DomPrep Journal

Triggered Collapse
Special Issue

Reprint of Drew Miller’s articles that focus on:
- A Nation Unprepared,
- Viral Pandemics,
- Lessons in Lawlessness,
- Cascading Consequences Beyond the Triggering Event,
- Gaps in National Disaster Planning Scenarios, and
- A Nationwide Call to Action.
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Triggered Response Special Issue
Reprint of Drew Miller’s articles

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Publisher’s Message
By Martin (Marty) Masiuk

Over the years, I have been privileged to publish many important articles on topics that DomPrep readers have found to be helpful in their day-to-day responsibilities. Late in 2019, our editor, Cathy Feinman, received an unsolicited request from Dr. Drew Miller to publish a series of articles under the broad topic of Triggered Collapse. Cathy was impressed with Drew’s terrific credentials – a published author, guest speaker, Air Force Reserve Colonel, intelligence officer, an honor graduate from the United States Air Force Academy. Adding to these credentials, he earned both a master’s degree and Ph.D. in public policy from Harvard University – not your typical prepper. I too was impressed. Little did we know then that his submissions to DomPrep would be prophetic.

Reviewing that series of six articles today, I think it worthy to reprint them as a special issue. Not just because they are compelling, but also because they help us reflect on what we knew only then (January to March 2020), what we know now (November 2020), and more importantly, what we need to know for tomorrow.

The “Triggered Collapse” series cites the following key points for DomPrep’s readers to reflect and take action on:

- Pandemic influenza, naturally occurring
- Bioengineered virus attack
- Supply chain gaps and vulnerabilities
- Just-in-time inadequacies
- Critical infrastructure interdependencies
- Civil unrest
- Peaceful protests
- Marauders and looting
- Law enforcement reform and officer retention
- An overwhelmed workforce
- An unemployed workforce
- Economic unrest

One of Dr. Miller’s points postulates why the federal government was and is not actively taking steps to lean into preparedness. He simply says, “There is no preparedness lobbying for a pandemic as there is for major weapons system acquisition.” Although DomPrep is not totally aligned with some of Dr. Miller’s recommendations, we have and continue to agree that the nation should develop a national doctrine of preparedness requiring core competencies as put forward in President George W. Bush’s Homeland Security Presidential Directive 8. Perhaps the new administration will incorporate this vital component into its agenda and be ready to respond to a changing world circumstance.

Time will tell if many doomsday predictions will come to pass. I certainly hope they do not, yet we remain resilient.
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.
The nation currently faces an age of bioengineered viral pandemics and collapse. Advances in biotechnology enable nations, terrorist groups, or even lone wolves to create genetically modified organisms (GMOs) such as a human-to-human transmissible version of avian flu or to modify a lethal virus to facilitate a longer period of contagion and undetected spread before symptoms manifest. Bioengineering enables almost anyone to modify and release a new virus that, in addition to a pandemic, could cause an ensuing collapse in economic activity as well as loss of law and order as people react to the threat. Some experts say that the threat of a natural or bioengineered viral pandemic is already here. As it becomes increasingly easier to modify existing pathogens, the threat will also rise as these pathogens are made to be more lethal and more transmissible.

In 2012, scientists from the Center for Biosecurity of UPMC, Baltimore, warned that H5N1 avian influenza kills about 60% of its victims, compared to just 2% (or 50 million people) for the 1918 Great Spanish Flu Pandemic. With some cases of unsustained human-to-human spread of H5N1, scientists are concerned that the virus will eventually mutate to a form that is easily spread from person to person:

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 evolves to become as transmissible as normal flu and results in a pandemic, it could cause billions of illnesses and deaths around the world.

Dual-Use Research, Increasing the Threat

History shows that there is an increasing ability to modify viruses and access laboratories to create new and more lethal pathogens. In some cases, research begins with good intentions but, in the hands of someone with nefarious intentions, could be extremely dangerous. Laboratory accidents, do-it-yourself biologists, and individuals conducting virus experiments at their homes or in small rent-a-lab spaces introduce many intentional or unintentional safety and security concerns. In addition to the following examples, other legitimate lab incidents have likely occurred without being publicized:

- In 2001, Australian researchers attempting to make a contraceptive vaccine for pest control inserted a “good” gene into mousepox virus and accidentally created a lethal new virus that resisted vaccination.
• In 2002, a team of researchers at SUNY Stony Brook created a live polio virus as part of a Department of Defense (DOD) project to prove the threat of synthetic bioweapons. The head of the team, Eckard Wimmer said that, “You no longer need the real thing in order to make the virus and propagate it.”

• In 2011, a team of researchers at the Erasmus Medical Center in The Netherlands attempted to turn H5N1 virus into a human-to-human flu. The goal was to repeatedly infect ferrets until a new form of H5N1 emerged that could spread through the air from one mammal to another. Although human-to-human transmission was not reached during that study, the lesson learned from this research is that high-tech bioengineering is not required to alter current pathogens. In this case, researchers used a simple process of swabbing the noses of the infected ferrets and using those samples to infect other ferrets.

• In 2011, international media reported that scientists had created a virus with 60% lethality. The U.S. government expressed concern about the risk of terrorists exploiting this information if the results were published.

• In 2013, at China’s National Avian Influenza Reference Laboratory, scientists combined H5N1 with genetic attributes found in dozens of other flu strains. The results included “man-made super flu strains” with lethal airborne transmission between guinea pigs. Scientists around the world condemned such experiments as “appalling irresponsibility.” Those scientists recognized the threat this experimentation poses should a new viral strain (mixed with human influenza) escape.

• In recent years, scientists continue to make advances in their ability to manipulate DNA and create new GMOs. New technology emerges monthly, with universities and research labs selling the old, but still very capable machinery – enabling terrorists or do-it-yourself amateurs to obtain advanced, inexpensive bioengineering tools.

A lone terrorist releasing the virus would likely be detected and thwarted to limit the devastation. However, a nation state would be more capable of launching a bioattack that not only has high lethality and transmissibility but also: (1) a longer dormant period; or (2) carriers who do not exhibit the illness or symptoms. This scenario could infect and kill millions, leaving survivors with social and economic instability as well as radically disrupted security for months or possibly years.
**Incentivization for a Bioattack**

If a country like North Korea were to launch a successful nuclear attack on another country, the worldwide response would be swift and devastating for that nation. Alternatively, North Korea could secretly release a deadly virus in the United States or elsewhere that could kill hundreds of millions. Even with strong speculation of responsibility, the origin of such an attack would be difficult to prove.

