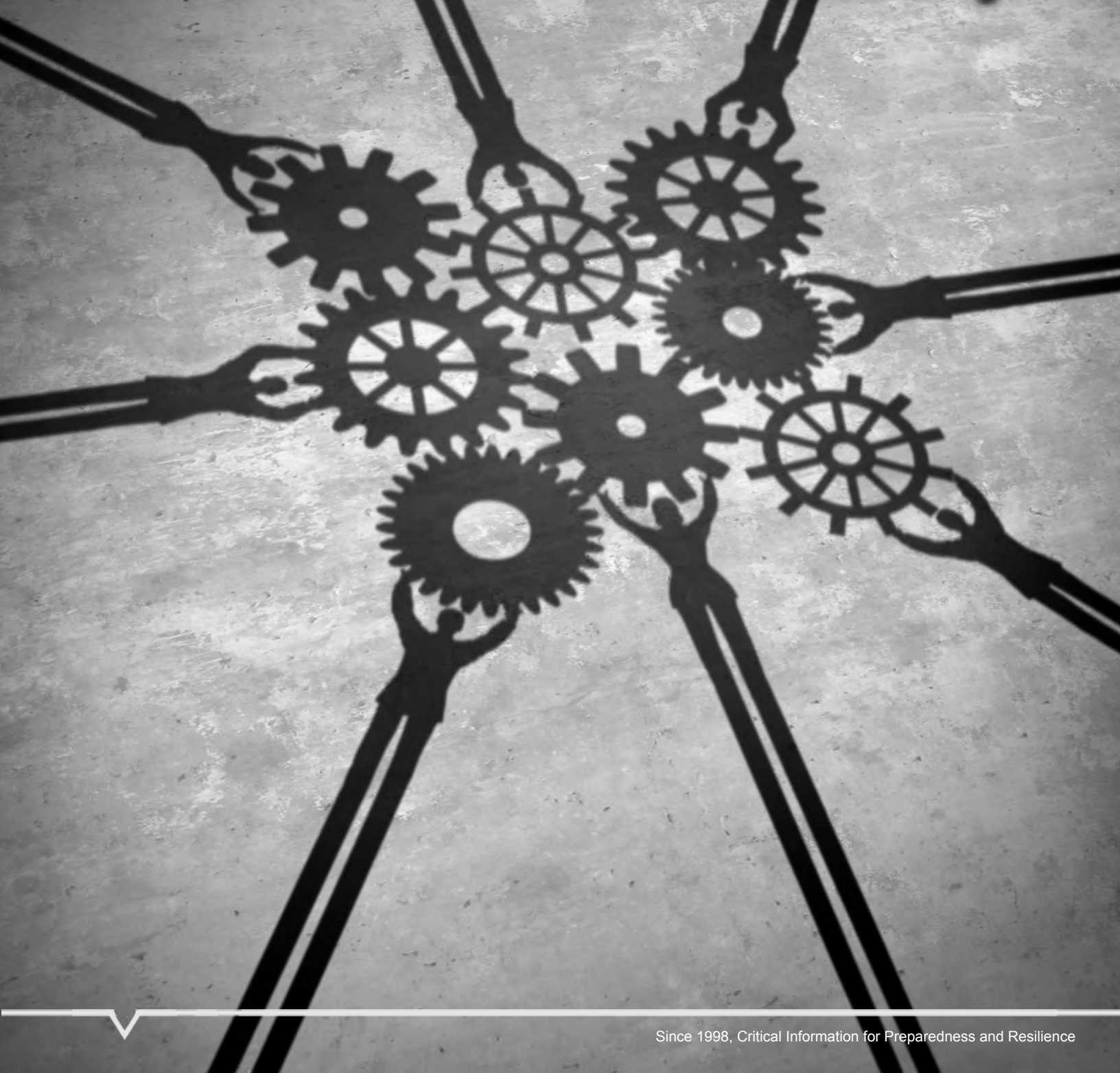




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Featured in This Issue

Whole Community – A Five-Year Look Back
By Catherine Feinman5

What the “Whole Community” Means to the Whole Community
By Richard Serino & Jennifer Grimes11

Four Steps to Improve Whole Community
By Vincent B. Davis14

Development of Metrics for Personal Preparedness
By National Emergency Management Executive Academy Cohort III19

Ignoring Spontaneous Volunteers – Not an Option
By Chelsea Firth25

Building a Usable Whole Community Toolbox
By Robert DeLeon28

Innovations in Healthcare Disaster Management for Veterans
By Jessica Wambach Brown31

Podcast: 10 Perspectives on Whole Community33

Children as the Catalyst for Change
By Yuri Graves34

Animals as Part of the Whole Community
By Anne McCann & Richard Green36

Bleeding Control – The Next Step in Active Shooter Guidance
By Birch X. Barron40

Uncertain Impact of Critical Biosecurity Reports
By Robert C. Hutchinson42

The Whole Community Paradigm Shift
By Anthony S. Mangeri47

About the Cover: Each member of the community – from individuals to the federal government – represents a cogwheel in the community’s overall resilience plan. By involving all stakeholders, a community can build a strong and reliable network that can withstand future disasters. (Source: © Can Stock Photo Inc./focalpoint)

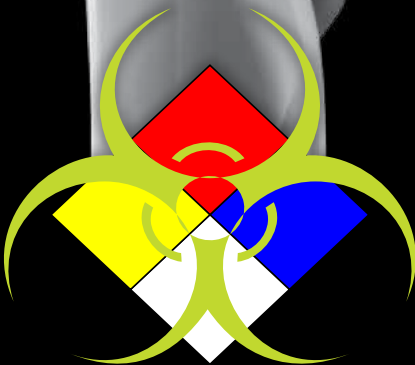
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Whole Community – A Five-Year Look Back

By Catherine Feinman

Over the past five years, the term “Whole Community” has become a common catch phrase. However, the question is, “How well is this concept being implemented?” On 16 November 2015, DomPrep hosted a roundtable discussion with subject matter experts to answer this question and share key takeaways and suggestions for building community resilience.



In November 2015, emergency planners from around the world converged on Las Vegas, Nevada, to attend the annual meeting of the International Association of Emergency Managers. That meeting offered the perfect opportunity to address the topic of whole community efforts over the past five years and address topics such as: leadership vs. governance; priorities and conflict resolution; legacy knowledge; community dynamics, structure, and networks; identification and maximization of community resources; and empowering community members to take action.

DomPrep Advisor Anthony S. Mangeri, MPA, CPM, CEM, who serves as director of strategic relations for fire services and emergency management for the American Public University System, moderated a lively discussion with 29 other professionals from various disciplines in attendance. Richard Serino, distinguished visiting fellow at Harvard School of Public Health’s National Preparedness Leadership Initiative, began the roundtable discussion by sharing his insights from conversations in 2009 with Federal Emergency Management Agency (FEMA) Administrator Craig Fugate and other colleagues, when he served as the 8th deputy administrator of FEMA. The initial reasons behind FEMA’s “Whole Community” concept were that FEMA needed to:

- Define what FEMA does and does not do
- Determine how to deliver an effective message
- Identify who is missing from the preparedness table
- Distinguish what was happening at city and state levels that was not happening at the federal level
- Maintain the whole community focus beyond the concept’s creation
- Remember that the government does not make up the response, so the effort must be inclusionary
- Enhance resilience through core concepts that empower all members of the community
- Keep the survivor at the forefront

A long history of events has demonstrated the need for a whole community approach to address: (a) human-caused disasters, such as explosions and infrastructure failures; and (b) natural disasters, such as wildfires, floods, hurricanes, and tornadoes. Gaps in whole community planning and response have been exposed during regional exercises and

catastrophic planning meetings. However, more costly are the gaps exposed during actual incidents – for example, when a downed airplane crashed on the border of two different jurisdictions, as witnessed by Ronald Wakeham, department chair for Security, Emergency Response, and Interdisciplinary Studies at Embry-Riddle Aeronautical University/Worldwide. Although the idea of “neighbor helping neighbor” was common in local and rural communities, “The concept was news to D.C.,” said Serino. The larger the city, the greater the likelihood is for fragmentation.

Successes & Roadblocks

The success of a whole community approach is dependent on “making it a way of business,” said Bruce Lockwood, preparedness planning assistant for the Town of East Hartford, Connecticut. “The value of the document was that we were doing it, but emergency managers didn’t know how to do everything – for example, recovery requirements. We said, ‘we got this,’ but the reality is we didn’t.” According to other roundtable participants, this requires being progressive, cultivating inclusive networks, working with all stakeholders, developing curriculum, and providing any necessary guidance.

Unfortunately, roadblocks still exist. From agency restrictions to constant personnel turnover, it is difficult to build trust within and between key stakeholders. In addition, “With a 24-hour news cycle, we end up behind an incident before we even get started,” said Donald Gerkin, lieutenant at the Baltimore Police Department, Office of Emergency Management. A lack of effective communication and public trust of officials hinders collaborative efforts. Mark Bejarano, business continuity coordinator/electronic engineer at NPR, acknowledged that, “Through reporting, we are instrumental in influencing, helping, and hurting the message.” Jason Block, regional countermeasures coordinator at South Carolina Department of Health and Environmental Control, emphasized that the delivered message needs to positively motivate the community, but there are “different ways to communicate to different groups and also an emotional intelligence component, which requires balancing the emotions of ourselves and our communities to support the whole community as one.”

Underserved communities are a particular challenge when it comes to trust because it is difficult to get citizens involved. Government efforts to involve citizens in preparedness and response, including Citizen Corps and Community Emergency Response Teams (CERT), are less effective in disconnected communities. Such programs need to be tailored to “meet [community members] where they are, make preparedness part of what they do, and demystify the disaster,” said Vincent Davis, senior preparedness manager at Sony Network Entertainment. He further warned, “Don’t be afraid to get up in front of the community and be attacked.”

Organizations like The Salvation Army already reach out to and are building relationships with stakeholders in these communities, but it takes time. Lanita Lloyd, the organization’s corporate and interagency liaison for emergency disaster services, shared an example of how one law enforcement agency did not realize that they needed anything that the organization could provide until trust was established.

Churches are also a valuable community resource that should not be underestimated, but Davis pointed out that many churches are not prepared, nor do they have emergency plans

and ministries to address these concerns. By knowing their communities, reaching the right religious leaders, and ensuring that the programs are viable and supportable, officials can leverage these underutilized resources.

Leadership – More Than a Title

Leadership – by supporting leaders and being leaders – is key to whole community buy in. As Serino mentioned, “The definition of ‘leader’ is that people follow you; the question is why and how?” Leadership, management, and governance are not synonymous.

“Leadership involves creating long-standing partnerships within the community, but not necessarily with a title or legitimate authority,” said Aaron Poynton, director of Global Safety and Security Business at Thermo Fisher Scientific. Many studies have been published over the years that provide valuable lessons about leadership during previous community responses. From these past lessons learned, models of best practices can be created to use for future incidents.

However, Thomas Drabek, emeritus professor of sociology and criminology at the University of Denver, noted that emergency management research is not new:

“There have been a great many studies of community responses. Some of those studies have emphasized how things got screwed up and perhaps why they got screwed up. A great deal can be learned from looking at those case studies. In the last 10 years, there’s been an emergence of twisting it around. Let’s not go out as researchers and document more cases of how things got screwed up, let’s talk about and write about what could be done to avoid the screw-ups. The whole community approach gives a conceptual framework that begins to move things in that positive direction.”

