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In 2020, literally everyone was affected in some way by crisis. In certain areas, communities endured other disasters in addition to the worldwide pandemic. Some people fared well, some are struggling, and some will not see 2021. However, amid the illnesses, economic uncertainties, and social and political unrest, there are signs of progress. For more than two decades, DomPrep has published many articles written by practitioners on the preparedness gaps that exist in leadership, supply chains, interoperability, incident management, and so on. For more than two decades, those same practitioners have provided possible solutions and roadmaps for closing those gaps. However, sometimes it takes experiencing the disaster in order to invest the time and resources necessary to actually close the gaps.

Yes, many communities did not heed the numerous worst-case warnings, did not adequately prepare for the possibility of a worldwide pandemic, and were slow in responding to a threat that they thought would end with little intervention. As the case numbers continue to grow, preparedness professionals have been offered an opportunity to see their efforts come to fruition and help close critical gaps. The need for high-performing leaders who can make quick decisions and take decisive action is not a confrontational idea, yet high-performing leaders are not always the ones in charge when disaster strikes. The crises in 2020 have spotlighted the leaders who were able to meet the numerous new challenges they faced and provide a vision for recovery beyond the crisis.

Even once communities enter the recovery phase, though, there is still much work to do beyond the current crisis – for example, planning and preparing for the next black swan event. One simple yet poignant takeaway from 2020 is that pandemics can happen. The realization that a worst-case scenario from that interagency exercise practiced last year could emerge at any time is crucial for building community resilience.

As 2021 rapidly approaches, there are signs of hope that some long-term preparedness gaps may be closing: rapid vaccine development, innovative police reform, and other community resilience efforts. What communities need is a cohesive approach to disaster preparedness. The interesting thing about a worldwide crisis is that everyone is in it together (whether they realize it or not). Now is the time to identify and leverage the preparedness opportunities that emerged in 2020 and build on them in 2021 to create more cohesive and more resilient communities.
Crisis Leadership: Leading Through Turmoil

By Ronald Rowe

The year 2020 has certainly had an abundance of turmoil and uncertainty: a global pandemic, a roller coaster economy, a national awakening to racial injustice, and a contested presidential election. All leaders have the required skills to manage in times of calmness. However, in times of turmoil and uncertainty, the leader that can act decisively and communicate a vision forward will be the best performer in successfully leading their team through a crisis, a transition, and uncertainty.

The premise of the 2015 book “Team of Teams,” which is co-authored by General Stanley A. McChrystal, is that organizations need to evolve and move away from old ways in order to become more agile. Early in the book, McChrystal did a comparison of how his command was top down, horizontal, and applying a structure that was not making the strides it needs in order to defeat al-Qaida in Iraq (AQI) in 2006. A side-by-side illustration showed how McChrystal’s task force was organized juxtaposed to AQI’s decentralized and asymmetric network of operatives, financiers, and support entities. In the end, the task force overcame AQI by evolving into a more agile organization by extending out and forming teams that worked independently, but synchronous with the larger organization. They became one team comprised of smaller teams.

During a major Secret Service domestic security operation a few years ago, McChrystal’s concept of Team of Teams was mimicked. This concept resulted in the successful creation of 23 independent cells that functioned as one team with staff from different agencies, different organizations, and different work cultures. The genius of McChrystal’s premise is creating a system of systems to tackle issues, identify courses of action, and develop a plan.

Regardless of the crises or challenges, the key to leading through them is by having a structure that is agile and able to respond. In order to be agile, leaders have to empower second-level managers, first-level managers, and operational personnel to make decisions. During the Secret Service operation, all the team leaders were empowered to make decisions for their cells. To illustrate and reinforce this, team leaders saw a one slide PowerPoint of McChrystal’s diagrams with the instruction, “This is how we are set up. This is what we are up against.” They were told that, if they were to wait to get a decision from the top on how to proceed, then the decision point would have already passed and the opportunity would have been lost.

