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By Allegra Balmadier



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The Value of Knowledge & Training in Response Operations,
By Anthony S. Mangeri

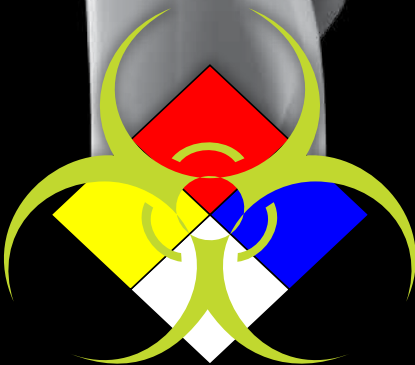
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Modern Responses to Today's Disasters

By Catherine L. Feinman



Disaster plans of previous generations do not adequately reflect the risks, threats, and needs of modern society. Changing demographics, aging populations, and increasing natural and human-caused disasters each reinforce the need for emergency and disaster preparedness professionals to gain the [knowledge and training](#) needed to make informed decisions to mitigate threats and execute effective responses when mitigation is not enough.

In 2015, the U.S. Census estimated that [47.8 million](#) people in the United States were at least 65 years of age. By the year 2060, that number is estimated to more than double. As the population ages, the potential for a spike in people with [chronic illnesses](#) also increases. These factors must be considered when developing emergency preparedness and response plans.

The [National Institute on Drug Abuse](#) reported that drug-related deaths have risen every year since 2002. As more synthetic drugs like K2 (Spice) and fentanyl permeate through communities, these numbers are likely to rise even more in 2019. In addition, [people with drug addictions](#) may pose threats to themselves and others. Such incidents raise additional concern and threaten the safety of not only the public, but also the emergency responders deployed to protect their communities.

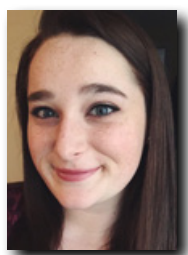
Children – whether of the human or [animal](#) variety – are often not able to care for themselves. Past active shooter incidents have inspired some school-aged children to take action against school violence and encouraged advocates to push for [more security](#) and infrastructure protection. However, acts of violence like the mass shooting at a Pittsburgh synagogue on 27 October 2018 continue to take the lives of innocent civilians and threaten the lives of those responding to the incident.

What each of these factors has in common is vulnerability – vulnerability of people and animals to protect themselves from risks and threats as well as the physical and psychological vulnerabilities of those tasked with responding to disasters. Addressing the challenges of current emergency preparedness and response environments requires a whole community approach, including collecting data, examining best practices, and analyzing potential effects of public safety threats. Emergency preparedness and response plans must continually be reviewed and updated to provide the most effective responses to today's disasters.

Helping the Chronically Ill During Natural Disasters

By Allegra Balmadier

Although [2017 was a historic year for natural disasters](#), 2018 is turning out to be more of the same. Filled with wildfires, tornadoes, floods, tropical systems, and the devastating [Hurricanes Florence and Michael](#), it appears the frequency of natural disasters is increasing. Preparedness professionals face challenges meeting the needs of everyone impacted by such events, especially those with [chronic conditions](#). Fortunately, with pre-disaster planning and post-disaster recovery and evaluation, preparedness professionals can better help the most vulnerable access the resources they need.



Individuals with [chronic conditions](#) typically face an array of daily challenges – even without an impending natural disaster. Taking multiple medications, relying on essential treatments, using medical equipment, and making regular visits to a health care provider are often part of the routine. When a disaster strikes, all that is upended. Critical medications, treatments, and caregivers may not be available. Mobility may be restricted and, if the power is out, medical equipment may not work. Without needed health care, a chronic condition can quickly lead to failing health – even death.

To make matters worse, data from the U.S. Centers for Disease Control and Prevention ([CDC](#)) indicate that individuals with chronic conditions are prevalent in many states that are most susceptible to natural disasters. Nursing@USC, the [online FNP program](#) from the University of Southern California, created a [visualization](#) that depicts the number of people living with chronic conditions in each state.

Planning for Disaster

Preparedness professionals can help the vulnerable in their communities by encouraging them and their caregivers to create a contingency plan before disaster strikes. It should include:

- A clear understanding of all medical conditions, needed medications, and treatments;
- An updated list of medications and any significant health history that may affect care;
- A medical alert bracelet that identifies a chronic condition or specific care requirement;
- A 10-day supply of all necessary medications;
- A plan to deal with loss of power – especially if there is equipment dependent on electricity, such as an oxygen concentrator;

- A supply of emergency food, battery-operated flashlights, and a change of clothes;
- Devices at home that monitor vital signs and changes in physical health;
- Assurance that family members and close neighbors know how to administer care;
- An evacuation plan, including identifying stable buildings in the community for shelter and registering with first responders to assist with evacuation needs;
- Sign-up for community warning systems for weather alerts;
- Communication plan with family members in the event of lost power; and
- A list of emergency phone numbers for providers and medical facilities in an accessible place.

It is also important for preparedness professionals to help the vulnerable in their communities learn more about available resources, so they will know where to seek help after a natural disaster. For instance, [Healthcare Ready](#) provides an array of resources for those impacted by disasters, including Rx Open, which lists pharmacies that are open in an affected disaster area.

