

Entry

Local Government Emergency Management

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Definition: According to the U.S. Federal Emergency Management Agency (FEMA), emergency management is “charged with creating the framework within which communities reduce vulnerability to threats/hazards and cope with disasters” (FEMA, n.d.). Local government emergency management involves the efforts of municipalities, cities, counties, and special government entities in responding to threats/hazards and coping with emergencies.

Keywords: emergency management; local government; disasters; resilience

1. Introduction

Hazard events, of both natural and technological origin, and disasters triggered by such events, present a variety of challenges to affected communities. A hazard may be thought of as “an extreme natural event that poses risks to human settlements” [1], or alternatively, a threat “to people and the things they value” [2]. While a hazard event does not necessarily mean an emergency or disaster, an event that is uncontrolled can quickly lead to extensive blows to personal property and public infrastructure, adversely impacting the lives of citizens.

Local governments play a critical role in responding to hazard events and emergencies. “American emergency planning and response . . . begins at the local (city, town, and county) level, close to the individuals and communities most impacted . . . best practices include “whole of government” and “whole community” approaches, involving all parts of the government, community organizations, institutions, and businesses, with representation from diverse individual community stakeholders” [3]. In the United States case, under the National Disaster Recovery Framework, local governments have primary and initial responsibility for emergency response, as well as for collaboration, coordination, and communication; further, local governments are responsible for planning for their disaster management, and acting on behalf of their communities with regard to recovery, and advocating for community needs [4,5]. When local governments become overwhelmed, requests for assistance from higher levels (counties, states, and the Federal government) would be appropriate. The focus in this work is on local government responses to hazard events, though interaction with other levels of government is normal and typical.

Drawing on a review of emergency management, literature (Databases consulted in the search of literature include ExLibris CDI at the University of West Florida, and OneSearch at Florida Atlantic University. Keyword searches included local government; preparedness; hazard mitigation; vulnerability; resilience; stakeholder; participation; communication; business. Resources from FEMA were also consulted), this entry provides a general overview of local government emergency management, focusing on preparedness, response, and recovery. Preparedness at the local level includes planning, hazard mitigation, risk reduction and management, the importance of working with and planning for special-needs populations, community engagement, and stakeholder involvement. Concepts of vulnerability and community resilience are discussed. Disaster response is then reviewed, with regard to local governments’ relationship with the Federal Emergency Management Agency (FEMA), requirements under the Robert T. Stafford Disaster Relief



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and Emergency Assistance Act (Stafford Act), aid and assistance, and expenditures; a section highlighting relationships with the local business community is included. Finally, a consideration of local government's role in disaster recovery concludes the entry.

2. Preparedness

For emergency management, preparedness has been defined as the ability to “react constructively to threats from the environment in a way that minimizes the negative consequences of impact for the health and safety of individuals and preserves both the integrity and the functioning of physical structures and systems” [6].

It is not sufficient now (if it ever was) to point to hazard events as simply unexpected, and thus evading the ability of government and the private sector to properly plan and account for them. While every possible eventuality is not known, it is not necessary for all possibilities to be known, for government and industry to respond appropriately and acceptably to hazard events, to avoid scenarios becoming significant emergencies and disasters. Risk is not going away, so it is incumbent upon society's leaders to manage risk. Generally, a prepared system is open, adaptive, and flexible. Knowledge accumulates, as Comfort pointed out, and uncertainty and the potential for danger are reduced [7].

2.1. Planning

Governments have a duty to plan for emergencies and ready themselves to deal with events when they happen; planning is a continual process, rather than an arrival point, and so a local government that is properly engaged in planning for emergencies will be working with emergency planning on an ongoing basis [8]. This noted, there is a tendency to adopt practices from elsewhere, or utilize systems and plans from other locales, generally known to be best practices, in an effort to plan for potential hazard events. The problem with this approach is that these plans—“technologies of recovery” as Easthope and Mort call them [9]—from other places are for other places, and other contexts and scenarios. It is possible that others' plans can be remade into new plans, through investment of local knowledge, by local experts and practitioners [9]. Otherwise, there is the potential for mistaken expectations—that simply having a plan for emergencies is good enough—when what really matters is local knowledge, of hazards, community behaviors, and problem solving that makes the most sense for the specific community involved. Absent effort to localize and effectuate meaning and interaction, imposition of best practices is often so much small tyranny, and an excuse for lazy thinking that fails when crisis looms.

