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Publisher's Message



As this year comes to a close, please accept my sincere greetings and best wishes for a happy and safe holiday season.

The past twelve months have been very good for DomPrep – and *your* participation was a key factor contributing to its success. Throughout 2011, DomPrep evolved to a higher level of collaboration between writers, readers, sponsors, and DomPrep40 Advisors – all of them interacting through peer-to-peer articles, well-designed, informative, and insightful surveys, live briefings, several “insiders” tours – and, of course, direct-response letters, emails, and phone calls. Without your contributions, none of this would have been possible. So, again: Thank you – very much, and very sincerely.

On all fronts, 2011 was a year of continuing growth, by any standard of measurement. Online page views and visits increased by anywhere from 30% to 50%, depending on the issue and the topics featured. Each month, moreover, between 300 and 500 new members registered to receive the *DPJ Weekly Brief* email newsletter. In addition, and most significantly, the *DomPrep Journal* monthly issues broke all of their own previous records – the July issue showed the most spectacular gain, recording over 36,000 downloads.

The staff hosted five successful DomPrep Executive Briefings – each of which focused on a major topic of interest to the U.S. domestic-preparedness community – at the National Press Club in downtown Washington, D.C. I am particularly pleased to report that, although each briefing was attended by a stellar audience of by-invitation-only attendees, the principal benefit was provided to numerous working professionals who were not in the briefing room, but participated later – online. An amazing total of more than 35,000 reports – averaging more than 7,000 per briefing – were downloaded. Not incidentally, each report included not only survey results and key findings, but also numerous definitive (and in some instances surprising) conclusions as well as audio downloads of the entire proceedings.

Needless to say, the bar has been set high – not only for DomPrep's staff, but also for its readers, writers, sponsors, and advisors – as we prepare for an even better 2012. Following are a few additional steps already taken and/or are in the process of planning:

- To help validate the accuracy and newsworthiness of an increasing number of unsolicited articles, DomPrep is now forming a Peer Review Committee. Please let me know at your earliest convenience if you personally are willing to be included in the peer-review process to help Associate Editor Catherine Feinman validate the submissions we receive.
- The possibility of scheduling at least one or more Executive Briefings outside the greater Washington, D.C., area next year has been suggested and is now under consideration.
- DomPrep also is working to become more “mobile” – another way of saying that the time now seems right to adapt the content of our print and online products to be easily read on smartphones.

Thank you for your attention – and thank you as well, once again, for your contributions to the information service known as DomPrep, which is now used and relied upon by literally thousands of domestic and international responders, receivers, planners, and government authorities – as well as their private-sector partners. Your hard work and vigilant efforts will continue to be of significant value to all preparedness, response, and recovery communities. Please let me know your thoughts on how DomPrep's staff can continue to improve this collaborative enterprise in the coming year.

Sincerely yours,

Martin (Marty) D. Masiuk, Publisher

About the Cover: Imaginative and “explosive” design – developed by DPJ Creative Director Susan Collins from an iStock blue vortex photo – that uses key words, spelled out in blue lights, to create a warp effect by zooming into a black background of infinite magnitude.

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M.D., RADM, USPHS (Retired)

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From August 2006 until July 2009, **Dr. Vanderwagen** was the founding Assistant Secretary for Preparedness and Response (ASPR), U.S. Department of Health and Human Services.

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An Interview with The Honorable Tom Ridge

By Aaron Sean Poynton, Interviews



The DomPrep Journal's Aaron Sean Poynton recently spoke to Tom Ridge, the nation's first secretary of the U.S. Department of Homeland Security and former governor of Pennsylvania, about the state of homeland security and what is ahead for 2012.

Aaron Sean Poynton: *Governor, you have been a major figure in the nation's homeland security program since its inception, beginning as governor of Pennsylvania, when flight 93 crashed in Shanksville in 2001. Over the past 10 years, many efforts have been made to prevent and respond to not only terrorist activities, but to all major hazards – including weather hazards. Do you think that the nation has accomplished what you had anticipated when you assumed the job as the first Secretary of the then-new Department of Homeland Security [DHS]?*

Tom Ridge: I would like to give you an unequivocal and enthusiastic response that we have done everything that we set out to do, and there's nothing left to be accomplished – but that's just not accurate. I must say that I believe the country – frankly, with the input from all levels of government, the private sector, the academic world, and the non-profits – has made a lot of progress in terms of policy and our approaches to combating terrorism. In the past 10 years, we've demonstrated our own resiliency from an attitudinal point of view – which is very important, considering the trauma and the horror of September 11th. But I also think that honest reflection on the past 10 years shows that we have lost a bit of that sense of urgency to even put in place the very fundamental mechanisms or approaches to reducing the risk. We'll never eliminate it entirely, of course – we're just managing the risk.

In my judgment, there are three specific areas that need improvement: First, we are still not doing a good enough job with regard to information sharing. The information sharing within federal agencies has improved – sharing horizontally among federal agencies is better; sharing vertically with the state and local is better. But there is still *plenty* of room for improvement – and you can cite [the shootings in] Fort Hood as a perfect example.

Next, we failed to listen to Congress when they said to take commercial off-the-shelf [COTS] equipment and apply it to our needs in securing the country. Exhibit A, in my judgment, is the electronic fence – which was untried, unproved COTS technology – [that] we tried to build along the southern border. There are plenty of COTS technologies out there; I think it's cheaper and accessible. I talked with some good CBP [U.S. Customs and Border Protection] people the other day and they have gotten the message and they have some short- and long-terms plans to take care of that. In other words, we did not take advantage of the things we already had.

The third point is the failure to generally embrace the notion of risk management. Until recently, we have still been treating everyone who walks up to a commercial airline security station as a potential terrorist. To TSA's [Transportation Security Administration's] credit, they have begun a modest pilot program, but improvements in information sharing and ramped-up uses of COTS [systems and technologies] encourage embracing more enthusiastically the notion of risk management.

Still, we *have* made huge progress. The reorganization of the department itself [DHS] continues to impose challenges; it remains a work in progress. However, nothing that has occurred in the past 10 years suggests to me that we did not bring in the right agencies. The aggregation in one department of those units of government [now in DHS] is appropriate, but there is a level of maturity that has yet to be realized in terms of integrating IT infrastructure, fiscal infrastructure, and procurement infrastructure. Progress has been made on the business side of the department, but it [DHS] is not yet the kind of efficient and effective enterprise we would like it to be. Frankly, you cannot expect it to be that well organized in such a short period of time. That is too much to ask when you are cobbling together over 180,000 people plus multiple agencies and a number of different cultures.

Poynton: *You have suggested that the post-9/11 threat is “multigenerational,” calling it the “new norm” – for example, this year’s graduating West Point class, many of whom will be deploying in support of the global war on terrorism, were only in elementary school when the terrorist attacks of 11 September 2001 took place. So, while sustaining the progress that has already been made, how is the importance of homeland security being emphasized to the next generation – especially in the face of shifting priorities and interests, such as immigration, healthcare, and the U.S. economy? Do these shifting priorities and interests, along with that lost sense of urgency you just noted, make the United States less prepared today than it should be to respond to emerging threats?*

Ridge: The United States need not look further than its founding documents to understand that there is and has been a continuing national responsibility, from 1789 forward, to “provide for the common defense.” That responsibility is not a shifting priority – it never has been and it never will be. There are several different types of threats that confront the

United States: traditional threats from sovereign countries, for example, and the challenges associated with the complicated issues associated with the global economy – as well as the asymmetric threats associated with those who embrace themselves in this flawed belief system. All of which simply means that we need to be very clear as a country that providing for the common defense is not a shifting priority.

We have to be both thoughtful and strategic in identifying the threats that we confront, and in figuring out how to handle them and appropriating the right resources to do so. The threat is real – and it is generational. We will be living with it for quite some time. It’s manageable, but it cannot be eliminated. There is, though, a law of diminishing return associated with mindlessly pouring more money in to extract that last 0.1% of security. We have to accept at least some risks, because government has other responsibilities to the population at large.