Gerkin pointed out that the media often determines the success of a whole community campaign – that is, “whether we reach the entire demographic” – however, this does not necessarily mean, “the campaign itself is applicable to the whole community.” Measures of social media site statistics do not provide an adequate measure of preparedness levels either.

Although there is a need to look at multiple aggregate data areas, Lockwood noted that, “There is no spot to find the data in one single source.” The return on investment at the local level cannot be determined. This is especially true, as Lockwood noted, for personal preparedness, which is not adequately addressed in national documents and has no core capability structured around it. “We talk about whole community, but don’t include the whole community,” he said.

Engaging the whole community, measuring preparedness efforts, and funding these efforts are tightly interconnected. When all stakeholders are engaged, the results become more tangible and resources are more fully leveraged. “If you have the right people, you don’t need a lot of money. Leverage the resources you have and the people within your organization,” said Irene Navis, assistant emergency manager/plans coordinator for Clark County Office of Emergency Management in Nevada. With regard to whole community, engagement can be more valuable than money.

Adapting to a Changing World

Whole community is not an effort that should be standardized, but should be a scalable, adaptable framework that can be modified to address the needs of each community. Robert DeLeon, emergency manager at Gila River Indian Community, expressed the need for this concept to become doctrine, with a toolbox of best practices. Support is needed at all levels throughout the process in order to engage all stakeholders and obtain buy in.

Each community stakeholder should strive to become an agent for change, by extending invitations to collaborate, finding common interests and goals, and creating robust networks. With significant technological, environmental, and interpersonal changes over the past five years, the fact that this discussion is still on the table is a sign of success. As whole community efforts expand, there is a natural expansion to greater levels of community resilience. However, roadblocks still need to be knocked down.

As Drabek warned, “Don’t leave here thinking that all of us, as comfortable as we are, are not aware of the intense strains that still exist in this country and are surfacing from time to time. Most of the society, in my opinion, is not listening. We have strains that we’ve ignored, then we have a disaster like Katrina, and we wonder, ‘Why did this happen?’” By addressing these strains and bridging gaps in preparedness, communities may still face disasters, but they will be able to shift their focus from questions and blame to recovery and resilience.

This edition of the *DomPrep Journal* addresses more in-depth the key takeaways from the November roundtable discussion on “Whole Community.” Special thanks to the many people who contributed in various ways to this issue:

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Joseph Leonard, Commander, U.S. Coast Guard (ret.), and Senior Consultant, Center for Toxicology and Environmental Health

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Irene L. Navis, Assistant Emergency Manager/Plans Coordinator, Clark County Office of Emergency Management

Aaron Sean Poynton, Director of Global Safety and Security Business, Thermo Fisher Scientific

Carlito "Lito" Rayos, Commander, Fighting 137th Military Police Detachment, Nevada Army National Guard

Randy Robertson, City Manager of Cordova, Alaska

Robie Robinson, Executive Director of Emergency Services, University of Tennessee at Chattanooga

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What the “Whole Community” Means to the Whole Community

By Richard Serino & Jennifer Grimes

Disaster response involves the whole community. To support a united effort, leaders must build a network of trust, establish a history and habit of cooperation, and learn the goals and vulnerabilities of stakeholders. By asking a few key questions, leaders can expand the sphere of their preparedness, response, and recovery efforts.



Because disasters involve the whole community and greater resilience results from optimizing use of all available resources, the whole community must be mobilized toward effective cooperative action. As seen time and time again when whole communities come together – for example, in Joplin, Missouri, after the devastating tornados in 2011 – to be effective during response and recovery, improvements in preparedness and mitigation are needed to prevent a potential disaster within a disaster. By coming together, localities can capitalize on the strengths of each stakeholder, who can thereby be a valuable contributor. Recently, significant efforts and attention have been leveraged to bring together resources – including diverse nongovernmental agencies – [to improve preparedness and response](#). To improve cooperation, aspects that would help or hinder effective cooperation and resource management must be considered. This becomes more of a challenge when considering the variation in collaborating potentials, resources, and dynamics of private sector, faith-based, nonprofit, public, individual, and other entities that are involved in and make up the community, but they are essential in [building resilient communities](#).

One Community, One Goal

There are many potential obstacles to effective implementation of the “whole community” approach, but they can be addressed with consideration of the key points that create a whole community. First, the system must be based on a network of trust. The stakeholders must be identified before a disaster strikes so that people are aware of who is involved, whom they should contact, and what resources are available through each of the contributing parties. These groups must be able to identify and trust each other, and they must be able to communicate effectively and efficiently, as well as to maintain [organization of actions](#). However, it may be less clear how to build these networks to engage and mobilize the community and to do so with limited funding.

The definition of leadership is that “people follow you,” but the question is, “Why?” Leaders who demonstrate goal orientation with the same values and concerns of their constituents would have their trust: If leaders share a goal, they are more inclined to work cooperatively because trust emerges from knowing that their interests do not compete. Therefore, the power and resources that one cooperating group has become an asset to an in-group instead of a threat.

Second, leaders must demonstrate an aptitude such that their leadership can be trusted. These factors contribute to the establishment of a history and habit of cooperativity. However, these successes and this habit must be established before a crisis when it is needed. [Harvard's National Preparedness Leadership Initiative's description](#) of the Boston Marathon bombing response provides an example of how this has been implemented effectively and a more in-depth analysis of the aspects of cooperation that contributed to its success. Crises highlight the need for collaborative action, but uncontrolled variables and feelings of threat could lead to a breakdown of a cooperative system that is not well-honed.

Third, learning each stakeholder's goals and vulnerabilities is key to the establishment of this system. Speaking with and listening to the contributors to the whole community bring leaders back in touch with the interests and concerns of their constituents, and also demonstrate the care that underlies goal sharing and trust networks.

The limitation of funding also seems to be a limitation on the capacity of the whole community approach. However, it could be exploited as a potential strength: When individuals are given extrinsic reward, it diminishes the intrinsic drive and intrinsic reward. Instead, the driver is encouraging people to help other people rather than the extrinsic reward of money, which also introduces competition and quantification of resources that can encourage social comparison and diminish generosity and cooperation. The effect of money can be outweighed by compensatory value from intrinsic reward or by secondary gains – such as improved local reputation of businesses.

Bringing People Together

Many initiatives have been undertaken to increase involvement of nongovernment groups, resulting in the promising successes seen in the integration of community resources during federal responses. The response in Joplin is an example of how the whole community came together with large amounts of volunteers, private sector companies, nonprofits, and all levels of government to help the city recover and rebuild. However, these efforts toward inclusion must be more extensive to truly capitalize on community resources. For instance, private sector companies including large chain establishments are valuable contributors to community resilience, but the effects would be more expansive if smaller businesses were also effectively involved.

Similarly, the whole community of affected persons is not limited to area businesses and organizations, but is actually every individual who is part of the community. Significant efforts should challenge innovators to bring everyone together and to forge a true whole community. The following questions expand this sphere:

- Who is missing from consideration?
- How do we bring people who are not there to the table by engaging them and their values?
- How do we work with novel contributors, such as new technology startups and unrepresented faith-based communities, instead of relying only on those who already contribute?

Interdisciplinary teams and innovative solutions are required for complex problems, but leaders still must continually ask the right questions to forge an inclusive approach that brings out the best in the community.

Richard Serino (pictured), is a distinguished visiting fellow at Harvard School of Public Health, National Preparedness Leadership Initiative. He was appointed by President Barack Obama and confirmed by the Senate as the Federal Emergency Management Agency's (FEMA) 8th deputy administrator in October 2009 and served until 2014. He responded to over 60 national disasters while at FEMA. During Super Storm Sandy, he was the lead federal area commander for New York and New Jersey. Prior to his appointment as deputy administrator, he spent 36 years at Boston Emergency Medical Services, where he became chief and oversaw 35 mass casualty incidents. He also served as the assistant director of the Boston Public Health Commission. He is currently a senior advisor for numerous organizations such as Airbnb and the MIT Urban Risk Labs. He attended Harvard University's Kennedy School of Government Senior Executives in State and Local Government program, completed the National Preparedness Leadership Initiative (a joint program of the Harvard School of Public Health and the Harvard Kennedy School of Government), and graduated the Executive Leadership Program, Center for Homeland Defense and Security at the Naval Postgraduate School.

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Four Steps to Improve Whole Community

By Vincent B. Davis

The whole community concept has come a long way over the past five years, but it is time for the mission focus and community outreach to change with the changing needs of the target populations. To effectively make these changes, the effort will require establishing measurable benchmarks and creatively collaborating with the private sector.



A roundtable discussion at the 2015 annual conference of the International Association of Emergency Managers in Las Vegas, Nevada, led to a spirited dialogue around community preparedness and where the nation is going in the future with whole community efforts. As the discussion shifted to what is working and what is not, it became obvious that the program is in great need of a makeover. Despite the efforts of many organizations and individuals, the reality is that communities are no more prepared – and in some cases less prepared – than before the formal concept of “whole community” began. Simply put, it is not working.

The participants at the roundtable related many accounts of the outreach, projects, and programs they have undertaken. Nonetheless, all participants seemed to be seeking answers to the same question, “How do we reach our communities and get them to prepare?” After pondering the many preparedness challenges faced in every community – for example, apathy, funding, and resources – four steps for change with regard to whole community emerged.

Step 1: Sharpen Whole Community’s Mission Focus

For the past 15 years, the mantra of preparedness has been “Get a Kit, Make a Plan.” The problem is, most people ([60 percent](#) by conservative accounts) have done nothing in that regard. Instead of continuing to commit funding and effort on getting people to prepare a disaster kit, it is time for the focus to change. Unfortunately, the mainstream community household is stuck in one of the four stages of disaster denial:

- “It won’t happen.”
- “It won’t happen to me.”
- “If it does happen, I’ll deal with it at the time.”
- “If it does happen, I can’t do anything about it anyway.”

The unwilling cannot be ignored, but rather need to be engaged in a different way. For example, most full-time employed families have some form of [health savings plan](#) offered by their companies. A “Disaster Savings Plan” for people in high-risk areas could work the same as a health saving account, with tax-deductible money banked for recovery expenses to bridge gaps in underinsured households following a disaster or local emergency. The average citizen

with the means, infrastructure, or personal and family support systems should no longer be a major focus for outreach, funding, and resources for preparedness. Their indifference to these efforts is a personal choice. The reality is they can and, in most cases, will recover from a disaster with minimal help.

The focus then should shift to the underserved populations: the elderly and children; those who are homeless or poverty-stricken; people with physical or mental disabilities, or with limited English-speaking skills; and those who are transportation challenged or technology illiterate. Statistically, these groups are most likely to die, be injured, or left behind in a major disaster, as was seen following Hurricanes Katrina and Sandy. For the mainstream household, a disaster is a major inconvenience – barring serious injury. However, for the underserved who are already struggling to cope, it can be life-changing. For example,

“Contrary to popular belief, corporations do not ‘make up’ for disaster losses during recovery, and actually suffer up to millions in losses in the cost of recovering assets, losing productivity, and reconstituting normal business operations.”