As a separate matter, local government planning and implementation of emergency management operations is possibly a source of potential legal liability if a government entity has failed to plan, if a plan is implemented poorly, or if the government entity has failed to act reasonably [8]. Part of implementing a plan is ongoing training, and there is some evidence that emergency management training has not always scored high marks for comprehensiveness and quality [10].

2.2. Hazard Mitigation

Hazard mitigation is a central aspect of emergency management, in which local government may have a central role. Burby demonstrated the paradox of making areas prone to hazards seem ‘safe’ to development [11]; much of this has depended upon insurance coverage, adjustments to geographic features to reduce impacts of hazard events, and Federal largesse in disaster relief. Insurance, though, is a form of risk transfer, and does not actually make an area safe, even if it makes an area attractive for development purposes; the hazards themselves remain. While this is a general critique on risk management, there are still some approaches that local governments can take to reduce potential for negative outcomes.

Preventive land use planning is seen as a particularly strong approach to addressing potential hazard impacts [12]. This might involve foregoing development in areas of greatest risk, either on a voluntary or regulatory basis. It might be possible for government to

purchase high-risk property to keep it from being developed; the property might be used as public space, reducing risk from hazard events. But just because a certain form of planning is preferred in the academic literature, does not mean that it is most often encountered in practice. While land use planning options are more efficacious, they are politically harder to achieve [12]. Other forms of hazard mitigation include provision of emergency services, private property protection, information and awareness, and infrastructure protection activities; there may also be efforts to identify ‘projects’ that, in the event of a hazard scenario, could be reimbursement-eligible through Federal resources [12]. Adopting strong building codes is important at the state level and enforcement at the local level can be a key aspect of mitigating risk. The choices that are made are representative of the political and social realities at work in the local policy context.

2.3. Risk Reduction and Management

Community risk has an impact on, and affects preparedness that exists and that might be expected in response to, any particular hazard situation. As Gerber pointed out, the type of risk matters less than the perception of imminent threat—“administrators and elected officials take more direct actions when a reasonable level of risk is present” [13]. Therefore, actual risk aside, there must be a perception of risk for action to be taken, and sustained in the case of ongoing planning and preparation efforts.

The decision to evacuate is often a difficult choice for local leaders, but after the fact, given a calamitous disaster in a community, the choice to not evacuate could seem indefensible. At its root, and as problematic as it is, the evacuation decision is local; while many other communities making the same decision can make the choice easier, the choice amounts to a decision point and possibly a moment of leadership and even courage. It can involve foregoing, for example, significant financial returns, if in a predominately tourist-driven economy. It can cause disruption and significant local expense. It can make citizens angry [14]. It can also save lives.

Ultimately, one of the most serious points of failure in inability to manage risk is a complacency in the population, particularly from long-term residents that do not take seriously the potential threat of a given hazard. They may think they know more than others—and their misplaced confidence may actually put others in danger as well. It is well-known that the public may not respond favorably to first indications of risk and imminent threat, and may well wait to receive additional indication of danger and individual impact; this was demonstrated in the case of the 2011 Joplin, MO, USA tornado [15]. The public may need to receive information about the potential hazard threats in a variety of formats, in order to act upon them; the language may need to be customized so that people pay attention to the message and act upon it in an appropriate way. Developing an appropriate communication strategy is an essential activity for local government, and a critical role to help keep communities safe. If the public is ignoring emergency management communications, then it is perhaps appropriate to employ different means of outreach, including forms of marketing targeted to differences in learning styles [16]. Communication strategies may need to be more interactive, and failures may speak to a general lack of community engagement [17]. Further, a public information officer (PIO) may be particularly helpful for consistent, authoritative messaging [18], but consistent with Meyer-Emerick [16], attention to the specific community context is essential.

2.4. Services for People with Disabilities: Accessibility

Enders and Brandt wrote that “Disasters disrupt the social, cultural, economic, and physical environment. In the midst of the disruption, environmental factors become visible in ways that would normally be overlooked and difficult to measure in the regular course of day-to-day events” [19]. Individuals with disabilities may be specifically impacted by these changes to and disruptions of environmental factors. A strong local government emergency management orientation shows awareness of all the community’s populations, including individuals with disabilities. Different types of disabilities according to the U.S.

