



# STARTING EARLY: THE LONG REACH OF CHILDHOOD TRAUMA

BY ARIELLE LEVIN BECKER

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Dear Friends and Colleagues:

After reading Arielle Levin Becker's stellar four-part online series - *Starting Early: The Long Reach of Childhood Trauma* - my first reaction was one of gratitude. She successfully and accurately translates a complex topic, layered with decades of research findings and best practices, for readers everywhere.

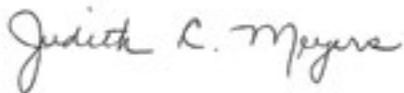
**The series also focuses on what matters most - how early childhood experiences, both good and bad, alter a child's life-long outcomes and affect the health of our collective communities.**

Becker explains why, and illustrates how, exposure to severe adversity early in life leads to a wide range of lifelong physical and emotional consequences. Even more important, she identifies the factors that can protect against these effects, the foremost being a consistent caring and responsive adult. She goes on to describe a range of Connecticut-based preventive interventions and treatments to help families.

My second reaction was the thought that we need to make Becker's work available and accessible to as large an audience as possible. It was just too important to run the risk of it not being seen by those who still rely on print for their information. I approached Becker and her publisher at The CT Mirror, Brett Orzechowski, and asked if we could create a print-friendly format of her series. Much to my delight, they both were enthusiastic about the idea. As a result, we have partnered to produce this version of the report so that it can be printed, copied, shared, mulled over, discussed, and, most important, used to inspire action.

We hope this series informs, enlightens and inspires readers - from parents to community members - to ensure every child in Connecticut experiences a nurturing, loving caregiver from the start.

Regards,

A handwritten signature in cursive script that reads "Judith C. Meyers".

Judith Meyers  
President and CEO  
Children's Fund of CT and  
Child Health and Development Institute of Connecticut



STARTING EARLY:  
**THE LONG REACH OF  
CHILDHOOD TRAUMA**

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## STARTING EARLY: THE PROBLEM

# THE LONG REACH OF CHILDHOOD TRAUMA

*Research has linked exposure to abuse, neglect and other forms of severe adversity in childhood to a wide range of mental and physical diseases and disorders. Can understanding this make a profound change in the way we prevent illness?*



Researchers measured children's brain activity while viewing facial expressions. Children who were abused were more likely to view ambiguous faces as angry. (Courtesy of the Child Emotion Lab at the University of Wisconsin - Madison)

**“We have this incredible proof about the expense that trauma is causing our society and how all of these physical ailments are related. And yet, what do you do to change it? It's not like, ‘Well, eat more broccoli.’ “**

*—Patricia Wilcox, head of the Traumatic Stress Institute at Klingberg Family Centers in New Britain*

The woman had dropped out of the weight-loss study. So he had a frustratingly high number of other patients, most of whom seemed to be succeeding at losing weight before quitting. This confused Vincent J. Felitti, the doctor leading the 1980s study.

So he began interviewing the dropouts, using a series of questions designed to create a timeline of their lives and weight history. The woman's answer to one of them would help set Felitti on a far different course, inspiring decades of work he'd never anticipated.

How much did you weigh when you became sexually active? Felitti asked.

“She said, ‘40 pounds,’ started crying and blurted out, ‘It was with my father,’” he recalled.

In his career as a physician and head of the department of preventive medicine at Kaiser Permanente in California, Felitti had rarely come across a patient with a history of incest. But by the end of 186 interviews, 55 percent of the obesity patients had reported being sexually abused. Worried he'd somehow biased the responses, Felitti asked five other people to interview another 100 patients. Their results were the same.

He was puzzled. Could this be possible?

Felitti's curiosity would eventually lead to a landmark study

that found childhood abuse, household dysfunction and other forms of early life adversity were common – and linked to a greater risk for both mental health problems and physical illnesses, including heart disease and cancer.

It's hardly surprising that abuse and other hardships in childhood can carry substantial consequences. But increasingly, researchers have been trying to understand why. Can early adversity cause disease, and if so, how? Why do some children seem to escape unscathed while others struggle? And can answering those questions point the way to interventions?

Based on a growing body of evidence, researchers now say that young children's exposure to severe adversity – like abuse, neglect or violence – represent not just tough circumstances but experiences with the potential to carry lasting mental and physical consequences, potentially influencing development of parts of the brain involved in learning and memory, and the way the body responds to stress.

It's not deterministic. Many people withstand serious adversity without significant consequences, and many who experience trauma recover. Scientists say there are genetic differences in how susceptible children are to the effects of their environments and other factors that contribute to resilience, including the presence of a supportive caregiver who can help buffer the effects of stress. And researchers say that while the brain is most malleable when children are young, it maintains its ability to change through life.

But Felitti and others say the findings point to an opportunity still not widely reflected in health care policy or medical practice. It's a view shared by some of those now leading social service and public health programs in Connecticut.

A key way to target adult diseases, reduce health care costs and address a host of problems throughout life is to start early, focusing not on symptoms of illness but childhood adversity and the factors that can protect against its effects. That includes identifying and treating trauma early, to stem deeper problems from developing.

"It's a real epidemic," said Alice Forrester, executive director of the Clifford Beers Clinic in New Haven. "Adversity, toxic stress, trauma, all of these are really high-cost, high-impact risk factors that drive every human service cost out of control."



After his early interviews with the weight-loss study dropouts, Felitti met with skepticism. An attendee at a 1990 conference told him the reports of abuse were excuses "for failed lives." Then someone from the Centers for Disease Control suggested he see if the findings could be validated in a general population.

The result was the Adverse Childhood Experiences Study<sup>1</sup>, a survey of more than 17,000 Kaiser Permanente patients – a middle class, privately insured group.

Participants answered questions<sup>2</sup> about their health and whether they had experienced one of seven types of adversity in childhood: sexual, emotional and physical abuse; domestic violence; or living in a household with someone who abused drugs or alcohol, had mental illness or went to prison. (The researchers later added physical and emotional neglect, and having divorced or separated parents.) Each person was assigned an "ACE score," based on the number of different categories they experienced

