Tots to Teens: Emerging Research and Practices to Address the Unique Needs of Young Disaster Survivors

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Presenters: Jeannie Moran, Dr. Ann Masten, Dr. Lori Peek, and Jessy Burton

Jeannie Moran: *(Slide 1)* Hello, my name is Jeannie Moran. I'm the youth director for FEMA Preparedness. Welcome to today's webinar, From Tots to Teens: Emerging Research and Practices to Address the Unique Needs of Young Disaster Survivors, presented by the FEMA Youth Preparedness Technical Assistance Center. I'm very excited to talk to you all today and to have you with us. We want to sincerely thank you for your interest in this important issue and the work that you do to promote youth preparedness.

The webinar today will last approximately 90 minutes. As Zola mentioned, there will be time at the end reserved for questions. As we go along, you can feel free to post those questions through the webinar interface. We have a whole team here who will be collecting the questions and directing them to the presenters after all of the presentations have ended.

I also want to let you know that this webinar is registered as an America's PrepareAthon! event. So please give yourselves a pat on the back for your participation in this year's America's PrepareAthon! Day of Action.

(Slide 2) As many of you already know, teaching children to be prepared for disasters can lead to lifelong habits that keep them safe. These children grow into adults who know how to prepare for, and remain safe during and recover after a disaster as well. Youth preparedness practitioners empower their students and can help them emerge as competent and knowledgeable leaders. This is absolutely why FEMA has been involved in youth preparedness.

Youth preparedness practitioners — I'm sure many of you are on the line — face unique challenges each day. Disasters are emotionally charged events, and children of varying

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developmental levels express anxiety, grief, and trauma very differently. Youth preparedness practitioners are usually not psychologists, almost never, and may not be experts on child development. Today, we have gathered a panel of experts who can give you a good starting point in understanding some of those unique challenges that children face in the wake of disaster.

We welcome Dr. Ann Masten, Dr. Lori Peek, and Jessy Burton. If you'll bear with me, I'll read their bios now so that the transitions are somewhat smooth in between our three very exciting presentations. Dr. Ann Masten studies competence, risk, and resilience in development with a focus on the process leading to positive adaptation and outcomes in young people whose lives are threatened by adversity. Her work includes the Project Competence Longitudinal Study, which has followed a sample of community children and their families for more than 20 years. At the national and international levels, Dr. Masten works with colleagues in multiple disciplines to understand adaptation and development, particularly in relation to migration, disasters, and war. She has written and presented about how integrated approaches are essential for preparedness, recovery, and resilience.

Our second presenter is Dr. Lori Peek. Lori Peek is an associate professor in the Department of Sociology and co-director of the Center for Disaster and Risk Analysis at Colorado State University. Dr. Peek studies vulnerable and marginalized populations and disasters. Dr. Peek explores the ways in which various forms of social inequalities such as those based on race, religion, class, age, and ability impact people during times of disaster. Her work examines how unequal access to power and resources contribute to vulnerability before, during, and after disaster.

Lastly, Jessy Burton is the associate director of Psychosocial Programs with Save the Children. In this role, Ms. Burton works to develop partnerships and enhance the training and technical assistance offerings of Save the Children's psychosocial programs. Ms. Burton also serves as a psychosocial expert for expansion and implementation of the Journey of Hope

psychosocial programs in the United States. Ms. Burton has also contributed to Save the Children's Domestic Emergencies work. After the 2013 tornadoes in Moore, Oklahoma, Ms. Burton worked to deliver psychosocial recovery programs by engaging local partners. This is a task she again undertook following Superstorm Sandy in New York and New Jersey.

Without further ado, let's get started with our first speaker, Dr. Masten, who will give us an overview of the coping behaviors of children who have experienced trauma, specifically disaster-caused trauma. This research-based information is valuable for practitioners in the context of working with children to prepare for or respond to a disaster. Dr. Masten.

Dr. Ann Masten: *(Slide 3)* Hello, everyone, and greetings from the University of Minnesota. I'm delighted to be here today to join this webinar. I'm going to present some highlights from the research that's been done on resilience in children for many different situations but particularly in the context of disaster. I've organized my talk in terms of 10 lessons. These lessons are drawn from a large literature, which I have reviewed in recent publications that you can easily find or write me about.

(Slide 4) As you all know, disaster occurs in many different forms and millions of children are affected every year. The research on resilience began several decades ago, but there's still a lot of work to be done. *(Slide 5)* I want to focus on resilience. What I mean by resilience is the capacity of a child, in the case we're talking about today, to withstand or recover from significant disturbances or adversities that threaten that child's life or development. Resilience is a very broad term. We could also talk about the resilience of the family or the community or global resilience.

This is important to keep in mind because the resilience of an individual child also depends on the resilience of many other systems. *(Slide 6)* It's important, I think, for us to take into account the lessons learned from resilience science because they can inform not only our understanding of how children are affected, who's vulnerable, who is not, what makes a difference, what we can do. This kind of data can help us plan and prepare more effectively to

consider the needs of children in planning, to prepare through training such as through a webinar like the one we're participating in, and also to build systems that support child recovery in the aftermath of disaster.

(Slide 7) The first lesson I want to begin with is the lesson that dose matters. There's extensive research showing that dose matters in many different ways. The severity of exposure can be measured in some cases by proximity. In an earthquake, for example, the exposure to adversity is often related to how close you are. Same thing with a bombing or a terror attack, there's often worse destruction and worse experiences very close to the epicenter of that event. There are other kinds of severity of exposure. There's emotional proximity. What is the severity of a child's individual loss? How close were they to people that were harmed and hurt by this disaster?

There's also a piling up of experiences. In the case of one disaster situation, disasters often are complicated and they unfold over time with many kinds of adversities happening day after day after day. Sometimes, disasters happen in rapid successions. There may be one hurricane followed quickly by another. Whenever you have this kind of piling up of exposure, you often see more symptoms in children as well as adults. It's important to keep in mind in terms of dose that media counts. So exposure on television, exposure through social media also is a form of dose and does play a role in how children respond; particularly, young children who are exposed to media can show severe symptoms if you add that on top of the reactions of everybody else in the household.

(Slide 8) Just to provide one example, after the 2004 tsunami, there was a lot of research. This was a terrible disaster, as many of you know. (Slide 9) One of the most interesting studies to come out of that experience was by Catani and colleagues. They studied schoolchildren in Sri Lanka. Their work showed that symptoms of posttraumatic stress disorder were worse for children who had multiple exposures, not only to the tsunami, more severe kinds of exposures and loss, but also children who were at the same time experiencing family

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violence or who lived in a warzone. It's important to keep in mind that exposure takes into account all aspects of your life.

(Slide 10) Lesson two is that age matters in multiple ways again. It matters in terms of developmental timing. A child of a different age will have different experiences of the very same kind of disaster. It matters also if you're talking about prenatal exposure to a disaster, which is mediated by the impact on the mother carrying that child. The timing, whether it's first trimester, last trimester, evidence is good that that can matter. The biological effects of different kinds of stress experiences, either prenatal or postnatal depend on how developed the child is; how far along they are in their development.

There's also a lot of research indicating that exposure itself varies by age of children. Older children often have greater exposure for multiple reasons. They're more aware of what's going on. They get out and about more often. They have more friends. They have more access to media, so they often end up having greater exposure than younger children. Older children and younger children also differ in the kind of resources and protective factors that they may have in their life. Older children have usually developed many more coping skills and tools. They also have more capable friends that can help them out. Younger children may not have as many cognitive skills or social context, but they have greater protection often from adults.

