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**Disaster Behavioral Health
in an Era of Climate Change**

CONTENTS

- 3 In This Issue
- 5 Contributors
- 6 Climate Change and Community: Addressing Vulnerabilities and Challenges To Encourage Resilience
- 10 Lessons Learned From Ground Zero: Preparing for Future Disasters; A Personal Account
- 13 Building Resilience in the Face of Climate Change
- 15 Recent Technical Assistance Requests
- 18 Recommended Resources
- 19 References

In September of 2021 a collection of more than 200 medical journals asserted that climate change represents the greatest threat to human health in this century. While a great deal of attention has been given to the impact climate change has on physical health, both through catastrophic events and chronic disease, associated mental health and behavioral health risks are also very significant, particularly for disadvantaged and vulnerable populations. The salience of mental health was recognized in the 2016 United States Global Change Research Program Climate and Health Assessment, not only among those experiencing life threatening climate disasters, but those who anguish over damage to natural environments from perspectives of cultural heritage and connections between human, animal, and environmental wellbeing. The U.S. Department of Health and Human Services has recently established an Office of Climate Change and Health Equity (OCCHE) with a primary mission to protect the health of all people in the United States from the impacts of climate change, especially the most vulnerable. This will require a focus on the behavioral and mental health threats associated with climate change, not only from a treatment perspective, but important also from a resilience or preventive health perspective. The Substance Abuse and Mental Health Services Administration (SAMHSA) and OCCHE will be strong partners in addressing the mental health impacts from climate change and helping those who need help the most.

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In This Issue

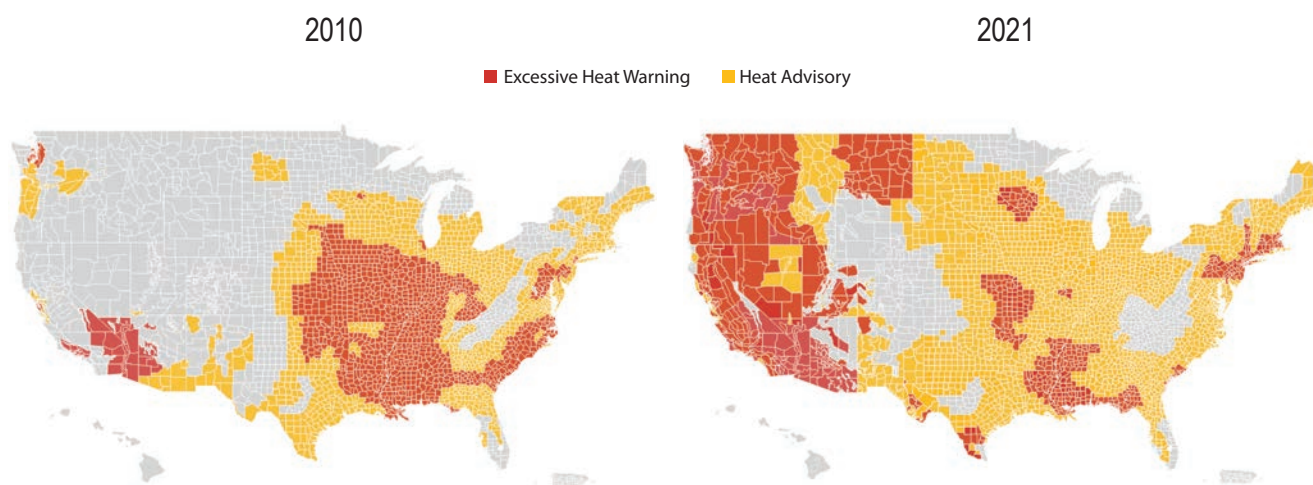
In recent reports, government agencies and other entities have described the impacts of climate change, as well as future threats it may involve. The U.S. Environmental Protection Agency (EPA) notes that average U.S. temperatures have been climbing, and the warming rate has increased in recent decades, with 8 of the top 10 warmest years on record since 1998 (EPA, n.d.). The agency also reports that heat waves happen about 3 times as often as in the 1960s (EPA, n.d.). The U.S. Global Change Research Program (USGCRP) projects that average U.S. temperatures will continue to rise, and more frequent and/or intense droughts, wildfires, floods, and other extreme weather events are likely to occur (Hayhoe et al., 2018, Ebi et al., 2018).

Along with weather and disaster impacts, reports predict increasing impacts of climate change on human health.

The USGCRP writes that more frequent and intense disasters and extreme weather events linked to climate change will likely have negative effects on public health, as these events may aggravate underlying health conditions, increase stress, and worsen mental health (Ebi et al., 2018). At present, more people in the United States are experiencing anxiety, stress, and sadness linked to climate change (Clayton et al., 2021).

Given the warnings and reports, and the vastness of the challenge, it is easy for individuals and even governments to become overwhelmed. At individual and collective levels, we need to manage our thinking about climate change so its immensity doesn't lead us into avoidance and stagnation, and so we maintain focus on what we can control. Fortunately, there are many steps all of us can take to cope with climate change,

Heat Warnings and Advisories, 2010 and 2021



Notes: An excessive heat warning is issued when extremely dangerous heat conditions will start in the next 12 to 24 hours. A heat advisory is issued when the extremely dangerous heat conditions have already begun (National Weather Service, n.d.).

