DomPrep Journal

Ever-Evolving Preparedness Challenges

- Long-Term Power Outage Preparedness
- Triggered Collapse, Part 1
- Complex Coordinated Terrorist Attacks
- Family Child Care Emergency Preparedness
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Pictured on the Cover: Child Care Aware of America (July 2010)
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Dear DomPrep Readers,

About a month ago, I sent you an end of the year publisher’s message. The response has been positive and gratifying. So much so, that I will publish a Special Report, that will include helpful comments and feedback received either by email reply or from a poll base on that message. You can expect to see this report on the 12th of February.

Also, starting this month, you will notice a redesigned cover for the DomPrep Journal. After nearly two years, we decided to give the Journal a new, more engaging cover that is also more visible on the mobile devices that most DomPrep readers use to view content.

Lastly, DomPrep has always strived to compress complex topics into brief articles that are easy to read for subscribers who are always on the go. Hyperlinks to additional resources offer DomPrep readers more in-depth research for those who want more. We will continue to offer these concise, to-the-point articles in 2020, plus more. Also, starting this month, DomPrep plans to publish several series of articles that will be continued from month to month to provide more content on complex threats.

Let me know what you think of this new format and other thoughts.

Sincerely yours,

Martin (Marty) Masiuk
publisher@domprep.com
Emerging threats of yesteryear seemed unrealistic, so allocating funds and resources to such threats was not a priority for many agencies and organizations. Today, some of those “unrealistic” scenarios have become almost commonplace. As a result, having a three-day kit, knowing how to stop the bleed, and training for an active shooter event no longer seem unusual. However, communities are still generally greatly unprepared for what is yet to come tomorrow.

Driving current preparedness investment decisions based on past incidents leaves gaps in preparing for events that have yet to occur. Ignoring lessons learned from previous events leaves gaps in risk mitigation efforts for foreseeable incidents with repeatable consequences. The challenge for emergency preparedness professionals is being ready for everything: from numerous small daily crises to major widespread catastrophes.

Of course, preparing for everything is not realistic for a single agency or organization. However, as a collective community effort, the consequences of any disaster can be mitigated. This requires some level of effort by most stakeholders. From ensuring safe evacuation of a small group of children during a house fire to locking down a stadium during a complex coordinated terrorist attack, comprehensive and collaborative plans can be scaled as needed to address a broad range of scenarios.

Everyone has a role to play in a disaster – from a single person to a federal agency – but buy in at all levels is critical. If the plan is to simply wait for government assistance or if morale at agencies that provide assistance is low, response efforts will be slow or may not arrive at all. As threats continually evolve, the challenges and ways to address these challenges must evolve with them.

Based on recognized vulnerabilities, some experts anticipate that it is only a matter of time before the nation will face a widespread, long-term collapse in one or more of its critical infrastructures. This may occur as the result of natural event or deliberate attack, but the devastating consequences may look the same. There are many actions that communities can take to reduce this threat, but it requires investment in resources and dedication of change toward new, unfamiliar practices. It begins with small steps, which pave the way toward greater resilience when faced with the next preparedness challenge.
Small Steps Toward Long-Term Power Outage Preparedness

By Deborah Link

Although a long-term, widespread power outage may not be a top priority in community preparedness plans, many communities have considered the devastating effects of such a scenario. A long-term power outage, for the purpose of this article, is defined as one that lasts from the time regular and emergency resources are depleted to a year – or even longer. The cause of the power outage could be any of the following: an electromagnetic pulse (EMP) from any source, a cascading event after a smaller area is affected by some type of power system intrusion or attack, or any other threat or hazard that could cause a power outage.

A lot of writings and movies depict what life may be like during a long-term power outage, and they are not encouraging. Despite these negative predictions and the lack of preparation for such outages within most communities, some small preparedness steps could help mitigate the severity of the situation and raise communities to higher levels of preparedness and resilience. The focus here is on what local government, emergency managers, and communities can do to prepare for a time when all supplies and resources are depleted.

