a lead role in developing hospital-based biosurveillance for WNV as well as educating the medical community and the public about newly emerging infectious diseases.

“The time for implementation is now. We should all continue planning as we look down the road, but there are certain things that just can’t wait.”

—Bruce J. Flanz
Executive Vice President and COO
Jamaica Hospital Medical Center
MediSys Health Network
New York, New York



Mr. Flanz and Mr. Marino shared information on their hospital network’s Nuclear, Biological, Chemical (NBC) Incident Task Force as a model for disaster preparation.

The day after Bruce Flanz, executive vice president and chief operating officer of Jamaica Hospital Medical Center in New York City, joined the staff—on June 24, 1975—the hospital was called upon to treat the 12 survivors of an Eastern Airlines crash that killed 109 passengers and crew members. “We are the closest hospital to Kennedy International Airport,” he reflects, “and we knew, even 27 years ago, how important it was to be prepared and how we would be challenged.”

A History of Disaster Preparedness

Not only are MediSys hospitals (Jamaica Hospital Medical Center, Flushing Hospital Medical Center, and Brookdale University Hospital and Medical Center) located close to both airports in Queens, its facilities are about 15 miles from Ground Zero in Manhattan. On September 11, the network treated 160 mostly self-referred patients from the World Trade Center attack.

Over the past decade, MediSys has gone beyond handling local emergencies of various kinds by reaching out to hospitals in other areas of the country to offer help in disasters. “In 1992,” Mr. Flanz cites as an example, “I can still remember the images on TV when Hurricane Andrew hit Homestead, Florida, and I felt compelled to do something about it. So I contacted my counterpart, who is the administrator

for Homestead Hospital, who told me that their hospital had been closed as a result of the hurricane. We asked him what we could do to help out. He said, if you could send me teams of nurses and paramedics to reopen the emergency department and then the hospital, he would be very grateful.

“We put together, within an hour of that phone call, teams of nurses and paramedics, along with a fully stocked ambulance and a fully stocked supply vehicle, and in less than 24 hours they were on their way to Homestead, Florida, where our teams of staff spent over three weeks. Each team was there for one week at a time, and then a replacement team was dispatched.”

Closer to home, MediSys sent physicians and mental health workers to work with the families of passengers on downed TWA Flight 800 in 1996 and on the Egypt Air Flight 990 that crashed in 1999, as well as other air disasters. In 1998, when the northern area of New York State was crippled by an ice storm, MediSys dispatched teams of doctors, nurses, and paramedics, along with two ambulances, to Watertown, New York, where all utilities were out because all the lines were frozen and down. MediSys teams spent eight days staffing that hospital and providing emergency medical service to the people in that community.

Foreshadowing the bioterrorism scare, in 1999 clinicians at one of MediSys network hospitals—Flushing Hospital Medical Center—identified the West Nile Encephalitis Virus in a patient. They worked very closely with the CDC, the health department, and

the FBI at that time because of the concern that it was a bioterrorist attack.

September 11

When the first plane struck the World Trade Center on September 11, 2001, the network immediately dispatched eight ambulances to the scene, along with two large mobile units. One of the ambulances was destroyed under the rubble, though the paramedics got out alive. The mobile units stayed on the scene to “treat and release” for the first three days. For several days afterward, replacement staff and mental health professionals were sent to Ground Zero to help the rescue workers as well as the people who live in the community.

Creating the Task Force



The first meeting of the Nuclear, Biological, and Chemical (NBC) Incident Task Force, chaired by Mark Marino, director of pre-hospital care for MediSys Health Network, was on October 3 - one day before the anthrax story first broke in Florida. The task force started meeting twice a week, and it was during its Monday morning meeting on November 12 that American Airlines Flight 587 went down five miles from Kennedy airport in the Rockaway section of Queens. “We thought we were under attack again,” Mr. Marino says. “We could see the smoke from our conference room windows. Being the closest trauma center to the incident we prepared for the arrival of casualties.”

The 20-member task force draws members from each of the three network hospitals. The different disciplines represented are administration, infectious disease/infection control, emergency medicine, nursing, pharmacy, mental health, security, pre-hospital care, laboratory and pathology, public affairs, safety, and construction. The task force takes its name very seriously, according to Mr. Marino. “This is not a committee. It’s not a body that spins out their goals by consensus. It’s a task force that we’ve broken down into various working groups—who are the experts in their field within our organization—and who come back with their goals achieved so that we can implement them network-wide.”

The overall goal of the task force is to obtain and maintain a high level of preparedness for NBC incidents across the network. The network’s emergency departments have been prepared for traditional decontamination of “a patient or two from time to time,” Mr. Marino says. But the need now is to get employees into a “mind-set of terrorism and NBC” so they can be “prepared for the unthinkable.” Other goals of the task force include the following:

- Maintain a safe environment for our patients, employees, and visitors.
- Develop communication and education plans for staff, community, and elected officials.
- Standardize and coordinate the approach across the network.
- Identify funding sources.
- Develop a model that can be replicated.

Mr. Marino expresses the desire of the task force to share the MediSys plan with colleagues because “this is a cooperative and

group effort. We’re all in it together. So we wanted to put something in a can and just hand it off. And we’re happy to do so.”

Task Force Work Groups

Three of the task force’s work groups—one each for biological, chemical, and nuclear incidents—focused on developing treatment protocols and surveillance techniques for each type of incident. These three groups and the additional six work groups are discussed in the following sections.

The Biological Work Group

The biological work group had to get to work right away on anthrax, since the initial case was announced 24 hours after the task force was formed. Their goals were to identify the biological agent that the hospitals needed to be prepared for and develop medical surveillance of patient populations. “We extended surveillance out across not only all of our ERs, which represents about 250,000 visits a year,” Mr. Marino explains, “but also across our ambulatory care settings. We knew that people could present in our ambulatory care settings, both on site at our three main campuses and the ones out in the community, with flu-like symptoms and with rashes and fever. We needed to make the surveillance activities widespread, involving our infectious disease people, ED teams, as well as our community health practitioners.”

The patient assessment algorithms, treatment protocols, and training curriculums were developed by the work group, which also made recommendations as to the pharmacy supplies that would be kept in stock across

the network. Although the hospitals were encouraged not to stockpile, Mr. Marino warns that “the federal pharmaceutical stockpile is not a magic pill, pardon the pun. It’s tough to get, it has to go up a chain of command to have it deployed.” Once it is deployed, he says, “it isn’t ready to go. It needed to be broken down and packaged. The stockpile is about two or three days away from being useful once it’s on the ground, and you don’t get any federal assistance with making that happen. The Feds deliver the stockpile and the local agencies are responsible for breaking it down and distributing it.”

Since then, the city has put together its own stockpile, and hospitals, including those in the MediSys network, have the two- or three-day supply that might be needed for patients and employees in a biological incident.

MediSys was successful in changing employee work practices to reinforce personal protection, instituting a very aggressive flu vaccination plan, and adjusting prescription-writing habits of physicians. Mr. Marino was not sure that last adjustment would be possible, but pharmacy staff were able to encourage staff physicians and voluntary attending physicians to write alternative prescriptions for Doxycycline or Cipro. “My own primary physician wrote me a Cipro order that he thought was necessary to treat me, and I was happy to see that my pharmacy wouldn’t fill it,” Mr. Marino says. “They made him rewrite it because they’d rather he use something else. It did my heart good to see that happen.”