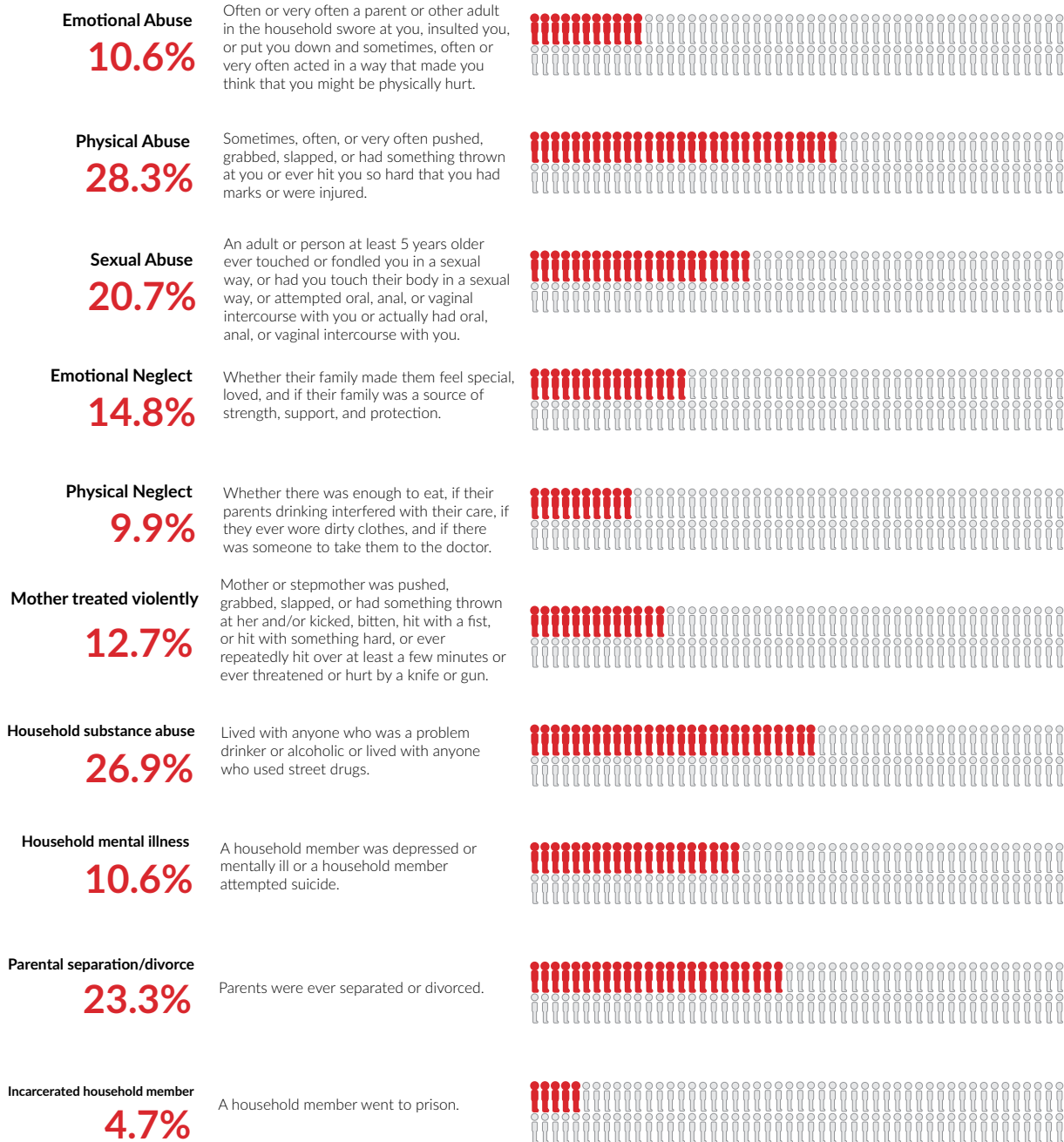
Just under two-thirds of the participants reported at least one type of adverse experience, and 12.5 percent reported experiencing four or more. One in five said they had been sexually abused. Twenty-eight percent reported being physically abused.

And as a person's "ACE score" rose, so did the person's likelihood of abusing drugs or alcohol, being severely obese and having depression or a history of attempting suicide. So did the person's likelihood of having illnesses including cancer, chronic bronchitis, hepatitis and heart disease. The risks were particularly strong for those with four or more ACEs.

Some of the connection is the result of behaviors like

# ACE Study: Childhood adversity is common

The ACE study used patients at Kaiser Permanente's clinics in San Diego, California. About 64 percent of people in the study reported that they experienced at least one of the adverse childhood experiences listed below.



Source: Centers for Disease Control and Prevention — [ACE Study data and statistics](#) ALVIN CHANG/CT MIRROR

smoking, alcoholism and drug use, all of which were more common among people with higher ACE scores. But even after controlling for those sorts of risk factors, researchers found that people with higher ACE scores had a higher likelihood of having conditions including liver<sup>3</sup>, heart<sup>4</sup> and lung<sup>5</sup> disease.

There are limitations to this kind of research. Someone with serious medical or mental health problems might spend more time dwelling on potential early life causes and report them when surveyed.

But other studies<sup>6</sup>, including research that followed



## What is your ACE Score?

Take the quiz on page 14

children into adulthood, have reported<sup>7</sup> similar findings.

One found<sup>8</sup> that children with four or more ACEs were 17 times more likely to have learning or behavior problems than those with no ACEs, and nearly 50 percent more likely to be overweight or obese. Other studies<sup>9</sup> have found problems linked to children's exposure to neighborhood violence<sup>10</sup>.

"In the context of everyday medical practice, we came to recognize that the earliest years of infancy and childhood are not lost but, like a child's footprints in wet cement, are often life-long," wrote Felitti and Robert Anda, an epidemiologist and ACE Study co-author.



Felitti wasn't the first to examine links between stressful experiences and other problems. By the time Seth Pollak began his career more than two decades ago, research had linked child abuse to a host of bad outcomes.

But Pollak, a psychology professor at the University of Wisconsin, wondered why. How come the way you're treated at age 2 would influence the way you play with other children at age 5, your school performance at 10, your risk for substance abuse at 14, or the way you parent your own children? And why would it be related to developing diabetes and heart disease in your 60s?

"How's it getting under the skin? Why is it affecting so many different parts of an individual's life, and why is it cascading over such a long period of development?" Pollak wondered.

He started by looking into things others had taken for granted.

"People kept saying that abused kids tend to be very aggressive, they tend to be quick to anger, they tantrum a lot," he said. Were there corresponding differences in brain physiology?

He designed an experiment in which children looked at pictures of people expressing emotions, while he recorded brain physiology to monitor their attention and memory systems.

It turned out the abused children had high levels of brain activation when they saw angry faces, but not other facial expressions.

Subsequent studies found similar things: Preschoolers who had been abused by their parents were more attuned to anger when overhearing strangers arguing<sup>11</sup>. Children who had been abused were more likely than non-abused peers to interpret an ambiguous face as angry<sup>12</sup>. Children who were neglected had trouble distinguishing emotions.

To Pollak, the findings suggested that the children's brains were adaptive. The children were being hurt by the people who were supposed to protect and nurture them. They had few defenses. But their brains could specialize in detecting a potential threat, learning the cues that signaled an adult's mood had changed.

The problem is, those adaptations come at a cost.

If you see anger in an ambiguous face, what happens when a teacher approaches you with a neutral expression? Or if you're on the playground and misread another kid?

"If you respond as if you're about to be attacked, which makes sense to you, you are going to be labeled as an aggressive child," Pollak said.

There's another problem too: The more you see threats in your environment, the more your brain is likely to set in motion a physiological stress response.

And, researchers believe, stress is one of the key links between early adversity and disease.







Pollak conducted a study in which children looked at prototypes of four different expressions – happiness, fear, anger and sadness – across a morphing spectrum. (Courtesy of the National Academy of Sciences)

The body has a complex set of systems for handling stressors. It's what directs your focus to the oncoming car before a collision and mobilizes your energy to outrun an attacker. It inhibits your immune and growth functions – not needed to fend off the current danger – and raises your heart rate and blood pressure.

And, when the systems are functioning normally, they turn off when the threat is gone.

But if the stress-response systems are activated frequently, or for prolonged periods, it can take a toll on the body, producing what researchers call “wear and tear” – and vulnerability to disease.

Frequent or prolonged activation of the stress-response systems in young children, in the absence of a supportive

adult who can help them cope, can have particularly severe consequences<sup>13</sup>, researchers say. A group of researchers based at Harvard’s Center on the Developing Child dubbed this “toxic stress,” and warn that it has the potential to affect<sup>14</sup> parts of the brain<sup>15</sup> involved in learning, memory<sup>16</sup> and perceiving threats, and to set children’s stress-response systems to become overly reactive or under-responsive to threats.

Research indicates that early experiences, starting prenatally, calibrate the stress-response system<sup>17</sup>, said W. Thomas Boyce, a professor at the University of California, San Francisco School of Medicine, who co-authored one of the first journal articles on toxic stress.

“The newborn is unconsciously sampling the environment

to determine, ‘Just what kind of a world have I been born into?’” Boyce said. “And what is going to maximize my survival and fitness in this world?”

When a child has too many experiences with danger or unpredictable threats, “It’s almost like their brain decides, ‘Well, this is a dangerous world, I’m going to stay on alert,’” said Patricia Wilcox, who leads the Traumatic Stress Institute at Klingberg Family Centers in New Britain. “And they get stuck in that danger activation mode.”

It’s hard to learn when you’re living in a heightened state of anxiety, focused on danger, she noted.