Census Bureau include sensory disability, physical disability, mental disability, self-care disability, go-outside-home disability, and employment disability [20]. Types of disability may inform the type of assistance that is needed, given various forms of hazard risk. Pre-hazard awareness of general and specific needs, and plans for addressing needs in light of potential hazard impacts, is appropriate.

2.5. Stakeholder Involvement

Stakeholder involvement in emergency management has often meant periodic meetings with government, nonprofits, and the business community, engaged in discussions about how to respond to hazard events and pay due regard to impacts upon represented populations. This planning and advisory role, while important, is perhaps too limited to address the full range of needs that may arise in practice, and may not allow for development of adaptive capacity and the relationships needed to provide for resilient communities.

Community leaders may feel disempowered by efforts that are restricted simply to posting meeting notices and sharing information, as they may feel marginalized from those aspects of discussion where decisions are made and where information critical to serving their respective agencies' clients is unavailable. From the perspective of providing for a strong response after a hazard event, it is essential that nonprofits be involved as stakeholders, because frequently they form the backbone of a resilient service and logistics network [21].

Stakeholders need not be limited to attendance at planning meetings. There is evidence, for example, that volunteers are increasingly becoming involved in service delivery at the county government level—these services are not limited to narrow areas of public interface, meaning that there are potentially broad areas for volunteer involvement [22]. While this can be a help for public benefit, especially when public budgets are constrained, volunteerism during a crisis event can make the difference for a successful response and recovery. However, any effort needs to be coordinated through an appropriate authority, so that well-meaning members of the community are not put in harm's way or made a danger to themselves and others. Consider that not all volunteers may be appropriate for an assignment—the individual may want to help, but have a personality conflict or agenda that prevents them from being a good match with the actual work of response and recovery [23]. Also, note that volunteer work is still work, and requires a job description; clarity in the written job description, including to whom the volunteer will report, job responsibilities and requirements, and commitment information, is helpful [24].

2.6. Community Engagement

Citizen involvement has often been shown to be an important component of public capacity-building [21]. Community engagement for emergency management purposes tends to be somewhat limited, and specifically focuses on one-way information provision through traditional media outlets and more recently, social networking platforms. However, this approach may not make good use of community knowledge, especially during crisis situations with rapidly developing scenarios and limited ability to send official crews to discover information first-hand. Crowdsourcing has potential to provide for information gathering and problem solving not just during active response and recovery phases, but in planning and preparedness operations, to more fully engage the public in emergency management discussions, as well as understanding of risk. Even with use of crowdsourcing, there must be an awareness that this would not fully involve the community, as not everyone would have access to or interest in participation via e-platforms [25]. While e-platforms have potential, other research calls into question whether such involvement is a source of real innovation, or merely “associated with offline participation, goals for civic engagement, and city size” [26].

It is useful for communities to be clear about what sort of participation and engagement is desired. Stakeholder group meetings for emergency management purposes can be critical parts of an overall plan, but they would not necessarily constitute direct public engagement,

defined as “in-person and online processes that allow members of the public (i.e., those not holding office or administrative positions in government) in a county, city, town, village, or municipal authority to personally and actively exercise voice such that their ideas, concerns, needs, interests, and values are incorporated into governmental decision making” [27].

Communities must also be aware of diversity in language spoken, and awareness of risk and threats as raised in official communication. Efforts to explain risk and appropriate responses in a variety of formats and languages suitable to need is essential to be fully responsive to community engagement [28]. This is especially true in the lead-up to a hazard event, to make sure warnings are received, understood, and acted upon. This is placed in the section under engagement because great benefits may be realized if communication is approached proactively, but failures could be seen, leading to increased vulnerability.

2.7. Vulnerability

Blaikie et al. defined vulnerability as “the characteristics of a person or group and their situation that influences their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard” [29]. “Various scholars have found that vulnerability may be increased due to factors such as a person’s age, gender, social class, disability status, race, and ethnicity. . . . Certain vulnerable populations such as the poor, the elderly, and those with disabilities require special consideration before, during, and after disasters” [28].

A major problem is that local governments may see little reason to be concerned about potential impacts on residents from hazard events, even when these impacts represent significant vulnerabilities for their populations, because the responsibility is seen as individual rather than collective. Policies for how to plan for and respond to hazards may have little association with groups in the public that may be most affected by such decisions. The result has been that local government has historically not done a strong job of managing extant vulnerability in communities [11].