The Chemical Work Group

The chemical group maintained a “parallel path” to the biological group, in terms of surveillance and treatment. They established patient assessment algorithms, treatment protocols, and training curriculums to respond to potential chemical incidents. All three of the network’s hospitals immediately installed decontamination showers on the exterior of their emergency departments. “These are not fancy, high-tech showers,” Mr. Marino says. “These are ‘down and dirty’ showers. It was more important to be quick than fancy.”

MediSys enhanced their personal protective equipment by going to what they call Level C+, which provides splash protection for employees who will be involved in decontamination. They call it C+ because the equipment does provide positive pressure respiratory protection. However, they did not go to Level B because (1) they didn’t think it was necessary to use a self-contained breathing apparatus, and (2) the equipment requires so much ongoing training that employees could injure themselves while using the apparatus if they had not kept up with training and recertification.

Fifty antidote kits were pre-assembled at each hospital. These are available to emergency department personnel “so they don’t have to scramble and look for them and remember what needs to be in an antidote kit” in the middle of a chemical event. They also put Mark 1 auto-injector kits in their ambulances for pre-hospital care.

The Nuclear Work Group

The nuclear team put Geiger counters in the disaster cabinets located in the hospitals' emergency departments. These disaster cabinets, which were also created through the efforts of the task force, contain all the decontamination equipment and supplies, the positive pressure respirators, the tape to cordon off the area, and everything else that might be needed during an incident. The cabinet is checked on a regular basis to make sure that everything is there and operational. Nuclear treatment kits were also created by the work group, but most of the materials—aside from potassium iodide—are not yet available commercially.

A nuclear decontamination protocol was developed, which is more intense than the regular chemical decontamination protocol. The work group also established a patient escorting policy, which can also be used in a chemical event. "If a patient showed up at the other side of the building," Mr. Marino explains, "in our main lobby or in another walk-in entrance, the patient would be escorted on the exterior of the building by two staff members" to the correct entrance. Then "the area that the patient presented in would be isolated until we could get it cleaned up."

The Research Work Group

The research work group, which was among the busiest groups early in the process according to Mr. Marino, was "responsible for taking the tremendous amount of information that was out there, the information that we were being bombarded with—by mail, by e-mail, on web sites—and filtering it for us."

The research people sift through the vast amount of material to reduce duplication and check sources, so that credible information is passed through to the task force and then to the employees. The work group has developed a resource manual that contains all the relevant material for each hospital. "That resource manual," according to Mr. Marino, "is a living thing. It's constantly being updated as the latest and greatest is made available to us."

The Procurement Work Group

The work group on procurement of equipment and supplies was designed to "cut through the red tape," Mr. Marino says, when trying to "get equipment ordered and delivered" and "get bills paid." He attributes the success of this group in large part to placing Mr. Flanz in the group, thereby putting "the weight of the COO behind getting stuff done."

The Contingency/Mitigation Work Group

This group works closely with the local police, fire department, EMS, and other emergency management agencies in the city. "There has to be local coordination," Mr. Marino says. "You have to know what their plan is, and they have to know what your plan is, because there are times where those two plans won't meet." He also emphasizes active participation with local and regional hospital associations.

The contingency work group also developed a policy for volunteer credentialing. Like other New York hospitals, MediSys hospitals were faced with many physicians who volunteered

their services on September 11. In this instance, the extra help turned out to be unnecessary. “But we knew that we needed to develop a system to effectively deal with volunteers,” Mr. Marino says. So they cross-credentialed the three medical staffs of the three hospitals within the network, and they created a rapid credentialing process for unknown volunteers, which can provide emergency privileges after verifying the volunteer’s license.

An incident response team was created that includes people from security, building service, engineering, and emergency departments. Administration is notified and they also respond. This group focuses on making a timely and appropriate response to decontamination incidents.

“When the anthrax cases came out,” Mr. Marino says, “we began receiving calls from concerned staff members when they encountered “suspicious” white powder. “Every white powder got called in,” including baby powder in the locker room. “The staff was crazed. So, we put together a response team, and took every case seriously. There were some occasions where we called the authorities in to take the specimen and have it analyzed. In one case, we had a deliberate act of someone who sent us an envelope with powder in it. They sent it to our billing people. It was a powdery substance, and it was put there to make people fearful.” The response team was able to trace back the incident and identify the 40 people who had come into contact with the bundle of mail containing the letter.

The work group has also established redundant communication systems among the three MediSys hospitals. In fact, through the city’s Office of Emergency Management, all the hospitals in New York City will be sharing two channels on a 800-megahertz system, which will allow hospitals to talk to each other and to the city’s emergency management people, even if the telephone system is down.

The Personal Protection, Security, and Physical Plant Work Group

This work group instituted several new practices to increase security for MediSys employees and patients. Two of their hospitals did not have a visitor pass system. That was changed, along with more stringent enforcement of employees and physicians wearing their identification cards at all times while on-site.

“Now everyone on all of our campuses,” Mr. Marino explains, “has either an employee ID or a business pass that lets them go to whatever venue they’re going to.” Separate color-coded passes are issued for visiting an inpatient, going to a clinic, or getting a diagnostic test. Even vendors must stop at the security office and get an ID sticker that expires in 24 hours. “Every single person that’s at one of our facilities has some form of ID,” says Mr. Marino. “And if they don’t, it’s the responsibility of all of our employees to stop that person and ask if they can help them and if they can direct them to the closest security officer who can issue them an ID.”

This work group has also developed a suspicious package policy and mail handling guidelines for all employees, conducted an

assessment of their emergency room ventilation systems and made those documents available to staff in the resource manual, ensured the lab was secure and reinforced, secured hospital entrances, and developed lock down plans.

The Training Work Group

This group, which consists of training professionals within the network, spearheaded training activities on all levels. Training is mandatory for all clinical staff. Every department has had ground rounds at each of the MediSys facilities conducted by experts in the field of nuclear, biological, or chemical incidents. They do specific training for non-clinical employees. For example, during the anthrax scare, mailroom workers received training on handling mail differently, precautions they should take, and general training about anthrax to help reduce panic.

All department heads and managers went through training on nuclear, biological, and chemical incidents, and town hall meetings were held at each of the three hospitals and the nursing homes, where the NBC task force was available to staff to answer questions. “All of their questions,” Mr. Flanz emphasizes. “No question was stupid, no question was too simple. This was very effective because it allowed people to come to work without some of the fear that they had been experiencing at that time. We also educated our board of trustees because they need to know that we’re going to need resources to support some of these efforts. We even offered our services to our board, many of whom are business leaders in the community, and

we offered to have our task force members go out and speak to their employees to educate them.”

Then the task force did briefing sessions for local congressional representatives and state elected officials because, as Mr. Flanz says, “eventually, all of us are going to need financial resources to support these endeavors, and they have to know what’s involved.”

The Public Information Work Group

Then the task force reached out to the community. They put together a speakers bureau that went out and spoke to a variety of community groups, including religious groups, senior citizens programs, and local Democratic or Republican clubs. They responded to many requests for speakers to talk about their concerns and how to be prepared.

The next step was to establish a phone consultation service for community physicians. “I was at a medical staff meeting,” Mr. Flanz says, “and one of the physicians stood up and said, ‘I have a number of patients who’ve come to me because they think they’ve been exposed to anthrax. How do I know?’” In response, the task force sent out informational brochures to the physicians in the community, not only the 1,500 on staff at the network’s three hospitals, but all 7,000 physicians in Brooklyn and Queens. Then, the task force sent out a notice that they were starting a free phone consultation service for any physician that wanted to access one of the MediSys infectious disease professionals. The six infectious disease doctors that practice at the three

hospitals agreed to volunteer one week at a time to be on call 24 hours a day to answer questions from the physician community.

