Homeland Preparedness for Major Terrorism in 2006: Not Yet Ready for Prime Time

Irwin Redlener, MD Director, National Center for Disaster Preparedness, Columbia University

This year will represent a turning point for preparedness and homeland security in the United States. With Michael Chertoff firmly in place and making his own mark as the new Secretary of Homeland Security, the anticipated re-authorization of the federal bioterrorism bill and many other new perspectives and strategies on the table, changes are likely to be seen across the board. That's a good thing and the new Secretary seems off to a strong start. The nation clearly needs more resources and smarter strategies if we are to make the progress we need. The fact is that four years after the attacks of September 11, 2001, the country remains far less prepared for terrorism and catastrophic disaster than we should be.

How do we explain this seeming paradox? In effect, we live in the most technologically advanced, politically powerful and wealthy nation on earth, yet we are still struggling to secure our borders, protect our ports and public transportation systems and sufficiently enhance our public health systems against the persistent threat of terrorism.

Take the case of relevant technologies that are essential to ensure effective protection of the homeland. An article in the New York Times last year detailed the extraordinary lack of quality and consistency that literally undermines local efforts to make substantive progress in many areas of preparedness planning. A good example is what is happening with respect to our ability to protect communities from the possibility of terrorists transporting and detonating a so-called "dirty bomb" - or Radiological Dispersal Device. While thousands of radiation detectors have been distributed strategically throughout many U.S. cities, high levels of sensitivity have resulted in many "false alarms".

The problem is that detectors may be set off by innocent sources of radiation, say nuclear material for medical imaging procedures. But the alarms trigger responses geared to managing a potential dirty bomb threat. Repeated mobilization of forces to deal with these situations exhausts money and morale. It is not unreasonable to expect that such challenges would have already been met. But it also doesn't make sense that each local jurisdiction operating in relative isolation, needs to do its own R & D. Developing and testing new technologies, establishing best practices based on replicable data analysis should be done nationally. Radiation detection needs should be the same in Omaha as they are in Seattle or Chicago. We don't have the resources - or the time - to explore technological applications in potentially hundreds of localities.

Even in the case of understanding and meeting needs among first responder agencies, much of what is being done is shockingly random. In any given State, for instance, fire districts are using designated Homeland Security funds for widely variant purposes. One particular district may decide to use these dollars to purchase personal protective equipment; an adjacent district may go for a new truck, communication equipment or refurbishing the firehouse. None of these decisions may have any relevancy to a master response plan for a region. Such a master plan, in fact, is not likely to even exist. Consequently, stations and districts are on their own, a situation that causes legitimate concern about the real level of disaster readiness in many communities.

Public Health Preparedness and Response: Where We Stand

What about the U.S. health and public health systems? This represents one sector at center stage in the strategic plan to prepare the nation for unconventional attacks by international forces bent on taking lives and demoralizing the country as a

whole. By the end of last year, the U.S. had spent approximately \$20 billion since 2001 on the public health and hospital systems, including essential research.

So what do we have to show for this investment? Do we have the ability to recognize and diagnose a bioterror attack at the earliest possible stage? Do we have a sufficient stockpile of vaccines or treatments against the top six or eight potential bioweapons? Do we have a trained workforce of first responders and health care professionals sufficient to meet the needs of mass casualties of an attack with virulent biological weapons? Can we depend on our capacity to "surge up" in the face of dramatically expanded emergency needs for hospital beds and ventilators? Sad to say, to date the answer to these questions is essentially either "maybe" or "no." Hardly good enough.

A new generation of "public health disaster modelers" in and out of government have been looking at the relationship among timing of diagnosing a bioterror attack, ramping up of a significant response and fatality rates. No surprises here. The earlier we determine that there is a "bio event", understand the specific agent involved and get response protocols in place, the more lives will be saved. So how is early diagnosis, the first essential step, ensured?

The answer is not entirely clear. One school of thought suggests that a comprehensive syndromic surveillance system is key. Many localities have begun this process by monitoring the frequency of syndrome patterns among patients showing up at hospitals or medical offices. But this is far from a reality in most communities throughout the U.S. And those that are engaged in syndromic surveillance do not necessarily share the same approach, criteria or protocols. It is also true, however, that there are some experts who do not believe that this approach is best, preferring instead to focus on training clinicians to be on high alert for a particular constellation of symptoms and medical findings that might suggest a bioterror agent at work. Still others promote monitoring sales of over the counter medicines for treating respiratory or intestinal symptoms or, even, monitoring the volume of sewage in treatment plants as a way of assessing new onset of widespread diarrheal disease.

What's missing is federal direction, backed up by credible research, that tells every community what is recommended and provides the resources necessary to implement the plan. We have not established a system of developing best practices. This is true for bioterror surveillance, and almost every other aspect of preparedness or response as well.

What about challenges like ensuring sufficient "surge capacity" in the nation's health and hospital systems in the event of a mass casualty event? This concept refers to the ability to rapidly make available needed beds, equipment, personnel to treat very large numbers of victims in a nuclear, chemical or biological attack. I remember touring communities throughout New York State just weeks after 9/11. I had joined Senator Hillary Rodham Clinton on a fact-finding tour and we were interested in hearing what concerns and issues were on people's minds. We also tried to get a sense of how local hospitals might respond to an acute need to treat thousands of patients affected by an attack with unconventional weapons.