Providing Care During & After a Disaster

During and after a disaster, one of the greatest challenges for individuals with chronic conditions is achieving [continuity of care](#). Hospitals and clinics may not be available, shelters may lack essential supplies, and individuals may be trapped in their homes. First responders and health care volunteers must establish priorities and remain flexible.

Since local resources are rarely adequate to deal with such challenges, partnering with government and relief organizations is essential to gain access to vulnerable populations and provide needed supplies and care. For instance, in the Carolina regions devastated by Florence-related flooding, [Direct Relief](#) staff members were on the ground pre- and post-storm delivering requested emergency medical aid and coordinating with local health staff. The organization also provided emergency medical backpacks filled with medicines to manage chronic conditions and other critical medicines and supplies to one local clinic. This made it possible for the clinic's staff



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to provide medical care at a local shelter where several hundred residents had been living since Florence hit.

Post-Disaster Follow-Up

Once the event has passed, the difficulties for those with chronic conditions may be just starting. When medications run out, when oxygen tanks are empty, when it is time for another session of dialysis, the most vulnerable populations may begin to feel the deepest impact of the disaster.

That is why pre-disaster planning is so essential. When preparedness professionals take time to understand the needs of individuals in their communities, they are better prepared to follow up and provide the type of support required to address chronic health issues. Some are

even using [predictive algorithms](#) to better understand who may need the most help after a disaster.

Preparedness and response professionals must be ready before, during, and after disasters to help manage populations inflicted with various chronic conditions.

Post-disaster evaluation is also critical to better understand which pre-disaster strategies were most effective and where improvement is needed. For instance, in "[Emergency and Disaster Preparedness for Chronically Ill Patients: A Review](#)

[of Recommendations](#)," the authors used specific criteria to conduct a retrospective analysis of relevant guidelines addressing the needs of individuals with chronic illnesses during disasters. Although they were able to create a summary of disaster preparedness recommendations for major chronic illnesses, the authors also introduced three suggestions to improve disaster preparedness:

- More evidence-based recommendations, because many were based on anecdotal evidence or expert opinions;
- More consistent messaging regarding recommendations to prevent confusion for patients and health care providers; and
- Increased feasibility for patients, because what is theoretically sound may not be practical for patients who are often limited in a variety of ways.

When a natural disaster strikes, individuals with chronic illnesses are among the most vulnerable. With effective pre-disaster planning and post-disaster recovery, preparedness and response professionals can help those in need better weather the storm.

Allegra Balmadier is a digital public relations coordinator covering health at 2U Inc. She supports outreach for public health and clinical health programs, like the nursing program at the University of Southern California.

Planning for Animals in an Emergency Management Strategy

By Heather Kitchen

Throughout history, animals and pets have held varying degrees of importance to the people who care for them. They have been worshipped, raised for food, served as co-workers on farms, or just loved as companions. Regardless of their “worth,” when something disrupts the ability to care for those animals, outside help is needed. The outside help currently needed is limited when it comes to rescuing, caring for, and sheltering pets because it has not been fully integrated into emergency management’s planning activities.



Pets are not just animals that share space with humans. They are now a significant part of family life. This was especially noticed in 2005 after Hurricane Katrina, where the estimated number of pets lost, abandoned, or deceased was significant – one article submitted to the Journal of Animal Law & Ethics in 2010 stated that “600,000 animals either died or were left without shelter.” That storm brought with it an outcry to change how animal planning for disasters is addressed. This led to the Pets Evacuation and Transportation Standards Act of 2006 (PETS). Although not a perfect solution, the PETS Act brought to light a reality that needed to be addressed – how to handle pet care, evacuation, and sheltering during disasters.

Great strides have been made since that storm, but numerous disasters have shown that improvement is still needed. The PETS Act created a mandate to have a “plan” for animals in disasters, but it was only a base framework for state and local governments to interpret. Having only a base framework as a requirement, most states and jurisdictions created the bare minimum of a plan, which allowed them to “check the box.” Although there have been areas of the country that have gone beyond the minimum requirements in planning for animals such as some of the southern states that deal with disasters annually, those jurisdictions are not the norm.

Why Pets Are Left Behind & What Happens to Them

During many disasters, pets that are left behind – whether stranded on roofs or floating on debris – are scared and trying to instinctively survive. There are many reasons pets may be left behind when disasters strike: the owners are not home and have no alternate plan for that scenario; or the owners have not practiced evacuation procedures to get the animals comfortable with those procedures. This happens for multiple reasons, but the most prominent is due to a lack of direction given to the public surrounding pet evacuation. The messaging that is sent out for people to evacuate often does not include what to do with pets. If they must evacuate, with or without their pets, they need to know where help will be



provided. They also need to receive general safety information for themselves and their pets, such as detailed evacuation messaging, shelter locations, types of shelters available, and detailed evacuation routes.