The task force then sent out informational brochures on bioterrorism—with frequently asked questions—to the community and to the 10,000 MediSys employees. The Hospital Association of New York State (HANYS) put the brochures on their web site and has distributed them widely. “We have no proprietary interest,” Mr. Flanz says. “We just want to make sure good information is going out, so anyone who wants to can feel free to reproduce these brochures.”

Challenges

Mr. Flanz identifies the major challenges facing hospitals in their efforts to be prepared for NBC incidents.

- Managing the tremendous amount of information coming from a variety of resources. “We were getting bombarded with notices every day, 10 times a day,” he says, “from the CDC, New York City Health Department, New York State Health Department, the American Hospital Association, HANYS, Greater New York Hospital Association, FEMA. You name the organization, they wanted to be helpful and sent this information. Somebody’s got to sift through all that and figure out what’s accurate, what’s important.”
- How do you then give that information to the people who need it, so they can modify their practices to match the latest standards?
- Keeping the workforce informed is critical. People have a need to know.
- All of these efforts take money. Identifying funding sources is another essential piece. Mr. Flanz contends: “Somebody’s got to pay for these efforts which are required of all of us.”

New Hanover Health Network Wilmington, NC

Critical Resources and Operational Strategies in Disaster Planning

Barbara Bisset, R.N.
Director of Emergency Response, Safety
Management and Special Police

The components of this multi-campus hospital network's emergency preparedness plan were put in place when the first of a series of devastating hurricanes threatened the coast of North Carolina in 1996. Ms. Bisset shared key operational strategies that should be in place during and subsequent to a disaster, including managing communications, transportation and workforce issues.



***“Disasters are absolutely
exhausting.”***

*—Barbara Bisset, R.N. MPH
Director of Emergency Response,
Safety Management, and Special Police
New Hanover Health Network
Wilmington, North Carolina*

When Barbara Bisset, R.N., director of emergency response, safety management, and special police, New Hanover Health Network, Wilmington, North Carolina, started at New Hanover, she chaired the Disaster Committee as a “side job.” Then, she says, “we were struck with six hurricane activations.” At that point, the system CEO handed her full-time oversight of emergency response for the entire network.

New Hanover Health Network is located in an area that is prone to both natural and manmade disasters. In addition to their hurricane history, they have a nuclear power plant 20 miles away, a large global nuclear fuel plant nearby, and North Carolina has the highest concentration of military in the United States. Ms. Bisset says that the county contains over three billion gallons of hazardous materials.

She knew all that when she applied for the job. It wasn't until later that she also found out that the health network is “sitting on an earthquake line” and that a large tidal wave is another possibility.

Needless to say, Ms. Bisset has devoted much time and attention to developing key strategies for coping with a wide variety of disasters—and she draws on hard-won, firsthand experience. She outlines three potential scenarios, four phases of a disaster, and three tiers that need to be covered in disaster planning.

Three Scenarios, Four Phases, Three Tiers

Ms. Bisset describes *three possible disaster scenarios*:

- The hospital is the only victim of the disaster and its normal operations are disrupted.
- The community is the victim and the hospital is fully operational.
- Both the community and the hospital are hit by a disaster, and normal operations are disrupted.

She says that hospitals tend to be more prepared for the second scenario than for the other two because it has not been typical to plan for the hospital itself being a victim of a disaster.

The *four phases of a disaster* include the *planning* phase, the *warning* phase (“if you’re lucky”), the *event* itself, and the *recovery* phase, which Ms. Bisset says is the hardest. “When you have an event,” she explains, “everybody’s adrenalin is high, everybody’s energy is great for about three days, and then all of a sudden, you have a very exhausted staff.”

She addresses this challenge by suggesting that staff be divided into three teams, as much as possible according to their own choice. Team A covers the pre-event, warning phase (when there is one) and also the recovery phase, Team B deals with the actual event, and Team C handles the recovery phase. Once you “clarify who your recovery folks are,” Ms. Bisset says, “send them home to be with families, get good rest, and get good food, so they are fresh and can really think very clearly

when you get into the recovery phase.” The *three tiers of planning* refer to *organization-wide plans, department plans*, and—the one that’s often neglected—*personal plans*.

Personal Preparedness

From her experience, Ms. Bisset can say that, unless employees know that their families and property are safe, they can’t be depended on to be attentive at work. So she expects each employee to develop a personal disaster plan that includes an inventory of household property, evacuation “kits,” and a review of the employee’s insurance policies.

Ms. Bisset also encourages employees to develop with their families a disaster plan, which includes specific details like a central connection point—where an employee’s family will meet if separated from that employee by the disaster—as well as a person to contact who does not live in the area, in case normal lines of communication are down. Covering all details is essential. She points to the example of “many folks who don’t want to evacuate” in an emergency “because they haven’t figured out what to do with their pets.”

Employees also need to be given time—when possible, as in a natural event—to prepare families and/or property, she says. For example, after an initial hurricane threat, Ms. Bisset knows that she herself has “six hours in which I can go home and secure my home and get my valuables out and get my life put together” until she needs to be back at the hospital as Incident Commander.

Community Connection

As far as planning for the entire organization, Ms. Bisset emphasizes the need to coordinate with the community and its resources: “If your community has not called you to the table to be part of the disaster planning with all of your emergency response workers and so forth, you need to take the initiative and get there and provide leadership.”

She stresses the need to connect with all of your community response agencies, but she warns not to just assume that those resources will be available to you in every emergency. During some hurricanes, Ms. Bisset has experienced at New Hanover, the hospitals that would have normally received patients were already either filled or evacuated. Some EMS agencies that had transportation agreements with hospitals were unable to help. “You need to have some rabbits in your hat,” she says.

‘Rabbits’ or Thinking Outside the Box

COMMUNICATIONS. Some of those magic rabbits for Ms. Bisset’s organization include standardized pagers, walkie-talkies, and ham radios—which moved to center stage when the community’s 800-megahertz system tower came down in Hurricane Floyd.

TRANSPORTATION. The backup “rabbits” also include a fleet of older school buses, recently leased from the local board of education for \$1 a year, which the health network has turned into its mass transport vehicles.

Regarding transportation, Ms. Bisset suggests vehicle assessments for emergencies—she cites as an example the potential for “going

through 15 or 20 tires a day on one vehicle because of damage to the road.” Some of the questions she recommends asking include: Where do you keep your vehicles? Are they vulnerable to flooding or other damage? How will you fuel your vehicles if the electricity has been lost, i.e., the fuel pumps don’t work? What’s your policy about driving on disaster-affected roads? What are your alternate means for transportation if you actually lose your vehicles? Have you identified alternate routes when your roads are closed? When do you pull your ambulances off the road?

Caring for Employees

Ms. Bisset also stresses the need for training staff, as well as treating them carefully during and after a disaster. “Everybody, no matter what their roles are,” she says, “need to be trained, communicated to, and drilled. If you have not trained your staff well, there will be fear, and fear paralyzes people.” The psychological impact of a large-scale disaster on employees and the community is immense, according to Ms. Bisset. She characterizes disasters as “depressing” and “absolutely exhausting,” and cites reports that say it takes approximately 3 years for a community to recover after a natural disaster and 10-12 years after a terrorist attack.