Hearing that they were empowered to make decisions was a foreign concept to the team. These were highly trained professionals that had spent their careers in very strict and rigid command structures that required them to push decisions up to the next level. Eventually they bought into this concept. When team members are not empowered, there is a risk of being overwhelmed at the first sign of a crisis.
Black Swans

Nassim Nicholas Taleb developed a theory about high-impact and high-profile events that are hard to predict. He used the metaphor of a black swan, a rarity in nature, to describe these extreme surprise events. The paradox of the black swan event is that, in hindsight, leaders often believe that the signs were there and that the event could have been avoided. If that were truly the case, then the event was not a black swan. However, although the triggering event may not be a black swan, the second-order effects of that triggering event could create black swans. That uncertainty can wreak havoc on an organization.

For example, the designation of SARS-COVID-19 as a pandemic was not necessarily a blackswan event. The World Health Organization and others recognized the potential impacts of this virus beyond the borders of China. Once the virus became widespread in Europe and North America, it seemed to stymie leaders across many disciplines (public policy, public health, border security, and emergency response). Further compounding the effects of the virus were missteps by political leaders. Even Taleb has publicly stated that SARS-COVID-19 was not a black swan but rather a result of government incompetence.

However, the impacts of scrambling to develop remote working infrastructure, not foreseeing budget expenditures for personal protective equipment and teleworking capabilities, and identifying and creating redundant staffing plans to maintain force readiness were likely to be black swans for most organizations. The leadership challenges created by black swans are indeed born out of uncertainty and unknowns. The feeling of not being in control or having a plan is not normal for any leader or their executive team. The leader that builds a team of teams systems approach will be able to take on any event or second-order pop-up crises that can plague a high-performing organization with a zero fail mission.

Decisiveness

In 2016, Harvard Business Review (HBR) released the results of a 10-year longitudinal study examining the traits of great executives. In this study, HBR identified particular skills that separated great leaders from good leaders. Key among these skills was the ability to make great decisions. Great leaders can operate on a decision matrix continuum that spans an entire spectrum of relying on data analytics all the way to intuition (i.e., trusting their gut).
During a crisis, an executive team is inundated with information and data. Great leaders, though, do not give in to impulsivity or allow their teams to get bogged down in analysis paralysis. Without striking a balance between the two, it will become dizzying as wave after wave of data and information flow through the organization. Indecisiveness or the inability to move quickly could actually increase an organization’s risk. Leaders that cannot make tough decisions quickly, also risk losing the confidence of their team in the leader’s abilities. Former Secretary of State and General Colin Powell summed it up in his 40/70 Rule. Procrastination in the name of reducing risk will actually increase an organization’s risk. Waiting for enough data to ensure 100% success will only cost an organization critical opportunities.

Of course, making decisions does not involve a haphazard process that disregards caution. On the contrary, in the middle of a crisis, moving quickly is a far better approach than creating an information bottleneck. For example, in the midst of an organization’s COVID response, the leadership team did not have time to become bogged down in reviewing which diagnostic test was best for screening the workforce. At the onset of the pandemic, the supply chain for testing kits was scarce. Leaders had to make quick decisions in order to secure a minimum number of kits until a more mature and robust supply chain for COVID testing was developed. High-performing leaders understand that making decisions earlier, faster, and with greater conviction does not always translate to making a great decision all of the time – but it is better than making no decision at all.

Communication

Communicating to the workforce has been critical in all of the crises experienced in 2020. As the Secret Service and other executive teams across the nation navigated the myriad of uncertainties, it has been critical to provide updates to all levels of employees, as well as to sustain the workforce physically, emotionally, and spiritually. Although it was important that all employees knew exactly what actions were being taken and the intentions of the executive team and agency head, it was not always easy. There is the potential to oversaturate with communication and the message becomes white noise to the workforce. It is important to find the right battle rhythm for executive communications.

