



The Ethics of Access and Equity in Emergency Management

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June 2021



FEMA

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Background

Andrea Adams, Ph.D. JD, MBA, is an Assistant Professor in the Crime Justice and Security Program in the College of Arts and Sciences at the University of the District of Columbia (UDC). Andrea's research agenda includes leadership ethics, emergency management ethics, data ethics, and student workplace readiness. She teaches undergraduate and graduate courses in ethics and is currently working on several ethics-related projects. Andrea is on two committees for the Ethics Special Interest Group (SIG), including Curriculum and Framework committees. Andrea is a licensed attorney and has 25+ years of business experience in labor and employment law.

Andrea was the sub-committee chair of the Global Ethics Day committee that developed this module in conjunction with the video competition described below. The committee members are:

- Sandy Smith, RN; Ph.D., Co-Lead, Ethics in Emergency Management, SIG. Professor and Head, Department of Emergency Management, Arkansas Tech University.
- Alyssa Provencio, Ph.D., Department of Political Science, Masters of Public Administration, University of Central Oklahoma, Edmond, OK.
- David Etkin, Disaster and Emergency Management, York University, Toronto, Canada.
- Jude Cole, California State University Long Beach, Department of Criminology, Criminal Justice, and Emergency Management.

Drs. Etkin and Smith's scholarly work is reflected in the literature review developed for this module.

The Ethics SIG's Global Ethics Day Committee

The Ethics SIG sought to commemorate Global Ethics Day, 2020, a project of Carnegie Council, celebrated on the third Wednesday of every October. Global Ethics Day provides an opportunity for everyone worldwide to explore the crucial role of ethics in their professions and daily lives. A sub-committee was formed to discuss the Group's plans for October 21, 2020, the seventh annual celebration. The sub-committee sought to engage emergency management students for their input and decided to launch a video contest to provide scholarships and encourage participation in ethics. FEMA's Higher Education (HiEd) Program provided funding to support the video contest scholarship competition, and in doing so, support this student-informed Course Module on the Ethics of Access and Equity in Emergency Management for emergency management professionals. Several students created videos to share their perspectives. Semifinalist submissions were publicized and voted on by the public for the best video, using the portal developed for the competition. Nine finalists were selected, receiving first, second, and third place scholarships amounting to \$1,750.00 and six honorable mention awards of smaller amounts totaling \$700.00. Winners were invited and participated in a podcast sponsored by "[EM student](https://sitchradio.com/shows/em-student/)" on [Stitch Radio](https://sitchradio.com/shows/em-student/) (<https://sitchradio.com/shows/em-student/>). The winning videos can be viewed at the links shown below:

- First Place: James Warren.
["Ethics, Equity, and Emergency Management"](https://www.youtube.com/watch?v=EBFLy1Qauu0&feature=youtu.be)
(<https://www.youtube.com/watch?v=EBFLy1Qauu0&feature=youtu.be>).

- Second Place: Lilian Evasew.
["The Importance of Ethics in Emergency Management"](https://www.youtube.com/watch?app=desktop&v=Th_33jgP_Z8&feature=youtu.be)
(https://www.youtube.com/watch?app=desktop&v=Th_33jgP_Z8&feature=youtu.be).
- Third Place: Jonathan Waldman.
["The Ethical Associations of Language in Disasters and Emergency Management"](https://www.youtube.com/watch?app=desktop&v=OX6Mrr9zLtQ&feature=youtu.be)
(<https://www.youtube.com/watch?app=desktop&v=OX6Mrr9zLtQ&feature=youtu.be>).

Thanks to the HiEd Program for Sponsoring this Course Module

As Acting Chief Learning Officer-Talent Transformation Director, and former Program Manager for the HiEd Program, Wendy Walsh remarked on the HiEd Program at FEMA and their role in furthering scholarship in the Academic Community, saying:

“As the emergency management academic community grows and evolves, the FEMA HiEd Program provides a space for academic faculty, researchers, and practitioners to connect, dialogue, debate, share, collaborate, advocate, and grow the emergency management discipline to realize the vision of a prepared and resilient world. It is important to highlight that the HiEd Program provides the space and the academic community guides how space is filled as part of the broader National Training and Education System (NTES)” p. 13 (Walsh, 2019).

A special thanks to Daniel Scott, M.A., CEM®, NEMAA, for graciously inviting committee participation on the [“EM student” podcast](https://sitchradio.com/em-student/) (<https://sitchradio.com/em-student/>) on Stitch Radio to publicize the contest and winners.

Course Module: The Ethics of Access and Equity in Emergency Management

This course introduces the ethics of access and equity to emergency managers and provides a foundation for resource planning to support vulnerable populations during an emergency. In addition, this course introduces methods to integrate ethical considerations of access and equity into after-action incident reviews for their future use as a basis for community-based planning. It also highlights the need for community input into incident debriefs. FEMA's HiEd Program's Ethics SIG developed this course collaboratively through a project that solicited students' perspectives and engaged them to provide insight to current emergency management practitioners.

Prerequisites: Ethics Course

This course assumes that learners have some knowledge of the ethical responsibilities of emergency managers. It is a seminar-type course designed to stimulate discussion about ethical access and equity issues for planning or response-related decision-making. The discussion is designed to raise questions for debriefing sessions. This course emphasizes the importance of joint community resilience efforts that achieve emergency management goals. Students should be familiar with [FEMA's Personnel Standards of Conduct document](https://www.usfa.fema.gov/downloads/pdf/nfa/fema-directive-123-0-2-1.pdf) (<https://www.usfa.fema.gov/downloads/pdf/nfa/fema-directive-123-0-2-1.pdf>) (aka Ethics Code).

Reading Materials

- Aung, M. N., Murray, V., & Kayano, R. (2019). Research methods and ethics in health emergency and disaster risk management: The result of the Kobe expert meeting. *International journal of environmental research and public health*, 16(5), 770.
- Cole, L. Eburn, M., Dovers, S., & Gough, M. (2018). Can major post-event inquiries and reviews contribute to lessons management? *Australian Journal of Emergency Management, The*, 33(2), 34–39.
- Doorn, N. (2017). Resilience indicators: Opportunities for including distributive justice concerns in disaster management. *Journal of Risk Research*, 20(6), 711–731.
- Etkin, D., & Timmerman, P. (2013). Emergency management and ethics. *International Journal of Emergency Management*, 9(4), 277–297.
- Feldmann-Jensen, S., Jensen, S. J., Smith, S. M., & Vigneaux, G. (2019). The next-generation core competencies for emergency management. *Journal of Emergency Management*, 17(1), 17–25.
- Fatemi, F., Ardalan, A., Aguirre, B., Mansouri, N., & Mohammadfam, I. (2017). Social vulnerability indicators in disasters: Findings from a systematic review. *International journal of disaster risk reduction*, 22, 219–227.
- Finucane, M. L., Acosta, J., Wicker, A., & Whipkey, K. (2020). Short-term solutions to a long-term challenge: rethinking disaster recovery planning to reduce vulnerabilities and inequities. *International journal of environmental research and public health*, 17(2), 482.