There also have been a number of reports showing the differences in the way older and younger children respond to extreme trauma, including disaster. Older children often report or show more posttraumatic stress symptoms. Sometimes that's because of the greater exposure that they have. On the other hand, younger children simply show different kinds of symptoms than older children do. (Slide 11) I've listed a few of those variations in symptoms in these slides. Younger children are more likely to show regression, losing some of their skills of self-control or toileting. They often show more crying and clinginess to caregivers. They're more likely to reenact trauma in their play. Older children and adolescents are more likely, on the other hand, to show risky or reckless behavior, suicidal thoughts and feelings or a kind of

disillusionment and loss of hope in the future. Younger children may not be capable of some of those kinds of behaviors.

(Slide 12) Lesson three I wanted to emphasize is that individual differences also matter. Boys and girls can show different reactions to disaster. Generally, girls are found to express more posttraumatic symptoms than boys are. Sometimes, boys show more aggression and acting out. These are just in general. That's not always the case that you see this kind of gender differences. It's also been observed in a number of studies that the reactions of children will vary by their cognitive skills and understanding of what is going on and also their interpretation of what they're experiencing. Children also vary in their problem-solving skills. That will influence both their reaction and their response and coping to disaster exposure.

The biology of children also varies. There's growing evidence that some children are more biologically sensitive to experiences that they have in their lives. In the case of disaster, this can be bad. They may have a greater impact on them. On the other hand, those very same children may be more sensitive to positive supports and interventions to protect them from disaster.

(Slide 13) There has been a lot of research showing some of these individual dose and gender differences. I just provide one for you here, a meta-analysis that summarizes many of the findings from studies of disaster and acute terror attacks by Furr, et al. that was published in 2010. This is a nice summary of the evidence, particularly focused on posttraumatic stress symptoms showing the higher dose effects, more symptoms in girls, and other symptoms related to the timing, how long it's been since they experienced the disaster and so forth. I would recommend that report to you.

(Slide 14) The fourth lesson is that there are multiple pathways to resilience. This is a graph showing some of the typical pathways that have been studied. In the aftermath of acute trauma, these have been observed both in children and adults. All of the dashed lines represent resilience pathways of different forms. Pathway A is often called the stress resistance pathway.

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This is a pattern of children and adults who show pretty good functioning all the way through even in the aftermath of an acute traumatic experience. Pattern B is the breakdown and recovery pattern. This is a very typical pattern when you have a severe overwhelming disaster or acute traumatic experience. Pattern C is often called the posttraumatic growth pattern. There's a lot of interest in this pattern in research with children. Not too much evidences yet, but it is certainly anecdotally reported. I think we're going to see more and more research on that theme. Patterns D and E are patterns of breakdown after exposure to an overwhelming adversity. So far, recovery has not occurred, but that could occur in the future.

(Slide 15) I also wanted to show you what this looks like if you flip it upside down because a lot of times in the aftermath of disaster, people are measuring symptoms. When you're measuring symptoms — so high here means having a lot of posttraumatic symptoms — this is what these patterns look like. Pattern A there down at the bottom shows a low-reaction stress resistance pattern. Pattern B shows the symptoms emerge and then they fall off. Then Pattern D shows a rise in symptoms after the disaster happens and as yet recovery hasn't followed.

(Slide 16) I want to show you one example of an empirical effort to study these kinds of patterns, recently published, but the data comes from Hurricane Andrew in 1992. Annette La Greca and her colleagues, including Wendy Silverman, reanalyzed this data using modern statistical techniques to show the extracted patterns from the data. All of the data was post hurricane. What they show here are three different patterns that children showed. The line at the bottom represents what they call a resilience pattern. That would be the stress resistance pattern. The middle line is showing recovery. They don't have pre-disaster data here, but their assumption is that these children went up and now, they're coming down, so they call that the recovery pattern. Then you have children who are functioning in the clinical range, but even that group of children, children with chronic symptoms, are showing a little bit of recovery.

What's striking about this data is that the majority of children, as you can see, are showing positive recovery in the aftermath of this acute hurricane experience. *(Slide 17)* What's missing is data on how they were doing before the disaster. This is one of the most challenging things in the field of research on disaster, is having that kind of data of how children were doing beforehand. There's a lot of interest in trying to do routine measures of children so that we have that kind of data in the future.

(Slide 18) The fifth lesson I wanted to share is that resilience is common. I think the La Greca data shows an example of that. There are many other examples in the literature, especially over the long term. Most children will recover in the aftermath of disaster, especially when the basic protective factors in their lives are restored or preserved. I think this is important to keep in mind in the aftermath of disaster because it may be important to give resilience a chance to emerge. I think that's being discussed by researchers like George Bonanno as well.

(Slide 19) Lesson six is that resilience can be promoted. There's a lot of evidence that we can do something to support resilience after trauma and disaster experiences. There are a number of different ways to intervene. Many of you are involved in these interventions. We can meet the basic needs of children and their families for everything from clean water, food, and medical care to safety and security. For children, it's particularly important to ensure the presence of caregivers and other attachment figures to provide the care and emotional security of family and the secure base that these caregivers provide. That means keeping families together or reuniting them quickly when that's not possible.

We need to think about supporting family resilience. How well a family is doing makes a great deal of difference to how well children are going to be doing because resilience in a family supports the resilience of their children. Helping families restore function, routine, hope, and faith, whatever that family needs to function well has a spillover effect for their children. It's important to restore normal routines and practices in families but also in the community, particularly in terms of childcare systems and school which play an important role for children.

It's also important to restore opportunities to play and be a child in other ways and to restore for families and children the kinds of cultural and religious practices that may be important in their life.

(Slide 20) There are three basic strategies you can think about in terms of intervention that come out of a resilience framework. One is to reduce exposure and mitigate risk. We can do that often through training and safety drills. For example, parents can learn how to be aware of and monitor media exposure, particularly in their young children. Similarly, preschool teachers and care providers for young children can learn about that. We can also boost resources. A lot of interventions in preparing for disaster take this form, making sure that survival needs are available, that our ambulance equipment is equipped for children, that we have emergency kits and safe rooms, and so forth.

Then one of the most powerful strategies for children is to restore, enhance, or mobilize the big protective systems that make a difference for children. Those would include supporting, as I said before, family resilience and also the resilience of other adults that are important in the lives of children. We need to plan ahead in order to restore those opportunities for school and for play. I think it's important to consider how we can engage older children and youth in meaningful and manageable roles in recovery both preparing for disaster and in the recovery process itself.

(Slide 21) Lesson seven is to keep in mind that the recovery context matters. All of these I've mentioned in a way or another, but the quality of family function, the quality of emergency response and services, how well the community is doing makes a difference to children. Restoring normal routines of family and community or creating a new normal when that's not possible is an important aspect in a child's recovery. And at the same time, of course, if the recovery is disturbed because there may be a new disaster that happens on top of one that's already happening that can interfere with recovery.

(Slide 22) Lesson eight is just to underscore that schools and community matter. They matter before disaster in terms of getting prepared. It's also important to keep in mind that in communities and schools that are very vulnerable, that are already suffering from the effects of poverty or war, that leaves children and their families in a very vulnerable position if a disaster occurs. We need to make sure that we do not have such vulnerable regions and communities and children. The recovery environment — I've underscored multiple times — is very important for children.

(Slide 23) Lesson nine I wanted to share is that there's a lot more to learn. There are exciting new horizons in the research on resilience. There's a lot of research on the neurobiology of trauma and resilience in the aftermath of many kinds of experiences including disaster. More work is underway on developmental timing, on the epigenetics of trauma and resilience, on how the effects of trauma are transmitted across generations, both through epigenetic processes and also through learning that's passed on in families or from adult to child and child to adult. There's a lot of research going on trying to understand the ways in which community, family, and individual child resilience are interconnected from a cellular level all the way up to society. A lot of work is being done to try to understand the cultural protective processes in the lives of children. Different cultures have developed different ways of responding to disaster that are now the subject of great interest and study worldwide. A lot of those cultural protective rituals and practices developed in a particular environment where there may be repeated kinds of disasters and we need to learn from their experiences.