“When something actually happens in the present,” she said, “instead of just going from a base level to some more activation, they’re going from a high activation to a super-high activation, and they may seem to others to be over-reacting.”



How does stress lead to disease? Remember, the stress response affects immune functions, which are needed to fight disease. One of those functions is inflammation, which, in chronic form, has been linked to illnesses including heart disease and type 2 diabetes.

If a person’s physiology has trouble regulating the stress response – something found to occur<sup>18</sup> in some adults who were abused as children – could it also have trouble regulating inflammation?

One team of researchers found that, compared to people who hadn’t been, adults who were maltreated as children were 60 percent<sup>19</sup> more likely to have elevated indicators of inflammation in their 30s, after controlling for other risk factors.

“Childhood maltreatment is a preventable and potentially treatable childhood risk factor for poor adult health,” they wrote.

Other researchers have examined links between early

adversity and cancer<sup>20</sup>, theorizing that exposure to stress could weaken the immune system’s ability to detect tumor cells. In one study, scientists found that skin cancer developed faster in mice<sup>21</sup> that had been subjected to chronic stress – spending hours a day in restraints – than in mice who hadn’t, in part because of a weaker immune response.



There are also indications that early experiences can interact with a person’s genetic code and influence whether certain genes get expressed or not.

There’s evidence<sup>22</sup>, for example, that a mother rat’s licking and grooming of her baby in the first week of life helps produce a better-regulated stress-response system by influencing the expression of genes involved in the system. Studies have suggested a similar process could occur in humans, including one examining the brains of suicide victims<sup>23</sup> that found differences in gene expression between those who had been abused as children and those who hadn’t.

Researchers are also looking into genetic differences that could help explain why some children are more heavily influenced by their environment – whether good or bad. Scientists are examining whether, for example, having a particular variation of a gene could make a person more susceptible to depression<sup>24</sup> after experiencing maltreatment.

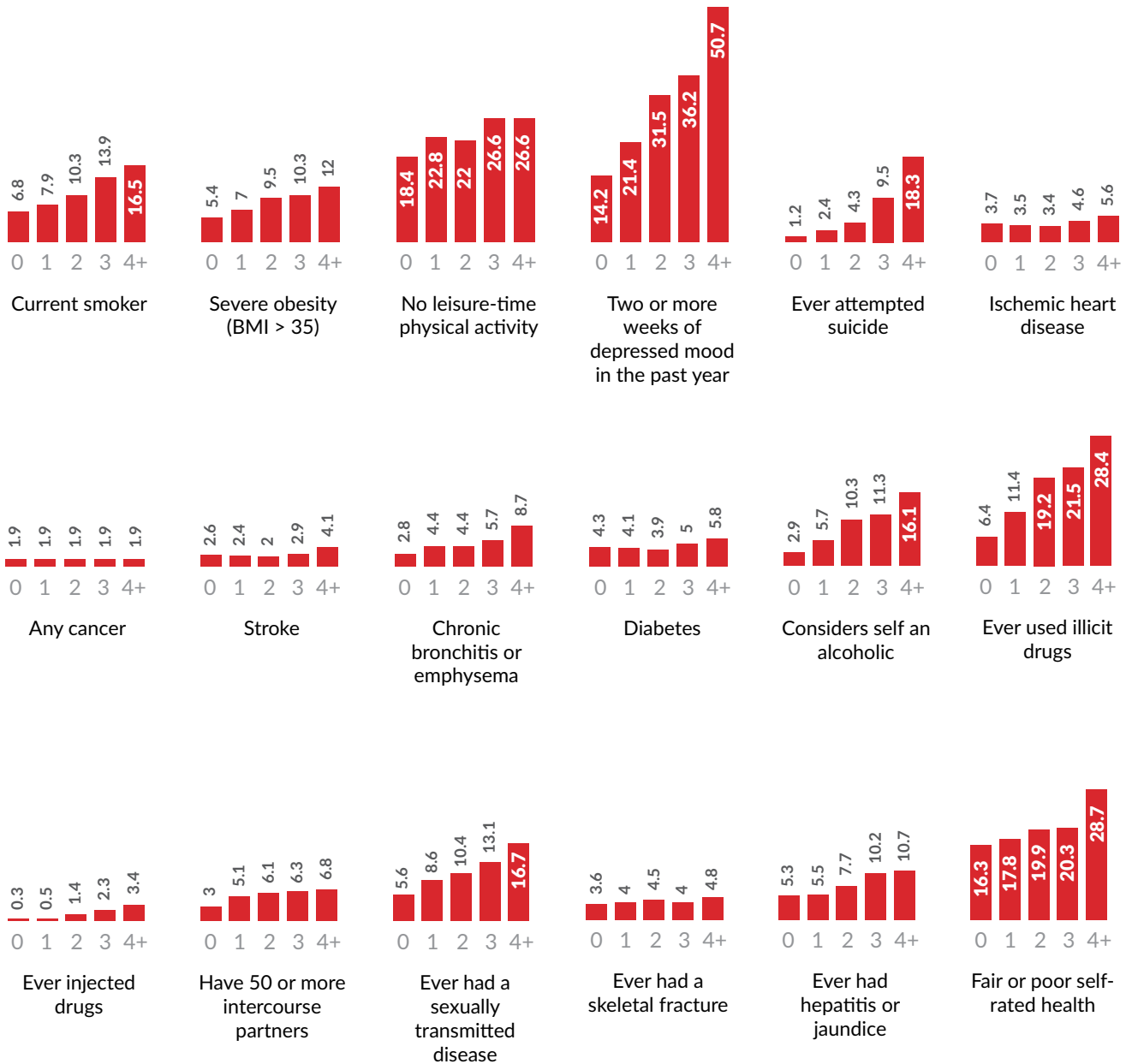
But there’s a long way to go in understanding the full picture, said Jay Belsky, a professor at the University of California, Davis.

“It’s almost like we’re getting ever more appreciative of how complex the puzzle is,” Belsky said. “We’re getting a sense of what part of the board certain puzzle pieces are going to go in” – but it’s not yet clear how they fit together.

The ACE Study isn’t new. Its first findings were published in 1998.

## Childhood adversity correlates with health problems

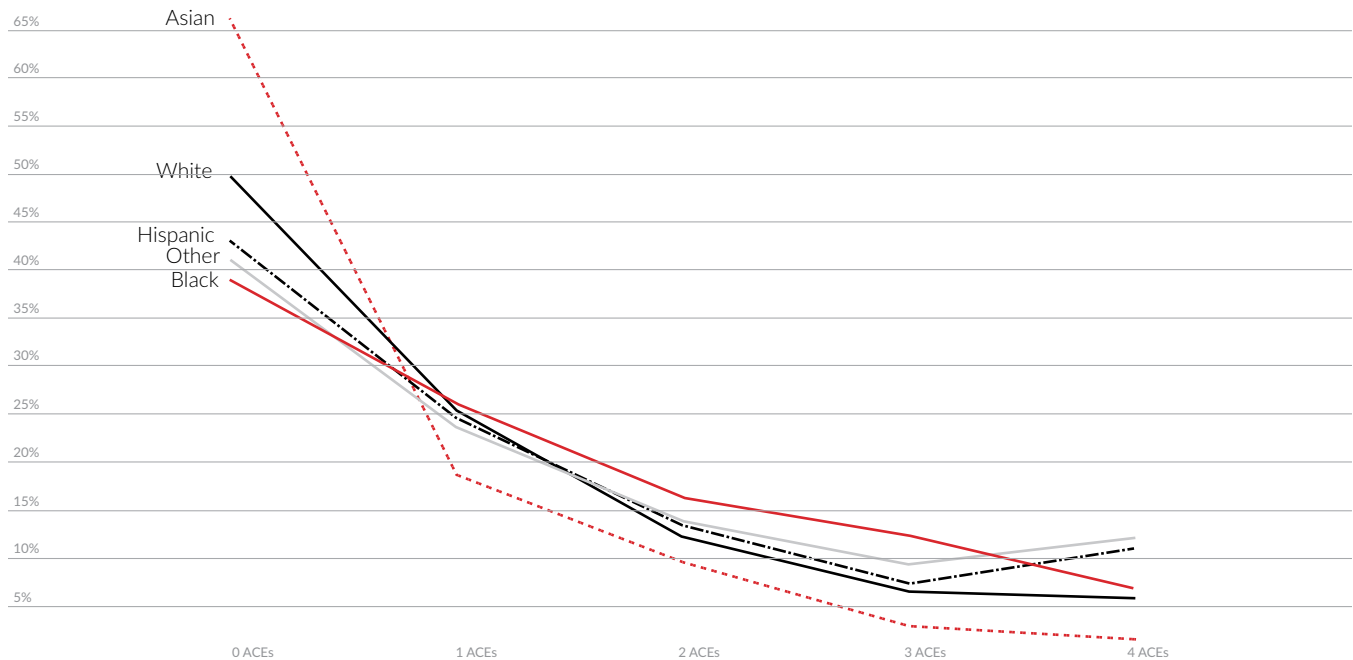
The number of different types of adverse childhood experiences a person reported correlated to a greater likelihood of having many different mental and physical health problems. These charts show how the prevalence of problems rose by a person's ACE score among participants in the ACE Study. ACE scores are shown in the number beneath each bar. Prevalence is the percentage of people in this study who had a given health problem. This is adjusted for age.