[46 percent of people with disabilities](#) do not know their communities’ emergency planning contacts; and 53 percent still need to develop evacuation plans at home and 34 percent at work. Their likelihood to prepare is much less than the general population, but the solution for underserved populations is simple:

- Stop sending mixed messages such as, “You need to prepare, but don’t worry, the government will save you”; be honest and tell them they are on their own in a major disaster and their focus must be on survival, not minimizing inconvenience.
- Create an atmosphere where preparedness is part of their everyday lives. Displaying billboard advertisements on the freeway is not effective outreach for underserved populations that are focused on daily survival. For example, telling a single mom with two kids and a minimum wage job that she should prepare a disaster kit with no money has no effect; her two extra cans of tuna are tomorrow’s dinner, and her extra cash is tomorrow’s bus fare.
- At one [2013 whole community conference](#) with about 150 people, all of the attendees were emergency managers, Volunteer Organizations Active in Disasters, and consultants, with only a few members from the community. The reason for the low resident participation was simple: the event was held at a suburban hotel; the underserved residents who may have attended had no transportation to get there; and they may not have even known about the event.

Step 2: Establish Benchmarks & Metrics

As a mentor and instructor, the late [Brigadier General William Lanagan](#) said in 1979 at Ft. Benjamin Harrison in Indiana, “If you can’t measure it, it doesn’t matter.” Practitioners must avoid becoming too enamored with their own successes and accomplishments in preparing their communities. In reality, without established minimum standards and goals, such accolades are meaningless. Some simple metrics would provide realistic direction to whole community efforts, including:

- Number of people trained in CPR/first aid;
- Number of faith-based and community-based organizations with written disaster plans in place;
- Number of shelter beds by neighborhood;
- Number of nongovernmental organizations conducting evacuation and shelter-in-place drills; and
- Number of private sector companies and small businesses with active employee emergency programs.

Step 3: Reconstitute & Overhaul Citizen Corps

The Citizen Corps Community Emergency Response Team (CERT) program was successful in suburban and rural communities, but not as viable to most large urban centers. Mission focus and training on urban search and rescue is discouraged by many big city public safety departments, thus CERT teams tended to be of little interest to citizens, especially in high-poverty neighborhoods. A “new” CERT program could become a major force multiplier in whole community outreach with a few caveats:

- Ease requirement of CERT to be affiliated with a public safety organization because training standards can be maintained just as easily by a nongovernmental organization, a faith-based organization, or another local community group.
- Do not expect CERT teams to deploy outside their local neighborhoods because such requests can deter many residents from participating.
- Build CERT around the needs of the targeted community members, then fund and equip them for that work. For example, in urban communities, safe passage of children walking to school in gang-infested neighborhoods may be a greater need than search and rescue or traffic control.

Step 4: Be Creative When Working With the Private Sector

Corporations have traditionally been relied upon for disaster relief donations of goods, services, and money. Although they will likely continue to be “good neighbors” and partners to help those in need, they are also feeling the financial impact of increasingly frequent disasters and shrinking resources. Corporate pockets have limits, so asking them to do even

more has to be met with creative focus on a win-win proposition. Contrary to popular belief, corporations do not “make up” for disaster losses during recovery, and actually suffer up to millions in losses in the cost of recovering assets, losing productivity, and reconstituting normal business operations. As such, whole community efforts to engage companies should consider the following:

- Do not ask without offering some return on investment – for example, if a company donates preparedness kit funds for senior citizens, offer free workshops or training for their employees in return.
- Be prepared to do more than talk about the “great work” being done in the community, but also to show corporations tangible evidence of how their support is making a difference in the community (see Step 2).
- Show the direct benefit for companies in industries such as retail to develop a whole community relationship. A great example is the [Senior P.R.E.P.](#) collaboration between Walgreens and the South Carolina Department of Aging, which provides monthly mini-preparedness events held on “senior discount” days at Walgreens stores statewide.
- Embrace new technologies such as ICE4 Autism, which is a mobile application that provides first responders and caregivers with important information when encountering people with cognitive disabilities.

Doing good business while doing good for the community is mutually beneficial for companies and others engaged in whole community efforts. It is time to take decisive steps to change outcomes for the underserved, help first responders reduce recovery costs and risks, and maximize use of limited financial resources. Anything less is wasted effort and will yield no real change in a community’s preparedness posture.

Vincent B. Davis, CEM, is senior preparedness manager for Sony Network Entertainment, where he is responsible for developing disaster plans and programs for the company’s North America locations. Before joining Sony, he was program manager of emergency preparedness and response for Walgreens Co., where he designed emergency plans and coordinated emergency operations center operations for the company’s 8,300 stores and facilities during major disasters. Following his career in the U.S. Air Force and Illinois National Guard, with 23 years in military public affairs, he served as: external affairs and community relations manager at the Federal Emergency Management Agency (FEMA); regional preparedness manager for the American Red Cross of Greater Chicago; and private sector consultant to the Illinois-Indiana-Wisconsin Regional Catastrophic Planning Team. He holds certifications as an Illinois Professional Emergency Manager and FEMA Professional Continuity Practitioner, and is a member of the International Association of Emergency Managers Children’s Caucus and a lifetime member of the Black Emergency Managers Association. He authored, “Lost And Turned Out, A Guide To Preparing Underserved Communities For Disasters,” and founded [PreparednessMatters.org](#) Consulting. He also is vice president of strategic alliances and community relations for PrepWorld LLC, creators of PrepBiz Video Gamification for Disaster Preparedness Education APP for children.

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Development of Metrics for Personal Preparedness

By National Emergency Management Executive Academy Cohort III

Many emergency management agencies provide valuable information to assist individuals within their communities to prepare for a variety of disasters. However, a method for measuring the success of such programs is needed to determine their effectiveness and to develop new programs to ensure community resilience.

The Federal Emergency Management Agency (FEMA) [defines preparedness](#) as: “Actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk.” A [2001 article](#) by Associate Professor Douglas Paton of Massey University and David Johnston with the Institute of Geological and Nuclear Sciences, determined the need to identify values, beliefs, competencies, resources, and procedures that members of a community can utilize to proactively develop capacity to adapt, sustain societal functions, and recover. In order for societies to become resilient, the individuals who make up the society must become resilient.

Evaluating Current Initiatives

The federal government, as well as many states, have implemented various programs with the intention that the messages of preparedness reach the population. Websites such as [www.ready.gov](#) and campaigns such as [America’s PrepareAthon!](#) and [Ready 2015: Be Prepared for Every Season](#) have attempted to deliver the emergency preparedness message to individuals. There is a strong understanding across research that individual preparedness is the key to successful community, state, and national preparedness. Without the most basic preparedness at the individual level the larger preparedness initiatives are not likely to be as successful.

Preparedness sites, such as America’s PrepareAthon!, suggest high numbers of prepared individuals. As of August 2015, the number of participants registered in the program reached over 23 million. This data does not actually measure preparedness, but simply measures the number of people that pledged to be prepared.

Professor Naim Kapucu of the University of Central Florida, Orlando, suggested in a [2008 article](#) that, “most people in disaster prone regions know they should prepare, but few actually do” (p. 526). Kapucu further stated that this is true even of households that have experienced regular disasters. Although 23 million prepared individuals seems to represent a large number, there is no identifiable correlation between the number of individuals accessing website information and the number of actually prepared individuals.

Paton and Johnston also suggested in their 2001 research that, “in predicting adoption of household hazard preparations, traditional approaches to public education directed at increasing awareness and/or risk perception have proven ineffective” (p. 270). It is understood that preparedness is less driven by the hazards and more by implications for the individual’s livelihood (Bishop et al., [2000](#); Millar et al., [1999](#)). In addition, Paton and Johnston determined the necessity to accommodate the needs of the individual and psychosocial

factors that will facilitate the relationship between perception of risk and behavior that leads to preparedness.

Currently, it appears that no system of measurement exists that can quantify successful emergency preparedness at the individual level. There does not appear to be consistent messaging across all states, or even within a state. Multiple organizations have preparedness missions and share the preparedness education information to their constituents. However, it is difficult to measure the collective impact on the general public because there is not a universal system of measurement to determine if this education has caused the individual to take preparedness actions. The return on investment for the organizations is calculated in many different ways.

Initiatives have been launched that have direct and objective measurements. According to the American Red Cross President of Humanitarian Services Cliff Holtz during personal communications in 2015, six times a day in the United States, someone dies in a home fire. The Red Cross launched a [nationwide public initiative](#) that aims to reduce the number of fire deaths and injuries in the United States by 25 percent within five years. The Red Cross works with many community organizations to identify vulnerable communities to engage in this initiative. Vulnerable communities can include but are not limited to communities with high numbers of: fire-related deaths or injuries; low-income populations; access and functional needs populations; or households lacking smoke detectors. Volunteers canvas the targeted communities and offer to check existing smoke alarms, change batteries, or install new smoke alarms in the home. Volunteers also work with the residents of the home to develop a family emergency plan. This initiative was implemented across the country in October 2014, and the Red Cross can already confirm 15 lives were saved due to smoke alarms the organization installed.

The Ontario Power Generation (OPG®) provided the residents within 10 miles of their Darlington and Pickering nuclear sites in Ontario, Canada (along the Ontario-New York border) with an emergency evacuation kit in a door-to-door campaign that also provided an explanation of the emergency procedures and testing of the new emergency sirens. After this campaign, tests were conducted that revealed in the 2015 Darlington Event After Action Briefing, an increase in both understanding of individual response requirements and the emergency messages received as compared to the same tests performed in the past two years.

Factors for Evaluating Individual Preparedness

There are several factors that incite individuals to become prepared. In a [2002](#) article, Professor Dennis Mileti of University of Colorado-Boulder and Associate Professor Lori Peek of Colorado State University suggested that previous experience with similar disasters, higher levels of education, middle age, and location of family members all contribute to levels of preparedness. In addition, their research suggested that individuals who receive accurate and timely information are more likely to be prepared.

A critical approach in developing metrics to identify the value of personal preparedness is the need to assess effectiveness or pre-planning after an emergency occurs and to build on lessons learned from previous events. Without the understanding of the level of preparedness that is adequate for the disasters faced, it is difficult to measure the level of an individual's personal preparedness. Due to the unpredictability of disasters occurring, this metric is

difficult to measure, as it requires contact with individuals prior to an event and again after the event to develop a comparison and evaluation of measurements. There is no real way to know when the best pre-event contact can occur and when the best post-event time is to approach the individual. Research conducted by RAND Corporation in [2010](#) discussed process mapping to identify the needs of a response and the tasks as a component of the overall system. The report stated that the assumption should not be just to spend until the situation is managed or the money has been exhausted, but to consider, “When do we know when we have invested enough?”

Israel has developed a just-in-time system of providing preparedness that is effective in assisting individuals when preparing for non-conflict events. Within the Emergency Management Institute E0680 course lecture on meta-leadership, Dr. Leonard Marcus (2015) discussed, preparedness activities occur when an event is imminent or in the immediate aftermath of the event; this population is considered somewhat resilient due to the level of ongoing conflict. By providing just-in-time preparedness, individuals have been shown to mitigate the damages caused by the disaster and to remember the preparedness message to improve their resilience prior to the next event.