They have learned much at New Hanover about dealing with employees’ psychological reactions to disasters. Ms. Bisset emphasizes “hot comfort foods” during the event and recovery phases, along with rest and relaxation and a sense of humor. It is also essential, she says, for managers to ask every employee how they and their family were affected by a disaster because many may keep even dire circumstances to themselves. New Hanover

opened its “paid time off” bank and allowed employees to sell vacation and sick time back to the health network, which gave employees \$750,000 in one day. Ms. Bisset says it was necessary because “if someone doesn’t have a roof over their head, how are you going to expect them to come to work?”

Finances

The financial impact of disasters on New Hanover, according to Ms. Bisset, has been “multi-million dollars” per hurricane. FEMA came through with some funds, she says, but warns others: “If you do get something, it may be several years in coming.” The health network sets aside several million dollars a year for possible hurricane damage, equipment rental, business interruption (“Are you insured?”), and staff overtime. Ms. Bisset also recommends putting every expense for a major disaster into a separate budget line item to make the accounting “very clean.”

Checklist

In conclusion, Ms. Bisset’s experiences have helped her develop the following key disaster checklist:

1. *Complete personal preparedness plans.*
2. *Plan for the worst-case scenario.*
3. *Think outside the box.*
4. *Develop response teams.*
5. *Train.*
6. *Communicate.*
7. *Drill.*
8. *Network with community emergency response agencies.*
9. *Assume nothing.*
10. *Keep a sense of humor.*

Inova Health System

Alexandria, VA

Triage and Clinical Management of Mass Casualties

H. Patrick Walters
Senior Vice President System and New
Business Development

The Inova Health System is a multi-campus network of hospitals and health facilities located in the northern Virginia suburbs. Inova facilities treated victims from the Pentagon on September 11 and postal workers that contracted Anthrax in October.

Mr. Walters shared Inova's experiences including the necessity of integrated planning and operating with other community and medical resources. He also shared the changes the system has made to its "All Hazards" preparedness plan and the key focus areas of the

system's planning for potential situations beyond the scope of their traditional preparedness.

Emergency Department and Hospital Preparedness: The Inova Experience

The Simulation

On September 8, 2001, three days before the September 11 attack on the World Trade Center and the Pentagon, the Inova Health System conducted a large-scale chemical terrorism drill that involved local, state, and federal participants. The scenario simulated an attack on the county courthouse with sarin nerve gas - the agent that was used in the 1995 attack on a Tokyo subway. The system tested its "command hospital" communication network, and, in the words of Patrick Walters, Inova's senior vice president of system and new business development, "everything worked fine."

"We tell our people, 'We need you here. Your community needs you here in the event of a mass casualty incident that we really can't even define—we don't know what it might be. But we know we're going to need you here to take care of those patients. So, we're going to do absolutely everything we can in our planning to make our facilities safe for you, and organize ourselves so that you can safely take care of those patients. We're going to give you the education you need. We're going to put the equipment in place that you need to have.'"

—H. Patrick Walters
Senior Vice President
System and New Business Development
Inova Health System
Alexandria, Virginia



The Attack

On the morning of September 11, the executive team of Inova was on a retreat about 90 miles from Washington, DC. “So when all this happened,” Mr. Walters explained to attendees at the February 2002 National Symposium on Hospital Disaster Readiness, “all the beepers went off. We turned on the television set, and we saw what was going on in New York and at the Pentagon, which was clearly something that was tied to us.” Meanwhile, the health system—because of its close proximity to the Pentagon—had implemented all of its disaster procedures and hazard plans.

The executive team broke up the meeting and headed home while the fourth plane was still in the air. “We weren’t sure whether that was going to come to Washington or where it was going to go,” Mr. Walters says of the hijacked plane that eventually crashed in Pennsylvania.

The Response

Despite being completely occupied, Inova was able to free up 343 beds in the system and 43 operating rooms. They had more than enough physicians, nurses, and other employees to handle a mass casualty situation. “We prepared all our receiving areas,” Mr. Walters says, “we were ready, and very few patients came. So the biggest disappointment for our staff was waiting for the second wave, and there really was no second wave.”

The community, however, was “unbelievable,” he adds. “Our biggest problem was managing the blood donor center. People really wanted to do something. They came from all over our community, and we collected 525 units of

blood in the first 24 hours and 2,100 units in the first four days after the attack.”

Despite the fact that three days earlier, the regional plan process was tested and worked so well, on September 11, the regional plan “didn’t work at all,” Mr. Walters says. Arlington County was the closest geographically to the Pentagon crash site and the first on the scene. On a practical level, they became the scene commanders and did not implement the regional response. Given the small number of patients, according to Mr. Walters, the decision worked out fine. Had there been a large number of victims requiring health services, however, a regional response with someone disbursing the wounded throughout the area would have been needed.

Task Force Begins

On September 12, 2001, Inova pulled its executive team together and created a systemwide, all-hazards preparedness task force. Its 20-30 members included administrators, key people from nursing, human resources, materials, pharmacy, and infectious disease. Mr. Walters explained that the task force is organized around “what we assessed to be a broader look at the threats. We started assessing where we are, where is Inova, and how are we prepared to respond?”

Inova, he said, evaluated all of its facilities in terms of their capacity to take care of patients and the supplies and equipment on hand. A scenario was created in which each facility must be prepared to take care of 500 patients. “Could you take care of 500 patients that showed up at your door in an emergency?” Mr. Walters asked symposium attendees.

“What’s the difference between where you are and a capacity to do that?” Inova made its gap analysis across the organization in terms of capacity, supplies and equipment, education and training needs, facility access and systems security, staff safety and support systems, communications systems, and effectiveness of connections within the health system.

The task force is organized around five tiers: security; logistics, which includes pharmacy and materials; communication, both internal and external; clinical, in terms of guidelines and broader educational objectives; and external agency connections, e.g., the fire department, police, and regional authorities.

Gaps and Solutions

The first gaps identified were in education. Most of the nurses and physicians had never really seen biological organisms like anthrax. Unanswered questions arose, like: How do you treat nuclear kind of force and radiation? If somebody shows up after a dirty bomb incident and they have dust all over them that is radioactive, what do you do? What should the organization do in a smallpox epidemic? What options are available for treating these patients?

Inova went through these and other questions, and developed “pretty well condensed education around those things,” Mr. Walters said, including one-page fact sheets for physicians, an infectious disease team that made presentations across the system to all staff, and other educational activities.

They revised and broadened the scope of all the hospitals’ disaster plans and their all-

hazards preparedness plans, and ultimately created consistency across the health system. Inova also brought together a group of employees to develop a pre-planning package called “Caring Is Preparing” to help employees think through what they need to consider in advance of a major disaster. “We’ll do all the stuff in preparing the facilities as best we can,” Mr. Walters says to his staff, “but you as an employee need to think about what you need to do. Do you have to arrange for child care? Adult care? What kinds of things should you be talking about with your family so you’re not having this conversation in the middle of a mass casualty incident?” He adds to the symposium audience: “We don’t want our people headed for the highways and just leaving because that’s the panic thought. We want them to think through and do everything they need to do to make our environment supportive for them to come to work.” The cost for the “Caring Is Preparing” packets, he says, was about \$25,000.

Other gaps identified and addressed include: increasing the quantity of available drugs and supplies (which will cost about \$500 thousand); enhancing security (about \$1.8 million); upgrading personal protective equipment to include tight-fitting face masks that filter out anything larger than 3 microns (about \$250 thousand) and training on the equipment (about \$100 thousand); and creating an improved and standardized decontamination process (about \$600 thousand). Mr. Walters emphasized putting some thought into who will receive decontamination suits and be trained in their use; it might include some nurses, physicians, and housekeeping staff. He added that training on taking off the suits is just as important as learning to put

them on—because you don't want to “dump the stuff all over you.”