Source: Vincent J. Felitti et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. American Journal of Preventive Medicine. 1998. ALVIN CHANG/CT MIRROR

## A breakdown of participants in ACE study

The ACE study used patients at Kaiser Permanente's clinics in San Diego, California, so this may not be a nationally representative sample. But general trends, like a higher rate of ACEs for minorities, holds true over studies of other populations. The ACE Study included two groups of patients. This data represent patients in the first group only.



Source: Vincent J. Felitti et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine*. 1998. ALVIN CHANG/CT MIRROR

“If that study was about broccoli, it would be all over the front page of *The New York Times*,” Wilcox said. “The trouble is it’s just such a huge thing to change.”

“We have this incredible proof about the expense that trauma is causing our society and how all of these physical ailments are related,” she said. “And yet, what do you do to change it? It’s not like, ‘Well, eat more broccoli.’”

After the study, Felitti’s department at Kaiser Permanente added questions about adverse experiences to the questionnaire patients fill out before their physical exams. When doctors see the results, they can ask, “Can you tell me how that’s affected you later in life?”

Felitti said it’s paid off. A study found patients who were

asked the trauma-oriented questions had 35 percent fewer doctor office visits and 11 percent fewer emergency room visits the following year.

He thinks it’s because asking the questions serves a purpose akin to confession in the Catholic Church: a person tells something shameful about himself to a person of authority, “and in the course of a couple of minutes, comes away understanding that they still are an acceptable human being.”

“The impact of that is extraordinary,” Felitti said. “And yet, it’s gone nowhere.”

Even the other departments at Kaiser Permanente, where the ACE Study was conducted, haven’t started asking patients about adverse experiences, Felitti said.

So he's concluded that the best approach lies outside the doctor's office, in something he imagines could be modeled in the plotline of a television show.

"If you were to ask me what my thoughts are on the most effective public health advance that I can think of in

current times, I would say to figure out how to improve parenting skills across the nation," he said. "There is that huge portion of the population that has had no experience with supportive parenting themselves, many of whom might do better if they only knew what it looked like." ♦

## What is your ACE score?

The original ACE Study used a four-page questionnaire to come up with an “ACE score.” You can use these questions – provided by researcher Vincent J. Felitti – to find your ACE score.

1. Before age 18, did a parent or other adult in the household often or very often: Swear at you, insult you, put you down, or humiliate you? —OR— Act in a way that made you afraid that you might be physically hurt?

Yes  No

2. Before age 18, did a parent or other adult in the household often or very often: Push, grab, slap, or throw something at you? —OR— Ever hit you so hard that you had marks or were injured?

Yes  No

3. Before age 18, did an adult or person at least 5 years older than you ever: Touch or fondle you or have you touch their body in a sexual way? —OR— Attempt or actually have oral, anal, or vaginal intercourse with you?

Yes  No

4. Before age 18, did you often or very often feel that: No one in your family loved you or thought you were important or special? —OR— Your family didn't look out for each other, feel close to each other, or support each other?

Yes  No

5. Before age 18, did you often or very often feel that: You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? —OR— Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

Yes  No

6. Before age 18, was a biological parent ever lost to you through divorce, abandonment, or other reason?

Yes  No

7. Before age 18, was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had

something thrown at her? —OR— Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? —OR— Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes  No

8. Before age 18, did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?

Yes  No

9. Before age 18, was a household member depressed or mentally ill, or did a household member attempt suicide?

Yes  No

10. Before age 18, did a household member go to prison?

Yes  No

Add together the number of questions you answered “yes” to. This is your ACE score. But a word of caution about what it means.

“Your ACE score is a risk factor. It's not a determinant,” said Megan Gunnar, a professor at the University of Minnesota who studies the effects of early adversity on development. “So if you have four or five or six ACEs in your history, you might be perfectly healthy. It's just your chances are lower that you're going to be perfectly healthy.”

While adverse childhood experiences represent risk factors for bad health outcomes, researchers say there are also protective factors that can help people withstand adversity, potentially balancing out the risks associated with ACEs. For young children, a key one is having a responsive, nurturing caregiver. But that's not deterministic either.

“Just because your mother loved you won't protect you from smoking four packs per day,” Gunnar said.



## STARTING EARLY: INTERVENTION

# CHANGING COURSE

*Science suggests that having a secure relationship with a caregiver can help protect a child's brain and body from the effects of adversity. A Connecticut program for very young children who have experienced trauma or other challenges has gotten results by focusing on that relationship – and the things that can interfere, including depression, family violence and a parent's own history of trauma.*



**“Do you remember when you were six months old? Of course you don’t. Does your brain remember when you were six months old? You bet it does.”**

*—Mickey Kramer, Connecticut's associate child advocate*

Holly bounced around the therapist's office. She clutched a blanket and ran into her father's arms. She babbled and smiled. At 16 months, her development was close to being on track, her therapist said.

A few months earlier, things were different.

She was underweight. She didn't smile much. Sometimes she just stared.

“Life wasn't going all that great for her to begin with,” her father, Joe, said.

Holly's parents fought often. Her mother, Jenna, was depressed, Joe said, making it hard for her to take care of a young child. She was trying to take classes and manage a household on little money, she said. Joe was working two jobs, coming home tired.

“Neither of us really want fighting around [Holly]. It kind of just happened,” Joe said. “We had a lot of stress on each other.”

One night, a fight escalated and became violent. Jenna wanted to leave with Holly. Joe wouldn't let her take the baby. Holly was in Joe's arms when Jenna threatened him with a knife, according to their accounts and a police report.

Joe eventually left Jenna. After a few months, she and Holly ended up homeless, in a shelter.

In short, there were a lot of red flags, both for Holly's immediate well-being and, perhaps more significantly, the years to come.



Experts say early exposure to trauma and severe stress can have profound effects on children's developing brains, potentially leaving them vulnerable to a host of behavioral, mental and physical health problems.

But studies also suggest that the presence of a nurturing caregiver can make a significant difference in how that adversity affects them.

In other words: There's an opportunity, experts believe, to prevent problems from occurring by making sure a child has a secure bond with at least one responsive parent or caregiver. And when young children don't have that or experience trauma, early interventions can help stave off deeper mental health or behavioral problems.

**"A lot of the kids who have these kinds of behaviors and are acting out and are aggressive have...experienced trauma, and no one has ever helped them with it."**

**— Darcy Lowell**  
a developmental and behavioral  
pediatrician and professor at the  
Yale Child Study Center

"A lot of the kids who have these kinds of behaviors and are acting out and are aggressive have...experienced trauma and no one has ever helped them with it," said Darcy Lowell, a developmental and behavioral pediatrician and professor at the Yale Child Study Center.

