Systemic Injustice: The Need for Disaster and Pandemic Preparedness Legislation

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I.	INTRODUCTION54
II. Vuln	STUDY THE SYSTEMIC CYCLE: THE SAME COMMUNITIES WHO ARE NERABLE IN DISASTERS ARE VULNERABLE IN PANDEMIC56
B.	How to Determine Vulnerabilities and the Need for Shared cabulary, Networks of Information and Funding to Reduce Risks 56 In 2007 and 2015, International Frameworks Articulated Specific als to Reduce Vulnerability57
C. Go	National Frameworks Responsible for Disaster Response Articulate als to Reduce Vulnerabilities59
Urs	If "Preparedness" is a Priority, Then Funding to Reduce Risk is an gent Priority60
Co. I I	In Disaster There Are Known Vulnerabilities in Certain mmunities Are Which Are Also Present During Pandemic62 Communities of Color Are More Vulnerable in Disaster and Now Pandemic Due to Structural Racism and Systemic Issues Related to
<i>1</i> 2	Housing, Public Health and Financial Inequities
3	3. Many Issues Surrounding Housing Affect Financial Stability and Create Multiple Risk Factors64
t	4. Gender is a Vulnerability in Disaster and Pandemic Largely Due to Structural and Systemic Inequality66
Ī	5. Children in Need, Abused or Neglected, Are the Most Vulnerable Because They Are Without a Voice to Advocate for Change
Ì	During Disaster and Pandemic69 Those Without Citizenship Status Lack Access to Benefits,
i	Healthcare, or the Ability to Shape Policy70

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Ш.	TIME FOR ACCOUNTABILITY: THE NEED TO CREATE COMMUNITY	Y
RESI	LIENCE AND TO ENSURE STAKEHOLDERS HAVE A VOICE	71
A.	Skepticism When Measuring Resilience	71
B. Po	The Presence of Each Stakeholder Voice as Part of licy-Making	75
IV. Chai	SYSTEMIC FAILURE AND A CALL TO ACTION: NEEDED POLICY NGES THROUGH LEGISLATIVE ACTION	76
A. B.	The Need for Explicit Legislation Around Preparedness The Need for Legislation to Organize, Define Leadership and	77
Co	ordinate a Response	80
	Legislation for Multi-State and Mutual Aid Agreements to Assist ntingency Budgets	and 82
D. Exe	Legislation to Fund and Conduct Training and Preparedness ercises	85
F.	Legislation to Fund Community and Individual Preparedness Legislation to Collect, Share and Study Data, to Create Common cabulary and Build Intelligence Systems for Data-Driven	87
G.	cisions Legislation to Ensure Stakeholders Are in the Room When Policy aped	is .90
V	CONCLUSION	02

I. INTRODUCTION

Each disaster is unique in impact, and while it is impossible to prepare for every disaster, there is a similar cycle that appears after every disaster which demonstrates structural inequities, disparate impact upon communities of color, greater suffering for those with high risk factors, long-term mental health effects and trauma upon children. The COVID-19 pandemic is a moment of reckoning with this cycle and a moment to realize the many failures and to learn from past lessons in the disaster context. Overall, this article advocates for urgent change, specifically, to ensure all stakeholders are present in decision-rooms, to create a common vocabulary, and measurement tools in order to analyze data related to "preparedness," "vulnerability," and "resilience" and to create legislation which allocates resources to fund preparedness for public health needs and vulnerabilities in communities hardest hit. The loss of life is too great and the call for systemic change and accountability can no longer be ignored.

Literature after disasters demonstrates the disproportionate impact upon vulnerable populations that suffer at a greater rate due to structural

inequities.¹ Those same structural issues have also created greater suffering for communities during this pandemic.² The article views disaster preparedness, response, and mitigation of risk factors as necessary to advocate for change and funding to reduce vulnerabilities.

The article explores two frameworks provided at international conferences, specifically the 2005 World Conference on Disaster Reduction³ and the 2015 UN World Conference on Disaster Risk Reduction,⁴ providing suggested disaster frameworks to reduce risks.⁵ These frameworks promulgated certain actions wherein countries can develop stronger responses to disaster through policy and legislative action. Unfortunately, it is clear such preparation and response were not implemented and thus greater suffering resulted from the COVID-19 pandemic.⁶

Leaders are to follow disaster response frameworks or to act according to preset disaster response plans. Legislation is necessary to provide proper funding to prepare for future crises. First, federal or state legislation to require uniform vocabulary and assessment tools are necessary to collect data and to analyze vulnerabilities, preparedness, and resilience in certain communities. The need for consistent definitions and measurable outcomes is a consistent call for change which can no longer be delayed.

This article highlights many recommendations and key findings in the most recent FEMA report addressing the COVID-19 response as well as literature after disasters. Each opportunity for policy change is essentially a call to action for legislative change to engage lawyers, law schools, and policymakers. The article explores specific opportunities to engage future generations of lawyers in policy work and proactive disaster or pandemic legislation to help address the many systemic issues. The author ultimately hopes to inspire an urgent response for statutory change and accountability.

^{1.} See Amit Suneja et al., Chronic Disease After Natural Disasters: Public Health, Policy and Provider Perspectives, NAT'L CTR FOR DISASTER PREPAREDNESS, COLUM. UNIV. EARTH INST. (2018).

^{2.} See Emily A. Benfer et al., Health Justice Strategies to Combat the Pandemic: Eliminating Discrimination, Poverty, and Health Disparities During and After COVID-19, 19 YALE J. HEALTH POL'Y L. & ETHICS 122, 125–26 (2020).

^{3.} See U.N. International Strategy for Disaster Reduction, Hyogo Framework for Action 2005-2015: Building Resilience of Nations and Communities to Disasters, PREVENTIONWEB (2005) https://www.preventionweb.net/files/1037_hyogoframeworkforactionenglish.pdf.

^{4.} See Sendai Framework for Disaster Reduction 2015-2030, PREVENTION WEB (2015), https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf.

^{5.} *Id*.

^{6.} See Pandemic Response to Coronavirus Disease (COVID-19): Initial Assessment Report, FEMA (2021), https://www.fema.gov/sites/default/files/documents/fema_covid-19-initial-assessment-report_2021.pdf [hereinafter FEMA Coronavirus Disease].

II. STUDY THE SYSTEMIC CYCLE: THE SAME COMMUNITIES WHO ARE VULNERABLE IN DISASTERS ARE VULNERABLE IN PANDEMIC

Every disaster is different with varying degrees of impact, disruption, or a timeline to prepare. For example, earthquakes give little warning, while a hurricane allows time to anticipate and gather supplies or evacuate. The spontaneous nature of wildfires, tornados, and flooding provide little time to prepare and respond in order to save belongings or more importantly, lives. With only days or hours to respond, many people evacuate with little food, clothing, medicine, and certainty about conditions upon their return. Many living in the Gulfsouth, or California, understand this cycle of uncertainty; there are also certain known truths after disasters. Specifically, some communities are disrupted at a greater weight and for longer periods of time due to systemic issues. Disaster mitigation frameworks exist which provide a call to action to reduce the impact of disaster; however, many of the calls have gone unanswered and the cycle continues to create greater disparity.

In the past two decades, the rate of natural disasters has increased¹⁴ likely causing a wider gap between those who are able to rebound financially and physically versus those who continue to suffer and become more vulnerable. Specifically, communities of color, those with disabilities, the elderly, the impoverished, victims of intimate partner violence, children in need, and those without citizenship status are some of the most vulnerable in our society suffering at higher rates compared to non-marginalized communities.

A. How to Determine Vulnerabilities and the Need for Shared Vocabulary, Networks of Information and Funding to Reduce Risks

The term "vulnerability" is defined by the international community on disaster as "[t]he conditions determined by physical, social, economic and

^{7.} See Earthquakes, READY.GOV, https://www.ready.gov/earthquakes (Jan. 27, 2021) (Earthquakes provide almost no advance notice beforehand with little time for preparedness.).

^{8.} Hurricanes, Ready.gov, https://www.ready.gov/hurricanes (Nov. 9, 2020).

^{9.} Wildfires, Ready.gov, https://www.ready.gov/wildfires (Jan. 27, 2021).

^{10.} Tornadoes, Ready.gov, https://www.ready.gov/tornadoes (Nov. 10, 2020).

^{11.} Floods, Ready.gov, https://www.ready.gov/floods (last updated Nov. 9, 2020).

^{12.} See Mollyann Brodie et al., Experiences of Hurricane Katrina evacuees in Houston Shelters: Implications for Future Planning, 96 Am. J. Pub. Health 1402 (2006); see Bill Quigley, A Letter to Social Justice Advocates: Thirteen Lessons Learned By Katrina Social Justice Advocates Looking Back Thirteen Years Later, 61 Loyola L. Rev. 623 (2015), https://billquigley.files.wordpress.com/2016/04/katrina-13-lessons-10-years-after-2016.pdf; see also Jeffrey Schlegelmilch et al., Superstorm Sandy: Lessons for Optimizing Limited Training Resources for Local Impact, 10 Disaster Med. Pub. Health Preparedness 306 (2016), https://academiccommons.columbia.edu/doi/10.7916/D8D21XNH.

^{13.} Sendai Framework, supra note 4.

^{14.} World Disasters Report 2020: Come Heat or High Water, International Federation of Red Cross and Red Crescent Societies 1, 19 (2020).

environmental factors or processes, which increase the susceptibility of a community to the impact of hazards."¹⁵ The International Federation of Red Cross defines "vulnerability" as "the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard."¹⁶ While most may associate the impoverished as vulnerable, other factors increase vulnerability such as "when people are isolated, insecure and defenseless in the face of risk, shock or stress."¹⁷ The study of vulnerability or differential vulnerabilities¹⁸ is a growing field of science.¹⁹

More funding for research is needed to ensure that common vocabulary and shared science are necessary to identify agreed-upon risk factors and assess vulnerability in each community and then pose creative solutions to mitigate such risk factors. There is a great need for common vocabulary and data collection metrics to analyze risk factors to assess the specific terms: "vulnerability," "preparedness," and "resilience." These three terms are important in the disaster context—and now pandemic—as all three are related, but the study, science and precision in their use is not agreed upon. ²⁰

B. In 2007 and 2015, International Frameworks Articulated Specific Goals to Reduce Vulnerability

Frameworks for disaster preparedness, response and resilience provide guidance or protocols to prepare before a disaster strikes a community. The work to mitigate risk factors requires analysis to predict vulnerabilities in communities and then to create goals or policy initiatives to assist with preparedness. The cycle also requires study after disruption to analyze the resilience of the community. This study of resilience is an indicator of whether

^{15.} U.N. International Strategy for Disaster Reduction, *supra* note 3; *see also* Ben Wisner et al., AT RISK: NATURAL HAZARDS, PEOPLE'S VULNERABILITY, AND DISASTERS (London: Routledge, 2d ed. 2004).

^{16.} What is Vulnerability?, IFRC (Jan. 8, 2011), https://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/what-is-vulnerability/.

^{17.} Id.

^{18.} William Donner & Havidán Rodríguez, Disaster Risk and Vulnerability: The Role and Impact of Population and Society, Population Reference Bureau (Jan. 8, 2011), https://www.prb.org/resources/disaster-risk/ (describing how societies have differing rates of vulnerability due to certain factors such as social diversity, geography, and population density).

^{19.} Id.; see, e.g., Vulnerable Populations, NATIONAL CENTER FOR DISASTER PREPAREDNESS, EARTH INSTITUTE COLUMBIA UNIVERSITY, https://ncdp.columbia.edu/research/vulnerable-populations/ (last visited July 19, 2021) (projects studying the impact of disaster on certain groups such as those who are "mobility impaired" or without "access to economic capital" or children).

^{20.} David M. Simpson, *Indicator Issues and Proposed Framework for a Disaster Preparedness Index (DPI)*, CENTER FOR HAZARDS RESEARCH AND POLICY DEVELOPMENT 8 (Sept. 24, 2006) ("There are differences in opinion in the social science community over the selection of the specific variables that represent vulnerability, such as access to resources, political power, and building supply.").

the policy funding or initiatives made a difference. However, this important work however requires agreed upon standards and vocabulary and more funding for data collection, and most importantly, a network of shared data to learn and adopt solutions.

In January of 2005, the World Conference on Disaster Reduction was held in Hyogo, Japan.²¹ The final report from the conference included the Hyogo Framework adopted to create an initial shift in proactive planning at a global level to encourage countries to advance standards which would reduce risk for disaster.²² The highlighted priorities from that conference included a cultural shift to develop networks with the "use of standard termi-Another notable goal was a focus on preparedness and coordination through information exchange.²⁴ Notably, the framework articulates the task of developing "realistic and measurable indicators" to analyze progress.²⁵ Also promoted is the "dialogue, coordination and information exchange between disaster managers and development sectors" as well as "exercise preparedness and contingency plans." The Hyogo framework also recognizes "multi-stakeholder partnerships" as an important consideration in disaster risk reduction.²⁷ One of the goals articulated is to "[r]educe the underlying risk factors" which include "food security for resilience," disaster risk "integrated into health sector and safe hospitals"28 and the notable recognition of "vulnerability reduction with diversified income options" and "public-private partnerships."29 Notably, the United States was an active participant in the conference in 2007 and shaped the international goals as a way to reduce and minimize disaster risk factors.³⁰ Through the lens of the Hyogo framework, the United States response to COVID-19 falls short of many articulated priorities.