As emergency management moves toward a more evidence-based and business-case driven practice, it is becoming more important for programs to be able to quantify their activities and show a positive or expected return on investment that ensures the activity is the best use of limited resources. Preparedness is no different and, despite the difficulty with implementation of metrics to ensure success of any preparedness program, there needs to be further work in developing a common system of measurement for the adoption of future programs. Additionally, established in March 2011, Presidential Policy Directive 8: National Preparedness ([PPD-8](#)) describes the nation’s approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States.

National preparedness is the shared responsibility of the whole community. Every member contributes – including individuals, communities, private and nonprofit sectors, faith-based organizations, as well as federal, state, and local governments. The annual National Preparedness Report required by PPD-8 uses the core capabilities as the metric by which preparedness is measured. As no core capability exists for individual preparedness, the four reports to date do not include a status on individual preparedness despite the ongoing priority status of increasing individual and community preparedness as a key shared responsibility among everyone.

Recommendations

Direct Incentives (Tax Refund/Reduction) – Provide direct federal and/or state incentives for completion of a training course, development of a plan/kit, etc. In this case, the individual would receive a direct tax refund or other type of deduction for providing proof that they have taken appropriate training, developed a plan, and/or built a kit that helped them be more prepared for disasters.

- *Pro-Direct Incentive* – In a program that requires completion of online training and printing of a certificate for proof of completion there is a validated metric.
- *Con-Direct Incentive* – Research published in a [2001 issue](#) of *Review of Educational Research* shows that incentives do not always work; tasks that called for “even

rudimentary cognitive skill” a larger reward “led to poorer performance.” This approach can be costly with an unknown return on investment. Early adopters/users would be those already considering or willing to develop personal preparedness to meet the program requirements.

Insurance Incentive. Insurance companies are looking at ways of reducing claims and ensuring rapid de-escalation of the effects of disaster.

- *Pro-Insurance Incentive* – Insurance companies are motivated to support a partnership where they are able to provide incentives for their customers when it reduced the overall liability of the insurance carrier or agency. This system would reduce the resources needed by any level of government as the insurance company would set metrics and support the administration of the program.
- *Con-Insurance Incentive* – Much like direct incentives, insurance incentives can be a hard sell when the individual does not feel the incentive is worth any extra work needed to meet the program requirements. The most vulnerable populations tend not to have insurance according to the American Insurance Association.

Product Incentives. Product incentives would provide direct access between an individual and the organization administering the program (such as the Red Cross smoke detectors and the OPG® evacuation kits).

- *Pro-Product Incentive* – Individuals are more likely to leave something that has been installed for them or to accept preparedness items that are directly provided. This method also opens dialogue directly with the individual, which may then increase the individual’s motivation for preparedness.
- *Con-Product Incentive* – There is no way to know that the mitigation or preparedness put in place will be maintained or left in place prior to an event. This system can be costly and requires strong partnerships with community organizations that can provide direct outreach to individuals within their own communities.

Business Incentives. Local retailers (e.g., Home Depot, Wal-Mart) who traditionally provide for pre- and post-event consumer products for storm preparedness/recovery can be engaged in preparedness activities without an imminent event occurring. In this case, the local, state, or federal government responsible for the program would identify requirements (e.g., completion of a training, attendance at a preparedness session) and would issue a certificate that the individual can use at the big box store to purchase resources and tools for preparedness.

- *Pro-Business Incentive* – This type of program would be cost effective for the government administering the program. Costs that are absorbed by private retailers carry some guarantee for return on investment in either community goodwill and/or when the purchases exceed the value of the certificate. Use of certificates by individuals could be tracked providing two levels of metrics (knowledge gained from the learning session and acquisition of readiness resources) for the program.

- *Con-Business Incentive* – This type of program requires ongoing relationships with local business and the regional/national parent organizations. If the strategic priorities of these private organizations change there is risk that certificates issued will not be honored and there may be a need to change documents frequently to reflect changes in partners as the program matures.

Youth Programs. Message campaigns directed at youth in schools have been extremely successful for other emergency messages (e.g., stranger danger, stop-drop-and-roll, seatbelt safety, fire evacuation). Similar strategies can be utilized for emergency preparedness in a more long-term solution for ensuring preparedness. Federal Preparedness Coordinator of DHS-FEMA Region VII Philip Kirk argued in his [2014 master's thesis](#) that by instilling messages in the nation's youth, one can conclude the same message may also be taken home to the adults and ultimately led to increased actions by all age groups.

- *Pro-Youth Program* – The 2014 FEMA National Household Survey ([slide 18](#)) states that 70 percent of households with children that bring home preparedness materials said they have discussed the plan with family members.
- *Con-Youth Program* – Messaging delivered to youth will take one or more generation to become natural practice and requires consistency in messaging across a number of school sessions.

This article is adapted from a 2015 study conducted by the following students at the FEMA Emergency Management Institute (EMI), National Emergency Management Executive Academy:

Shannan Saunders is the manager of emergency management at Durham College and University of Ontario Institute of Technology. She is a seasoned emergency management professional with practical experience in the development and delivery of emergency management programs in both the public and private sector. Her research focuses on developing organizational resilience as a method of disaster risk reduction. Professionally, her focus is on the development and delivery of comprehensive emergency management and continuity programs and supporting development of organizational resiliency through building of human capital in establishments around the world. She is a previous paramedic and works diligently with several humanitarian organizations, providing humanitarian assistance globally. She received her Master's in Disaster and Emergency Management in 2012 and is a disaster science fellow (2011). She received her CEM in 2009, ABCP in 2011, and AMBCI in 2013. In September 2015, she completed the EMI Executive Academy.

Jeff Hayes is the director of homeland security for the Agricultural Research Service, the in-house research agency of the U.S. Department of Agriculture, and one of four agencies in the Research, Education and Economic mission area. He joined Agricultural Research Service in 2003 and is the national program leader responsible for the protection of ARS assets system-wide, to include emergency management and preparedness. As a former military policeman, he has served in security and crisis management roles at the operations and staff levels of several industry companies, including 20 years of service as an operations director, regional director, division director, senior director, and vice president with Marriott International Inc., a multinational company. In September 2015, he completed the EMI Executive Academy.

Daniel Ellis has 37 years in the fire service, with the last 34 years on the Chicago Fire Department. He is currently a district chief assigned as the first deputy director of the Chicago Office of Emergency Management and Communication (OEMC). He started on a volunteer fire department in the southern suburbs until he joined the Chicago Fire Department as a paramedic. He became an instructor in the Training Division and was promoted as the commander at Fire Academy South. He was also assigned as a commander in the Special Operations Divisions and an assistant deputy chief paramedic before being promoted to his current position. He has also held part-time police and fire positions for various south suburban communities and is on the field training staff of the University

of Illinois Fire Service Institute. He earned an Associate Degree in Law Enforcement from South Suburban College, a Bachelor of Science Degree in Fire Science Management from South Illinois University, and a Master of Science Degree in Fire and Emergency Management Administration from Oklahoma State University. He is a 2015 graduate of the Emergency Management Executive Program.

Dolph Diemont became a member of the FEMA Federal Coordinating Officer (FCO) cadre in May 2007 and, in that capacity, he represents the president and coordinates all federal response and recovery activities with state and local emergency management agencies in the aftermath of major disasters. He has led response and recovery efforts in 20 major disasters declarations, including Colorado in 2015, Michigan in 2014, Alaska in 2013, West Virginia in 2012, Oregon, Idaho and Alaska in 2011, North Dakota and Alaska in 2010, Oregon and Illinois in 2009, Wisconsin in 2008, and Ohio, California, and Oregon during 2007. He has also worked on a variety of special assignments, including two months on the Gulf Coast Mass Evacuation Project. In September 2015, he completed the EMI Executive Academy.

Megan Chamberlain serves as a division disaster director for the American Red Cross. In this role, she supports the local regions to implement disaster services programs throughout the assigned territory of Idaho, Illinois, Missouri, Montana, and Wisconsin, and ensures that disaster cycle services (preparedness, response, and recovery) are delivered in a rapid and accessible manner, meeting the urgent needs of clients. She has 15 years of experience in disaster response and has served in leadership roles for numerous American Red Cross response and recovery operations including the 2015 Typhoon Soudelor response in Saipan, Super Storm Sandy responses in New York and West Virginia, Hurricane Katrina in Louisiana, along with numerous other disasters. She also served as the American Red Cross liaison at FEMA's National Response Coordination Center (NRCC) for Hurricane Isaac to assist with coordinating mass care support to the affected Gulf States. She graduated from the University of South Dakota Disaster Mental Health Institute with a degree in psychology with an area of concentration in disaster response. In September 2015, she completed the EMI Executive Academy.

Bruce Lockwood is a Certified Emergency Manager (CEM) serving as the acting captain of emergency management for the East Hartford Fire Department, Connecticut. He also serves as the chair of the Capitol Region Emergency Planning Council. He is past president of the International Association of Emergency Managers – U.S. Council, and currently serves as a Global Board member for the International Association of Emergency Managers. From 2011 to 2015 Bruce served on the Emergency Management Assistance Compact (EMAC) advisory committee. He has been an assessor for the Emergency Management Accreditation Program since 2006, and currently serves on the standards subcommittee. In 2008, he was appointed by the speaker of the house to serve as a commissioner on the congressionally chartered National Commission on Children and Disasters preparing two reports for the president and congress. In 2004, he was a founding member of the Connecticut Emergency Management Association, and served as the inaugural president. He is a graduate of the 2015 National Emergency Management Executive Academy.

Randy Robertson is city manager of Cordova, Alaska. He has previously served as city manager for several communities in mid-south. He is a retired United States Army officer and senior Department of the Army civilian with nearly 30 years of military service. In September 2015, he completed the EMI Executive Academy.

Dr. Meloyde "Mel" Batten-Mickens, CEM, is the interim chief/director of public safety at Simmons College in Boston, Massachusetts. She has over 20 years of progressively responsible experience in local government and higher education. Within these venues, she has been responsible for information technology, public safety, facilities, transportation, and emergency management. She has collaborated with various campus, local, regional, and federal agencies to promote teaming, enhance communications, and inclusive emergency operations for public safety, the deaf/hard-of-hearing constituency, and infrastructure protection teams. She has served as a special advisor for Gallaudet University's Graduate Social Work Projects; and has presented leadership, public safety, lessons learned, and best practice topics at a variety of conferences, leadership meetings, and webinars. In April 2014, she was awarded Serve DC's "Whole Community Award" for her successful collaborations in a campus Community Emergency Response Team training program specifically designed for the deaf and hard-of-hearing and American Sign Language interpreters. In July 2014, she was appointed to the FEMA National Advisory Council serving on the Preparedness and Protection subcommittee. In September 2015, she completed the EMI Executive Academy.

Ignoring Spontaneous Volunteers – Not an Option

By Chelsea Firth

Managing spontaneous volunteers following a disaster can be challenging, but may prove beneficial for a community's response and recovery efforts. A new project is being conducted throughout 2016 to create an outreach and education strategy for harnessing this valuable resource.



People tend to have a willingness to help in times of crisis. Leveraging this energy and planning for spontaneous volunteers can make an enormous difference in the response and recovery phases. When planning for a disaster, emergency management officials must take all members of the whole community into account. Many local organizations enhance response and recovery efforts, but they need to be invited to the table. It is easy to plan with established groups who have affiliated volunteers, but the challenge comes in planning for the spontaneous, non-

affiliated volunteers.