The effects of a weaponized virus versus a nuclear weapon are much greater: more lethal, less expensive, and easier to create and launch. In addition to the massive number of fatalities that an avian flu modified for human-to-human transmission could cause, the secondary and tertiary effects also need to be considered. Economic and social chaos coupled with a breakdown in law and order would contribute to the fatalities, perhaps even more so.

In the case of North Korea, another benefit of such an attack is that the country is relatively isolated from the rest of the world. As the virus spreads from country to country, North Korea’s limited international travel compared to countries like the United States could protect residents from the threat. North Korea would be ideally situated to not just survive, but actually benefit from a global pandemic. As South Korea and the United States experience widespread devastation, North Korea would be little affected by a pandemic.

Similarly, Iranian Revolutionary Guards could decide that preparing and spreading a human transmissible form of avian flu in Israel and the United States would be more beneficial than investing in a small nuclear attack, which would have a low probability of success but high probability of devastating retaliation against Iran. Releasing a slow-acting virus in busy airports would ensure that the contagion could spread for a few days before those infected would show symptoms. By the time the Centers for Disease Control and Prevention (CDC) detects and issues a warning, it would be too late for the millions of Americans who would already be infected in cities and states across the country. At that point, as the spread continues, quarantine would not be possible. In this scenario, Iran would likely be affected as the pandemic spreads. However, they would have time to quarantine and may have developed a vaccine before the initial release. Again, determining where the virus originated would be difficult to prove.
Scientists have warned for years that weaponized biotechnology and genetically modified organisms pose an “existential threat” to humans. A May 2011 National Defense University study concluded that “there are tangible opportunities for many potential adversaries to acquire, modify, and then manufacture to scale a potential GMO pathogen.” Despite warnings from scientists and experts of the “existential threat” that biotechnology and GMOs pose, the warnings have yet to be fully heeded. The controversial issues raised by this threat create political and bureaucratic barriers to governmental action.

Many known and yet unknown terrorist groups and bad actors around the world could be working on manual or high-tech bioengineering ways to develop deadly new viruses. The threat could originate from a broad range of actors – from one dedicated, deranged individual (a “biological Unabomber”) to a highly moral biologist. For example, a kindly scientist who believes that overpopulation is destroying the planet and future generations could develop and release a bioengineered viral pandemic to reset the human population to a sustainable level. In 1998, biologist Lynn Margulis warned:

*We need to be freed from our species-specific arrogance. No evidence exists that we are “chosen,” the unique species for which all the others were made. Nor are we the most important one because we are so numerous, powerful and dangerous. Our tenacious illusion of special dispensation belies our true status as upright, mammalian weeds.*

Although biotechnology promises great new treatments and advances in medicine, it also could be used to design new and more deadly viruses. It appears to be too late to stop the spread of this technology and its inevitable misuse. With or without advanced biotechnology, the potential of causing a global pandemic capable of killing millions of people could incentivize terrorists and nation states to tamper with pathogens to make them highly transmissible within the human population. There is no way to forecast the odds of a bioengineered viral pandemic, but many experts believe it is inevitable and could happen very soon.

*This article is Part 2 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
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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.
A pandemic, loss of the electric system, or other triggering disaster need not be that effective in directly killing people to generate a collapse that results in millions of deaths and a weakened nation. The “cascading effects” of an economic shutdown – loss of law and order, looting and marauding, disruption of health, sanitation, water, and transportation systems triggered by the initial disaster – may deliver much worse, longer lasting damage. When electric grids, nuclear reactors, and local water stop functioning, or the police force experiences many casualties, increases in violent crime could be far worse than the virus or other threat that caused it.

The risk of collapse is increasing because of six trends: (1) new technologies like DNA manipulation and bioengineering, new means to manufacture nuclear materials, nanotechnology, and others; (2) rising overpopulation and urbanization, which makes it easier for a virus to spread and harder to sustain the populace; (3) increased economic interdependence, just-in-time inventories; (4) dependence on long-distance food shipments, electricity, inadequate local water; (5) less personal resilience; and (6) more people and gangs with the means to kill and maraud.

Changing Times, Increasing Risks

Combining the spread of a deadly new virus with the vulnerability of just-in-time delivery supplies, as well as a complex and interdependent economy, increases the likelihood of a collapse. For example, a pandemic has costs to economic activity, public services, production of essential goods, and transportation. A subsequent failure of the electrical system or another big disaster could lead to widespread, long-lasting loss of law and order as the nation faces disruptions in factory operation, municipal water system functions, and economic activity. Panic buying and hoarding would add to food shortages.

Major changes in modern day society negatively impact vulnerability to disruptions and resilience to recover. A comparison between general characteristics of the 1800s and the same general traits today highlights the vulnerability of modern society (see Figure 1). As such, U.S. disaster planning should focus more on avoiding or recovering from a collapse than on the initial or “triggering” disaster.

In addition, gangs would accelerate the breakdown in law and order and magnify marauder threats. The number of gang members in the world is estimated at several million. The United States has tens of thousands of gangs and perhaps a million gang members. The MS-13 Latino gang alone, known for brutal murders, has tens of thousands of members dispersed among most U.S. states. In addition to gang members, others would also use the disaster and distraction to police as an opportunity to loot.
A major disaster could lead to economic and societal shutdown that escalates out of control. A Defense Science Board study warned that even a relatively benign cyberattack could trigger collapse:

\[F\]ood and medicine distribution systems would be ineffective, transportation would fail or become so chaotic as to be useless. Law enforcement, medical staff, and emergency personnel capabilities could be expected to be barely functional in the short term and dysfunctional over sustained periods.

Lessons From Past Pandemics, Disasters, Riots & Exercises

There are too many unknowns and situation-specific variables to reliably estimate public reactions to a disaster that disrupts food supplies and overwhelms the medical system and law enforcement. However, past disasters and pandemics provide insights that increase confidence that there will be elements of panic and lawlessness, looting, marauding, and murders, that need to be anticipated and prepared for.