Vulnerability in communities, though, may be the difference between a hazard event and a disaster. There is increasing recognition that disasters are not simply the result of exogenous shocks but the inexorable “complex processes that are socially constructed over long time horizons and intertwined with human actions and inactions” [30]. Implicit in this thinking is that communities are not simply at the mercy of events that may befall them—there are actions that may be undertaken to reduce the potential for devastating impacts to people, even if the hazard events themselves are unavoidable. Failing to respond to vulnerabilities may lead to communities where certain groups may see impacts that are greater than other groups; for example, minority and women business owners may face especially difficult scenarios in returning to normal business operations [31].

One may see time and again that extant vulnerabilities, including socio-economic vulnerabilities and inequalities, become more pronounced in the response and recovery environment. Social concerns that might affect certain exposed populations, which might not present an immediate need in daily life, become points of stress that are more obvious in context of other response and recovery efforts. These stress points can be made worse by poor decisions, including inequitable distributions of aid during mitigation and recovery efforts [30].

2.8. Community Resilience

Aldrich and Meyer defined community resilience as “the collective ability of a neighborhood or geographically defined area to deal with stressors and efficiently resume the rhythms of daily life through cooperation following shocks” [32]. Discussion on community resilience might center on social capital, the building of community trust, a ‘virtuous cycle’, planning and social events [32], and generally, being more aware of and caring for fellow citizens, perhaps in an informal, but nevertheless impactful, way.

Dealing with stressors can be thought of as coping. This brings in ideas of adaptive capacity, and improvisation in developing ways of responding to changing circumstances and figuring out ways to solve problems under ambiguous circumstances. Because the

context of hazard event response, particularly, is unpredictable, the skill of working well in conditions of adversity is needed. Not everyone in a community will have this skill, but people may be able to respond well to leadership and following the examples of people that they trust. For the community to be resilient, a trend toward normalcy and a critical mass of people and organizations working toward the common interest in leaving the shock of the emergency and returning to equilibrium is needed. Government must be in a position that it can make hard choices when it needs to do so, even if that means breaking with past behaviors, if a new way forward is necessary to return to community stability [33].

3. Disaster Response and Recovery

3.1. Emergency Support Functions

The coordinated emergency management response to a hazard event involves the directed efforts of a variety of emergency support functions (ESFs), representing functions that are essential in answering efficiently and effectively the complexities of an event. These support functions extend from tracking of activities associated with the mission, to support for various aspects of the community. According to FEMA, “Emergency Support Functions (ESFs) provide the structure for coordinating Federal interagency support for a Federal response to an incident. They are a way to group functions that provide federal support to states and federal-to-federal support, both for Stafford Act declared disasters and emergencies and for non-Stafford Act incidents”. A list of ESF functions is available online, and other ESFs may be implemented at the state level [34].

3.2. Disaster Response

One of the major characteristics of the disaster response environment is the need for problem solving. As Head and Alford observed, wicked problems, like those seen in crisis situations, can be more readily resolved through horizontal approaches, rather than hierarchical means [35]. Further, being successful in response is not simply about allocating resources; skill in defending organizational interests and overcoming obstacles to meet needs and requirements is necessary, as are abilities in coordination and networking [36].

The first few hours and days in disaster response can involve extremely tense and trying situations and circumstances. Infrastructure is damaged or destroyed, and people have a tendency to panic. Where people have access to water service, they may be ordered to boil water for a period of time, as water supplies may be unsafe. Food and water supplies for those that are not prepared for the event may pose a serious issue. People with medical conditions may have needs that must be addressed immediately, including evacuations to places that can serve them appropriately. People may be injured or deceased. Citizens may be in shelters instead of their homes. Others may be in need of rescue. Curfews may be established to keep people off the streets so that law and order can be maintained, as looting can be common in disaster aftermath. There is a need to provide for temporary cellular phone service and charging capability, so that residents are not cut off from the outside world, given that cellphone service is frequently interrupted in the aftermath of disasters. Other comforts like food and ability to wash clothes similarly are disrupted.