Inclusion of Spontaneous Volunteers

Spontaneous volunteers are neighbors and people from out of town, or other ordinary citizens who arrive at a disaster ready to help. Since these volunteers are not affiliated with an organization, they may be underutilized or seen as the “second wave” of a disaster by emergency management professionals. Richard Serino, the former deputy administrator of the Federal Emergency Management Agency (FEMA), said on 4 January 2016, “Volunteers, especially spontaneous volunteers are an important part of whole community because they can make a difference in the response and recovery phases of a crisis.” When volunteers are utilized to their full potential, impressive things can be accomplished like in Joplin, Missouri. When the city of Joplin was recovering from the [devastating tornado](#) that hit in 2011, over 180,000 volunteers showed up to help, which led to over 1.5 million hours of service and \$17.7 million from donated resources and time, which offset the disaster cost.

There are, however, legitimate barriers that currently exist to prevent or discourage emergency managers from involving, supporting, or even accepting the emergent actions of spontaneous volunteers during disasters. The International Association of Emergency Managers (IAEM) has taken on the task of identifying resources, tools, information, or tactics that could be effective in addressing and mitigating these barriers because spontaneous volunteers are an unavoidable and important part of the disaster response and recovery spectrum.

FEMA's leadership has taken a strong interest in whole community, which is going to be a central topic for the agency's strategic plan over the next few years. Due to IAEM's access to such a large scope of emergency management professionals, FEMA awarded IAEM a yearlong contract to look at the role of spontaneous volunteers during disasters, to review IAEM's Certified Emergency Manager (CEM®) content to identify areas that could incorporate whole community concepts, and to support FEMA's Individual and Community Preparedness Division outreach and promotion efforts.

Harnessing the Power of the Whole Community

IAEM will research and develop an outreach and education strategy on how to best harness the power of volunteers. The first step will be in the creation and release of two separate surveys to gather data on the current mindset toward spontaneous volunteers and Citizen Corps. IAEM has access to a vast emergency management community that offers accurate insight from a local perspective. The spontaneous volunteers survey is open and will accept participation through 12 February 2016. Anyone that has experience with emergency actions of spontaneous volunteers or will likely have interactions with spontaneous volunteers in



Source: Jocelyn Augustino/FEMA

the future should participate. The second survey will be distributed in early spring 2016 to look at the effectiveness of Citizen Corps and other grassroots organizations.

After the research phase is complete, IAEM will synthesize the data to develop and implement an education and communication strategy based on the findings to encourage emergency managers to recognize and support the actions of spontaneous volunteers and grassroots organizations through speaking events,

articles, webinars, and other avenues. IAEM will further support FEMA Individual and Community Preparedness Division (ICPD) with additional outreach and promotion efforts for the ICPD awards. Finally, IAEM will review its CEM content to identify areas that could better incorporate whole community concepts by adding new questions to the exam and altering the preparatory course content.

On 4 January 2016, when asked about the contract, Robie Robinson, CEM, IAEM-USA president, stated that, "As emergency managers, we have always understood the value of involving the whole community in preparedness. So what could be better than for our association, IAEM-USA, which represents emergency managers in communities across the country to play a vital role in this project?" This project is going to yield interesting results. Any additional ideas or suggestions should be directed to chelsea@iaem.com.

Chelsea Firth, MS, is the whole community project manager at the International Association of Emergency Managers. She is the lead for a contract with FEMA to look at the role of spontaneous volunteers during disasters. Before this, she was a volunteer emergency medical technician in Radnor, Pennsylvania. She received her MS in healthcare emergency management from Boston University and her BS in biochemistry from Villanova University.



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Building a Usable Whole Community Toolbox

By Robert DeLeon

Having a toolbox with the right tools and instructions on how to use these tools would better equip new emergency managers who may be faced with high levels of operation in short time periods. Community stakeholders and local emergency managers should work together to stock the emergency management toolbox for the next generation.



Emergency management professionals understand the importance of collaborating with their partners and community stakeholders to ensure their respective communities are prepared. This is achieved by ensuring that the whole community is working together.

This is nothing new. In fact, emergency managers have been the change agents in many ways on how public safety is approached in many communities. Because the efforts are focused not in silos, but on the whole community, an emergency manager must be skilled in many areas such as: planning for emergencies; providing real-time emergency information and notification; or restoring a community's vital services as quickly as possible. This can only be achieved when everyone works together with a common vision and mission. The desired outcome is that community members are confident that they are prepared and led by professionals.

Having the Right Tools

Some emergency managers get to this point through formal education, mentoring, or coaching to become the consummate professional. However, there are situations where emergency managers are thrust into their positions with little or no training, due to a variety of factors.

Currently, the oldest baby boomers are in their 60s and retiring, which means that a decreasing labor workforce with limited experience is now a factor. In addition, the recent economic downturn that resulted in "right sizing" organizations may never recover to previous levels. All of these factors have led to the loss of significant institutional knowledge, where even current emergency management programs are affected. For example, becoming a qualified emergency manager can be challenging with no or limited experience. Many smaller businesses, local governments, or tribal governments are facing this realistic problem on a daily basis.

Emergency management groups should not be comfortable with this fact. Some have been fortunate to learn and grow in their positions slowly over time, but this is not the case for everyone. The answer could be an "emergency management toolbox" that considers the prospect that someone may be thrust into a position and expected to operate at a high level in a very short time. This toolbox would be filled with the tools and information that

will undoubtedly save lives, mitigate issues in the short term and long term, and answer questions such as:

- How can someone with limited experience write an emergency plan or lead a community through a disaster?
- How are the dots connected from the federal government to the local government?
- How can the large amount of work ahead of a new emergency manager be prioritized?
- What are the minimum requirements for an emergency management program?

Knowing How to Use the Tools

A toolbox for work is often described as a set of tools to get the job done. Unfortunately, without knowing how to use the tools or what they are for, they are useless. The concept of a “toolbox” should shift to something in which to place key tools, along with their manuals. This way everyone knows not only what is in the toolbox, but also what to do with these tools. Of course, a toolbox is not a single purchase, but something that must be built based on foundational elements. The key is identifying the elements and associated tools required.

Ensuring good emergency management requires identifying the critical components and critical areas that need to be addressed. For example, it is important to realize that, in the event of a significant incident, resources may not be immediately available. Therefore, public education and outreach plans must be a part of preparedness. By getting the general population educated, critical resources can be used for the most critical needs. Communities must also do their due diligence in preparing for large-scale events. Ensuring that key emergency operations plans are developed and well trained would best accomplish this task.

For a medical professional, the toolbox would include a stethoscope and blood pressure cuff. These tools alone would provide an understanding of the patient’s vital signs and overall condition. Emergency management needs similar tools to determine the “vital signs” of communities and measure success rates and accurate direction of emergency plans and actions. This can be accomplished with an emergency management toolbox that positions a new emergency manager for success. A toolbox that provides the basic tools needed to save lives and mitigate disaster.

An “emergency management toolbox” would consider the prospect that someone may be thrust into an emergency management position and expected to operate at a high level in a very short time.

Examples of toolkit requirements include:

- Clear straightforward information and overview of how emergency management functions are integrated with local, county, state, and federal partners – for example, National Planning Frameworks and the Comprehensive Preparedness Guide 101;
- Listing of requisite emergency plans, example plans, and best practices on creating emergency plans – for example, emergency operations plans, threat hazard identification risk assessment and hazard mitigation plan, and continuity of operations plan;
- Overview on the development of a multiyear training and exercise plan and Homeland Security Exercise and Evaluation program requirements – for example, a listing of the courses required by staff;
- Resources for various Department of Homeland Security/Federal Emergency Management Agency grants – including State Administrative Agencies (SAAs), Urban Areas Security Initiative (UASI), port security agencies, and transit security agencies – with the goal of supporting applications for grants, understanding of the administration and management of grant programs, and determination of accessible products and services; and
- Development and implementation of volunteer programs through nonprofit organizations and faith-based groups in the community to develop active disaster programs for volunteers.

This may seem straightforward and not a big deal but, for some new emergency managers, this list of examples alone can be intimidating. A good toolkit that is filled with best practices and designed to indoctrinate a new emergency manager is a great start. The information already exists and only needs to be integrated into a simple and straightforward “emergency managers toolbox,” which will continually be modified with additional – and more advanced – tools.

The challenge is for community stakeholders to work with their local emergency managers to develop a toolbox that can be used by future emergency managers, who may be thrust into these positions. After all, these stakeholders may one day need those future emergency managers during a crisis.

Robert DeLeon has 36 years in public safety experience, which includes being a chief officer in the fire service, and emergency manager for the cities of Mesa and Scottsdale, Arizona. He currently holds the position of emergency manager for the Gila River Indian Community in Arizona. He has collaborated with others in the creation of life-safety codes and public safety education. He has also collaborated in the creation of an incident management team and planning efforts for large events, which includes being involved in the planning of signature events such as the Super Bowl, professional golf tournaments, and others.

Innovations in Healthcare Disaster Management for Veterans

By Jessica Wambach Brown

Although fewer than 40 percent of U.S. veterans receive care through the U.S. Department of Veterans Affairs (VA), the agency strives to have broad access to reliable medical care during a disaster. The Veterans Emergency Management Evaluation Center and its partners are exploring ways to improve healthcare resilience both inside and outside the VA.



As healthcare providers across the United States enhance their resilience to natural and manmade disasters, a unique research organization embedded in the U.S. Department of Veterans Affairs (VA) is urging them to consider the United States' [21.5 million veterans](#) in their planning. Given its size – 1,700 [points of care](#) stretching from Maine to the Philippines – the VA manages a disaster on some scale nearly every day. To take advantage of this venue to study and test new practices in healthcare disaster management, the VA established the [Veterans Emergency Management](#)

[Evaluation Center](#) (VEMEC) at its Sepulveda Ambulatory Care Center in North Hills, California, in the summer of 2010.

“Our mission basically is to develop an evidence base for emergency management, to essentially try to have the VA serve as a national laboratory,” VEMEC Director Aram Dobalian explained to attendees at the annual Advancing and Redefining Communities for Emergency Management (ARC) conference held 1-3 December 2015 in San Diego, California.

Exchanging Lessons With the Broader Healthcare Community

Now in its sixth year, ARC serves as a platform for researchers, policymakers, and healthcare practitioners to exchange ideas about promoting resilience among veterans. The 2015 conference was held in conjunction with the [National Healthcare Coalition Preparedness Conference](#) to encourage the integration of the VA's and other veteran-focused organizations' initiatives into community-based healthcare planning efforts across the nation.

Retired Army Colonel Kevin Hanretta, the VA's assistant secretary for operations, security, and preparedness, told healthcare coalition stakeholders attending the conference that VA facilities welcome the opportunity to be involved in local preparedness planning. “A lot of times because we're federal we will be forgotten and not invited in, but I will assure you that we are a good partner,” Hanretta said. “We understand what our roles and responsibilities are and it's to the veterans in your community.” He added that the VA has proven to be an excellent resource to communities in times of need. For example, the VA cared for some 10,000 nonveterans after Hurricane Katrina struck New Orleans in 2005.