Source: Iowa State University, Iowa Environmental Mesonet, <https://mesonet.agron.iastate.edu>

both now and in the future. For example, officials, emergency managers, and public health professionals can guide individuals and families in increasing disaster preparedness. Medical and mental health professionals, among others, can educate the public about ways to cope with stress and enhance resilience. Government, policymakers, and public officials all have roles to play in helping disaster planners ensure that existing plans account for projected impacts of climate change. The SAMHSA Disaster Technical Assistance Center (DTAC) and other government entities, as well as entities in other sectors, can continue or initiate work to build public awareness of disaster behavioral health. Business leadership organizations, emergency management and public health, and experts in various sectors can offer suggestions for building community cohesion and resilience.

This edition of *The Dialogue* features articles with insights and recommendations from leaders and experts in disaster behavioral health and disaster response regarding ways to cope with the threats of climate change, including threats to mental health. The first article in this edition conveys insights from a leader in conservation psychology and one of the primary authors of a major report on the mental health impacts of climate change. In the second article, the founder of the Institute for Disaster Mental Health at the State

University of New York at New Paltz recounts lessons learned from responding to 9/11 and how those lessons can be applied to preparing for and coping with climate change. The third article, written by the Director of the National Center for Disaster Preparedness at Columbia University, reviews probable impacts of climate change and discusses ways to manage uncertainty, increase effectiveness of responses, and build resilience.

Has your work changed because of the effects of climate change? Have you been involved in updating disaster plans, or developing plans to address new threats owing to climate change or more frequent or different types of disasters? Others can learn from your efforts. We encourage you to contact us to share your stories and lessons learned. ■

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“Earth’s warmer and moister atmosphere and warmer oceans make it likely that the strongest hurricanes will be more intense, produce more rainfall, affect new areas, and possibly be larger and longer-lived.”

Source: The Royal Society, 2020



Contributors



Susan Clayton, Ph.D., is the Whitmore-Williams Professor of Psychology at

the College of Wooster in Ohio and a visiting fellow at the Paris Institute for Advanced Studies, 2021–2022. Clayton’s research examines people’s relationship with the natural environment, how it is socially constructed, and how a healthy relationship with nature can be promoted. She has written about the effects of climate change on mental health and developed a scale to assess climate anxiety. She is author or editor of six books, including *Identity and the Natural Environment*, *Conservation Psychology*, and *Psychology and Climate Change*, and she is currently the editor of the *Cambridge Elements in Applied Social Psychology* series and on the editorial board for journals such as the *Journal of Environmental Psychology and Sustainability*. A fellow of the American Psychological Association, she is a lead author on the forthcoming Sixth Assessment Report of the Intergovernmental Panel on Climate Change.



James Halpern, Ph.D., is Professor Emeritus and Founding Director of the Institute for

Disaster Mental Health at the State University of New York at New Paltz. He has received numerous grants to develop curricula and provide training in disaster mental health throughout the United States and abroad. Halpern has co-written three disaster mental health textbooks, consulted for the United Nations on assisting victims of terror, and developed training modules for United Nations Emergency Preparedness & Support Teams and mission leaders. He has provided direct service to disaster survivors and served in a leadership role at large-scale national and local disasters (e.g., 9/11, Flight 587, Florida hurricanes, Hurricane Katrina, Newtown school shooting, explosions, fires, floods, COVID-19).



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Preparedness, Columbia Climate School, at Columbia University. In this role he oversees the operations and strategic planning for the center. Before becoming Director, he served as the center’s Deputy Director for more than 5 years. He also oversees projects related to the practice and policy of disaster preparedness, including the multi-award-winning Resilient Children/Resilient Communities Initiative. His areas of expertise include public health preparedness, community resilience, and the integration of private and public sector capabilities. He is also the author of *Rethinking Readiness: A Brief Guide to Twenty-First-Century Megadisasters* published by Columbia University Press.

Climate change is intensifying the natural disasters we experience and broadening the areas these disasters affect, from hurricanes increasing in size, strength, and range to wildfires across the American West to worsening floods.



Source: Pruitt-Young, 2021



Climate Change and Community: Addressing Vulnerabilities and Challenges To Encourage Resilience

By **Susan Clayton, Ph.D.**, *College of Wooster in Ohio, Paris Institute for Advanced Studies*

Climate-related crises can affect not only the mental health of individuals but the unity and resilience of communities as a whole. SAMHSA Disaster Technical Assistance Center staff recently spoke with Dr. Susan Clayton, Professor of Psychology at the College of Wooster and one of the main authors of the American Psychological Association and ecoAmerica's recent report *Mental Health and Our Changing Climate* (Clayton et al., 2021). Dr. Clayton's research explores the public's evolving relationship with the environment, highlighting the effects of climate change on the health and resilience of the public to promote healthy individual and community response.