One of the biggest problems to be expected with this scenario is the interrupted capability to transport needed goods for resupply to an affected area. Therefore, preparations should expand beyond the current recommendation of two weeks to include the next (and much longer) phase. Not focusing on and preparing for the next phase will result in lower community resilience. Although it may seem daunting, there are some preparedness steps that local governments, emergency management officials, and communities can start to take.

Community Leadership Actions

Emergency managers can and should have a role in moving communities forward toward resilience with regard to long-term power outages, similar to their efforts in increasing resilience for other emergency and disaster scenarios. Emergency managers should allot part of their time for outreach to inform the public about resources related to outdoor and agricultural activity, which likely already exist within their communities. Local or regional organizations such as a variety of gardening clubs, agriculture services, and colleges and universities usually have programs to teach community members about farming and gardening. There should also be a focus on courses that teach camping, filtering and sterilizing water, and hunting, fishing, and trapping as well. The idea is not a return to agrarian roots, but only to familiarizing themselves with these basic skills. Although not as important today because
they are not typically necessary for daily life or survival, these skills will be key for sustaining communities through a long-term loss of power.

In the scenario presented, if few or no communities adopt and practice these types of preparedness measures, it may or may not be helpful to those that do in a scenario where all resources are depleted and no resources are able to be resupplied. At that point, many people searching for food and water could become desperate, leading to other problems and fear. However, as more communities begin focusing some effort in this direction and incorporate these skills into emergency preparedness discussions – for example, with emergency plans and kits – other communities may find themselves preparing similarly. Community leaders can begin with the following:

- Adopt basic survival skills as a commonsense strategy to getting through a long-term crisis;
- Talk about and begin incorporating these skills into community preparedness outreach;
- Highlight programs that already exist within the community; and
- Foster acceptance and make the old new again, with regard to ongoing sharpening of camping, gardening, hunting/fishing, and other needed skills. Again, it is not about doing the farming, gardening, etc., it is important in this case simply to know how.

**Reuniting Communities With the Basics**

Recommendations of hardening the entire power infrastructure do not appear practical simply because doing so is not affordable – and is likely why it has not yet been done. However, the recommendations for communities from those that focus almost entirely on long-term power outages – such as the Electromagnetic Pulse Special Interest Group (SIG), InfraGard National EMP (SIG), author Michael Mabee, the National Infrastructure Advisory Council, author Jim LeBlanc, and others – provide what is needed for communities to be prepared. Similar recommendations from these sources focus primarily on building community resilience with particular actions:
• Learning basic survival skills, growing food, etc.;
• Organizing the community toward a common goal;
• Having a common, known meeting area in each community where information and announcements can be provided and received; or
• Identifying how each person can contribute in their own way.

To date, though, an avenue of approach that connects the information to application or to action is lacking. Even more challenging is gaining buy in from the community and surrounding areas.

As individualistic as society has become, it does seem that it would be challenging to pivot in this direction, especially since the needed knowledge and skills that once filled communities is no longer prevalent. However, it is a worthy effort to relearn and recommit to some basic skills in order to ensure survival in a long-term disruption of power. An effective strategy for surviving such a debilitating, draw-out incident requires all or most members of a community to pull together and collaborate, which community leaders and emergency managers could find even more challenging than getting lots of people to take a few extra courses in gardening, camping, or water purification during non-disaster times.

A primary reason for the current attitude about preparedness for this scenario may be precisely because it is not a scenario people are talking about. That needs to change. In some communities, emergency managers are becoming involved in preparedness efforts for this type of event, which has been discussed in the past. Community outreach already includes teaching first aid, cardiopulmonary resuscitation (CPR), basic search and rescue, creating emergency plans and kits, caring for pets in disasters, and meetings for awareness of different types of hazards. From there, it would not take much effort to also include in outreach efforts, at a minimum, highlights of resources already located within the community that offer courses in gardening, camping, hunting, water sterilization, and other relevant skills. Local communities will not lose anything from the added effort in this area, they only stand to gain resilience.