More recently, the United Nations Conference on Disaster Risk Reduction in 2015 held in Sendai, Japan continued the work on disaster risk reduction and also set forth priorities.³¹ The goal of the Sendai framework

^{21.} U.N. International Strategy for Disaster Reduction, supra, note 3.

^{22.} *Id.* ("The HFA Monitor is a voluntary tool in which countries self-report on achievements on the HFA Priorities for Action.").

^{23.} Id. at 23.

^{24.} Id.

^{25.} Id. at 23.

^{26.} Id. at 22.

^{27.} Id. at 23.

^{28.} Id. at 22.

^{29.} Id.

^{30.} Wilson Sumner, Explanation of Position of the United States for the Sendai Framework for Disaster Risk Reduction 2015-2030, U.S. MISSION TO INTERNATIONAL ORGANIZATIONS IN GENEVA (Mar. 18, 2015), https://geneva.usmission.gov/2015/03/19/sendai-framework-for-disaster-risk-reduction-2015-2030/ ("The United States has been a strong supporter of the Hyogo Framework for Action to reduce loss of lives and social and economic impacts of disasters, including through assistance.").

^{31.} Sendai Framework, supra note 4.

encompasses a holistic approach to disaster risk reduction.³² Some of listed priorities for action include risk management "based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and environment."³³ The Sendai framework specifically prioritizes an investment into resilience strategies for risk reduction "through structural and nonstructural measures" with a focus to "enhance the economic, social, health and cultural resilience . . ."³⁴ The Sendai framework also recognizes the ability of law to shape policy and ensure there is a cohesive response.³⁵

In July 2020, while the world was experiencing the impact of COVID-19, the Progress Report on the Implementation of the UN Plan of Action on Disaster Risk Reduction for Resilience was issued as part of assessing progress of the Sendai framework.³⁶ The report highlighted the need and commitment to reporting structures and coordination to ensure disaster risk reduction is a strategic priority for the international partners.³⁷

C. National Frameworks Responsible for Disaster Response Articulate Goals to Reduce Vulnerabilities

In the United States, much of emergency management is traditionally defined by the National Incident Management System (NIMS) and the National Response Framework (NRF), which is published by Homeland Security and provides a plan for all types of disaster response with emphasis on flexibility and adaptability.³⁸ The National Disaster Recovery Framework (NDRF) and the NRF are guides for responses to various disasters and emergencies that describe how to manage through cross-sector and government

^{32.} *Id.* ("Through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery and thus strengthen resilience.").

^{33.} Id. at 36.

^{34.} Id.

^{35.} *Id.* (stating "the coherence of national and local frameworks of law, regulations and public policies that, by defining roles and responsibilities, guide, encourage and incentivize the public and private sectors.").

^{36.} U.N. Off. For Disaster Risk Reduction, Progress Report on the Implementation of the UN Plan of Action on DRR for Resilience (July 2020).

³⁷ Id

^{38.} U.S. Dep't. of Homeland Sec., *National Response Framework*, (2019), https://www.fema.gov/media-library-data/1582825590194-2f000855d442fc3c9f18547d1468990d/NRF_FINALApproved_508_2011028v1040.pdf (a federal national response framework to outline emergency response "build on scalable, flexible and adaptable concepts identified in the National Incident Management System (NIMS) to align key roles and responsibilities across the nation.").

plans.³⁹ The NRF provides structure and coordination among both private and public entities and interagency plans.⁴⁰ In addition, the plan recognizes the balance and coordination between the federal and state government as an integrated vision. The concept of "unified command" recognizes that such unified command response "maximizes response efforts."⁴¹ The envisioned coordinated effort by the NRF is one that supposedly "enables unity of effort when no single jurisdiction, agency, or organization has primary authority and/or the resources to manage an incident on its own."⁴² There is recognition that such unified command allows jurisdictions to jointly manage and stabilize communities after the impact and that federal departments offer support to stabilize a community to provide resources as necessary to allow the community to function.⁴³

In 2014, the Department of Homeland Security, primarily responsible for coordinated response during disasters articulated a specific mission to strengthen national preparedness and resilience and engage stakeholders on all levels to include "state, local, tribal and territorial partners; the private sector, academic and others." Four overall goals toward resilience were outlined which included: (1) to enhance national preparedness, (2) to mitigate hazards and vulnerabilities, (3) to ensure effective emergency response, and (4) to enable rapid recovery. Using the lens of the national frameworks and the specific articulated goals, such as, funding to prepare and address systemic issues identified as vulnerabilities, it is indisputable that the pandemic has exposed great vulnerabilities and the need for more policy changes and legislative enactments.

D. If "Preparedness" is a Priority, Then Funding to Reduce Risk Is an Urgent Priority

The term "preparedness" is a multi-dimensional term that includes many variables including social vulnerability as one factor. 46 However, a

^{39.} *Id.* at 2 (A federal national response framework to outline emergency response is "built on scalable, flexible and adaptable concepts identified in the National Incident Management System (NIMS) to align key roles and responsibilities across the nation.").

^{40.} Id. at 2-3.

^{41.} Id. at 7.

^{42.} Id.

^{43.} Id. at 19.

^{44.} Resilience, DEP'T OF HOMELAND SEC., https://www.dhs.gov/topic/resilience (last visited Jan. 18, 2021).

^{45.} U.S. Dep't of Homeland Sec., The 2014 Quadrennial Homeland Security Review, 1, 79 (2014); see also Disaster Resilience Program, EQUAL JUSTICE WORKS, https://www.equaljusticeworks.org/become-a-fellow/fellowship-program/disaster-resilience-program/ (last visited July 14, 2021).

^{46.} Simpson, supra note 20, at 3.

measurement for social vulnerability is still not an agreed upon science.⁴⁷ "Preparedness" is understanding that there is a method to collect data, analyze, and measure in order to understand the long-term impact and allocation of resources.⁴⁸ The relationship between preparedness and vulnerability measurements is fundamental to build resilience.⁴⁹

Some may argue there are not enough resources to fund disaster preparedness or if people choose to live in such disaster-prone areas, the risk should be absorbed by the individual community. First, many of the systemic issues related to disaster vulnerability are the same risk factors present in the pandemic impacting the same vulnerable communities. The cost for disaster response is extensive and rising every year. In 2005, it is estimated that Hurricane Katrina provided a direct loss of \$125 million dollars as a direct loss of 1.1% of GDP. In the past decade, the cost for natural disaster response continues to rise. The estimated cost of natural disasters in 2017 was over \$300 billion. Imagine a shift in policy to address public health, housing, and financial stability as a proactive disaster and pandemic response.

A cultural shift is necessary to view preparedness both with a lens on humanitarian and utilitarian goals.⁵⁴ All citizens should be motivated to design policy and fund preparedness legislation when there are estimates of a \$540 billion dollar cost-value analysis for better preparedness, but most importantly, to save lives.⁵⁵ More data is necessary to analyze how much funding and time are provided before and after each disaster and whether such initiatives have created resilience. This first requires agreed-upon vocabulary, standard metrics, and data collection to measure outcomes and partnerships with all stakeholders and policy then shaped by leaders who understand

^{47.} *Id.* at 8 ("There are differences in opinion in the social science community over the selection of the specific variables that represent vulnerability, such as access to resources, political power, and building supply.").

^{48.} Id. at 2, 5.

^{49.} *Id.* at 4 (stating "the goal for communities is to maximize their preparedness potential and minimize their vulnerability.").

^{50.} Suneja, *supra* note 1, at 5–6 ("The estimated cost of natural disasters in 2017 was over \$300 billion.").

^{51.} Francis Ghesquiere & Olivier Mahul, Financial Protection of the State Against Natural Disasters: A Primer, THE WORLD BANK, Pol'y Rsch. Working Paper No. 5429, 4 (Sept. 1, 2010).

^{52.} Junia Howell & James R. Elliot, Damages Done: The Longitudinal Impacts of Natural Hazards on Wealth Inequality in the United States, 66 SOCIAL PROBLEMS 448, 449 (2019).

^{53.} Suneja, supra note 1, at 1.

^{54.} Mahatma Gandhi resonates in the policy work around reducing disaster risks: ("The true measure of any society can be found in how it treats its most vulnerable members.").

^{55.} Joshua R. Jendrickson, *The Coronavirus and Lessons for Preparedness*, SPECIAL EDITION POLICY BRIEF, 3 (Mar. 26, 2020) (estimating that if 2% of lives could be saved from 1% of deaths to the US population that would amount to 60,000 lives saved as a conservative estimate. Using a statistical value of life of \$9million implies a value of \$540 billion).

the need for change. The call for change in the Hyogo and Sendai frameworks, as well as the United States National Response Frameworks is still needed, and a post-pandemic truth-reckoning is imperative to analyze the response and address systemic vulnerabilities.

E. In Disaster There Are Known Vulnerabilities in Certain Communities Which Are Also Present During Pandemic

Certain vulnerabilities encompass both disaster and pandemic, such as, the most obvious, those with chronic medical conditions⁵⁶ or those with disabilities⁵⁷ and the elderly need more protection and are at higher risk. But more subtle vulnerabilities exist, for example, the stress and trauma from disaster is known to exacerbate mental health conditions.⁵⁸ In areas consistently prone to disaster, vulnerable communities become further entrenched with stress, trauma and financial instability and certain individuals suffer at a greater rate due to continuous systemic issues in society.

1. Communities of Color Are More Vulnerable in Disaster and Now Pandemic Due to Structural Racism and Systemic Issues Related to Housing, Public Health and Financial Inequities

Communities of color are disproportionately vulnerable in disaster due to structural inequities.⁵⁹ A confluence of factors create such vulnerabilities. For example, a lack of access to resources to build equity,⁶⁰ or access to property that is not in flood prone or low lying areas,⁶¹ or the ability to achieve financial stability with secure employment benefits, thus creating a larger disparity when disruption occurs from disaster.⁶² Post-disaster, further disparity exists when there is little access to benefits to help rebuild, such as insurance claims,⁶³ filing for benefits based on title to property,⁶⁴ filing

^{56.} Benfer et al., *supra* note 2, 125–26.

^{57.} Suneja, supra note 1.

^{58.} Id.

^{59.} Craig Anthony Amold, Resilience Justice Project, Resilience Justice and Community-Based Green and Blue Infrastructure, 45 WM & MARY ENV'T L. & POL'Y REV. 665, 668 (2021) (describing how public policies impact communities of color who suffer at a greater rate from climate change because "inequality and racism are deeply embedded in social systems and institutions...").

^{60.} Lenore Palladino, *The Contribution of Shareholder Primacy to the Racial Wealth Gap*, ROOSEVELT INST. WORKING PAPER, 1, 4 (2020).

^{61.} Jeff Uelan & Barney Warf, Racialized Topographies: Altitude and Race in Southern Cities, 96 GEOGRAPHICAL REV. 50, 51, 53 (2006).

^{62.} Benfer et al., *supra* note 2, at 125–26 (describing socioeconomic status as the "ability to access essential goods and services" and the inability to access as a disparity during the pandemic).

^{63.} Bobby Marzine Harges et al., Disaster Mediation Programs—Ensuring Fairness and Quality for Minority Participants, 39 CAP. UNIV. L. REV. 893, 900 (2011).

^{64.} *Id*.

insurance claims, or lack of participation in mediation of insurance claims.⁶⁵ The lack of access to healthcare is an immense vulnerability predictor which creates a higher risk to develop chronic underlying medical conditions.⁶⁶ During the pandemic, these same structural inequities continue to impact communities of color at a greater rate.⁶⁷ Such vulnerabilities have been known for many years in the disaster context, but the failure to properly fund public health or affordable housing continues to create further disparity.⁶⁸

2. Chronic Health Conditions Are Risk Factors for Both Disaster and Pandemic

Some of the most vulnerable in society are those with chronic health conditions who require more support during evacuation and in rebuilding efforts. Four key chronic diseases identified by the World Health Organization as "primarily those with cardiovascular disease, respiratory disease, cancer and diabetes," are a starting point to understand needs during disaster. Likely more than half of the American population suffers with such chronic health conditions and of those with such health issues, over forty percent have multiple chronic conditions. Ultimately, this means over half of the population may have at minimum one high risk factor in disaster. When planning for disaster preparedness those with chronic health conditions require access to medication, medical care or equipment making evacuation during disaster more difficult. Additionally important is a more expansive understanding of chronic disease to include "chronic renal, disability and mental health" which would then include a larger population.

^{65.} Id. at 905.

^{66.} See Racism and Health, CTRS FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/healthequity/racism-disparities/index.html (July 8, 2021); Benfer et al., supra note 2, at 126.

^{67.} Benfer et al., supra note 2, at 125-26; see also Sherley Cruz, Essentially Unprotected, Tul. L. Rev. (2021) (forthcoming).

^{68.} Benfer et al., *supra* note 2, at 126 ("Past infectious disease epidemics in the United States and governmental responses to them made it highly predictable that people living in poverty and people of color would bear the brunt of the coronavirus pandemic due to discrimination and other forms of subordination that limit equal access to resources in the realms of health care, housing and employment.").

^{69.} Suneja, supra note 1.

^{70.} Id. at 5.

^{71.} Id. at 3.

^{72.} Id.

^{73.} *Id.* at 10 (identifying dialysis centers and "those engaged in kidney disease preparedness and response efforts" as critical stakeholders to construct solutions for disaster response); *see also Id.* at 17 (Also citing an interviewee in the study who analyzed how to care for those with chronic conditions in disaster questioning: "Do you put them in general shelters, do you put them in special needs shelters, do you evacuate them ahead of time? All of the above have been tried, and it doesn't seem like any particular solution has really identified itself as the way to go.").