Introduction

Why is it essential for emergency managers to understand ethics, access, and equity, especially understanding how to help vulnerable populations?

Perhaps these issues do not seem as crucial as other training to support emergency management duties. Moreover, addressing equity may not seem important because:

- The answer may not align with regulatory mandates based on equality. Equity is a “buzzword” that may affect one’s sensibilities positively or negatively, especially when a vulnerability might result from an individual’s bad decisions.
- It is difficult to square equity with the other standards that define ethical conduct as the greatest good for the greatest number.
- Emergency management policies already require that managers practice ethical behavior, so there is no need for another discussion about ethics.

If you identified with any of the above concerns or are curious about how these notions affect well-established processes, this two-hour course is for you.

This course provides a review of the current emergency management literature that discusses ethical access and equity, resulting in practical suggestions to align these notions with emergency management's primary goal of resilience. This course uses a case-study review methodology to engage learners in solution-building to increase resilience outcomes. Some of the course strategies come from a project that captured emergency management students' perspectives, revealing critical themes.

Target Audience

The modules' target audience includes both skilled and newly minted emergency managers. Both will benefit from developing a higher level of ethical decision-making by using critical questions in case studies, engaging in targeted reflection, and practicing inclusive debriefing. Disaster and emergency situational variability and unknown outcomes on human life and property require emergency professionals to constantly upgrade their critical thinking skills. Although practical emergency training is critically important in performing life and property saving tasks, ethical decision-making training that considers individual and population variability is critical in every aspect of emergency preparation, response, mitigation, and recovery.

Objectives

- Understand the unique issues surrounding equity and access for vulnerable populations.
- Evaluate and integrate aspects of ethical equity and access alongside the goals of resilience and recovery.
- Evaluate the existence of partnerships that support the development of resilient communities with vulnerable populations.
- Practice ethical debriefings using case studies.

Outcomes

After the course, a student will be able to:

- Use updated decision-making skills to spot situations where ethical considerations of access and equity are present.
- Support professionalization of emergency management through practicing fine-tuned ethical decision-making and behavior.
- Apply their knowledge:
 - In situations where difficult or complex, ethical decisions have to be made from poor alternatives.

- In situations where the most important or critical ethical considerations are not apparent or readily determined.
- In situations where prevalent myths or misunderstandings influence ethical decision-making.

Case-study/Scenario Reviews

Facilitate Learning By:

- Focusing on a challenging situation that requires knowledge and practice integration.
- Practicing dissection of pre-established decisions to create on-the-spot innovation.
- Allowing learners to evaluate the results of their ethical decisions.
- Increasing issue-spotting capability to spot and resolve ethical situational conflict.

Each section presents questions for discussion and reflection.

Section I: Literature Review

The literature review provides a theoretical foundation from scholars to assist learners in integrating ethical access and equity into the traditional discussions of the emergency management lifecycle of resilience and innovation. It also provides a foundation for case study analysis, reflection, and decision debriefing. The section on foundational concepts focuses on ethics in emergency management and defines access, equity, and leadership in the context of ethical obligations. Next, there is a targeted review of emergency management resilience factors in which notions of access and equity arise. Then, selected authors discuss resilience strategies, after-action debriefings, and the fallacy of shared responsibility for vulnerable communities. This review includes themes from emergency management students on access and equity. Lastly, a brief review of options for building community resilience is discussed. This literature review is meant to be a resource for case study exercises and further study. A list of references is included for a deeper understanding of the concepts presented.

Ethical Concepts

Although ethics has long been part of the emergency management paradigm, it is periodically reviewed to integrate new understandings into emergency management practice. For example, Etkin and Timmerman (2013) argued for an approach to emergency management that fully acknowledges the importance of ethics and the fundamental nature of our relationships between and with institutions and people. They noted that the practice of ethics helps create trusting relationships between people and institutions. Disasters are unique situations where institutions and people who evaluate the risk are disconnected from those who experience the consequences. Therefore,

responding to people through ethical practice is critical to building trust (p. 280). Without this trust, victims question whether decision-makers will “do the right thing.”

Ethical questions in emergency management often start by asking how responders will distribute scarce resources, especially when disaster victims are not similarly situated. Durocher (2017) asked, “At what point does it become ethically problematic to expend resources to sustain disaster responders?” Are these tradeoffs justified if they contribute to long-term individual, community, or nationwide vulnerabilities? The authors asserted that ethical questions must be viewed under the appropriate emergency management lifecycle stage. During planning, rule, and duty-based decisions, emergency managers consider ethical standards, treatment of victims, and distribution priorities. After an event occurs, the ethical focus shifts to the unique situational needs that require real-time (utilitarianism) distribution decisions. Even if resources are not scarce, logistical issues still need to be addressed to support the complete distribution of resources.

Stage-based ethical decisions and plan execution become critical when resources are rendered scarce by the emergency itself. Hoffman (2009) noted three normative theoretical approaches that have been used to distribute scarce resources during emergencies. First, utilitarianism theory suggests that resource distribution should be based on the greatest good for the greatest number. Hoffman argued that this approach provides care for individuals who require less help than those with extensive needs. Next, the theory of “equal chances” provides equal resources to everyone because everyone should have an equal chance to resources, supporting an ethical but non-discriminatory mandate. Lastly, Rawls’s (2020) theory of justice suggests that inequitable distribution (under utilitarianism) of resources is only permitted if the least well-off fairs better than they would under equal distribution. Taken together, these three theories illustrate the ethical conundrum emergency managers face since all of these approaches are considered “ethical.”

Another popular ethical focus is related to the principles of ethics. There are four main principles for guiding ethical action. They are 1) autonomy (self-rule; duty not to interfere with other’s decisions); 2) beneficence (bring about good in all our actions); 3) nonmaleficence (do no harm); and 4) justice (treat all people equally, fairly, and impartially). Even though the basis of these principles is readily accepted in most professions, the extensive set of standards they represent are critical to understanding emergency management responsibilities (Etkin & Davis, 2013). For example, under the pressure of a disaster, emergency management professionals must respect individual decisions not to evacuate under the principle of autonomy. Rivera’s (2020) study of evacuated individuals during Hurricane Harvey showed that the decision to evacuate negatively affected victims’ recovery in the short term. This study shows that though evacuation is actually a form of preparedness, and under some circumstances, it may be at odds with recovery.

Moreover, the principle of “do no harm” can be linked to how specific actions affect vulnerability. For example, the Centers for Disease Control’s social vulnerability index (CDC SVI)¹ includes those who have special needs, such as, but not limited to, people without vehicles, people with disabilities, older adults, and people with limited English proficiency. Emergency planners have used this resource to help communities prepare for and recover from public health emergencies and prevent adverse effects among socially vulnerable populations (Flanagan et al., 2018). Emergency planners have also used CDC SVI to decide the number of emergency personnel needed, plan the best way to evacuate people, and account for socially vulnerable populations (CDC, 2015).