What do you believe has influenced the surge of public interest and concern regarding climate change, particularly climate-related events?

In the last 10 years, and even more so in the last 5 years, there's much more awareness not only that climate change is happening but that there are human impacts. Ten years ago, people were still thinking climate change was about polar bears and glaciers melting. They didn't have a real sense that people were going to be affected, at least not in the near



future. There was a sense that those kinds of impacts were 50 years away. Yet now we've seen the wildfires, the heat, the hurricanes. People are now very aware that humans are and will continue being affected by climate change.

The wildfires in particular have made us more aware of the global impact of climate change on extreme weather events. The number of people directly affected by the wildfires may not have been that great, but the entire nation was very aware that the disaster was occurring. People all the way on the East Coast were sensing, smelling, or seeing the effects of the smoke. It made people experience that visceral impact of climate change on a very basic, sensory, collective level. This recognition of a shared experience is really important.

About the Report

In Mental Health and Our Changing Climate: Impacts, Inequities, Responses, Clayton and coauthors identify health and mental health effects of climate change, note how climate change worsens inequities already present in U.S. society, and offer suggestions for building individual and community resilience. The report proposes ways for individuals and communities to adapt and respond to climate change. The report is online at <https://www.apa.org/news/press/releases/mental-health-climate-change.pdf>.

How influential do you believe the COVID-19 pandemic has been in the rise of public interest concerning climate change and acknowledgement of its impacts?

Coming back to that point of a shared experience, we see this come into effect with COVID-19 and climate change impacts—the recognition that you are not necessarily protected. Your economic status won't necessarily keep you safe from the pandemic or from climate-related events. We are all vulnerable.

In cases of both climate change and the pandemic, we've seen some people willing to confront the issue and some that are in denial. We've highlighted the importance of communication and messaging and finding ways to talk to people about a problem they would rather not think about. You don't create behavioral change by hitting people over the head; you have to find subtle ways to spread the message.

“Mental health consequences of climate change

range from minimal stress and distress symptoms to clinical disorders, such as anxiety, depression, posttraumatic stress, and suicidal thoughts.”

Source: Dodgen et al., 2016

I think one of the reasons people had a hard time thinking about climate change is that they just couldn't envision society changing that much. It's very hard to imagine. And yet, society changed a lot because of COVID-19. We had to. The recognition that you're going along with how things are and suddenly things change in a very dramatic way is a message COVID-19 has given us that can be applied to climate change.

This can also be applied to our societal approach to mental health. We have all personally experienced how COVID-19 has had an impact on our mental health, and it's changed our attitudes a bit. There was a tendency to think mental health is an individual problem, that individuals are being weak in some way or are incapable of coping. Yet now we realize it is because of things happening outside of you, or at least in part the circumstances you are confronted with. There is certainly more conversation about mental health and the importance of supporting mental health, which builds greater awareness and less stigma.

What effects can climate-related disasters and crises have on the resilience and well-being of communities? Are certain communities more likely to experience greater negative impacts?

People are actually surprisingly resilient following a disaster, and communities can often be fine. In

some cases, communities actually come together to rebuild in very positive ways, so there is potential for positive outcomes. However, you do often see increased community tensions after an event. I think that's often associated with the inequity involved.

Sometimes it's just random. The hurricane hits these people but not those people. But there are also underlying system inequities, such as racist housing practices and so on, that can lead to some people being more vulnerable than others. Hurricane Katrina, for example, was a real turning point for people to recognize that how you were affected by a disaster was strongly influenced not only by your economic status, but also by race. When you recognize those inequities, it can be harder to come together as a community. It can even increase community tensions.

Disadvantaged groups in society, such as people in minority groups or families of low income, are in many cases already facing the impacts of climate change. For some racial groups, there is a history of them being in more geographically vulnerable locations like low-lying land or substandard buildings that are more vulnerable to the elements.

Displacement can also increase community tensions. When you have communities that are strongly affected by climate change, either by a short-term event or a slower

displacement, the community tends to be dispersed. Consider the coastal communities in the Gulf of Mexico; the people there don't pick up and move all together, they move to different places. After a disaster, people tend to move away from one another. You lose those social ties, or at the very least weaken them. And we know those social ties are so important for helping people build resilience and promote mental health.

That loss of community connection, of feeling rooted, of place identity—those things are really affected by the impacts of climate change. Indigenous peoples' cultures often emphasize connection to the land. If I had to move from my hometown, it wouldn't affect me that much. I would like to stay close to my friends, and I might be annoyed that I would need to find a new doctor. But for people who feel strong ties to a location, having to move from that place can bring real grief and threaten their mental health and sense of community.

People with disabilities are often left out of rescue efforts and don't receive appropriate support during or after a climate-related disaster, as we've seen in many hurricane responses where materials like rafts are not accessible. And some groups we may not consider at first, like young children, can be more vulnerable to negative impacts, especially if there's an immediate threat they can understand.



How important is the role of a community leader in the efforts to build community resilience, and how can these individuals influence their communities to be involved in climate-related disaster planning or response?