Lowell founded and runs Child First, a program that works with children under 6 who have a history of trauma or emotional or developmental problems. It focuses on the relationships between the child and his or her caregivers, and things that can get in the way of them – like depression, substance abuse or a parent's own history of trauma. The program serves Holly and her family.

Nationally, more than one in four victims of child maltreatment is younger than 3, according to federal data<sup>25</sup>. But many people still wrongly believe that children

too young to speak can't be harmed by what they see or experience, said Mickey Kramer, Connecticut's associate child advocate.

"Do you remember when you were six months old? Of course you don't," she said. "Does your brain remember when you were six months old? You bet it does."



"Experts say a young child's relationship with a responsive parent or other caregiver is key to development, forming the model for the child's future relationships and giving them confidence to explore the world. But many things can interfere with that bond, and researchers now say that can have not just psychological but physiological consequences for a child.

"If you were going to do one thing that would make the most difference, it would be that secure attachment from the beginning," said Judith Meyers, president and CEO of the Child Health and Development Institute of Connecticut. "That could take care of so many other ills that follow in its absence."

Typically, babies learn that they'll get fed or cleaned when needed, said Patricia Wilcox, who leads the Traumatic Stress Institute at Klingberg Family Centers in New Britain.

"But if that doesn't happen, if the people just don't come, or if they're tense and angry, or if they're harmful, the baby develops another template, which is people hurt you or people don't care," she said.

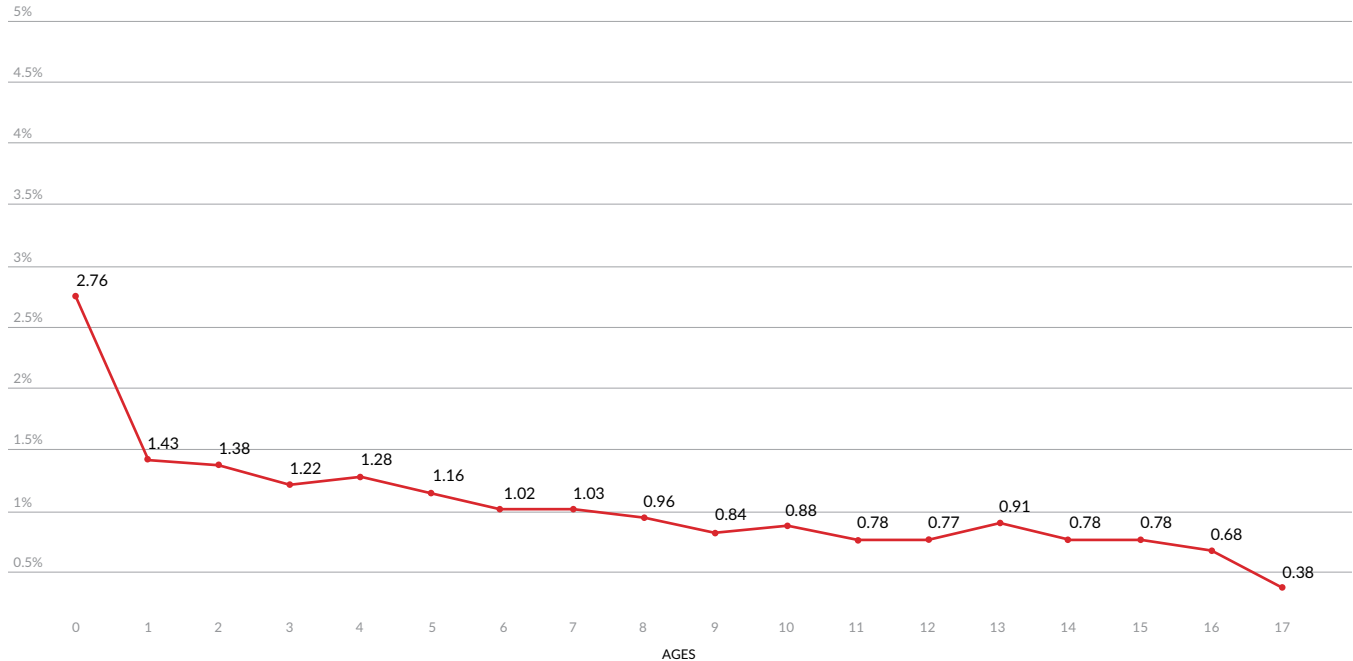
There are physiological consequences too. Key parts of an infant's stress response system are still maturing at birth, and research indicates that babies rely on a caregiver to help them cope with stress.

The absence of that can have profound implications. Researchers say chronic or prolonged exposure to significant stress<sup>27</sup> can influence<sup>28</sup> the development of parts of the brain involved in learning, memory and perceiving threats. And chronically elevated stress



## Youngest children most often maltreated

Nationally, about 2.19 percent of children under 1 were referred to child protective services and found to be maltreated, according to a 2012 report from the U.S. Department of Health and Human Services. In Connecticut, that number was about 2.76 percent.



Source: U.S. Department of Health and Human Services, Administration for Children and Families. *Child Maltreatment, 2012*<sup>26</sup>  
ALVIN CHANG/CT MIRROR

hormones during development appear to shape<sup>29</sup> the way children's brains interpret and respond to stress in the future.

**"If you were going to do one thing that would make the most difference, it would be that secure attachment from the beginning. That could take care of so many other ills that follow in its absence."**

**— Judith Meyers**

**President and CEO of the Child Health and Development Institute of Connecticut**

A lot of what's known about this is rooted in animal studies.

When researchers separated infant rats from their mothers for prolonged periods each day, for example, the pups

became more anxious and vulnerable to stress<sup>30</sup>. Even as adults, their stress hormones would rise dramatically more than those in other rats when faced with stressors. By contrast, baby rats separated from their mothers for a few minutes at a time became more resilient to stress.

Megan Gunnar began her career hoping to understand whether similar things occur in humans. A professor at the University of Minnesota, she's spent years studying children and the system that produces and regulates the stress hormone cortisol. In the right doses, cortisol is necessary for survival. But having too much of it for prolonged periods can have harmful effects, including disrupting memory and damaging brain cells.

Gunnar and other researchers found that a toddler's relationship with a caregiver makes a difference in whether he mounts a stress response to a mildly scary situation, like seeing a clown<sup>31</sup> or getting vaccines.

Cortisol levels rose in the toddlers who didn't have a secure relationship with the caregiver who was with them, but not in the toddlers who did.

Another team of researchers found evidence<sup>32</sup> suggesting that a responsive mother could buffer the physiological effects of stress in middle schoolers exposed to multiple risk factors, including substandard housing, violence and family turmoil.

In extreme situations, young children raised in orphanages – who had no opportunity to bond with a caregiver – were found to have significantly delayed growth<sup>33</sup> and unusually low electrical activity in their brains. Gunnar found signs of abnormalities in the children's cortisol regulation systems.

She and other researchers have also studied children who were adopted from orphanages. They found signs of some enduring problems. But many of the children experienced rapid growth and more normal cortisol patterns after becoming part of a family.



While Gunnar was doing cortisol studies, Lowell was in Bridgeport, developing the program that would become Child First. It was an attempt to better meet the needs of families who seemed to be falling through the cracks. Some had children who were getting kicked out of day care for behavior problems. Parents were overwhelmed.

Each family in the program works with a team: a care coordinator, who tries to reduce stress in the household and link the family to services, and a mental health clinician, who focuses on the parent-child relationship. A randomized controlled trial<sup>34</sup>, which compared families in Child First with those receiving other care, found the program was effective: After participating in Child First, children were less likely to have aggressive or hyperactive behavior. Parents had fewer mental health symptoms

and were less likely to be involved with child protective services.