^{74.} *Id.* at 5.

In a 2013 article analyzing community resilience in a large urban area. the authors advocated for more resources dedicated to public health preparedness. 75 The authors explained that "many of the activities that constitute effective everyday public health practice, such as promoting safety and health, working to reduce the burden of disease, and building social capital, can be viewed as activities that also build community resilience."⁷⁶ The impact of COVID-19 demonstrates the same chronic health conditions give rise to vulnerability during pandemic.⁷⁷ The role of the essential worker during pandemic and the inequity of the wealth gap or disparities in health coverage. access to paid family and medical leave or the ability to work from home are some of the structural issues creating structural disproportionate impact.⁷⁸ Again, both social and structural determinants impact chronic health conditions.⁷⁹ Such health care inequities create a further divide and a catalyst to develop chronic health conditions raising vulnerability risk factors. 80 To reduce risks across multiple communities, funding is necessary to create a cultural shift to view such policy changes as disaster and pandemic mitigation.

3. Many Issues Surrounding Housing Affect Financial Stability and Create Multiple Risk Factors

Many equity issues around affordable housing and ownership are factors for long-term stability and upward financial mobility.⁸¹ Natural

^{75.} Alonzo Plough et al., Building Community Disaster Resilience: Perspectives From a Large Urban County Department of Public Health, 103 Am. J. Pub. Health 1190, 1193 (2013) (citing increased calls to Congress for "greater accountability to ensure a return on investment for the substantial resources devoted to public health emergency preparedness and response . . .") (noting that "community transformation grants and other prevention components in the Affordable Care Act that are building coalitions and community partnerships to increase well-being and prevent disease" align with emergency preparedness).

^{76.} Id

^{77.} Underlying Medical Conditions Associated with High Risk for Severe COVID-19; Information for Healthcare Providers, CTRS FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html (last updated May 13, 2021); see also Shahram Arsang-Jang, et al., The Association between Healthcare Resources, Non-Communicable Diseases, and COVID-19 Mortality: An Ecological Study of 162 Countries (2021) https://ssrn.com/abstract=3763779 (unpublished research from Dep't of Biostatistics and Epidemiology, School of Medicine, Zanjan School of Medical Sciences, Zanjan, Iran).

^{78.} Sapna Mehta & Daniela Zessoules, Why the Economic Crisis is Disproportionately Affecting Marginalized Communities, GROUNDWORK COLLABORATIVE (May 2020), https://groundworkcollaborative.org/wp-content/uploads/2020/05/GWC2028_Economic-Crisis.pdf.

^{79.} Emily A. Benfer, Seema Mohapatra, Lindsay F. Wiley & Ruqaiijah Yearby, Health Justice Strategies to Combat the Pandemic: Eliminating Discrimination, Poverty, and Health Disparities During and After COVID-19, 19 YALE J. HEALTH POL'Y L. & ETHICS 122,126 (2020).

^{80.} Underlying Medical Conditions, supra note 77.

^{81.} Benfer et al., supra note 2, at 149.

disasters exacerbate wealth inequality especially for non-property owners.⁸² During a disaster, those with minimal savings or who live paycheck-to-paycheck do not have the same financial means to evacuate or rebuild after impact.⁸³ The location of housing in more disaster-prone areas creates further disparity.⁸⁴

Natural disasters impact poverty rates at a greater rate because there is likely a reduced household income or property is destroyed or any nest egg in capital is likely to be spent on rebuilding. So "Natural disasters have consistently been shown to be a key factor responsible for pushing vulnerable households into poverty, and also for keeping households poor. So Without stable housing, individuals are unable to accumulate financial stability and may further endure cycles of poverty from one generation to the next. Communities who face higher rates of evictions endure longer terms of financial instability and further vulnerabilities.

As seen this past year in response to COVID-19, socioeconomic factors created a greater disparate impact in how the pandemic impacted certain people's lives. ⁸⁹ This past year, the rate of evictions demonstrated how the poverty rate rises and creates further vulnerability in the spread of the virus as people turn to a crowded shelter. ⁹⁰ "People most vulnerable to eviction are also more likely to suffer from poor health conditions that place them at high risk of severe or fatal cases of COVID-19." The recent pandemic has likely

^{82.} Junia Howell & James R. Elliot, *Damages Done: The Longitudinal Impacts of Natural Hazards on Wealth Inequality in the United States*, 66 Social Problems 448 (2018) (describing the inability to accrue assets at the same rate of those who may receive generational inheritance, property ownership rights or access to ownership).

^{83.} Harges et al., supra note 64, at 7-8.

^{84.} Jeffrey R. Baker et al., In Times of Chaos: Creating Blueprints for Law School Responses to Natural Disasters, 80 LA. L. REV. 422, 426 (2020) ("Racially segregated housing in the South has resulted in minorities disproportionately occupying 'low-lying, flood-prone, and amenity-poor segments of urban areas.").

^{85.} Hessel C. Winsemius et al., Disaster Risk, Climate Change, and Poverty: Assessing the Global Exposure of Poor People to Floods and Droughts, WORLD BANK GROUP, 2 (2015).

⁸⁶ *Id*

^{87.} James R. Elliot & Junia Howell, *Beyond Disasters: A Longitudinal Analysis of Natural Hazards' Unequal Impacts on Residential Instability*, 95 SOCIAL FORCES 1181, 1202–03 (2017), https://static1.squarespace.com/static/573ba69bcf80a1323384f7d6/t/60b25f7b6f436 35207400ad8/1622302588625/Elliott+and+Howell+2017+Beyond+Disasters.pdf.

^{88.} Emily Benfer et al., Eviction, Health Inequity, and the Spread of COVID-19: Housing Policy as a Primary Pandemic Mitigation Strategy, 98 J. URBAN HEALTH 1, 2 ("In 2016, the last available year of nationwide eviction data, 3.7 million evictions were filed nationally, disproportionately affecting Black and Hispanic renters.").

^{89.} See Cruz, supra note 67.

^{90.} See Benfer et al., supra note 88.

^{91.} Id. at 4.

increased the poverty rate at an unprecedented rate. In 2018, the poverty rate in the United States was 11.8% of the population.⁹²

Many legal aid lawyers are reporting an increase in clients now eligible for legal aid⁹³ with several offices reporting a "17.9% increase in the number of eligible clients." If there is a larger population of impoverished citizens, then there is a greater index of vulnerable people prone to both disasters and pandemic.

4. Gender is a Vulnerability in Disaster and Pandemic Largely Due to Structural and Systemic Inequality

Natural disasters are now a common occurrence with the average American living in a county that may be impacted by disaster five times per year, 95 and half of the United States population is female. 96 The structural and systemic issues causing a disparate impact on half of the population in a given disaster 97 require new and innovative policy to provide more protections during disaster and also pandemic. More data is needed to understand the long-term impact of disasters upon women. 98 Not all women are impacted equally, but a greater impact is felt as opposed to male counterparts because of the social role and responsibilities of women in many cultures. 99 Many times the impact is illness, economic loss, demanding workload, stress, and increased sexual or domestic violence. 100 Disasters cause instability in housing from the cost associated with damage or repairs which tend to impact women at a greater rate. 101 During evacuations, intimate partner violence

^{92.} Jessica Semega et al., *Income and Poverty in the United States: 2018, Current Population Reports*, U.S. CENSUS BUREAU (revised June 2020), https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-266.pdf.

^{93.} In a recent survey by Legal Service Corporation (LSC), "94% of grantees surveyed said that they are seeing clients who are newly eligible for LSC funded legal aid." Press Release, LSC, LSC Survey Finds Major Impact of COVID-19 Pandemic on Legal Aid (July 24, 2020), https://www.lsc.gov/media-center/press-releases/2020/lsc-survey-finds-major-impact -covid-19-pandemic-legal-aid.

^{94.} *Id*.

^{95.} Elliot, supra note 87, at 1181.

^{96.} *Quick Facts*, U.S. CENSUS, https://www.census.gov/quickfacts/fact/table/US/LFE046219 (last visited Oct. 6, 2021).

^{97.} See generally GENDER AND DISASTER NETWORK, http://www.gdnonline.org/ (last visited Oct. 6, 2021) ("The Gender and Disaster Network is an educational and advocacy project initiated by women and men interested in gender relations in disaster contexts.").

^{98.} Gender and Health in Disasters, Department of Gender and Women's Health, Gender and Health in Disasters, WORLD HEALTH ORG. (2002), https://www.who.int/gender/other_health/genderdisasters.pdf.

^{99.} *Id.* (describing some heightened vulnerabilities for women with economic insecurity, homemakers, widowed or single, elderly or suffer from domestic and sexual abuse).

^{101.} Elliot & Howell, *supra* note 87, at 1181 ("This particular pattern is particularly strong for Black and Latina women, for whom measurable differences in personal and social

increases because victims are forced to evacuate with their abuser, and if victims are in a shelter many shelter workers are untrained to recognize signs of abuse or fail to ask questions to ensure safety. During Hurricane Katrina those displaced by the storm suffered a three-fold increase in intimate partner violence and a 54% increase in sexual violence. Any resources to help lower such risk and train shelter workers how to respond to abuse victims or recognize the signs of violence are necessary; more funding is necessary to provide safer shelters or resources to address specific vulnerabilities. Of

During the COVID-19 pandemic and shutdowns, the same structural issues are seen impacting women at a greater weight. In the United States, women are suffering from the economic downturn in greater numbers with some labeling this period the "Shecession." "Women accounted for 55 percent of the 20.5 million jobs lost." These structural issues are the cause of the wider impact upon women during the pandemic, ¹⁰⁶ as many women feel "driven out" from the workforce because of "the impossibility of managing work and family demands." Notably, women of color are suffering at greater rates during the pandemic ¹⁰⁸ with the "unemployment rates for black women at 16.4 percent and Hispanic women at 20.2 percent." Funding is

resources interact with hazard damages to significantly increase residential instability over time.").

- 103. Id.
- 104. Id.

^{102.} See 107A ABA Report and Resolution for More Outreach for IPV During Emergencies, (Jan. 14, 2015), https://www.americanbar.org/content/dam/aba/administrative/government_affairs_office/aba-resolution-107a-disasters-and-ipv.pdf?logActivity=true.

^{105.} Alisha Haridasani Gupta, *Why Some Women Call This Recession a "Shecession*", NEW YORK TIMES (June 18, 2021), https://www.nytimes.com/2020/05/09/us/unemployment-coronavirus-women.html.

^{106.} Naomi R. Cahn & Linda C. McClain, Gendered Complications of COVID-19: Towards a Feminist Recovery Plan, 22 GEO. J. GENDER & L. 1 (forthcoming 2021) (manuscript at 4); see also Nicole Bateman & Martha Ross, Why Has COVID-19 Been Especially Harmful for Working Women?, BROOKINGS (Oct. 2020), https://www.brookings.edu/essay/why-has-covid-19-been-especially-harmful-for-working-women/ (nearly half of working women worked in low paying jobs with median salaries).

^{107.} Cahn & McClain, supra note 106, at 6.

^{108.} Caroline Modarressy-Tehrani, Women of color hardest hit by pandemic joblessness, NBC News (Aug. 1, 2020 2:30 PM), https://www.nbcnews.com/news/us-news/women-color-hardest-hit-pandemic-joblessness-n1235585 (describing financial hardships faced by women of color as a result of the pandemic); see Annabella Morabito, The Crossroads or COVID: Class, Race, and Gender, INSIDE HIGHER ED (Nov. 13, 2020), https://www.insidehighered.com/advice/2020/11/13/colleges-should-especially-support-low-income-women-color-during-pandemic-opinion (describing the impact of the pandemic on low-income women of color in college settings); see also Elena Ruíz et al., Measuring the Economic Impact of COVID-19 on Survivors of Color, Me Too Movement 1 (2020) (describing the pandemic as "reinforcing certain truths" related to social inequities).

^{109.} Gupta, supra note 105.

necessary for a recovery plan to address the inequalities and make strides to protect women in the workforce and at home.¹¹⁰

Sadly, the increase and extent of domestic violence during COVID-19 is largely unknown. In April 2020, the ABA convened a panel to discuss domestic violence and the impact of COVID-19; ABA president Judy Martinez stated, "I would suggest no community is being harder hit more vulnerable than those at this moment who are domestic violence survivors ordered to stay home with their abusers and they are seeking legal assistance." Domestic hotlines are reporting a 50% drop in domestic violence calls, which eerily shows the inability of victims to seek help. 112

The Hyogo international disaster risk framework set forth a priority to enhance disaster preparedness specifically for women to "publicly lead and promote gender-equitable and universally accessible approaches during the response and reconstruction phases." Women as stakeholders need to be in the room when policy is discussed, and when legislation is created to ensure their voice is captured and their needs addressed.

5. Children in Need, Abused or Neglected Are the Most Vulnerable Because They Are Without a Voice to Advocate for Change

Approximately 175 million children each year are impacted by disaster¹¹⁴ and many experience trauma causing post-traumatic stress disorder, depression, or anxiety.¹¹⁵ During natural disasters, children may suffer trauma at a greater rate which studies reveal impacts brain development.¹¹⁶ Both in disaster and pandemic, children are the most vulnerable population especially those who are neglected, abused, or in need.

The increase of children impacted during the pandemic is alarming. During the pandemic, food insecurity for children has doubled, ¹¹⁷ as many children rely on resources provided through the school system. Traditionally, teachers or school-workers can see daily changes in behavior, signs of

^{110.} Cahn & McClain, *supra* note 106, at 9 ("A Feminist recovery plan would build upon the so-called 'business case' for gender equality, recognizing it not only as a social but a business 'imperative."").