In several situations during the pandemic, dealing with the death of an employee (fortunately, for the Secret Service not COVID-related), engaging in a dialogue with the workforce about racial inequality, or responding to demonstrations on racial injustice at the White House, it was important to be accessible to employees. In certain situations, the Secret Service was dealing with all of the aforementioned examples at the same time. Therefore, it became extremely important that leaders were seen at the operational level and that leaders heard from employees as they dealt with a crisis, grappled with the loss of a colleague, or coped with the uncertainties of a contagious virus. The communication should not flow one way from the top down. It should be a two-way stream from the frontline worker all the way to senior-level managers and vice versa.
A benefit that came out of the crisis of the pandemic was that it forced the Secret Service to find new mediums for employee engagement and collaboration. Most of its workforce are frontline operators, but there were still requirements for video teleconferencing tools to communicate operational orders and fulfill the agency’s integrated mission. These mediums became the conveyance to have thoughtful and honest discussions on racial disparities and injustice that were cathartic and healing for all.

**Future Planning**

The following key lessons learned from 2020 should be considered when planning for future crises and disasters:

- Recognize that times of uncertainty and crisis can neutralize even the best of plans.
- Define resilience for the organization and boil it down to the most essential organizational priorities or mission-essential functions.
- Have a crisis plan ready to go but understand that a black swan will happen, and it is very likely built on assumptions that you may not have considered.
- Establish a systems approach and set up a team of teams.
- Assign cells to formulate plans for specific areas of concentration.
- Empower those teams to make decisions and encourage them to not get bogged down in analysis paralysis.
- Listen to the teams’ findings and solicit their recommendations.
- Make decisions earlier, faster, and with conviction as the ground situation changes and data flows into the organization.
- Keep the workforce – the most precious resource and asset – in the information loop.
- Communicate with the workforce and listen to what they are saying.

Doing all of the above will enable any organization to emerge from a crisis as a stronger, more agile, and more resilient entity.

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The world continues to wrestle with the enormous consequences of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the novel virus that caused the COVID-19 pandemic. The drastic and long-term effects and impacts of the novel virus have continued to affect the world on numerous fronts for a duration significantly longer than expected by almost anyone in February 2020. With additional waves, there appears to be no clear end in sight.

It is still up for valuable and heated discussion if SARS-CoV-2 was a black swan event. For many with a background or interest in the study of public health, homeland security, novel pathogens, and pandemics, this world-changing event was utterly expected and predictable as were the obvious failures to plan for it. It appears that the world shall be responding to SARS-CoV-2 and COVID-19 for quite some time to come as months may transition into years. During these most challenging times, it does not appear terribly promising that communities will have the energy, time, focus, or resources to adequately plan and prepare for a larger and much more dangerous biological threat – be it either naturally occurring or man-made.

**Bioterrorism & Biodefense**

Bioterrorism and biowarfare continue to be significant threats to national and homeland security, if appreciated it or not. As clearly demonstrated by COVID-19, a natural or man-made public health crisis can have incalculable health, social, financial, economic, political, and so many other immediate and lasting impacts on a country and the world. This portfolio of contemplation could be consolidated under an umbrella of biodefense to include biological weapons.

According to the World Health Organization, "biological weapons are microorganisms like virus, bacteria, fungi, or other toxins that are produced and released deliberately to cause disease and death in humans, animals or plants." These weapons can cause serious disruption, illness, and death in a very short amount of time without warning. The threat is not limited to a few pathogens. The Centers for Disease Control and Prevention provides a long list of bioterrorism agents/diseases on their website to include the plague and viral hemorrhagic fevers.

The Blue Ribbon Study Panel on Biodefense issued its critical and detailed report in 2015 entitled A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts. The report was comprehensive and thought-provoking by identifying and re-enforcing numerous vulnerabilities and inadequacies regarding planning and preparedness for a myriad of biosecurity, biodefense, and public health threats. The report, in conjunction with numerous other studies and articles, reinforced that future failures would not be from a lack of knowledge or warning, but prioritization, planning, and preparedness.

The United States has developed various national strategies and plans to prepare for these unthinkable threats over the past few decades. One of the latest has been the 2018 National Biodefense Strategy. The document begins with the timely and relevant opening statement:
It is a vital interest of the United States to manage the risk of biological incidents. In today’s interconnected world, biological incidents have the potential to cost thousands of American lives, cause significant anxiety, and greatly impact travel and trade.