People that do not evacuate with their pets put first responders in more danger. Thus, first responders and animal rescue groups go back into the disaster

area to rescue animals left behind. In addition, responders may have to help people who became stranded after trying to re-enter the disaster area to retrieve their pets. First responders could also become stranded when assisting with such rescue efforts. If rescue operations as well as response and recovery efforts are delayed and take longer to complete, then a greater number of responders may be needed to accomplish the initial tasks.

Alleviating Confusion

People love their pets and, for many, they are as important as children. Everything possible has been done to ensure clear and consistent messaging for the safety of human children. Considering the increased status of pets as family members, disaster preparedness professions should consider similar messaging with regard to the safety of animals.

Although it takes time, money, and commitment, there are ways that the emergency management profession could help alleviate the most common factor associated with people not evacuating – pet ownership. Opportunities include:

- Finding a champion for the cause, whether an emergency management employee, a volunteer, or someone who works for the local animal shelter or rescue group. Find a partner in someone that already has a passion for animals and can help spread the word about pet care and sheltering.
- Putting together a survey to find out what community members know and do not know when it comes to pet preparedness before, during, and after a disaster.
- Putting together an outreach campaign designed around pet and animal preparedness, including what was learned from the community survey to help narrow the focus on what the community needs.
- Developing outreach and collaboration with local animal shelters and rescue organizations so everyone is on the same page and can create more consistent messaging that is spread further.

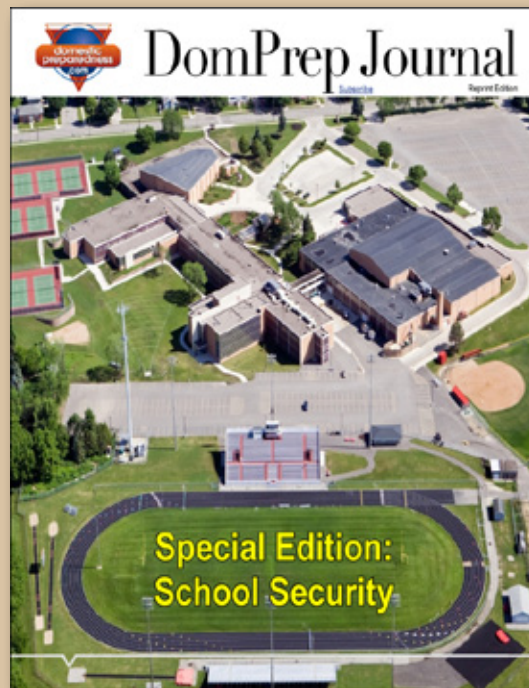
- Creating messaging templates ahead of disasters. These could be as easy as adding a sentence to the end of one that already exists to include information about what can be done for pets and where pets can be taken for shelter and care.

It is helpful to do a little research before developing a messaging campaign, as many best practices are already publicly available.

If emergency management could take small steps toward including pets in their emergency and preparedness messaging, then they would be one step closer to achieving the maximum number of lives saved in a disaster. With pre-planning and collaboration, agencies could reduce the number of pets (and owners) left in the hazard area.

Heather Kitchen, CEM, is a Program Specialist I with Greater Spokane Emergency Management in Washington State. She received her Certified Emergency Manager credential from the International Association of Emergency Management in 2011. She has been in emergency management since 2007 and has responded to various disasters including a landslide and wildfires. She has been at the forefront of advocating for increased pet preparedness in Spokane County by working with local animal groups to build relationships and enhance outreach campaigns.

Don't miss this Special Edition...



Active Threat Response in Nashua, New Hampshire

By Mark A. Hastings

Prior to 2013, the active threat plans in Nashua, New Hampshire (NH) consisted of separate responses by law enforcement, fire, and emergency medical services (EMS). There was no coordinated plan. Involvement with area hospitals was not considered other than receiving patients. The Nashua Police SWAT Team and the Nashua Office of Emergency Management recognized this gap. This case study shares this city's solution for creating and testing an integrated active threat "one plan" (the integration of several previously existing plans).



Recognizing an active threat planning gap in 2013, SWAT leadership moved forward. Under the guidance of SWAT members who served in Iraq and Afghanistan and trained in tactical combat casualty care ([TCCC](#)), tactical EMS response was developed using the same procedures. By the end of 2014, the entire SWAT team was trained using the civilian tactical emergency casualty care ([TECC](#)) equivalent. In 2015, the same training was pushed out to all members of the Nashua Police Department. All cruisers carried tactical "go bags," replacing traditional first aid kits. The go bags were equipped with supplies endorsed by the [Committee on Tactical Combat Casualty Care](#).

Developing the "One Plan"

Southern New Hampshire Medical Center (SNHMC), a clinical affiliate of Massachusetts General Hospital, is the medical resource hospital for the SWAT emergency medical responders. Until the incorporation of TECC, this support focused on maintaining the skill sets of SWAT officers who were also emergency medical technicians (EMTs). When asked to move forward in supporting a TECC program, response was immediately favorable. Part of this commitment was the inclusion of the medical director of the Emergency Department (Dr. Joseph Leahy) and the director of Emergency Management, EMS, and Trauma (Mark Hastings, RN) as members of the tactical EMS unit directly attached to SWAT. Additional review of skill sets and support came from Dr. David King from the Massachusetts General Hospital Division of Trauma, Emergency Surgery, and Surgical Critical Care. King is also a lieutenant colonel with the U.S. Army Joint Special Operations Command.