Physician Issues

Mr. Walters pointed to the three thousand physicians in the Inova system, who “really don't like to cross over each other,” i.e., they prefer to be situated at one hospital. However, when Inova proposed “disaster privileges” for its physicians, whereby the system can “interchange doctors” in a disaster, the proposal was passed unanimously without any argument. Inova is also exploring with the Virginia Medical Board the possibility of using licensed practitioners from other states in mass casualty situations.

The other major issue with physicians is communication. In disaster circumstances, Mr. Walters says, “I think it's fairly unpredictable as to what you might be facing, so you might have to have a real-time determination of what to do, and you want to communicate that in real time to your docs. How do you do that?” The state of Virginia tried using e-mail, but two months after getting physicians to report their e-mail addresses, more than 30 percent of the addresses had changed.

Inova decided on a multi-tiered communication approach, in which communication in an emergency situation would occur in several different ways. First, information will be posted on Inova's web site, so, as Mr. Walters puts it, physicians “can come to us instead of us trying to go to them.” The system has also reinstated ham radio operators at all of its hospitals in the event of a disaster. In addition, Inova has tied into the District of Columbia's radio system, and the organization

has been working with EMS agencies in Northern Virginia to establish common radio communications using their already established 800-megahertz system. Inova has also set up telephones that work over the Internet to allow all of its facilities to talk to each other via its internal wide area network. The cost for the redundant communication equipment will be about \$50 thousand.

Inova has also spearheaded the creation of the Northern Virginia Emergency Response Coalition to fill the need for an organized regional group in the area. It enlists civilian and military hospitals, public health departments, EMS agencies, and law enforcement in the effort to enhance regional preparedness and improve regional communication. It was with the help of this group that Inova determined the kind of personal protective equipment it needed to purchase, Mr. Walters said. As of February, the coalition was in the process of developing an understanding of how supplies can be shared across the region.

Thinking of Zebras

“A guy I work with a lot is a FEMA guy, one of our emergency room fellows,” Mr. Walters related to his symposium audience, “and he told me this is what it's all about. He says, ‘If you hear hoofbeats outside your window, what would you think of?’ I said, ‘Well, I'd think of a horse.’ He said, ‘What if it's not a horse? It might be a zebra, it might be anything else.’ He says, ‘What you need to think about is the idea that you won't really understand what's going on.’”

As an example, Mr. Walters referred to a scenario put forth by one of his fellow presenters

at the symposium, Mark Ackermann from Saint Vincents Catholic Medical Centers of New York, who wondered about what would have happened if the planes that hit the World Trade Center had been carrying a nuclear weapon or contaminated waste. “You’d be in the process of doing your thing,” Mr. Walters added, “before you found out that your second wave was an internal problem as opposed to a second wave of patients.” Hospitals and their employees need to learn to think “out of the box,” he says. “You’ve got to push your people to think in terms of an asymmetrical, undefinable threat.”

Meeting the Anthrax Challenge

On October 19, 2001, the educational activities began to pay off. An emergency room physician, who had read the one-page fact sheet on anthrax, correctly identified a patient who had been exposed. The patient presented with low-level, flu-like symptoms of four or five days’ duration. He worked in the post office and said he sends mail down to the Capitol. “This ER physician put two and two together,” Mr. Walters said, and tested—and then treated—the patient for inhalation anthrax exposure. Another patient came in with similar symptoms and was treated.

However, no real protocol existed for treatment of anthrax exposure, Mr. Walters said, so physicians were piecing together advice from the CDC and from infection control groups. But no definitive treatment had been decided on across the board. Communication with Inova physicians about this new threat seemed necessary.

A few days later, on Tuesday, Inova held a medical clinical grand rounds for the emergency rooms across Northern Virginia. Physicians phoned in to a conference call that discussed how to recognize and treat a patient who has been exposed to inhalation anthrax.

Mr. Walters stressed that, in some situations, health care providers “have to be prepared to really improvise on the fly and do something right now that you’re not really necessarily equipped or prepared to do. So you have to be, I think, quite flexible.” Just-in-time education, he added, is key. “You can provide the docs and the staff with tons of general information, but it won’t register until they need it,” he said. This was part of the impetus for Inova to focus on the web site for communication that needs to get out quickly to physicians and other health care workers.

Another lesson from the anthrax scare was the need to, in Mr. Walters’ words, “push your people to think through to the second stage of the incident. You know, it’s not just what’s going on right now, it’s what’s going to be next.” So, when the hospital saw these patients with anthrax exposure on a weekend, for example, “our FEMA guy’s saying, “Look, if there’s two here now, there might be eight on Monday. And if there’s two here from the post office, all the guys from the post office are going to want Cipro and everything else.”

Thinking like this, through to the next stage, allowed Inova to address these issues early in the week. They started working with the Fairfax County Health Department immediately to determine the best way to set up a “super distribution point if we have to give Cipro to 5,000 people. How are we going to

do that, where are we going to do that, and who's going to do it? So when we did it," Mr. Walters says, "which actually happened on Saturday, we were pretty well equipped. At least we had thought it through."

Lessons Learned

One of the lessons learned through the experience of the September 11 attack and its aftermath for Inova reinforced **the need for true regional coordination** throughout its geographical area. Mr. Walters admitted that, while Inova had worked with entities in Virginia, they had rarely included the District of Columbia and the state of Maryland in their coordination efforts, despite how close they are.

Another example came from a conversation with a representative of the Council of Government Bioterrorism Task Force in D.C., which has focused on these issues for four years with no hospital people in the group. When asked about the lack of hospital representation, according to Mr. Walters, the task force member said, "We asked you guys about three years ago, and no one ever came." Mr. Walters' advice to hospitals who haven't been "at the table" in this process is: "Better figure out where those tables are."

In addition, within the health system itself, more coordination was needed. "Even though we're all under one common governance, we have one board, one management team," Mr. Walters said, "we had individual disaster plans for all our hospitals. Some were very good, some weren't so good." But consistency was lacking. This inconsistency has now been remedied in disaster plans across the system.

Another lesson was to **expect normal lines of communications to fail**. "All the communication systems broke down," Mr. Walters explained. "You really couldn't have cell phones. You'd call, there's no signal. You pick up the regular phone—it didn't work." In all their hospitals, patients immediately picked up the phone and called their family members, he said, "so all our hospital phone systems shut down. We just had too much traffic going out. No phones could come in, no phones could go out." For training purposes, Inova has now included in its series of drills a simulation in which all communications go down.

A third lesson was that their **"traditional disaster and all-hazards thinking was really not adequate for the environment"**. Mr. Walters described the need to be prepared for what the military calls "asymmetric threats" that require a "broader kind of thinking." One way Inova has broadened its thinking is through a hazards vulnerability analysis, an assessment of the large-scale risks present in its community. Inova has also relied on experts from nearby military bases, who have been willing to come in and help with training.

As Inova started focusing on the practical implications of being prepared for broader possibilities, the fourth lesson emerged: "It became pretty clear that it was going to be a very costly endeavor."

A final lesson, which was most evident in the anthrax scare, was **the need of the community for leadership** from hospitals in a major disaster. "The public was looking to us for answers," Mr. Walters said. "I think we're all in that position whether we like it or not."

AHA Readiness Update

Roslyne Schulman
Senior Associate Director for Policy
Development
American Hospital Association
Washington, DC

Curtis Rooney
Senior Associate Director and Counsel,
Federal Affairs
American Hospital Association
Washington, DC

Ms. Schulman and Mr. Rooney provided updates on a variety of AHA initiatives aimed at supporting America's hospitals as they develop and update readiness plans. They also shared the status of legislative activities that support disaster readiness initiatives.