The strategy states that biological threats are some of the most serious threats facing the nation, and disease outbreaks can cause catastrophic harm on a massive scale. During these times, that statement may sound all too familiar. The magnitude of these biological threats may not have sufficiently been understood and appreciated to one’s own peril. Surprisingly, the looming threat may continue to not be fully realized.

**Advocating Action Through Transition**

DomPrep discussed the serious concerns regarding preparedness for biological attack or bioterrorism in 2017 with a focus on the challenges of staying on point from one presidential administration to another. On 15 November 2016, the President’s Council of Advisors on Science and Technology (PCAST) released a letter report to the president on *Action Needed to Protect against Biological Attack*. The letter stated that biotechnology has been growing at an exponential rate over the past several decades with both great benefits and serious potential for destructive use by both states and individuals. PCAST urged the president to take immediate action to ensure that the nation has the ability to meet these challenges with near-, medium-, and long-term goals.

PCAST outlined the federal government’s approach to defending against biological threats over the past two decades with a review of some of the relevant congressional acts, strategies, and plans. Unfortunately, these governmental actions may not have evolved at the same rate as the threats. Technology, research, and nature have created risks and challenges beyond previous expectations.

The PCAST letter was released at the very end of the administration’s second term (not long after the previous national election), which did not permit a sufficient amount of time for action. However, it was quite relevant for the next and future administrations in a world of vast biotechnology and biosecurity vulnerabilities – the new landscape according to PCAST.

Unfortunately, as feared in 2017, the PCAST letter appeared be added to, or lost in, the vast pile of numerous reports, studies, and collaborations calling for action and preparedness for a global public health threat. This thoughtful letter advocating action, in addition to many other critical recommendations by others since that time, may be lost again in a time of political transition and tremendously divisive politics.

Some may ask during a time of an immense and continuing pandemic and so many other competing homeland/national security issues whether the nation has the bandwidth to worry about larger so-called black swan threats with possibly much more serious consequences.
at this time. The answer is yes because it can get much worse. The response should be
to care due to the possible morbidity and mortality rates that could be a great deal more
devastating than SARS-CoV-2. Previous failures and inaction have been clearly demonstrated
by COVID-19, and the nation is paying a horrible price on every level.

Repeated declarations over the decades of lack of sufficient planning and preparedness
for life-threatening pandemics and biothreats have not been overly successful in driving and
sustaining change. They are often lost in the expanding noise and stiff competition for limited
resources. Maybe a true story from 2010 that sounds more like a movie thriller or streaming
video series could provide an antidotal justification for prioritized concern and motivation
for action. When overwhelmed by the dense forest, look at a tree for an example.

**Missing Plague**

In 2003, an American scientist reported 30 vials of the bacterium Yersinia Pestis, which
causes pneumonic, septicemic, and bubonic plague, missing from his university laboratory.
He was reportedly an *expert on the plague* at a major university in the southwestern United
States. As anticipated, the loss of the bacteria resulted in the immediate response of 60 task
force investigators to the university to find the answers and the vials. The 9/11 and anthrax
attacks were fresh and frightening at that time.

The scientist was later indicted for various charges involving the improper handling,
control, and transportation of the plague samples. This *preeminent authority on infectious
diseases* was charged with allegedly smuggling samples of plague into the United States,
improperly transporting them within the country, and lying about them to authorities.
Additional charges of theft, embezzlement, and fraud were added in a second indictment
against him.

The scientist was convicted on 47 of the 69 federal charges that he faced associated with
the mishandling of the pathogen, but was acquitted on charges of lying to federal authorities,
smuggling plague samples into the United States and illegally transporting samples. He was
convicted of theft, embezzlement, and fraud in connection with his concealed contracts with
drug companies. As a result of the convictions, he was sentenced to two years in prison,
fined $15,000, and surrendered his medical license. The actions of the scientist also resulted
in *administrative proceedings* against him by the Department of Commerce for reportedly
importing the plague from Tanzania without adhering to the appropriate protocols and
reporting requirements.

The missing plague vials were reportedly never located or recovered during the
investigation. The plague samples may have been destroyed by the scientist or improperly
shared with others. Due to the widely documented incident and his licensing issues, the
scientist reportedly located employment outside of the United States.