In later periods, as people come back to their homes and find significant damage, they will want to repair these issues and get their homes back to normal as soon as they can. Unfortunately, this may leave open an opportunity for unlicensed contractors, who come into devastated areas looking to promise contracting support, only to steal from people who have already been harmed by the hazard event.

In addition to encouraging planning and insurance, the Stafford Act directs the Federal government to provide technical assistance for effective disaster warnings, and funding for cost-effective hazard mitigation programs. The Act has a stated preference for local vendor provision of disaster-related services (42 U.S.C. 5150). Various types of disasters may be declared, with forms of assistance made available dependent on the decision. Upon declaration of a major disaster, cost-sharing requirements for expenditures and obligations become applicable (42 U.S.C. 5170). Federal aid might be directed with or

without expectation for reimbursement (42 U.S.C. 5170 a). Other resources might be donated or loaned to reduce suffering, with a Federal share put forward as described in the Act.

3.3. Disaster Recovery

Disaster recovery efforts seek to move aid to where it is needed, and allow people to cope, as they work to return to some sense of normalcy [30]. During the recovery phase, many of the usual concerns and problems of local government may seem to be magnified. Normal garbage collection may turn into a process of extensive debris collection, as homeowners muck out their houses and place damaged or destroyed goods, furnishing, and other debris along streets. This effort may block traffic and create a nuisance or form a hazard of its own. It is essential to communicate with the public and manage expectations for how debris will be collected and managed, especially if there are delays.

Education, another usual concern of local government, may be made intensely problematic by a hazard event. Some schools may be rendered unusable. Other schools may be opened, but will have to accommodate overflow from schools that were damaged. Staggered schedules of re-openings may be needed. Further, there may be a need to address trauma experienced by not only students, but also faculty and administration as a result of the hazard event, so that the schools can not only re-open as buildings, but as institutions capable of completely undertaking their tasks.

While there is a pressing need for infrastructure repairs to take place as quickly as possible, it is important to remember that repairs and replacements offer an opportunity to address issues that led to failures in the first place. There are also opportunities to address impacts of climate change, including worsening conditions in some areas—at the coasts, for example, to plan for hazard events of the future, rather than those of the past or present. Systems and expectations may be inflexible, though, preventing full consideration of the best available options for not only getting key infrastructure back online, but planning to mitigate future impacts and reduce future disruptions [37].

4. Working with the Business Community

Supporting the business community in a time of disaster is an important part of response and returning a community to normal [14,38]. Business recovery leads to a return to employment, which leads to a potential for normalcy in some respects for individuals. In crisis, personal, business, and public aspects are inextricably linked [39]. Business disruptions are a major source of costs for disaster response and recovery [40], so it is appropriate for government to address such issues to reduce impacts.

In Florida, ESF 18 has been associated with business and industry (the author of this chapter formerly worked in an office that supported the ESF-18 function at the county level, during an emergency activation; Florida ESF functions are listed online: <https://www.floridadisaster.org/sert/esf/> (accessed on 14 October 2022)). The ESF 18 role during the recovery stage of an event might include offering services to company owners, serving as a hub of knowledge for reopening firms, and informing companies about available aid, such as bridge loans to span the gap between immediate costs and insurance reimbursement.

Serving as a hub of information about which companies are open or closed before and after an emergency event is an important component of the ESF 18 role. It is vital to safeguard the public from natural dangers as well as from its own curiosity, by raising awareness of the perils that exist and to also inform about what parts of the community are not open to customers, thus reducing potential interest and unnecessary traffic, and further obstacles to emergency workers. Directly preceding a hazard event, residents may be tempted to venture out into the community, to gather supplies or explore the area. Overconfident citizens, in trying to brave the elements, when preparations should be finished and they should be in a safe place, can place themselves and others in harm's way.

An unfettered flow of information to the public may be even more crucial in the immediate aftermath of the occurrence. Even though the electricity is out, area stores may

be closed, and the traffic signals may not be working, people may still choose to go outside, potentially putting their lives and the lives of others in great danger. Both businesses and the government miss opportunities to keep the public safe when people feel confident enough to leave their home safe spaces, and go out into an area possibly hard-hit by a hazard event, when there is no real reason to do so.