I also want to underscore that we have a lot more work to do in the area of intervention research. Given how many children are exposed to disasters around the world, we do not have nearly as much research on what to do and what to avoid in order to promote resilience in children in the context of disaster. We don't know enough. We don't have enough solid research about what works best for whom and when. What is the best timing for different kinds of interventions that are possible?

Here's one example of an interesting and important kind of research that we're starting to see. This example I wanted to share comes from the Sichuan earthquake, which was this terrible disaster in 2008, where a huge earthquake left millions of people homeless. Many children died. Many families were devastated by this experience.

(Slide 24) There is a very interesting study that was done measuring stress in this region of China after the earthquake. They sampled hair because hair collects cortisol, which is a stress hormone as it grows. If you trim hair, you can measure cortisol in the hair going backwards in time.

They sampled hair in Chinese girls after this earthquake occurred. They were able to cut little pieces of the hair further and further away from the scalp to measure the stress that each girl was experiencing based on the cortisol in their hair samples. They were able to show these different patterns of response to the earthquake that vary as a function of how close the girls were to the worst exposure zone with bigger responses close to the earthquake and also with different responses depending on whether the girls developed posttraumatic symptoms or not. This is an example of the new kind of research on the neurobiology of resilience.

(Slide 25) I'll just close with this final lesson that comes from all the research that's been done and is now underway on resilience. That we need to keep in mind always that the resilience of children depends on the resilience of families and many other systems, including the systems that many of you are involved in to try to respond to disaster and facilitate the well-being of children in those situations. Thank you all. I look forward to our discussion subsequently. *(Slide 26)*

Jeannie Moran: Thank you so much, Dr. Masten. Next, we have Dr. Peek who will be presenting on a topic of child-led activities and how to set up or promote youth-led activities in the community, especially after disaster. Dr. Peek, the floor is yours.

Dr. Lori Peek: *(Slide 27)* Okay, thank you. I hope everyone can hear me. Hello from Fort Collins, Colorado. I just first wanted to say thank you so much to our organizers and the hosts at FEMA and their collaborators who helped make all of this happen today and to make sure the technology is working. I also wanted to just thank Ann for that amazing presentation. Also, I'm very much looking forward to hearing Jessy's presentation that follows. Thanks to all of you who have joined in for this conversation.

Today, what I'm going to do is to sort of take us to the other side of resilience. Dr. Masten has just given an incredible overview of what we know and key lessons that we've learned in the resilience space. As you might imagine in the vulnerability space, some of the research is, quote-unquote, the opposite of what you just heard. So I'm going to walk you through that relatively quickly, and then speak more directly about some ongoing projects that I am fortunate to work on with collaborators here at Colorado State University and wanted to acknowledge that several of my graduate students and undergraduate students are on the line and collaborators from elsewhere. We'll refer to them as we move through some of the projects here today.

(Slide 28) So first, just to put this in much, much broader context when we think about children in disasters, I think it's important to think about where are the children, how many children are currently living in harm's way? So around the world today, there are about 2.2 billion children, and *(Slide 29)* this represents fully one-third of the global population. *(Slide 30)* And as one might imagine, children are not evenly distributed throughout the globe. Some nations have much higher percentages of their populations are made up of children ages 18 and under. So when you look at this map that I've just put on the screen, one of the things that you can see is the countries that are lighter in terms of their shading have much younger median ages of their overall national population.

(Slide 31) Some important things to really draw out here is when you look at the United States, for example, only about 20 percent of our child population under the age of 14 or about

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one-fifth of our population is under the age of 15 or 14. In Japan and Germany, they have even smaller percentages of their population under the age of 14. And then you can compare that to countries in Africa, as well as Afghanistan that have much, much higher percentages of their populations composed of young children and early adolescents. We can also note that those are obviously some of the countries in the world that are being most affected by extreme events, by economic inequalities, and by other major public health and social challenges.

(Slide 32) Another important contextual piece to keep in mind as we think about these children across the globe, one thing that I know I spend a lot of time thinking about, as do my collaborators, is this question of what does it mean to be a child in the 21st century? What does it mean to be born into a context where truly the only environmental context that you may have in your life experience is one of extreme drought and water insecurity? *(Slide 33)* An environmental context of increasing heat and wild fires? *(Slide 34)* An environmental context that has been shaped by more intense and larger scale hurricanes and other flooding events, *(Slide 35)* as well as a context that has been marked by sea-level rise and by all predictions will be marked by more dramatic sea-level rise over the years and decades to come?

(Slide 36) And when we look at global disaster trends, we know that children of today are living *(Slide 37) i*n a world of increasing disaster, and this is a part of their daily experience, and these are predominantly weather-related disasters that are on the rise. *(Slide 38)* And just some general statistics about this context in which children are living today: we know that today's average we have about 400 to 500 so-called natural disasters every single year. About 270 million people across the globe, it's estimated, are directly affected by disasters every year, and some 175 million of those are children according to Save the Children. There have been some 3 million disaster deaths over the past several decades, and an average of about 80 billion per year in economic damages. Although, this of course varies greatly, especially when we have major large-scale events that cause dramatic economic losses.

(Slide 39) So this next graphic just shows what's been happening in terms of dollar losses in the United States. Of course in the U.S. and in other highly developed countries, we have been quite successful at lowering death rates and injury rates to large-scale disaster events, but we have seen a subsequent rise in economic losses from these events. *(Slide 40)* And similar to the global data that we also just looked at, we know that many of these losses are being driven by so-called weather or climate-related disasters.

(Slide 41) So one of the things that I often look at, as do my collaborators, so just as Dr. Masten walked us through the 10 lessons of resilience, one of the things that as social scientists we're often trying to understand is this question of the vulnerability puzzle, so to speak. So if it is true that children are indeed among the most vulnerable to disaster events, which is something that is often said, but as Dr. Masten has already emphasized for us today, we always have to be asking which children and in which context, and how does that matter based on individual differences as well as demographic characteristics? Are they girls or boys? What age groups are the children in, and so forth?

But overall, when we think about the vulnerability of children from a social science perspective, we're oftentimes not just trying to understand - just as Dr. Masten underscored - the individual characteristics of the child. We're also trying to always understand the child in context. *(Slide 42)* So we're thinking about, again, what is the hazards environment in which the child lives, and what hazard is the child potentially subject to on a daily basis? *(Slide 43)* Also, trying to understand, how many children are in harm's way and where are children concentrated across this globe? *(Slide 44)* Also, trying to understand things like how rising income inequalities as well as wealth inequalities are impacting children both within our nation as well as globally.

(Slide 45) Other things that we oftentimes look at are things like infrastructure development and where do we have a lot of children who are situated in highly hazardous contexts? *(Slide 46)* Also, how infrastructure decay and other sorts of build environment issues,

how they are affecting children's lives? *(Slide 47)* And then also asking things about the larger

social and political, as well as familial context in which children are embedded. At the end of the

day, we know that the children who unfortunately have the most puzzle pieces on their board

are often the ones who are the most vulnerable. Alice Fothergill and I, we use the concept of

cumulative vulnerability to really talk about how vulnerability can essentially snowball before,

during, and after an event. That ultimately can lead some children to be exceptionally at risk to

both the short- and long-term effects of disaster.

