Nadine Burke-Harris: ACEs stands for Adverse Childhood Experiences, and that comes from a seminal study that was done in this field by Dr. Vince Felitti and Dr. Robert Anda. These experiences include physical, emotional, or sexual abuse; physical or emotional neglect; parent with mental illness, substance dependence or who have been incarcerated; domestic violence or parental separation or divorce. They found there was a dose response relationship between early adversity and numerous health and behavioral outcomes. What was really an eye-opener for the medical community was that if you had four or more adverse childhood experiences, your risk of chronic obstructive pulmonary disease was 260 percent as compared to someone with an ACE score of zero. For hepatitis, it was 250 percent.

Donna O'Malley: Toxic stress happens when you have repeated or very serious exposures to family violence, community violence, adversity, extreme poverty, lack of resources. What really makes it toxic is if that's happening in the absence of a caring adult or someone that you can trust.

Brijin Gardner: Early experiences organize the brain, and the early experiences that many of our children have are traumatic. They've living in poverty every day. They're hungry, they're neglected, they're abused. So, their risk factors are enormous.

Nadine: Imagine you're walking in a forest and you see a bear, right? And immediately your body releases a surge of adrenaline and you have what's called a fight or flight response, and that is wonderful if you're in a forest and there's a bear, but the problem is what happens when the bear comes home drunk from the bar. This fight or flight system which is supposed to be a once in a very long time life-saving response is activated over and over and over again.

And so it goes from being life-saving to health-damaging. If a child has a high ACEs score, they're much more likely to have difficulties with impulse control. They're much more likely to struggle in school. They're much more likely to engage in high-risk behaviors when they enter their teenage years.

Brijin: The higher the risk factors, the more likely these children are to not be successful.

Donna: We have a lot of mothers, young mothers, who they themselves have experienced toxic stress from many exposures in their lives where their trauma has never been treated and now they're trying to parent.

Denise: Pediatrics, pediatric care is at least a two-generation process. The most important vital sign that you can assess as a physician is the vital sign of the relationship between the parent and the child.

Kiera: I didn't have a good childhood. When I was six, my mama's boyfriend killed my little sister in front of me.

Khatea: My biological mother had every addiction that you could think of known to mankind.

Christina: There was no parenting in the house at all. There was no house at all.

Kiera: She never spent any one-on-one time with me or -- never.
Christina: I indulged in her addiction with her. I was no longer her child. I was just there.

Denise: The first thing you can do is to recognize it. And currently medical practice in general does not include asking about ACES.

Nadine: Now that we understand adverse childhood experiences and toxic stress as a public health crisis, we know that early intervention makes a difference.

Denise: Domestic violence, that's one of the ACES. The domestic violence network in our country is very, very large. There's even a 1-800 national number you can call to find out where your resources are. You as a pediatrician or a doctor in an office don't even think that that is a person you can partner with, that that agency is something that you can partner with. And they're there and they're waiting.

Jim Caccamo: Head Start offers a really high-quality early learning program for the children, but more importantly, it's a comprehensive program. It's a program that addresses health needs, dental needs, mental health needs. Very, very supportive of parents. We do a great amount of work with parents to help them learn skills that really will benefit them lifelong.

Amy Reames: We have an arc program that we use that is for -- it's our Head Start-Trauma Smart program, so it's basically on how to help children that go through a lot of trauma. We try to take the approach from the whole child, which includes the family. That's why we have an interdisciplinary team that we work with, so it includes the teachers and the education coordinator, but also we have a therapy department, we have our Children’s Mercy Clinic, and we have the family advocates here. We really try to work as closely as we can with the families because we know we can't do it without them.

Brijin: The earlier we can get in and provide specific interventions that are targeted to the places in the brain that need to be activated when the trauma occurred, the further back we go, we can activate those early spots. We can flip the switches.

Nadine: Social-emotional buffering, being in a caring relationship, having adults in your life who are able to self-regulate and who are able to model self-regulation helps children to be aware of when that is not happening. And sometimes all you need is that one, all you need is that one to establish a baseline from which you're able to recognize: Wait, this is not right.

Kiera: When I was growing up, my mom was not in my life, so my teachers were like my mama.

Christina: My support system was just amazing, these people. Sometimes, when I don't think I can make it, they know I'm going to make it.

Khatea: We don't have enough people willing to speak up and to speak out. And so, if my story can inspire change, motivate, whatever, just one other person, then it doesn't have to be in vain.
Jim Caccamo: When you see an issue and can make it better, you ought to because it will be with that child forever.

Brijin: We see that the brain can change. It's not you're traumatized and you're traumatized forever. We know we can make change, and we have modalities and evidence-based practices that can do that, and that's hopeful. But we know it, so let's do it.

Donna: The science about related to brain architecture, the Adverse Childhood Experiences study is now out there in the popular press. When I think about the importance of pediatricians and pediatric nurses knowing about this work, I think it's one of the most important things they need to know right now. I think it is as important as giving kids immunizations.

Nadine: In 1983, the mean mortality from HIV, so the mean time from diagnosis to death was six months. That meant that at time of diagnosis, 50 percent of people were dead within six months. Today, on standard antiretroviral therapy, 30 years later, the life expectancy is 50 years after diagnosis. That is what my hope is for adverse childhood experiences and toxic stress. People will say, "Wow, this guy was abused and neglected. Why didn't they do Intervention A? Why didn't they do Protocol 143B? Why didn't this person get all of the treatments that we know are effective to have prevented the situation?" And it's an anomaly.

Denise: As one mom said to me, "You know something, I can't give away what I never received." And so, you're giving them that.

Nadine: And I believe that we in the United States, with the financial, technological, and intellectual resources that we have can and will get there.

Kiera: I go to the counseling, you know, for me because a lot of things with my childhood still affect me now that I'm an adult sometimes I feel like may affect my relationship with my kids.

Christina: I never thought in a million years that I would be anything but a junkie. There was no light at all. I thought that was my destiny, to get high and living that life and prostitute. And today what I'm proudest of is because I know that I'm way more than that, way more than that.