Later in 2015, training officers from Los Angeles Police Department SWAT came to Nashua to conduct training for southern NH and northern Massachusetts SWAT officers. Tactics included the incorporation of TECC and Rescue Task Force (RTF) with EMS providers from American Medical Response (AMR) Ambulance. Although successful, it was recognized that EMS resources were limited and consideration was given to incorporating the Nashua Fire Department into the RTF role. Discussions began. There were concerns that efforts could be difficult given the past history of distinct delineations in emergency response roles.

Early in 2016, the Nashua Office of Emergency Management brought together the leadership of Nashua SWAT, Nashua Fire, AMR, and SNHMC, as well as the Federal Bureau of Investigation and NH Homeland Security & Emergency Management. The focus was to review a 2015 report compiled by the InterAgency Board entitled, "[Improving Active Shooter/Hostile Event Response: Best Practices and Recommendations for Integrating Law Enforcement, Fire, and EMS.](#)" The collective focus was to recognize the shortcomings as noted in the executive summary and to integrate the 10 best practices into a single response plan (the "one plan") for active threat events within the city of Nashua. As with any like planning process, emergency responders have varying opinions as to how things should be managed. The goal was to make sure all responders were using and proficient with the same equipment and incorporating an agreed upon command structure.

Training Across Disciplines

After the decision was made to incorporate Nashua Fire into the RTF role, the first hurdle was to enhance the EMT training with TECC training. This was done using trained members of the SWAT team and staff from SNHMC. After classroom and hands-on training was completed, firefighters were taught police response tactics in the hot, warm, and cold zone scenarios and where they fit in the RTF role. Each training session ended with walk-throughs treating and evacuating moulaged mannequins from the warm zone to the cold zone. These steps greatly expanded the response capabilities within the city given that each engine and ladder company was staffed with four firefighter/EMTs, thus preserving AMR for rapid evacuation purposes.

This training gave birth to the idea of conducting an active threat functional exercise to test these new skills. SNHMC volunteered to host the event wanting to also incorporate its own staff in hostile event trainings. After reviewing videos of similar exercises held around the country, both the city and SNHMC planning groups decided to train using shortened exercise vignettes lasting about 30 minutes each, with different groups running through different scenarios. It was felt that conducting the traditional single, drawn-out exercise would be effective in training only a small number of participants. By conducting more short events, a larger number of city and SNHMC participants could be trained.



Testing the “One Plan”

After several months of planning meetings with separate city and SNHMC groups, both were merged together for a large tabletop exercise. This provided the opportunity for all to learn each other’s scope of training and responses. One of the biggest takeaways was having the opportunity to work with each other on a first name basis. It truly does create a cohesive team effort. Also by this time, through U.S. Department of Homeland Security grants, the Nashua Office of Emergency Management was able to fund the purchase of equipment commonly used in TECC. This meant every officer had at least one tourniquet. Every cruiser, engine company, and ladder company had large go-bags containing tourniquets, chest seals, combat gauze, etc. Additional training was provided to all on a high-fidelity trauma mannequin at SNHMC.

The city of Nashua, NH, shares how it developed and tested its joint active threat response plan to better prepare all community stakeholders.

company whose task was to record the exercise from as many vantage points as possible, inclusive of multiple interviews of participants. The goal was to create a [Joint Active Threat Exercise training video](#) that was used in later trainings and conferences.

The functional exercise was used to test TECC skill sets and hospital staff responses as taught in “[Avoid, Deny, Defend](#)” training. As with any such project, training has to be and is ongoing to keep skill sets locked in. The bigger test was to finish the “one plan” and repeat an exercise in the form of a command level tabletop event, which was conducted in August 2018. The after action report is pending.

Mark Hastings, RN, is the director of emergency management and EMS and trauma coordinator for Southern New Hampshire Medical Center (SNHMC). He began his career at SNHMC in 1988 in the Emergency Department and has worked in Surgical Services and Invasive Cardiology. He also worked in the Emergency Departments of Monadnock Community Hospital and Tufts Medical Center. His health care career began in the U.S. Air Force medical corps serving in the 86th Tactical Hospital at Ramstein Air Base, Germany. Upon his return home to New Hampshire, he worked as a volunteer EMT while attending the NHTI nursing program and later obtained a BS in health care administration from St. Joseph’s College in Maine. He has completed several emergency management programs at the Center for Domestic Preparedness in Anniston, Alabama, and is certified as a Tactical Emergency Casualty Care provider. He is a member of: Greater Nashua Local Emergency Planning Committee; Greater Nashua Healthcare Emergency Response Coalition; State of NH Trauma Medical Review Committee; paramedic academic advisory boards for the New England EMS Institute and New Hampshire Technical Institute; Homeland & International Security Program Advisory Board at Rivier University; and Nashua Police SWAT Tactical EMS unit.