Dobalian said the expanded participation at the 2015 ARC provided an opportunity for researchers to learn about innovative research taking place outside of the VA. One initiative showcased was a post-traumatic stress disorder (PTSD) training and treatment protocol developed by the San Diego-based [Virtual Reality Medical Center](#) (VRMC). CEO Brenda

Wiederhold shared how her organization has adapted a combination of virtual reality exposure therapy and biofeedback designed to help motor vehicle and airline crash victims for use in treating military deployment-related PTSD. Today VRMC's protocols, which are administered by licensed clinical psychologists using three-dimensional computer simulations, are used in 20 VA facilities. VRMC is also working with the VA to develop a mobile treatment van that can

take the therapy to rural patients, and with partners in Europe to adapt the protocols for use in training and treating disaster responders.

"The VA has proven to be an excellent resource to communities in times of need. For example, the VA cared for some 10,000 nonveterans after Hurricane Katrina struck New Orleans in 2005."

Because only [8.3 million](#) of the country's 21.5 million veterans utilize VA healthcare services, VEMEC also used the ARC as a platform to share some of the agency's innovations with non-VA

facilities in the interest of improving care for veterans everywhere. One such resource is the VA's new [Performance Improvement Management System](#), said Mary Connelly, an emergency management specialist at the [Oak Ridge Associated Universities](#) (ORAU). ORAU modeled the interactive web-based emergency management system for VA's Office of Emergency Management after one it developed for the U.S. Department of Energy. The system's prize feature is a tool for designing and managing facility-level disaster exercises. Representatives of several non-VA healthcare systems endorsed its potential value for the broader healthcare community.

Considering Impacts Beyond Hospitals

While many healthcare preparedness initiatives focus on hospitals, VEMEC is also looking at the impacts of disasters on primary care. "When you think of healthcare in disasters, you think of people who go to the emergency room. What about routine care needs?" asked Tiffany Radcliff, a VEMEC research scientist and associate department head of Health Policy And Management at Texas A&M University. Radcliff's team used appointment data to evaluate the resilience of VA clinics in the Galveston, Texas, area during Hurricane Ike in September 2008. On average, clinics experienced a significant drop in the number of completed appointments following Ike's landfall, mostly because of road closures and downed power lines. However, most clinics returned to pre-storm appointment completion rates a week after Ike, and the worst affected areas were back on track within two weeks. VEMEC is writing up the results to inform future clinic preparedness.

Other initiatives are exploring the resilience of community-based organizations (CBO) that provide transitional housing and other services to homeless veterans. "A lot of our systems and laws are structured so that we're trying to return people to how they were before the disaster happened, and if you're already homeless to start with before the disaster, there's not that much that's being done for you," Dobalian said. VEMEC and partnering federal agencies plan to release a toolkit in February that will provide CBOs technical assistance with disaster planning and encourage local emergency management agencies and healthcare providers to leverage CBO contacts and services to better protect homeless veterans.

As more partners come to the table, Dobalian said the future of healthcare preparedness for veterans should be informed by a comprehensive national survey of veteran resilience. He also encouraged emergency managers to consider how veterans could serve as advocates for preparedness in their communities. “We tend to think of some populations, whether its veterans or other groups, as vulnerable. There may be parts that are, but they’re also potentially significant resources,” Dobalian said. “In the case of the veteran population, you have folks who have a wealth of education, experience, knowledge, training, etc. There’s a lot that they could be doing in their communities.”

For more information about planning for the healthcare needs of veterans during disasters, visit the websites of [VEMEC](#) and the [VA Office of Emergency Management](#).

Jessica Wambach Brown, M.A., is a freelance writer with years of experience in healthcare emergency preparedness, including positions at the MESH Coalition, the Northwest Healthcare Response Network, and the Department of Defense’s Center for Excellence in Disaster Management and Humanitarian Assistance. Previously, she was a reporter and editor at newspapers in Washington, Montana, and Virginia. She holds an M.A. in diplomacy and military studies from Hawai’i Pacific University and a B.A. in journalism and history from the University of Montana. She resides in the Seattle, Washington, area.

10 Perspectives on Whole Community

DomPrep’s Editor-in-Chief Catherine Feinman interviewed the following subject matter experts from various disciplines to find out their suggestions for improving the “Whole Community” effort in jurisdictions across the country. Listen to the [podcast](#).

Ron Wakeham, Embry-Riddle Aeronautical University/Worldwide

Herbert “Bud” Marshall, Nevada Dept. of Public Safety

Robi Mobley, Leidos

Yuri Graves, City of Henderson, Nevada

Christine G. Springer, University of Nevada, Las Vegas

Joe Leonard, U.S. Coast Guard (ret.)

Donald Gerkin Jr., Baltimore Police Department

James “Jim” Metzger, Amtrak

Sean Scott, “Red Guide to Recovery”

Richard Serino, National Preparedness Leadership Initiative



Children as the Catalyst for Change

By Yuri Graves

The smallest members of a community have the potential to make the biggest changes. Smokey Bear was created in the 1940s to help prevent forest fires. "Duck and Cover" was created in 1951 to teach personal protection in case of a nuclear explosion. The 2010s need a new campaign to help families prepare for a broad range of potential disasters.



A primary tenet of the whole community approach in emergency management is reaching unreached populations to build trust and enhance participation in emergency preparedness efforts within a complex community environment. Emergency managers across the United States continue to do their utmost to engage their communities in order to fully realize the skills and talents of their entire citizenry, no matter how unexpected or historically underutilized these skills may be.

Setting Baseline Readiness

Although focus should be placed on populations such as seniors, those with functional needs, those who speak English as a second language, and those in varied socioeconomic groups, one group that is sometimes forgotten is children, particularly those in elementary and middle school. This group is eager to learn and, as with the "Stop, drop, and roll" program years ago, could again be the catalyst for change in the country's emergency preparedness efforts.

Whole community preparedness begins in the home with families and individuals. Without this baseline readiness, further preparedness efforts tend to be more challenging. It is

difficult to convince residents to prepare for emergencies when they do not fully understand the disasters that they may face in their communities. Elementary and middle school children can inform their families of these hazards and how to prepare. No form of education and outreach can compete with children asking their parents, guardians, or grandparents if they are ready for emergencies and disasters. Children are a great motivation for preparing adults, so they must be a focus for such efforts.



The collective challenge is to develop a new outreach program or possibly re-invent an existing program – such as READY Kids – to engage elementary and middle school children in an innovative and modern way. It can be as simple as having them focus on creating a family plan and building a home emergency supply kit, but it has to be relevant enough to compete with video games, social media, and the current 24-hour news cycle.

Federal Government & KIDS

The federal government has a vital role as a facilitator for public/private partnerships in this product development by:

- Thinking big and connecting with private industry to utilize their innovation and marketing prowess;
- Gleaning best practices from state and local government agencies, where emergency preparedness education is accomplished with minimal resources and funding;
- Convening a group comprised of private industry, local, state, and federal agencies and organizations to develop the brand in a relatively short timeframe; and
- Conducting a national roll out of the program using social media, newspapers, magazines, television news, and talk shows, along with some sort of tangible product or character that embodies the brand.

The brand would have to be fun and memorable. It could be as simple as “KIDS make it happen!”

K – build a **Kit**

I – stay **Informed**

D – **Discuss** your family plan

S – **Survive**

The key to this entire process is finding emergency management practitioners and partners at all levels of government and in private industry that have a passion for this type of work, rather than simply another assignment or a collateral duty. Planning and leading this effort would require long-term commitments by all involved. With the right people, this vision can be achieved.

Elementary and middle school children have the potential to have a positive influence on multiple generations, including their parents and grandparents and eventually their own children. By informing them and gaining their support now, children can become the catalyst for change and, when empowered, can move everyone toward true community resilience.

Yuri Graves currently serves as the emergency management officer for the City of Henderson in Nevada. Prior to the City of Henderson, he served 20 years in the U.S. Coast Guard leading a variety of missions including disaster response, search and rescue, port security, maritime safety, illegal migrant/drug interdiction, and environmental protection. He has earned two master's degrees, the first in environmental policy and management, and the second in geology. He has also earned his certification as an International Association of Emergency Managers' Certified Emergency Manager (CEM®), a Type III Incident Commander, and an Incident Command System instructor.

Animals as Part of the Whole Community

By Anne McCann & Richard Green

Animal issues are people issues. As such, all species – household pets, service and assistance animals, agricultural animals/livestock, wildlife, and other animals (including zoo animals, shelter animals, and animals used in medical research) – must be an integral part of a community's disaster plan at the local, state, and federal levels.



Animals are integral to American society, and all hazards that pose risks to humans pose risks to animals as well. When a society's normal state is undermined, people naturally cling to family, which for many includes the animals in their lives. People have strong bonds with animals and often go to great lengths to protect them. This bond is often heightened in times of stress. There are countless examples of people putting their lives at risk to rescue animals left behind and similar examples of families not evacuating if they were not able to take their animals with them.

People are much more inclined to cooperate with emergency responders' instructions if provisions are made to safeguard their animals. In addition, certain animals can present clear human health and safety risks to emergency responders and the public if not effectively managed. Recognizing these risks, it is incumbent upon the emergency management community to prepare for and manage animal issues during responses to better protect human life.

Resources & Response Management

Understanding the full range of animal issues in the community, as well as engaging animal resources that are present within a jurisdiction, will ensure that a jurisdiction is equipped to address animal issues – both planned (e.g., evacuation and sheltering) and unplanned (e.g., escaped animals from a farm or zoo). An all-hazards/all-species approach will help during the planning process for the many response issues that animals present. All-species responses should plan for household pets, service and assistance animals, agricultural animals/livestock, wildlife, and other animals (including zoo animals, shelter animals, and animals used in medical research) within a jurisdiction. Animal issues occur in both Stafford Act and non-Stafford Act incidents, either as incidents (e.g., an animal disease outbreak) or as secondary issues within a larger incident (e.g., zoo evacuations, household pet search-and-rescue operations, and animal decontamination).

From a response management standpoint, keeping people and their animals together whenever possible greatly simplifies managing an incident. Fully integrating whole community all-hazards/all-species animal planning into the human responder framework is essential to efficiently and effectively manage incidents and coordinate resources.

Animal responses require multiagency coordination at all levels, with a well-established coordinating structure that encompasses the private sector, nongovernmental organizations,

and various levels of government. Success depends on an integrated emergency response requiring a full spectrum of capabilities. Based on its risk assessment, each jurisdiction should determine how animal response activities need to be integrated into its emergency operations plan.

Animal Response at the Local & State Levels

Specific authorities, resources, and capabilities associated with animals, including household pets and service animals, are dispersed across a broad range of response providers, government agencies, and emergency support functions. Many jurisdictions have a legally designated lead agency for animal responses. Typically, at the local level, the animal control agency is the authority having jurisdiction for animal issues. At the state level, the Department of Agriculture, Board of Animal Health, State Wildlife Management Agency, Public Health, or the Emergency Management Agency coordinate animal response activities. Whether a designated authority exists or not, or when there are diffuse authorities (e.g., when different state agencies have authority for agriculture animals, wildlife, and pets), jurisdictional emergency operations plans should clearly identify the lead agency/organization tasked with managing animal emergencies.