^{111.} Transcript of ABA Domestic Violence Survivors & The Impact of COVID-19 (April 29, 2020).

^{112.} Megan L. Evans., Margo Lindauer & Maureen E. Farrell, A Pandemic within a Pandemic — Intimate Partner Violence during COVID-19, 383 N. Eng. J. Med. 2302 (2020).

^{113.} Sendai Framework, supra note 4.

^{114.} Atle Dyregrov, William Yule & Miranda Olff, Children and Natural Disasters, 9 EUR. J. OF PSYCHOTRAUMATOLOGY 1 (2018) ("[C]hildren are estimated to bear 88% of disease due to climate change, and the poorer they are the greater their burden ").

^{115.} Id.

^{116.} Michael D. De Bellis & Abigail Zisk, *The Biological Effects of Childhood Trauma*, 23 CHILD AND ADOLESCENT PSYCHIATRIC CLINICS OF N. AM. 185 (2014).

^{117.} Children's Food insecurity increasing during COVID-19 pandemic, HARV. SCH. OF PUB. HEALTH, https://www.hsph.harvard.edu/news/hsph-in-the-news/childrens-food-insecurity-increasing-during-covid-19-pandemic/ (last visited July 22, 2021).

neglect or abuse, but because many schools closed or operated online there was a lack of daily monitoring by those who are mandatory reporters. There is a reported drop in service with 40,000 fewer children served from January and June by child abuse reporting centers. 118 According to the National Children's Alliance, there is a 21% drop in cases by the 900 child abuse centers who report. 119 The need to protect children in disaster and pandemic is paramount. Funding for case workers, school workers, and teachers requires a shift, but it is a shift necessary to reduce vulnerability. Creative solutions are also necessary to identify and address specific needs.

6. The Elderly and Those with Disabilities Need Special Attention During Disaster and Pandemic

Some of the most vulnerable in society during disaster are those who are reliant upon government assistance in order to evacuate or for medical care. Many times, the elderly and those with disabilities are reliant upon public transportation or benefits, but there is an inadequacy in planning for such services. ¹²⁰ Continuity in services and preparation to secure critical needs is essential to save lives and reduce risk factors. People with disabilities are two to four times more likely to die or sustain injury during a disaster than those without. ¹²¹

The storm related fatalities after hurricane Katrina are estimated that 73% were persons over the age of 60 despite the elderly being only 15% of the overall population. The tragic stories after hurricanes Katrina and Irma about nursing home conditions and the lack of preparation demonstrate the need for more legislation to prepare. Physical needs are not the only risk

^{118.} Samantha Schmidt, *The Centers Helping Child Abuse Victims Have Seen 40,000 Fewer Kids Amid the Pandemic*, Washington Post, (Aug. 19, 2020), https://www.washingtonpost.com/dc-md-va/2020/08/19/child-abuse-victims-plunge-pandemic/.

^{119.} What We're Reading: Child Abuse Reports Plummet; Children Possibly Spreading COVID-19; Michigan to Pay Flint Residents, AJMC (Aug. 20, 2020), https://www.ajmc.com/view/what-we-re-reading-child-abuse-reports-plummet-children-possibly-spreading-covid-19-michigan-to.

^{120.} Vincent A. Campbell et al., *Preparing for and Responding to Pandemic Influenza: Implications for People with Disabilities*, 99 Am. J. Pub. Health 294, 295 (2009) ("Few plans or guidelines provide details about how emergency planners can meet the needs of people with disabilities before, during, and after an emergency. Current plans tend to delegate critical responsibilities regarding disability to third parties or make scattered references to people with disabilities.").

^{121.} United States Senate Special Committee on Aging, "Disaster Preparedness and Response: The Special Needs of Older Americans" (Sept. 20, 2017), https://www.aging.senate.gov/imo/media/doc/SCA_Timmons_09_20_17.pdf.

^{122.} Wendy Taormina-Weiss, *Rights of Persons with Disabilities in America*, DISABLED WORLD, (Feb. 27, 2012), https://www.disabled-world.com/editorials/6786854.php (This article suggests that this occurred "because many of the persons who died experienced medical, physical or sensory limitations which made them more vulnerable.").

^{123.} See Gardiner Harris, In Nursing Home, Fight Lost to Rising Waters, N.Y. TIMES (Sept. 9, 2005), https://www.nytimes.com/2005/09/07/us/nationalspecial/in-nursing-home-a-

factor; social isolation further contributes to the likelihood of death from disasters. 124 Services provided after a natural disaster are especially critical. During the recovery and the rebuild phases, services are needed such as medical needs, continuity in benefits and social services, or access to essential services to prevent disaster-related deaths.

As illustrated during the pandemic, social isolation was a critical factor for the elderly and those in special care facilities. The impact of COVID-19 requires in-depth study into public health measures related to the structural issues around wages and employment for those who are caretakers in nursing homes and critical care facilities. The impact of COVID-19 upon the elderly caused more suffering and deaths than any other populations. Those with disabilities also suffered at a greater rate during the pandemic. Notably, the long-term health issues caused by COVID-19 are creating a growing population of people with disabilities. Voverall, the most vulnerable in society need services and protection from the increased risks of suffering from natural disasters and pandemic. It is important to ensure their voice is present when policy is being shaped and legislation drafted to provide guidance for solutions.

7. Those Without Citizenship Status Lack Access to Benefits, Healthcare, or the Ability to Shape Policy

Some of the most vulnerable in society are those without a voice because of their citizenship status. The undocumented or immigrants have little ability to shape policy, yet they are stakeholders in the outcomes. After a disaster, many cities are rebuilt by undocumented and migrant workers, 128 and while immigrants contribute significantly to society they have little

- 124. Andrew Steptoe et al., Social isolation, loneliness, and all-cause mortality in older men and women, PROC. NAT'L ACAD. SCI. U.S. (2013); see generally Campbell et al, supra note 120.
- 125. Underlying Medical Conditions Associated with High Risk for Severe COVID-19: Information for Healthcare Providers, CTR. FOR DISEASE CONTROL AND PREVENTION (May 13, 2021), https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html ("Very old age was the risk factor most strongly associated with death . . . ").
 - 126. Id.
- 127. Campbell et al., *supra* note 120, at 294 (describing inadequate evacuation and shelter options for those with disabilities after Hurricanes Katrina and Rita and similarly during the pandemic "substantial risk" and challenges).
- 128. Kevin R. Johnson, *Hurricane Katrina: Lessons about Immigrants in the Modern Administrative State*, 45 HOUS. L. REV. 11, 45 (2007) ("The failure of government to respond to the plight of immigrants in the aftermath of Hurricane Katrina results directly from the marginalization of immigrants in the United States.").

fight-lost-to-rising-waters.html (describing the tragedy during Hurricane Katrina and St. Rita's nursing home); Garrett Schaffel, *Majority of Florida Nursing Homes Aren't Ready for Hurricanes*, AARP (June 7, 2018), https://www.aarp.org/health/conditions-treatments/info-2018/florida-nursing-homes-hurricanes.html (describing lack of preparedness for nursing homes during disaster).

access to benefits. 129 More advocacy and resources are needed to assist a population who continues to serve and communication is one area for needed policy change to ensure multiple languages are provided in emergencies. 130 Language barriers were also present during the pandemic and required doctors to rely on bilingual staff to communicate treatment options. 131

The same risk factors in disaster and pandemic are also relevant for the immigrant community but tend to be more devastating because the undocumented immigrants lack access to economic, medical, legal, and social benefits. While many communities have access to disaster benefits or CARES act money, the undocumented do not.

The psychological stressors caused by disaster or pandemic are worse for those with limited healthcare resources, risk of job loss, or wider exposure to the virus. Notably, many immigrants have experienced trauma by leaving their home and crossing borders into the United States and being separated from their family "which leads to mental health conditions such as post-traumatic stress disorder, depression and anxiety." Policy changes are needed to recognize the impact of trauma and provide benefits for counseling or access to care. Overall, the policy in the United States is blind to the needs of immigrants who work tirelessly to serve and rebuild communities. 135

III. TIME FOR ACCOUNTABILITY: THE NEED TO CREATE COMMUNITY RESILIENCE AND TO ENSURE STAKEHOLDERS HAVE A VOICE

A. Skepticism When Measuring Resilience

The term 'resilience' or 'community resilience' is found in disaster literature as a mark to measure risk factors but is defined differently depending upon the perspective and organization. For example, the Department of

^{129.} Eva Clark et al., Disproportionate Impact of the COVID-19 Pandemic on Immigrant Communities in the United States, 14 PLoS NEGL. TROP. DIS. 1, 1 (2020). ("The intricacies of poverty, limited access to healthcare, and fear of legal repercussions place vulnerable immigrant communities within the US at high risk for acquiring SARS-CoV-2 and developing severe COVID-19.").

^{130.} See Johnson, supra note 128, at 53.

^{131.} Kathleen R. Page & Alejandra Flores-Miller, Lessons We've Learned - COVID-19 and the Undocumented Latinx Community, 384 N. ENGL. J. MED. 5, 5 (2021) ("Despite our system's excellent language-access services, the inpatient teams struggled to communicate with patients using iPads and phones and through layers of personal protective gear. End-of-life conversations left a bitter taste; even with skillful interpreters, many gestures, sentiments, and cultural nuances and expressions were lost.").

^{132.} Clark et al., supra note 129.

^{133.} *Id.* at 2 ("[P]sychological stressors may be worsened during a pandemic, certainly for those with limited healthcare resources, high risk of job loss, or high risk of SARS-CoV-2 exposure.").

^{134.} Id.

^{135.} See Johnson, supra note 128, at 45.

Homeland Security defines resilience as "the ability to withstand and recover rapidly from deliberate attacks, accidents, natural disasters, as well as unconventional stresses, shocks and threats to our economy and democratic system."136 Notice that DHS's definition focuses on quick or rapid recovery which could create incentives to measure outcomes differently rather than rely on holistic variables. In contrast, the nonprofit mission driven organization, Common Impact recognizes the chronic stress aspect of a disaster and defines resilience as "Itlhe capacity of communities to survive, adapt, and grow despite chronic stresses and acute shocks."137 This definition encompasses the trauma and mental health aspects of disaster and the long-term nature of recovery. Another definition by California's Department of Housing and Community Development—a state frequently impacted by wildfires— defines a resilient community with more factors such as "long-term vitality, economic well-being and security of all communities."138 This definition incorporates the need to not rely on outside assistance and make a plan for all within the community to ensure recovery after the disaster. 139 This definition seems to suggest a much more holistic approach requiring planners to know their individual communities and population needs in order to plan accordingly for long-term recovery and well-being.

Each of the above definitions for 'resilience' may have some similarities like adaptability, recovery, and planning, but skepticism should exist as to how resilience is measured as indicated in literature. ¹⁴⁰ Notably, the concept of resilience is part of academic discourse but the concept has not reached a "subject maturity level" and many challenges exist in uniformity in how resilience is defined and assessed. ¹⁴¹ This creates challenges when measuring outcomes after impact from disaster. Agreed upon statutory definitions are necessary in order for policy makers to rely on dependable science and metric variables. ¹⁴² Many complicated challenges exist when studying

^{136.} Resilience, supra note 44.

^{137.} Danielle Holly & Molly Weinstein, Disaster Response: From Relief to Resiliency. Insights and Impacts of 2019, COMMON IMPACT (2019), https://commonimpact.org/pdf/Disaster Response - From Relief to Resiliency.pdf.

^{138.} Disaster Mitigation and Resiliency, CAL. DEP'T OF HOUSING AND CMTY. DEV., https://www.hcd.ca.gov/community-development/disaster-mitigation-and-resiliency.shtml (last visited Jan 18, 2021) (Resilient communities are "able to resist and rapidly recover from disasters or other shocks with minimal outside assistance. Reducing current and future risk is essential to the long-term vitality, economic well-being, and security of all communities. By identifying future risk and vulnerabilities, resilient recovery planning can maximize preparedness, save lives and bring benefits to a community long after recovery projects are complete.").

^{139.} Id

^{140.} Dennis J. Parker, Disaster resilience - a challenged science, 19 Env't. HAZARDS 1, 4 (2020).

^{141.} *Id*.

^{142.} *Id.* at 5 ("Developing verified or validated disaster resilience measurement tools for different circumstances and making them more routine remain important challenges in the

resilience in the disaster context because each disaster is unique in size, characteristics, and cycle. At the same time, the definition matters because communities will be measured by the standards set forth by their respective states or agencies.

An additional challenge is the lack of assessment tools to study resilience 144 In the Tehran article, the study included research into international databases on disaster or emergency resilience models based on 675 publications where the academics narrowed the analysis to seventeen articles which provided ten assessment tools. 145 Ultimately, the conclusion reflects disparity and limited agreement among the literature on the approach to measure resilience. 146 Overall, the study reflects a "lack of systematic development" for a resilience model. 147 There is, however, a "proliferation in the use of the concept" with "the limited attention paid to its definition and systematic study. 148 More research, shared data, and organized networks are needed going forward with shared responsibility. The study suggests five classification domains for resilience: "social, economic, institutional, physical and natural" as a potential starting point for agreed upon platforms. 149 Development of metrics and variables with quantifiable and effective measuring tools is necessary to study and create appropriate data sets. 150 Equally important is to understand how resilience differs between communities.¹⁵¹

In a 2013 article titled *Building Community Disaster Resilience: Perspectives from a Large Urban County Department of Health* published in the American Journal for Public Health, researchers provide a summary of concepts defining community resilience and analyze components in Los Angeles

quest to make disaster resilience science more mature and dependable for policy-makers and practitioners.").