Child First is one of more than a dozen home-visiting programs for families of young children in Connecticut. Many are aimed at promoting healthy development and preventing bad outcomes in families with certain risk factors. Child First, by contrast, is an intervention to address issues that already exist. The vast majority of parents in the program have experienced trauma. More than half are involved in the child welfare system, or were at one point. Some families have fewer risk factors but can use help with children with special needs.

The program is available in just under half the state's municipalities, with funding from the state Department of Children and Families, the federal government and private foundations. It serves about 1,000 families a year. Last month, there were 255 waiting for spots.

“We serve people who live in housing projects with urine-soaked stairways to people in gated communities, and the problems in terms of the parent-child relationship could be the same,” said Kristina Foye, program director for Child First's Bridgeport site.

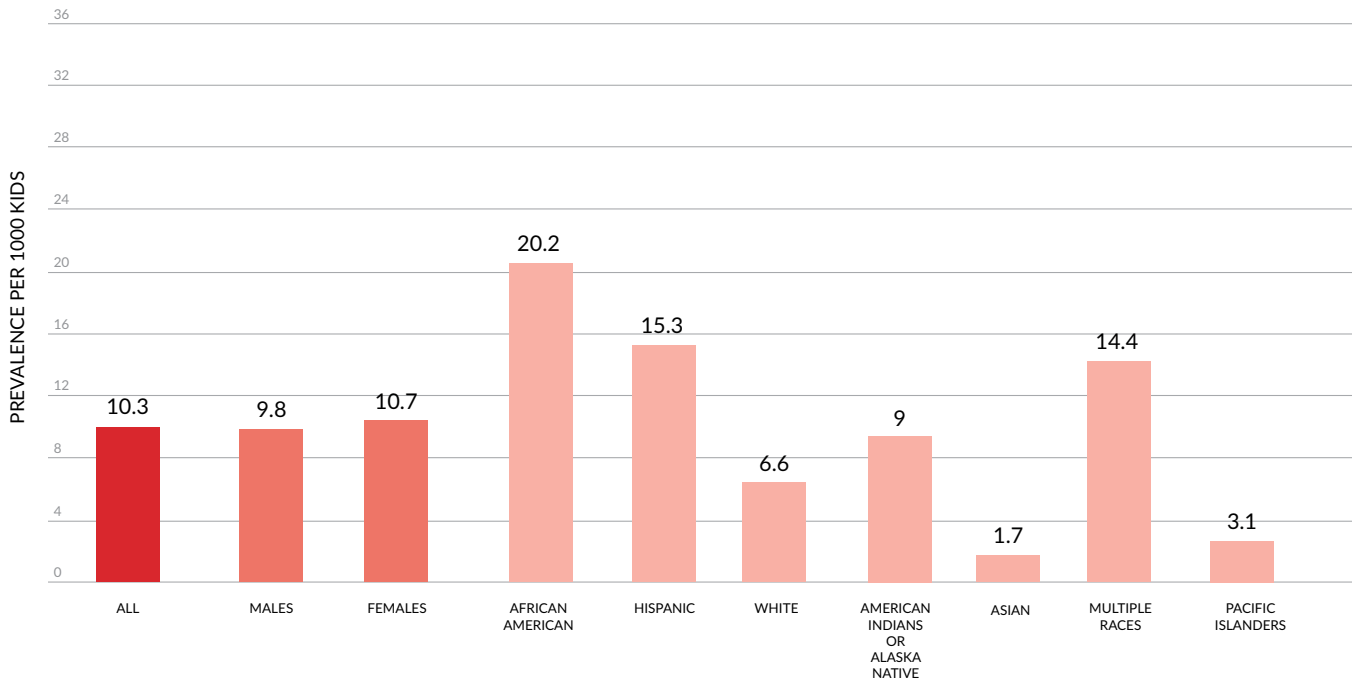
But poverty can bring additional stresses that can interfere with a parent's availability for a child, like worrying about staving off homelessness or paying for food, she said.

For the Child First teams that serve the New Britain area, the initial home visits often have a familiar sound: the beeping of smoke detectors that signal they need new batteries. It's a landlord's job to make sure smoke detectors have working batteries, but often, they don't.

The noise is a constant reminder that the home isn't a safe environment, noted Melissa Mendez, clinical supervisor for that area's Child First program, which is run by the Wheeler Clinic. It's the sort of thing that can pile up to increase stress and, as she puts it, “clog the brain,” making it harder to do other things, such as helping children learn.



## Which kids get maltreated?



Source: U.S. Department of Health and Human Services, Administration for Children and Families. *Child Maltreatment*. 2012.  
ALVIN CHANG/CT MIRROR

Nearly 80 percent of the children in Child First have experienced trauma, including sexual abuse, community violence, witnessing a parent being dragged away in handcuffs, or seeing one parent beat up the other. It can lead to nightmares, hypervigilance, fear or aggression – things that could appear to be bad behaviors.

**“Sometimes what happens in the shuffle, when a child is removed and cops come and an ambulance comes, nobody talks about what happened. And they’re left to their own devices.”**

**– Judy Adel**  
A Child First Therapist

Because young children tend to think the world revolves around them, they can easily distort the meaning of what they experience, said Judy Adel, clinical coordinator for the Child First program at the Child Guidance Clinic for Central Connecticut. A 3-year-old who sees his parents

fight might conclude it’s his fault they don’t love each other.

“Sometimes what happens in the shuffle, when a child is removed and cops come and an ambulance comes, nobody talks about what happened,” Adel said. “And they’re left to their own devices.”

It’s important to figure out how children interpret what happened, and to correct any distortions, Adel said. Often, that occurs through play and explaining things in language they understand:

*Daddy has a hard time sometimes, and he doesn’t know yet that he can’t use his hands. He’s going to go and learn how to be angry.*

*Mommy’s mind is sick, and she has to take medicine and work hard to get her brain to a good place.*

*Daddy died in an accident, and it wasn’t your fault, and he loved you very much.*

*Some mommies need help.*



People often ask Adel, “How the heck do you do therapy with a 1-year-old?”

It’s really therapy with the parent and child. Sometimes it involves helping parents figure out how to read the signals of a preverbal toddler or understand what’s behind a child’s aggression.

One of the 1-year-olds Adel works with is Holly. In her case, therapy included working with Joe to think about ways to reassure her that she was safe in his arms, where she’d been when she witnessed the fight involving the knife. They talked about the importance of routines to give her a sense of predictability and safety.

(The Mirror has changed the names of Holly, Joe and Jenna to avoid identifying the family. Information about them comes from police and court records, and interviews with Joe, Jenna, and with Adel, who spoke about Holly and Joe with his permission.)

Joe didn’t want his daughter to grow up the way he did, with fighting and violence at home. His family moved frequently when he was young, and he never felt the security of being settled in one place. After his father left the family, Joe dropped out of high school and got a job to help pay the bills.

But he didn’t have much time to think about that when Holly was younger. He was preoccupied with supporting a family on low-wage jobs. He and Jenna, Holly’s mother, clashed often. They were both stressed and seemed to push each other’s buttons. Eventually, Joe left.

“The fighting was just getting so much, I couldn’t handle it anymore,” he said. He feels guilty for leaving Jenna “down and out,” with Holly and no job and nowhere to turn. The landlord began eviction proceedings. Jenna and Holly eventually moved into a shelter.

Multiple agencies had been working with the family, including Birth to Three, a home-visiting program for infants and toddlers with developmental delays, and Child First. The Department of Children and Families was involved. Eventually, Holly was placed with Joe. He had moved in with extended family, a stable environment.

Joe and Adel talked about what scary memories would be like at Holly’s age and what it was like to be away from her mother. They discussed ways to foster her development, like reading and talking to her as much as possible. At a recent visit, Joe asked for tips on building her fine motor skills.

Holly always had a strong connection with her dad, Adel said. Now she was with him regularly.