Poynton: *The 9/11 Commission Report castigated the government for lacking imagination, and suggested that that lack might have facilitated the 9/11 attacks – at least to some extent. Do you believe that the U.S. government now has the “imagination” the Commission was talking about – and can you provide a specific example in the field of homeland preparedness?*

Ridge: Let me be very candid on this one. I think that there is a bigger issue than imagination here. It is my belief that the [current] administration’s decision to treat terrorists as criminals has an adverse effect on our thinking – and on our approach with regard to dealing with terrorists. If you tell those responsible for combatting terrorism that those who are plotting to kill innocent people in the most devious and imaginative ways are simply to be treated as criminals – well, at the very least, in my judgment, that dulls the imagination. And it reduces the sense of urgency that I also think is needed.

Poynton: *Different surveys have shown that many, maybe most, U.S. citizens think of homeland security solely in the context of terrorism, but as you know it is much broader than that. In the United States, natural disasters are and have been far more frequent, more costly, and more deadly than terrorist attacks. So, in your opinion, does the Department of Homeland Security put enough emphasis on preparing for natural disasters?*

Ridge: One of the more interesting controversies surrounding the legislation that created the Department of Homeland Security involved the decision to include the Federal Emergency Management Agency [FEMA] within the new department. That was, and still is, the right decision. FEMA was, is, and always should be the *all-hazard* agency, and its more traditional role was, is, and always should be dealing with natural disasters. I personally believe that DHS has placed the right emphasis on preparing for natural disasters. And I am hopeful that the states and local governments will continue to prioritize these almost-predictable events [natural disasters] as they prepare for the upcoming year.

I also think that DHS is doing a far better job in the broader community today than before. First, we built a national incident management system, which the state and local governments have embraced, that provides a standard platform within which all levels of government can operate in the event of a disaster. We also built the National Response Plan – the name of which was changed to the National Response Framework after, frankly, the failure to invoke it before [Hurricane] Katrina rather than after. There is also a better understanding of the role that the federal government plays in supporting state and local governments, particularly if or when the natural disaster is of such a magnitude that it overwhelms the traditional capabilities of the local and state agencies – and even the limited resources that FEMA has.

I believe that the emergency management professionals today are far better prepared for natural disasters than they were just a few years ago. I also believe they would be even better equipped if Congress would make good on a *9/11 Commission Report* recommendation and build an interoperable broadband public safety network that would enable all of our first responders to perform even more effectively in the event of a natural disaster or terrorist event. In my opinion, the one major remaining gap in our ability to respond and recover as quickly as possible to an all-hazard event is the failure of Congress to match its own *rhetoric* – which supports a public safety network – with the *actions* needed to create one [a public safety network].

Poynton: *A lot was learned from Hurricane Katrina in 2005. This year's Hurricane Irene was no Katrina – but did the east coast prepare accordingly, in your opinion? Some people said they over-prepared.*



Governor Tom Ridge

Photo compliments of Ian Wagreich/U.S. Chamber of Commerce

Ridge: I have a very deeply rooted bias when it comes to answering this question. In the face of a terrorist warning – or hurricane warning, or some other advance notice of a potentially catastrophic incident – it's difficult for me to believe that you could be over-prepared. I can't think of a governor, mayor, utility executive, or emergency manager who should ever be criticized for being over-prepared in the face of timely – and what at the time seemed to be – relevant and appropriate information.

[New York City] Mayor Bloomberg's actions have been criticized, but what a wise and sage man he would have appeared to be if the weather pattern had done what some [weather forecasters] said it was going to do. Some utility executives took the warnings seriously, developed mutual-aid agreements, sent crews in from the Midwest, and had everybody's power restored in a few days. Other utility executives got the daylights kicked out of them because they were *not* as well prepared. The bottom line is that I don't think you should ever be criticized for being over-prepared.

Poynton: *This year, the previous DHS alert systems were retired and a new national terrorism advisory system has been adopted. Do you see this as a long-term solution to advising citizens, as well as state and local governments, about imminent threats?*

Ridge: This is the third iteration of the department's responsibility to inform citizens with regard to potential

threats. In my judgment, whether it was the five levels of preparedness in the original color-coded alert system, or the later two levels of preparedness – imminent and elevated – in the current system, as long as the public is given information not only about the threat but also, and just as important, what specifically to do about it, then this solution is as good as any. One of the ongoing responsibilities of the department is to keep the public informed.

With the first iteration of the alert system, Attorney General John Ashcroft, FBI Director Robert Mueller, and then-Assistant to the President for Homeland Security Ridge held press conferences and informed the public about a potential threat. We gave them [the public] absolutely no advice, council, or instruction on what to do to prepare for it. That's why we came up with the color system because at each color there was a predetermined, prescribed set of precautionary measures to be taken. In my judgment, whether you have five levels or two levels, as long as you tell folks about the threat and what they need to do in order to reduce the risk to them, their families, and their communities, then it's an appropriate system.

Poynton: *The homeland security enterprise has significant components in the private sector. What areas or opportunities have the biggest potential for the private sector and the government to work together to increase and improve preparedness levels?*

Ridge: There are two areas that come to mind immediately – because I do believe that, while Homeland Security may be a federal department, it is also a national mission and *everybody* has a role to play. One of the biggest roles to play involves the private sector and, in that arena, there are two areas where I think the contribution can be most significant, and the collaboration must be permanent. The first is cyber security, given the fact that we are living in a digital world, and the impact it has on how we live – every aspect. The second area is response and recovery after a cataclysmic event. These two areas cry out for collaboration at the highest level, and they require the same commitment from both the private and the public sectors to partner in perpetuity.

Let me expound on cyber security. I have enormous regard for the men and women in government. But combining the government's resources and talents with those in the private sector is absolutely essential. The private sector – both academic and professional – has an enormous breadth and depth of experience. Those capabilities need to be combined with the good people of government to secure the digital world.

Frankly, the government's digital infrastructure is primarily owned by the private sector. In order for the government to effectively deal with its digital concerns, they [government employees] must deal with an infrastructure that is primarily

owned by [private-sector] companies and shareholders. There is no reason why, in this day and age, there cannot be the closest possible collaboration in this arena. It cries out not for anecdotal, transactional, or periodic information sharing and collaboration – it has to be *ongoing*, it has to be *intense*, and it has to be *forever*.

Poynton: *There is currently a lot of uncertainty in the world, especially within the U.S. political and financial environments. As a former state executive, what practical advice can you offer to state and local leaders and practitioners on how to maintain readiness in the face of austerity measures and, probably, more federal government budget cuts?*

Ridge: The best approach to dealing with the readiness issue, particularly when it is associated with potential terrorist incidents, is to build a platform of preparedness on the foundation and belief that you will never have enough resources to totally eliminate the risk. There is a belief that any government entity has multiple obligations to its citizens and that its duty to them is to fund the technology and the measures that help manage the risk in a thoughtful, rational, and responsible way. But they [government officials] should not under any set of circumstances succumb to the belief that they can totally eliminate the risk. It cannot be done. So don't be breathless about it. Understand that people, companies, and the world at large operate under that theory – and government should do the same thing. So understanding the risk and building a

"I personally cannot believe that we approach 2012 without a public safety communication network ... the one tool that first responders have clamored for long before 9/11 ... has still not been completed" - Tom Ridge

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Poynton: *Final question, Governor: What in your opinion is the single greatest challenge facing emergency management and homeland security going into 2012? What advice can you give to overcome the challenges you see ahead?*

Ridge: I don't mean to be repetitive, but on this question I have to be. This all comes down to information sharing – and there are two types of sharing. The first type is information that the government shares with the general public. The second type is information that the first responders share with one another in preparation for or in response to an incident.

I personally *cannot* believe that we approach 2012 without a public safety communication network. It is extremely difficult to accept the simple fact that the one tool that first responders have clamored for long before 9/11, but certainly even more since 9/11 – and that is the creation of this network – has still not been completed. It [the network] will take a couple of

years to create, but if we want to make one major, dramatic, substantive, positive change to improve the health, safety, and lives of all citizens throughout the United States, it is to build this public safety communication network. Period.

The Honorable Tom Ridge is President and CEO of Ridge Global, an international security and risk management firm headquartered in Washington, D.C. He served as the nation's first Assistant to the President for Homeland Security (October 2001-December 2002) and first Secretary of the U.S. Department of Homeland Security (DHS) (January 2003-January 2005). Previously, he was governor of the Commonwealth of Pennsylvania (1995-October 2001) and a member of the U.S. House of Representatives (1983-1995). A Vietnam combat veteran, he works with multiple organizations to assist the nation's veterans, serves as chairman of the National Organization on Disability and co-chairs the Flight 93 National Memorial Fundraising Campaign. He also serves on public and private boards, including the Institute for Defense Analyses and the Center for the Study of the Presidency and Congress. He holds a B.A. from Harvard University and J.D. from Pennsylvania State University's Dickinson School of Law.