^{143.} *Id*.

^{144.} Abbas Ostadtaghizadeh et al., Community disaster resilience: a systematic review on assessment models and tools, 7 PLoS Currents 1, 3 (2015) ("[T]he lack of systematic development of an operationalized model of resilience has meant that the analysis of these variables has limited utility...").

^{145.} Id. at 1.

^{146.} *Id.* at 2 (Indicating "conceptual and measurement complexity in CDR and the fact that the concept may be used without regard to how CDR should be operationalized and assessed.").

^{147.} Id. (see Introduction).

^{148.} *Id.* at 9 (citing the need for uniformity "to identify a set of predictors that can inform the systemic assessment process.").

^{149.} *Id.* at 11 (see "Table 3: Domains and their synonyms or sub-categories of community disaster resilience").

^{150.} *Id.* at 2 (citing the need for "appropriate and effective methods to quantify and weigh

^{151.} Id. at 3 ("[I]t is also pertinent to identify the variables and processes that influence or predict resilience.").

County.¹⁵² The authors warn about the systemic vulnerabilities during pandemic and the need for preparedness.¹⁵³ The article analyzes individual resilience which embodies the concept of adaptability but also includes a focus on the ability of a person to face adversity and find positive aspects. 154 Notably, a tight community before a disaster also impacts resilience, as the community faces the adverse event together. 155 The article summarizes much of the literature on resilience highlighting common concepts shared among many researchers, such as, economic impact, communication, education, wellness, and partnerships as some of the core concepts. 156 One important concept is "a sustained commitment to improving connectedness (both social networks and information linkages) between individuals, organizations, and formal governmental agencies as a primary objective of building community."157 Sadly, preparation for the pandemic was possible. 158 The failure to plan or effectuate the plan likely exacerbated the crisis into a full disaster. 159 While accountability is important, government negligence and litigation over crisis management during disaster is almost an impossible cause, unless different laws are enacted to allow for accountability of government actors. 160

Much of the work requires urgent change to public health and medical preparedness. Such change requires influence through social and political policies especially at the local decision-making level. Understanding the cultural differences and variables within the community and risk reduction strategies requires dialogue with many stakeholders.

^{152.} Plough et al., *supra* note 75, at 1191 ("Community resilience has been defined as the sustained ability of a community to withstand and recover from adversity (e.g., economic stress, pandemic influenza, manmade or natural disasters).").

^{153.} *Id.* (citing the need for "a paradigm shift in public health emergency preparedness in emphasizing an assessment of community strengths not simply describing vulnerabilities.").

^{154.} Id.

^{155.} *Id.* ("A supportive social context in a community, prior to an adverse event, has emerged as a key component of resilience and provides a bridge between individual resilience theory and an exploration of a community-level theory.").

^{156.} Id.

^{157.} Id.

^{158.} See Robert K. Kanter, Would Triage Predictors Perform Better than First-Come-First-Served in Pandemic Ventilator Allocation?, COLUMBIA: ACAD. COMMONS (Nov. 19, 2014), https://academiccommons.columbia.edu/doi/10.7916/D82R3QC0.

^{159.} See Hajer Al-Dahas et al., Understanding the Terminologies: Disaster, Crisis and Emergency, 2 ASS'N OF RESEARCHERS IN CONSTR. MGMT. 1191, 1193 (2016). Noting that a lack of response to a crisis may actually lead to a disaster, if not properly addressed in time. This escalation showcases how conditions worsen from an emergency to a crisis, and eventually a disaster, if left unaddressed.

^{160.} Ken Lerner, Governmental Negligence Liability Exposure in Disaster Management, 23 URB. LAW. 333, 352 (1991).

B. The Presence of Each Stakeholder Voice as Part of Policy-Making

Important concepts for community resilience include "the core principles of increasing equity and social justice and recognizes that some communities bear the burden of inequitable distribution of critical resources." ¹⁶¹ To effectuate change and reduce risk factors, the process in shaping policy requires that those impacted are part of the policy shaping process to give voice to needs, to assess risk, and to provide solutions. Stakeholders must be present when defining resilience or assessing vulnerability and preparedness. Those who will be impacted by the policy have a critical voice to explain how to build proper responses to address specific needs.

The National Response Framework describes the role of stakeholders as an "engaged partnership" among various levels from local to territorial. 162 While common stakeholders for disaster response include named departments, such as, those charged with national operations, coordination, or military response, 163 the most vulnerable possess the highest risk factors and should be part of the policy-shaping process. Individual stakeholders or community leaders are best able to provide insight and context for specific outreach. 164

The private sector is an important stakeholder as well to provide resources and ensure stabilization and security in the supply chain. Additionally, non-government offices (NGOs) such as faith-based or non-profit entities are able to help organize, support and implement strategy on a very local level. He National Response Framework recognizes the "whole community contributes to the benefits from national preparedness and integrated response." One important aspect to "preparedness" work is to ensure specific populations are represented at the planning stage such as those who may require more assistance such as "children, older adults, individuals with disabilities and others with functional needs"

The critical piece to preparedness legislation is to ensure that stakeholders are part of the pre-planning process to ensure each unique perspective is part of the response and accountability is present if policy is made with a proper process. For example, a non-profit that works with victims of domestic violence is better able to provide insight into the needs of victims during

^{161.} Plough et al., supra note 75, at 1191.

^{162.} National Response Framework, supra note 38, at 6.

^{163.} *Id.* at 24 (naming the National Operations Center, National Coordination Center, National Military Command Center, Strategic Information and Operations Center).

^{164.} *Id.* at 26. While the NRF does list groups such as volunteer organizations, advocacy groups, academia, and community groups as some examples for stakeholders, specifically naming in the framework those groups who are most vulnerable would better ensure their voice is present in the shaping of the response.

^{165.} Id. at 27.

^{166.} Id. at 28.

^{167.} Id. at 5.

^{168.} Id.

disaster. Equally important is time and space after a disaster or crisis to listen and learn from each stakeholder who may provide ideas for improvement. The difficult policy work necessary is to generate creative solutions and then network those possibilities into a larger shared database wherein everyone can study the data. As noted earlier, resilience requires assessment of vulnerability and preparedness but the science, and more specifically, terminology, are not agreed upon. An equally critical concern is to ensure stakeholders are helping to define the terms.

FEMA's new National Risk Index provides an illustrative map of risks for natural disasters. Deeper study and questioning is necessary to determine if stakeholders were present during the shaping of the Risk Index, whether the definitions for resilience are agreed upon and most importantly, how this tool will shape or influence policy going forward. Notably, FEMA defines community resilience as "the ability of a community to prepare for, absorb, recover from, and more successfully adapt to the impacts of natural hazards." Missing from the definition is the recognition that recovery may have more lingering effects with a need for long-term rebuilding due to trauma, public or mental health or socio-economic factors.

IV. SYSTEMIC FAILURE AND A CALL TO ACTION: NEEDED POLICY CHANGES THROUGH LEGISLATIVE ACTION

Law is a crucial mechanism for preparedness¹⁷¹ to shift cultural norms and manage crises. "While the law may not be the first public health tool considered in a disaster, it is fundamental to the effective functioning of multiple actors and must be harmonized across jurisdictional lines." The pandemic proves the importance of legal policies to function and govern during times of disaster and management of crisis at the local, state, and federal level. From local and federal mask mandates to eviction moratoriums, administrative laws at all levels shape how policy guided by science is important in disaster and pandemic management.¹⁷³ "Unlike other elements of

^{169.} The National Risk Index Counties, FEMA, https://hazards.geoplatform.gov/portal/home/item.html?id=cf60c608803e4ccd87ca13cbe40d9151 (last visited July 22, 2021) (FEMA describes as "an online tool to help illustrate the nation's communities most at risk of natural hazards"); The National Risk Index: Discover the Landscape of Natural Risk in the United States, FEMA https://hazards.geoplatform.gov/portal/apps/Cascade/index.html?appid=f3a55501191d4054aa886d5680481412 ("It is made possible through a collaboration between FEMA and dozens of partners in academia; local, state and federal government; and private industry.") [hereinafter FEMA National Risk Index].

^{170.} FEMA National Risk Index, supra note 169.

^{171.} John D. Blum & Jordan Paradise, Public Health Preparedness & Response: An Exercise in Administrative Law, 20 DEPAUL J. HEALTH CARE L. 1 (2019).

^{172.} Id. at 1.

^{173.} *Id.* at 3. Describing three primary areas where law is able to respond to "catastrophic biological events" specifically stating "statutory and administrative laws, including regulations and Executive Orders touching on the full spectrum of disaster prevention and response; common law principles that deal with an array of legal liability considerations that emerge in

response, the law has only recently been viewed as a foundational tool in public health disaster management."¹⁷⁴ The work for the future is to address disaster and pandemic response at each stage: Mitigation, Preparedness, Response and Recovery. This requires a keen eye on vulnerabilities and a commitment to ensure stakeholders are an integral part of the policy shaping process.

A. The Need for Explicit Legislation Around Preparedness

The Disaster Management Cycle requires a strategy at all stages: Mitigation, Preparedness, Response and Recovery. Laws and policy are inherently tethered to disaster risk reduction and the best time to develop policy and prepare for disaster is during 'blue sky' times when it is calm and stable. Sadly, this is also a time when people are least likely to think about disaster response. Legislative change toward preparedness focuses on defining relationships, roles, rights, responsibilities, communication, and incentives. The important planning is to create a framework for response to understand how partnerships will progress through a response and recovery stage.

The Hyogo and Sendai frameworks focus on preparedness and encourage countries to systemically think about larger issues relevant to disaster risk. The International Federation of Red Cross (IFRC) and Red Crescent Societies and United Nations Development Programme¹⁷⁷ created a Disaster Checklist¹⁷⁸ and Handbook¹⁷⁹ with ten reflective questions to analyze whether jurisdictions have laws that reduce risk or to prompt discussion for guidance before enacting laws.¹⁸⁰ The Checklist and Handbook are important starting points for anyone interested in policy or legislative work.

catastrophic events; and considerations about rights and social justice issues arising in the face of government efforts that impinge on individual liberties in the face of community needs."

^{174.} Id.

^{175.} FEMA Training, Emergency Management in the United States, at 4-2, https://training.fema.gov/emiweb/downloads/is111_unit%204.pdf.

^{176.} Corina Warfield, *The Disaster Management Cycle*, GLOB. DEV. RSCH. CTR., https://www.gdrc.org/uem/disasters/1-dm_cycle.html (last visited July 22, 2021).

^{177.} Effective law and regulation for disaster risk reduction: A multi-country report, INT'L FED'N OF RED CROSS AND RED CRESCENT SOC'Y (June 2014), https://www.ifrc.org/Global/Publications/IDRL/reports/DRR%20Report%20(full%20version)%20final_page_LR.pdf (one of the most comprehensive studies to compare disaster risk legislation of over thirty countries).

^{178.} Checklist created by International Federation of Red Cross and Red Crescent Societies and United Nations Development Programme to reduce risk through legislation, INT'L FED'N OF RED CROSS AND RED CRESCENT SOC'Y, at 4–5.

^{179.} The Handbook on Law and Disaster Risk Reduction, INT'L FED'N OF RED CROSS AND RED CRESCENT SOC'Y (2015), https://www.ifrc.org/Global/Photos/Secretariat/201511/Handbook%20on%20law%20and%20DRR%20LR.pdf.

^{180.} Id.

Many communities may create plans for disaster response, but laws are necessary for real change to occur and funding to support institutions and stakeholders. The IFRC's work is extremely important to create global standards toward more proactive legislation rather than reactive crisis management. The IFRC's "Checklist on Law and Disaster Preparedness and Response" published in 2019 provides "key legislative issues impacting the timeliness and effectiveness of [Disaster Preparedness Response] activities" and was designed to "serve as an assessment tool to guide a review process of national and local level laws and policies" to enhance preparedness. These checklists offer a resource to engage in legislative and policy work that allows for change at the local, state or federal level.

Legislative preparedness provides a plan for continuity during times of crisis. In the United States, once a disaster is declared at the federal level, the Stafford Act enables the national response framework and a federal response to coordinate efforts. Some disasters however may not evoke the Stafford Act; in those cases, the President or other federal agencies may take the lead on the response. Traditionally, FEMA is the designated leader for natural disaster response while the Department of Health and Human Services through the Centers for Disease Control is the lead for a national pandemic response. After an official declaration of disaster is issued funding then flows into the impacted community. Traditionally, funds for disaster legal services are approved and legal aid offices hire additional attorneys to address community needs and provide guidance on disaster benefits.

For the first time in American history, every state had an active declaration of disaster due to COVID-19; however, funding for disaster legal services was not approved despite multiple requests. A critical stakeholder, disaster legal aid who traditionally provides legal guidance and direct legal services to communities was unable to hire attorneys to assist with the unprecedented legal needs during the pandemic. Funding could have provided lawyers to help guide people through complicated benefits, eviction morotoriums, employment questions or end of life questions.

The most disturbing truth is what was known prior to the spread of COVID-19, specifically how to prepare and what type of policy or orders were necessary to enforce quarantine and social distancing. The CATO

^{181.} *Id.* (IFRC acknowledges the importance of funding and incorporating stakeholders).

^{182.} Id. at 16.