A community is most able to come together when it has strong community leaders. We often consider elected officials as the community leaders to look to, but it's important to consider other important and influential players. School boards, citizen groups, religious leaders, local parent groups, and many other groups can be extremely influential at the community level. These group leaders have often established a connection to individuals in the community, and community members can recognize these groups as a good place to start taking action. One person can make more of a difference when working in a group. Community campaigns to talk to local businesses or politicians

or group efforts to discover local vulnerabilities and prepare for disasters are great ways to build community resilience, develop social ties, and help people feel more involved.

Health leaders are also in a great position to build individual and community resilience because they tend to be trusted by the public. I encourage health leaders to normalize any messages about climate change or its effects. Instead of making a big deal out of a possible disaster event, you can say, "Because we can expect more wildfires in this area, here is what we should prepare for." The goal is not to instill fear, but to empower people so they feel prepared for possible effects. They have an important voice that can give meaningful messages, which can often be tailored to individual needs to develop some exigence. Personalize your messages to those you provide services for so they understand the challenges they may face in case of a climate-related crisis and can plan their response accordingly.

A great message to share with your community is that a good action is worth doing, regardless of the outcome. Some may feel like a small change in their personal life—recycling, using less water, eating less meat—won't make an impact. Individual behaviors are valuable because they can make a difference, but also because of what they symbolize. More practically, one of the reasons it's worthwhile is your action is not limited to you. Other people see you act. The more people see you do a particular thing, the more likely other people are to do it as well. Individual household behaviors are incredibly impactful and can become community behaviors.

As communities reevaluate their climate-related disaster preparedness plans or evaluate their needs, what steps should community leaders be taking to ensure community needs and disaster vulnerabilities are addressed?

Emergency preparedness plans should certainly be reviewed and renewed. I suggest community leaders and planners talk to people of different backgrounds to ensure their interests are being represented. There is often a lack of political representation for underserved groups. Community leaders should be reaching out across racial and economic lines, making sure everyone is involved in the planning process, so they have a chance to share their concerns and experiences in a welcoming environment. Make

an effort to hear them. You can say, “Try and imagine what it’s like for someone with a physical disability,” or “Try and imagine what it’s like for somebody with a mental health challenge who needs regular treatment.” But even better is if you reach out to those members of your community and ask them what they need instead of imagining their circumstances. Also, if you have community meetings, consider that some members may not attend if it is hosted in a space that is inaccessible or considered unwelcoming to a certain group.

When approaching your community with information about climate change or the need to revise your community behaviors, you can expect some people to be resistant. People are often afraid that if they admit climate change is a problem,

they’ll have to do something drastic to their lives like stop driving, flying, or eating meat. It is assumed we have to do extreme things to slow the possible impacts of climate change. If we make it more acceptable for people to do small things that are not such a heavy burden on their daily lifestyle, these actions can be helpful and help people feel empowered, not burdened.

I also suggest that people stop talking about “climate change” and instead talk about things on a smaller scale. People can get overwhelmed with the idea that they need to save the world with their actions. If, as a community, you can bond over the need to prepare for a heat wave or make plans to connect with the environment, you’re promoting change and resilience. ■



Lessons Learned From Ground Zero: Preparing for Future Disasters; A Personal Account

By James Halpern, Ph.D., Institute for Disaster Mental Health, State University of New York at New Paltz

The full version of this article appeared in *Trauma Psychology News*, the newsletter of the American Psychological Association's Division of Trauma Psychology (<https://www.apatraumadivision.org>). SAMHSA DTAC worked with the author to identify the parts of the article included in this edition of *The Dialogue*, with sections appearing here limited to those related to climate change. You can access the full article in *Trauma Psychology News*, Volume 16, No. 3, at <https://traumapsychnews.com>.

On September 11, 2001, I led the first American Red Cross mental health team to Ground Zero looking for “walking wounded.” On September 12, I began a week-long assignment managing the Missing Persons Hotline. Over the next few weeks, I escorted family members of first responders to Ground Zero as they looked over the site to see where their loved ones perished. For the next year, I supported memorials and funerals and counseled survivors, first responders, reporters, government officials, and clergy who worked at the site. Most of us who responded were shocked, confused, disoriented, and vicariously traumatized, and because there was so little research and guidance, I went on to found the

Institute for Disaster Mental Health at the State University of New York at New Paltz (<https://www.newpaltz.edu/idmh>); write, train, and present on disaster mental health locally, nationally, and internationally; and coauthor three textbooks on disaster mental health. I continue to serve as a Red Cross volunteer and member of the Board of Directors of the Hudson Valley Chapter, planning for and responding to COVID and other disasters.

I am sharing this personal account of my response to the 9/11 attacks, hoping that readers will better understand how to prepare themselves and those they serve for disasters that are sure to come.

Overcoming Denial To Improve Planning and Preparation

On May 18, 2001, there was a tabletop exercise at the American Red Cross Greater New York location in Manhattan. The focus of our exercise was how our chapter would respond to an aviation incident in the New York metropolitan area. Under the Family Assistance Act of 1996, in the aftermath of a mass transportation accident, the Red Cross is responsible for family care and mental health.