The Opioid Crisis & Its Impact on Public Safety

By Catherine L. Feinman

The United States is in the midst of an epidemic of addiction to opioids and fentanyl. On 18 September 2018, DomPrep hosted a roundtable discussion at MedStar NRH Rehabilitation Network in Washington, DC, to discuss this threat. The three-hour conversation led by Craig DeAtley, PA-C, emergency manager for MedStar System, examined the extent of the problem, including the harmful risks to operational responders – people who are in physical contact with people as part of their daily work – from fentanyl/opioid exposure. Key discussion points summarized in this article included: impacts on public safety, data collection, best practices, personnel protection, and whole community collaboration.



According to the Centers for Disease Control and Prevention, overdose deaths in the United States totaled more than [72,000 in 2017](#), with almost 30,000 of these deaths being attributed to fentanyl and fentanyl analogs (synthetic opioids). This statistic is almost 10,000 more deaths than in 2016 and more than three times higher than in 2002. Despite the significant number of deaths, the impact of the opioid crisis is far greater in volume than confirmed data reflect. The data sometimes differ between jurisdictions because the primary and secondary causes of death are recorded differently – for example, a responder may describe the cause in the narrative portion of a patient care report rather than using a more traceable drop down menu. Other discrepancies between jurisdictions may occur because of difficulty in navigating the data-sharing process.

In addition to fatalities, there are even larger numbers of [nonfatal overdoses](#) each year. With a crisis that is stigmatized, the “court of public opinion” judges government agencies based on these statistics and numbers of deaths. This then leads to policies being created more to calm public concern than solve the problem.

Methodology

Knowing what data to collect and how to use that data constructively is necessary but challenging. One significant barrier for policymakers in obtaining a complete picture of the crisis is the reporting within disciplinary siloes. Each agency has its own objectives and agendas, so these internal priorities drive decisions about which data are gathered. For example, effectiveness of law enforcement is often ranked based on homicides and violent crime rates. This draws the focus in the law enforcement arena away from drug-related deaths, with limited resources available for nonviolent drug offenses. In addition, the opioid crisis has had a different [impact on rural versus urban environments](#) as well.

To create a dashboard, Maryland government collects three levels of data – real-time data, impact indicators, and research data. However, the process is not simple. Each agency has a responsibility to their agency’s perspective, but the totality of data and solutions cannot be found within any single agency. To better identify and interpret data, multidiscipline perspectives and discussions are required to solve complex problems.

Organizations such as the Police Executive Research Forum ([PERF](#)) also provide strong national leadership, necessary public debate, as well as valuable research and policy development for critical issues and concerns related to law enforcement. However, law enforcement topics certainly go well beyond the scope of law enforcement agencies.

Multidiscipline discussions like the DomPrep roundtable expose gaps that otherwise may go unrecognized when only addressed within disciplinary or jurisdictional siloes. The opioid crisis is just one example. At the federal level, one participant stated that government facilities experience minimal narcotic-related problems. As a result, those tasked with protecting those facilities may not consider opioids a significant threat within their daily operations. However, their counterparts at the local level have different firsthand experiences. Federal agencies see a snapshot of the problem, but do not see the daily overdoses at the street

level. For example, SWAT teams and canine officers who enter scenes are at greater risk for exposure to dangerous substances, so education about such risks is particularly important for them.

Identifying, addressing, and potentially solving the opioid crisis impact on public safety begins with data and continues through whole community collaboration.

From a laboratory perspective, only a portion of the drugs being confiscated are actually tested, but forensics are looking to expand

surveillance on drugs beyond those that have prosecutions associated with them. However, testing can take up to 45 days depending on the priority of each test. With drugs such as [synthetic cannabinoids](#) (K2/Spice) competing with other testing concerns, comprehensive and field testing by trained responders is not generally yet available.

From an emergency department (ED) perspective, prescription drug monitoring programs help ensure that prescribed drugs are available to ED personnel. The “gold standard” in emergency care keeps prescriptions to [three days or less](#) to minimize abuse and shift the culture away from opioid overuse. In some Washington, DC, hospitals, high-risk patients (those who have overdosed in the past) are offered a naloxone-dispensing program and a video of how to use it. However, many hospitals across the country do not have funding for such programs.

Homeless and transient populations present exposure threats that law enforcement officers may not consider when focusing on dangers associated with criminal violent activity. Despite interagency discussion groups being formed, more action is needed following these discussions. Talking about policy and analysis is great, but to fix the problem, individual people must be considered – for example, where they are located, where they are getting their sources, and which conditions are prevalent. Discussions need to be turned into actionable data, with widespread multi-disciplinary efforts being sustained in order to have a significant impact.

Data simply for the sake of data does not solve the crisis. The federal government has a National Response Framework, but does not adequately coordinate federal efforts. A

key problem is operational coordination, knowing where funding and resources are. For example, when the federal government simply shuts down a drug-dispensing facility without considering the consequences, thousands of patients receiving medication are suddenly affected. In such cases, the solution is often to simply spend more money. However, there needs to be clear coordinated plans and operations.

Best Practices

To develop best practices, jurisdictions must understand how to interpret the data collected and consider data that may be missing. Pertinent data must identify the different elements of the problem, addressing the front end of dealing and using as well as the back end of treatment and recovery. Roundtable participants described different ways in which the following four jurisdictions manage the opioid crisis within their areas.