For example, Biggs et al. (2021) reviewed the relationship between social vulnerability and COVID-19 incidents among Louisiana census tracts. Using the CDC SVI’s 15 census tract variables, they calculated vulnerability for every census tract. Their analysis used variables that comprised four themes of social vulnerability: 1) socioeconomic status, 2) household composition and disability, 3) minority status and language, and 4) housing type. They found that social vulnerability was positively associated with COVID incidence at the tract level. The study shows how the census tract data from CDC SVI is used in emergencies. However, it also supported that black and African American communities suffer from known pre-event vulnerabilities. It also suggests that emergency management professionals have access to vulnerability information to address every disaster stage.

Another essential perspective is related to using the theory of Ethics of Care for emergency managers to understand privacy issues during disasters. Hayes and Jackson’s (2020) study argued that traditional ethical approaches used during emergencies do not address power asymmetries caused by normative standards. They argue that Ethics of Care is inclusive and focuses on the voices of others who have equal moral status. Instead of focusing on normative decision-making, Ethics of Care supports reflective analysis and critical reflection, including the vulnerable voices. They argue that moving away from agent-centered ethical analysis to a patient-centered approach may better include disaster-affected communities’ perspectives that provides “situated knowledge into disaster ethics discourse” (p. 15).

Section Concluding Thoughts: Emergency managers are leaders with professional responsibilities. Community trust is built when potential victims are acknowledged as a part of a joint discussion about resilience and the fair and equitable distribution of resources. No one ethical theory provides an answer for every situation. No one answer is the same for every potential victim. Ethical theories help ask the questions, to allow for different ethical principles to co-exist in response to a singular incident.

¹ Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry/Geospatial Research, Analysis, and Services Program. [CDC/ATSDR Social Vulnerability Index \[2018\] Database](https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html) (https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html). Accessed on [March 19, 2020].

Discussion Question 1:

If emergency managers use the social vulnerability index (SVI) to plan and execute the emergency response, are they relieved of any further ethical obligations to this population?

Access in Emergency Management

Access issues are also a part of understanding scarce resource distribution. The question of access can be viewed from both supply-based and demand-based perspectives. Demand-based access is focused on bringing resources into neighborhoods where it is needed. Supply-based access provides centralized services supporting individual access. Current strategies to address demand-based issues seem focused on enhancing the private sector's role in supporting incident management operations along these lines. For example, RentEria (2020) noted that FEMA's National Response Framework had been updated to facilitate "closer partnerships with the private sector" to support communities affected by disasters. The notion is that by increasing supply, there will be more to distribute to everyone. Chandra et al. (2016) note that the primary role of the private sector in disasters relates to financing and helping individuals manage relief and recovery funds. Some businesses have also engaged with communities to raise money for disaster relief. There have also been recent suggestions to policymakers about businesses participating in infrastructure strengthening instead of just disaster relief. However, Bergstrand et al. (2015) found that disaster compensation/financing systems provided to victims may require specific expertise to navigate. Victims in communities that lack these skills are often less able to utilize these resources; another example of supply-based resources that may fail to address the demand.

Section Concluding Thoughts: Supply distribution strategies work well when the supply chain networks reflect community design and function. For example, private sector banking or financing provisions in communities where residents do not own homes favor investors and do little to impact residents. Moreover, residents without banking relationships lack access to a primary source of recovery funds. Therefore, access must be connected to the resource that would mitigate harm and lead to recovery.

Discussion Question 2:

Can partnerships work in communities where "private sector" operations are limited or absent?

Equity in Emergency Management: The Issue of Social Vulnerability

Equity poses another set of complicated decisions. Doorn (2017) reviewed the development of resilience indicators reflecting social justice and economic equality. Resilience indicators challenge several paradigms that support traditional notions of perceived fairness, suggesting that even "demand-based" supply solutions are inadequate. Doorn compares the difference between the components of social resilience after a disaster and the process and outcome variables. He reviewed Cutter's (2010) model that captures components that affect disaster resilience, including

educational equity, age, transportation access, communication, language, disability, and health coverage, which help understand the components of vulnerability. However, Doorn argued that Kalfe's (2012) process variables² help demonstrate how community resilience is developed and maintained, and the outcome variables³ depict real community empowerment and capacity building. He suggested that resilience indicators should measure the extent to which people can realize "certain functioning" (capacity) by calculating the societal impact of a hazard at the level of relevant sub-groups. Doorn's study challenges emergency managers to go beyond understanding vulnerability prevalence but to utilize other measures that suggest ways to decrease it.

Additionally, Hallegatte (2020), in describing issues related to access, noted that recurrent hazards create compounding harm for vulnerable victims. The first disaster event creates an exposure bias affecting access to transportation, water, power, food, fuel, and health. Then, the exposure bias can result in a vulnerability bias that exacerbates recovery for individuals with a single income source, without investment income, those living in conflict areas, and those who do not own housing. The vulnerability bias causes individuals to lose more than those not made more vulnerable from compounding disaster events.

Section Concluding Thoughts: FEMA's disaster impact model⁴ looks at pre-impact conditions and emergency management interventions. Though social impacts are linked to social and physical vulnerability, the model seeks to identify "areas" where community vulnerability exists and not the conditions that cause variability in vulnerability. Variability is addressed through equity-based planning and preparation.

Discussion Question 3:

- a. Give an example where lack of access to emergency management resources affects response.
- b. Give an example where equality in providing community resources results in an inequitable response.

Leadership Character versus Individual Values

Even if planning, preparation, and measurements are ethical, leadership matters. Jensen et al. (2019) identified abiding by professional ethics as one of the core competencies for emergency managers. Professional ethics outline appropriate and expected conduct and guide emergency managers through known and uncertain situations and environments. However, Aung et al. (2017)

² Formation of grass roots organizations, risk assessment, community participation, risk mitigation activities, and monitoring and evaluation activities.

³ Ownership of community reduction plans by localities, awareness raising activities, trained volunteers, and community members.

⁴ FEMA AEMRC [Chapter 6 Hazard, Vulnerability and Risk Analysis](https://training.fema.gov/hiedu/aemrc/booksdownload/fem/). Retrieved on April 1, 2021 from <https://training.fema.gov/hiedu/aemrc/booksdownload/fem/>.

noted that disaster responders often encounter situations that test their professional ethics. The authors argue that responders need to ensure that treatment of survivors is not influenced by “other motivations” and must always include notions of beneficence, respect of autonomy, and justice (p. 90). Everyone finds it challenging when a decision goes against their moral standards and values. The ethical duty of emergency managers requires them to ignore personal values and make decisions based on professional standards. Those standards might require emergency managers to support survivors’ cultural norms.