**Spanish Flu pandemic**, 1918. The last serious pandemic is often cited as an example of what to prepare for. Over 500,000 Americans were killed. An internal American Red Cross report concluded that, “A fear and panic of the influenza, akin to the terror of the Middle Ages regarding the Black Plague, [has] been prevalent in many parts of the country.” Reactions were generally worse in cities. Automobiles were largely absent on the streets in Manhattan and Philadelphia. Little data on worker absenteeism is available but, even in defense industries, crucial to the war effort – absenteeism ranged from 45 to 60%.

**Outbreak of smallpox in Yugoslavia**, 1972. Europe’s last major smallpox outbreak was centered in Kosovo and Belgrade, then part of Socialist Federal Republic of Yugoslavia. The outbreak was stopped by quarantines, aggressive police and military measures, and 18 million emergency vaccinations to protect a population of 21 million that was already highly vaccinated. Panic and lawlessness were largely preempted or overcome by swift institution of martial law, with blockades of villages and neighborhoods, roadblocks, prohibition of public meetings, border closures, and prohibition of nonessential travel. Hotels were requisitioned for quarantine use; 10,000 people who may have been in contact with the virus were held under army and police guards. Blocks were cordoned off with barbed wire, “essentially

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<tr>
<th>Relative vulnerability of the population to disruptions</th>
<th>1800s</th>
<th>2010s</th>
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<tbody>
<tr>
<td>% population farming</td>
<td>&gt;80%</td>
<td>&lt;2%</td>
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<tr>
<td>Food travel distance</td>
<td>Few miles</td>
<td>1,000s</td>
</tr>
<tr>
<td>Food on hand</td>
<td>Months</td>
<td>Days</td>
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<tr>
<td>Water supply</td>
<td>Well</td>
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<tr>
<td>Electronic dependence</td>
<td>None</td>
<td>Heavy</td>
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<tr>
<td>Production sourcing</td>
<td>Local</td>
<td>International</td>
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<tr>
<td>Inventory levels</td>
<td>Large</td>
<td>Small (just in time)</td>
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<td>Overall vulnerability</td>
<td>Low</td>
<td>High</td>
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![Fig. 1. Relative vulnerability of the population to disruptions](image-url)
creating health prison camps." Almost the entire Yugoslavian population was vaccinated or
revaccinated, with help from other countries and an existing stockpile of vaccines. The net
result: just 175 Yugoslavians contracted the disease; only 35 died.

New York City, 1977. New York City suffered a lightning strike that caused power failure
for one night. As a result of the blackout, over 3,000 arrests were made for looting, 400
policemen were injured, and 500 fires were started. More than 25,000 emergency calls were
placed, with four times the usual number of hospital emergency admissions.

Plague outbreak in Surat, India, 1994. This plague caused a nationwide panic and “a near
international isolation of India,” $3-4 billion in economic losses, despite a very localized
occurrence of the disease and just 53 fatalities. When news of plague was released, 600,000
people (one fourth of the population) fled Surat by whatever means available. Even doctors
fled the city in desperation. Other cities, thousands of kilometers away, experienced overwhelmed hospitals
(imagined illness) and panic buying. Some nations imposed commercial
quarantines on India. The plague was spread by fleeing people, but
most of the deaths occurred in Surat.

Learned,” written by DHS in 2006, summarizes, the impacts of the hurricane and flooding
on law and order:

Almost immediately following Hurricane Katrina’s landfall, law and order began
to deteriorate in New Orleans.... People began looting in some areas as soon as
the storm relented. Violent crimes were committed against law enforcement
officers and other emergency response personnel.... The city’s overwhelmed
police force – 70% of which were themselves victims of the disaster – did not
have the capacity to arrest every person witnessed committing a crime, and
many more crimes were undoubtedly neither observed by police nor reported.
The resulting lawlessness in New Orleans significantly impeded – and in some
cases temporarily halted – relief efforts and delayed restoration of essential
private sector services such as power, water, and telecommunications.

The reports and evidence of lawlessness from Katrina documented in a 2006 Congressional
report are worth considering. Conditions cited in the report that contributed to lawlessness
and violence, included: collapse of local law enforcement; ineffective public communication;
lack of food, water, electricity, and medical supplies; uncertainty about evacuations; and loss
of hope. The need for military support to law enforcement was evident. Katrina showed that
lawlessness, looting, killing, and policemen abandoning their duty can result from disasters
with relatively minor threat of death.
Vancouver, Canada, June 2011. One hundred were injured, stores looted, cars burned, police attacked following a riot after loss in Stanley Cup championship soccer game. Police noted signs of organized violence with some bringing masks and gasoline, “they came prepared to break into display cases and steal.”

The United Kingdom, 2011. The UK experienced lawlessness on a countrywide scale. UK riots showed that law and order can break down and violence spread without an underlying disaster or cause. The UK Prime Minister called it “pure criminality”; others said it was inevitable violence from youth fed up with unemployment or mad at police. Attacks on police and looting started in London but spread quickly to cities across the UK. Rioters coordinated their activities. Looting and violence grew as more people took advantage of the opportunity and police lost control of many areas. Violence repeated in London for four nights until 16,000 additional police officers were moved in to restore order. In Birmingham, three men were killed trying to protect their businesses. Hundreds of youths in Manchester looted shops and set fires to cars and buildings. Police cars and five police stations were attacked with firebombs in Nottingham. Almost all (22 out of 23) boroughs in London were affected, with 2,500 shops and businesses looted across England. While 4,000 people were arrested, up to 14,000 were believed to have been involved in looting, arson, or attacks on police. A London School of Economics study of the riots found that most were involved simply as an opportunity to easily steal “free stuff.” Gangs were only a small percentage of law breakers.