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When preparing for long-term power outages, the idea is not a return to agrarian roots, but to familiarize communities with basic life-saving skills.
Triggered Collapse, Part 1: A Nation Unprepared

By Drew Miller

As numerous past disasters and government exercises have indicated, many people will take advantage of overwhelmed police to loot and maraud. “Preppers” are well aware of this threat, but it may be politically incorrect for government officials to honestly address lawlessness and risk offending voters, so they lack preparation for the problem of gangs and armed marauders looting and killing in the wake of a big disaster that overwhelms first responders.

The December 2016 issue of The American Interest warned that “the world is likely entering the age of bioengineered viral pandemics and collapse” since bioengineering technologies make it easy to modify and release new viruses that could cause not just a deadly pandemic but a collapse in economic activity and loss of law and order. The threats that could trigger a “collapse” (i.e., a cessation of most economic activity and widespread lack of law and order for a prolonged period of time) are increasing due to: advances in technology that can and will be misused; increasing vulnerability in an interconnected, “just in time delivery” economy; and a population that is more dependent and incapable of caring for themselves, plagued by a million plus gang members who will take advantage of any situation that overwhelms police.

Pandemics, Power Outages & Violence

Viral pandemics are a major threat to the United States, perhaps among the worst the nation has ever faced. Most pandemics are caused by viruses, but can be bacterial, such as plague. However, bacteria biothreats tend to pass through other animals (“vector”), are not as contagious, and thus less dangerous. Pandemics may occur naturally, by an accidental release from a laboratory, or bioattack by a nation state or terrorist organization. Bioengineering and genetically modified organisms (GMOs) are particularly dangerous. The technology is advanced, widespread, and inexpensive. Some scientists believe that a new, bioengineered GMO could pose an “existential” threat to humans.

Even if the virus is not highly lethal, the breakdown in economic activity and loss of law and order that ensues could kill millions of Americans if the collapse is severe and enduring. Today’s world is more dependent on “just-in-time” deliveries of food and essential supplies, more vulnerable to disruptions in economic activity, and generally less able to survive quarantine situations. Collapse is likely to result from a viral pandemic or other disasters that trigger panic, loss of food/water/medicine for many citizens, and subsequent breakdown in law and order.
When a pandemic erupts, the electric grid goes down, a regional earthquake disrupts tens of millions, or some other significant disaster overwhelms first responders, law and order will likely vanish in many cities as people panic, food stores are quickly sold out or looted, law enforcement resources get stretched, and some people exploit the situation. Food truck drivers may find it too dangerous to drive into cities or on long trips because of increased risk of either contracting the virus or getting attacked by marauders. Following Hurricane Katrina in 2005, for example, the looting and violence scarred truck drivers, with many refusing to go into New Orleans without military escort.

New York City had a power outage in 1977 that yielded a record day of crime. In the UK in 2011, there were 4 nights of rioting, looting, and killings in major cities with no cause or justification. Organized mass lootings are becoming a regular occurrence in the United States. In a much more life-threatening, longer-lasting pandemic, much more and worse lawlessness would be expected to occur.

In 2017, former senior national security officials, including former CIA Director Admiral James Woolsey, warned that North Korea likely had nuclear warheads optimized for high-altitude electromagnetic pulse (EMP) effects, deliverable by satellite or intercontinental ballistic missile (ICBM), that could take down the national electric grid for over a year and kill up to 90% of the population by “starvation and societal collapse.”

Biologists warn that the H5N1 avian influenza kills about 60% of its victims, compared to just 2% for the 1918 Great Spanish Flu Pandemic, which killed about 50 million. According to a 2012 article published in Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science:

Like all influenza strains, H5N1 is constantly evolving in nature. But thankfully, this deadly virus does not now spread readily through the air from person to person. If it evolved to become as transmissible as normal flu and results in a pandemic, it could cause billions of illnesses and deaths around the world.