Discussion Question 4:

- a. How should emergency managers deal with their cultural and value differences when responding to an emergency?
- b. Are ethics codes adequate to address these concerns?

Section II: Targeted Review of the Emergency Management Literature

New Contours of Resilience

According to Son et al. (2020), standards for emergency disaster management (EDM) professionals are measured by the effectiveness of resilience, adaptation, and innovation during disaster events. Generally, resilience is defined according to dimensions of the ability to handle disruptions that fall outside the designed performance, emphasizing how adaptations are made in unanticipated situations. Son et al. (2020) conducted a comprehensive review of the resilience literature. He found that the critical components of resilience include collective sense-making, team decision-making, harmonizing work as imagined with work-as-done actions, and diverse team interaction and coordination. Son’s extensive review is not replicated here; however, he concludes by noting the lack of studies on emergency management simulation exercises using role-play methods and suggested that future studies address this gap.

Discussion Question 5:

- a. Why do you think teams from different jurisdictions or response organizations that establish a “horizontal” connection can achieve significant innovation?
- b. Do you think that this is true even when team members have conflicts about the decision?

Is the Notion of Shared Responsibility in Vulnerable Communities a Fallacy?

Some studies have discussed a shared responsibility model for communities and government. McLennan (2014) suggests that some believe that this notion is intended to promote self-reliance in communities to achieve mutually agreed goals. He noted that critics argue that shared responsibility

allows the government to share responsibility with individuals and social institutions without assessing whether they can execute their part of the responsibility in this complex environment. He suggests that governments attempting to shift responsibility collaborate with community organizations to evaluate, secure, and agree on responsibilities. Moreover, Howard et al. (2017) discussed the need to account for social vulnerability when designing community communications during a disaster. Social media has allowed many community members to share information and participate in distributing disaster-related response information. The authors acknowledge the use of these new forms of communication. However, they suggest that emergency managers develop diverse communication channels instead of replacing existing methods with electronic versions. By being intentional about how social media is used, governments, communities, and individual's capacity to shoulder their responsibility is understood.

Shared responsibility can also be considered a mitigation strategy. Mitigation strategies lessen the possibility that a mass casualty event can cause harm to people or property (Gougelet, 2016). Mitigation can be structural (hardening) or non-structural (resilience), but both strategies are designed to reduce disaster impacts. Another aspect of "sharing mitigation responsibility" is from Cigler (2017), who noted that possible changes to the National Flood Insurance Program (NIFP) might result in the responsibility to mitigate being thrust on state and local governments, property owners, and residents of flood-prone areas.

Section Concluding Thoughts: There is an increased need for emergency response as more societal and technological hazards emerge alongside the increased incidence of nature-based incidents. Therefore, emergency managers must use collaboration, diverse perspectives, and critical incident reviews to innovate continually. If emergency managers want communities to share, clear messaging, accessible guidance, and thoughtful harnessing of community resources are essential.

Discussion Question 6:

- a. Is social vulnerability an individual, community, or societal problem?
- b. If legal changes shift the responsibility of either type of mitigation to vulnerable populations in flood-prone areas, is it ethical if populations cannot afford it?

Options for Building Community Resilience

Building resilience starts with recovery. The disaster recovery process is a bridge to planning and preparedness. However, recovery is often only defined by its costliness. Moreover, increasing instances of disaster events have not allowed time for a full recovery before the next event occurs. Finucane et al. (2020) note that when disasters occur in quick succession, strategies are disabled, and recovery time increases, requiring a bifurcated approach. They suggest that policymakers must be able to keep businesses and communities afloat while engaging in "post-disaster reconstruction planning" in communities where vulnerabilities and inequity exist. Their study looked at three disasters to understand how vulnerability and inequity can be included with hazard assessments to accurately inform community risk. They argue that solely focusing on pre-disaster conditions limits

options. However, recovery strategies that include restoring, rebuilding, and mitigation activities may reduce vulnerabilities to future events. The author's "adaptive disaster recovery planning" model first couples new funding models to address community needs with formal methods for addressing inequities in the emergency management decision process. Using this unique methodology, they suggest that it can accomplish long-term strategic goals without unintentionally increasing community vulnerability and inequity.

Another recovery strategy focuses on local resources to demonstrate resilience. Saja's (2020) study reviewed aspects of building community resilience that echo one of the themes presented by students in their comments. Saja (2020) defined social resilience as the ability to anticipate, mitigate, cope, implement recovery activities, minimize social disruptions, and reduce the impact of future disasters. The study used proxies as surrogate indicators to measure social mobility, social trust, social competency, social equity, sociocultural beliefs, and norms. Social mobility was measured by access to evacuation centers. Social trust was measured by the effectiveness/performance of community-based organizations. Social competency was measured by the reaction to early warning as learned from the past. Social equity was measured by the effectiveness of social safety programs. Social-cultural beliefs were measured by looking at gender norms and the culture of women. The authors found that having a diverse social network program targeting support was effective.

Further, that cultural barriers limited public access mobility for women heads of households. The study found that "many of the existing social resilience frameworks do not adequately measure of gender to socio-demographic indicators such as the percentage of the female population" (Saja, 2020 p. 246-247). They concluded that training in disaster skills impacts the role of women in disaster-related work. The authors believe that women are highly exposed and need to be engaged in the community to support emergency and disaster-related work.

Section Concluding Thoughts: Heroes are not always the leaders. The pandemic of 2020 has revealed many heroes who stepped in at significant risk to themselves to help others. Emergency managers should consider engaging and testing non-traditional partners to build community relationships and community capacity.

Discussion Question 7:

Saja's work is consistent with a student's suggestion that more women should be involved in community discussions about emergency management.

What is your perspective on engaging more women into the emergency management field, either through communities or as emergency management professionals?

The Importance of After-Action Debriefs that Include Community Input

Although a part of disaster management processes includes debriefs. Debrief documents touch briefly on ethics and may or may not focus on equity and access issues. Hermelin et al. (2019) suggest that after-action reviews using role plays are an effective method of self-reflection about successful recommendations and missed vital issues. Cole et al. (2018) suggests that identifying lessons learned through after-action reviews should improve future capacity and “set the agenda” for policy management reform. Cole and colleagues conducted a meta-analysis of post-event inquiries across hazard types and jurisdictions. They found fifty-five different themes ranked by the number of inquiries and the number of recommendations. The first four themes were doctrines, plans, and standards of legislative reform, 2) land use planning development and building codes, 3) community warnings and communication, and 4) emergency management agency organization and management authority (p. 36). Surprisingly, none of the fifty-five themes reference ethics directly, but there were themes of “training skills and behavior” (rankings - 7/58) and “personal responsibility” (ranking - 52/58). This is not to say that ethics was not discussed, but the reports did not specifically mention ethics. Therefore, this Australian-based study may not reflect emergency management debriefing topics in the United States. However, there are articles in the literature studying disasters in Australia that discuss ethics, equity, and access issues.