(Slide 48) So for my remaining time today, I'm going to share with you about some

ongoing projects that I am working on. And one thing that I really want to emphasize at the

outset of this is every single one of these projects is highly, highly collaborative in nature and

involves many, many people. I will do my best to try to recognize them as I move through these

next slides. But I just want to give a sense of how is it that you might go about actually directly

studying children and youth who have experienced the disaster, how might we work more

effectively with children and youth in order to engage them in their own preparedness and their

own recovery after events?

(Slide 49) So to start with this, as you're listening to the different research projects, I

have a few that I'm going to share with you. I hope you will think about a few things. As we're

actually conducting research with children and youth in disaster context, thinking about the

timing of the research. So at what moment in the disaster lifecycle are we actually moving in

and engaging with children and youth in the research process? Also thinking about whether

children and youth are directly involved in the research and/or intervention or if we're working

with adults and others who are tasked with caring for children and youth. So keeping that in

mind as we move across this, and also keeping in mind different age ranges of children and

different approaches to working with children in the disaster lifecycle.

(Slide 50) The first study that I'm going to share with you briefly, and I hope during the

Q&A, our FEMA representatives promised us that the audience for these webinars is always a

highly engaged audience and oftentimes ask a lot of questions. So I think I speak for the three

presenters when I say we're hoping that you all really chime in and give us a lot more good

things to talk about as a group.

So a brief overview. One of our projects that we have going here at Colorado State

University, which was funded by FEMA Region VIII, the Preparedness Directorate, is on

childcare centers, home-based providers, and disaster preparedness in the state of Colorado.

In this study, which we believe is the first ever statewide study of childcare providers and

disaster preparedness, we were really trying to understand more about the hazards risk that

childcare providers have experiences and/or are aware of and also what they're doing to

prepare for extreme events.

(Slide 51) So in order to carry out this study, we began by working on a report called

Childcare and Natural Hazards in the State of Colorado. *(Slide 52)* In order to complete that

report - Dr. Andy Prelog who was my graduate student at the time and now is a professor, as

well as Sara Gill who was a lead graduate student on this project - worked together with a larger

team to do several things. So, the map that is in front of you, we used SHELDUS data from the

University of South Carolina. We looked at hazards events data and losses, property losses,

crop losses, deaths and injuries from 1960 to 2010 for every county of the 64 counties in the

state of Colorado. And we mapped hazards losses, and we mapped a number of hazards

events and so forth.

And in this report, we have a series of maps and interpretative text where we look at

losses over a long period of time in our state. The darker shaded counties in this map that is in

front of you experienced more hazards losses. And then what we did was we overlaid the map

with the location of the 4,613 licensed childcare centers as well as home-based care providers

in the state of Colorado. And it's worth pausing for a moment to say, again, these are licensed

providers which we know represent only about half of all providers in this state, but these are

the licensed providers and we overlaid that. *(Slide 53)* And then in this report, we went through

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county by county and we used census data and other data sources to essentially characterize

the zero-to-five child population in each county and then to compare that at the county level with

historical hazards losses.

That was the first stage in this FEMA-funded project because we wanted to have a

better sense of hazards context and also context of the childcare providers who are responsible

on a day-to-day basis for about 168,000 of the youngest children in our state of Colorado.

(Slide 54) Once we completed that report, then we began working on developing a survey

instrument that we wanted to send out to all of the licensed childcare providers in the state of

Colorado. Thanks to our partners at the state, we ended up with e-mail addresses for all of

those licensed providers.

(Slide 55) And in order to develop our survey, we used the Ready, Willing, and Able

theoretical framework for this, which was developed by researchers at Johns Hopkins University

and their collaborators. We really agreed with their approach to preparedness which is that

preparedness is a complicated and multifaceted construct that in order to understand whether

an individual or family or institution is truly prepared for disaster that you have to understand

whether they're ready or, quote-unquote, poised to respond in terms of the infrastructure and

systems necessary. Whether they're willing in terms of being, quote-unquote, favorably inclined

or disposed of mind to respond to a disaster. And then finally, whether they're actually able to

respond because we know sometimes providers could potentially be ready and willing but they

may not have the knowledge or the skills or the capabilities to actually effectively respond.

So we used this framework and developed a set of questions that were specific to

childcare providers. *(Slide 56)* We ultimately ended up receiving survey responses from 735

childcare providers in the state of Colorado, which represented about 85 percent of all providers

in our state. And we really have been looking at levels of preparedness among those providers

and the complexity of what it means to be prepared. So on the one hand, the good news, we

found out that over 93 percent of providers in this state do have a preparedness plan. But of

those, only 35 percent actually have all-hazards plans. So most of the plans that childcare

providers currently have are mostly focused on building fires, for example, and not

comprehensive all-hazards plans.

We also found out that of our respondents, 83 percent of providers said they have

absolutely no budget for disaster preparedness activities. So we found a lot of mixed results -

good news and bad news - in this survey. Sara Gill is going to be analyzing this and looking at

differences between the home-based providers and the center-based providers for her thesis,

which she is going to be completing soon.

(Slide 57) A second project that I worked on with a couple of students here, actually,

Krista Richardson who is an undergraduate honor student, Megan Underhill who is a graduate

student, and Jennifer Tobin-Gurley who is on the line and one of my first ever master's students.

(Slide 58) After Katrina displaced approximately 1.2 million persons from the United States' Gulf

Coast, we ended up beginning a series of studies of families with children who were displaced

to the state of Colorado. We had somewhere between 12,000 and 14,000 disaster survivors

who ended up in the state of Colorado after Katrina. Many thousands of them ultimately settled

here in the state. So our work really looked to try to understand the adjustment processes, what

helped to facilitate the resettlement of especially low-income African-American families who

landed in a context in Colorado that was dramatically different from the preexisting context?

Jennifer Tobin-Gurley wrote a really masterful thesis using that data where she looked at single

mothers in particular and how their resettlement processes worked in the state.

(Slide 59) Another major Katrina study that I just completed along with Dr. Alice

Fothergill, who is at the University of Vermont, and we have a book. You can see the picture of

the cover that's going to be coming out this summer. It's called *Children of Katrina*. Alice and I

in that work, we ended up focusing on a sample of children who all lived in New Orleans at the

time of Katrina. Some of them evacuated before the storm, some of them did not. And we

followed a sample of children for seven years after that disaster. And *Children of Katrina* is an ethnic graphic exploration of a sample of children's lives.

(Slide 60) In that book, we present three different recovery trajectories; the declining trajectory, the finding equilibrium trajectory, and a fluctuating trajectory. We were most interested in trying to understand recovery really as a long-term process. Our big question that we were trying to answer was really related to the social forces and factors in these children's lives, so exactly the kinds of things that Dr. Masten was referring to at the end of her talk. We were trying to understand not just things about the individual characteristics of the children that survived Katrina but also trying to really understand the children as embedded in context since. So what about their families; what about the school systems where they landed; what about the geographic context where they were displaced and were returned to after the storm; what about the adults as well as peers in these children's lives, how did these various forces and factors either facilitate or hinder the recovery process for these children?

(Slide 61) Another project that I am involved in as an investigator is the Women and Their Children's Health project. This is led by Dr. Ed Peters and by Dr. Ed Trapido at Louisiana State University, and Dr. David Abramson at New York University, who's leading up the child impact portion of this study. It's a five-year study that is really trying to look at the potential long-term health effects of the BP oil spill on children's physical health as well as their emotional health. So really reminding us of how technological disasters, what role they can play in children's lives and especially children who have been living at extreme risk in coastal communities.