Baltimore Riots, 2015. It took the State Patrol, National Guard, and police reinforcements from several states, as well as armored vehicles to restore law and order in Baltimore after racial protests opened opportunities for arson and looting. Despite the presence of police and TV cameras, a mob in broad daylight looted and then burned a CVS drugstore. Police fired pepper-spray balls to disperse crowds, with 15 buildings and 144 cars set on fire and 19 police officers injured. President Barack Obama denounced the rioters as criminals and “thugs,” saying there was no excuse for the violence. The violence was also promoted by social media with a call for students to “purge,” referencing a 2013 horror movie depicting a night when crime is legal and emergency response services are not available.
Top Officials Exercise, May 2000. A “Top Officials” tabletop exercise with senior leaders and disaster response experts simulated a plague attack in Denver, Colorado. By the second day of the exercise, Denver area hospitals had run out of antibiotics and ventilators, and plague was being reported in other states and countries. By Day 3, medical care in Denver began shutting down due to insufficient staff, beds, ventilators, and drugs. Person-to-person spread of plague was occurring, and the Centers for Disease Control advised Colorado to close its state borders to limit further spread of plague. By the end of the exercise on Day 4, there were an estimated 3,700 cases of plague and 950-2,000 deaths. The public did not participate due to concerns of disinformation and panic. Issues were raised over how to feed and control a populace that was likely to have grave concerns. In this four-day exercise, “competition between cities for the National Pharmaceutical Stockpile supplies had already broken out. It had all the characteristics of an epidemic out of control.”

Dark Winter Exercise, June 2001. During an exercise called Dark Winter, a group of government officials and journalists play-acted their way through a “germ game,” a fictional scenario in which the (then obscure) terrorist group called al-Qaida set off an outbreak of smallpox in U.S. shopping malls. In the simulation, National Guard units were activated and used to impose curfews and quarantines, and keep public peace. Senator Sam Nunn, who played the president in the exercise, drew these lessons learned from the smallpox exercise in his Congressional testimony:

I am convinced the threat of a biological weapons attack on the United States is very real.... The most insidious effect of a biological weapons attack is that it can turn Americans against Americans. Once smallpox is released, it is not the terrorist anymore who are the threat.... Panic is as great a danger as disease. Some will respond like saints.... Others will respond with panic, perhaps even using guns and violence to get vaccines.

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Editor Note: This 6-part series was submitted and scheduled at the end of 2019. In light of COVID-19, we are accelerating the publication of the final three parts to ensure DomPrep readers have this critical information to assist in their jurisdictions’ pandemic response plans.

The Johns Hopkins Center for Health Security is a credible source for dealing with pandemics and disaster response. In 2018, the Center created a realistic simulation of a moderately contagious and moderately lethal virus, similar to the lethality of the 2002 SARS outbreak, which killed about 10 percent of those infected. Designed by senior scholar Eric Toner, the "Clade X" simulation was based on a virus that was bioengineered and released by a group modelled after Aum Shinrikyo – the cult that released sarin in the Tokyo subway in 1995. According to Toner, researchers are convinced that this scenario is plausible – a virus like this could be created and spread to ultimately kill up to 900 million people if no vaccine were successful. Health care systems would collapse, panic would spread, and the U.S. stock market would crash. Toner warned that a pandemic could cause the collapse of hospital systems, “Most people don’t know how close we came to having that happen in the U.S. in 2009 ... due to a not particularly virulent flu strain.”

During that simulation – with experienced medical, national security, and former elected officials as key players – participants deployed National Guard troops across the United States to provide security at pharmacies and hospitals. That action was taken as an acknowledgment that some citizens are not going to simply wait for their turn to get a vaccine but will fight to improve their chances of survival. In some countries, military forces were deployed both to maintain domestic order and secure borders, “Widespread looting in some countries led to violent government crackdowns.”

Tara O’Toole, a former top Homeland Security Department official who played the homeland security secretary in the Clade X exercise commented that, “We are in an age of epidemics, but we aren’t treating them like the national security issues that they are.”

Simulating a Catastrophe & Considering Quarantine

A collapse in the economy, food distribution, and law and order could cause more fatalities than the triggering event. Foreshadowing incidents like the current coronavirus, more than 30 senior government and business executives convened at the 2006 World Economic Forum Annual Meeting. Booz Allen Hamilton’s Influenza Pandemic Simulation explored implications of an influenza pandemic in Europe. Here are some key takeaways from simulation participants:

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• Truck drivers being unable or unwilling to deliver goods during the pandemic could cause food stores to close from an inability to restock.

• The entire food chain as well as transportation and logistics are essential industries that would need to be prioritized during a pandemic. Governments would need to assume some responsibility to assist delivery of food and supplies.

• It is unrealistic for officials to simply tell people to stay home.

• To ensure critical infrastructure and resources (e.g., food, fuel, and health care), the government might need to take national control, similar to wartime measures.

• Conditions are likely to be much worse in lesser developed countries.

• Contingency plans should be developed now to go beyond the typical disaster response to include how to respond should the society and economy collapse.

• Looting and vigilantes may require martial law, conscription of workers to augment healthcare and security workforces, and nationalization of critical food and water supplies. Dr. David Nabarro, UN System Coordinator for Avian and Human Influenza, stated after the exercise:
  ○ “Quite likely by day 28 all systems will have fallen apart.”
  ○ “Martial law should be used to protect the people.”
  ○ “Military must be involved in the response to help keep the peace and deliver essential goods and services.”

A 2006 Department of Homeland Security publication stated that an influenza pandemic could cause “unprecedented national economic disruption,” security risks, and social instability:

• “Movement restrictions and/or quarantines will disrupt the supply chains and municipal services.”

• “Business planners should assume some level of social disruption and plan for direct security risks to their operations and along their supply chain.”

• “There will be fundamentally graver negative impacts on individuals, businesses, and the nation from the compounding effects of the disease impacts and disease mitigation strategies applied over a much greater duration than other typical disaster scenarios.”

• “Pandemic influenza has the potential for causing levels of global illness, death, economic disruption, and social disturbance like no other.”
Dr. Margaret Hamburg, then a Department of Health and Human Services official, warned in 2001 that, “[W]e must also recognize that the fear of a silent, invisible killer such as an infectious agent will likely evoke a level of fear and panic substantially greater than what has occurred in response to those more ‘conventional’ disaster scenarios.” She cited the example of panic and civil disruption from the Surat, India plague outbreak in 1994.

**Secondary Consequences & Threats of Violence**

Nancy Kass, a professor at the Johns Hopkins Berman Institute of Bioethics, and others publishing a study in a biosecurity journal, warned in 2008 that, “the secondary consequences of severe pandemic influenza could be greater than deaths and illness from influenza itself.” “It takes a lot of people to keep society going.”