**Welcome to Miami**

In 2010, the *same scientist* entered the United States in the late evening from Saudi Arabia
via London at the Miami International Airport. He was reportedly employed as a professor at a
university in the Caribbean and teaching in Saudi Arabia at the time. The scientist apparently cleared customs border inspection without incident and transitioned to screening by the Transportation Security Administration (TSA) for a flight to Puerto Rico. While his luggage was being screened by TSA, a suspicious object was located via their scanning technology. Suspicious was an understatement. The object was a metal pipe with threaded metal end caps on both sides resembling a common pipe bomb. It looked exactly like the pipe bombs seen in the media or a movie.

As expected, the location of the possible pipe bomb in a piece of luggage next to the main exit of the federal inspection station to the rest of the massive airport caused a rather serious incident. The entire area of the airport was closed immediately affecting thousands of international and domestic passengers. The responding police and bomb squad evacuated four of the six airport terminals, which was not a simple undertaking. Police, fire, and hazardous material personnel and vehicles were parked and staged all around the airport as part of the coordinated response. The media took notice.

The impact of the response rippled throughout the entire airport to include the security identification display area and public landside area resulting in the stopping of all of the approaching traffic to the entire airport and numerous flights. Miami International Airport is definitely not a quiet place, but it became one that night. It was also one of the most difficult places to discover and respond to the possible pipe bomb at the airport for operations, but it would end up even getting worse.
Proper Procedures

As the bomb squad and other officials executed their response plans, the scientist was interviewed by local and federal officials to ascertain what was inside the enclosed metal tube. At that point, the scientist was just another traveler with a very strange and concerning item in his baggage. As the interview progressed at the airport police station, the bomb squad focused on assessing and addressing the potential threat. Although always professional and well-trained, it would be quite naïve to think that the bomb squad was not under strong pressure to resolve the issue as soon as safely possible to reopen the economic engine of Miami-Dade County.

Prior to discovering the worrisome history of the scientist in the early morning hours of the hectic incident and interview, the local police bomb squad attempted to disable the possible explosive device by forcefully removing one of the end caps. They were successful. The suspect device was rendered safe and opened to the air for a careful inspection.

Shortly after rendering the object safe from possible explosion, information was received by the bomb squad regarding the arrest history of the scientist and missing vials of the plague, which resulted in an elevated concern about the liquid-like contents of the metal pipe. The investigators and bomb squad learned after opening the suspicious device that the scientist was reportedly an infectious disease instructor in Saudi Arabia and the Caribbean. No one knew what the visible liquid media was at that time, which definitely increased already heightened tensions.

To compound the concerns even further, the suspect device was reportedly unintentionally opened by force in the area of a rather sizable heat, air ventilation, and cooling (HVAC) intake zone that was linked to several airport terminals. If a serious biological threat had been accidently released during the response to the possible pipe bomb threat, the impact could have been catastrophic with the possible number of exposed passengers in the process of travelling around the country and the world from such a busy airport.

The impact on the airport’s infrastructure would have resulted in vast financial and economic consequences throughout the county, state, region, and country. The cost of possibly closing two or more large terminals for months or years to mitigate a possible hazardous threat in the HVAC system and throughout the terminals was estimated at hard-to-fathom numbers.

What If

Thankfully, the contents of the pipe were reportedly deemed not to be a known public health threat. It was apparently part of the scientist’s unidentified research. Imagine the cost of a highly contagious pathogen spreading around the state, nation, and world if it were a serious public health threat. The level of preparedness and available medical countermeasures at the time may not have been as robust as needed – and this would not have even been an intentional bioterrorism attack.

Envision if the suspicious device contained one or more of the missing plague vials or something even more dangerous. The scientist may not have had any ill intentions, but the
proper and logical actions of the bomb squad with the information they possessed at the time could have resulted in a disastrous event for life and property. They could have unknowingly participated in a biological release.

Imagine if a state or non-state actor wished to do harm via bioterrorism or biowarfare. This almost routine incident was a learning opportunity for the first responders to think outside the box along with maybe those who wish to do harm. This is not a new threat scenario since the 9/11 and anthrax attacks, but it has likely been forgotten or overtaken by so many other competing and consuming events. This story of the scientist and his later airport incident were well-published for all to read and contemplate. Bad actors have the internet too.