With DNA engineering and new techniques that allow production of GMOs, a virus could be designed and unleashed to be highly lethal and transmissible, with a long period of being contagious before symptoms appear. Bioengineering enables a small terrorist group, or even one dedicated individual, to modify and release a new virus that could cause both a pandemic and a resulting collapse in economic activity and possibly law and order.
Bioengineered viruses are the ideal weapon. Compared to nuclear weapons, they are more deadly, cheaper and easier to create and launch, and, most importantly, offer the ability to attack with impunity to retaliation since it may be difficult to know and prove who released the virus.

**Interdependencies & Increased Consequences**

A host of experts say that such bioengineered viral pandemics are inevitable since it is increasingly easy to modify an existing pathogen to make it more lethal or transmissible. Although a bioengineered virus could be highly contagious and deadly, it is possible that more people would die from the collapse aftermath than deaths from the virus if communities are not well prepared to respond to the pandemic, keep essential supplies flowing, and maintain law and order.

Even with a lot more resources devoted to trying to detect it, launching a bioattack is relatively easy to do and the technology and know-how is irreversibly available. Technology advances will continue to increase the power of small groups and individuals to kill millions and massively disrupt the economy and law and order. Unlike the largely rural, resilient population that weathered the 1918 flu pandemic (a low-lethality virus), today's urbanized society – dependent on electricity, daily deliveries of food coming long distances, central water supply systems – is a dependent population that may face both a much worse virus and economy in total collapse with widespread loss of law and order.

The U.S. military, and National Guard in particular, will play a key role in recovering from a severe pandemic, loss of the electric system, or other major disaster. It will take all active and reserve military forces and more to avoid or cope with a collapse in economic activity and widespread loss of law and order. Most of the guard troops deployed for Hurricane Katrina response and recovery operations were used to support law enforcement. Looting and violence in other recent public disturbances also suggest that military forces will be needed during a pandemic to back up security at medical facilities, help law enforcement maintain order, conduct quarantine enforcement, and transport (or escort) food and essential supplies.
Unavoidable Yet Survivable

This bleak “Age of bioengineered viral pandemics and collapse” – and growing threats from other new technologies – is probably unavoidable. The real uncertainty is not if a bioengineered viral pandemic, crippling attack on the electric system, or a “black swan” disaster will occur, but how bad it will be and what depth of collapse will result. Governments at all levels need to make recovering from a collapse – whether from a pandemic, loss of the electric system, or other trigger event – its top priority and urge citizens to prepare for survival when there is no functioning economy and widespread loss of law and order.

Whether the first bioengineered virus comes from an accidental release or is spread by Iran’s Revolutionary Guards, the key point uncertainty expert Nassim Taleb argues in his 2010 book, “The Black Swan: the Impact of the Highly Improbable (2nd edition),” is “Black Swans being unpredictable, we need to adjust to their existence (rather than naively try to predict them).” Estimating, assuming, hoping that accidents, lunatics, terrorists, or enemy states will not release a GMO, or that they can always be detected and stopped, would be a mistake. Instead, the nation must adapt to the existence of the bioengineered viral pandemic threat now and make big changes in strategy, military forces, economy, and preparedness to ensure the consequences do not cascade into a societal collapse. Communities need to be prepared to deal with the consequences of a viral pandemic that produces significant numbers of casualties that cannot be stopped with a simple quarantine. This problem deserves far more attention and resources. Although likely unable to stop the release of lethal new GMOs, survival is possible with effective preparedness.

Many of the obvious needed preparations are relatively low cost. Households need to have months, rather than days, of stored food and water. The National Guard should train and equip its forces to implement quarantines and support local law enforcement. State and local police forces should set up reserves, trained and equipped for simple guard duty, not the full range of police duties. Creating a “Civil Ground Patrol” (modeled on the Air Force’s Civil Air Patrol) would train and build a force of volunteers to help in disaster recovery and response efforts.