According to Xiao et al., “community businesses, particularly locally owned small businesses, are not simply economic units but also play critical social roles in community functioning. Business recovery decisions are often made based on social, not purely profit-maximizing reasons” [41]. Local governments must concentrate clearly on the requirements of companies since they are so crucial to the community’s response to and recovery from hazard occurrences. ESF 14 of the National Response Framework supports cross-sector business and infrastructure, whereas ESF 18 at the state and municipal levels is linked to business and industry services.

It has been stated that retail shops are symbolic of business relationships with the community and that they can serve a coping role for the general population since they offer the goods and services people need to feel self-sufficient. Additionally, families and individuals may face financial difficulties as a result of catastrophic occurrences [42]. During the short-term recovery phase, opening retail shops as rapidly as feasible is a top priority.

A goal for local government may become maintaining current databases of essential businesses (shelter, grocery stores, home improvement stores, and pharmacies), and sharing this information with the public. Governments and business have a responsibility to keep databases updated and information flowing to public information outlets in order to keep the community aware and reduce the possibility of panic, runs on closed stores, or other destructive behavior. Still, there should be recognition that warnings to prepare for hazard events before they occur and to organize one’s resources so that individuals and families are self-sufficient for a period of time may fall on unmindful residents.

Busch and Givens brought out the growing significance of commercial interests in disaster response [43]. Partnerships between commercial companies and governmental organizations may benefit residents, whether they are involved in disaster assistance, flying in volunteers to aid with relief efforts, or helping to restore utilities.

Private-sector businesses should not only have a seat at the emergency response table; they can also be a crucial part of the effort to restore communities to normal, if not make them stronger and better able to withstand future shocks.

Contracts, such as those for the removal of disaster debris, can assist communities in handling the fallout from an incident. Negotiated rates can be a major problem in areas where such contracts are in place [44], potentially permitting debris to keep blocking roadways. The aftermath of a catastrophe is not the time to make a profit; as proven by the horror stories of expensive bottled water in Houston, TX, USA after Hurricane Harvey, it is imperative that everyone operate in the best interests of communities when selling services to the public and governments after an event [45].

Concerns from business and industry shed light on a variety of proactive and reactive approaches to dealing with risks. Points that address communication—between business and government, and eventually between government, business, and the public—are particularly noteworthy.

Proactive and Reactive Approaches

In order for communities to respond more effectively to hazards and disaster events, getting the word out about operating status of businesses is important. Various parts of communities can present considerable vulnerability challenges that require that all perform better in the public interest.

In 2017, Hurricane Irma offered a number of lessons about how communication about business status can work in a hazard situation. Irma arrived in the Florida Keys as a category 4 storm, with impacts on the east coast of the state that were much lower in terms

of wind speed (tropical force sustained winds, with gusts to hurricane strength). That said, the size of the system made the storm's impacts, which were unrelenting over a period of many hours, even worse [46]. One estimate put total damage from the storm at \$50 billion; in Florida, insurance claims of \$4.6 billion have reported as of 6 October [47]. As bad as Irma was in Florida, it could have been much worse, with a top-end estimate before the storm hit of \$200 billion [48]. A much worse storm would have caused even more problems, and if Florida is to take anything from this, it might be that it is less ready than it thinks for the worst nature has on offer. More recent major hurricanes, including Hurricane Michael (2018) and Hurricane Ian (2022) show the devastation that extreme storms have brought to the state, leading to catastrophic damage for communities impacted.

Some retail businesses have made it a point to let customers know whether their stores are open or closed as part of their short-term rebuilding strategy. For some companies, updating the information on websites is a top concern. Others have used social media to disseminate information. Some people have completely ignored this part of responding to hazardous situations and instead depended solely on the ticker at the bottom of TV newscasts to notify the audience.

A key source of support for government disaster operations can come from reliable information flows from the business sector, especially when a specific chain has sites all over the impacted region and those locations successfully serve the entire community or large portions of it. There is a higher likelihood that the public will take heed of correct information about store openings and stay off the roads until it is safe to leave shelters and resume normal activities when it is disseminated with the community through a number of venues.

As an example, a significant regional grocery chain kept a spreadsheet of all of its sites in the affected area and posted a link to it on its website, indicating the last time the sheet had been updated. This was one particularly admirable response to Irma. The page included the stores' locations, hours of operation, and whether they were open or closed. A crucial aspect was how frequently this information was updated. The chain was generally open immediately after the storm, and although having a vast number of locations, it nonetheless supplied the information in a trustworthy manner that decreased public and government confusion. Non-perishable foods were available even though the stores frequently ran out of perishable items. Including if certain sought-after items are present in the shop and in what amount might enhance this procedure, which can be considered a best practice. For example, residents will probably require ice if the electricity service is cut off. In regions where the municipal water infrastructure has been destroyed, residents may not have access to enough water, which might be concerning.