Although traditional pandemic planning gives medical treatment priority to hospital staff and first responders – such as firefighters and ambulance workers – truck drivers, food plant workers, water and nuclear plant workers, hospital janitors, and many others continue to work while risking exposure to the deadly virus or lawlessness. Hurricane Katrina demonstrated how post-disaster events can be more damaging than the event that precipitated it:

- Loss of electricity and heat
- Scarce clean water
- Backed up sewage
- Widespread social chaos
- Outbreaks of other infectious diseases
- Social degeneration, looting, or violence

Former Central Intelligence Agency Director Admiral James Woolsey warned in 2017 that North Korea probably has nuclear warheads optimized for high-altitude electromagnetic pulse (EMP) effects. When delivered by satellite or intercontinental ballistic missile (ICBM), one detonation even without great accuracy could disable the national electric grid for over a year, killing up to 90 percent of the population through societal collapse and starvation. The number killed in the initial nuclear detonation would be much less than post-incident fatalities.

Food supplies that could typically last for two to five days could be depleted within hours due to panic buying and hoarding. This phenomenon is currently occurring across the United States.
States. Gangs too may accelerate the breakdown in law and order and magnify looting and marauder threats in a pandemic. The United States has about 50 murders daily, **33,000 violent and criminally active gangs**, and **about 1 million gang members**. In addition to local drug and mafia gangs, foreign gangs are present across the country. **MS-13**, a Latino gang known for brutal murders, has an estimated 10,000-150,000 members in 42 U.S. states. With law enforcement personnel reduced from a pandemic, focused on protecting medical facilities and enforcing quarantines, or ineffective due to no electricity, gangs and lawbreakers have more opportunity for criminal activity.

If either the viral threat or lawlessness threat is severe, truckers may not be willing to risk their lives to deliver food, retail workers may refuse to work, and food production may cease. Even without such threats to food distribution, **quarantines** and road closures could hinder or prevent food shipments. Rural farm states, for example, may close their borders to keep out refugees from urban areas who may bring violence or to stop road traffic that could increase the risk of spreading the virus. These states may reason that they have plenty of food and water, so they are better off with a strict quarantine. The opposite may be true for people in more urban states, but road closures and border control are ultimately state and local government decisions. While people can go for many days without food, a food shortfall or just the rumor and fear of no food, could lead to panic and breakdown in law and order.

**Leadership Challenges: Viruses, Vaccines & Violence**

The 2006 **Pandemic Influenza National Strategy and Implementation Plan** warned that, “civil disturbances and breakdowns in public order may occur... Local law enforcement agencies may be called upon to enforce movement restrictions or quarantines, thereby diverting resources from traditional law enforcement duties. To add to these challenges, law enforcement and emergency response agencies can also expect to have their uniform and support ranks reduced significantly as a result of the pandemic.” In addition to quarantine enforcement, the impact of supply chain disruptions and conflicts “as persons vie for limited doses of vaccines and antiviral medications” are noted.
Another factor that could raise public outrage and incite violence is the necessary yet contentious practice of prioritizing who receives vaccines. A pandemic caused by a biological attack would require government at all levels to ration urgent care and vital supplies. Hospitals would have to turn sick people away. It takes six months or more to produce a vaccine for a new flu variant or virus. While the public waits for vaccines, the death toll will rise. The need to give medical personnel, law enforcement, military, and other key workers priority will lead to unequal distribution of vaccines. Some who object would attempt to steal vaccines or food for their families or lash out at perceived injustice. Those categorized as nonessential workers (truck drivers, food plant workers, etc.) may use this as another reason to stop working to reduce their risks during the pandemic. Rather than calmly accepting a low priority and long wait for vaccines, people are more likely to take actions to save their lives, which may include breaking laws and killing if necessary.

The 2006 Department of Defense Implementation Plan for Pandemic Influenza called for the military to be prepared to assist with dealing with lawlessness and societal stress:

- “State, tribal and local jurisdictions will be overwhelmed and unable to provide or ensure the provision of essential commodities and services.”
- “The provision of routine security services for the protection of critical infrastructure will require federal augmentation.”

With so many variables and so little data from past experience, there is no valid way to predict how people will react in a severe pandemic. The response to COVID-19 will provide many new lessons learned. Variables that have significant and uncontrollable impact include rumors and the way the media portrays events. Although government officials may feel uncomfortable or believe it is politically incorrect to write about and plan for the likelihood that a segment of the population will loot and kill, this kind of violence needs to be considered and planned for so it can be deterred and mitigated.

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In contrast to experts’ estimates of millions of deaths, the U.S. Department of Homeland Security (DHS) pandemic influenza planning scenario refers to just 87,000 casualties – not much more than a bad seasonal flu. This version of the scenario seen in public forums has planning assumptions on virus lethality, worker absenteeism, and maintenance of law and order that are irresponsibly optimistic. When planning for security, it is better to err on the side of worst-case scenarios. The DHS uses 15 National Planning Scenarios. Scenario 3 is “Biological Disease Outbreak – Pandemic Influenza,” and Scenario 4 is “Biological Attack – Pneumonic Plague.”

None of these scenarios involve a genetically modified organism (GMO) or bioengineered agent used to generate a viral pandemic with truly catastrophic levels of deaths. None of these scenarios deal with large nation-state levels of attack. There is no official, released version of DHS Scenario 3, but references to Scenario 3 usually cite just 87,000 casualties, less than what many scientists and biologists fear would result.

The assumptions of the virus not being that bad, worker absenteeism not much problem outside the health care sector, and no problems from lawlessness, lead to all forms of critical infrastructure operating and no cascading effects. However, the 2006 National Influenza Pandemic Implementation Plan noted that “a modern pandemic could lead to the deaths of 200,000 to 2 million people in the United States alone,” compared to the 87,000 fatalities most often cited for Pandemic Influenza Scenario #3.