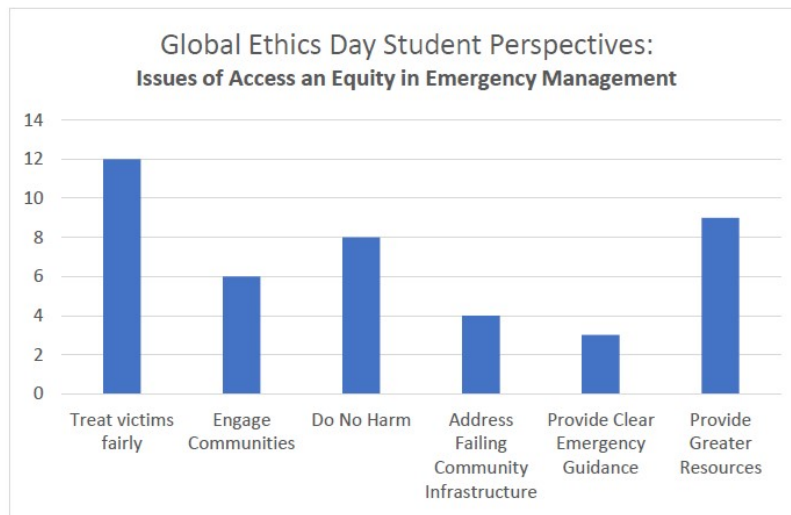
Discussion Question 8:

- a. What phase in the emergency management lifecycle might be effective with more community input?
- b. What communication barriers exist between emergency management professionals and vulnerable communities?

Student Perspectives as a Proxy for Community Input

The literature supports the inclusion of communities in addressing emergency/disaster responses but has not yet provided a clear model or a way forward. For this module, grassroots input through student videos can act as a proxy for community feedback. The video contest was designed to seek different views, provide new and different takes on the subject, and provide opportunities to express anxiety. It was also a chance to simulate voices rarely heard. This pseudo-participatory collaboration allowed students to share their perspectives through a scholarship contest about how emergency management professionals can support ethical, equity, and access.

Six themes emerged from student perspectives. Many of these align with the emergency management literature discussed above and provide more input for our continued discussion. See the chart below.



Discussion Question 9:

- Do the themes provided by the students resonate with you? Which ones and why?
- Which of the issues do you believe rest squarely on the shoulders of emergency managers? Which do not?

Summary

The literature provides several insights into the foundations of ethics, access, and equity and provides insight into how emergency managers can bolster community resilience. The list below summarizes the essential concepts:

- Ethics in emergency management must account for the importance of the relationship between institutions and people and is critical for building trust (Etkin & Timmerman, 2013).
- Ethical obligations may vary based on the state of the emergency management lifecycle (Durocher, 2017).
- The equitable distribution of scarce resources is a fundamental concern of the ethics of access and equity (Hoffman, 2009).
- Ethical principles vary, but the main ones are accepted in most professions (Etkin & Davis, 2013).
- Community vulnerability is readily available through the CDC SVI tool, and emergency managers can use it for planning and preparation (CDC SVI, 2018).

- Access evaluated from supply-based perspectives often includes the private sector, but data about the effectiveness of these partnerships is limited (Chandra, 2016).
- Even when supply-based distributions reach vulnerable populations, they may lack the demand-based skills/methods to receive them (Bergstrand et al., 2015).
- Measuring equity in the distribution of resources should consider an individual or community's "certain functioning" (capacity) at the sub-group (local) level because, unlike understanding components of vulnerability (Cutter, 2010), process and outcome variables measurements capture whether or not vulnerable populations get and use the resources allocated to them (Doorn, 2017).
- Emergency managers may have to resolve the conflict between personal and professional ethics and moral standards (Aung et al., 2017).
- The selected resilience literature review suggests that emergency management teams 1) use vertical and horizontal communication, 2) appropriately challenge established decisions, 3) critically harmonize work-as-imagined and work-as-done, and 4) use diverse teams with different skill sets to develop insight into non-routine events (Son et al., 2020).
- After-action reviews should be informed by community feedback as part of integrating learning into practice.
- Shared responsibility varies with community capability (McLennen, 2014; Howard, 2017; Gougelet, 2006; Cigler, 2017).
- During disasters, community and individual vulnerability can be compounded in situations where resilience and recovery are not achieved (Finucane et al., 2020).
- Community (student proxy) feedback suggests that emergency managers should 1) treat victims fairly, 2) engage communities, 3) do no harm, 4) address failing infrastructure, 5) provide clear disaster guidance, and 6) provide greater resources (Global Ethics Day Student Video Feedback, 2021).
- To aid in building disaster-resistant communities with vulnerable populations, emergency managers should seek partnerships with community-based women's groups in addition to traditional ones (Saja, 2020).

Discussion Question 10:

How can emergency managers weave these new threads into ethical practice?

Theme Summary Chart

The Theme Summary Chart below is a chart that focuses on five critical ethics, access, and equity themes for emergency management. These themes pose questions for after-action debriefs that work to improve emergency management and community resilience.

Theme	Articles
Professional/Individual - Professional ethics and leadership is critical. - Practice strategic inclusion: include diverse stakeholders to inform resilient team performance. Student Theme: Treat victims fairly.	Emergency managers may have to resolve the conflict between personal and professional ethics and moral standards (Aung et al., 2017). Abide by professional ethics; leading within and across organizations for informed decision-making (Feldmen-Jensen et al. 2019). The selected resilience literature review suggests that emergency management teams 1) use vertical and horizontal communication, 2) appropriately challenge established decisions, 3) critically harmonize work-as-imagined and work-as-done, and 4) use diverse teams with different skill sets to develop insight into non-routine events (Son et al., 2020).
Relational Build trust. Student Theme: Provide clear guidance.	Ethics in emergency management must account for the importance of the relationship between institutions and people and is critical for building trust (Etkin & Timmerman, 2013).

Theme	Articles
Situational ▪ Ethics of care as a theory for community vulnerability. ▪ After-action debriefs should be informed by the community. Student Theme: Do no harm.	Ethical obligations may vary based on the state of the emergency management lifecycle (Durocher, 2017). Community vulnerability is readily available through the CDC SVI tool, and emergency managers can use it for planning and preparation (CDC SVI, 2018). Even when supply-based distributions reach vulnerable populations, they may lack the demand-based skills/methods to receive them (Bergstrand et al., 2015). Bring situated knowledge into the disaster ethics discourse (Hayes and Jackson, 2020). After-action reviews should be informed by community feedback as part of integrating learning into practice. During disasters, community and individual vulnerability can be compounded in situations where resilience and recovery are not achieved (Finucane et al., 2020).
Measurable ▪ Equity can be measured as the capacity to use the resources provided. ▪ Community risk profile information is readily available. Emergency managers should look for ways to use the information to inform communities. Student Theme: Provide greater resources.	The equitable distribution of scarce resources is a fundamental concern of the ethics of access and equity (Hoffman, 2009). Access evaluated from supply-based perspectives often includes the private sector, but data about the effectiveness of these partnerships is limited (Chandra, 2016). Measuring equity in the distribution of resources should consider an individual or community's "certain functioning" (capacity) at the sub-group (local) level to determine whether or not vulnerable populations get and use the resources allocated to them (Doorn, 2017).