Within a couple months, Holly was babbling and saying words like “daddy” and “apple.” Her development was close to baseline for her age. She was gaining weight.

But there were still concerns. Joe noticed that whenever he left a room, Holly would cry inconsolably, as if she didn’t trust that he’d come back.

Adel suggested that Joe talk to her from the other room, to let her know he was still nearby and coming back.

It’s impossible to know what the future holds for Holly, or what would have happened without intervention.

But recently, she hit another milestone: Joe could leave to go to the bathroom, and she didn’t cry.

Jenna is frustrated that she doesn’t get to see her daughter more and hopes that will change. She’s made changes in the past few months. She has an apartment and has been working. She’s taken parenting and anger management classes, attended counseling and gotten help for depression and anxiety.

Joe said he and Jenna have talked about what they want for Holly.

“We want [her] to be happy and have loving, caring parents,” he said. “So we’re working on that.”



Child First operates with a premise that parents want to be good parents and want their children to have better lives than they did – and that the things that get in the way can be addressed. Often, those barriers are related to

the parents' own histories of abuse, neglect or violence.

"They want to do the right thing, but they don't know how," Lowell said. "No one ever sat and played with them. No one ever talked to them about how they felt. No one ever asked them, 'Were they hurting? Was there pain?'"

The ability to think about a child's perspective – to wonder if a baby is crying because she's hungry or needs a diaper change, rather than assuming it's because she's manipulating you – is a big factor in successful parenting, Adel said.

But to a parent who was severely abused as a child, hearing a 3-year-old yell, "I hate you!" might trigger feelings of worthlessness or fear related to her own abuse. A mother who was a victim of domestic violence might see her toddler's aggression as a sign that he's just like his father.

"If you start thinking, 'The baby is only doing this to get to me,' which is so close to the surface when you are so tired, those are cognitions that begin the pathway to maltreatment," said Gunnar, the Minnesota professor.

"You can see how it's a big deal to not have been parented well yourself, to then turn around and manage to do a good job parenting," she said.

When working with parents who had brutal upbringings, Child First clinicians try to focus on how they survived. Who looked out for them? What inside them helped them get through it – and how can they build on those strengths?

"You'll hear that, 'Oh, my grandma was always good, she would come get me and make sure I ate,'" Adel said. "So those are the people who give us enough good to survive sometimes." ♦



## STARTING EARLY: PREVENTION

# FROM BRAIN SCIENCE TO STOP & SHOP

*From providing mental health care at the supermarket to training pediatricians in infant mental health, some in health care and social services are trying to apply the lessons of brain science and development to prevent problems that can threaten children's health and well-being.*



Natasha Rivera-LaButhie at a press conference announcing the launch of a hub in a New Haven Stop & Shop that will offer mental health services and other assistance.

**“Zero-to-five supports in a two-generational, effective model is the silver bullet for reducing disparities, improving health outcomes.”**

*—Sarah Eagan, Connecticut's child advocate*

**New Haven** – Natasha Rivera-LaButhie has logged a lot of hours in food pantries and parks, public housing complexes and libraries – anywhere to find fellow moms.

She's there to talk to them about stress, to learn about their goals and what gets in the way of reaching them.

She's there to help women address depression, social isolation and other things that can interfere with their capacity to nurture their children.

And she's there to bridge a gap, between traditional mental health approaches and women they typically don't reach.

Rivera-LaButhie is not a mental health clinician; she

trained to be a cosmetologist. She uses terms like “stress” instead of “depression.”

Much about the organization she works for, The New Haven Mental Health Outreach for Mothers Partnership, or MOMS, is not traditional. For the past couple of years, it's brought treatment to New Haven mothers – and grandmothers, aunts and other women raising children – outside clinics, in food pantries and other neighborhood locations. Next month, it will start offering mental health services in a Stop & Shop. It focuses on women's mental health, basic needs and job skills as a way to improve outcomes for their children.

But at root, it's trying to tackle a problem that many

others in Connecticut are also trying to crack: how to apply the lessons of brain science, child development and research on early adversity to reduce children's risks for behavioral, mental and physical health problems.

Research suggests that many mental and physical health problems have roots in exposure to trauma or other forms of severe stress early in life. And studies indicate that having a secure bond with a responsive caregiver can help young children withstand the physiological effects of adversity.

That's led some in Connecticut to conclude that there's a tremendous opportunity to make a dent in the prevalence of mental health problems, adult diseases – and the nation's enormous health care tab – by focusing on young children, the circumstances they grow up in, and the relationships that can help them withstand challenges.

There are efforts to train pediatric primary-care providers to pay more attention to infants' social and emotional development and stresses affecting their parents. The Clifford Beers Clinic in New Haven recently began a federally funded project to provide intensive care coordination – with a focus on basic needs and exposure to adversity – to children with significant medical needs and their families. It's meant to test the theory that doing so could cut health care costs by nearly 30 percent.

Connecticut policymakers have increasingly emphasized “two-generation” policies, which focus on both young children and their parents. And there's an effort under way to redesign the state's health care system to better address the root causes of illness.

“Zero-to-five supports in a two-generational, effective model is the silver bullet for reducing disparities, improving health outcomes,” said Sarah Eagan, Connecticut's child advocate. “That's the way to improve education. It's the way to improve economic outcomes. It's the way to reduce health care costs.”

But those efforts are taking place in a health care system that remains largely uncoordinated, particularly when it comes to ties between mental and physical health. Home-visiting programs for families of young children, and early

“That's the way to improve education. It's the way to improve economic outcomes. It's the way to reduce health care costs.”

– Sarah Eagan  
Connecticut's child advocate

interventions that could help stave off deeper mental health problems, don't have enough capacity to meet the need, according to several recent reports<sup>35</sup>.

Efforts to address early childhood, particularly when it comes to mental health and family dynamics, also tread on traditionally sensitive areas, drawing concerns from some about encroaching on personal matters and the role of government in people's lives.

And while policymakers hoping to target early trauma as a root cause of disease believe it will eventually pay off in health care savings, it remains to be seen how it will translate to savings and outcomes.

“I think what we have is a really good hypothesis,” said Kate McEvoy, Connecticut's Medicaid director and a proponent of the idea that addressing early development and trauma can improve health outcomes and reduce costs. “We have a lot of indicators of what happens if you don't intervene, good ideas about how to do that, and then suppositions about what the dollar level of savings is going to be.”

Paul Dworkin is among those who believe it's possible to make a meaningful difference. But he worries about efforts to address early adversity falling into something he calls the “war-on-poverty trap,” the idea that the problem will sound too overwhelming to tackle.

“We're not going to simply rid the world of adverse experiences,” said Dworkin, the executive vice president for community child health at Connecticut Children's Medical Center in Hartford. “But we can focus on strengthening those protective factors that we know enable children and families to cope with stress and also ensure the best outcomes.”



Some, including the American Academy of Pediatrics<sup>36</sup>, see pediatric primary care providers as the place to start.

They're well-positioned to identify early signs of problems and provide information on healthy development, said Lisa Honigfeld, vice president for health initiatives at the Child Health and Development Institute of Connecticut. They see nearly all children in the state.

The Institute provides training for medical practices on topics including trauma, maternal depression and infant mental health, which focuses on the importance of early nurturing relationships and social and emotional development.

Jerry Calnen leads that one. It's a role he came to during three decades as a pediatrician in Enfield, where he became concerned about the growing number of children he saw with behavioral health problems. He read up on neuroscience research, and came to believe that tackling "toxic stress" – the potential consequences of a young child's exposure to severe adversity without the presence of a supportive adult – could make a substantial difference.

**"As a pediatrician, there's not much I can do about [poverty or homelessness or a marital problem]. But there's a lot that I can do potentially to build resiliency, to help that infant bounce back from adverse childhood experiences."**

**– Jerry Calnen**  
Retired Enfield pediatrician

"I can't do very much about poverty or homelessness or a marital problem or something like that," he said. "As a pediatrician, there's not much I can do about that. But there's a lot that I can do potentially to build resiliency, to help that infant bounce back from adverse childhood experiences."