Realistic vs. Unrealistic Projections

A doctor, pandemic expert, and associate DHS director, writing in New England Journal of Medicine in 2005 estimated that, “even a relatively ‘mild’ pandemic” (relative to the lethality of the 1918-1919 Influenza pandemic) “could kill many millions of people.” Avian flu (H5N1) may be worse than past H1N1 influenza pandemics. The contrasts between the 1918 Spanish Flu pandemic, seasonal flu, and the anticipated avian flu pandemic cited earlier that experts say could kill a billion people. The realistic Clade X simulation estimated hundreds of millions of fatalities. Yet U.S. National Planning Scenarios uses only tens of thousands of fatalities.

The National Planning Scenarios (NPS), while marked “FOR OFFICIAL USE ONLY” are readily available on the internet in sanitized, abbreviated form. Detailed versions that were accidentally posted a decade ago are still available on some state websites. The NPS occasionally refer to but ignore the consequences of a collapse in their “secondary hazards/events,” in casualty estimates, or recovery resources and preparations needed.
The official modeling and studies of the Pandemic Influenza scenario show optimistic assumptions, ignoring many politically contentious issues. For example, the 2007 OSHA description highlighted changes in shopping behavior, desired items, and preferred shopping times and methods, but does not address panic buying, looting, and violence that are also likely to occur.

A Council on Foreign Affairs sponsored conference in 2005 considered the impacts of an avian flu outbreak. The fatality estimate used was not thousands, but a pandemic that would kill 130-150 million people, about 2% of the world’s population. Their predictions of impacts:

- Air service to infected areas will shut down (with unions/employees refusing to fly, even if governments do not prohibit international flights).
- The pandemic would last 18 to 24 months (not less than a year like the mild H1N1 pandemic).
- Some political leaders will decide to close borders at national, state, and city levels.
- Basic services such as food and fuel will be significantly affected.
- The weakest link may be the physical distribution system, just-in-time delivery.

The consequence of unrealistic scenario planning for a mild pandemic and no loss of law and order, no collapse, is likely to be millions of lost lives due to politically correct plans and gross unpreparedness. The assumptions of DHS Pandemic Influenza Scenario 3 contradict the “Lessons Learned” from Katrina that DHS and the Bush White House published:

*While the National Planning Scenarios have been effective tools for generating dialogue on response capabilities, they do not fully anticipate some of the worst disaster scenarios. . . If the purpose of the National Planning Scenarios is to provide a foundation for identifying the capabilities required to meet all hazards, the Scenarios must press us to confront the most destructive challenges . . . [W]e must revise the planning scenarios to make them more challenging.*

Like many government reports, little was done to execute the recommendations in that report.

Another dangerous set of assumptions involve levels of worker absenteeism, particularly in law enforcement and the food and transportation sector, which are key to avoiding lawlessness and higher casualties in a collapse. Government publications on pandemic preparedness often cite worker absenteeism rates of up to 40%. A 2009 study of health care workers who were asked about their willingness to report to work for a smallpox, SARS
(severe acute respiratory syndrome), or other dangerous diseases found [worker absenteeism rates above 40%](https://www.domesticpreparedness.com). Many people are going to stay home rather than risk exposure to a deadly virus, risk getting killed by marauders, or risk having their family or home attacked while they are at work.

Studies thus far do not support the reasoning behind the 40% absenteeism rate used by national planners. When developing these rates, the numbers must reflect the risk people take at work combined with the risks they take of endangering their families by unknowingly bringing home a deadly virus or leaving their families vulnerable to other dangers while they are away. Considerations must be made for the impacts of the trigger event (e.g., a pandemic, no electric system, no reliable law enforcement due to some other widespread big disaster) in addition to the impacts of lawlessness on a scale the United States has yet to experience. The impacts of social media spreading rumors and panic could also affect absenteeism rates.

Businessmen who attended a conference on dealing with an H1N1 influenza pandemic (not a very lethal form of flu) in 2009 said worker absenteeism was their greatest concern. They were uncertain what absenteeism rates would be but, in a poll taken, their estimates were much higher than the “baseline” or “anticipated” rates of modeling cited earlier.

**Deadly Combination: Supply Chains & Violence**

The National Planning Scenarios ignore human nature, past disaster experiences (which are less significant than a pandemic, loss of the electric system, or other widespread disaster), exercises like Clade X and Dark Winter, and common sense. After Katrina, lawlessness, looting, and worse was a significant problem. Most of the Guard troops who deployed for disaster recovery were used in a law enforcement and security role. For a longer lasting, far more deadly pandemic or loss of the electric system, the loss of law and order and its impact will be far worse.

Looting and violence will occur in a disaster, particularly to secure food and essential supplies. Whether avoiding exposure to viruses or avoiding marauders, truck drivers eventually will determine that it is unsafe to haul food. There is vague references to this in some [DHS influenza pandemic documents](https://www.domesticpreparedness.com): “movement restrictions and/or quarantines will
disrupt the supply chains and municipal services”; “Business planners should assume some level of social disruption and plan for direct security risks to their operations and along their supply chain.” Katrina provided evidence that truck drivers will need military escort and protection, or they may refuse to work.

Chief of the National Guard, Lt Gen. Blum reported that, “truck drivers coming in with the most needed supplies, water, food, ice, shelter, medicine... were afraid to come in. They had to be escorted in by National Guard convoys, which took other manpower away from the relief efforts to go help get the commercial truckers.” Due to security concerns, 1,000 FEMA employees set to arrive in New Orleans had to turn back, which agitated storm survivors in the Superdome. The level of demands on law enforcement personnel and lawlessness in a pandemic or no electrical power situation will be far worse than Katrina.

The consequence of unrealistic scenario planning is likely to be millions of lost lives due to politically correct plans and gross unpreparedness.

Failure of one link in the food production, processing, distribution, and retail chain could stop food deliveries. Depending on the time of year, much of the migrant labor workforce in the southwest U.S. may simply go home to avoid the virus, the risks of being exposed to crime, and desire to be with family during a crisis. The jobs in food harvesting and food manufacturing are generally low-skill, low-wage, and high-turnover jobs. Many of these workers may reason that they would be safer calling in sick or quitting their jobs. When people cannot get food, or fear they will not be able to, it is not just gangs that may steal and sometimes kill for food, but many common people who are just trying to keep themselves and their families alive. People will not simply stay home and die when faced without food and water.