(Slide 62) Another project - also led by Dr. David Abramson at New York University and by Dr. Donna Van Alst, and Patricia Findley at Rutgers University, as well as collaborators including Dr. Jaishree Beedasy at the National Center for Disaster Preparedness - is the Sandy Child and Family Health Study, which consists of a series of reports. We've been working as a team in nine of the hardest hit counties in the state of New Jersey following Hurricane Sandy to

try to understand the recovery processes where a random sample of a thousand households representing approximately a million residents in that area. Dr. David Abramson is again the lead on this, and we just completed a draft of two major reports, which will be released hopefully in the coming months and two more reports will be following on how place and other factors have affected recovery.

(Slide 63) So, as you can hear in that overview of those projects, they again look at children of different ages and in many different contexts and in many different places along the disaster lifecycle. Many of those studies really are about trying to understand how the experiences in the immediate time of disaster, how those may pile up and create vulnerability in children's lives. (Slide 64) So some of the key things that have come out of this work isn't just one. First and foremost, we know that when children are not adequately protected, when they do not have the resilient systems and support networks in their lives that Dr. Masten described, that we know that disasters, one, can exert enduring impacts on children and youth, both in terms of their emotional or mental health, but also in terms of their physical health and their educational outcome.

(Slide 65) A second big finding of that work is that, again, there are things that have been done and can be done to protect and support children and youth. Children's health and well-being indeed is contingent on the functioning of various support systems within their lives ranging from their families, to their peers, to their neighborhood context, to their teachers and their schooling context. So these support systems matter and they matter a lot.

(Slide 66) Now, a third point that is going to lead me into the final couple of projects that I'm going to talk about, and then I'm going to wrap up quickly, is that one of the things that I know I have heard from children and youth in various disaster affected communities across the United States as well as in international context is that children and youth do want to be actively engaged in their own as well as others' recovery. Sometimes some of the children and youth that we have interviewed in disaster affected communities have actually outright said that the

only reason they would actually be a part of our project or otherwise participate is if they knew that what they were getting ready to share or do would help other children and youth.

That has really led me as a researcher, as well as I know many of the people who I am fortunate enough to work with very much share this view that we have very much a responsibility to take these findings from the various research studies and to take them to the street, so to speak, and to do what we can to act on these calls from the children and youth in disaster affected communities.

And to end, a brief summary of two projects that are trying to do just that, to open up a space, to engage children and youth in their own disaster recovery. *(Slide 67)* So the first is a project called Youth Creating Disaster Recovery and Resilience, and this is funded by the Social Sciences and Humanities Research Council of Canada. It is an active cross-border collaboration between Dr. Robin Cox and her team at Royal Road University in British Columbia in Canada and our team at Colorado State University, really led by Jennifer Tobin-Gurley as the lead graduate student on this project, as well as Shawna Cosby, Kylie Pybus, Jamica Zion and several others at CSU who've been working on this. We've been working in multiple sites as that map shows that have been affected by disasters, including flooding, wildfires, tornadoes, and other major events.

The goal of Youth Creating Disaster Recovery and Resilience really is to open up a space to allow children and youth, especially here we've been targeting more directly adolescents, teens, and young adults to try to offer a forum for them to share their stories of disaster recovery. I hope that everybody on the line might take a chance to visit this website, www.ycdr.org, which Jennifer and Robin and the rest of the team have been working tirelessly on to allow an opportunity for young people to log in and to share their stories of disaster recovery. *(Slide 68)* We've collected photo stories, video stories, interview narratives, poetry, music, and a number of other creative output from children and youth in these different disaster

affected communities through a series of participatory workshops that our team has run with children and youth.

Now that we've actively launched the website, our hope is that ycdr.org can actually as our project funding ends and hence probably our capacity to travel about the communities as much, we hope that we're going to *(Slide 69)* have this online space where young people can log in and share their stories of disaster recovery.

(Slide 70) And then the final project that I wanted to share some about today, which right before I logged on to this call, I was on a wonderful call with the team for SHOREline. SHOREline is a disaster recovery and youth empowerment project that I've been fortunate to co-found and co-lead with Dr. David Abramson at NYU and with the able assistance of many others who will be mentioned briefly.

(Slide 71) SHOREline stands for Skills, Hope, Opportunity, Recovery and Engagement. And these are the five of the core things that as Dr. Abramson and I have worked in various communities along the Gulf Coast after Katrina and after the BP oil spill, we heard time and time again from both the youth as well as from the adults in those communities, communities that have been perhaps hit by more disasters than any other communities in the United States. That we heard time and time again that these are the things that the children and youth of the Gulf Coast who are living in some of the most rapidly changing environments in the United States, both their natural environments are changing but also their economic and social environment. *(Slide 72)* And we heard that they needed these different things, so we came together as a team, the team at NYU, at Columbia University led by Jaishree Beedasy, our Gulf Coast field team led by Amber Goff and Jyaphia Rodgers at the Children's Health Fund, as well as our team at Colorado State University to work together to build SHOREline.

(Slide 73) During year one of SHOREline, we worked at five focal high schools, which were five high schools that are in five communities that our quantitative research had identified as communities that had been hit particularly hard by the BP oil spill. So we began at Grand

Isle, South LaFourche and New Orleans East and Louisiana, at Gulfport in Mississippi, and at Bryant High School in Alabama. This year, we've expanded to Thibodaux High School in Louisiana and also to the Urban Assembly School for Emergency Management in New York City, *(Slide 74)* and began working with high schoolers in these schools to try to establish a project-based learning approach to engaging children and youth - in this case high schoolers - *(Slide 75)* in identifying problems in their communities, and *(Slide 76)* then actively engaging them through this project-based learning approach to come up with their own solutions to the problems that they have identified around them, *(Slide 77)* in their families and their communities and elsewhere.

SHOREline, we have developed with the assistance of a wonderful high school teacher in Long Island, New York. We have developed a curriculum for SHOREline. The SHOREline year kicks off with a kick-off summit where the SHOREliners from the different high schools are brought together, are introduced to the ideas of project-based learning, teamwork, leadership, and disaster research in general, and they're given an idea for the entire year. *(Slide 78)* And then they work with teacher sponsors and others throughout the year to move through the SHOREline curriculum, *(Slide 79)* so they can learn about disasters, *(Slide 80)* learn about themselves, *(Slide 81)* learn about their communities, and ultimately learn how to build solutions to the *(Slide 82)* problems that are facing their communities *(Slide 83)* and families.

In a couple of weeks, we're going to have our Capstone Summit *(Slide 84)* where we bring all of the SHOREline chapters back together. This year, we'll be at the University of New Orleans. The SHOREliners have a chance to share all of their projects that they've been working on throughout the year in order to try to mitigate some of the challenges and risks that they are facing in their communities. *(Slide 85)* With that, I know that my time is up and so thank you, everyone, for listening. Thank you again for having me on the panel. I'm very much looking for your questions and to hearing Jessy.

Jeannie Moran: Great. Thank you so much, Dr. Peek. That was awesome. *(Slide 86)* Finally, we have a presentation from Ms. Burton, Jessy as we've been referring to her about planning for those who can't plan for themselves, how childcare providers and parents, especially those with very young children can plan for disasters. Jessy, the floor is yours.

Jessy Burton: Great. Thanks so much, Jeannie. I just have to say if you're on the East Coast like I am, I think 4:00 to 5:30 presentations, sometimes it's a difficult thing to sign up for but I have learned so much from Dr. Masten and Dr. Peek in the last hour. I'm really inspired to see all of the research that's continuing to go on and a compiling of the information that's really been put together in an easy-to-digest way around children's resilience, vulnerability, disaster recovery, and preparedness.

I just want to say thanks to both of you as well as the FEMA team. I know the technical assistants that are on the webinar today to help us sort of make sure this goes smoothly. Nothing can be more important than preparing for children, particularly for disaster and crisis situations. I think that the experts on this panel and also those behind the scenes are doing some of the most important work that can be done. I just want to start by saying thank you. Also, thank you for making it the easiest to present third because you've really given a lot of the information.