AHA Disaster Readiness Advocacy Agenda and Activities Update

As part of America's vital health care infrastructure, hospitals play a key role in disaster readiness throughout our country. Since the terrorist attacks of September 11 and anthrax scare, hospitals have been upgrading their capacity to respond to not only traditional disaster threats, but to an even more real potential of terrorist attacks, including the use of chemical, biological, or nuclear weapons. As vital community resources, hospitals must be among the best prepared, alongside police, fire, rescue, and other public safety services. As hospitals' national voice, the American Hospital Association (AHA) will support at the national level what our members will be working to achieve in their communities: the readiness of people and resources.

Advocacy Agenda

Funding

ISSUE: An investment of \$11.3 billion is necessary to ensure that every hospital has a minimum capacity to respond to emergencies. In FY 2002, Congress provided \$135 million for this purpose. The President's budget for FY 2003 proposes an additional \$591 million for hospitals in this area. These funds are needed to help hospitals upgrade or establish: redundant and interoperable communication and notification capabilities; disease and syndromic surveillance and reporting systems; personal protection equipment for health care workers; facility security; dedicated decontamination facilities; adequate supplies of medical, surgical, and pharmaceutical products;

training and drills; mental health resources; and provisions for creating capacity in a mass casualty incident.

UPDATE: The conference agreement for the Public Health and Bioterrorism Response Act (H.R. 3448) includes \$1.6 billion in grants to improve state, local, and hospital preparedness for bioterrorism and other public health emergencies. Of this amount, \$520 million is for grants to states for enhancing preparedness of hospitals and other health care providers.

Regulatory Relief

ISSUE: A variety of laws also need to be modified to ensure a more effective public health and safety response in case of disaster. For example, flexibility in the Health Insurance Portability and Accountability Act (HIPAA) medical privacy requirements and the Emergency Medical Treatment and Labor Act (EMTALA) screening and transfer provisions is necessary to ensure that these regulations do not impede the delivery of care in a public health emergency.

UPDATE: The conference agreement for the Public Health and Bioterrorism Response Act (H.R. 3448) gives the Secretary of Health and Human Services authority to waive certain regulations under Medicare, Medicaid and SCHIP pertaining to: conditions of participation; EMTALA; physician self-referral regulations; program participation and similar requirements; pre-approval requirements; state licensure requirements; deadlines and timetables; and limitations on payment under Medicare+Choice.

Health Care Worker Protection

ISSUE: Hospital workers, as frontline responders to a biological attack, may face a higher risk of exposure than the general population. Consequently, health care workers should be given priority inoculation against certain biological agents (such as smallpox and anthrax), as appropriate.

UPDATE: Given recent increases in the national supply of smallpox vaccine, the Centers for Disease Control and Prevention (CDC) is reviewing its smallpox vaccination strategy and is requesting input from all stakeholders, including hospitals, on this very important issue.

Other Actions and Activities

- Shared with Congress and the Administration the AHA Readiness Resources document, which identifies eight key areas in which funding is needed for hospital disaster readiness.
- Testified before Congressional committees and Bush Administration advisory committees regarding the need for continued investment in hospital disaster readiness and for regulatory relief in disasters.
- Submitted comments to the Centers for Disease Control and Prevention on their proposed smallpox plan and to Federal Bureau of Investigation on the Homeland Security Advisory System.

- Served in an expert advisory capacity in meetings and projects sponsored by federal government agencies including the White House Office of Homeland Security, the HHS Office of Public Health Preparedness, the Centers for Disease Control and Prevention, the Agency for Healthcare Research and Quality, the Department of Defense, the Institute of Medicine, and the National Guard.
- Participated, with the Partnership for Community Safety, in a number of well-attended Capitol Hill briefings on the need for a sustained national investment in disaster readiness.

The AHA is continuing to create and otherwise provide information and materials needed for hospitals to upgrade and prepare for future mass casualty events, including:

- Issued member advisories that provide links to tools and resources available to hospitals to assist them in upgrading and preparing for disasters.
 - Hosted several meetings for hospitals, state hospital associations, and others on disaster preparedness.
 - Created and is constantly updating an AHA disaster readiness website (www.aha.org) that serves as a clearinghouse with a wide variety of resources, news items, and links to assist hospitals in preparing for disasters.
- Completed a survey of the field with more than 1,500 responses to determine how prepared hospitals are six months after the September 11 terrorist attacks.¹
 - AHA's Society for Healthcare Strategy and Market Development published a book on crisis communication and sponsored a series of multidisciplinary audio-conferences on disaster readiness.

The AHA continues to collaborate with key organizations on readiness initiatives, including the following:

- Founding member of the Partnership for Community Safety (PCS), which brings together organizations representing hospitals, public health, fire services, physicians, nurses, emergency medical services, and others in a unified effort to highlight the readiness needs of first responders and the need for a sustained national investment in readiness activities. The PCS is holding Capitol Hill briefings, communicating with legislators and other policymakers about the needs of emergency first responders, and collecting examples of community collaboration on disaster readiness issues for a “best practices” bank.
- Working closely with the American College of Emergency Physicians, another leader in the Partnership for Community Safety, on the issue of ED overcrowding.

¹ Please refer to the following two-page summary of the AHA Hospital Readiness and Needs Assessment, May 2002.

- Participated in coordination forums on disaster readiness with the American College of Emergency Physicians, Association of Health System Pharmacists, American Association of Blood Banks, and other organizations.

For more information on any of these activities or initiatives, please contact AHA's senior associate director for policy development, Roslyne Schulman at (202) 626-2273.



Disaster Readiness...

Where Do You Stand?

Hospital Readiness and Needs Assessment

May 2002

The terrorist attacks of September 11 and subsequent anthrax outbreak have changed how Americans view their safety and security. Although all hospitals have long had disaster plans in place, in the months since September 11, those plans have been strengthened to meet today's new threats. To gauge their progress, the American Hospital Association (AHA) in February 2002 surveyed nearly 5,000 hospitals about the steps they have taken and plan to take to improve their disaster response capabilities. Nearly one-third of hospitals completed the survey.

The survey findings indicate that hospitals have taken important steps to increase their readiness to respond not only to traditional disaster threats, but also to potential terrorist attacks, including the use of chemical, biological, or nuclear agents. The survey found:

The majority of hospitals are incorporating special plans into their existing plans to address terrorist threats.

- Nearly 7 out of 10 (69%) hospitals have already added a bioterrorism response into their existing plan; 28% will do so in the next 6-12 months.
- 76% already have incorporated a chemical terrorism response; 20% will do so in the next 6-12 months.
- More than half (54%) already have incorporated a response to a nuclear incident; 27% will do so in the next 6-12 months.

Most hospitals are establishing back-up internal communications capabilities.

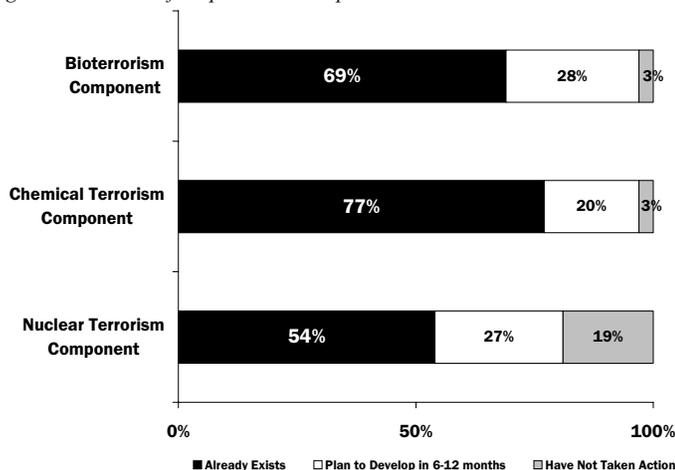
- More than 8 out of 10 (82%) hospitals are already doing it; 10% will begin in the next 6-12 months.