Aaron Sean Poynton is the senior government market specialist at Thermo Fisher Scientific. Previously, he served as director of a global technology company in the defense and homeland security markets. A former officer in the U.S. Army, he is a graduate of the Johns Hopkins University Army ROTC program and holds a bachelor's degree in economics from the University of Maryland UMBC, a master's degree from The George Washington University School of Business, and a doctorate in public administration from the University of Baltimore.

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DomPrep recently conducted a survey based on the role of EMRs. The survey was taken by a panel of experts (DomPrep40 Advisors) along with readers of the *DomPrep Journal*. The results were compared to discover gaps as well as synergies. Key findings from the survey are now available for download or for viewing in the Webinar channel.



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Incident Management Doctrine: Who Is In Charge?

By Marko Bourne & Mary Anne McKown, *Emergency Management*



Recent incidents, and the responses to them, including the wave of natural disasters across the United States since 11 September 2001 – e.g., numerous tornadoes, floods, and tropical storms, Hurricanes Katrina and Irene, and the 2010 Deepwater Horizon Oil Spill – have led to numerous discussions and debates, at all levels of government, on incident management policies and procedures. Those events and follow-on responses have led in turn to revised doctrines and policies related to the roles and responsibilities of numerous agencies and organizations both in government and in the private sector. The dialogue continues today, with the development and implementation effort related to Presidential Policy Directive (PPD)-8, *National Preparedness*, and to a planned future redraft of Homeland Security Presidential Directive (HSPD)-5, *Management of Domestic Incidents*, both of which will significantly affect response and incident management policies in the foreseeable future.

Efforts are already underway, for example, to: update the National Response Framework; implement new frameworks for protection, prevention, mitigation, and recovery; and develop the plans and processes needed to address the objectives outlined in the National Preparedness Goal. In addition, the National Incident Management System is soon to be rewritten, and it seems likely that there will be additional updates to the National Oil and Hazardous Substances Pollution Contingency Plan – which governs such events as the Deepwater Horizon spill. These updates are important both to the development of doctrine for homeland security as a profession and for the operational coordination of all levels of government as such events become even more complex in the future.

Over the past several years, numerous association meetings, forums, and conferences of various types have been held to discuss how incident management is understood and viewed – at different levels of government, by the media, and by elected and appointed officials. In an effort to continue that discussion, approximately 25 thought leaders from government, the commercial sector, and academia – including homeland security leaders who are nationally recognized for their knowledge of and contributions to the nation’s incident and homeland security response programs – participated in a National Incident Response Policy Conference (NIRPC) earlier this year in Washington, D.C. The attendees were asked to focus on challenges and solutions related to the

question, “What should the federal government’s response doctrine be in responding to large-scale catastrophic major events in our nation?”

Thoughtful Responses – But Numerous Complexities as Well

The principal purpose of the 4 October conference was to initiate dialogue – between and among the thought leaders participating – in the field of incident management and to discuss numerous overlapping issues related to response doctrines and authorities, common goals, and public understanding and trust. The multifaceted conversation focused primarily on the authorities, directives, and initiatives related to disaster response in an attempt: (a) to identify potential conflicts among federal, regional, state, local, and private-sector partners and communities; and (b) to make recommendations on possible ways to resolve such conflicts. The conference was hosted by The George Washington University’s Institute for Crisis, Disaster, and Risk, and was sponsored by Booz Allen Hamilton and O’Brien’s Response Management.

The goal of the conference was to determine how to identify what constitutes “unity of effort” and how that unity – and both public trust and understanding – can be achieved in the context of the varying and sometimes offsetting influences provided by different doctrines and authorities. After much discussion, the group’s participants determined that the following “characteristics” would be needed to achieve the unity of effort being sought:

- A common set of goals;
- Agreement and consensus on the mission and how to employ resources;
- Participation of the whole community – i.e., recognition of diversity within the community: multiple voices, one message;
- A common understanding of the problem and the priorities for addressing it;
- Agreement on objectives and message;
- Visibility of the positive effects of coordination;
- Working as a team rather than as individual players; and
- Transparency.

The conference's facilitators leveraged recent events to stimulate discussion because many of the characteristics mentioned just above had been encountered during recent large-scale responses. The possible difficulties discussed included but were not limited to the following: a misunderstanding of the roles and responsibilities postulated for or assumed by different levels of government; conflicts among leadership at the state, regional, and local levels related to and/or caused by the federal government's statutory preemption of response operations; and the perceived lack of effectiveness and/or applicability of existing doctrine.

The Importance of Gaining Public Trust

Before the meeting, members of the panel were asked to provide feedback through a short survey. The survey topics related to several overarching themes and debates in the field – again, including but not limited to: political involvement in response policies and procedures; the benefits and/or problems of postulating different doctrines for disaster response; the accountability of so-called “responsible parties”; the efficiency and effectiveness (or lack thereof) of current disaster preparedness and response plans; and the importance of gaining public trust, and public participation, during a response.

The answers to the survey questions served as a helpful catalyst to guide the discussions. The topics were first broken down, though, into three primary areas: authorities; common goals; and public understanding and trust. In the morning session, the NIRPC attendees discussed the challenges associated with each topic; the afternoon session was devoted primarily to the discussion of solutions.

Many of the topics and solutions discussed were not new, but reiterated the issues mentioned above. The recommendations developed by the group reinforced the importance of the same issues and, it is hoped, will promote change within a narrow window of policy updates and revisions that are currently happening – or will happen at various times over the next year.

Five overarching areas, based on the discussions, were deemed particularly important for future policy directives and, it was

agreed, must be incorporated into future training and incident management plans and operations: (a) the further development of homeland security doctrine; (b) an increased emphasis on unity of effort and unified command; (c) higher priority in understanding and developing the mechanisms needed to address federal, state, and local political and policy interests; (d) the use of better mechanisms to incorporate science and technology in a systematic way; and (e) the development and use of better tools to build public trust and confidence.

There was also a major cautionary conclusion: The conference participants said they were concerned that

the absence of clear and concise unity of effort – joint reliable information, coordinated response activities, and careful and robust coordination – might result in those who do not have direct responsibility, or are not properly trained, to attempt to manage an event's response – thereby leading them to vocalize their frustrations, create potential misunderstandings, and even misdirect resources toward efforts that might break down the unity required to effectively manage an incident and mitigate its consequences. This particular scenario was described by one attendee as the need to “minimize the trade space” in which those who are uninformed, and/or misinformed, are allowed to play a role that enables them to affect the media as well as the public and political arenas.

Thought leaders are coming together to initiate dialogue and promote change for the nation's incident response structure. This “unity of effort” comes at a critical turning point for implementing and updating policy directives.

Marko Bourne (pictured) is leader of the Federal Emergency Management Agency (FEMA) market team as well as a leader of Booz Allen Hamilton's Emergency Management and Response practice, and has more than 27 years of experience in emergency services, emergency management, policy, governmental and legislative affairs, and public affairs. Previously, he was director of policy and program analysis for FEMA (2006-2009) and director of business development for homeland security at Earth Tech Inc./Tyco International (2004-2006). He also served as acting director of DHS's National Incident Management System Integration Center and deputy director of FEMA's Preparedness Division (2003-2004).

Mary Anne McKown, lead associate at Booz Allen Hamilton since 2004, has more than 19 years of experience supporting the federal government and over 12 years of experience supporting incident management policies and operations. She also supported the National Response Plan and the National Response Framework as a member of their writing teams. Prior to joining Booz Allen Hamilton, she had nearly a decade of experience in legislative affairs, supporting offices within the Joint Chiefs of Staff, the Office of the Secretary of Defense, and the U.S. Marine Corps. She received a master's degree in National Security Studies, with a concentration in Political Violence and Terrorism, from The George Washington University.