What I'm going to walk you through in a few very short slides is some of the practical programming that Save the Children does based on the research that Dr. Peek and Dr. Masten have just outlined in addition to this emphasis on understanding the developmental needs of children. All of our child protection, emergency preparedness, response, and recovery work is really rooted in and grounded in the understanding of child development. How do children from age zero to three who don't yet have words to express themselves, how do we know when to identify when those children are being impacted by trauma? How do we make it really user-friendly and tangible for their caregivers, so whether that's a childcare provider, early childhood educator, a parent, or a shelter lead?

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Then, how do we connect with the different systems and networks that are really embedded in our communities to support children and families post disaster, whether that would be folks with emergency management responsibilities or childcare providers? So how do we connect those networks, connect the systems, strengthen the supports for families and parents and caregivers and really help address the needs of children based on all that really great research that was just presented?

I'm going to go really briefly through who Save the Children is if you're not familiar with what we do. There will be more information about that at the end that you can link to. I'm going to talk a little bit about some of the practical implications for the research that's just been discussed and some of the programming Save the Children does around addressing those research needs.

(Slide 87) Save the Children is an international nonprofit organization that works globally in over 120 countries, doing a lot of different things, primarily development work in underdeveloped context, humanitarian crisis, aid, and response in places like Syria, the Philippines, Ukraine, on and on, anywhere there's sort of a crisis situation where children's needs are needed to be addressed. Domestically here in the United States, we primarily focus on early childhood education, so zero to five, in-school, school-age literacy and nutrition programs, and then domestic emergency preparedness, response, and recovery.

Since 2005, Hurricane Katrina is really when Save the Children engaged domestically here in the United States on emergency preparedness, response, recovery specific to children. We found major gaps in reaching out to some of those communities that were impacted heavily by Katrina. We felt as though our international experience blended well to us engaging with the major players and partners, both on the local as well as state and federal levels for meeting some of those gaps for children's needs. Through advocacy, partnerships, and things like our Get Ready, Get Safe initiative and some of our childcare emergency and recovery programming

as well as psychosocial programming, we really try to engage communities to better protect and support children in times of disaster.

(Slide 88) In terms of Save the Children's psychosocial program, as I mentioned earlier, many of our programs are really based and rooted in child development learning and understanding around how children are impacted by trauma, whether they'd be infants or 18-year-olds. Some of the different programs that we use globally as well as here domestically in the United States include Psychological First Aid for Children, which is really a supportive response. It's a basic first aid psychosocial recovery program intended for any audience. Any individual, any layperson can go through a Psychological First Aid for Children training and be better equipped to meet the needs of children right where they're at in the disaster or crisis context.

Something called Child Friendly Spaces where we partner through American Red Cross and other shelter leads to build spaces that are safe and supportive for children so that adults can take time to stand in line for services, take a nap, take a shower, and know that their children are in good hands while they do those things.

Then, finally, the program that I manage, which is called Journey of Hope, which is a psychosocial program intended for children from pre-K through 18 years old as well as their caregivers. It's to help them through a number of different activities like cooperative play, literacy, discussion, art, and physical activities really for that post-disaster context so the recovery phase as well as the preparedness phase. It's a coping skills and development program. I'll go a little bit more in depth about that later in the presentation.

(Slide 89) In terms of the need, so why address the psychosocial and development needs of children? Well, really, no child is without risk to traumatic experiences. I think that Dr. Peek and Dr. Masten really did a great job overviewing children living in high-risk communities, children living in disaster-prone communities, and then children living in crisis zones are all at high risk to traumatic experiences. We know that when a child lives with several risk factors

over an extended period of time or that chronic trauma or traumatic stress, that child can be traumatized and certainly disrupts their healthy development. If we're talking about three-, four-, five-year-old where their brains are still developing, that can have a really long-term negative impact on a child to experience trauma if it's not mitigated with support.

(Slide 90) This is a bit of a case study. When I talk about risk factors, some of the risk factors can be living in a single-parent family. Living with family members where you may move around, if you're an eight-year-old child and you're moving home to home on a frequent basis, participating in a school where there's 80 to 90 percent being reduced lunch rate, high rates of poverty, high rates of community violence and crimes. It's not just for disaster-prone children, but psychosocial knowledge and education, as well as child development knowledge and education is essential for caregivers to best take care of their children.

(Slide 91) This is a quote taken out of the Psychosocial Issues for Children and Adolescents in Disasters put out by the U.S. Department of Health and Human Services. "Childhood is the culture in which individual development occurs." If we can think about a child less in an incubator situation but more in a systems or a network, they're in a web as they're developing. Part of those systems and web, so to speak, really include family but also peers, school, childcare providers, their community, what is their environment like, both at school, both at home, and then in between. (Slide 92) These are all the factors that impact the child's regular development. In times of crisis, really the child's response is going to be highly based on both those factors as well as the response and ability for those networks to respond to the children's needs post-disaster.

We know children have unique needs in disasters, particularly physical, cognitive, and emotional. Children have less of a long-term perspective or view on recovery process, of disaster context. I think Dr. Masten was talking earlier in the presentations around children not really being able to understand in terms of their context. For example, I think recently, we've just remembered the Oklahoma City bombing where there were children all across the United

States at that time wondering if their parents' building would be bombed. It's something that's hard for children to contextualize, so it's important for parents to understand that a child expressing concern about something that may not seem relevant is something that should be addressed.

Children are at a higher risk for long-term mental health consequences based on the time and period and supports they have pre- and post-disaster. They're very dependent on guardians for protection, including clothing, shelter, all of the basics. Then, the social norms of the child may not have been positive prior. Something really important to remember that it's not only a responsibility of the parents but also the community to support children and acknowledge them in some situations post-disaster. The situations for those children may have been poor prior to the disaster, so it's important not to promise children that everything is going to be fine. Also, be on the lookout for child protection needs in the context of emergency recovery and response.

(Slide 93) In terms of children's mental health, these are some risks for exposure to trauma and these are some of the more chronic, long-term, traumatic experiences that I was talking about: difficulty with learning, ongoing behavior problems, impaired relationships, poor social and emotional competencies. Interestingly, these risks and outcomes for children are similar to what can happen for children who are not supported in a post-disaster context. Again, as I've mentioned already, the younger the child, the more vulnerable the brain. Children are really developing their learning, their social, their emotional development skills in those first five years, and those are really the children that are most vulnerable in terms of not being able to express the need for additional support post-disaster.

(Slide 94) In terms of a child's behavior during a disaster, it's really heavily reliant on many factors as you can imagine as a part of that web or system and network. Individually, it really depends on a child's age, their social support, so how strong or weak are their supports. And that has a lot to do with not only the number of support in their lives but the educational

level of those supports. I don't mean sort of master's degree. I mean the adults in the community understanding the importance of emotional recovery and preparedness and the impact and positive impacts that can have on a child long term. Cognitive development, development of attachment so understanding the attachment basics about the healthy attachment process and is that disruptive because of a disaster or crisis event, the long-term impacts that can have on a child's personality and development.

(Slide 95) Particularly for children developing within a negative environment, a disaster can create even further complexity. Again, these are children who have the multicomponent of living in a high-risk community, things like chronic trauma, high crime rate, children who are regularly not supported for one reason or another, community violence, et cetera. On top of that, if you overlay the impacts of a disaster, some of the examples of negative outcomes could be academic performance, disruptions in social interactions. In other words, different age children and different children individually will all respond differently. You can see children pulling away or clinging closer to their friends, siblings, parents, et cetera. Social and cognitive functioning may be impacted and then children at risk for PTSD or emotional disorder issues.