Most hospitals are working with other community first responders such as police, fire, EMS, and public health officials to ensure community-wide readiness and response.

- Nearly 9 out of 10 (89%) have already reached out to other public safety groups in the community; 10% will do so in the next 6-12 months.

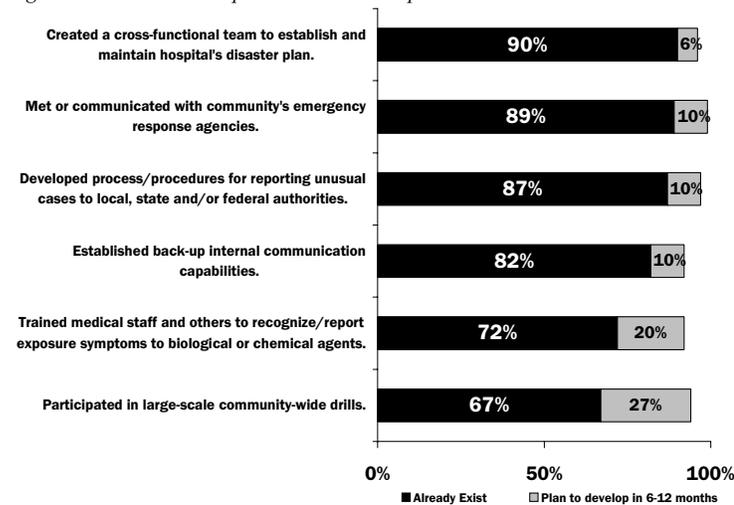
Hospitals are developing responses to new terrorists threats to their community's safety. . .

Figure 1: Elements of hospitals disaster plans



. . .and hospitals are taking other important steps to increase their readiness to respond to disasters. . .

Figure 2: Actions that hospitals have taken or plan to take



...but more action is needed to ensure that hospitals are ready to respond to new threats to community safety.

Figure 3: Future actions planned by hospitals as resources permit

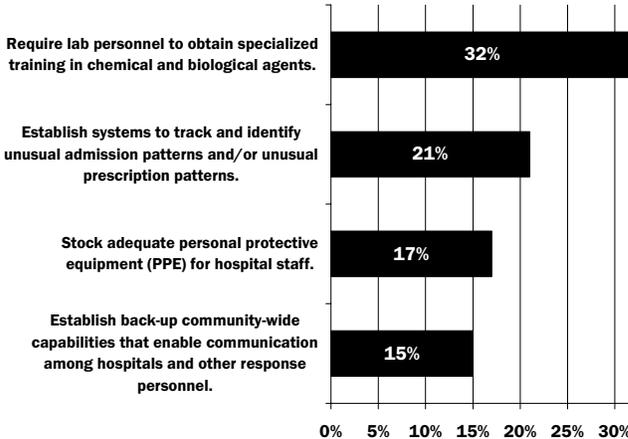
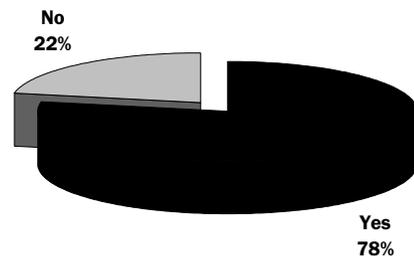


Figure 4: Respondents who believe there are additional activities/actions that their hospitals should be engaged in but cannot due to lack of resources



- 67% have participated in community-wide disaster drills; 27% will do so in the next 6-12 months.

The majority of hospitals have trained physicians, nurses, and other caregivers to recognize and report symptoms of the most common biological and chemical agents.

- 72% have already trained these key personnel; 20% will do so in the next 6-12 months.
- 87% have established a process to report unusual cases to local, state, or federal authorities; one out of 10 plan to do so in the next 6-12 months.

While these findings are encouraging, more must be done.

About 78 percent of hospitals indicated that there are additional readiness activities or actions that they believe their hospital should be engaged in but cannot due to lack of resources or funds. These include such things as:

- Establishing systems to track and identify unusual admission patterns and/or unusual prescription patterns;
- Requiring lab personnel to obtain specialized training in the identification, handling, and reporting of chemical and biological agents;
- Establishing back-up community-wide capabilities that enable communication among hospitals and other emergency response personnel; and
- Stocking adequate personal protective equipment for hospital staff.

That's why AHA is calling for a sustained investment in community readiness from the federal government.

- ✓ Readiness resources document—\$11.3 billion needed
- ✓ Advocacy before Congress and Administration (CDC, CMS, OHS, DOD)
- ✓ Partnership for Community Safety (www.partnershipforsafety.org)

For more information on AHA's disaster readiness advocacy, services, and resources, call (800) 424-4301 or check out AHA's disaster readiness Web site (www.aha.org) for AHA Member Advisories and additional readiness resources.

Speaker's Bios

Mark G. Ackermann

Senior Vice President and Chief Corporate Services Officer
Saint Vincents Catholic Medical Centers of New York
New York, NY

Mark Ackermann has more than twenty years experience in non-profit management. His background includes senior management positions in both educational and healthcare institutions. He joined Saint Vincents Hospital and Medical Center in 1983 and currently holds the position of chief corporate services officer of the hospital's successor corporation, Saint Vincents Catholic Medical Centers of New York.

In his current role, Mr. Ackermann coordinates all corporate matters of the \$1.5 billion health care system which includes, seven acute care hospitals, one specialty hospital, four nursing homes, one assisted living facility, two hospices, and the largest hospital-based home health care agency in New York State. He has direct responsibility for the board of directors and all board committees as well as matters relating to the system's membership corporation and subsidiary corporations. His responsibilities also include the system's foundation, development, communications, community affairs, government affairs, day-to-day operations of the Office of the President, corporate compliance, regulatory affairs, HIPAA compliance, and internal audit.

He is a member of the government affairs committees of the Greater New York Hospital Association, the Hospital Association of New York State, and the Catholic Healthcare Association (CHA). He has been active in the Association for Healthcare Philanthropy (AHP) where he has served on the national board of directors and as chairman of the board of trustees of the AHP Foundation.

He has served as an adjunct professor in the Graduate School of Management and Urban Professions of the New School for Social Research, New York, as well as, a clinical instructor in the Robert F. Wagner Graduate School of New York University, New York. He has spoken on healthcare management issues at conferences sponsored by the AHP, the CHA, the National Society of Fund Raising Executives, the Association of American Medical Colleges, and the National Committee for Quality Health Care.

Mr. Ackermann holds a bachelor's degree from the Catholic University of America and a master's degree in healthcare management from New York University.

Barbara Bisset, R.N.

Director of Emergency Response, Safety Management and Special Police
New Hanover Health Network
Wilmington, NC

Ms. Bisset has spent many years in emergency services administration, both in Chicago and in Wilmington, North Carolina.