Emergency management officials, planners, and coordinators, as well as elected officials, should plan for plausible animal responses and, where practical, integrate existing infrastructures. Animal emergency management will always be a whole community effort – a blending of emergency management and animal welfare expertise.

The animal infrastructure at the local level includes veterinarians, farmers, animal control agencies, humane organizations, breeders, and wildlife rehabilitators. These entities should be encouraged to collaborate with government agencies to meet emergency animal needs. Many states have integrated animal response capabilities, such as state and/or county animal response teams and veterinary medical reserve corps.

Animal Response at the National Level

Nationally, the coordinating structure for animal response includes the Federal Emergency Management Agency, the U.S. Department of Agriculture, the Department of Health and Human Services, the Department of the Interior, and other federal agencies,

along with nongovernmental partners including the National Alliance of State Animal and Agricultural Emergency Programs ([NASAAEP](#)) and the National Animal Rescue and Sheltering Coalition ([NARSC](#)).

NASAAEP includes the agencies within a state that have authority to manage animal emergencies and animal resources. NASAAEP facilitates state-to-state resource sharing and has convened national subject matter experts to compile best practices, which are available to communities and states to help plan for animal disaster issues. Additionally, NASAAEP will host its 2016 Summit on Animal Emergency Management in College Station, Texas, 17-19 May 2016, to share information and best practices with animal emergency managers.

NARSC is a coalition of the leading national private sector and nongovernmental organizations that have agreed to follow the guidelines established in the National Incident Management System, train together, and share resources to provide surge capabilities, as needed, to augment animal response activities by states and local jurisdictions. During emergencies, NASAAEP and NARSC have agreed to participate in a multiagency coordination system to most effectively coordinate limited resources. This is a flexible and scalable way to effectively and efficiently support animal incident management.

In summary, animal response issues, at their core, are people issues. Animal issues are relevant to all five mission areas and the core capabilities as defined in the National Preparedness Goal. As such, animals cannot be considered independently of the human aspects of preparedness, response, and recovery issues.

For more information about how animal functions relate to the core capabilities outlined in the National Preparedness Goal, please refer to the [Community Agricultural Relationships to Federal Core Capabilities Crosswalk](#), developed by the Extension Disaster Education Network.

Anne McCann (pictured) is the national emergency programs coordinator for the U.S. Department of Agriculture's (USDA) Animal Care Program. In this capacity, she supports the U.S. Department of Homeland Security/Federal Emergency Management Agency planning initiatives, serves as program liaison to Emergency Support Function #11 (Agriculture and Natural Resources), and works with government and nongovernmental partners to build and sustain a shared national strategy and capabilities for pet/animal emergency management. Before coming to USDA, she served as an all-hazards planner with the Delaware Emergency Management Agency, supporting planning for pets, unattended children, and people with disabilities and others with access and functional needs, and as vice president of the National Alliance of State Animal and Agricultural Emergency Programs (NASAAEP).

Richard (Dick) Green is currently the senior director of disaster response for the American Society for the Prevention of Cruelty to Animals (ASPCA). Before coming to the ASPCA, he was the emergency relief manager for disasters at the International Fund for Animal Welfare (IFAW). He has responded to well over 100 international and national disasters. Over the last several years, he has presented his work in disaster preparedness and response to professional groups in China, Costa Rica, Australia, Mexico, Iceland, Canada, Chile, Philippines, Indonesia, Israel, and the United States.

Significant contribution to this article was made by David (Dave) Sacks. Since 2013, he has been the communications officer for the U.S. Department of Agriculture Animal Care, after serving four years as the organization's media spokesman. Before that, he was a public affairs specialist for the U.S. Marshals for 14 years, and an editorial assistant with Discovery Channel.

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Bleeding Control – The Next Step in Active Shooter Guidance

By Birch X. Barron

Military methods used for bleeding control on the battlefield can be just as effective on the scene of an active shooter, terrorist attack, or other mass casualty incident. It is time to teach these methods to anyone who may someday find himself or herself in a position to save a life by stopping the bleed.



The current guidance for surviving an active shooter or terrorist attack – “Run. Hide. Fight.®” – is direct and concise but incomplete. Victims with gunshot wounds and other traumatic injuries may lose blood rapidly, and their lives are dependent on immediate action from those around them. Incorporating basic bleeding control information into active shooter, terrorist attack, and mass casualty guidance can empower bystanders and save lives.

No one should die from uncontrolled bleeding. Simple techniques to slow blood loss have been used for decades, and extensive military research in Iraq and Afghanistan has demonstrated their effectiveness in treating injuries from gun violence and attacks involving improvised explosive devices. Without intervention, severe-but-controllable hemorrhage can cause death in as little as five minutes, and many victims may be beyond rescue by the time trained medical teams arrive on scene.



As the United States builds resilience in the face of increasing violence, lessons must be taken from experiences on the battlefield. Following shootings and mass casualty incidents, rapid intervention by bystanders, law enforcement officers, and other nonmedically trained responders is critical to patient survival. Techniques to stabilize traumatic bleeding are not complicated to learn, and initiatives to promote bleeding control can be easily incorporated into community and first responder preparedness efforts.

Step 1: Educate

Opportunities to learn bleeding control techniques should be promoted publicly and made available to the entire community. Special emphasis should be placed on training all law enforcement officers and nonmedical first responders to use bleeding control techniques for self-care and the care of others. Essential skills include safely identifying the source of bleeding, packing and compressing a wound, and applying pre-made or improvised tourniquets as necessary to slow the rapid loss of blood. Educational resources are readily available online.

Step 2: Improve Access to Life-Saving Equipment

Essential bleeding control supplies such as gloves, hemostatic gauze, and tourniquets should be purchased and made easily accessible in high-risk public locations. Emergency medical services (EMS) personnel, law enforcement officers, and other first responders should be equipped with bleeding control supplies to carry in their vehicles or on their person.

Step 3: Incorporate Bleeding Control Initiatives into Existing Policy

Plans and policies that pertain to active shooter and intentional mass casualty events should be updated to include guidance and support for bleeding control initiatives. To maximize community resilience, bleeding control initiatives should extend beyond government agencies to private sector businesses and professional, community, social, and faith-based organizations.

“Incorporating basic bleeding control information into active shooter, terrorist attack, and mass casualty guidance can empower bystanders and save lives.”

In the wake of recent mass shootings – in San Bernardino, California; Paris, France; and Colorado Springs, Colorado – it is increasingly clear that improved survival lies in the hands of the people within close proximity. Bleeding-control initiatives empower bystanders to take action, and the skills learned are applicable to a wide variety of emergencies. A new step is being added to improve survival within the community: Run. Hide. Fight. Stop the bleed.

The DHS [Stop the Bleed](#) initiative is a resource with simple materials for public distribution. Detailed hemorrhage control guidance can be found in the [Hartford Consensus](#) document produced by the Joint Committee to Create a National Policy to Enhance Survivability from Intentional Mass-Casualty and Active Shooter Events.

Birch Barron, MSPH, is a senior policy analyst with the University of Maryland Center for Health and Homeland Security (CHHS). He currently serves as the senior advisor to the medical director at the Howard County Department of Fire & Rescue Services and as an emergency management specialist with the Howard County Office of Emergency Management. Prior to his work with CHHS, he has led local and international emergency response efforts as a firefighter, educator, project manager, and Peace Corps volunteer. He holds a Master of Science degree from the Johns Hopkins Bloomberg School of Public Health and a BA in Psychology from Linfield College

Uncertain Impact of Critical Biosecurity Reports

By Robert C. Hutchinson

Although many lessons have been learned from Ebola and other infectious diseases, planning needs are quickly diverted when the previous threat is overshadowed by another emerging or re-emerging disease, or other homeland security threat. However, without adequate prioritization, planning, and preparedness, the nation may be set for failure when the next unexpected threat presents.

In October 2015, the Blue Ribbon Study Panel on Biodefense issued its critical and detailed report entitled [*A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts*](#). The report is comprehensive and thought provoking by identifying and reinforcing numerous vulnerabilities and inadequacies regarding planning and preparedness for a myriad of biosecurity, biodefense, and public health threats.

The blue ribbon panel report identified 33 recommendations for national leaders and policy makers to consider and implement, but any coordinated national response to them remains to be seen. The importance of these recommendations can be best measured by a post-analysis of the Ebola virus outbreak and its impact on the United States in 2014. A year after the significant outbreak, more interest appears focused on the lessons learned regarding individual rights and tactical concerns rather than strategic planning and the apparent inadequacies of federal, state, and local biodefense preparedness.

From the blue ribbon panel report to several other important year-end public health studies and findings addressing the Ebola virus and other outbreaks, it remains apparent that a whole of community approach is required to plan and prepare for these biosecurity threats. With the assistance of these reports, the threats and vulnerabilities are restated but lead to the question, "What will be the impact?"

Blue Ribbon Panel Report

The blue ribbon panel was established in 2014 to assess gaps and provide recommendations to improve biodefense in the United States. The panel obtained information from all levels of government, academia, and the private sector pertaining to biological attacks and emerging and re-emerging infectious diseases. The panel began with *Homeland Security Presidential Directive 10 – Biodefense for the 21st Century (2004)* for the pillars of biodefense and then expanded well beyond it for an extensive analysis.

According to the report, the nation does not afford the biological threat the same level of attention as it does other threats:

- There is no centralized leader for biodefense;
- There is no comprehensive national strategic plan for biodefense;
- There is no all-inclusive dedicated budget for biodefense; and
- There is no single leader to control, prioritize, coordinate, and hold agencies accountable for working toward common national biodefense.

The report reinforced the well-documented concerns that the nation lacks leadership, coordination, collaboration, and innovation to respond to a biological crisis. This failure was noted in the report as being magnified due to the responsibility for biodefense being so dispersed throughout the federal government. The panel members developed a unique concept of an overarching leader who recognizes the severity of the biological threat and possesses the authority and political will to defend against it – the vice president of the United States.

Panel Recommendations

The blue ribbon panel recommendations and their action items present a clear pathway to improve, enhance, and unify national biodefense preparedness. From the empowerment of the vice president to the encouragement for a unified congressional budget, a framework has been established with short-, medium-, and long-term goals. The framework is a whole of community approach for biodefense involving defense, medical services, animal health, law enforcement, public health, and other biosurveillance partners.

The report stressed the need for national leadership to elevate collaboration since biodefense is obviously not solely a federal function. The panel believed that the federal government must aid state, local, territorial, and tribal governments in enhancing their capabilities and support improved training. Intergovernmental and multidisciplinary efforts are needed to adequately defend the nation against biological threats.

“It is very likely that these and other infectious diseases shall emerge, re-emerge, or mutate in the future and threaten countries, regions, and the world with little or no notice.”

Unfortunately, if history is a guide, this report may not gain full traction until after a serious or catastrophic biosecurity incident. Fortunately, the report can be utilized as a foundation or framework for future congressional hearings and legislation in a fashion such as the post-9/11 terrorist attack report. Until then, the after action analysis of the recent Ebola virus outbreak may also assist in driving discussions, planning, and change.