Theme	Articles
Communal In order for responsibility to be shared, the capacity to share should be determined.	Shared responsibility varies with community capability (McLennen, 2014; Howard, 2017; Gougelet, 2006; Cigler, 2017).
Community Partnerships Different communities have different partner profiles. Therefore, emergency managers should look beyond traditional NGO's and find community resources that can tailor resources to needs.	To aid in building disaster-resistant communities with vulnerable populations, emergency managers should seek partnerships with community-based women's groups in addition to traditional ones (Saja, 2020).
Student Themes: Engage communities; address failing community infrastructure.	Community (student proxy) feedback suggests that emergency managers should 1) treat victims fairly, 2) engage communities, 3) do no harm, 4) address failing infrastructure, 5) provide clear disaster guidance, and 6) provide greater resources (Global Ethics Day Student Video Feedback, 2021).

Section III: Ethical Access and Equity Evaluation Model

Decision-Making During an Emergency or Catastrophe: A Question Model for Simulations

This model is a series of debriefing questions designed to provoke discussion of ethical access and equity issues. There were no case studies of vulnerable victims in the FEMA case study library. The case studies were adapted from actual situations but were embellished to include ethics, equity, and access issues. These questions will be used to debrief the case study presented below to analyze the actions of decision-makers. Learners will use a role-play method to practice debriefing the case study.

Other than the descriptions of the hurricane itself gathered from news and internet sources, the facts and situations in this fact pattern are fictitious and do not reflect any natural person, situation, or circumstance.

Activity: Case Study Presentation: Hurricanes Laura and Delta

CASE STUDY PART 1: HURRICANE LAURA

Lake Charles is the principal city of the Lake Charles Metropolitan Statistical Area, which has a population of 78,656 as of 2020.

During Hurricane Laura, Lake Charles Regional Airport saw a gust of 128 miles per hour (206 km/h) and multiple hangars destroyed. Another gust in the city reached 137 miles per hour (220 km/h). Many windows were blown out of Capital One Tower downtown. A communications tower collapsed

onto the KPLC studio building (which had been evacuated), and part of a sky bridge was blown out. The radar at the NWS Lake Charles forecast office (whose staff evacuated, with the office's operations transferred to the Brownsville, Texas office) was destroyed around the time of landfall, with its dome and much of its internal equipment sheared from the radar tower's base.

Laura originated from a large tropical wave off the West African coast on August 16, 2020 and became a tropical depression on August 20, 2020. Laura intensified into a tropical storm a day later, becoming the earliest twelfth-named storm on record. Laura then moved across the Gulf of Mexico, strengthening slowly and then rapidly intensifying on August 26, 2020. The approaching storm prompted the issuing of many warnings and watches for Louisiana and the evacuation of many people. On August 27, 2020, Laura made landfall near peak intensity in Cameron, Louisiana (Wikipedia).

The effects of Laura across Louisiana were devastating. Nearly a 10-foot-high storm surge was recorded in Cameron Parish. Numerous parishes experienced severe flooding and extreme damage to houses. As many as 12,913 people were evacuated to 42 hotels in Shreveport, Baton Rouge, and New Orleans. Several roads had to be closed, and drivers were advised to use different routes. The storm caused the deaths of 33 people in the state alone.

Electrical needs were provided by the energy company Entergy. Laura's historic intensity caused severe damage to the Entergy distribution and transmission systems across Louisiana and Texas, totaling 568,000 outages for Entergy Louisiana and Entergy Texas customers. Because of the extent of damage and rebuilding required, the organization expected the recovery to be as difficult and challenging as it has ever faced. As a result, customers in the hardest-hit areas had extended power outages lasting several weeks.

The city provides drinking water and sewage services to residents within city limits. Water is treated at six water treatment facilities in the city. Over 70 drinking water systems in the state were not operating, more than five days after being struck by Hurricane Laura. The outages affect roughly 142,000 people. Twenty systems suffered critical damage that took several weeks to repair. Many systems without running water asked residents to boil it before drinking and cooking.

Two hospitals serve Lake Charles with multiple locations. Christus St. Patrick Hospital operates the Lake Area Medical Center campus in south Lake Charles. Lake Charles Memorial Hospital operates a birthing hospital called Lake Charles Memorial Hospital for Women. Though Hurricane Laura has caused severe damage to Louisiana hospital facilities, there were no reports of injuries to patients, associates, or providers. St. Patrick Hospital sustained exterior damage to the roof, both sky bridge walkways, and several windows. The hospital operated under backup power and by implementing its secondary water supply system. However, the emergency care centers remained open. Lake Area Hospital suffered considerable damage in multiple areas, causing the facility to close to new patients. Current patients are safe and were moved to discharge or transfer to nearby facilities.

SOCIAL VULNERABILITY FACTORS FOR LAKE CHARLES, LOUISIANA

As of the [2020 census](https://www.census.gov/quickfacts/geo/chart/lakecharlescitiylouisiana/PST04521), (<https://www.census.gov/quickfacts/geo/chart/lakecharlescitiylouisiana/PST04521>), the population in Lake Charles was 78,656. Lake Charles is 52% female, with 22% under 18 years of age. The city's racial makeup was 47% White, 47% African American, <1% Native American, 2% Asian, 1% from other races, 2% from two or more races. Hispanic or Latino people of any race comprised 3% of the population. 11% have reported disabilities. 52.4% of housing was owner-occupied, with an average of 2.28 persons per household. 84% of households have computers, and 73% have broadband services. 63% are in the labor force, with 57.9% being female.

[COVID impacts Lake Charles](http://parlouisiana.org/racial-data-2/) (<http://parlouisiana.org/racial-data-2/>) – Deaths in Lake Charles: White 51, Black 34.