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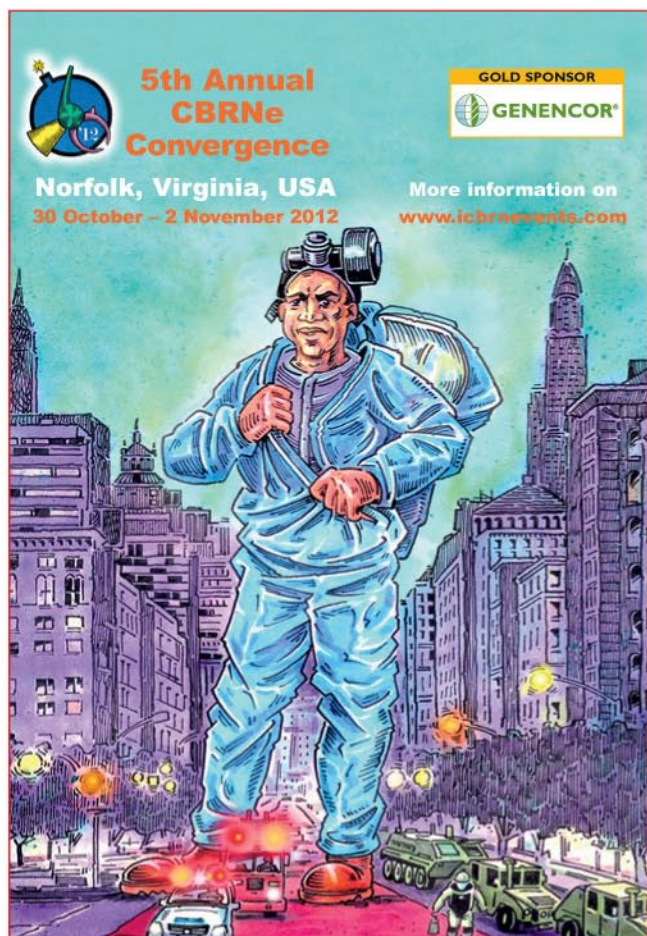
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Biosurveillance: Detecting the Next “Silent” Attack

By Lou Banks, Viewpoint



Another biological event is all but inevitable. However, when that event will occur and whether it will be an intentional terrorist attack or a natural pandemic remains uncertain. Regardless, biological attacks are almost always “silent” attacks that escape the senses of their victims with no loud explosions, large clouds, or noxious chemical fumes to provide clues that an attack has occurred or is underway. They usually begin as quiet events during which a deadly pathogen is inhaled, ingested, or absorbed through the skin unbeknownst to the victim until symptoms later manifest themselves.

If the deadly biological agent is anthrax, the first few cases may be mistakenly diagnosed as a strain of influenza, because initial symptoms of the two diseases closely resemble each other. Actual declaration of a biological event would follow later as more information is gathered from other victims with similar symptoms and combined with additional information such as intelligence warnings or sentinel surveillance data. According to a statement by President Obama in a foreword to the 2009 National Security Council’s *Strategy for Countering Biological Threats*, the consequences of such an attack could be catastrophic – hundreds of thousands of lives at risk, up to \$1 trillion in economic damage, and a major threat to U.S. national security – and public fear would ensue.

The pressing question, therefore, is whether local, state, national, or global communities are equipped and able to detect, diagnose, and respond to such an event. The 2001 anthrax attacks against the United States, shortly after the 9/11 terrorist attacks, caught the nation off guard and public health resources were quickly overwhelmed. Following those attacks, biological defense became a higher priority for government agencies both in the United States and overseas.

Numerous presidential directives were issued in which multiple agencies such as the Department of Homeland Security (DHS), the Department of Health and Human Services (HHS), and

the Department of Defense (DoD) were charged separately with defending the U.S. homeland from bioterrorism threats. Among the notable programs that emerged were Biowatch, the Laboratory Response Network (LRN), and JBAIDS (Joint Biological Agent Identification and Diagnostics System). Each of these programs focuses on defending against an intentional bioterrorism attack, whether it is state-sponsored or from a rogue terrorist organization such as al-Qaeda.

“The Threat Still Exists” – Mainstream & More Accessible

Since 2001, there have been no known successful biological terrorist attacks, but the threat still exists and may be even stronger, primarily because the technological capability to produce bioweapons has become more mainstream and is more accessible. There have been some notable bioweapon attempts – including the ricin self-poisoning incident in 2008 by a home-grown terrorist in a Las Vegas motel room. A better known example, though, is the 1993 attack in Japan in which the Aum Shinrikyo cult released aerosolized, nonpathogenic anthrax in the Tokyo subway system. In addition, evidence uncovered since 2001 demonstrates that al-Qaeda was already planning to weaponize anthrax for another mass-casualty attack on America.

Although there have been no successful biological terrorist attacks in the past decade, there have been two significant naturally occurring biological “attacks.” The Severe Acute Respiratory Syndrome (SARS) outbreak in early 2003 killed over 900 people worldwide; and the H1N1 Flu Pandemic in 2009 was responsible for an estimated 17,000 deaths around the globe. Recognizing that natural outbreaks of disease are just as threatening, and just as damaging, as a deliberate attack would be, U.S. policy has evolved to include natural disease outbreaks alongside deliberate bioterrorist attacks, especially since the same biodefense resources currently in place – or being developed – can also be used to respond to natural outbreaks. Since the release, in 2009, of Presidential Policy Directive 2 and the *National Strategy for Countering Biological Threats*, the focus has evolved

The 2001 anthrax attacks against the United States, shortly after the 9/11 terrorist attacks, caught the nation off guard and public health resources were quickly overwhelmed.

from a biodefense-centered to a more encompassing biosurveillance strategy.

Homeland Security Presidential Directive-21 (HSPD-21), issued in 2007, established a national strategy for Public Health and Medical Preparedness that defines biosurveillance as “the process of active data gathering with appropriate analysis and interpretation of biosphere data that might relate to disease activity and threats to human or animal health – whether infectious, toxic, metabolic, or otherwise, and regardless of intentional or natural origin – in order to achieve early warning of health threats, early detection of health events, and overall situational awareness of disease activity.”

Biosurveillance overlaps multiple jurisdictions – e.g., defense, human health, animal, and plant health – and requires different departments of government to work together to generate actionable intelligence. After all, events that affect animals and plants not only threaten the nation’s food supply but also may provide warning of a pending human attack.

Implementing the Strategies, Bridging the Gaps

Today, as the several strategies mentioned above are still being implemented, more joint training exercises are being conducted that involve multiple government agencies – and several gaps are being bridged between the medical and nonmedical communities. For example, in 2009, the Department of Defense developed a point-of-care assay that was cleared by the FDA (Food and Drug Administration) for the detection of *Coxiella Burnetti* and flu assays for its JBAIDS platform. Army personnel are now able to use JBAIDS for more than simply a capability to detect a bioterrorist attack using environmental samples. These FDA-cleared assays are also being used to test soldier health for seasonal flu and *Coxiella*. This strategy will carry forward to DoD’s forthcoming Next Generation Diagnostics System (NGDS), in which desired requirements call for an FDA-cleared system that minimizes operator time – and in which soldiers with limited laboratory training can use the same equipment both to detect an intentional biological attack in an environmental sample and/or to diagnose diseases in Army personnel using a patient sample.

Future biosurveillance systems need to be agile, flexible, and scalable with the system designed to be used by nonscientific personnel such as Army personnel, first responders, and public health technicians as well as hospital laboratory personnel. However, designing a single instrument with these attributes will be a challenging and expensive task. The solution most likely will be supported through a “family of systems” approach, with a comprehensive detection strategy – instruments that are hand-held for field use, instruments that are ruggedized and flexible for mobile labs, and a confirmatory analysis component designed for a fixed lab setting – because a biological attack can come from anywhere.

Capability improvements will continue as long as biosurveillance remains in the forefront and the nation is not lulled into complacency. After all, effective biosurveillance is critical for detecting and diagnosing the next biological attack before it occurs in order to minimize its impact.

Lou Banks is the BioSurveillance Marketing Manager for Idaho Technology Inc. Since 1998, Idaho Technology has fielded sensitive and reliable BioSurveillance products that span the range of operations from the lab to the field, and from clinical diagnostics to environmental surveillance.