This article is Part 1 of a six-part series on closing disaster recovery gaps and preparing for triggering events that could cascade into long-term societal disruptions:
Triggered Collapse, Part 1: A Nation Unprepared
Triggered Collapse, Part 2: Natural, Accidental, or Deliberate Viral Pandemics
Triggered Collapse, Part 3: Lessons in Lawlessness
Triggered Collapse, Part 4: Cascading Consequences Beyond the Event
Triggered Collapse, Part 5: Gaps in National Disaster Planning Scenarios
Triggered Collapse, Part 6: A Nationwide Call to Action

Drew Miller, Ph.D., a former intelligence officer, Pentagon Senior Executive Service official, and retired Air Force Reserve Colonel, business executive, management consultant. He was an honor graduate of the Air Force Academy, receiving an academic scholarship to Harvard University, where he earned a master’s degree and Ph.D. in public policy. He has published articles on the bioengineered pandemic threat and presented at national conferences on disaster preparedness. He served as a part-time elected official, county commissioner, and University of Nebraska Regent for 16 years, and continues to serve in the Civil Air Patrol.
On 21 October 2019, the French anti-terrorism prosecutor’s office announced that the investigation into the 2015 terror attacks in Paris, France, had concluded. It took French authorities four years to complete the investigation. The attacks targeted outdoor cafes, a stadium, and a concert hall – resulting in 130 deaths and another 352 injured. The investigation revealed that a larger jihadist cell was behind the complex coordinated terrorist attacks (CCTA), reaching across Europe but particularly Belgium, which was later also targeted by the cell. The result of the French investigation has led to the indictments of at least 20 suspects and the discovery of many lessons learned.

The Department of Homeland Security (DHS) defines CCTA as “acts of terrorism that involve synchronized and independent teams at multiple locations, sequentially or in close succession, initiated with little or no warning, and employing one or more weapon systems: firearms, explosives, fire as a weapon, and other nontraditional attack methodologies that are intended to result in large numbers of casualties.”

Timeline of Attacks

Paris was challenged with responding to multiple attacks in 2015, culminating in November. On 7 January 2015 there was an attack at the Charlie Hebdo magazine headquarters, with a subsequent manhunt and hostage situation. In August 2015, there was an attempted attack on the Thalys Amsterdam-Paris train, where three Americans managed to subdue the attacker. Then, on 13 November 2015, multiple coordinated attacks in Paris occurred in quick succession.

Planning for the November attacks started months before. The terrorist cell that planned and executed the attacks consisted of nine attackers who split into three groups. One group drove to the Stade de France (soccer stadium), another group targeted a bar and restaurant district, and a third group targeted the Bataclan concert venue.

At the Stade de France, the attackers were armed with suicide vests. At about 8:20 p.m., one of them attempted to enter the stadium but was denied access to the venue. In response, he detonated his explosives outside of the stadium, killing himself and a bystander. Ten minutes after that explosion, a second attacker detonated his explosives outside the stadium as well, killing only himself. Twenty minutes later, the last attacker in that group detonated his explosives near a fast-food restaurant close to the stadium, also killing only himself. All three explosions occurred in a 30-minute time span. The French president was in the stadium and was evacuated. Some in the crowd heard the explosions and knew something had occurred, but
French officials decided not to make any announcements and the stadium was locked down while the match continued. When the match ended, the crowd remained orderly as they became aware of activity outside of the arena and within the city of Paris.

At about the same time, the team that targeted the cafe and bar district launched their attacks. Driving a black vehicle, they opened fire on cafes, killing 15 and severely injuring another 15 in the initial shootings. They continued to another location and opened fire on two additional restaurants only minutes later, killing another 5 and severely injuring 8 more. Minutes later, they again opened fire on a bar, killing an additional 19 people and gravely injuring 9 others. Only minutes afterward, one of the attackers entered a restaurant, sat down, and detonated his vest, killing himself and 15 others. All of these attacks happened in the span of about 25 minutes in rapid succession.