The scenario presented was an air traffic control tower accident at a Queens airport resulting in two passenger planes hitting a populated area in New York City, leading to



If no changes are made to climate-related policy and practice, by 2050, up to \$106 billion worth of coastal property will be below sea level.

Source: Office for Coastal Management



hundreds of casualties. What?!, most of us complained to the exercise organizers. We should be planning for a disaster that might actually happen and not some preposterous scenario. Of course, what happened on 9/11 was far worse than this “worst-case scenario.” But although most of us were experienced disaster responders, we could not accept that this low-probability, high-impact disaster was even a possibility. If we were in denial, how can we expect others in the general population to be more connected to a potential reality and to plan and prepare effectively?

Based on my own experience of the May 2001 disaster exercise, the simplest answer to why we do not adequately prepare for disaster is denial. Denial occurs when someone is faced with a fact that is too uncomfortable to accept and so they reject it despite overwhelming evidence. Since we are surrounded by danger, and it is not helpful to be in a constant state of fear, denial is a basic

and useful defense mechanism—but only up to a point. Denial can keep us from being prepared for and planning for disasters.

We are more likely to deny and inadequately prepare for disasters that are neither visible nor understandable (Bormudoj & Nagai, 2017). These factors contribute to the poor initial and continuing response to COVID-19 and our inability to take bold action on climate change. Climate change makes disasters bigger and badder and longer but is neither seen itself nor easily understandable. We don’t see the greenhouse gases in the atmosphere. People don’t pay attention to threats if they lack early warning, information, skills, or knowledge (Liu et al., 2017). Our response to the threats of pandemic and climate change are made worse by rumor and misinformation, always present after a disaster, but made much worse with social media and extremist ideologies.

Denial keeps people from having first aid kits, N95 masks, and smoke detectors, and from discussing emergency plans. We can help individuals and communities be safer at reasonable costs with effective threat assessment and mitigation without fearmongering. We can help prevent disaster trauma. We can ask those we work with and serve about their disaster planning. Depending on local risk, you can ask those you serve, as well as friends, family, and loved ones, about their preparedness for heat waves, wildfires, floods, tornadoes, or hurricanes. Refer them to websites with emergency kits like the Red Cross or Ready.gov.

The Increasing Importance of Remote Mental Health and Mental Health Call Centers

On September 12, 2001, and for over a week, I managed the Missing Persons Hotline, set up in the call center for New York City’s public television station. People from all over the world called in to find out the status of their loved ones, many of whom were expected home but had not arrived. Hundreds of counselors made thousands of calls to frightened, anxious, and grieving relatives. At that time, it was one of the largest mental health responses to disaster. It was also the first significant disaster crisis hotline. Beginning on the evening of 9/11, the American Red Cross in the Greater New York area managed the call center. The operation had two goals: develop a database for missing persons and



provide crisis counseling. After a few days, counselors received some training (e.g., meet the client where the client is) and debriefings at the end of shift and the end of deployments. We now know that exit interviews (i.e., checking in with volunteers on self-care) are recommended while debriefings are no longer best practice. The vast majority of counselors did an excellent job of providing assistance for long hours and returned to help for many days. However, some volunteers decompensated either during training, during the response, or at the end of their shifts. Some had to leave the assignment even before they started answering phones.

Since then, the Red Cross and other state and local agencies have organized remote mental health responses to more frequent mass shootings, killings, natural disasters,

and other large-scale catastrophic events. Since 2012, the Substance Abuse and Mental Health Services Administration (SAMHSA) has supported a national disaster distress helpline (<https://disasterdistress.samhsa.gov>), and communities all over the country have counselors available by phone to assist COVID survivors. New York State responded to well over 60,000 calls during COVID, mostly with clients experiencing anxiety, loneliness, and fear. Climate change will bring us an increasing number of mass casualty incidents that will necessitate remote counseling (e.g., phone, text, video). They will include events like transportation accidents, shootings, fires, floods, structural collapses, hazmat/industrial accidents, radiological events, public health emergencies, and events that we cannot even imagine.

We need to give the helping community more training in remote disaster counseling because in the aftermath of mass casualty incidents, the point of contact between client and counselor is frequently over the phone. Communities should prepare for large-scale phone crisis counseling operations. This work should include identifying adequate facilities and developing plans and protocols for staff serving as counseling supervisors and managers as well as phone crisis counselors.

It is not alarmist to state that there are disasters and catastrophes coming our way. We can help those we work with and serve to prepare, and we can prepare ourselves to respond to the increasing number of mass casualty incidents in our future by planning for or participating in disaster mental health training for both in-person and remote counseling. ■

Building Resilience in the Face of Climate Change

By **Jeffrey Schlegelmilch**, Director, National Center for Disaster Preparedness, Columbia Climate School, Columbia University

The *Climate Crisis* and averting the most catastrophic consequences of anthropogenic climate change is one of the defining challenges of our generation, and perhaps generations to come. Audacious goals have been set, missed, and re-set to reduce harmful greenhouse gas emissions and to mitigate against further damage to our planet. But regardless of the success of these efforts, many of the feared consequences of climate change are no longer realistically avoidable. In addition to mitigation, we need to increasingly adapt our disaster management and resiliency efforts in the face of these consequences. The increase in disasters will continue to stress our physical infrastructure as well as our social infrastructure with direct and indirect impacts on our physical and mental health.