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Defining Emergency Management in the 21st Century

By Anthony S. Mangeri Sr., *Emergency Management*



The future of emergency management as a profession lies in building a consensus on the roles and responsibilities of emergency management agencies as well as on the core competencies considered necessary to build a comprehensive emergency management program. With over 87,000 governmental entities in the United States alone, there is a strong need to have a cohesive and broad-based National Emergency Management System that is ready to effectively respond to disaster events. As is true for any system, the success of the Emergency Management System rests primarily with its designers and operators.

In March 2011, President Obama signed Presidential Policy Directive 8 (PPD-8) on National Preparedness, which is intended to bring the nation together as a whole to prepare for disasters that threaten U.S. security and resiliency. PPD-8 refocuses preparedness efforts nationwide both by building consensus and by establishing a National Preparedness Goal and System that, combined, define preparedness more precisely and focus additional emphasis on community resiliency and sustainability. The directive also places the responsibility for preparedness on all Americans – the community as a whole – and calls for the establishment of a consensus on defining preparedness-based capabilities at all levels of government.

Emergency management programs are designed to restore stability in time of crisis. However, the emphasis on emergency preparedness remains the same: *to develop all-hazard, integrated strategies for an effective response and recovery to all known threats, including terrorism*. To meet that ambitious goal, community efforts must necessarily stress the all-hazards approach to integrated emergency management.

Additional Reductions, Necessary Changes & a New Preparedness Goal

Today, government leaders are looking for ways both to reduce expenses and to manage budgets more effectively. However, there also have been reductions in the resources available to respond to a community's needs in times of crisis. Those reductions have created a significant demand for the development of regional strategies to coordinate incident-management and resource-deployment policies and operations. Emergency management agencies therefore must be better prepared to justify the funding of preparedness and mitigation initiatives; successful emergency management programs must also take

into account a varied spectrum of regional vulnerabilities and integrated response systems.

Funding is often used to drive compliance and to bring about some necessary changes. U.S. House Report 112-09 on the Department of Homeland Security (DHS) 2012 Appropriations Bill points out that almost \$38 billion has been spent during the past ten years to increase government capabilities to effectively prepare for, respond to, and recover from disasters. Nonetheless, some members of Congress remain concerned that there is no comprehensive objective assessment either of capabilities, or of the gaps that remain, to ensure an effective nationwide emergency preparedness capability.

As funding becomes even scarcer, emergency management – like many other areas of emergency services – will have to become much more strategic as well. It seems likely that local emergency managers will become far more reliant on public-, private-, and even nonprofit-sector stakeholders to ensure sustainability and resilience at the community level. In addition, integrated regional emergency operation systems probably will be required to provide strategic support for local operations.

This past September, DHS released the first edition of the National Preparedness Goal – a document that outlines the core capability targets for each of five mission-critical areas: Prevention; Protection; Mitigation; Response; and Recovery. Collectively, these targets: (a) serve as the benchmarks needed for defining preparedness across numerous disciplines and jurisdictions; and (b) provide a helpful operational tool both to measure preparedness levels and to identify any remaining gaps in capability that must be addressed.

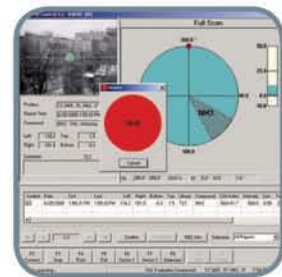
Peelian Principles Updated

Emergency management may benefit from examining the principles for modern policing attributed to Sir Robert Peel (a former British Prime Minister considered to be father of the modern police force). The Peelian Principles, which were originally created to define an ethical police force, are founded on the belief that government must be held accountable. Peel also pointed out that the community as a whole shares the responsibility for vigilance. In other words, there must be a shared responsibility for community sustainability and resilience.

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Whether it is community policing or community preparedness, many of Peel's principles are designed to integrate community and government as partners in protecting and responding to threats against the community. Using the Peelian Principles as a guide, the following nine concepts may be helpful in developing the standards needed for today and tomorrow's emergency program managers:

1. The basic role for emergency management is to recognize, identify, and prepare for disasters that cause or create disorder.
2. The ability of emergency managers to prevent and mitigate the impact of disasters is, in part, based on public acceptance of the mitigation measures put into place.
3. Emergency managers are responsible for developing the strategies needed to educate public, private, and nonprofit leaders, and everyday citizens, on known threats and vulnerabilities. That responsibility includes providing information about the steps each must take to ensure a sustainable and resilient community.
4. The degree to which public cooperation and compliance diminish as restrictions are imposed is proportional to: (a) the lack of information available; and (b) the failure to reach consensus on the need for such actions.
5. The development of plans, policies, and procedures that are based on validated capabilities will help promote public respect for and trust placed in emergency managers.
6. Emergency managers should develop emergency operations strategies based on appropriate hazard-identification and risk-analysis processes.
7. The strategically important development of local emergency planning committees will facilitate relationships between all stakeholders and emergency managers.
8. Emergency managers are accountable to the community and therefore should coordinate response and recovery actions and activities in a manner consistent with local laws, regulations, and an approved emergency operations plan.
9. The efficiency of preparedness efforts is demonstrated primarily by the ability of the community as a whole to effectively respond to, recover from, and mitigate the potential impacts of crisis. In other words, efficiency should not be based solely or exclusively on compliance with emergency planning regulations.

New Opportunities "At All Levels of Government"

To briefly summarize: PPD-8 and the National Preparedness Goal offer emergency managers at all levels of government a new opportunity to refocus on the core values that have proven successful in the past. Local efforts to achieving the National Preparedness Goal begin with establishment of a local emergency planning committee (LEPC) to assist with building support for community-based emergency preparedness and prevention initiatives.

Each LEPC should include representatives from critical infrastructures within the community – including schools, hospitals, and a broad spectrum of public works and public health agencies as well as faith-based and cultural leaders, the local media, and other organizations deemed essential within each community because of their respective roles in response and recovery. Individual members of the LEPC should be selected because of their expertise, experience, and commitment to preparedness, sustainability, and resilience.

In 2012, there will in all likelihood be a return to the basic skills and competencies that on a continuing basis have made emergency management a dynamic community-based program. The emphasis remains the same, though: *to develop all-hazard, integrated strategies for the effective response to and recovery from all known threats, including terrorism.*

Achievement of that goal begins with collaborative, integrated emergency management planning that stresses a "whole community" approach.

Anthony S. Mangeri Sr. is the Manager of Fire and Emergency Management Initiatives and is on the faculty of the American Public University System. He has more than 25 years of experience in emergency management and public safety. During the terrorist attacks of 11 September 2001 he served as operations chief at the New Jersey Emergency Operations Center, coordinating the N.J. response to the attacks on the World Trade Center. Professor Mangeri earned a Master of Public Administration degree from Rutgers University and is a Certified Public Manager. He was recently awarded the designation Certified Emergency Manager by the International Association of Emergency Managers.

The Future of EMS: Upward & Outward

By Joseph Cahill, EMS



As early as the late 1980s, there have been factions making moves to try to advance emergency medical services (EMS) from ambulances to other medical arenas. This is not surprising – with the cost of healthcare climbing, many healthcare systems have stretched their payroll dollars by moving the skilled work to the least expensive staff member who possesses the experience and capabilities needed to legally carry out the responsibilities required.

Because of their broad range of skills – administering medications, performing limited surgical procedures, and carrying out numerous diagnostic tests – paramedics are often in demand in many areas of healthcare. Moreover, after collecting relevant information, they can use their own knowledge and skill sets, rather than

simply relying on a medical “cookbook” of rules and regulations, to form a diagnosis, act on the information developed, and modify both the diagnosis *and* the plan as the situation develops. Even more important to some healthcare managers is that paramedics can perform all of these (and many other) tasks for a much lower cost than is typical compensation for similarly skilled healthcare staff.

In some situations, paramedics are already stretching the boundaries of their roles. Many remote locations such as oil rigs use paramedics as their primary care providers, for example. Because transport to a hospital may be several hours away, having a care provider on-site who can handle routine sick calls and minor injuries is critical to ensure continuing operations. Even more important, of course,

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is having on hand a healthcare provider who is capable of dealing with life-threatening emergencies.