^{183.} The Checklist on Law and Disaster Preparedness and Response, INT'L FED'N OF RED CROSS AND RED CRESCENT SOC'Y (2019).

^{184.} FEMA Coronavirus Disease, supra note 6.

^{185.} COVID-19 National Emergency Declared: FEMA Should Act Now to Activate ABA Disaster Legal Services, ABA (Sept. 29, 2020), https://www.americanbar.org/advocacy/governmental_legislative_work/publications/washingtonletter/sept-2020-wl/fema-wl-0920/; see also President Declares State of Emergency for COVID-19, NAT'L CONF. OF STATE LEGISLATURES (Mar. 25, 2020), https://www.ncsl.org/ncsl-in-dc/publications-and-resources/president-trump-declares-state-of-emergency-for-covid-19.aspx.

Institute released a report in September 2020 exploring the many failures and the January 2021 FEMA report also sheds light on the lack of planning especially when analyzed through the lens of the Hyogo and Sendai international frameworks. A reflective and transparent moment is needed to assess and understand the many opportunities to prepare and address vulnerabilities.

Over a decade ago, an article written by Ernest B. Abbott entitled *Law, Federalism, the Constitution and Control of the Pandemic Flu* foreshadows the many issues and necessary steps to best prepare for a pandemic. Abbott sets forth the idea that during times of emergency response the federal government should "take over" but recognizes the "limited constitutional or legal basis" for such a response. As acknowledged in the article, "[p]rotection of the public health from communicable disease is one of the critical responsibilities of government." 189

Abbott foreshadows how legal issues will slow down the response and how swift action is necessary and such legal issues must be addressed ahead of time. 190 He mentions the need for specific practical legal solutions related to public health response during pandemic, such as quarantine and isolation orders; 191 and the legal issues around public health orders to the individual rights granted in the Constitution through the Fifth, and Fourteenth Amendments and Procedural Due Process. 192 One recommendation to prepare for pandemic flu is the suggestion to "have their legal departments review applicable statutes and ordinances in their jurisdiction and develop plans for implementing large scale quarantine." Abbott analyzes substantive due process issues and social distancing measures while he foreshadows how persons may be "deprived of the ability to meet their basic needs (e.g. food, shelter, medical care) by movement restrictions imposed by the state."194 The article specifically provides a detailed range of social distancing measures as possible less restrictive alternatives, such as "distributing or requiring the use in public of surgical masks, barrier precautions and hand sanitizers" and "closing of schools." Abbott's 2008 article gives specific legal prompts on

^{186.} Charles Silver & David A. Hyman, *COVID-19: A Case Study of Government Failure*, CATO INST. (Sept. 15, 2020), https://www.cato.org/pandemics-policy/covid-19-case-study-government-failure#failure-respondineffective-responses.

^{187.} Ernest B. Abbott, Law, Federalism, The Constitution and Control of Pandemic Flu, 9 ASIAN-PAC. L. & POL'Y J. 185 (2008), http://blog.hawaii.edu/aplpj/files/2011/11/APLPJ_09.2_abbott.pdf (notably, the article footnote recognizes the author as "Principal of Federal Emergency Management Agency Law Associates, PLLC specializing in legal and regulatory issues raised by major disasters and emergencies.").

^{188.} Id. at 192.

^{189.} Id. at 195.

^{190.} Id. at 194.

^{191.} Id. at 195.

^{192.} Id. at 198.

^{193.} Id. at 199-200 (suggesting to develop "orders and sample affidavits").

^{194.} Id. at 202.

how best to prepare and is disturbing to now read and understand the lack of preparedness allowed for such vulnerabilities.

B. The Need for Legislation to Organize, Define Leadership and Coordinate a Response

The uncoordinated effort and lack of unified response from federal and state governments during the height of COVID-19 caused disruption and polarization. Legislative change is needed to explicitly define leadership and agency roles responsible for leading a response during disaster and pandemic and accountability when such a response is not followed. To guess who is responsible while trying to navigate crucial decisions exacerbates the crisis and causes delayed response at a critical time. The checklist on Law and Disaster Risk Reduction provided by the Hyogo¹⁹⁵ and Sendai frameworks, 196 highlights the critical question whether the "laws establish clear roles and responsibilities related to risk reduction for all relevant institutions from national to local level?" 197

While some states have legislation explicitly defining who is responsible to create a comprehensive disaster plan and who is responsible during a disaster likely not all states are best prepared. Such statutes sometimes help define the type of response necessary and who is responsible during such an event or how best to communicate. Abbott's article highlights the importance of defining leadership roles prior to a crisis and the need to coordinate through multiple agencies. As discussed in the article, the response requires government, private and non-profit agencies in a coordinated

^{195.} See U.N. International Strategy for Disaster Reduction, supra note 3.

^{196.} See Sendai Framework, supra note 4.

^{197.} Id. at 3.

^{198.} See, e.g., (H.R. 18-1394, Legis. Serv. Ch.234 (Colo. 2018) (adding language to define the stages of response and recovery, as well as definitions of emergency, resiliency, and mitigation.... allowing governor to convene a disaster policy group to coordinate the response and recovery from disaster emergencies with an appointed chair to oversee cross-departmental and interjurisdictional coordination of recovery efforts); see also N.J.S.A. 52:15D-1, (authorizing the deployment of oversight monitors for certain recovery and rebuilding projects after Sandy); see also H.R. 2935, Reg Sess. (W. Va. 2017) (creating a new state resiliency office to coordinate economic and community resiliency planning and implementation efforts); Proposed Senate appropriation budget to increase Disaster relief); Thad Cochran, Supplemental Appropriations For Disaster Relief And Recovery, Senate Comm. ON APPROPRIATIONS (Oct., 2017), https://www.appropriations.senate.gov/imo/media/doc/020718-SUPPLEMENTAL-SUMMARY.pdf.

^{199.} See 2018 Colo. Legis. Serv. Ch.234 (H.B. 18-1394, Section 3) (defining the stages of response and recovery, as well as definitions of emergency, resiliency, and mitigation.); see also, NJ Stat 52:15D-1 (2013) (authorizing the deployment of oversight monitors in the implementation of certain recovery and rebuilding projects after Sandy); see also, 2017 NY A.B. 1741(NS)(West), (a comprehensive natural disaster preparedness and mitigation act outlining response must be "quick, well-coordinated and comprehensive so as to minimize the loss of life, human suffering, property loss and reduction in business activity.").

^{200.} Abbott, supra note 187, at 192.

effort which is sometimes difficult because of differences in the cultures of each organization and structures within government.²⁰¹ As such, training exercises or simulations to prepare are also necessary.

Sadly, the government response to COVID-19 did not follow preplanned disaster response frameworks. The lack of coordination at the federal, state and local level showcased many problems and a lack of a unified command between agencies and with private and nonprivate partnerships. ²⁰² While COVID-19 created many first-time challenges for FEMA, an honest assessment of the failures is necessary to learn and improve. ²⁰³ In the most recent FEMA report entitled "Pandemic Response to Coronavirus Disease 2019 (COVID-19): Initial Assessment Report analyzing FEMA Operations January through September 2020, over thirty key findings and fifty-seven recommendations are listed and ripe to mine for future policy and legislative advocacy work.

The report provides some transparency to the government response and the lack of coordination. An early admission in the report states that "FEMA's Pandemic and Emerging Infectious Disease Workforce Protection Plan had not been recently updated, and headquarters was delayed in establishing clear coordination on internal workforce guidance and communications in the early stages of COVID-19." Well known in the disaster context are defined roles for each agency and practice exercises are needed to ensure all understand their responsibility before a crisis impacts the community. The FEMA report recognizes specific challenges with "White House Coronavirus Task Force (WHTF) and other federal agencies" such as the Department of Health and Human Services (HHS) and the Unified Coordination Group (UCG) tasks force to coordinate a response.

Admittedly, "[i]nitial planning envisioned that HHS, rather than FEMA, would take the lead in the pandemic response; however on March 18, 2020 the President and Vice President informed the FEMA Administrator that FEMA would be leading the response." As stated in the FEMA report, "[t]he operating environment for a pandemic is unique among all incidents FEMA supports because the authorities guiding a public health emergency (PHE) do not directly align with FEMA's authorities and

^{201.} Id.

^{202.} FEMA Coronavirus Disease, supra note 6 ("Initial planning envisioned that HHS, rather than FEMA would take the lead in the pandemic response; however, on March 18, 2020, the President and Vice President informed the FEMA Administrator that FEMA would be leading the response.").

^{203.} Id. at 8 (noting that this was the first time FEMA implemented the Unified Coordination Group (UCG) and further acknowledging the unprecedented nature of FEMA responsibilities during but also providing "five key findings and 11 recommendations.").

^{204.} Id. at 12.

^{205.} Id.

^{206.} Id. at 6.

^{207.} Id. at 7.

corresponding policies."²⁰⁸ The report specifically admits there was a "lack of clarity about FEMA and the [Unified Coordination Group] authorities and roles created confusion about the clearance process for external messages"²⁰⁹ and acknowledges the need to adapt in the middle of the crisis to "procure and manage unfamiliar resources."²¹⁰

Defining the roles for lead agencies is an important recommendation for change in response to future pandemic, but most important is accountability when those roles are defined and not followed during an emergency. To address the need, some state legislatures have already started defining roles related to pandemic. One of specific recommendations in the FEMA report is to "[c]larify FEMA's authorities during a federal response to a pandemic and refine FEMA's role in such national-level incidents." Determining who is in charge and of what is important to have a chain of command before disaster strikes. A change in leadership roles during a time of urgent response is paradoxical of recommended practices, as the need to act swiftly, make decisions and provide resources is critical and best led by a pre-defined leadership role.

C. Legislation for Multi-State and Mutual Aid Agreements to Assist and Contingency Budgets

Multistate or agency agreements are also important to articulate before disaster strikes to ensure continuity in services. The nature of a disaster is unpredictable and rarely impacts one state. Some states or geographic zones have built networks and agreements to allow for better response efforts. ²¹³ Those state agreements are a useful tool to study and understand how to organize a uniform response. "[T]he importance of negotiating agreements - memoranda of understanding and mutual aid agreements - which carry with them some thorny legal issues of liability, indemnity, reimbursement" is an important discussion process. ²¹⁴ Some interstate agreements in place include Congressional consent with joint resolutions for mutual assistance in times of disaster. ²¹⁵ Some states have enacted continuity plans related to the

^{208.} Id. at 22.

^{209.} Id. at 8.

^{210.} Id.

^{211.} H.R. 412, 133rd Gen. Assemb. (Ohio 2021); *see also* S.B. 58, 151st Gen Assemb. (Del. 2021).

^{212.} Abbott, *supra* note 187, at 192.

^{213.} Pacific Northwest Emergency Management Agreement, Civil Emergency Measures Act, O.I.C. 1995, Pub. L. No. 105-381, 112 Stat. 3402 (1998) (agreement between AK,ID,OR,WA, Providence of British Columbia and Yukon government).

^{214.} Abbott, *supra* note 187, at 195.

^{215.} See, e.g., Emergency Management Assistance Compact, Joint Resolution, Public Law 104-321 (interstate agreement between DE, FL, GA, LA, MD, MS, OK, SC, SD, TN, VI, and WV); see also State and Province Emergency Management Assistance Memorandum

pandemic.²¹⁶ Such agreements to allow for collaboration between emergency services, training efforts and mutual aid plans in times of need to procure a more rapid response, obtain resources and deliver aid.

Procuring resources was an important part of the COVID-19 response as the need for personal protection equipment and test kits required private and public partnerships. 217 The FEMA report admits "FEMA coordinated with private sector partners to expand access to scarce resources but lacked a consistent strategy across the operation for involving the private sector."218 FEMA acknowledges a lack of "consistent strategy across the operation for involving the private sector." As acknowledged in the report, "[u]nfortunately, the lack of a centralized system to integrate non-FEMA resources affected visibility of the resources shipped and the estimated delivery dates." This lack of defined leadership, coordination, and ability to procure resources "resulted in FEMA having an incomplete understanding of the resources needed and required significant time to manually process requests."220 The uncoordinated effort with the private sector and failure to enact the National Defense Act created further disruption and misinformation. Another recommendation from the FEMA report requires legal analysis to "evaluate relevant authorities, such as Executive orders and statutory text, and assess the current administrative requirements for implementing ... updates to the [Defense Production Act] (DPA)."221 There is explicit direction in the report that Congress needs to update the DPA "to ensure a more efficient application of the authorities to the operational requirements in disasters."222

Financial preparedness is another area for contingency planning and disaster, or pandemic budgets are necessary at the local, state and national level. The declaration of emergency by the president on March 13, 2020 released \$42 billion in resources for state and local government.²²³ To address the economic pressures, the CARES act was signed into law on March 27th further releasing aid.²²⁴ Notably, the 2020 hurricane season equally challenged FEMA's response while also being tasked with the responsibility

of Understanding, Pub. L. No. 112-282, 126 Stat. 2586 (2013) (agreement between IL, IN, OH, MI, MN, MO, ND, PA, NY, WI and some Canadian Providences).

^{216.} Ensuring Continuity of Operations in the Offices of County Elected Officials During the Current COVID-19 Pandemic and Future Public Health Crises, Pub. L. No. 67-127.

^{217.} FEMA Coronavirus Disease, supra note 6, at 8.

^{218.} Id. at 9.

^{219.} Id.

^{220.} Id. at 142.

^{221.} Id. at 145.

^{222.} Id.