Lessons Learned (or Not) From Ebola

As the Ebola virus recedes back into its unconfirmed reservoir in Africa and no further new patients are encountered in the United States, the nation is able to focus on other pressing homeland security and public health issues. Regrettably, there is no shortage of emerging and expanding political and security issues throughout the nation and world. Unfortunately, this refocus has permitted the redirection of priorities and resources away from the lessons learned during the Ebola outbreak.

The disappearance of the Ebola virus from the United States has permitted the analysis of quarantine and isolation authorities, plans, and practices through an individual rights lens rather than a larger strategic perspective for the next greater pathogenic threat. As an example, a [December 2015 article](#) in the *New York Times* identified the persisting questions regarding quarantine enforcement a year after Ebola in the United States. The article described the quarantine challenges ranging from personal hygiene to psychological support

to legal notices. The execution of the state quarantines demonstrated a lack of planning and preparedness by all of the parties with few clear answers.

Closely following this article, the *New York Times* posted an [editorial on 5 December 2015](#) about the unfair treatment of Ebola healthcare workers. The editorial stated that, “Instead of helping, quarantines actually made the fight against Ebola more difficult by discouraging health care workers from going to Africa. Quarantines and monitoring also needlessly strain state and local health budgets without making the public any safer than self-monitoring would.”

This editorial opinion was successfully expressed due to the very limited effect of Ebola in the United States in 2014. The editorial concluded that, “Health officials in the United States should study our own response to the epidemic for lessons about what should – and should not – be done when the next germ threatens to hit these shores.” If the Ebola public health and homeland security threat expanded beyond its very few locations and affected more people in the United States, both of the *New York Times* postings would likely have stressed a different perspective regarding personal rights as compared to greater public health issues.

The lessons not fully learned or implemented from the Ebola outbreak are not limited to the quarantine of healthcare workers, but to another interrelated sector that is crucial for this subject matter – air transportation, travel, and trade.

Plan Still Needed for Air Travel

A Government Accountability Office (GAO) [report](#) issued in December 2015 identified the continued need for a comprehensive federal preparedness plan for the U.S. aviation system to address communicable diseases. GAO was requested to analyze this subject due to the many challenges encountered during the Ebola virus outbreak. GAO found that the 14 airports and three airlines that they reviewed possessed high-level plans for responding to communicable diseases, but there was no comprehensive national preparedness plan.

Beyond the human impact and public health threat, there can be enormous economic consequences of a serious emerging pathogenic threat. According to the GAO report, the International Air Transport Association estimated the overall cost at 33 billion dollars of global gross domestic product in 2003 for the Severe Acute Respiratory Syndrome (SARS) outbreak. Since 2003, other novel or re-emerging pathogens, such as H5N1, H1N1, H7N9, and Middle East Respiratory Syndrome (MERS), have affected air travel and global economics. The establishment of a national preparedness plan, with a whole of community approach, remains critical for many reasons to include the consequences for the national economy.

The GAO report concluded with the following recommendation:

“To help improve the U.S. aviation sector’s preparedness for future communicable disease threats from abroad, we recommend that the Secretary of Transportation work with relevant stakeholders, such as the Department of Health and Human Services, to develop a national aviation-preparedness plan for communicable disease outbreaks. Such a plan could establish a mechanism for coordination between the aviation and public health sectors and provides clear and transparent planning assumptions for a variety of types and levels of communicable disease threats.”

The speed and ease of air travel compounds the challenges of preparedness by shortening reaction time to identify and interdict a biosecurity or public health threat. A review of the previous outbreaks and epidemics can be startling enough, but there are surely additional known and unknown concerns looming on the international horizon as identified by governments and health organizations.

Top Emerging Diseases

In December 2015, the World Health Organization (WHO) published a [list of the top emerging diseases](#) likely to cause major epidemics. A panel of scientists and public health experts convened by WHO met to prioritize the top emerging pathogens likely to cause severe outbreaks in the near future, and for which few or no medical countermeasures exist. These diseases will provide the basis for work on the WHO blueprint for preparedness to help control potential future outbreaks.

The initial WHO list of disease priorities needing urgent research and development attention includes: [Crimean Congo haemorrhagic fever](#), [Ebola virus disease](#), [Marburg](#), [Lassa fever](#), [MERS](#) and [SARS](#) coronavirus diseases, [Nipah](#), and [Rift Valley fever](#). According to WHO, the list will be reviewed annually or when new diseases emerge. It is very likely that these and other infectious diseases shall emerge, re-emerge, or mutate in the future and threaten countries, regions, and the world with little or no notice.

Protecting From Infectious Diseases

Also in December 2015, the Trust for America's Health and Robert Wood Johnson Foundation issued [Outbreaks: Protecting Americans From Infectious Disease 2015](#). The report stressed that the nation does not sufficiently invest in basic protections that could help avoid significant numbers of outbreaks and save billions of dollars in unnecessary healthcare costs, to include concerns such as MERS, Ebola, and influenza.

The report encourages an increase in resources to maintain and modernize public health capabilities and to have consistent and science-based policies across the country. One of the many areas identified for attention was quarantine enforcement with a whole of community focus:

“Movement and monitoring guidance, and its appropriate application to at-risk persons is essential to containing potential infectious outbreaks. Federal, state and local public health and policy leaders should come together and agree on a common decision-making framework ahead of the next outbreak to help states make movement and monitoring decisions that (1) are based upon the best available scientific and medical evidence; (2) preserve social and economic continuity to the greatest extent possible; and (3) are in the best interest of public health.”

The above statement is a common theme that can be found in other after action reports and studies without many observable and easily measurable results. These notices and warnings should be clearly received from the recent outbreaks. However, these warnings appear to be ignored when the threat recedes and are overtaken by other events.

The Future Impact

From the blue ribbon panel report to other important year-end public health studies and findings addressing the Ebola virus and other disease outbreaks, the importance of a whole

of community approach is reconfirmed for the planning and preparing for biosecurity and public health threats. Although extremely important, especially to subject matter experts and interested policy makers, the lasting impact is uncertain: Will these after actions reports and studies affect change for planning and preparedness or just be re-read after the next significant biodefense, biosecurity or public health incident?

Time shall tell if the nation chooses to be proactive or reactive for biodefense, biosecurity, and public health threats. The blueprints and frameworks surely exist to educate, support, and prepare the nation for the next black swan event. Therefore, failures shall not be from a lack of knowledge or warning, but from a lack of prioritization, planning, and preparedness.

The opinions expressed herein are solely those of the author in his individual capacity, and do not necessarily represent the views of his agency, department or the United States government.

Robert C. Hutchinson is a Deputy Special Agent in Charge (DSAC) with the U.S. Department of Homeland Security, U.S. Immigration and Customs Enforcement's Homeland Security Investigations in Miami, Florida. He was previously the deputy director and acting director for the agency's national emergency preparedness division. His writings, media interviews, and presentations often address the important need for coordination and collaboration between the fields of public health and law enforcement. He received his graduate degrees at the University of Delaware in public administration and Naval Postgraduate School in homeland security studies.

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The complex block features a promotional banner for the Asia Emergency Management Expo & Conference. It includes the AEME (Asia Emergency Management Expo) and AEMC (Asia Emergency Management Conference) logos, the event title, dates (10-12 May 2016), and location (The Venetian Macao). Below the text are four images: an airplane at a gate, a crowd of people, a modern highway interchange, and a city skyline at night. Contact information is provided at the bottom of the banner.

The Whole Community Paradigm Shift

By Anthony S. Mangeri

Over the years, communities developed a dependence on the federal government for assistance following a disaster. However, such actions are not sustainable and require the support of partners throughout each community. In the modern threat environment, the need for a whole community approach is more important than ever.



Since disasters affect the entire community, the most successful community emergency management programs involve a broad range of community stakeholders. Emergency managers create a platform for preparedness and resilience by bringing together everyone with an interest and investment in the community. Nearly five years since the implementation of Presidential Policy Directive 8 ([PPD-8](#)) on National Preparedness, the directive continues to place the responsibility for preparedness on each member of the community in order to strengthen national and community resilience.

Engage, Empower & Guide

Emergency management programs are designed to restore stability in times of crisis, but government cannot do this alone. Since the Federal Emergency Management Agency (FEMA) defined the “Whole Community” approach, there has been a paradigm shift from government providing response and recovery services to everyone being part of the preparedness, response, recovery, and even mitigation stages of a disaster. By engaging residents and private stakeholders, emergency managers can build teams that are ready to protect their communities from threats and prepare effective disaster response and recovery actions.

Emergency program managers continue to look for assistance with developing the resources necessary for a high level of community resilience and preparedness. However, funding new initiatives is a significant concern. Managers of such programs are competing for public safety funds and need to be strategic in seeking additional resources. More than ever, emergency managers need to engage community leaders, residents, and private sector partners to manage risks and prepare for threats. Local emergency managers are also becoming far more reliant on public, private, and even nonprofit-sector stakeholders to ensure sustainability and resilience at the community level.

Much of the concept of engaging the whole community to serve as partners in preparedness is not new to everyone. FEMA’s 2011 publication, “A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action” ([FDOC 104-008-1](#)), provided guidance for emergency managers to develop strategies for engaging community stakeholders. FEMA offers the following strategic themes for incorporating the whole community approach into local emergency management programs:

- Understand community complexity;
- Recognize community capabilities and needs;
- Foster relationships with community leaders;

- Build and maintain partnerships;
- Empower local action; and
- Leverage and strengthen social infrastructure, networks, and assets.

“If you have the right people, you don’t need a lot of money. Leverage the resources you have and the people within your organization,” said Irene Navis, assistant emergency manager/plans coordinator for Clark County Office of Emergency Management in Nevada, during a DomPrep roundtable discussion in Las Vegas, Nevada, on 16 November 2015.

Getting Started & Going Forward

One often-overlooked whole community strategy is developing strong relationships with private sector partners. There is no better way to engage both corporate and community resilience than to forge a strong public-private partnership. These strategic relationships between government programs and private and nonprofit sectors allow for an emphasis on understanding community needs and developing communitywide capabilities to support disaster preparedness, response, recovery, and mitigation efforts.

However, like any corporate decision, private sector partners need to be shown the value of their investments in community resilience and supporting emergency management initiatives. Neither government nor private sector stakeholders alone have the capabilities or resources to build sustainable and resilient communities. Yet, together, they can develop emergency plans, policies, and procedures that promote truly sustainable and resilient communities.

To fully engage the whole community, emergency program managers must begin with the development of their Local Emergency Planning Committees (LEPCs). One role of the LEPC is to assist with building support for community-based emergency preparedness and prevention initiatives. Selecting LEPC members is critical to engaging the whole community because each LEPC needs: (a) to provide an opportunity for community leaders and preparedness partners to have a say in emergency management initiatives; and (b) to engage representatives from critical infrastructures within the community – including schools, hospitals, public works, and public health agencies. In addition, faith-based and cultural leaders, local media, and other organizations can assist in engaging the community. Individual members of the LEPC should be selected because of their expertise, experience, and commitment to preparedness, sustainability, and resilience.

It is not inherent in first responders to have outreach and community development skills. There remains a need for the Emergency Management Institute and other training and education partners to develop curriculum in outreach and business development. There is also a need to have clear development strategies and benchmarks to assess the success of engaging the community. Unfortunately, there is still a lack of data on outcomes of incorporating the whole community approach into emergency management initiatives.

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