The Gradual Evolution of “New Traditions”

Even traditional EMS systems have used EMS staff in nontraditional venues. The New York City Fire Department, for example, has at times permanently deployed EMTs both to major transportation hubs and to various corrections settings that lack transportation vehicles. The principal role of these EMTs, usually, is to assess and stabilize patients. Because the overwhelming majority of cases do not require transport, moreover, using an ambulance would probably result in the ambulance being held on scene, “just in case,” when the actual need for transportation has not been determined. Expanding the role of EMTs permits the system to keep the relatively scarce transport-capable resources available for other and more urgent requirements.

Many paramedics also fulfill duties in emergency rooms of some hospitals – hospitals in Florida and Tennessee are the prime example – as adjuncts to the physician and nursing staff. It seems inevitable, therefore, as the cost of healthcare becomes a greater determining factor than the political forces aligned against this model, that more facilities will in all probability shift to similar allocations of their workforces.

One of the less obvious advantages of this model is that it gives EMS staff greater opportunities for professional advancement. Prominent among the traditional barriers to retaining EMS staff is that, after an emergency medical technician attains the status of paramedic, there frequently are no more rungs higher on the local professional ladder. At that point, therefore, paramedics who seek to advance their professional careers usually have the choice only of training new paramedics, or supervising them.

Of course, both training and supervising are important responsibilities that are absolutely necessary for the future of EMS systems – but in reality there are not enough openings at the top for everyone qualified in those skills to reach the highest rung of their professional ladder. For that reason alone, allowing paramedics to use their skills in the hospital setting not only encourages them to stay within their current career paths but also, particularly in the case of hospitals that also operate ambulance services, to remain with the same employer.

After collecting relevant information [EMTs] can use their own knowledge and skill sets ... to form a diagnosis, act on the information developed, and modify both the diagnosis and the plan as the situation develops.

In the foreseeable future, as expanded roles become the norm, technologies that are traditionally exclusive to the emergency room will become increasingly familiar to paramedics. In addition, as the nation’s medical community at large grows more and more accepting of advanced technologies in the hands of paramedics, those technologies will eventually make their way into the traditional EMS setting – the ambulance. The end result is that on-scene responders will increasingly become better trained, as well as better equipped, for future emergencies – and

that evolutionary change will represent a major advance not only for all healthcare professionals but also for the patients, and the communities, they serve.

Joseph Cahill, a medicolegal investigator for the Massachusetts Office of the Chief Medical Examiner, previously served as exercise and training coordinator for the Massachusetts Department of Public Health, and prior to that was an emergency planner in the Westchester County (N.Y.) Office of Emergency Management. He also served for five years as the citywide advanced life support (ALS) coordinator for the FDNY - Bureau of EMS, and prior to that was the department’s Division 6 ALS coordinator, covering the South Bronx and Harlem. Much in demand as a speaker – he has addressed venues as diverse as the national EMS Today conferences and local volunteer EMS agencies – Cahill also served on the faculty of the Westchester County Community College’s Paramedic Program and has been a frequent guest lecturer for the U.S. Secret Service, the FDNY EMS Academy, and Montefiore Hospital.



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Today and Tomorrow: Approaching the Mythical Tricorder

By Christopher Wrenn, *Viewpoint*



When Wah Ming Chang, Chinese-American designer, sculptor, and artist, created the “tricorder” prop for the “Star Trek” series, reality was still decades away. Members of the Starfleet used the tricorder to scan for, analyze, and record data that they found at various new worlds throughout the universe as they explored unknown environments on planets “where no man had gone before.” Today, on Earth itself in the 21st century, new technologies are being created each year to combat existing and emerging threats. As 2012 approaches, multi-purpose hand-held devices to detect, identify, and document various toxins have become a new tricorder type of reality.

Before 2000, there were separate products for man-portable gas/vapor detection for the U.S. military and first-responder hazmat (hazardous materials) markets. However, since 2000, the needs of the two markets have been coming closer and closer together, and it seems probable that the requirements, capabilities, and uses of what were once considered two separate markets will merge sometime in the near future. In other words, what once was represented as green gear for military and yellow gear for hazmat responders is becoming the same for both. Following are a few of the probable results.

There will be broader protection from detectors.

Traditionally, military units have focused on Chemical Warfare Agents (CWAs) as their primary threat, but many such units are starting to realize that casualties caused by a lack of oxygen, the presence of combustible gases, and/or toxic industrial chemicals (TICs) are much more likely. Increasingly, military units are provided not only CWA-specific detectors but also Confined Space Entry (CSE)

detectors to provide safe entry into caves, industrial plants, and tunnels where common atmospheric conditions can kill. It is not overly difficult to take the next step to combine the capabilities of these two types of detectors into one device. For one thing, CWA detectors are now in their third and fourth generations. Moreover, “orthogonal” or multi-sensor products are increasingly being fielded to provide greater sensitivity and fewer false alarms in CWA detection. Adding sensors designed to cope with common CSE threats to CWA-capable detectors is the next logical step in this progression.

It seems probable that the requirements, capabilities, and uses of what were once considered two separate markets will merge ... what once was represented as green gear for military and yellow gear for hazmat responders is becoming the same for both.

Greater gas/vapor selectivity also is probable. Historically, CWA detectors have actually been “classifiers” – in other words, they can readily discern nerve agents from blister agents in a military environment. However, they may not be able to determine the exact type of G-series agent present and/or might not perform well in urban environments in which a wide variety of chemical cross-sensitivities may be present. Developments in both differential-ion mobility spectroscopy (DMS) and pre-concentrators have the potential of providing much greater specificity from handheld technological systems and devices. These developments will in turn allow greater speciation of not only CWAs but

also the most common TICs in both the military and urban environments. These developments will also open the door for use of these classification/speciation technologies in the industrial environment.

New reach-back and interoperability capabilities may be the next step. There is an old story about three blind men and an elephant. One blind man feels the elephant’s trunk and thinks that he has found a fire hose. Another touches the elephant’s foot and thinks that he has found

a tree. The third blind man grabs hold of the elephant's tail and thinks that he has found a whip. Obviously, none of the three blind men has a complete picture of the situation. The manufacturers of gas/vapor detection systems are increasingly building new wireless reach-back capabilities into their products so that the sensor readings in the field can be fed back to incident control in real time – giving decision makers the improved situational awareness needed to quickly “see the whole elephant.” Largely for that reason – and despite the fact that at least some manufacturers have fielded their own proprietary portable wireless networks – the next paradigm shift will in all likelihood be the development of TCP/IP (Transmission Control Protocol/Internet Protocol) internet-based platform networks open to all.

Additional funding for versatile products seems likely. In view of the current federal budget battles, it also seems inevitable that, unless some major event leads to increased emphasis on homeland security grant funding in general, there will be less federal grant money available for the foreseeable future. The outlook will be worse for expensive single-use products, which simply will *not* be funded in this budget climate. However, companies that offer versatile products with multi-mission roles that cover the weapons of mass destruction and homeland security bases but still offer wider functionality have the greatest potential for continued growth. In the early days of grant funding, the top 50 or 100 items on a jurisdictional wish list often received funding. Nonetheless, in today's climate of ever tighter budgets, many of even the top 10 items on an agency's, or manufacturer's, wish list may be unable to obtain funding. For that reason alone, making it to the top three of the wish list may well be not only the best way but perhaps the only way to obtain the funding needed – and product versatility will be the best way to get to that level. One obvious example: first- and second-generation CWA detectors are rarely if ever used by first responders – which means that not only would these detectors gather dust, but the skill sets of the individual users also would atrophy. And that means, in turn, that if and when a chemical attack does occur, neither the equipment nor the skill sets of the user will be capable of meeting the challenge both immediately and effectively.

Today, fortunately, there are an increasing number of versatile detectors that can be used in routine hazmat situations so that neither the detector nor the user will

lack the experience needed. This trend will undoubtedly continue for some time to come. One example: the ChemPro100i can meet the rigorous demands required for CWA detection. But with the notable exception of the detection of organophosphate pesticides, there has been virtually no real use of the CWA detection capabilities in North America over the past few years. However, by adding to its capability to support routine hazmat operations – in addition to clandestine laboratory, overhaul, and other day-to-day activities – the product already has moved from a rarely used detector to a multi-use product.

Over the past decade, state and local jurisdictions have come to depend on federal grants to build up their detection capabilities. Nonetheless, there seems to be no doubt that additional tightening of the federal budget is likely, and there will be less grant funding available in general. However, grants will not completely disappear, and manufacturers who can demonstrate how their technologies – developed primarily for the CBRN (chemical, biological, radiological, nuclear) community – remain relevant in their daily operations will continue to be successful as users look for better and more versatile products to include in their hardware and software inventories.