In Massachusetts, agencies focus on the opioid dealers rather than the end users. One program employs station lock boxes for residents to dispose their medications safely. Another program involves street interdiction of suspected abusers to get them into programs and work with hospitals to follow up with those released. The programs resulted in dramatic reductions in repeat offenders.

In Maryland, opioid prescriptions are down because of programs to minimize over-prescribing. State agencies offer workshops, which are similar to TedTalks, through [Project Purple](#). These workshops are collaborative with operational personnel around the state. In addition, county correctional facilities have treatment programs to help integrate incarcerated people back into society.

In Washington, DC, some hospitals are implementing a pilot program with two phases: (1) a screening, prevention, and referral program; and (2) enrollment in clinics and programs. One concern that is currently being addressed, though, is the need for more facilities and resources to handle the expected volume of referrals and enrollments. DC shelters, which used to have a low tolerance for drugs within their walls, have needed to shift to address inevitable concerns as the opioid crisis expanded. Shelters now are equipped with naloxone kits.

Seattle, Washington, is planning to implement a controversial plan for “[supervised injection sites](#),” where drug users can inject illicit drugs under the watch of nurses equipped with naloxone. The argument for such spaces is to allow people to take drugs in a safer more hygienic area than on the streets. The argument against such spaces is that it will only enable users and exacerbate the problem. Whether this becomes a best practice or a practice that compounds the problem is yet to be seen.

Protecting Personnel

Various steps are being taken to protect personnel in law enforcement and beyond. However, some protection efforts may hinder investigations. For example, to prosecute many cases, testing must be performed in the field, which offers less protection to officers than testing in laboratories equipped with additional safeguards. Some agencies are re-ranking their protocols, having their officers not touch substances at all before sending them to laboratories, but others still handle testing them in the field. Agencies are working on determining how to handle probable cause without field-testing methods. To ensure safety, some agencies



train their officers to the hazmat operations level and issue personal protective equipment (PPE) such as goggles, gloves, and masks. However, protective security officers who are contracted may have different protective measures when they are responsible for their own PPE.

For all responders, education is needed for learning how to react and handle situations. The law enforcement environment is

dynamic, so personnel in an active scenario may not have the time to put on the proper PPE before engaging with potential threats. Despite a recent [spike in carfentanyl](#) and the current emerging problem of K2, some law enforcement chiefs do not think providing their officers with naloxone is necessary. However, others see the benefits of such distribution for officer safety reasons and because officers are often the first on scene before emergency medical units. For example, Virginia's [Revive! program](#) addresses the public safety issue and factors for law enforcement using the antidote.

Naloxone & Burden on Responders

The use of naloxone to address the opioid crisis is still evolving. Some EMS agencies have reduced the use of naloxone by titrating to maintain adequate respirations, but not necessarily to wake up patients. However, without being able to provide statistics depicting who would have died without naloxone administration, it may be difficult for agencies to justify keeping the opiate antidote in stock. Some people question whether agencies are actually doing something or are keeping it on hand more for show. The Commonwealth of Virginia, though, attributes naloxone as a key variable in [saving more than 26,000 lives](#).

Even with reductions in some areas, numerous calls for overdoses – including repeat calls to the same patients – has negative mental health effects on responders, which can lead to “compassion fatigue.” When burnout occurs, responders may lose some quality control or may treat patients based on assumptions. In addition, the psychological wear and tear could lead to response personnel abusing drugs encountered during operations – for example, EMS medications and law enforcement confiscations. It is critical to recognize the potential problem to put a system in place to combat drug and alcohol use of responders who are heading toward trouble, which in turn could lead to increases in [workplace violence](#). Treatment after a crisis should not be optional, as counseling saves lives following traumatic stress. However, keep in mind that simply treating symptoms does not address the disease.

The Value of Working Across Disciplines

The opioid crisis is too large for any one agency or organization to tackle alone, especially considering that fire, EMS, law enforcement, and other service-based professions are declining. Although politics and funding are common obstacles, the need to take action is

high. The stigma of this topic is also high, so buy-in is needed from investors and educators. Messaging must also be consistent to avoid confusion, especially for vulnerable populations such as children.

Even many suggestions for addressing the crisis do not address the underlying problem – for example, the concept of supervised injection sites remains controversial. In other cases, some people simply do not want help and treatment. Needle exchange programs have reduced hepatitis cases, but do not address the problem. Those inflicted with drug addiction may not feel comfortable having frank discussions with law enforcement officers, but breakthroughs could be made with health personnel under HIPPA guideline protections.

Open communication is key. In some jurisdictions, law enforcement is shifting to programs that help in ways other than arrest, which in turn build trust in law enforcement agencies. By identifying obstacles and implementing best practices, communities can better address networked problems, such as the opioid crisis. Lessons learned from other networked issues could also be applied.

There is a significant need to break down the disciplinary walls because there are too many different communities affected. Without national direction and leadership, service levels vary from community to community. For example, some jails and correctional facilities offer addiction and recovery services during incarceration, whereas others have made no advancement in this effort. With no single agency oversight, more challenges and vulnerabilities are created. For example, the same government agencies that say they want to help those affected by addiction refuse to hire these people. Thus, they remain stigmatized. The disease of addiction leads to criminal records, which lead to the inability to obtain jobs. The problem is self-perpetuating.