At about the same time as the explosion in the restaurant, three men entered the Bataclan concert hall, which holds about 1,500 people and was in the middle of a concert. As the attackers entered, they executed the security guard and opened fire on the crowd, killing 90 people and taking the remaining audience hostage. After a two-and-a-half-hour siege, police stormed the concert hall, shooting one of the attackers, who detonated his suicide vest, miraculously killing only himself. Thereafter, the other two attackers detonated their own vests, killing themselves. No other lives were lost, though there were a large number of injuries. The remaining hostages were freed.

The result of these attacks led the French president to declare a state of emergency. The French borders were closed and troops deployed to the city of Paris. The ensuing manhunt lasted several days, resulting in the raid of an apartment in a Paris suburb, where a shoot-out lasting several hours left three dead (i.e., two related to the terror cell and one a family member not connected otherwise). The sole attacker left alive was apprehended months later in March 2016 in Molenbeek, Belgium.

**Successes, Failures & Worldwide Responses**

The goal of these attacks was simple – overwhelm government resources by exploiting vulnerabilities. The attacks were carefully planned, and their goal of mass murder was achieved.
In his 2015 Brookings Institution blog, Bruce Reidel pointed out that the Paris attacks were likely modeled on the 2008 attacks in Mumbai, India. The Mumbai attacks were a series of terrorist attacks that took place in November 2008, when 10 members of the terror group Lashkar-e-Taiba carried out 12 attacks throughout Mumbai. The attacks lasted four days, killing 164 people and wounding more than 300 others. In both cases, the terrorists used small, well-armed bands of attackers striking concurrently against several targets in an urban area. One difference was that the attackers in Paris used suicide vests, while the ones in Mumbai did not.

The Paris attacks were important enough that, in 2016, Congress appropriated $50 million to the Secretary of Homeland Security to address emergent threats from violent extremism and CCTAs. Congress additionally directed the Federal Emergency Management Agency (FEMA) to allocate funds to state and local jurisdictions to focus on the CCTA threat. A number of states and regions were awarded grants to develop CCTA programs and are currently developing programs. Given the threat picture with recent incidents around the globe, local jurisdictions should be paying attention as well.

The goal of these attacks was simple – overwhelm government resources by exploiting vulnerabilities. The carefully planned attacks achieved mass murder.

To better understand the CCTA threat, consider the response to an active shooter. During active shooter events, officers from multiple agencies converge in the area where the shootings are reported. Issues of command and control abound as commanders attempt to manage the incident and numerous resources. However, if a series of coordinated attacks were to occur simultaneously with this active shooter incident, the issues responders encounter would expand exponentially. This issue requires attention within the public safety community before other attacks like the ones in Paris occur.

The larger the incident and the more complexities involved, the more vexing the response will be. If an active shooter is already considered a “wicked problem,” imagine what a CCTA might look like. The French were caught off guard in these attacks, but they managed to recover and respond. Imagine the need to properly identify each incident as other incidents are occurring, the number of crime scenes requiring investigation, the number of victims involved, the need to identify and track everyone, and the number of families affected. All of these factors will be more difficult in ways most responders have not yet experienced.

French authorities purposely did not evacuate the stadium because they were concerned that was the very goal of the terrorists. Had they done so, they would have sent thousands of fans among the remaining two suicide bombers waiting outside. Additionally, they held off on ordering a large number of resources to the scene because they were concerned about other attacks. It was a lesson learned from the Charlie Hebdo attacks earlier that year that proved prescient.
Despite how well they did, though, the French also had a number of issues:

- They failed to capitalize on intelligence;
- Officers self-deployed;
- Traffic jams formed at some scenes;
- Command posts failed to coordinate; and
- Emergency medical services (EMS) and call centers (equivalent to 9-1-1) were quickly overwhelmed with the large number of victims.