One of the things I'm going to pause really quickly and just highlight — I know that the others highlighted this result — not every child is going to be emotionally devastated by a disaster. Children are generally relatively resilient, particularly children who have previously faced adversity. It's important to acknowledge that not every child is going to go through a crisis situation in the same way. But it's important also to know that there are trainings, programs, education, basic understanding, elements of child development, psychosocial-informed practice that can really help children bounce back quicker, thinking of resilience as a rubber band, right? If a child's resilience level is relatively high because they have positive coping mechanisms, they have positive systems and support, and they know their own internal and external strengths, they're going to bounce back quicker from emergencies and disasters.

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But some will also need deeper intervention services, so it's important not only that we have preparedness and response activities in terms of mental health, but we also have long-term recovery supports for children and referral mechanisms and pathways to ensure children are best taken care of if they do express signs of more intensive need.

(Slide 96) Some of the things that we do through training and technical assistance for our partners on the ground when Save the Children respond to major emergencies and works with our long-term development partners is really reviewing for adults and caregivers the typical reactions of children to traumatic experiences. We want to make sure that we communicate that every child is going to express themselves differently over the course of recovery for a disaster or crisis situation. Some of the things that can be typical for children are those things listed here in this slide. I won't go through all of them because you can read.

It's important that we really equip care providers, adult caregivers of children with the knowledge and understanding that what they're going through, there's no real normal reaction to an abnormal situation. Understanding some typical reactions of their child or the children they're caring for is really empowering for adults. Giving them the knowledge and understanding and the psychoeducation around what they themselves might be going through but also how to support their children best is an incredibly empowering tool. It also really builds in the capacity for that community to respond to the needs of children for the long term. I'm going to wrap up in two minutes because I know we want to leave time for questions.

(Slide 97) Save the Children really focuses on strengthening systems. Whether that's the family system through psychoeducational programming, self-care mechanisms and techniques for adults, education on child development and psychosocial-informed practice. Whether it's strengthening the communities through school-based psychosocial support programming which are our long-term programs that really embed into the system. Psychosocial trauma-informed programming like the Journey of Hope where we're equipping the community to respond to the needs of children well after the disaster is gone. Education on

child protection, development, and referral pathways, so ensuring that children are supported not only through direct programming but also through referral pathways and the importance of having those mechanisms in place for children who may need additional supports even if they're not having a lot of externalizing behaviors.

And then finally, engaging emergency education programming, so trying to develop programming information systems and tools that is user-friendly, that is tangible, and that is easy to digest, both for caregivers, shelter workers, emergency management professionals, anyone on the ground whose responsibility it is to take care of children pre- and post-disaster. We're trying to make sure that our emergency education programming and information is really engaging. Something that's useful that people can pick up, read it, get it, move on, and have the right tools and systems and skills to address children's needs.

Then finally, strengthening systems, Save the Children really prioritizes working through community systems. First 24 hours on the ground, we're trying to identify who are the school-based mental health providers? Who are the childcare resource and referral agencies? Where are the emergency management professionals we can connect with? How do we engage with all of those parties to ensure that children's needs are being covered, identify any gaps that are not being covered and then provide training, education, and networking for any of those gaps to be filled.

(Slide 98) Finally, this is my last little plug. Our Journey of Hope Program is our long-term psychosocial recovery program. That's used in both the pre-disaster preparedness context for coping skills development, building up that resistance level for children in terms of ensuring that their resilience is high even prior to a traumatic experience, as well as a long-term recovery program where we engage through school-based mental health providers, train them in the curriculum. Then, they, for the long term, two-years plus, deliver the program with children and caregivers in the community. Really, it was developed as a response to children looking for normalcy post Hurricane Katrina in 2005.

The program has been running for a little over nine years now. It's a social-emotional learning and coping skills-building program really helping children for their own internal and external support to identify their own strengths, their self-efficacy, their self-esteem, their coping skills, helping them understand what's realistic for them. It's very child-informed. It's very child-led, so children are really identifying for themselves what are their systems and mechanisms within their own sort of web and system for strength, for resilience. It's focused on normalizing emotions, letting children know that it's okay to feel afraid, to feel scared, to feel angry, to feel bullied, and some of those coping and resource mechanisms that they can utilize in responding to those different emotions.

Then, there's adult support role demonstrated by the facilitators of the program. We always utilize mental health professionals to deliver the curriculum with children in small group settings with those mental health trauma-informed trained professionals to ensure that children are in a safe environment and they're well-taken care of. Finally, the Adult Caregiver Program really focuses on self-care, stress management, coping skills, identification, and community support system. So helping adult caregivers of children, whether that's a school social worker, school administrative staff, childcare providers, shelter leads, parents, you name it, anyone whose responsibility it is to take care of children. Our adult caregiver workshop really focuses on strengthening the adult mechanisms to recover and cope so that they can really be at their best for the children in their care.

(Slide 99) With that, any questions or comments can be sent to my email address that I'm sure will be sent out. But also more information on Save the Children and our work in the U.S. or the work globally and then more information on Journey of Hope, those are two links there for that information. With that, I will hand it back over to Jeannie.

Jeannie Moran: Perfect. Thanks so much, Ms. Burton. Thanks again to all of our presenters. You guys have packed a lot of valuable information into each segment for our participants to take back to their communities. *(Slide 100)* I'm sure most of you guys have

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questions, so I just want to give a quick plug for questions. If you have any specific questions for our presenters, we'll get through as many as we can. As you can see, we're running a little low on time. If you haven't yet, please submit your questions through the webinar interface and we'll add them to the queue. As we're collecting those, I'd like to tell you about some of our resources at FEMA very briefly.

We have a Technical Assistance Center here that's here to support you on your youth preparedness endeavors. While you're typing, bear with me as I walk through the Technical Assistance Center for you. Youth preparedness education takes place all over the country in a variety of venues, schools, homes, afterschool programs, religious institutions. I imagine many of you are representing those organizations. Really, anywhere, children are present is where youth preparedness education is happening. At FEMA, we want to encourage these efforts, so we had several resources that are aimed at supporting youth preparedness practitioners like yourself.

Within the TA Center, FEMA has established it and it is available to any of you who are running programs, thinking about starting a program or generally interested in youth preparedness. We have tools and resources available online, as well as technical assistance providers to answer your specific questions about your specific program. *(Slide 101)* You can find information for youth preparedness programs on ready.gov/youth-preparedness. That's the URL for the TA Center so bookmark it, love it, use it. There will be a wide variety of tools and resources on there to help you start a youth preparedness program.

Technical assistance is also available through our direct TA provider that I mentioned before at FEMA-Youth-Preparedness@fema.dhs.gov. We're going to kill your ears with that email address because that's sort of the conduit to the TA Center and where we like to funnel all of our information through.

(Slide 102) Through the TA Center, you can order STEP and Teen CERT materials. STEP and Teen CERT are both youth preparedness curricula. STEP is intended for fourth and

fifth graders while Teen CERT, as you can imagine from the title, is geared towards teens. However, they are by no means the only types of programs you can develop. The Youth Preparedness Catalogue, which is available on the Youth Preparedness TA Center, can direct you to a large number of these curricula and resources. The catalogue lists programs that are operating around the country. You can find programs in your community that you may be able to coordinate with. If you represent a Youth Preparedness Program, here's a plug to register your program within that catalogue.

(Slide 103) We also distribute the monthly *Children & Disasters Newsletter*. In it, you'll find information about tools and resources that relate to youth in disasters. We showcase existing programs and share stories about children using their training in the event of disaster or emergency. There's a link to subscribe to the newsletter on the Youth Preparedness TA Center. With 23,000 subscribers and counting, the newsletter can be a great way to help you spread the word about the work you're doing. We really believe that this is your newsletter, not just ours. We welcome any story ideas, so please feel free to send any suggestions to that direct TA provider at FEMA-Youth-Preparedness@fema.dhs.gov. I think that's the second or third time I used that email address.