In addition to breaking down disciplinary walls, hierarchical walls need to be understood. Historically, the local role is to design and execute, the state role is to manage, and the federal role is to support. Unrealistic expectations that contradict these roles are catalysts for failure.

Media outlets plays another big role in the stigma surrounding drug addiction. Reports focus more on situations rather than circumstances. They have to be integral partners to report accurately on the problems as well as the successes. Also, police departments should communicate with media to promote community-policing suggestions and collectively address problems. The “us versus them” approach is counterproductive.

Legislators and emergency managers are well positioned, yet not necessarily motivated, to drive situational awareness. Legislators could introduce global programs such as drug awareness in schools K-12. In fact, the U.S. Department of Health and Human Services developed a [“5-Point Strategy To Combat the Opioid Crisis”](#) and the Senate just passed the [“Opioid Crisis Response Act of 2018”](#) with high expectations. Emergency managers could serve as coordinators and facilitators, albeit some have argued that they should not be involved.

Hospitals and other receiving facilities balance many complex decisions. Most addiction issues have a primary need for behavioral health. However, behavioral health units in hospitals have limited beds and staff. In-patient rehabilitation facilities are plagued with

long waitlists. Other empty hospital beds often do not have the psychiatric and behavioral services required to assist these types of patients. In addition, there is a growing need for psychiatry and behavioral health professions, but the supply is not meeting the demand.

Key Recommendations

The nation cannot afford to ignore this problem. When people come together to examine data in a meaningful way, a solution(s) can be found. The opioid crisis needs to be a high priority for a number of professions (not just one) and requires funding to support commonly agreed upon solutions. With more than 100,000 American fatalities from drug abuse over the past few years, the problem is even bigger than many people realize. To address the problem, data needs to be connected with actionable solutions.

The 14 subject matter experts at the September 18 roundtable discussion leave DomPrep readers with the following recommendations (in no particular order):

- Be more inclusive in community problem-solving discussions. Invite members from all the categories listed in Figure 1.
- Consider a spending shift. Rather than spending significant amounts of money on the cure, start investing in prevention.
- Recognize demographic changes. Problems that were traditionally found in urban settings have shifted to rural and suburban spaces.
- Mitigate responder addictions. Agencies need to inventory and monitor EMS control medications and ensure that all LE confiscations are being reported.
- Address circumstances without glorifying them. Increase awareness of the problem by being transparent and staying focused on moving toward a solution.
- Coordinate between correctional institutions and addiction centers. Through education and addiction counseling, programs can be created to reduce recidivism.
- Define community service boards' role in solving the opioid crisis. Community stakeholders need to recognize and invest their time and resources into it.
- Establish more out-patient services and treatment programs. Treatment and rehabilitation services reduce the need for more costly in-patient care.
- Create opioid intervention teams. Actions should be taken when warning signs appear, before a person is in crisis.
- Examine data from both police and EMS 911 calls. Research and studies could help identify vulnerable populations that would benefit from targeted efforts.
- Recruit recovering addicts or addicts who have not yet recovered into the planning response.
- Include champions of the cause, such as celebrities, to inspire the program and publicly promote it.
- Structure the mental and behavioral health role. Clinics, personnel, and funding are all required to support these services.

Network of Communities Affected by the Opioid Crisis		
Faith-based community	Emergency medical services	Fire/rescue services
Nonprofit organizations	Laboratories	Hospitals
Public health agencies	Media outlets	Legislators
Facilitators	Department of corrections	Private sector
Businesses	Emergency managers	Addiction centers
Recovering addicts	Celebrities	Lawyers
Pharmaceutical companies	Schools	Behavioral services
Local law enforcement agencies	State law enforcement agencies	Federal law enforcement agencies

Fig. 1. All of these communities are affected by the opioid crisis and should be involved in finding a solution.

The opioid crisis is a slow-rolling disaster that has been building for years. As one roundtable participant said, “The only difference between a public health emergency and a disaster is time.” The time to act is overdue, but it is not too late to reverse course. Lives depend on integrated, networked action by all community stakeholders. The recommendations shared by subject matter experts during the September roundtable discussion will help focus community resources and efforts on mitigating the opioid crisis rather than simply responding to it.

DomPrep would like to thank [FLIR](#) for sponsoring the 18 September 2018 roundtable discussion in Washington, DC, and MedStar NRH Rehabilitation Network for hosting the event. A special thanks also goes to Craig DeAtley, PA-C, and to all those who participated in the discussion, upon which this white paper is based. The following disciplines participated at the roundtable: hospital emergency room, fire and EMS, homeless services, local and federal law enforcement, forensic sciences, governors office Department of Homeland Security, emergency management, and the private sector. The participants who contributed to this important discussion include but are not limited to the following:

Craig DeAtley, PA-C, Emergency Manager, MedStar System

Myra Derbyshire, Project Coordinator, Opioid Operational Command Center (OCCC)

Jessica Milke, Science & Technology Manager, FLIR Detection Inc.