ESF 18 organizations could otherwise need to contact retailers directly, placing additional pressure on staff members who are already under a lot of stress from having to reopen and assist concerned customers. Less favorable is when shops or major chains continue to publish outdated content on their websites. This issue can also affect auto-answer systems at retail establishments, which may continue to falsely state that businesses are open even when it is obvious that they are closed.

After an occurrence, the public has a range of demands for stepping outside; some of these needs are legitimate, such emergencies, while others may be the consequence of citizens' poor preparation. For instance, not having access to medication might be an issue, yet it might be preventable. Additionally, the lack of food or drink is a possible issue that may be avoided.

However, a shop that is misleading the public by announcing on its website or on its voicemail that it is open when it is not, may be putting the public at risk. Elderly populations or people with special needs are examples of vulnerable groups in communities; these people should receive extra attention rather than being casually given false information. Government's capacity to address the situation is likewise diminished if it receives and relays this information. Therefore, it is sufficient to be proactive about operational status and make it apparent if it is open or closed. To give residents planning time, it could be a

good idea to announce when the business will return. By releasing correct information on a regular basis, the public is less likely to use social media to disseminate rumors, which are not only superfluous but also dangerous if a false rumor puts people in danger.

Hotels and other prospective accommodation options are essential for recovery after a hazard occurrence from a commercial and industry standpoint. As an example, consider for a moment that Florida is a popular travel destination and a starting point for cruises to foreign countries. Tourists want hotel rooms with air conditioning, clean, potable water, and electricity, but locals without access to electricity may still want the same conveniences. There might not be enough hotel rooms. Hotels and other lodging establishments must display the most recent information and maintain good lines of communication with the government on their operational status. Make sure that communication in the case of hazard occurrences functions efficiently before those channels of engagement are required if the community has a point of contact that represents the hotelier community. A significant issue with information is that it becomes outdated as soon as it is made public. People start using the information provided to make judgments on hotel stays, and as a result, rooms that were available at the time of the announcement may no longer be available.

Generally speaking, the mechanisms of communication themselves may be partially or completely interrupted. When cellular services, for instance, malfunction, plans can be established for other ways of communication. Cellular and wireless service may be unreliable in wind-related dangers like hurricanes. If a phone call cannot be made, it could be necessary to text a business owner. Email could be accessible, but its ability to send messages relies on how much service is available and how much capacity is available.

Because they are current, social media networking sites are very helpful when there are no other reliable sources available. However, users should be aware that anyone with an account can post almost anything relating to hazards, whether it is true or not, so it is important to verify any claims made on these sites. Given that many people in emergency situations lack access to their typical power or internet connection, they may instead rely on a battery-powered radio or a cellphone. Government may and should use these networking tools effectively. It becomes crucial to get information quickly and take action on it.

For example, hotels should provide information on the number of rooms available, whether or not the hotel has electricity, internet, and water, and whether or not there is a working restaurant on the premises. To the extent that businesses can proactively get information on operating status from a government point of contact, this may be preferable to having government attempt to contact businesses and fall short in many crucial ways.

During hazard response and recovery, it would be helpful for a system to receive call-in information and even fill a database with the most recent operational data for enterprises of different key types. In fact, the more automated a process can be made, the more time communication emergency personnel may devote to validating the data and producing clear, trustworthy reports for the general public. As a result, there may be more opportunity for the public to get crucial information in a timely manner and with accuracy.

While the human aspect is crucial to the process, emergency scenarios need spending a lot of time trying to make sense of constantly shifting, complicated, and often chaotic circumstances. If one-to-one contact between government and business is demanded of all pertinent company sites in a community, obtaining timely and accurate data may become more difficult (particularly if the community is large, the population is large, or if the area served is sizable geographically).