It is not just grocery stores with a few days of perishable food that may disappear in hours due to panic buying, and probable looting. Gas stations need deliveries every one to three days (with normal demand). Hospitals do not have more than a few days of supply for daily patient needs. Water treatment plants keep only one to two weeks supply of chlorine on hand for water treatment. Whether there is panic buying or not, truck drivers will be urgently needed to replenish food and other essential supplies, as well as other workers needed in food processing and retail stores, water and power systems, etc.

Threats to transportation workers were noted in the 2006 Homeland Security Council pandemic influenza implementation plan, including the risk of lawlessness: “Transportation providers will be concerned about protecting their employees, risks to travelers and goods, and the potential impact on facilities and vehicles.” “Risks to travelers and goods” refers
to fear of crime. Government officials are understandably nervous about accusing citizens of being criminal threats, so vague references to lawlessness are often used. The report went on to warn that “Due to expected high absenteeism, transportation services may be limited. Interstate movement will become increasingly constrained as the pandemic peaks and local travel restrictions may increase.” The national, high-level guidance was to assume quarantine road closures. This is not what was modeled or used for the assumptions of Scenario 3. Many trucking operations are small businesses. The national plan warns that some may “permanently cease operations due to the operational/financial burdens caused by the pandemic.”

The U.S. Department of Defense’s (DOD) planning assumptions for pandemic influenza states that, “provision of routine security services for the protection of critical infrastructure will require Federal augmentation.” Such augmentation includes helping with quarantine enforcement, supporting overwhelmed medical facilities, backing up civilian law enforcement, and protecting transportation and logistics. The DOD plan anticipated that security support would also be needed for pharmaceutical and vaccine production as well as assistance during civil disturbances, “DOD will augment civil law enforcement efforts to restore and maintain order.”

National planning scenarios assume that most people will go to work rather than stay at home. Most infrastructure systems outside of the public health and healthcare sector are predicted to continue to function at or near normal levels. These scenarios assume the economy keeps functioning, people stay calm, and there is no loss of law and order and no collapse. Large-scale lawlessness is a grossly neglected aspect of disaster consequence management planning. In terms of total fatalities, the fate of food production and transport as well as law enforcement may be most important in minimizing casualties.

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Triggered Collapse, Part 6: A Nationwide Call to Action

By Drew Miller

Similar to pandemic preparedness, the U.S. government is not doing enough to prepare for failure of municipal water systems when the electric grid goes down. Government programs do not address loss of law and order or cessation of food production and delivery services. Elected and appointed officials often downplay the number of deaths to be expected and the lack of preventative measures. They also do not acknowledge people taking advantage of stresses on law enforcement to loot and maraud in the event of a collapse. Swift action is needed now to mitigate potential consequences of a future triggered collapse.

Official government-funded reports of Katrina, Congressional testimony on Dark Winter, and Congressional testimony from the EMP Commission acknowledge that expectations of major disasters should include panic, riot, looting, and murder. However, in the 2006 National Planning Scenarios, there is only a footnote mention of social unrest:

Disclaimer: Disaster literature has established that people don’t panic or act irrationally in a disaster as long as they have credible information and purposeful activities to undertake in response. While one must plan for the worst, this is not a prediction of violence and mass panic. There is no evidence that the public will respond in a lawless manner in a real influenza pandemic.

The disclaimer acknowledges panic and violence while denying they will occur, then insisting that they must plan for the worst while refusing to do so because they assume panic and violence will not occur. The document also includes “maintaining security in communities” in a list of emergency management responses.

Reasons Behind Not Preparing

The pandemic scenario itself is anything but planning for the worst. It assumes a low fatality rate, only 10% worker absenteeism, and no consequences from any ensuing violence. In sum, the National Planning Scenarios are designed to ensure that government preparations look good, but not necessarily plan or prepare for high-likelihood consequences of major disasters. In addition to bad press and political-bureaucratic factors, major reasons the federal government is not addressing the need to prepare for a pandemic are outlined below:

- The Department of Health and Human Services is lead agency on pandemic planning, while also a significant supporter of bioengineering research.
- Scaring the public about bioengineering or encouraging regulations could stifle U.S. research being conducted by scientists, universities, and biomedical companies.
- Only a small percentage of victims can be hospitalized and treated. Since it takes six months or more to develop a vaccine for a new flu variant or genetically modified organism (GMO) virus, hospital beds and vaccine administration has to be prioritized.
Hardening the electric system and reducing its vulnerability would cost tens of billions, with increases in rates that will lead to loss of votes for elected officials.

Estimating that millions of Americans may die – and stating that it cannot be prevented – is detrimental to elected officials.

Government officials do not explicitly address impacts of looting, breakdown in law and order, stealing, and sometimes killing to obtain food.

Ethical issues of a pandemic are controversial: who gets medical treatment and supplies determines life and death, and many people will never receive them.

Preparations like equipping the Federal Emergency Management Agency or National Guard for crowd control could lead some conspiracy/anti-government critics to protest government takeover preparations. For example, President Bush’s call for military support in a pandemic and preparations for dealing with law and order problems were condemned by groups ranging from the American Civil Liberties Union to the Cato Institute.

Standard “prepper” measures like having guns and ammunition to protect homes as well as food and water are politically controversial for governments to address.

No big company or organization stands to benefit from increased preparedness for a pandemic, so there is no lobbying similar to that for a weapons system acquisition.

Officials who warn of vulnerabilities may be accused of tipping off terrorists.

Government officials want to avoid charges of scare mongering and overreaction, which were raised following the 2009 swine flu and other warnings of flu pandemics that did not occur.

The Department of Defense (DOD), which is the federal agency most capable of dealing with a collapse, focuses on and leads overseas operations, with little interest in pandemic recovery operations, where Department of Homeland Security (DHS) is lead.

The reluctance to warn and prepare for what many scientists say is inevitable – a natural avian flu pandemic or a bioengineered virus attack – is reprehensible, but understandable. Spending billions to harden the electric system will increase electric costs and anger voters. Until the first instance of disaster, it is doubtful there will be strong action to prepare for a pandemic, loss of the electric system, or other disaster-caused collapse. Politicians can avoid some responsibility because of public assumptions that government is watching out for them, despite periodic warnings in the newspapers.