^{223.} Proclamation No. 9994 Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, 85 Fed. Reg. 153337 (Mar. 13, 2020).

^{224.} CARES Act, S. 3548, 116th Cong. (2020); Coronavirus Aid, Relief, and Economic Security Act, Pub. L. No. 116-136, 134 Stat. 281 (2020).

to respond to the pandemic.²²⁵ The funding for Disaster Legal Services (DLS) allows legal aid offices to address rising legal needs in the community, such as, assisting people with landlord/tenant issues, benefits, advice to small businesses and assistance with consumer protection issues, however, the funding provided at the national level to address the pandemic did not provide funding for DLS despite several requests.²²⁶ Legal aid offices provide a critical service for disaster outreach and are needed during pandemic. Many legal aid offices are overwhelmed with an increased need for legal services, but without the ability to hire more lawyers and some offices face state budgets which will directly impact legal services provided in their communities.²²⁷

Many states who repeatedly experience disasters have created contingency budgets allocating funds to cover expenses not covered through federal or other state budgets. Financial preparedness includes ensuring there is a budget during a disaster to respond as needed. While the government provides financial reserves and budget contingencies, many times post-disaster there is a need to reallocate funds or provide emergency loans. Unfortunately, however, all budgets have limitations. Legislation to require planning and estimate the cost for each expected need is often overlooked during "blue sky times" - the time when most are least worried about disaster. Legislation is necessary for each state to run a disaster simulation and understand what deficits exist in budgeting and how to manage funds to better prepare. Developing a Disaster Deficit Index (DDI) helps to understand the "relationship between the demand for economic resources to cover losses that a government would have to assume and the nation's economic resilience, that is, its ability to generate internal and external funds to replace

^{225.} FEMA Coronavirus Diease, supra note 6, at 19.

^{226.} ABA, supra note 185; see also Letter From Judy Perry Martinez, President ABA, to President-elect Joseph R. Biden, Jr. (Jan. 8, 2021); Letter From Judy Perry Martinez, President ABA, to House and Senate Committee's on Appropriations (Apr. 8, 2020).

^{227.} Mark D. Braley, Legal aid, facing state cuts, remains crucial during pandemic, Va. Mercury (Apr. 22, 2020), https://www.virginiamercury.com/2020/04/22/legal-aid-facing-state-cuts-remains-crucial-during-pandemic/.

^{228.} See H.R. 4670 (Mich. 2013) (establishing a Michigan Disaster Contingency Fund with a minimum level of \$1 million and a maximum of \$4.5 million. Prior to this enactment, the legislature would have to vote for supplemental appropriation from a general fund. This contingency fund allows the State police and Dept. of Natural Resources authority to expend up to a certain amount); see also, S. 471 (N.H. 2018) (allowing the state to offer temporary loans to cities and towns after natural disasters to cover the period of time before federal aid is disbursed); see also, H. A04196 (N.Y. 2017) (establishing a supplementalistate disaster aid program within the NYS emergency assistance program to aid municipalities, residents and businesses that have been otherwise denied assistance from the federal government).

^{229.} Ghesquiere, supra note 51, at 8.

^{230.} *Id.* at 12 (urging governments in developing countries to run disaster simulations with those in their budget offices to better understand "the weaknesses in existing budget processes, emergency procurement, contract monitoring, and payment systems, among other aspects").

the affected infrastructure and goods."²³¹ Part of that analysis requires immediate liquidity versus longer-term reconstruction or recovery needs.²³²

More transparency in planning is needed and especially important because the government is immune from liability in emergency response under many circumstances. However, actions to fund and prepare for disaster or pandemic are a necessary function of government. During pandemic the need for medical supplies increased to such rates that supply chains were unable to keep up with the demand. States may now recognize the need to stockpile supplies to protect their citizens at a local level and not rely on federal assistance. Citizens need more security to understand their communities' vulnerabilities and whether the spending of their tax money is procuring resources necessary to prepare for disaster or pandemic.

D. Legislation to Fund and Conduct Training and Preparedness Exercises

In addition to financial security, preparedness exercises are necessary to practice emergency management. Sometimes such exercises are required by law or by Memorandum of Understandings to ensure a multi-agency response is practiced before a crisis is upon the community. The FEMA report recognized the need to "plan and conduct training and exercises focused on how federal agencies coordinate and communicate with SLTT partners during response operations ... "236 Such exercises may include evacuation protocols which are regular routines in many states accustomed to disaster. For example, many southern states have explicit legislation for evacuation procedures in their legislation.²³⁷ Much of the legislation outlines who has authority to order an evacuation or how communication is handled and how vulnerable populations will be provided assistance.²³⁸ This detail and level of preparedness is necessary to protect citizens, however, even in states who regularly order evacuations, policy gaps remain, such as, "communications to alert the public and outreach education, outreach to those populations at risk because of limited English proficiency or functional needs and access

^{231.} Id. at 16.

^{232.} *Id.* at 17.

^{233.} Ken Lerner, Governmental Negligence Liability Exposure in Disaster Management, 23 URB. L. 333 (1991).

^{234.} Joshua R. Hendrickson, *The Coronavirus and Lessons for Preparedness*, SPECIAL EDITION POL'Y BRIEF, 2020 2, (2020) (urging policymakers to recognize the need to prepare during pandemic for medical supplies, masks and other protective equipment) (Also pointing out the need for "domestic productive capacity.").

^{235.} Requesting the Hawaii Emergency Management Agency to Convene a Task Force to Study and Identify Appropriate Stockpile Storage Facility Options to Store and Distribute Emergency Supplies in the State of Hawaii, S. Con. Res. 31-111 (Haw. 2021).

^{236.} FEMA Coronavirus Disease, supra note 6, at 146.

^{237.} Judy Kruger et al., Hurricane Evacuation Laws in Eight Southern U.S. Coastal States, 69 MORBIDITY AND MORTALITY WKLY. REP. 1233, 1233 (2020).

^{238.} *Id.* at 1235 (see table "Coverage of state evacuation laws or policies" outlining specific issues).

needs, and evacuation to shelters and shelter-in-place policies."²³⁹ Communication is critical during times of emergencies. A special needs assessment after Katrina reflected the lack of services for those with disabilities and the specific need for communication for those with hearing impairment.²⁴⁰

Another special need is assistance during evacuation. Some states have legislation to assist during evacuation especially for those who rely on public transportation or need specific assistance. Some states have enacted wide-sweeping preparedness legislation to address emergency services or to require public health care facilities to study or prepare for the next hazard.²⁴¹ More work is necessary in each jurisdiction to advocate and then study what initiatives worked in their jurisdiction or other areas or who may need further assistance.

One important element to consider during a disaster and pandemic is the need for volunteers. During a crisis, the need for rescue or care is larger than first responders are able to provide and some states have enacted laws to protect good Samaritans to allow for armies of volunteer citizens, such as the "Cajun Navy" - a notoriously humble group of volunteer boaters who rescue those in flood waters. ²⁴² Such volunteer responders fill a need and protective statutes help shield liability for 'good Samaritans' who provide outreach efforts. ²⁴³ For example, in the legal field, a Court may allow for outside practice in the jurisdiction to assist with the increased need for representation. ²⁴⁴ In the pandemic, volunteer nurses and doctors in other states traveled to states in need of medical care providers. Preparedness solutions to protect such volunteers include procuring funds, housing or supplies to assist volunteers who travel into the impacted areas.

^{239.} Id. at 1236.

^{240.} Campbell, *supra* note 120, at 296 ("The Report on Special Needs Assessment for Katrina Evacuees, compiled after Hurricane Katrina, indicated that such communications in shelters were particularly lacking for individuals who were deaf or hard of hearing; more than 70% did not have access to American Sign Language translators, 80% did not have access to devices enabling individuals with hearing loss to communicate via telephone, and 60% did not have closed-captioned television.").

^{241.} H. 1741 (N.Y. 2018) (enacting "natural disaster preparedness and mitigation act" providing for enhanced disaster preparedness and recovery from disasters).

^{242.} See Cajun Navy, Our Mission: Rescue. Relieve. Rebuild., LOUISIANA CAJUN NAVY, https://louisianacn.com/ (last visited May 18, 2021) (An organization with a mission to unite and assist to rescue their neighbors.); see Volunteer Program, 77 Ill. Admin. Code § 300.1440 (2020) (implementing an orientation and providing responsibilities, procedures and policies in place before a disaster strikes).

^{243.} See Conrad Meyer, Good Samaritan – Are You One?, NEW ORLEANS BAR ASS'N, (March 5, 2013) http://www.neworleansbar.org/news/news/good-samaritan—are-you-one-; see also H.B. 125 (Utah 2018) (Duty to Assist in an Emergency); H.R. 4172, 115th Cong. (2017) (entitled 'Give A HAND Act' to provide assistance to Americans impacted by Natural Disasters).

^{244.} Clifton Barnes, Disaster Response: Lessons—and an Update—from Hurricane Katrina, 33.1 BAR LEADER (2008).

E. Legislation to Fund Community and Individual Preparedness

While government preparation is necessary, individual and community preparedness at a microlevel is equally important. Prompting individuals to properly understand the vulnerabilities and prepare for disaster or pandemic within their household can be influenced through legislative incentives. Tax incentives or free give-away days create influence for individuals to purchase or procure necessary equipment and act at a particularly calm time. Many states have carved out time periods during the year for tax incentive holidays to allow citizens to stockpile necessities. The use of generators and zoning ordinances are tools to influence and create incentives to prepare. More tax statutes to prepare for a disaster and to provide incentives for those likely impacted allows a state to provide protection or incentives for preparedness. The community of the provide incentives for those likely impacted allows a state to provide protection or incentives for preparedness.

The legal chain of title on property and who is entitled to benefits is another systemic problem seen after natural disasters. Proof of ownership is a requirement to claim many individual household benefits post disaster and clear title is sometimes difficult to trace when a house is passed down informally from one generation to the next. When clear title is not perfected, individuals are unable to access the necessary benefits unless they spend money on legal fees to first address the title issues. Post-hurricane Katrina, this lesson inspired law schools and nonprofits to provide outreach to prepare and clear titles in communities before the next hurricane.²⁴⁸ More action is

^{245.} See H.R 30, 100th Gen. Assemb. (Ill. 2017) (proclaims a time period every year for people to prepare for natural disasters, urges all Illinoisans to educate themselves about natural disasters and take steps to create a stockpile of food, water, and other emergency supplies that can last up to 72 hours); see also, H.R. 1006 (Okla. 2017) (proclaiming March 5-11, 2017, as Emergency Management Week in the State of Oklahoma); S.B. 734 (Fla. 2021).

^{246.} See Assemb. B. 888, 218th Leg. (N.J. 2018) (requiring use of emergency power generators by various facilities and businesses by providing tax incentives).

See, e.g., H.B. 639 (La. 2017) (excluding disaster relief persons from being subject to state income tax during disaster periods); see H.B. 10, 1st Extraordinary Sess. (La. 2018) (modifying the term "federal income tax liability" to include certain federal net disaster losses, requires certain federal disaster losses to be included in the calculation of federal income tax liability); see Assemb. B. 888, 218th Leg. (N.J. 2018) ("New Jersey Residents' Power Protection Act" requires use of emergency power generators by various facilities and businesses and provides related tax incentives); see Assemb. B. 2466, 218th Leg. (N.J. 2018) (providing sales and use tax rebate for certain purchases made by or on behalf of, individuals and small businesses affected by natural disasters); see S.B. 2199, 65th Leg. Assemb. (N.D. 217) and H.B. 133, 132nd Gen. Assemb. (Ohio 2018) (exempting out-of-state disaster relief persons from taxes); see Or. Stat. § 401.680 (2021) (during times of storm, flood, fire, earthquake, hurricane or other disaster or emergency, allowing many businesses which bring resources, property and personnel from other states on a temporary basis to not be burdened by any requirements for business and employee taxes as a result of activities); see also H.B. 2358, 84th Leg. (Tex. 2015) (starting the trend to not tax disaster relief personnel or businesses operating in the state).

^{248.} See Christy Kane, Letters: Lack of Clear Titles to Inherited Property is Still a Problem After Hurricane Katrina, The Advocate (Aug. 20, 2015), https://www.theadvocate.com/baton_rouge/opinion/letters/article_65bd246f-b9f4-525a-b009-387d051acab2.html;

necessary to provide incentives such as lower filing fees to perfect titles especially in lower economic neighborhoods to ensure benefits post disaster.

Housing and building code requirements are another example of preparedness legislation and especially familiar in those in states repeatedly impacted by disaster. Usually after each disaster, the insurance and building industry study the impact to better understand how construction performed under such duress. Many states in the south reformed building codes to meet this need to prepare. While this type of legislation may protect houses from damage and provide safer shelter, many times these requirements create additional barriers for those already struggling to find affordable housing and creates further hurdles toward homeownership. More planning is necessary to balance both interests and create space for shared solutions in communities.

F. Legislation to Collect, Share and Study Data, to Create Common Vocabulary and Build Intelligence Systems For Data-Driven Decisions

Shared data and solutions in one community may help another community better prepare. Repeated guidance from the international community as well as the recent FEMA report calls for more data collection and shared networks. The Hyogo framework specifically articulates the need for data collection as well as to use science and technology to share data. The difficulty is a shared common vocabulary which is necessary to ensure data collection is assessing similar outcomes to measure resilience. FEMA's report recommends to "[d]evelop a coordinated strategy for data-driven operations." The report also recognizes the need for "developing a methodology to assess the needs of stakeholders and codify it into existing procedural document for future large-scale emergency responses." One notable mention in the report is the need to "ensure task forces incorporate civil rights

Olivia McClure, Flood Victims Get Legal Help With Property Transfers, Successions at Southern University Event, The Advocate, (Jan. 28, 2017), https://www.theadvocate.com/louisiana_flood_2016/article_0ef3774a-e320-11e6-8d87-a34e66734324.html.