Review and Discuss the Decisions of the Incident Command Team after Hurricane Laura

- The incident commander believes strongly in the “equal chance” ethical theory and has decided to centrally establish contact centers in areas equally accessible for all residents. In addition, the ethics code of local and state resources seeks to provide care to vulnerable populations.
- A local command center has been set up in the same facility as the Red Cross⁵.
- The FEMA website link has been activated with online assistance so that victims (individuals, families, and businesses) can apply for assistance.
- The team contacted local partners: Louisiana Resiliency Assistance Program. Unfortunately, this program has not updated its website since 2017 and does not seem to have current information.
- The team, under the direction of the ICM commander, declined official assistance from the good Samaritans, but two incidents occurred:
 - A group of neighborhood citizens attempted to rescue two persons from a damaged house, and one was injured entering their vehicle and later died.
 - One of the FEMA partner supply vehicles was disabled during transit and was unable to deliver needed supplies. A local citizen was able to bring hand sanitizers, masks, and water for those evacuated to hotels. The hotel owner complained to the police about the supplies

⁵ The Red Cross also has teams of volunteers circulating through accessible neighborhoods to assess damage and provide food, water, and snacks. With the help of partners, the Red Cross has already served more than 451,000 meals and snacks, and distributed nearly 151,000 relief items and cleaning supplies. Volunteers have provided more than 11,000 individual care contacts to help people with medical or disability needs, or provide emotional and spiritual support during this challenging time. This includes replacing prescription medications, eyeglasses, or other medical equipment.

being distributed in the hotel's parking lot. When the citizen and a FEMA volunteer did not leave when instructed by the hotel owner, they were arrested.

- No additional pre-planning steps were planned in anticipation of additional storms.
- Infrastructure issues beyond those required for response-related clean-up were not addressed.
- Although residents were evacuated to hotels to minimize the COVID exposure that would have occurred in shelters, no additional distancing precautions were taken for volunteers beyond mask-wearing. Although required, mask-wearing was not policed.

CASE STUDY PART 2: HURRICANE DELTA

Hurricane Delta was the record-tying fourth-named storm of 2020 to strike Louisiana and the record-breaking tenth-named storm to strike the United States in that year. Delta, formed from a tropical wave, was first monitored by the National Hurricane Center (NHC) on October 1. Moving westward, the tropical wave began to organize due to its imminent threat to land quickly, until it was sufficiently organized to be designated as a Tropical Depression, and then Tropical Storm Delta. Delta then made landfall at 23:00 UTC near Creole, Louisiana, with winds of 100 mph (155 km/h) and a pressure of 970 MB (28.64 inHg). The storm began to weaken more rapidly after landfall, becoming post-tropical just 22 hours later. The area that Delta threatened was the same area affected by the stronger Hurricane Laura a little more than one month earlier (Wikipedia).

There was a 5-foot storm surge during Hurricane Delta, with more flooding, rain, and minor wind damage. Fifteen inches of rain fell on Lake Charles, resulting in thigh-deep water. Interstate 10 was closed to the Texas border, delaying assistance. Nine thousand individuals remain in "shelters." Many individuals still had not received insurance benefits from Laura and were struggling to make repairs. In addition, many residents were still "traumatized" due to significant damage from Hurricane Laura evident in coastal areas. Around 5,600 residents were still located in hotels six weeks after Laura struck because the hurricane destroyed their homes. Additionally, 6,000 homes still had tarps on them.

A multiple tractor-trailer crash due to dangerous driving conditions was reported on Interstate 10 on October 9, resulting in significant roadway disruption. Due to flooding and downed trees, widespread road closures were reported in the immediate aftermath of the storm in the Parishes of Vermilion, Cameron, Calcasieu Iberia, Lafayette, St. Martin, St. Mary, and St. Landry. In addition, a chemical plant in the middle of hurricane-ravaged southwest Louisiana caught fire, sending thick smoke containing poisonous chlorine billowing into the air. A shelter-in-place order was issued by the local emergency management authority there. However, there was some misunderstanding about the scope of the fire and the need for first responders. Some "unofficial" social media reports suggested that the fire was intentionally started, resulting in the deployment of several state police agencies. The fire happened as Interstate 10 was already closed from the Texas state line to the Atchafalaya Basin in south-central Louisiana due to Hurricane Laura's impact on the region.

RECOVERY EFFORTS

As of March 18, 2021, 470 FEMA responders have been deployed to support the [Hurricane Delta recovery](https://cameronpj.org/long-term-recovery/) (<https://cameronpj.org/long-term-recovery/>), including Incident Management Assistance Teams. Additional personnel from the Department of Defense, Department of Transportation, Health and Human Services, Department of Energy, DHS Cybersecurity Infrastructure and Security Agency, and Army Corps of Engineers have been assigned to support impacted states and tribes as needed.

Decisions of Incident Command Team, including State and Local Officials after Delta

- Two team members were sent to assist; one from North Carolina, specially trained in working with vulnerable populations, and another from Florida, with special training in infrastructure response for multiple hurricanes. Instead of being assigned to Lake Charles, these two members were sent to support the response to a chemical fire caused by Delta.
- Only limited staff were assigned to manage complaints. Victims did not know that they must register with FEMA again for Hurricane Delta, including taking photos before any new damage from Delta and again after new damage. They are also required to keep all receipts for repairs or replacements already completed.
- The ICM commander spent most of his time with other agencies working on important defense, security, energy, and cybersecurity issues. She did not attend the Laura after-action debrief and canceled her attendance in the upcoming Delta after-action debrief because of other pressing priorities. The commander did not include other members of the team in these meetings.

Section IV: Ethical Decision-Making Analysis Questions

Evaluate the ICM commander's decision after Hurricane Laura. Then conduct a similar evaluation after Delta using the questions below.

Decision-Making Evaluation Questions⁶

Assume that local and national officials have looked at the weather forecasts. Before hurricane season, local and national officials began to review their plans and make adjustments. Ethical questions should be evaluated using the three ethical models. Access and equity issues should be identified, and if possible, resolved through suggested actions. The questions are here to stimulate

⁶ To fully answer these questions, instructor facilitation is required. However, an experienced professional can utilize these questions for self-reflection. Moreover, the excerpts from the literature only provide an overview of the concepts discussed. An instructor-led course would dive deeper into the specific literature to flush out nuances that support a greater understanding of how ethics, access, and equity issues can be resolved.

discussion and analysis. Of course, there is no correct answer. However, the more facts and theories that are considered in an answer reflect the practical application of theoretical concepts.

1. Pre-event evaluation:

- a. Which pre-disaster concerns are essential to consider for the Lake Charles region? (For example: seasonal issues, forecasts, current environmental/social climate).
- b. Can you identify any capability issues that Lake Charles's population might have? How might that affect their shared responsibility?
- c. Since there are known ethical perspective disagreements from the ICM commander's perspective with the local ethical codes, when and how should this be addressed?
- d. Since evacuation is considered a form of preparedness, what other ethical steps might have been required for already evacuated individuals in hotels when Hurricane Delta hit?

2. Event onset ethical considerations:

- a. If current hurricane preparation plans were not updated for pandemic protocols, how should the plans be ethically reconciled with pandemic restrictions? (Sending individuals to hotels suggests that some changes were made).
- b. How have the impacts of Laura produced increased vulnerability for Lake Charles residents?

3. Situational issues:

- a. What additional access issues should be considered when there are back-to-back hurricanes?
- b. Is there a possibility for Lake Charles's victims to shared responsibility? What other businesses share responsibility in this context? What facts lead to your conclusion?
- c. Once it is determined that help from good Samaritans will or will not be authorized, what impact does the decision have on access? Equity?