It was the same in every community. There was no plan, no idea of what would actually happen if the medical resources in a particular city were stressed by such an event. But that was four years ago. The problem is that, on many of these issues, we have made little progress, even four years later. Most communities could not and cannot handle an acute, substantial surge of very sick people needing rapid evaluation, aggressive treatment and access to significant hospital resources and expertise.

Part of the problem is money. Many U.S. hospitals are struggling to keep financially afloat. They are being squeezed by increasing demand, reduced reimbursements and increased costs of doing business. So, after 9/11 when hospitals were urged to "prepare for terrorism and major disasters", few had the resource or motivation to do so. Although the federal government provides some funding, primarily through the federal Health Resources and Services Administration (HRSA), as well as the Centers for Disease Control and Prevention



INDUSTRIAL FIRE & SECURITY CONFERENCE AND EXHIBITION

www.ifsevent.com





- Your one-stop shop to reach key personnel from the Energy Security and Emergency Response markets
- Meet with hundreds of key decision makers from Government/Regulatory, Response/Planning and Energy Operations Community



Please visit www.ifsevent.com for more details For information on exhibiting:

Julien Dupont: (direct) 214-358-5359 (main) 832-242-1969

For information on sponsorship: Christy Williams: 832-242-1969 ext.306

TRADEFAI

(CDC), this is a fraction of what is actually needed. The American Hospital Association estimates that the nation's 5,000 hospitals may need as much as \$20 billion annually to implement and sustain true preparedness. Indeed, the actual amount of HRSA funds available for this purpose each year is less than \$0.5 billion.

But money is only part of the problem. A larger concern may be a relative paucity of federal direction as to how preparedness goals should be set for individual hospitals or communities. What money does arrive, generally comes without functional guidelines with respect to describing what is expected from any given institution in terms of disaster preparedness. And for potentially understandable reasons, funds flow through states to local jurisdictions. What's missing though are robust processes for organizing true regional planning. A chemical release, nuclear incident or biological attack will obviously not respect political or geographic borders.

But who determines how resources and responses will be coordinated and applied across state lines? Of course, "meetings are held" among bordering

communities, some even developing preliminary plans for handling such contingencies. But, as of now, few regions have developed dependable, appropriately funded working protocols for how cross-jurisdictional mass casualty events will actually be managed. As of this writing, for instance, important challenges are just being explored in efforts to meet regional emergency planning needs. Open questions include difficult issues, such as the role of the military in responding to catastrophic events.

So what is to be done? How does a diverse, democratic society go from business as usual to a nation ready to prevent and respond to threats that just four years ago were simply not on the radar screens of most political leaders or the public at large. True, within government, and particularly within the military, there has long been a core of experts concerned about and working on the nation's vulnerability to attacks from foreign or domestic terrorists using mass casualty, unconventional weapons. Early incidents in the U.S., from the Oklahoma City bombing to the 1993 attack on the World Trade Center in New York, certainly reinforced a need to continue this

work. But in terms of full-scale engagement of government and significant awareness of vulnerability among the public, September 11, 2001 was the real turning point.

Systemic Challenges: Many Still Unmet

Homeland Security dollars are filtered from the federal government to states and then to communities. Although formal directives from the White House have addressed issues of organizational and command structure, as well as specific planning goals for terrorism preparedness (Homeland Security Presidential Directives 5 and 8, in particular), this kind of guidance is far from implemented in the States and among community planners. That said, Secretary Chertoff clearly seems to be on the right track. The Department of Homeland Security is emphasizing the idea of planning around threat-based scenarios with strong federal guidance. Priority is being given to the prevention of and response planning for catastrophic events resulting from deployment of so-called "weapons of mass destruction."

In theory, this is where we should be headed. But there are at least three principle barriers to assuring that sufficient progress is actually made in a relatively timely manner. First is the question of resources. Are we investing enough money in Homeland Security to ensure the outcomes we desire? That is actually difficult to know. The fact is that in the absence of really defining what we mean by "prepared" and without establishing measurable benchmarks for getting to an adequate state of readiness, how can we possibly know how much it will cost?

Secondly, there seems to be a general national confusion about the roles and responsibilities of local versus state versus federal agencies in preparing for or responding to major disasters. I am not referring to some of the thorny legal, jurisdictional questions which will eventually be worked

out. More germane in the immediate sense are mundane questions related to the development of best practices, establishing standards for surge capacity or personal protective gear or training first responders and so forth. Some of these issues are best solved by local authorities who know their own communities and the key players who will actually need to function effectively in a major emergency. But other issues, including standards of practice, training protocols, testing of new equipment to mention just a few, do not need to be re-invented in communities or even among states.

Finally, the U.S. faces a profound structural, systemic reality as it struggles to get "prepared" for terrorism in the 21st Century. For decades now, the nation has moved further and further along a process of moving decision-making authority from the federal government to the individual States - and from there to the local jurisdictions. Without judging this inexorable movement to more and more local control of resources and authority, it is safe to say that the outcome of this process may not make it easy to develop a true state of appropriate national readiness for the threats we face in a post-9/11 world.

We are presumably in a "war against terrorism" or at least have a high priority national commitment to make the homeland as secure as it can be without fundamentally changing the kind of society in which we live. If so, this is hardly an effort that can be dispersed among the states without a strong, centralized command structure. We need defined goals, clear benchmarks and true accountability with respect to dollars spent and deliverables met. Otherwise, America will continue to find itself floundering in a world which, it seems, becomes more fragile and dangerous with every passing year.

Irwin Redlener, MD, is the Director of the National Center for Disaster Preparedness at Columbia University and Associate Dean at the Columbia University's Mailman School of Public Health. (212) 305-0338