New Capabilities

The Los Angeles Police pioneered the concept of Multiple Assault Counter-Terrorism Action Capabilities (MACTAC) in 2009. MACTAC is the adoption of military tactics allowing for a rapid response to react and neutralize the threat. At the dawning of an initial incident, officers are taught to expect follow-up attacks and stage accordingly. Several agencies have adopted it, including the Las Vegas Metropolitan Police Department.

MACTAC is what prevented the over-convergence of responders at the Route 91 Harvest music festival on the Las Vegas Strip on 1 October 2017. Las Vegas Police officers are trained in MACTAC, so they staged in rally areas within their patrol beats in case of secondary and tertiary attacks. When calls came in about shots fired at multiple casino resorts, the on-scene commander was able to implement actions and quickly rule out that they were victims of a larger complex coordinated attack.

The thrust of MACTAC is that officers immediately transition to small unit infantry tactics to pursue and stop multiple attackers rather than create perimeters and wait for tactical assistance. The concept of MACTAC is Incident Command System (ICS) compliant and includes an emphasis on officers staying within their assigned areas in case multiple attacks occur. This concept has the potential to address attacks like the ones in Paris and may be worth adopting as a way to address the myriad of issues a CCTA presents. MACTAC has been called “active shooter response 2.0.” Assuming CCTAs are “active shooter 2.0,” then MACTAC may be the training officers need to counter this kind of incident.

Note: Credit is given to the Los Angeles HSAC and Paris Public Safety Delegation white paper of June 2016, called The Attacks on Paris: Lesson Learned, from which much of the information is derived.

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Many families depend on child care providers to care for their children so parents can work and go to school. The National Survey of Early Care and Education estimates that 118,000 listed providers care for more than 750,000 children between birth and 5 years of age in home-based settings. Home-based child care, also referred to as family child care, is care provided in a home setting for a smaller group of children (usually under 12 children). Parents often choose family child care because of the appeal of a home-like environment, smaller group sizes, and greater opportunity for flexible hours. Listed child care means they appear on state or national lists of early care and education services, such as licensed, regulated, license-exempt, or registered home-based providers.

Infants and toddlers (children between the ages of birth and 3 years old) account for approximately 375,000 of the children in family child care (author’s calculation based on analysis of 2012 National Survey of Early Care and Education, Home-Based Public Use Data File, ICPSR 35519-0009). Infants and toddlers are especially vulnerable in emergencies, and helping them get to safety in emergencies requires extra planning and preparation. This is because children between birth and age 3 have unique needs, such as:

- Reliance on caregivers for physical, nutritional, and emotional needs
- Communication limitations
- Limited mobility
- Need for safety and protection from harmful items
- Greater susceptibility to hazards, including chemicals and smoke

Family child care providers, especially those who care for infants and toddlers, may need additional supports in order to provide for children's health and safety during disasters and emergencies. These providers are often the sole caregiver responsible for multiple children without the help of other adults. While many child care centers have a backup plan where extra staff (e.g., kitchen staff, office staff) go to the infant and toddler rooms in order to assist with evacuation, family child care providers often must evacuate on their own or rely on help from older children or neighbors.

Family child care providers also may lack the financial resources of centers needed to purchase materials to help them better prepare for emergencies. They also often do not have the resources or time to do a lot of planning, including planning for emergencies.
**Infant Toddler Evacuation Survey**

Little research has been focused on this topic in the past. Because of this, in 2018, Child Care Aware® of America surveyed early learning professionals from across the United States, asking them to share information about how they evacuate infants and toddlers in their care.

More than 2,200 child care providers participated in the survey, and about half of the survey participants identified themselves as family child care providers. Although many emergencies requiring evacuation were shared, the most common were: fire, fire alarms, or smoke; gas leaks or gas smell; or severe weather. Survey results highlighted strengths and weaknesses of child care emergency preparedness. Family child care providers identified the most challenges, primarily attributed to lack of staff and lack of resources.