What kinds of impacts should we expect?

Extreme weather, prolonged droughts, and record-breaking

wildfires are among the types of hazards we will likely see with greater frequency and ferocity. Events like the December 2021 tornadoes in the Midwest can sweep entire towns off the map, leaving survivors rebuilding their lives and livelihoods for years to come.¹

Based on our research at the National Center for Disaster Preparedness at Columbia University's Climate School, among the most vulnerable are children. Exposure to disasters has been seen to increase the likelihood of having a mental health diagnosis for children. Data from Hurricane Sandy also showed, somewhat counterintuitively, that damage may not directly correlate with health and mental health risk. The researchers found households with minor damage to their home were more likely to have children reporting emotional and mental distress than those with major damage. The root cause of this is not known, but it may be related to

the complexity and prolonged nature of recovery, and having to live in a partially damaged home versus one that was totally destroyed (it should be noted that there was still a higher risk of adverse outcomes for those with major damage vs. those with no damage) (Abramson et al., 2015).

And as is too often seen, those on the margins of society are more likely to be left behind. Programs designed to assist those most in need have been seen to favor more advantaged communities in their implementation (Howell & Elliott, 2019). Legacies of structural racism such as redlining have also left many areas more exposed to rising seas and extreme heat (Katz, 2021). An analysis of an extreme cold snap in Texas found significant disparities in terms of who lost power and for how long, and another analysis found indirect deaths that greatly outnumbered official death counts (Carvallo et al., 2021; Aldhous et al., 2021).² The role of indirect deaths is another facet of

¹ A tornado outbreak occurred on the night of December 10, 2021, in Kentucky, Arkansas, Illinois, Missouri, Mississippi, and Tennessee. At least 88 people in 5 states lost their lives in the storms, and many more were injured. The storms were estimated to have caused billions of dollars in damages (Victor et al., 2021).

² Severe winter storms in February 2021 led to massive power outages in Texas, which in turn caused problems with access to water for drinking and cleaning, food shortages, and unheated residences (Rice, 2021; McDonnell Nieto del Rio, Fausset, Diaz, 2021; Levenson, Caldwell, & Vera, 2021). At least 200 people died in the crisis (Hauser & Sandoval, 2021).



trying to understand the impacts of climate change and disaster through more than just those most directly affected, with many more often succumbing to the loss of critical lifelines, and the cascading stressors that we can expect with more extreme climatic events.

How do we manage the uncertainty of climate change?

Tools such as the Centers for Disease Control and Prevention's Social Vulnerability Index (<https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>) provide important indicators on different types of vulnerability, with geospatial components to help in targeting outreach and resources. Additionally, community-centric approaches that meet communities where they are and integrate their needs, barriers, and other factors into the disaster cycle may seem like they take more time and effort, but can provide more genuine and equitable outcomes. Pre-disaster investments in building social capital may also be as valuable as traditional preparedness activities like building emergency kits. Some

innovative approaches can be seen in the form of neighborhood block parties with civic engagement components like those done under San Francisco's Neighborhood Empowerment Network.

Ultimately, the experience of a disaster is often set up long before one occurs through investments and policies that seemingly have little to do with disasters. Building communities with better access to transportation, more healthcare resources and access to affordable housing, among other investments, can help reduce aspects of social vulnerability, and thus improve their capacity to cope with disasters. Further, targeting investments in community-based institutions and social organizations in more vulnerable and historically underserved areas will also generate greater societal benefit than the same investments in areas that are less vulnerable. But development projects at best only include limited social benefits and are usually focused on direct economic benefit. These projects are also often looked at through a lens of historical

disaster losses rather than looking at projected losses under a changing climate. Because of this, costlier projects with social resilience dividends may not be competitive under traditional valuation schemas because that value goes unrecognized.

What comes next?

The truth is that this will likely get harder before it gets easier. The overstretched resources of our mental health and social service providers will continue to be in increasing demand in the face of more disasters overlapping with recovery from prior events. But there is a silver lining. The COVID-19 pandemic and the increasing climate disasters are making these scenarios less abstract and having impacts on more and more people where they live. With this comes more lived experience as well as data to help quantify the value of social and mental health services. We will also have more opportunities to recognize, value, and even celebrate the hard work of those that keep our social infrastructure functioning. And in doing so, can begin to change the math to more appropriately value social infrastructure. While we may not be able to predict with certainty what the next weather event will be, we do know what will be needed and who will need it. Integrating this into our community development planning will not only build more robust responses—it will also build resilience. ■

Recent Technical Assistance Requests

In this section, read about responses SAMHSA Disaster Technical Assistance Center (DTAC) staff have provided to recent technical assistance (TA) requests. Send your questions and comments to dtac@samhsa.hhs.gov.