(Slide 104) The FEMA Youth Preparedness Council is another component of our youth preparedness initiative. It's comprised of a group of 13- to 17-year-olds who serve as youth preparedness ambassadors to FEMA and their communities. These 15 students hail from all 10 of our FEMA regions and complete their own legacy projects to spread preparedness messages in their community. We select the council members based on their demonstrated interest and involvement in youth preparedness. You can learn all about these council members and the great work that they're doing on ready.gov/youth-preparedness-council, which is connected to the TA Center. We also post council application materials on the website at the beginning of each calendar year, so always look out for the open period around January.

(Slide 105) This webinar, like I said earlier in the introduction, is a part of a nationwide event, America's PrepareAthon! AP is an opportunity for individuals, organizations, and communities to prepare for specific hazards, to build group discussions like this and exercises. There are two National PrepareAthon days per year: one in September and one in April. The Spring National PrepareAthon Day is April 30th. It's not too late to put together your own event if you haven't already or if you'd like to.

When you visit the AP website, which is ready.gov/prepare, you can find resources to help you plan your own preparedness event, register to participate and provide details about the activity you're planning, and participate in discussion forums. Please consider getting involved especially by connecting a preparedness activity with young people. We want as many people as possible to learn and practice what to do during a disaster.

(Slide 106) We'll now devote the remaining time to your questions. Please type your questions into the webinar interface. We'll answer as many as we can as time permits. We'll keep the room open until about 5:40. I'll also mention that if we don't get to your question, what we'll do is we will direct them to each of the presenters after and get you an answer via email. If you have a question also that wasn't answered, send us a quick email to FEMA-Youth-Preparedness@fema.dhs.gov. That's our TA provider. What they'll do is they'll direct the questions to the presenters and get you an answer back. We want to make sure that we're cognizant of your time. With that being said, I think we will open up questions now. Give us a second as we sort of sift through them and we will get this started.

A question that we're getting a lot is whether or not the PowerPoint presentation and the recording will be made available to all those who have joined the webinar today. It will take us a bit of time to make the presentation 508-compliant, which is a government requirement. However, if you'd like the PowerPoint or recording, please send an email to the TA Center, FEMA-Youth-Preparedness@fema.dhs.gov. I promised you guys I was going to say that about

a hundred times. I think I'm getting close to that limit. Please let us know and we'll get it to you as soon as we can make it compliant.

Moderator: It looks like our first question is for Dr. Masten. Although of course, there are usually mental health professionals available during or immediately following disasters and incidents, I wonder how can we frame ongoing mental health access as part of the recovery process from an emergency management perspective. Dr. Masten, I believe you may be on mute.

Dr. Ann Masten: I'm hoping you can all hear me now. This is an interesting question to me because I think it's not just a question that's important for the disaster context but in general. In many places in the United States, we do not have adequate resources for ongoing support to children's mental health. I think that's one of the main reasons we need to build in a more positive perspective, a strength-building approach in everything we do in every context that children experience. That's one step we can take. I think many communities around the United States are struggling with the question even when there's not an acute emergency of how to make more resources available for families who are seeking support. I'm hoping that others might comment on this because this is a major issue throughout the country.

Jessy Burton: Hi, this is Jessy Burton. I agree with you, Dr. Masten. I think it's an issue beyond just disasters and emergencies. For example, if we didn't have emergency management planners in the field day-to-day working on preparedness, response, and recovery plans, updating those on a regular basis, et cetera, which is a best practice and standard nationally, we wouldn't be equipped when disaster strikes. I think much in the same way in some of the rural communities certainly where Save the Children works, as well as urban and others, there's not a great fund of resources for children's emotional well-being and mental health resources on a regular basis. To have an expectation that there's going to be trauma-informed care services and resources available at the ready, even just in terms of the access and availability, let alone the funding issue is pretty unrealistic. I think there's really a gap in

understanding the overall well-being of children and their mental and emotional stability and how that can impact just a regular development and growth.

Then in addition to that, not having systems in place ahead of time, pre-disaster, it's really difficult to staff up or man up those kinds of response and recovery efforts for children's mental health and well-being after a disaster. It's both the funding as well as I think probably community buy-in and awareness issue. In much the same way that children's basic needs in emergencies was an issue 10, 15 years ago, I think work is being done, but it's certainly something that needs more effort in terms of advocacy and awareness.

Moderator: We have a following question for you, Dr. Peek, from someone who works in a small rural community. As we work on disaster preparedness practice for reality, what roles can children take on? We often discuss giving them something to do, especially for school age or older children. Do you have any recommendations for sources for the types of things they can do? Dr. Peek?

Dr. Lori Peek: Hello.

Moderator: Hi, we can hear you now.

Dr. Lori Peek: Good. I'm so sorry. I think I was on mute. I just want to say I agree, following up to the answers to the really excellent question. I absolutely agree. I think one of the bright spots in this area is that, well, even a decade ago, many of the meta-analyses on disaster research that had been done obviously showed that the vast majority of studies were on the immediate response period. They were cross-sectional in terms of only looking at children and adults at one point in time. I think a real bright spot in research is that there have been a mounting number of studies that are looking at longer term recovery trajectories and looking at children and their recovery at multiple points in time. I think as that evidence-based grows, that we're going to have more legs to stand on, so to speak. To advocate for this kind of longer-term intervention in communities that is so needed, as well as, as Jessy just said, really

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needing to figure out how do we get these systems in place before disaster strikes so children aren't so vulnerable when the event actually occurs.

Moderator: All right, thank you. This is going to be our last question because I know we're coming up close on time. Ms. Burton, this next question is for you. Is an online version of the Psychological First Aid for Children course available that can be taken?

Jessy Burton: Excellent question, I love sharing resources. There's actually two versions. There's a global version that was developed by the World Health Organization. Save the Children helps tailor it to specific needs for children post-disaster. That version can be found on the Save the Children website. I can send you the link to that. It's a semi-lengthy one.

The other that's probably easier to google is the Psychological First Aid Resource Guide List through the National Child Traumatic Stress Network, which has a number of really excellent resources focused on children's mental health, well-being, et cetera. But it particularly has an entire stock for administrators, for caregivers, adults of any range in terms of caring for children's mental health needs and well-being. The Psychological First Aid, if you just google National Child Traumatic Stress Network or nctsn.org, the Psychological First Aid materials are all there. There's an English, Spanish, I think Japanese and Chinese version, so it's got the manual. It's not necessarily an online training, but it has all the materials you would need to be better equipped.

The great thing about that training and also the resource in general, as I mentioned, it's such a simple concept in terms of identifying what the child's need is, linking them with services, and then making sure they get connected to those services that really if there were an online version, that would be tremendous. There's just a lot of really great manuals and resources online through the National Child Traumatic Stress Network site. I would look there first. I'm also happy to share the Save the Children version that's a little more globally focused.

Jeannie Moran: Great. Thanks so much, Jessy. If any of you still have questions or comments, the Youth Preparedness Technical Assistance Center is available to answer any

questions you might have. We keep plugging it, but what we did is we wrote it in the chat

function. If you see on your screen, there's a section for chat, ICPD@admin [sounds like], type

in the email address. It's FEMA-Youth-Preparedness@fema.dhs.gov. We'll leave this screen

up for you so that you can scribble that down for any additional questions that you have. Thank

you so much for attending this webinar. I'd like to extend another big thank you to today's

presenters. Have a great rest of your day.

[End of transcript]