^{249.} See, e.g., 61 Fla. Admin. Code. § 61G20-3 (2014) (passing a widespread building code reform after hurricane Andrew which replaced more than 400 local and state building codes); see also, S.B. 44, 1st Extraordinary Session 2005 (La. 2005) (passing legislation after Hurricane Katrina requiring mandatory adoption and enforcement of building codes); Mississippi legislation (requiring flood and wind-resistant building codes in five coastal counties and in 2014 adopting a statewide building code, but allowing communities to opt out); H.B. 2469, Sess. Of 2018 (Kan. 2018) (allowing a political subdivision to not be prohibited from exercising police power when necessary to preserve public health and welfare to enforce building, zoning and fire safety codes).

^{250.} Ned Murray & Nika Zyryanova, What About Safe and Decent Housing that is Affordable?, FIU JORGE M. PEREZ METRO. CTR. 3 (Sept. 30, 2020), https://metropolitan.fiu.edu/research/periodic-publications/policy-briefings/policybrief safedecenthousing-1.pdf.

^{251.} U.N. International Strategy for Disaster Reduction, supra note 3.

^{252.} FEMA Coronavirus Disease, supra note 6, at 142.

^{253.} Id. at 147.

and equity into their decision-making" and the highlight that "members should receive training on relevant civil rights requirements and equity, including data collection consideration."²⁵⁴

One idea for data collection is to build systems after a disaster or crisis to collect ideas from stakeholders or to hold focus groups to hear the needs from the community. Immediately after impact, legislatures may articulate policy proposals or necessary updates to legislation and such proposals may not be adopted but are still ripe to study for possible adoption in other jurisdictions. Some jurisdictions realize that data collection is the future, but balancing privacy interests is also a priority and especially important after the COVID-19 response and the need for data collection after contact tracing.

Communication is important in disaster or crisis management both for shared vocabulary but also to communicate messages to citizens. Explicit legislation outlining how the government will operate and communicate helps ensure continuity.²⁵⁷ There is great importance for "common vocabulary" and language needed across communities.²⁵⁸ Policy and statutes explicitly ensuring communication crosses language barriers is one solution. For example, legislation that requires a sign language interpreter or multilanguage communication for all publications or to ensure the language is inclusive and agreements are in place how and when communication will occur. One legislative effort in California is to ensure all emergency communication is translated into a language that is most spoken in the impacted

^{254.} Id. at 141.

^{255.} Draft Recommendations of the Select Committee on Hurricane Response and Preparedness, https://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?Publication Type=Committees&CommitteeId=2978&Session=2018&DocumentType=General%20Publications&FileName=Draft%20Recommendations%20of%20the%20Select%20Committee %20on%20Hurricane%20Response%20and%20Preparedness.pdf.

^{256.} S.B. 5062, 67th Leg. (Wash. 2021) (Washington State enacted legislation to address the interest of privacy and the need for collection of data).

^{257.} See, e.g., Emergency state government operations, S.B. 1208, 56th Leg., 2d Sess. (Okla. 2018) (modifying procedures relating to state government operations in event of emergency); see also H.B. 2263, 65th Leg., Reg. Sess. (Wash. 2017) (outlining governmental continuity during emergency periods); Assemb. B. 2910, Re. Sess. (Cal. 2018) (proposed bill that requires the commission to collect information from telecommunications service providers to restore telecommunications service outages damaged as a result of an emergency or natural disaster; Further requiring the commission to annually submit a report that summarizes the information collected); H.B. 2535, 80th Leg. Assemb. (Or. 2019) (creating a task force on disaster response and recovery, directing task force to study and recommend legislation to develop a program of upgrades to critical facilities and infrastructure with the goal of increasing disaster resiliency).

^{258.} Abbott, *supra* note 187, at 193 (Specifically mentioning the need for common vocabulary in emergencies, the article states that "[s]peaking the same language in emergency response also means developing a common vocabulary used to describe resources.").

area.²⁵⁹ "Speaking the same language in emergency response also means developing a common vocabulary used to describe resources."²⁶⁰ As now seen in pandemic, another important communication issue is the need for the internet in rural and underserved areas.²⁶¹ Similar to the highway system, the internet is vitally import for national communication, public health, preparedness and in disaster and pandemic response.

G. Legislation to Ensure Stakeholders Are in the Room When Policy is Shaped

Specific action is needed to name vulnerable populations and ensure their voice is present when shaping and crafting policy. Legislation that explicitly requires representatives from certain communities known to have higher risk factors for disaster or pandemic may ensure those communities are heard during the planning process. As discussed earlier, many citizens are vulnerable to disaster and pandemic due to health, age, poverty or structural issues that impact marginalized communities. Legislation to restructure funding or to provide specific protection and to mitigate risk factors are beneficial to everyone. This cultural shift will require funding to study data and invest in public health, education and address many structural issues. The first step is to study the greater impact in certain communities. For example, Connecticut acted swiftly with proposed legislation to study the disparate impact of the pandemic. 262 Legislation which reflects a commitment to public health, to study and understand the risk factors and train health care workers is critical to move forward toward preparedness.²⁶³ Specific legislation to address a particular population like the elderly and wage workers is an important step forward. For example, New Jersey introduced legislation to provide funding for nursing homes in order to address the pandemic and increase wages for workers at the home.²⁶⁴ Continuity in health care services

^{259.} Cal. Govt. Code 2 § 8594.16 (2018) (requiring the state to translate its emergency communications into the language other than English that is most spoken in an affected area); see also RCW 38 § 52.073 (2017) (providing public notices of public health, safety, and welfare in a language other than English).

^{260.} Abbott, supra note 187, at 193.

 $^{261.\}quad S.B.\ 5383,\ 67th\ Leg.\ (Wash.\ 2021)$ (noting the issue of public utility for "equitable access" to internet).

^{262.} H.B. 5614, Gen. Assemb. (Conn. 2021) (an act establishing a commission on the disparate impact of COVID-19); see also H.B. No. 6554, Gen. Assemb. (Conn. 2021) (an act concerning a study of the impact of COVID-19 on senior citizens and adults with disabilities); see also S.B. 1, Gen. Assemb. (Conn. 2021) (an act equalizing comprehensive access to mental, behavioral and physical health care in response to the pandemic).

^{263.} S.Con. R. 70, 31st Leg. (Haw. 2021) (Hawaii bill requesting the department of health to convene a task force to plan the certification and training process for "community health workers to help address the social determinants of poor health that disproportionately affect low-income, minority populations...").

^{264.} Assemb. B. 4864, 219th Leg. (N.J. 2021) (providing "assisted living, comprehensive personal care homes, and assisted living programs, shall receive a per diem rate of no less

for the elderly is also important in disaster²⁶⁵ and legislation which makes healthcare accessible is a critical priority to address chronic medical conditions and reduce risk factors. Any initiative to provide funding for health care, especially to vulnerable populations is one step toward reducing risks. For example, New Jersey proposed to provide Medicade coverage for foster youth until the age of twenty-six to allow access for those who have aged out of the system.²⁶⁶

More legislation is also necessary to protect those with disabilities, especially during disaster. A call for evacuation assistance or a medical response²⁶⁷ or to ensure shelters are properly equipped for special needs are all steps toward preparedness.²⁶⁸ Mental health needs are also important in times of disaster to ensure those services are continuously accessible in a time of high anxiety.²⁶⁹ Children's needs are also an area for policy action, specifically continuity in school services; This requires more funding to understand the impact of COVID-19 and stay at home orders and shared information to address public education inequities, which should be an explicit goal moving forward.²⁷⁰ Another vulnerable population are those who suffer from intimate partner violence (IPV) who may have specific needs in pandemic and disaster. The legislature in Washington proposed a task force to study and curb domestic violence.²⁷¹ Creative solutions are needed, such as, funding incentives to install generators at domestic violence centers to

than \$77, \$67, and \$57, respectively, as reimbursement for each NJFamilyCare beneficiary under their care").

^{265.} See S.B. 1040, Leg. Sess. (Cal. 2018) (Ensuring seniors and disabled people continue to receive services from caregivers during a disaster by establishing protocols to allow in-home support service clients to tap into Office of Emergency Services funding to expedite home repairs or remediation. Also, creates a faster and easier system for support service employees to get reimbursed if their paychecks were lost or destroyed in a disaster. Also, ensures support services for low-income and disabled residence to ensure uninterrupted services provided. Requires counties to ensure the support services.).

^{266.} Assemb. B. 4963, 219th Leg. (N.J. 2020).

^{267.} David M. Perry, "Inside the Organization Saving Disabled People During Hurricane Harvey," PAC. STANDARD, (Aug. 29, 2017), https://psmag.com/social-justice/saving-disabled-people-during-hurricane-harvey.

^{268.} Marissa Evans, In Harvey's Wake: After Harvey, Questions Remain About Whether Registry Helped People with Disabilities, The Tex. Trib. (Aug. 22, 2018), https://www.tex-astribune.org/2018/08/22/did-state-registry-help-people-disabilities-during-harvey/ (State of Texas Emergency Assistance Registry - how people with disabilities should be helped during a disaster, but it was criticized during Harvey).

^{269.} See Assemb. B. 2333, 2018 Leg., Reg. Sess. (Cal. 2018) (creating a behavioral health deputy director to ensure individuals have access to necessary mental and behavioral health services in the aftermath).

^{270.} H.B. 4399, 87th Leg., Gen. Sess. (Tex. 2021) (requires that the "reporting of certain instructional procedures adopted by public schools" due to the pandemic be produced to study the engagement of students and the impact upon race, ethnicity, sex and socioeconomic status).

^{271.} H.B. 1315, 67th Leg., Reg. Sess. (Wash. 2021) (creating a task force to identify the role of the workplace in helping curb domestic violence).

prevent victims from evacuating with their abuser. Conversely, all vulnerabilities in all communities need to be studied including those without influence and who are at the mercy of a government response - the prison population. While some initiatives for compassionate release both at the federal and state level is one solution utilized during the pandemic, more creatives solutions are necessary to mitigate disaster and pandemic risks.²⁷²

Preparedness is important but stabilizing communities after disaster equally requires attention to protect, rebuild and secure funding for those without means. Natural disasters impact poverty rates because of the increase in pricing for most consumers in the area.²⁷³ The first priority after impact is usually to stabilize immediate needs to ensure public social services and disaster assistance,²⁷⁴ but other issues post-disaster include policing mechanisms to avoid theft and looting²⁷⁵ or consumer protection, rental assistance and eviction moratoriums to assist in recovery. More legislation and advocacy are needed to protect communities during the recovery phase.

V. CONCLUSION

Overall, there is plenty of work and laws play a critical role in preparedness to address many of the systemic issues. To raise awareness with a keen eye toward disaster resilience more advocacy is necessary at all levels²⁷⁶ and anyone may engage in preparedness work to train future generations to understand risk factors and think creatively about solutions. Some law schools have engaged in legislative or policy work in the clinic space and serve a critical role to create change and train the next generation of legislative advocates.²⁷⁷ To create change through legislation first requires

^{272.} CO SB146 (listing states that enacted similar proposals to improve compassionate release. Enacted "to develop policies and procedures related to special needs parole.").

^{273.} See Leah Platt Boustan, et al., The Effect of Natural Disasters on Economic Activity in US Counties: A Century of Data, 118 J. OF URB. ECON. (2020).

^{274.} Assemb. B. 607, 2017 Leg., Reg. Sess. (Cal. 207) (public social services: disaster assistance services); S.R. 23, 29th Leg., Gen Sess. (Haw. 2018) (requesting the state to include in its list of first responders a network of organizations contracted to immediately provide food, beverages, and ice to citizens during a natural disaster); H.R. 4930, 115th Cong. (2d Sess. 2018) (This bill amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act to prohibit the President from considering the income of an individual or household in determining whether to provide, or continue to provide, rental assistance under provisions pertaining to federal assistance to individuals and households in states affected by a major disaster.); see also S.B. 2300, 217th Leg., Gen. Sess. (N.J. 2016) (protecting homeowners from foreclosures happening while persons financially are still recovering from the storm).

^{275.} Assemb. B. 3078, 2017 Leg, Gen. Sess. (Cal. 2017) (defining evacuation orders and expanding the scope of existing crimes).

^{276.} See Disaster Resilience Awareness Month will occur for the first time in March 2021, EQUAL JUST. WORKS, (Feb. 21, 2021) https://www.equaljusticeworks.org/news/equaljustice-works-announces-disaster-resilience-awareness-month/?fbclid=IwAR3oCvmeL-q2 vaVu4mOavAd1FaFqaQ0tNNREyz helPHu2bHuz1cEMKzns8.

^{277.} See Boston University Legislative Policy and Drafting Clinic, B. U. Sch. of L., https://www.bu.edu/law/current-students/jd-student-resources/experiential-learning/clinics/policy-

transparency, shared data, study and then gathering to brainstorm solutions with all stakeholders present. To address systemic vulnerabilities requires creative processes to build resilience for *all* within a community.

drafting-clinic/; see also Fordham University Legislative and Policy Advocacy Clinic, FORDHAM UNIV. SCH. OF L. (2021), https://www.fordham.edu/info/23936/legislative_and_policy_advocacy.