4. Mitigation:

- a. Since mitigation is related to long-term planning, was there evidence of mitigation during Hurricane Laura? During Hurricane Delta?
- b. Was it ethical to deploy the hurricane specialists to the chemical fire?

5. Recovery and future planning:

- a. Explain the importance of including vulnerability and inequity into a community's hazard or risk profile. Is that information helpful when addressing multiple disasters?
- b. After Hurricane Laura, if specific preparation was not implemented to protect victims from potential hurricanes later on in the season, would this failure to prepare be considered a violation of the "do no harm" principle?

6. Are there other important ethical issues regarding the ICM commander's decisions?

Analysis conclusion: Draft five questions and comments for the ICM commander and fellow team members to use for the role-play exercise.

Section V: Debrief Exercise

Winning Video Review: Please review the winning Global Ethics Day 2020–2021 videos to prepare the debrief [HERE](#). (See page 1).

Debrief Practice Roleplay

The Debriefing exercise is designed to ask hard, uncomfortable questions about their experiences during the disaster. This role-play focuses on the decisions of the ICM commander, but there might also be conflicts between other local, state, and national government officials.

[Remember, other than the descriptions of the hurricane itself gathered from news and internet sources, the facts and situations in this fact pattern are fictitious and do not reflect any natural person, situation, or circumstance.]

Conduct a debrief of the case through a role-play in groups of 3–4 using the following questions:

1. Could a review of the CDC SVI assessment (social vulnerability) have helped prepare for the impact of the Hurricanes that hit Lake Charles?
 - a. Were demand-based or supply-based strategies used?
 - b. Would a change in the strategy have impacted the victims in Lake Charles? Why or why not?
2. Were ethical considerations used in decision-making by the ICM commander?
3. Which of the other ethical considerations could have been a part of decision-making?
 - a. Shared responsibility concerns?
 - b. Mitigation concerns?
 - c. Professional versus personal ethical conflict? How should this have been resolved?
 - d. If other emergency management phase strategies were addressed, explain the evidence that supports that mitigation strategies would be helpful.
 - e. Was there any evidence of building community trust or supporting community resilience?
 - f. What changes could be made to address the preexisting or emergent vulnerability of the citizens of Lake Charles? Does the gender profile of Lake Charles provide a clue?
 - g. Other concerns?

Section VI: Assessment

Take the Assessment (Appendix A).

There are three essay questions based on the fact pattern below. Each question asks to focus on one aspect of the course materials. Learners should be able to answer each question with a maximum of two paragraphs.

Section VII: Feedback Questions

Questions

1. What issues, if any, emerged during role play that was a surprise?
2. What feedback would the team provide to the ICM in preparation for a similar situation?
3. What feedback do you have for this course module?

Section VIII: Conclusion and Limitations

Conclusion

Despite numerous calls in the literature to integrate community feedback and evidence that many organizations support communities with vulnerable populations, there is no universal goal to depict what might be an overlapping and possibly ineffective distribution of country-wide emergency management resources, eventually impacting higher levels of community resilience. In future studies, capturing after-action review data that includes community input might be another solution to aggregate procedural and outcome methods for national consumption. Also, it would be interesting to replicate Cole et al. (2018) study and compare the results with data from U.S. after-action reports.

Limitations

This review of the literature from this course is not designed to provide a comprehensive overview of any topic. Instead, it was designed to stimulate discussion about the ethics of access and equity for emergency managers to increase ethical decision-making skills. Therefore, this course module contemplates that emergency managers will discuss these concepts and draw their own conclusions about the content and use the information for critical conversations about how the ethics of access and equity inform future event-related decisions.

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Appendices

Appendix A: Assessment Questions

There are three essay questions below. Each question asks learners to focus on one aspect of the course materials. Learners should answer each question with a maximum of three paragraphs and be free to refer to the course materials.

1. Using the ethical principles mentioned in the section on ethical foundations, explain which principle supports a decision to allow someone to make their own decision about whether to evacuate during an emergency? How does supporting this principle affect the response stage? Could this decision be considered mitigation? How?
2. The student feedback provided from the video contests the theme of pre-infrastructure disrepair before emergency onset and response. In your opinion, should preparedness for community resilience include infrastructure repair in lower-income communities where tax dollars from residents cannot support it?
3. Doorn, (2017) study describes Kafle's (2012) comparison of variables that establish social disaster vulnerability with process and outcome variables that might be done to reduce vulnerability. Does his analysis suggest that social vulnerability can be alleviated?

Appendix B: Answer Key for Discussion Questions

Question	Discussion Starter
1. If emergency managers use the social vulnerability index (SVI) to plan and execute the emergency response, are they relieved of any further ethical obligations to this population?	The answer here is probably no. Even if acted upon, the SVI does not reduce the other ethical obligations based on leadership and fairness.
2. How can partnerships work in communities where “private sector” operations are limited or absent?	This answer focuses on the government’s need to develop private sector partners willing to work in vulnerable communities.
3a. Give an example where lack of access to emergency management resources affects response.	Student Answer.
3b. Give an example where equality in providing community resources results in an inequitable response.	Student Answer.
4a. How should emergency managers deal with their cultural and value differences when responding to an emergency?	Emergency managers should know whether their value systems differ from the FEMA ethics code. However, developing a professional compromise the still supports professional, ethical obligations.
4b. Are ethics codes adequate to address these concerns?	Most ethics codes provide insight on how to resolve conflict.
5a. Why do you think teams from different jurisdictions or response organizations that establish a “horizontal” connection can achieve significant innovation?	Student Answer.
5b. Do you think that this is true even when team members have conflicts about the decision?	Student Answer.
6a. Is social vulnerability an individual, community, or societal problem?	Social vulnerability is an all-encompassing problem.
6b. If legal changes shift the responsibility of either type of mitigation to vulnerable populations in flood-prone areas, is it ethical if populations cannot afford it?	If the legislation holds the population to a standard they cannot meet, the only option is to challenge it in the courts. However, it can be legal, and from some perspectives, not ethical.

Question	Discussion Starter
7. Saja's work is consistent with a student's suggestion that more women should be involved in community discussions about emergency management. What is your perspective on engaging more women into the emergency management field, either through communities or as emergency management professionals?	Student Answer.
8a. What phase in the emergency management lifecycle might be effective with more community input?	Both the planning and preparation phases would benefit from community input. If their input becomes embedded in the plans it will affect response, mitigation, and recovery.
8b. What communication barriers exist between emergency management professionals and vulnerable communities?	There may not be a platform where the groups can come together; however, there must also be a desire to work together.
9a. Do the themes provided by the students resonate with you? Which ones and why?	Student Answer.
9b. Which of the issues do you believe rest squarely on the shoulders of emergency managers? Which do not?	Student Answer.
10. How can emergency managers weave these new threads into ethical practice?	Student Answer.