When dealing with a crisis, it is important to keep in mind that people just want things to return to normal. Fast-food business openings were a reason for celebration following Hurricane Irma, with impressive queues resulting from local media announcements. Being explicit about deadlines and managing expectations may help close any gaps in understanding. Since the names of the businesses are much less significant than the sharing of knowledge, they have been omitted from this entry. Governments and companies should collaborate to serve the public and offer accurate information so that short-term recovery

may quickly transform into full recovery from the incident and a return to normal for everyone involved. Communities can be proactive in this regard.

Communities should not pass up the chance to lessen their susceptibility, though, while they are rushing to go back to normal after an occurrence, just as they should be careful with infrastructure decisions.

Resilience is not a one-time act. It is an ongoing process that pays dividends well beyond a single hazard response.

The lesson that business and government need better communication is not new. Best practice in risk communication has been suggested as entailing “objectivity, honesty, consistency, and dialogue,” along with attention to ethical considerations [49]. Still, it is worth pointing out that knowledge attained from responding to events is not necessarily leading to greater resiliency of communities or of response. For example, in discussing suggestions arising from response to the 1989 Loma Prieta earthquake, one recommendation made by Santa Cruz City Manager Richard Wilson was to “identify key parties that will represent business, government, and community interests in the aftermath of an earthquake” in pre-disaster planning, and have “such groups . . . meet periodically” [50]. The meeting presupposes discussions and that the parties will increasingly understand how the others work, and be able to make sense of complexities in crisis situations at a higher level of efficacy. This is not simply a matter of communicating risk and the existence of peril to a community, but to also advise other parties of operational status and needs. Needs not voiced are not addressed. In absence of indication to the contrary, the natural assumption is that other parties in the effort are working at full capacity, which may be far from the truth.

5. Conclusions

This entry has offered a broad overview of the local government emergency management function. It is limited in that not all aspects of emergency management, including the ESFs, are covered; rather, general concepts have been the focus, with interactions with the business community being an illustration. Points that are of significant concern for local governments, such as funding reimbursement from other levels of government in emergencies, are covered elsewhere and are beyond the scope of this piece. For further information, a variety of more comprehensive offerings exist that reflect on the fuller range of local government emergency management considerations [51–60]. These other works are worth seeking out for greater detail.

Competence in local emergency management is essential because failing with respect to hazard management can lead to crisis, “a significant threat to operations that can have negative consequences if not handled properly” [61]. Inherent in working one’s way out of a crisis is identifying and removing, or at least reducing, the source of the crisis. It has been observed that “Crises involve an accumulation of adverse conditions, severe threat, uncertainty, and the necessity for prompt and wise decision making” [62]. Some problems are not discerned as being a crisis until it is too late, and this sets the stage for more diverse and extreme emergencies resulting from hazards. When the public sector is involved, the reputation of the government entity may be harmed and public safety threatened [59]. From a long-term perspective, trust in government is eroded, and legitimacy of the public enterprise generally undermined [63]. Further research on crisis communication and management is encouraged and beneficial to the practitioner community.

There is a tendency in the aftermath of a hazard event, when efforts fall short, to hope that tragedies will never happen again, and that efforts made will avert such issues in the future. However, in the weeks and months that follow, as crisis recedes and daily life returns to normal, attending to resilience seems less a priority. Given the impacts of climate change and the risk of increasing populations in hazard-prone areas, individuals, business, and governments have an enhanced need to work together to strengthen communities, during disaster and to reduce vulnerability as a general goal. Proactive action in this respect has benefits well beyond a prompt and effective hazard response.

Local governments play an essential role for emergency response from planning to hazard mitigation, to community resilience-building, to response and recovery for hazard events. While the range of involvement for local government activities in emergency management is considerable and ongoing, efforts and resources expended in these areas can make a tremendous difference in not only alleviating suffering as a result of a potential hazard event, but possibly even preventing an event from turning into a disaster in the first place. Addressing vulnerabilities, for example, and mitigating hazards allows some element of control for known risks. While it is indeed not possible to know everything about every possible hazard, and extent of impact, that could befall a community, being prepared and planning for eventualities is a mindset that can engender a beneficial adaptive, problem-solving approach, as well as a model that encourages decisions that seek to manage risk based upon best available information, rather than guesses, hope, or best practices from other communities that may not be as applicable in a given context. It is perhaps most important to recognize the uniqueness of the specific community, the expertise and knowledge of its personnel, and the abilities of staff, when combined with planning and training, to provide the best possible services for their communities.

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