Sue Snide, Director of Consulting Services, G&H International Services, Inc., and former Executive Director, Northern Virginia Hospital Alliance

Clay Stamp, Executive Director, Opioid Operational Command Center (OCCC), Senior Emergency Management Advisor to the Governor, Chair of the Governor’s Emergency Management Advisory Council

Lauren Wiesner, MD, Director of Emergency Preparedness, Attending Emergency Physician, MedStar Washington Hospital Center

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The Value of Knowledge & Training in Response Operations

By Anthony S. Mangeri

In today's emergency service professions, it is essential to master the core knowledge necessary to understand the research and emerging technology that guide incident response. To become truly prepared to respond, each emergency professional must take the time to develop the knowledge to manage the threat and initiate response operations. Training and education are critical in helping a responder master the competencies needed for response efforts.



To ensure that responders are well trained to address emergency needs, it is critical to start with a *job task analysis*, which can be a simple assessment of the skills necessary to complete the requirements of the position. Once the associated tasks are understood, a training officer can assess training needs and develop a training plan for each emergency response position. The task analysis takes into account the core knowledge and skills that the individual should have for proficiency. It also takes into account the tools, resources, and environment with which these skills are to be used.

Core Requirements

Once the tasks and competencies are defined, the training officer can determine the training needed to have consistent standards of care and service. The *training needs analysis* provides the training requirements for each position. It provides the pathway for achieving mastery for each role in emergency operations.

In addition to training, there is a need to have *core knowledge*. Education provides the core knowledge and theory to validate operational strategies. Natural sciences and math are the most basic of the core knowledge essential to understand evidence-based emergency operations. Today's incidents have grown increasingly complex. Foundational training may no longer be enough to help personnel adapt to these changes in emergency operations.

Emergency responders and emergency managers are now competing more than ever to fill leadership roles with educated and highly trained individuals. It is essential for those looking to advance through the ranks in emergency services – or to gain positions in emergency management – to build upon existing knowledge and skills through ongoing education and training. Although knowledge may make one a better person, certifications, credentials, and licenses can advance a career. This has never been truer than in the modern fire and emergency services.

Building Blocks for Mastery

Think of the traditional knowledge, skills, and abilities as the building blocks for validating competency and mastery as a responder. Knowledge is the theory to be learned in an educational environment, such as through courses at a university. Skills are the application of [knowledge in a training environment](#), where one directly applies theories that were learned in an academic setting. Abilities are the demonstrated capabilities showing mastery application of knowledge and skills in multiple settings, which validate expertise.

Understanding the purpose and need for each building block makes it clear why it is so important to have each: education, training, and experience. Together, they help emergency service professionals validate their competency and expertise in dealing with emergencies and disasters in multiple settings.

There is no doubt that training and education play major roles in helping individuals prepare for and sustain careers in emergency operations. A fundamental understanding of science and math should be an essential component of every first responder's education. These subjects provide the core knowledge and theory to validate operational strategies.

Evidence-Based Emergency Operations

Evidence-based emergency operations require responders to understand the complexities of incident management and emergency operations. The importance of today's emergency responders and managers completing their education is necessary not just to advance but also to maintain competency in innovative technology and complex incident management. Basic training may no longer be enough. Becoming ongoing students of the profession is the value of training. Training and education programs should be developed based on validated research. Knowledge and understanding of the basic sciences result in better situational awareness and improved risk awareness and avoidance.

An example can be found in how fires are fought today versus even just 10 years ago. The [UL Residential Study](#) demonstrates that fires today and in the future are and will be far different from just 50 years ago. They also are far more dangerous because of the increased use of engineered products and new building techniques. This underscores the importance of firefighters having better knowledge of science and math as they relate to building design and construction and fire dynamics.

Educated public safety members also provide an opportunity to "professionalize" the service. Having the proper education and knowledge simply increases the ability to provide service while adapting to an ever-changing threat profile in communities.

Education provides a tool for individuals to adapt to changing needs and enables them to take advantage of emerging opportunities for advancement, whether volunteer or career. Also, as a responder advances through the service, specific training and educational requirements change. New positions require training to ensure that leaders have the right knowledge, skills, and abilities to perform in their new roles, based on that job's task analysis and training needs assessment. There is no shortage of educational and training opportunities, and there certainly should not be a shortage of participants.

Anthony S. Mangeri, MPA, CEM, EMT, is the director of strategic relations for fire services and emergency management and is on the faculty of the American Public University System. He has more than 30 years of experience in emergency management and public safety. During the terrorist attacks of 9/11, he served as operations chief at the New Jersey Emergency Operations Center, coordinating that state's response to the passenger-aircraft crashes into the World Trade Center. He has been a volunteer firefighter and emergency medical technician for more than 30 years. He earned the rank of assistant chief-safety officer, serving as the fire department's health and safety officer for three years. He earned a Master of Public Administration from Rutgers University. He is a Certified Public Manager and has received the designation of Certified Emergency Manager. In addition, he has completed a Fellowship in Public Health Leadership Initiative for Emergency Response sponsored by the Center for Public Health Preparedness. He also is vice-chair of the ASIS Fire & Life Safety Council and was recently elected president of IAEM Region.

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