Christopher Wrenn is the Senior Director of Sales and Marketing for EnviroNics USA, a provider of sophisticated gas & vapor detection solutions for the military, 1st responder and safety markets. Wrenn previously was a key member of the RAE Systems team, and has been a featured speaker at more than 20 international conferences and has written numerous articles, papers and book chapters on gas detection in HazMat and industrial safety applications.



Emergency Management – Measurements of Success

By Mitch Saruwatari, Viewpoint



As 2011 nears an end, emergency preparedness officials at healthcare organizations across the United States are looking with watchful eyes toward 2012, during which the metrics for determining the level of success of preparedness efforts are likely to become an even more important component of the emergency management process. Emergency preparedness officials therefore have the difficult task of not only justifying the time and money spent on emergency preparedness but also, and of greater importance, determining exactly how prepared organizations are to respond to disasters and/or other expected or unexpected events.

Those who participated in any of the numerous emergency management conferences held in various locales throughout the country this year – and/or who follow online blogs and LinkedIn discussions – have undoubtedly heard of and perhaps even participated in conversations about how to measure whether a healthcare organization has successfully prepared for an emergency or disaster. Unfortunately, there does not yet seem to be a commonly accepted or universally recognized measure for hospitals. Instead, most U.S. hospitals are responsible for meeting the requirements of different agencies that: (a) simply let the hospitals know whether they have successfully “passed” (however that term is understood); or (b) offer subjective advice for program improvement. Sadly, this means that many of the nation’s hospitals are not able to accurately compare their own readiness capabilities with those of other hospitals. In fact, there are at present no nationally understood preparedness measurements that have been defined specifically for patient safety, patient satisfaction, or employee injuries.

In a presentation during the September 2010 annual meeting of the Agency for Healthcare Research and Quality (AHRQ), Cheryl Davies (senior research assistant and project manager at Stanford University’s Center for Primary Care and Outcomes Research) and David Chin (a graduate student researcher, at the University of California, Davis, Center for Healthcare Policy and Research) described a few additional challenges in predicting hospital preparedness. Prominent among those challenges were a lack of evidence-based guidance, inconsistencies in the data available, and a broad host of potential “indicators” (their own study started with a list of over 900 such indicators).

Here it should be noted that, although such indicators are helpful, there is still a lack of actual incident-related outcome data

particularly information related to patient injuries or deaths – as well as short- and long-term follow-ups related to specific events. The lack of such information will continue to be a significant challenge, because research can rarely be applied during a crisis and often must rely on retrospective interviews or assessments – which are often limited by individual recall. Despite these and other hurdles, Davies and Chin suggest some very persuasive and objective metrics that may be used in the future for evaluating, and eventually validating, most if not quite all of their suggested indicator variables.

Inconsistent Guidelines, Free-Floating Standards & Other Variables

At present, though – and in lieu of an existing singular set of national standards – most of the nation’s hospitals typically measure their readiness by assessing performance as determined by adhering to the standards postulated (but not always in specific detail) in one or more of the following nationally known policy documents:

(a) The findings of *The Joint Commission* – Meeting all of the standards within the Emergency Management, Environment of Care, and Life Safety chapters of the *Survey Activity Guide for Health Care Organizations* is how most general acute-care hospitals predict and/or measure readiness. In addition, testing their emergency operations plans during exercises, annually reviewing policies and management plans, and developing strong performance indicators for demonstrating improvement can add significant value to a hospital program. However, without the ability to realistically compare such results with similar data from other hospitals, such readiness indicators will still be measured in a vacuum.

(b) The *National Incident Management System (NIMS)* – Meeting the 14 NIMS Implementation Objectives required for healthcare organizations (as described in NIMS Alert 07-08) is another helpful way to gauge readiness, particularly when considering community involvement. But it still falls short by not providing clear performance metrics that can be compared with the measurement metrics of other organizations.

(c) *ASPR Benchmarks* (provided by the Office of the Assistant Secretary for Preparedness and Response [ASPR] of the U.S. Department of Health & Human Services) – Any hospital receiving that agency’s Hospital Preparedness Program funds

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Regroup, Refocus, Refresh: Sustaining Preparedness in an Economic Crisis



Why is the Summit the Largest Gathering of Public Health Preparedness Professionals?

The goal of the Public Health Preparedness Summit is to strengthen and enhance the capabilities of public health professionals and other participants to prepare for, respond to and recover from disaster and other public health emergencies.

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must participate in programs meeting these requirements. However, state and local health authorities have considerable flexibility in describing how to meet the requirements, and can even define the participating role played by their own healthcare organizations.

Fortunately, there are a few available measures that go beyond incident planning and preparedness activities and attempt, instead, to gauge organizational response competency. However, there are still a few limitations involved in implementing:

- ***HSEEP and the Target Capabilities List (TCL)*** – The Homeland Security Exercise and Evaluation Program (HSEEP) provides a straightforward and standardized way to prepare and evaluate exercises. This comprehensive program offers useful tools for: (a) designing the exercise and longer-term exercise program; (b) developing Master Scenario Events Lists; and (c) evaluating and preparing useful corrective action plans for modifying plans and policies that can improve response performance over time. Also provided are a series of online and on-site training programs that reinforce learning objectives and improve user competency – a bonus factor that ultimately can create organizational response enhancement. By combining these tools with the TCLs available, organizations can select from a pre-identified set of standardized objectives that measure performance during those exercises that can be compared within and across communities. The challenge in using the TCLs is their lack of alignment with other healthcare organization requirements such as those recommended by The Joint Commission. For that reason, they are often either not used or may be modified to meet individual hospital needs – an unknown variable that limits their usefulness in comparing preparedness levels with other hospitals.
- ***Veterans Health Administration (VHA) Office of Emergency Management*** – This is probably the best model for estimating preparedness among healthcare organizations. The VHA – a major branch of the Veterans Administration (VA) – not only defines what a comprehensive emergency management program should look like, it also: (a) provides training to non-VA hospitals and external agencies; (b) conducts cutting-edge research on emergency management issues; and (c) requires all VA hospitals to perform internal audits based on 71 specific response capabilities that can be compared with the capabilities of other VA hospitals. The VHA approach provides an excellent framework for evaluating the preparedness of hospitals within a community and/or across a system. Unfortunately, there is a budgetary downside – it can be resource-heavy, which is difficult to justify for many healthcare organizations.

A Few Helpful Initiatives – And Indicators of Future Progress

It is encouraging that at least a few organizations are taking the initiative needed to help define useful, realistic, and evidence-based standards for healthcare emergency management. Ultimately, this trend should not only improve capabilities among hospitals but also help integrate healthcare into the overall community response. Events such as Hurricanes Katrina and Rita have demonstrated many of the shortcomings in healthcare preparedness. But more recent responses such as those used in the H1N1 Pandemic, Hurricane Irene, and the Joplin Tornado in Missouri this year have revealed that there have been, in fact, a number of significant improvements in healthcare response.

Continued research in this area is paramount to defining and validating these successes and creating useful and commonly adopted measurements. In addition, research in the areas of nursing homes and other care sites related to their ability to prepare and make sound decisions during a crisis – combined with investigations of similar decision making at local government levels – will, it is hoped, build a broader and more predictable way to estimate healthcare community readiness.

Meanwhile, the VHA will continue to lead the way in 2012 for defining hospital readiness through the use of practical and capability-based readiness measures. By combining these measurement indicators with existing standards and national guidance documents – as well as validating the data used through evidence-based outcomes and ongoing research efforts – hospitals and communities may soon be able to more accurately predict the impacts caused by common emergencies and catastrophic disasters. In addition, emergency managers and leaders will be better equipped to make difficult decisions that will lead not only to faster recoveries for their patients but also to improved (and measurable) outcomes for their own staffs, organizations and agencies, and home communities.

Mitch Saruwatari is vice president of quality and compliance at LiveProcess, and previously held key positions at Kaiser Permanente. He also has served as: Region I Disaster Medical and Health Specialist for the State of California; a member of the Los Angeles County Centers for Disease Control and Prevention and Health Resources and Services Administration Bioterrorism Advisory Committee; a founding member of the California Disaster Interest Group; and as co-lead for development of the Hospital Incident Command System. In addition to his current position, he is an instructor at the Center for Domestic Preparedness. He holds a Master's degree in Public Health and is working toward a doctorate from UCLA.