**Black Swan Events**

The Defense Threat Reduction Agency, which is the nation’s leading agency for protecting against weapons of mass destruction, warned in 2012 that the nation faces the “inevitable emergency of a new threat from biological and chemical agents.” The Commission on the
Prevention of Weapons of Mass Destruction Proliferation and Terrorism, the international police agency INTERPOL, and the former president of the Royal Society of London all warn that bioterror attacks could kill millions. When Dr. Henderson, who led the World Health Organization global smallpox eradication campaign, estimated in 2012 that a human transmissible form of Avian flu could injure and kill billions, that was a credible warning of an existential threat.

Nassim Taleb’s *The Black Swan: The Impact of the Highly Improbable* offers insights into why warnings of these pending disasters are ignored. A black swan is an extreme impact event that is outside the realm of regular expectations; nothing in the past can convincingly point to its possibility. Concerning such events, Taleb warned that, “things have a bias to appear more stable and less risky in the past, leading us to surprises... The history of epidemics, narrowly studied, does not suggest the risks of the great plague to come that will dominate the planet.”

Taleb cited 27 widespread errors in human thinking processes and misapplications of statistics to explain why black swan disasters like a coming bioengineered viral pandemic or North Korean EMP attack that takes down the electric system are neglected. People cling to current truths and past experiences that new technologies and changing conditions may soon render wrong. Taleb cited as examples the diaries of people prior to WWII – they did not know that something momentous was taking place, that large-scale war was coming.

“Disaster blindness” for a bioengineered viral pandemic may be stronger in the United States because of a strong military and feeling of immunity from attack. This is precisely why a bioengineered viral pandemic is a likely weapon of choice for attacking the United States. It could kill more people than a large nuclear attack, cause more lasting devastation, and create an economic collapse. In addition, retaliation is less likely since the origin of the attack is difficult to prove who released the virus. If the attackers developed a vaccine, they could also avoid the worst impacts of the devastation as it spreads around the world.

**Action Plan for the Government & Citizens to Prepare for a Collapse**

Citizens need honest disclosure of the nation’s many vulnerabilities:

- The likelihood of a natural or bioengineered pandemic and difficulty to prevent it;
- The fragility of the nation’s electric system, and warning that the grid could go down for a year or more;
- Disclosure of dozens of other threats, known (pandemics, asteroids, super volcanoes, cyberattacks, etc.) as well as black swan, largely unknown, and new threats (nanotechnology disaster, artificial intelligence misuse, etc.); and
- Frankness in admitting that the economy may not function and law and order may be lost.

Sheltering at home, the ability to get food and potable water, while feeling safe from marauders, may be most critical for avoiding a collapse.
According to experts like Dr. Arturo Casadevall, Department of Microbiology and Immunology and Division of Infectious Diseases at Albert Einstein College of Medicine, preventing bioattacks and pandemics is not possible. During a Bioterrorism International Tabletop Exercise in 2007, Ronald K. Noble, Secretary General of INTERPOL, also called for accepting the inevitability of bioattacks and preparing to manage them.

Since it is not possible to prevent small nation states, terrorist groups, or dedicated individuals from modifying viruses and unleashing a pandemic, honest and responsible acceptance would help warn and prepare communities for the aftermath of pandemics and other highly possible collapse-level disasters. However, there does not need to be a disastrous trigger event for communities to experience widespread loss of law and order: A sudden economic downturn or a disputed election could – with the aid of social media, press hysteria, hostility toward government, and opposing political parties – escalate and degenerate into a collapse.

Every person needs to be prepared for a collapse, that could last for months or worse. The focus should be on dealing with a collapse more than specific trigger events. Citizens should know that they need the means to protect themselves when law enforcement is overwhelmed and there is a breakdown in law and order: People in big cities should be advised to consider plans and preparations to get out, since supplying major cities and maintaining law and order there will be particularly difficult.

For most Americans, sheltering at home, the ability to get food and potable water, while feeling safe from marauders, may be the most critical need in avoiding a collapse in the economy, lawlessness, and potentially high casualties from the disorder that ensues. Military support to back up law enforcement, directly transport or escort civilian truck drivers, and distribute food and vaccines (or protect food retailers), may be decisive in avoiding a collapse and far more casualties.

To reduce the breakdown in law and order, escort truck drivers, and move key suppliers, the Army National Guard needs to be trained and equipped to conduct crowd control and massive support of local law enforcement. Although the Guard and Reserve do a formidable job in domestic disaster, it is not expected that all members will report to or stay on duty during a long-term collapse if they cannot be sure their families are safe.

Due to a potential decrease in active and reserve military during a long-term collapse, state and local governments should pursue a massive expansion in reserve law enforcement forces:
• Encourage all separated and retired law enforcement and military personnel to join in local law enforcement emergency reserve forces
• Do not subject reserve policemen to huge training requirements, make them study local laws, or burden them with onerous regulations.
• Let them get quick, simple, minimal training in serving as guards and truck escorts.
• Stockpile small arms and ammunition for them.
• Issue uniforms labeling them as reserve police forces.
• Follow the National Guard model (and consider drills with and getting trained by Army Guard MPs and Air Guard Security Police)
• Conduct periodic (but much less than one weekend a month) paid training.
• Favor using them in their hometowns so they can serve as reserve policemen in their community and also keep watch over their homes.

The Pentagon should create a Civil Ground Patrol, modeled on the all-volunteer, Air Force sponsored Civil Air Patrol, to start training civilians to assist with pandemic response and recovery operations. The Army National Guard, not DHS, would be the best sponsor for Civil Ground Patrol. Civil Ground Patrol units should be dual aligned with a local law enforcement agency and the state Army Guard, and train with both organizations.

Although these are just some of the preparations needed, these are relatively low-cost solutions compared to purchasing an additional aircraft carrier or adding an armored division to the Army. Barriers for government officials and politicians to implement these vital preparedness measures include the risk of spending funds and raising costs to citizens for measures the public is not demanding and businesses and special interest groups do not offer as campaign donations. Law enforcement’s priority in a disaster is to ensure continuity of government. However, while police assets are allocated to guard City Hall, congressmen, mayors, and city councilmen, citizens will lack responses to their calls for help. In a collapse, elected officials would be more incentivized to address security concerns and better prepare for collapse if they knew they would not receive priority protection.

This article is Part 6 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: 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

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