Request: SAMHSA DTAC received a request for letters with lists of relevant resources to be sent to the State of Michigan in response to a shooting at a high school in the state.

Response: SAMHSA DTAC produced a list of related resources and the letters. The resources below are a sample of those sent. For the complete resource list, please contact SAMHSA DTAC at 1-800-308-3515.

■ ***Age-related Reactions to a Traumatic Event***—In this information and tip sheet, the National Child Traumatic Stress Network (NCTSN) provides an overview of how children and adolescents may react to a traumatic event, including a natural or human-caused disaster. This resource describes reactions typical within specific age ranges and offers tips for families, doctors, and school personnel to help children and adolescents cope. <https://www.nctsn.org/resources/age-related-reactions-traumatic-event>

■ ***Helping Youth After Community Trauma: Tips for Educators***—In this 1-page tip sheet, the NCTSN identifies 10 ways youth may react to community traumas such as natural or human-caused disasters and suggests ways for educators to respond to these reactions and support youth in coping. The tip sheet also advises educators to find professional mental health support for youth—and for themselves—as needed. <https://www.nctsn.org/resources/helping-youth-after-community-trauma-tips-educators>

■ ***Mental Health Considerations After a Traumatic Event***—A product of Voices Center for Resilience, a nonprofit formed after the attacks of September 11, 2001, this tip sheet highlights common reactions to acts of violence, civil unrest, or terrorism. It identifies signs of the need for professional mental health support, coping tips during short- and long-term recovery, and signs of mental illnesses that may arise in the aftermath of exposure to violence. https://media.voicesofseptember11.org/projects/tipsheets/trauma_tips_mentalhealth_001.pdf

■ ***Parent Guidelines for Helping Youth after the Recent Shooting***—In this 3-page tip sheet released shortly after a shooting, the NCTSN describes how such an event may affect children and teens as well as parents and other caregivers. The tip sheet lists reactions common among people of all ages, offers coping tips for caregivers, and suggests ways for caregivers to support children and youth in talking about and managing their reactions. <https://www.nctsn.org/resources/parent-guidelines-helping-youth-after-recent-shooting>

Help Improve SAMHSA's Disaster Services and Products

As a subscriber to this newsletter, you are invited to participate in a short, web-based survey to provide the SAMHSA Disaster



Technical Assistance Center (DTAC) with feedback about your experiences with our products and services. The survey should take no more than 15 minutes. Complete the survey by clicking on this [link](#), or copy and paste the URL https://iqsolutions.qualtrics.com/jfe/form/SV_bjYCSJDUQAGi1h3 into your web browser.

Request: SAMHSA DTAC received a request for a list of resources for those affected by recent bomb threats to historically Black college and universities (HBCUs).

Response: SAMHSA DTAC produced and sent a list of resources, a sampling of which appear in the list that follows. For the complete resource list, please contact SAMHSA DTAC at 1–800–308–3515.

■ **SAMHSA Disaster Distress Helpline**—The Disaster Distress Helpline can provide immediate counseling to anyone who is seeking help in coping with the mental or emotional effects of the bomb threats that have been made to HBCUs throughout the nation. Counselors are available 24/7, by voice and text, to respond to people who need crisis counseling after experiencing a traumatic event or a disaster, at 1–800–985–5990. <https://disasterdistress.samhsa.gov>

■ **Tips for College Students: After a Disaster or Other Trauma**—This fact sheet from SAMHSA describes common reactions to trauma and provides coping strategies and stress management tips for college students. This fact sheet is also available in Spanish at <https://store.samhsa.gov/product/Tips-for-College-Students-After-a-Disaster-or-Other-Trauma-Spanish-Version-/SMA13-4777SPANISH>. <https://store.samhsa.gov/product/Tips-for-College-Students-After-a-Disaster-or-Other-Trauma/SMA13-4777>

■ **Tips for Survivors: Coping With Grief After Community Violence**—This SAMHSA tip sheet identifies signs of grief and anger after an incident of community violence, provides useful information about how to cope with grief, and offers tips for helping children with coping. <https://store.samhsa.gov/product/Coping-With-Grief-After-Community-Violence/SMA14-4888>

■ **Addressing Race and Trauma in the Classroom: A Resource for Educators**—This 11-page guide from the NCTSN provides information about trauma, historical trauma, and racial trauma. It identifies effects of racial trauma by age group and suggests steps educators can take to establish safe environments for discussion, teach students about historical trauma and racism, and encourage and empower students. <https://www.nctsn.org/resources/addressing-race-and-trauma-classroom-resource-educators>

Request: SAMHSA DTAC received a request for a list of resources for Ukrainian Americans experiencing distress and grief related to the Russian invasion.

Response: SAMHSA DTAC produced and sent a list of resources, a sampling of which appear below. Please contact SAMHSA DTAC at 1–800–308–3515 for the full list.