Toddlers can pose an extra challenge as they are often unpredictable and can react with fear to an emergency alarm. Although they are often mobile, they may not follow directions as well as older children and can be difficult to keep together. In addition, due to the constant growth and development of infants and toddlers, written emergency plans must be updated often to ensure they meet the children’s changing needs.

**Evacuation Methods & Emergency Supplies**

When looking at how child care providers plan to evacuate infants and toddlers, the differences between family child care and child care centers was noticeable. Evacuation cribs were identified in the survey as the most helpful tool used during an actual emergency evacuation because they can be used to evacuate multiple children at once. Despite this, only 17% of family child care providers have an evacuation crib available (this number includes portable cribs with wheels, which are not intended for evacuation), while 85% of child care centers use evacuation cribs. The lack of emergency cribs or other evacuation method among family child care providers can pose a challenge during an evacuation.

While it may not be a problem to carry children to safety in an evacuation drill, it might be difficult in an emergency where an extended evacuation or relocation is necessary. About 54% of family child care providers mentioned carrying children to evacuate, compared to only 13% of child care centers.

Of the providers who plan to carry children, 89% of family child care providers use that as their only method of evacuating infants; few have other methods to use as well. Only 27%
of child care centers who carry infants to evacuate use it as their only evacuation method. The majority use it as backup in addition to other methods (see Figure 1). One family child care provider noted in the survey that she had to make two trips to evacuate the infants and toddlers in her care during an emergency because she had no way to evacuate multiple children at once and had to carry them.

Another notable difference is the number of survey participants who plan to have toddlers walk to evacuate. More than half of family child care providers plan to have toddlers walk to evacuate in an emergency. Child care centers are more likely to have evacuation cribs or other methods available to evacuate toddlers. As previously noted, due to their stage of development, toddlers can pose a challenge in an evacuation, so it could be difficult to keep children together in an emergency evacuation if walking is the only method available.

When asked about emergency supplies, just over half of family child care providers had an emergency supply kit ready, the same as child care centers. Of those that do not have an emergency supply kit ready, a higher number of other family child care providers shared that they do not have any emergency supplies prepared at all. Family child care providers were also less likely to bring emergency information (such as emergency contact information or medical forms) when evacuating or practicing evacuation drills.

Fig. 1. Evacuation method: Carrying children, n = 717 child care center and 442 family child care (Source: Child Care Aware® of America, 2018).

**Next Steps**

Many survey participants shared that they would welcome any resources or support available to improve their emergency preparedness efforts. Trainings, videos, and webinars about best practice in evacuating infants and toddlers were specifically mentioned. Some family child care providers shared the need for assistance in determining the types of practice drills they should complete.
Because purchasing necessary emergency preparedness materials can be cost prohibitive for family child care providers, resources need to be identified to assist them with these purchases. Items such as evacuation cribs or strollers/buggies can be expensive, so assistance in acquiring such items would be helpful to many family child care providers.

Community partnerships can help to provide support and resources for family child care providers. One family child care provider shared that they did not receive notification of an emergency because emergency officials did not know the home was also a business that cared for children. Partnerships with emergency management officials and first responders could help ensure that those responding to emergencies know where family child care businesses are located. These collaborations also have the potential to make additional training and resources available to family child care providers.

**Information & Resources**

If family child care providers are equipped with information and resources, they can be better prepared to keep infants and toddlers safe in the event of an emergency or disaster. Emergency management and first responders are a community resource that can make a big difference when it comes to providing support for family child care providers. The local Child Care Resource & Referral Agency can provide information about child care and help make connections with child care providers.

Child Care Aware® of America used the information gained from the infant toddler evacuation survey to develop resources for child care providers that can be found [here](https://www.childcareprepare.org). For more information on child care and child care emergency preparedness, visit [childcareprepare.org](https://www.childcareprepare.org).

The Child Care Aware® Emergency Preparedness team can be reached at [preparedness@usa.childcareaware.org](mailto:preparedness@usa.childcareaware.org).

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