**What Now**

The current response to a zoonotic pathogen has not resulted in the level of confidence in previous planning and preparedness that everyone should expect and demand. If the nation was not adequately prepared for SARS-CoV-2 after fairly recent experiences with other well-known troubling abbreviations such as SARS, MERS, and H1N1, it would likely not fare well with an intentionally released aggressive pathogen today. From the current COVID-19 experience, it may not be the nation’s finest hour. A novel pathogen resulting in enhanced levels of contagiousness, morbidity, and mortality through gain-of-function experimentation could make current pandemic issues appear manageable and preferable. Horrifyingly, the response and situation today with COVID-19 could be the “good old days” compared to what may be coming.

The story of the missing plague vials and incident at the Miami International Airport may be fascinating to those unfamiliar with the scientist. More importantly, the story provides an opportunity to mull over the ramifications of an intentional attack in this or hundreds of other settings around the nation. This was not a bioterrorism attack, but think about the possible outcomes if it were one. It is an important tree for focus and consideration in the vast biodefense forest of concerns.

Pandemic and other public health threats from zoonotic sources have been a constant threat and challenge that have been regularly ignored or overtaken by other pressing issues. The nation is now paying a monumental price with its indisputable lack of adequate planning and preparedness. Envision the cascading consequences of a shrewdly designed and executed bioterrorism attack. Of course, that black swan could never happen – just like SARS-CoV-2.

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One trusted advisor in homeland security salutes another

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Think Recovery, Not Just Re-Entry, for Post-Pandemic Future

By Ann Lesperance & Grant Tietje

Ten years ago, a team of representatives from King and Pierce counties, cities of Seattle and Bellevue, Joint Base Lewis McChord, and Pacific Northwest National Laboratory set forth on developing the Regional Recovery Framework for a Biological Attack in the Seattle Urban Area. A collaboration of the Seattle Urban Area Security Initiative (UASI) partners and military and federal agencies, the framework was specific to a hypothetical catastrophic, wide-area biological attack using weaponized anthrax in the Seattle urban area but was designed to be flexible and scalable to serve as the recovery framework for other chemical or biological incidents. The team revisited the framework again in 2012 to create the Denver UASI All-Hazards Regional Recovery Framework. Such frameworks have been revisited again for use during the COVID pandemic.

The team’s approach was designed to assist policymakers and emergency managers in shortening the timeline for recovery and minimizing the economic and public health impacts of a catastrophic chemical, biological, or other attack – but from a local perspective. Together, the team outlined long-term recovery gaps in terms of economic redevelopment, waste management, fatality management, and prioritization of cleanup, which are highlighted in the DomPrep Journal’s October 2012 edition, entitled “Medical Emergencies.”

Welcome to 2020

In 2020, at the onset of a worldwide pandemic, Washington state was one of the first states in the nation tasked to respond to the COVID-19 outbreak. Now – in part due to its framework and more importantly its regional partnerships – Washington is positioned to be at the forefront of shaping recovery.

Although still in the throes of the pandemic, emergency managers know the time to plan for recovery is now (though yesterday would have been better). Since the start of the pandemic when frameworks were revisited, emergency managers have seen some events unfold as expected, some key elements being missed, and other things that were never imagined.

This Was Done Right

Considering pre-established frameworks, the following common recovery needs were accurately identified as applicable to the COVID-19 pandemic:

- **Leadership** – There is a persistent need for clarity about who are in key leadership positions today and in the long-term. This includes who has jurisdiction over what part of response versus recovery, and when the transfer of leadership occurs.
• **Information sharing** – Technology has come a long way since 2010. However, the core need for consistent, well-informed communications transcends technology. The front lines need accurate information, regardless of their Wi-Fi strength or mobile device. (And yes, in some cases, paper still works just fine.)

• **Forward planning** – The need for forward-planning of personal protective equipment (PPE), storage space, equipment, facilities, etc. became apparent. This year, PPE became the word of all people, not just the language of first responders and constructions sites. Furthermore, there is a need to know those in the supply chain – not only vendors but also backup vendors, perhaps two to three levels deep.