■ **Tips for Survivors: Coping With Grief After a Disaster or Traumatic Event**—In this tip sheet, SAMHSA defines and describes grief, discusses ways of coping with grief, and explains complicated or traumatic grief. The tip sheet also offers relevant resources for additional support. <https://store.samhsa.gov/product/Tips-for-Survivors-/SMA17-5035>

■ **Tips for Survivors of a Disaster or Other Traumatic Event: Managing Stress**—This SAMHSA tip sheet gives stress prevention and management tips for dealing with the effects of a disaster or trauma. It identifies common reactions to disasters and other traumatic events, lists tips to manage and lower stress, and highlights signs of the need for professional support. <https://store.samhsa.gov/product/Tips-for-Survivors-of-a-Disaster-or-Other-Traumatic-Event-Managing-Stress/SMA13-4776>

■ **Disaster Preparedness in Migrant Communities: A Manual for First Responders**—In this 41-page manual for responders, the Lutheran Immigration and Refugee Service gives information on how to include communities it collectively refers to as newcomers—immigrants, refugees, migrants, asylum seekers, and unaccompanied children—in disaster planning, response, and recovery. It describes unique qualities of newcomer communities; recommendations; and tools to support disaster planning, response, and recovery that includes newcomers. https://www.lirs.org/assets/2474/disaster_preparedness_for_migrant_communities.pdf

■ **Responding to Stressful Events: Helping Children Cope**—This brochure contains information on helping children cope after disaster or acts of war. It highlights common reactions in children in specific age ranges and describes how parents and other caregivers, families, and teachers can provide support. The brochure was developed by the Mental Health Support Network of Canada, a coalition of Canadian associations focused on mental health and stress management. <https://www.canada.ca/en/public-health/services/reports-publications/responding-stressful-events/helping-children-cope.html>

■ **Responding to Stressful Events: Helping Teens Cope**—Developed by the Mental Health Support Network of Canada, this brochure advises parents and

other caregivers and teachers on how they can support teenagers in coping with disasters or acts of war. The brochure describes common reactions to disasters in teenagers, ways adults can respond that may be helpful, and activities for teens that may help them in coping. <https://www.canada.ca/en/public-health/services/reports-publications/responding-stressful-events/helping-teens-cope.html>

Request: SAMHSA DTAC received a TA request from a survivor of Hurricane Ida who asked for assistance in identifying possible financial resources to assist with recovery needs after losing employment and transportation.

Response: SAMHSA DTAC shared information regarding potential sources of assistance:

■ **American Red Cross**—Information specifically about assistance after Hurricane Ida can be found at <https://www.redcross.org/about-us/our-work/disaster-relief/hurricane-relief/hurricane-ida-relief/hurricane-ida-assistance.html>.

■ **Federal Emergency Management Agency**—More information can be found at <https://www.fema.gov/disaster/hurricane-ida>.

■ **Catholic Charities**—More information for Ida survivors is available at <https://www.catholiccharitiesusa.org/help-for-victims-of-hurricane-ida>.

Are you looking for disaster behavioral health resources?

Check out the new and updated
SAMHSA DTAC Disaster Behavioral Health Information Series (DBHIS) installments.



<https://www.samhsa.gov/dtac/dbhis-collections>

RECOMMENDED RESOURCES

SAMHSA Disaster Behavioral Health Information Series (DBHIS): Climate Change

This part of the SAMHSA DBHIS resource collection includes a wide range of items related to preparing for and coping with climate change. This vetted collection features guides, fact sheets, recorded webinars, reports, and other resources on topics such as weather-related impacts of climate change; impacts of climate change on children's health, public health, and mental health; populations at heightened risk in the face of climate change; and community resilience planning.

Access the collection at https://www.samhsa.gov/resource-search/dbhis?rc%5B0%5D=type_of_disaster%3A21068.

How Climate-related Natural Disasters Affect Mental Health

This article by the American Psychiatric Association covers how extreme weather events caused by climate change can increase stress and mental health issues. It explains how some people are more vulnerable to the potential effects of climate change such as children, older adults, and people with mental illness. Related resources are also provided.

This resource is available at <https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections/affects-on-mental-health>.

Preparing for the Regional Health Impacts of Climate Change in the United States

This report was developed by the Centers for Disease Control and Prevention's National Center for Environmental Health. Each region of the United States experiences climate change and its impacts on health differently. This report can help states, counties, cities, tribes, and territories better understand how climate change may affect their community, identify populations that are most vulnerable, and prepare.

The report is available at <https://bit.ly/3orrLny>.

Climate Change

This page from the Federal Emergency Management Agency has information on what is being done to address climate change and resources for emergency managers. The page features resilience initiatives, press releases about work related to climate change, materials to support emergency management in a world increasingly affected by climate change, and relevant policy documents.

Find the web page at <https://bit.ly/3xXcLB8>.

Managing the Risks of Extreme Events and Disasters To Advance Climate Change Adaptation

In this report, the Intergovernmental Panel on Climate Change explains the relationship between climate change and extreme weather, the effects extreme weather can cause, and how to manage associated risks. Different chapters cover issues and opportunities at the local, national, and international scale. Case studies that help illustrate examples of managing risk are also included.

Find the report at <https://bit.ly/3xX84ag>.

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