Social Media – The Path Ahead

By Mary Lilley, Emergency Management

Over the past few years, the use of social media has grown in record numbers, and various studies have shown that users are increasingly relying on social networks as a leading source of disaster information. In light of these findings, some emergency management agencies have established an “online” presence to disseminate and collect information during everyday operations as well as in times of emergency. However, emergency management agencies use several different ways to capitalize on the technology now available. Although establishing social media accounts for the purpose of monitoring information and maintaining situational awareness is useful, some jurisdictions are taking those same accounts to the next level in the areas of information dissemination, information collection, and overcoming staffing challenges.

Social media is now emerging as a primary mechanism for disseminating information to the general public prior

to, during, and after an incident. In Mecosta County, Michigan – to consider but one example – the benefits of using the technology to disseminate information to news outlets, county officials, and damage-assessment personnel became apparent following severe flooding earlier this year (in April). The county’s emergency director, James Buttleman, used his cellular phone to capture photographs and video images of damaged roads and culverts throughout the county; he then uploaded the images to the county’s social media pages. Shortly thereafter, the Buttleman photos became known as the most reliable source of up-to-date information on flood damage almost anywhere in the county.

By sharing the images and videos of flood damage online, the county was able to expedite the information-sharing process. County officials, damage assessment personnel,

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and the media obtained real-time updates on the impact of flooding throughout the county – and that saved time for the emergency director himself, because he could direct organizations and individuals to the county’s social media pages for flood information rather than emailing and/or phoning each person or organization individually.

Mapping the Crowd, Monitoring the Impact

Many emergency management agencies also have recognized how easily, and how quickly, social media can be used to collect information. In fact, some jurisdictions are already leveraging the power of crowd-sourcing to capture real-time mapped disaster information from the public. Following the devastating 2010 earthquake in Haiti, volunteers from around the world organized and assisted with response operations by using free software developed by Ushahidi, a nonprofit company that uses crowd-sourcing for information collection and mapping purposes. Similarly, New York City (NYC) officials used Crowdmap – a free program developed by the Ushahidi creators – to track damage caused to the city by Hurricane Irene earlier this year. The Crowdmap program not only allowed NYC residents to post additional information about weather conditions and weather-related service disruptions – e.g., downed trees and cable lines, power outages, and property damage – but also gave city officials the time needed to monitor Irene’s impact on the entire metropolitan area on a continuing basis.

It is recognized that the demands and expectations for maintaining a social-media presence during an incident can become an overwhelming task for public information officers to manage. To address that concern, one jurisdiction – Los Ranchos de Albuquerque, N.M. – has devised an innovative way to mobilize volunteers for support during an incident. More specifically: An emergency management coordinator, Jeffery Phillips, in that jurisdiction established a volunteer group of “trusted agents” – grouped into a

so-called Virtual Operations Support Team (VOST) – comprising emergency managers and other technologically skilled area residents capable of supporting social media operations during a major incident.

The VOST concept also was tested during the September 2011 Shadow Lake Fire in Oregon, when members of the team were “virtually deployed” to provide support to the national incident management team responding to the fire. The VOST members not only created accounts for the fire response and disseminated essential information (through Facebook, Twitter, and a blog),

but also addressed various rumors and misinformation that might easily have made response operations even more difficult. In short, VOST provided the National Incident Management Team with a capability that had previously not existed.

Today it is already apparent that emergency management agencies throughout the nation have only just started to scratch the surface of social media’s capacity to support preparedness, response, and recovery operations. The dissemination of information during the 2011 floods in

Mecosta County, the use of crowd-sourcing to gather information in real time, and the development and implementation of the VOST concept to provide support during a wildfire incident all reflect the various creative ways in which a growing number of political jurisdictions are continuing to break new ground as they venture ever deeper into the world of social media.

Emergency management agencies are discovering the multitude of benefits that social media has to offer as they become more “connected” with the communities they serve.

Mary Lilley, a contractor with SAIC, is a researcher for Lessons Learned Information Sharing (LLIS.gov), the U.S. Department of Homeland Security/Federal Emergency Management Agency’s national online network of lessons learned, best practices, and innovative ideas for the nation’s homeland security and emergency management communities. She received a bachelor’s degree in Political Science from Duke University.

The 2012 Public Health Preparedness Summit: Regroup, Refocus, Refresh

By Jack Herrmann, Public Health



Local, state, and federal public health preparedness professionals from across the country will convene in Anaheim, California, early next year for the 7th Annual Public Health Preparedness Summit, which will take place on 21-24 February 2012. Growing budget challenges and a rapidly declining public health workforce influenced the choice of the conference theme: *Regroup, Refocus, Refresh: Sustaining Preparedness in an Economic Crisis*.

Public health officials are increasingly concerned that budget cuts will severely impact the ability to adequately train staff and volunteers. Next year's Public Health Preparedness Summit will serve as a "dual purpose" venue offering training workshops and a place to obtain important tools, resources, and other information that can be utilized to strengthen and enhance preparedness and response planning efforts across the nation.

From Volunteer Management to Radiation Preparedness

Training workshop topics include such major themes as volunteer management, medical countermeasure dispensing and distribution, behavioral health, public health law preparedness, radiation preparedness, and many more. With almost 200 interactive sessions, sharing sessions, and posters, participants will have many opportunities to find something of value to take back to their communities.

Each morning of the conference will begin with a plenary session. Wednesday's plenary – *A Resilient Community: Rebuilding and Recovering After the Joplin, Missouri, Tornado* – will highlight one of the most devastating disasters experienced in the United States this year, and feature a panel of public health, healthcare, and community-based organization representatives discussing the efforts of Joplin residents to rebuild and recover from that tragic event.

The mid-conference plenary session – *Fact or Fiction: The Science Behind Movie-Making and the Film, Contagion* – will take a look at how the film's portrayal of a rapidly emerging infectious disease imitates real-life planning and preparedness for such an event. The panelists include: *Contagion's* screenwriter, Scott Z. Burns, and his scientific advisor, W. Ian Lipkin;

Rear Admiral Nicole Lurie, HHS (Department of Health and Human Services) Assistant Secretary for Preparedness and Response (ASPR); Alexander Garza, DHS (Department of Homeland Security) Assistant Secretary and Chief Medical Officer; Ali Khan, CDC (Centers for Disease Control and Prevention) Director of the Office of Public Health Preparedness and Response; and Brian Kamoie (invited), White House Senior Director for Preparedness Policy.

The Summit's closing session features Dr. Donald A. Henderson, a distinguished scholar at the Center for Biosecurity, University of Pittsburgh Medical Center. Dr. Henderson also serves as Dean Emeritus and Professor of the Johns Hopkins School of Public Health and was a founding director of the Johns Hopkins Center for Civilian Biodefense Strategies. He also served for almost two years, starting in November 2001, as the Director of the Office of Public Health Emergency Preparedness and, later, as a Principal Science Advisor in the Office of the Secretary of the Department of Health and Human Services. Dr. Henderson will take a retrospective look at the country's efforts to become a better prepared and more secure nation since the terrorist attacks that took place on 11 September 2001.

The Preparedness Summit will also play host to seven Town Hall sessions that address important federal policy issues and other relevant topics. Conference attendees will hear the latest information related to, and have an opportunity to provide feedback on, the new CDC Public Health Emergency Preparedness and ASPR Hospital Preparedness grant alignment program, planning efforts for the mass distribution and dispensing of medical countermeasures, and federal biosurveillance initiatives.

For additional information on the 2012 Public Health Preparedness Summit, visit www.phprep.org

Jack Herrmann is Senior Advisor and Chief for public health preparedness with the National Association of County and City Health Officials (NACCHO). He oversees the organization's preparedness portfolio, which is aimed at strengthening the preparedness and response capabilities of local health departments. He also serves as the organization's chief public health preparedness liaison and chairs the annual Public Health Preparedness Summit. He has extensive experience in disaster management and response and has participated in numerous disaster relief operations with the American Red Cross. He holds a bachelor's degree in Sociology from St. John Fisher College, and a master's degree from the University of Rochester (N.Y.).

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