• **Regional approach** – As the pandemic permeates all boundaries, a regional approach is essential for situational awareness and a comprehensive response.

### This Was Missed

Recovery planning is like trying to tell the future: some hazards and impacts can be anticipated, with drills conducted based on realistic scenarios designed around assumptions regarding the future of communities, technology, etc., but real life always brings the element of surprise. In the case of COVID-19, the surprise is still live. Learning the science of the virus and building solutions must occur simultaneously.

To that end, frameworks were not the ultimate crystal ball. A pandemic is admittedly different from the anthrax and weapons of mass destruction attacks that UASI addressed. As such, the following were not accounted for:

• **Global impacts** – This is a disaster with global impacts, whereas most disasters are localized or finite.

• **Behavioral changes** – Because humans carry the virus – not just facilities or materials – recovery will take more than decontamination and rebuilding. It will require behavior changes.

• **Limited options** – Not having an available or proven vaccine, drug, or therapeutic limits options.

• **Implementation procedures** – Communities at every level seem to be in conflict on proper actions to take. Recovery is hindered when response efforts are not implemented properly.

• **Decision factors** – The virus is still unknown. Without knowing enough to have plans rooted in science, plans can only be based on the last similar disaster. In this case, it is severe acute respiratory syndrome (SARS).
This Was Not Expected

The pandemic has brought with it some unique 21st century response challenges and impacts, which will ultimately transform communities’ recovery approach:

• **The human element (psychological impacts)** – Individuals and societies are forever changed by disasters. That is not new. In the face of this virus, however, the onus is on the people. Each individual bears the responsibility to limit exposure/transmission, as do employers and communities who want to do the right thing. Yet, with COVID-19, the “right thing” keeps changing. Mask recommendations, isolation, and quarantine restrictions drove people inside, where the psychological impacts of this disaster are felt in homes, alone, and online. For many people, support systems have become virtual: working, communicating, grocery shopping, and ingesting news and safety guidance online. Even educating (or at least attempting to educate) children online.

• **The business element (economic impacts)** – Owners of many companies essentially closed and walked away from their businesses. Structures are intact with no physical damage, yet the economic toll may be what destroys them. Compared to natural disasters, after which a business may relocate, business owners cannot open anywhere else due to widespread lockdowns. Or worse, the owner may have died without making arrangements for the business. Cities will now need to manage the impact of numerous businesses that closed and protect abandoned property in the midst of furloughs and stressed budgets. Given increased unemployment and the inability of people to pay rent and bills and buy food, social programs that manage these needs are overwhelmed. If major businesses abandon leases, relocate staff, and/or transition to fully remote operations, this may transform business models, and business communities, indefinitely – some good (flexibility, sick leave) and some bad (impacts to investments in mass transit, public safety, smart cities, etc.).

• **The information element (communication impacts)** – Although effective information sharing is a challenge, 2020 may be the year of the “overshare.” As they retreated to their homes, many people looked to smart devices and social media to monitor the situation and stay connected. Unfortunately, the same online environment that so many rely on is also becoming a place of dissention – an “infodemic.” The void is now full – speculation and misinformation abound as people fall back on collegiate skills to determine trustworthy information sources. In recovery, this challenges the dissemination of accurate and consistent safety communications. Addressing concerns raised in social media that influence response and recovery is an almost daily task, and it is exhausting. This goes beyond guidance for PPE and social distancing. Businesses, managers and employees, teachers and students, even family members will need the communications skills to have open, frank, and tough conversations about safety, while likely unpacking the conflicting information, beliefs, and/or doom data ingested during quarantine.
Next Steps

After closures around the world, now, county by county, state by state, even country by country, re-entry has begun. Safety – at the individual, community, and business levels – is at the forefront. In a phased approach, there are new definitions of essential and acceptable personnel and new requirements for PPE, social distancing, and cleanup in various spaces.

However, re-entry does not equal recovery. Wearing masks and going back into businesses do not fix the damage caused by lost loved ones, lost incomes, and the myriad (if not unknown) other repercussions of a global pandemic. So much of this pandemic response has been about social distancing to take care of individuals, but recovery requires taking care of individuals together.