Responsibilities at New Hanover Health Network include management of a >50,000 emergency department, trauma services and the development and implementation of a critical care ground transport service. As an assignment, she chaired the hospital's disaster committee. After activating plans for hurricanes six times in three years, the administration recognized the need for a dedicated emergency response position. She now has responsibilities for all emergency response plans for the network, all JCAHO Environment of Care Programs and Special Police Services, the law enforcement agency for the network.

Ms. Bisset has spoken at numerous programs on disaster related issues, including the National Hurricane Conferences, North and South Carolina Governor's Conferences and the Tampa Bay Regional Hurricane and Healthcare Facilities Coalition.

Ms. Bisset received her degree in nursing (RN) from West Suburban Hospital, Oak Park, IL and a master's degree in public health from George Williams College - Illinois Benedictine College, Lisle, IL. She is currently working on a master's and doctorate in safety engineering from Kennedy Western University, and hopes to complete both of those degrees in 2002.

Bruce J. Flanz

Executive Vice President and COO
Jamaica Hospital
MediSys Health Network
New York, NY

Mr. Flanz has been with the Jamaica Hospital since 1975, and has served as executive vice president and COO since 1980. He has guided the team in strategically positioning Jamaica Hospital as the leader in its market, an accomplishment that would not have been possible without a cohesive team involving all 3,000 employees. Mr. Flanz is applying the same leadership principles and practices at Flushing and Brookdale Hospitals, two deeply troubled organizations.

Mr. Flanz has worked tirelessly to increase access to healthcare by leading lobbying efforts to create a new hospital reimbursement system in New York State which partially compensates hospitals for charity care, as well as a capital financing system for financially distressed institutions. He serves on AHA's Coverage and Access Task Force. He is also leading a multi-pronged network-wide disaster response program. He created a Nuclear, Biological, Chemical Incident Task Force, which coordinates the three-hospital network's response to potential incidents of these types.

Mr. Flanz has served on AHA's Invitational Forum on Hospital Preparedness for Mass Casualties, and currently serves as chair of the Statewide Emergency Preparedness Task Force for the Healthcare Association of New York State.

He is a delegate to the American Hospital Association Regional Policy Board 2. He is also chairman and one of the founding members of the International Association of Medical Bike Units.

Mr. Flanz received a master's degree in business administration from Baruch College and The Mount Sinai School of Medicine

Mark J. Marino

Director, Department of Pre-hospital Care Services
MediSys Health Network
New York, NY

Mark J. Marino has been employed by Jamaica Hospital Medical Center since 1983 where he began his career as an emergency medical technician. Currently, he is the director of Prehospital Care for the MediSys Health Network, Inc., the parent organization of Jamaica Hospital Medical Center, Flushing Hospital Medical Center, and The Brookdale University Hospital and Medical Center. Under his direction, the network's ambulance operation has quadrupled its participation in the New York City 911 system, making it one of the largest hospital-based ambulance services in the city.

In 1990, Mr. Marino re-engineered the hospital's emergency preparedness plan, establishing a unified command and reporting structure for the handling of incidents—a concept that became a JCAHO standard some 10 years later. The emergency preparedness program is fully integrated across the network under his direction. Mr. Marino also chairs the MediSys Nuclear, Biological, and Chemical Incident Taskforce, which was developed immediately after the terrorist attacks on NYC and Washington DC.

Mr. Marino worked closely with various NYC entities, including Mayor Giuliani's Office of Emergency Management, to assist with the development of a collaborative, citywide preparedness strategy for healthcare facilities during the Y2K process. He provided the leadership for all aspects of the network's Year 2000 Compliance Project, culminating in his role as incident commander of the New Year's Eve activities.

Mr. Marino is actively involved with various regional and state organizations. He is a founder and executive director of the International Association of Medical Bike Units, Inc.

Mr. Marino has given over 20 years of service to his community volunteer ambulance and fire department and currently serves on the board of directors for JFK International Airport's Chamber of Commerce.

Curtis Rooney

Senior Associate Director for
Congressional and Executive Branch Relations
American Hospital Association
Washington, DC

Mr. Rooney is senior associate director for Congressional and Executive Branch Relations and Counsel for the American Hospital Association (AHA). He is responsible for a number of issues including disaster preparedness, telemedicine, Medicare reimbursement, regulatory relief and reform, mental health services and payment issues, professional liability reform, and ERISA.

Most recently, Mr. Rooney was an attorney with the law firm of Arent Fox Kintner Plotkin & Kahn, practicing in the Health Law Group in Washington, D.C. At Arent Fox he handled a number of matters including Medicare compliance programs, managed care, managed care triage systems, self-referral issues, fee split problems, anti-kickback issues, patient confidentiality, physician licensure, ambulatory surgical centers, telemedicine and a variety of health care legislative and regulatory issues.

He has also been Washington counsel to the American Medical Association (AMA) in the Division of Legislative Counsel and Counsel to the Association of Private Pension and Welfare Plans (APPWP). Mr. Rooney has written and spoken extensively on telemedicine, ERISA and health care reform. He is vice chairman of the Health Care Liability Alliance (HCLA) and sits on the board of the Center for Telemedicine Law (CTL).

Mr. Rooney received his bachelor's degree from George Washington University, and his law degree from Catholic University.

Roslyne Schulman

Senior Associate Director for
Policy Development
American Hospital Association
Washington, DC

Roslyne Schulman has been a senior associate director for Policy Development at the American Hospital Association since January 1999. In this capacity, she is responsible for policy development related to hospital preparedness for mass casualty events. Roslyne is a member of the AHA's Staff Workteam for Hospital Readiness and chairs the Team's subgroup on Resources. In addition, she has primary policy development responsibility in a number of other areas, including the Emergency Medical Treatment and Active Labor Act (EMTALA); administrative simplification; Medicare physician payment policy and other Medicare Part B issues, rural health clinic issues, FDA policy regarding the reuse of single use medical devices, blood costs, and other areas.

From 1992-1999, she worked for the American College of Emergency Physicians as regulatory representative, and from 1990-1992, she was a legislative assistant with the American Group Practice Association. Ms. Schulman came to Washington, D.C. in 1989 as the David A. Winston Health Policy Fellow.

She received her master's degree in Health Administration and master's degree in Business Administration from the University of Pittsburgh in 1989. Ms. Schulman received her Bachelors of Science from the University of Pennsylvania in 1984.

H. Patrick Walters

Senior Vice President System and
New Business Development
Inova Health System
Alexandria, VA

Patrick Walters serves as senior vice president for system and new business development for the Inova Health System. His responsibilities include leading Inova's efforts to expand the system through merger, acquisition, and partnership development. He also has executive responsibility for the Inova's "All Hazards" disaster preparedness activities internally and across the region, Inova's Community Health Division, Inova joint venture activities, and supporting Inova's major project development activities.

Mr. Walters joined the system in March of 1997 with the merger of Alexandria Hospital into the Inova. His initial Inova position was that of vice president, administrator of Inova Alexandria and Inova Mount Vernon Hospitals. He led the team that managed the two hospitals and oversaw the merger and integration of the Alexandria operations into the system.

Prior to joining Inova, he was the president and CEO of Alexandria Health Services Corporation and the administrator of Alexandria Hospital. He led the efforts of the Alexandria board and community in positioning the hospital for the future in its merger with Inova. Under his leadership, the hospital enjoyed significant financial success and excellent community and physician relations. His primary background is in the area of finance and system development. He has held financial leadership positions in regional health care organizations and was part of the development team that organized the first network model HMO in northern Virginia, a plan that subsequently became Aetna Health Plan of the Mid-Atlantic.

Mr. Walters received his bachelor's and master's degrees in finance and accounting from George Mason University in Fairfax, VA.