What previous frameworks proposed, and is reiterated here, is the need for a concerted focus on long-term recovery. As the pandemic peak remains a moving target, with additional waves rumored on the horizon – this is the time to revisit and fit frameworks to the latest crisis. Now is the time to sketch out what long-term recovery means by asking the right questions in the following categories:

- **Sustainability:** What elements of the new normal will need to be sustained long-term? What elements could be sustained indefinitely, like workplace flexibility?
- **Economic development:** How will recovery be planned and conducted if the end of the pandemic is unknown? What happens until and when it is safe to leave home? How and/or will businesses resume normal operations?
- **Health management:** Hospitals stopped elective procedures, people discontinued preventative/wellness appointments, and in some cases other treatments were paused. Despite increased need for physicians to treat COVID patients, hospitals faced detrimental losses of income. How will the capacity for both COVID care and general health management be sustained?
- **Fatality management:** With hundreds of thousands of deaths in the U.S. alone, what resources are needed to address the long-term impacts from the projected fatalities?
- **Waste management:** How clean is clean? How will businesses sustain safety practices long-term?
• **Prioritization:** Tax revenues are expected to decline sharply and stay down for the near term. With limited time and funds, what are the priorities for recovery? What is the decision-making process? What happens with vulnerable populations?

• **Operations:** Based on what is known about pandemics, is the National Disaster Recovery Framework suitable or is a rewrite needed? How can lessons learned about the virus inform future occupational health guidelines?

• **Mental health:** What are the psychological effects from prolonged isolation, quarantine, and other public health measures carried out on national scale over what could be years? How will children react?

• **Preparedness:** What has been learned? What was done right or wrong, and how should existing frameworks and plans change – not only for biological incidents, but all hazards? How can emergency action plans better reflect challenges like family care, finances, etc.?

• **Communications:** How can community leaders counter misinformation, restore trust, and build the consensus that is needed for recovery to be effective? What is the most effective communication with audiences prone to vastly, generationally different media consumption (i.e., millennials vs. boomers)?

• **Trust:** How will trust be rebuilt – within public health institutions, within communities, within each person?

Emergency management professionals know recovery occurs while response is still under way and may last for years. Recovery is replacing what was lost, often before it is known what all has been lost or how long the disaster will last. Predictions about economic impacts are grim. However, with so little experience to draw upon, those predictions could be wildly off the mark. Previous frameworks lay a strong foundation for long-term recovery – that is where to start on COVID-19.

**Ann Lesperance (pictured above)** is the director of the Pacific Northwest National Laboratory Northwest Regional Technology Center for Homeland Security located in Seattle, Washington. She works with state and local emergency responders and public safety officials to understand and help prioritize their operational needs and requirements. She also has a joint appointment to Northeastern University-Seattle where she leads efforts to build the master’s program in Security and Resilience Studies and Urban Informatics and has a faculty affiliate appointment with the university’s Global Resilience Institute.

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Law Enforcement’s Tsunami of Change 2021

Throughout 2020, many public institutions have been tested. Many did not rise to the occasion and embrace the challenges. Many did not exhibit the domestic preparedness stance that they spent years portraying – law enforcement was no exception.

This podcast is the conclusion to a four-part article series on “The New Age of Police Reform.” Learn how law enforcement is seeking to find new ways to overcome modern challenges in an ever-evolving socioeconomic environment. During this 30-minute discussion, the following topics will be discussed:

• Does law enforcement reform mean imminent change?
• How will policing reform affect small and midsized cities?
• Where have Sir Robert Peel’s 9 principals broken down?
• Has the policing role moved from guardian to warrior and back again?
• With a cellphone camera recording many use-of-force incidents, what role does training play in rebuilding public trust?
• Open discussion on civil unrest, terrorism, mental illness, and other domestic preparedness concerns.
• Time will tell if many doomsday predictions will come to pass. I certainly hope they do not, yet we remain resilient.

Click here for the podcast.

Joseph W. Trindal, Founder and president of Direct Action Resilience LLP
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