During a recent training, over lunch at a Danbury pediatric practice, Calnen urged the pediatricians and their staff to use screening questionnaires to identify

potential issues with young children's social and emotional development, to encourage nervous new parents and keep an eye out for things traditionally outside the realm of medicine, like family problems.

"We have to start feeling more comfortable about identifying stressors," he said.



Jerry Calnen makes a presentation on the importance of early nurturing relationships.

(Arielle Levin Becker / CT Mirror)

Yes, he acknowledged, it's not something we're trained for. And the answers could be daunting.

"If a mom says, 'Yeah, I'm stressed out, I'm being evicted next month,' what am I supposed to do?" he said. (He suggested a referral to a community agency.)

Pediatricians' involvement with larger issues affecting their patients is often lacking, even in high-risk situations, according to a report<sup>37</sup> by the Office of the Child Advocate on infants and toddlers who died of preventable causes.

The office's review found that pediatric records rarely referenced parental risk factors like substance abuse, mental health problems or domestic violence. Pediatricians who spoke to the report's authors cited barriers including receiving little information from the state's child welfare agency and Medicaid payment rates that allow them to spend only about 15 minutes on each patient visit.



Even doctors who try to take a broader view of patients' lives run into another barrier: once you uncover a problem, it's not always easy to get help.

Dr. Rajadevi Satchi, one of the pediatricians at Calnen's recent training, knows it firsthand. Her practice, Childcare Associates, has a system for screening patients and moms that has identified many potential issues. She watches out for domestic violence and other things that affect children. But there are few mental health services available on weekends or at night, and many parents can't afford to take time off from work, she said. Programs in the community are often full.

"The problem we have is mental health," she said. "Access is very difficult."

There are efforts to change that, including a new psychiatric consultation service to help pediatricians manage behavioral health issues; efforts to train mental health providers to treat trauma; a New Haven initiative that will place mental health clinicians and consultants in a pediatric primary care clinic, Early Head Start and elementary school; and a plan to expand access to mental health services released last fall as part of legislation passed in the wake of the Newtown shootings.

And soon, there will be mental health services available at a New Haven Stop & Shop. It's the result of years of work – and rooted in a disappointment.



Megan Smith, a professor at the Yale School of Medicine, had been developing a treatment program for mothers with depression. It was a compelling mission: a mother's depression has been linked to significant consequences<sup>38</sup> for her children, including delays in social and emotional development, lower academic achievement and an increased risk of being diagnosed with mental illness by adolescence. Depression can make it hard for a mother to provide the sort of responsive caregiving that experts say is critical for healthy development.

It's also relatively common: more than one in 10 mothers have major depression in a given year, according to a recent study<sup>39</sup>. Rates of depression symptoms are even higher among low-income women.

But no matter what Smith and her colleagues did – offering free treatment, child care, flexible hours, services in three languages – only 38 percent<sup>40</sup> of the women referred for mental health care attended even one session, and only six percent stayed in treatment for six months.

"The fact that we didn't move that needle was pretty discouraging," Smith said.

She was facing a problem shared by many in mental health: how do you get interventions to the people who could benefit from them? How do you bridge the gap between science and low-income moms struggling with depression, trauma and other problems that affect both them and their children?

**"They wanted employment, and they wanted to be good moms and do well for their kids. But what got in the way of those two things were, it was really stress, which is depression, [and] isolation."**

**– Megan Smith**  
Professor at the  
Yale School of Medicine

For insight, Smith and a group of community organizations sought the input of the New Haven mothers they were trying to reach. They hired local moms like Rivera-LaButhie to interview hundreds of mothers they met in supermarkets, food pantries, parks and other places.

The main findings:

"They wanted employment, and they wanted to be good moms and do well for their kids," Smith said. "But what got in the way of those two things were, it was really stress, which is depression, [and] isolation."

Seventy percent of the mothers who spoke with Rivera-LaButhie and her colleagues were found to have at least mild symptoms of depression on a screening. Many expressed feelings of isolation, a red flag for people in mental health.

“The more you’re isolated, the more you sort of pull away, the louder depression gets,” said Kia Levey, the MOMS Partnership’s project director.

The partnership — which is run by a group of New Haven agencies — evolved based on the feedback. It includes a focus on job training and basic needs — many moms cited not having enough food or diapers as a big source of stress.

To address depression symptoms, it offers stress-management classes, taught using a form of skill-building therapy found to be effective for depression. Rivera-LaButhie and her counterparts — known as community mental health ambassadors — lead the stress management classes with a mental health clinician. They cover things like breathing exercises and ways to solve problems without getting overwhelmed or panicking, using real-world examples.

“You burn dinner. How do you fix that?” Rivera-LaButhie said. “How do you not beat yourself up? Your light just got cut off. What are some steps to problem-solving to get the lights turned back on?”

Women bring in their own problems and have the class brainstorm ways to work on them — something that can also help counter feelings of isolation, Rivera-LaButhie said.

“We’re opening the floor for some of these moms who have never allowed feedback from anyone, not even their own family members, to get it from people that they’ve just met and to actually be able to follow through with it,” she said.

So far, 3,298 women have participated in the program. Overall, they showed clinically significant reductions in depressive symptoms, Smith said, as well as a significant drop in parenting stress and increases in positive

parenting behaviors such as monitoring their children, attending routine pediatric care visits and parenting sensitivity.

Demand has grown by word of mouth — Rivera-LaButhie now spends less time out recruiting and more time answering requests — and the program is expanding, funded in part with a \$3.4 million federal grant.

There’s another challenge, though: Two-thirds<sup>41</sup> of mothers interviewed said they needed help coping with traumatic events. And in some ways, Smith said, getting help for trauma can be harder for the moms than addressing depression. Some women fear they will lose custody of their children if they disclose their own childhood trauma or ongoing problems, such as domestic violence or the fact that they’re “couch-surfing” to avoid homelessness, she said.

“It’s hard, and we’re still so far from doing a good job with it,” Smith said.

Kristina Stevens, an administrator at the Department of Children and Families, said the agency wants moms — and others — to feel comfortable talking about trauma.

“We know if we can’t offer up that kind of candid discussion, we’re not going to get underneath that, and that’s going to hamper the ability to do the work that’s needed to be done, to repair those situations and advance better outcomes,” she said.



Robert McLean, a New Haven internist and rheumatologist, knows that trauma can play a role in patients’ problems.

“If you’ve got somebody who’s really overweight because they have post-traumatic stress because of whatever childhood trauma they had, or they drink too much as their reaction...you’re not going to get that person to go in the right direction until you address the underlying post-traumatic issue,” he said. “There’s a lot of that.”

But the ability for doctors in busy practices to delve into those issues can be limited, McLean said.

“We’re probably not picking up stuff that’s under the surface,” he said. “I think we’re probably afraid to open up the box.”

In part, it’s because of concerns about time – what if it

opens an emotional issue for a patient, and you have a few minutes and a waiting room full of people? And there’s the challenge of referring a person to appropriate mental health care.

“If you could open that box and steer them down the hall to someone, it would be different,” McLean said. ♦



## STARTING EARLY: RECOGNITION

# RECOGNIZING TRAUMA AND ISOLATION

*Nelba Márquez-Greene's family experienced a high-profile trauma when her daughter, Ana, was killed at Sandy Hook Elementary School. But before that, she understood trauma as a mental health professional. She says we need to do a better job of recognizing and responding when children need help.*



Nelba Márquez-Greene, second from the right, stresses the importance of strong relationships in healing from trauma. Her daughter, Ana (right), was killed at Sandy Hook Elementary School in December 2012. (Courtesy of the Márquez-Greene family.)

**“We’re looking for people to understand, when they see a kid, rather than asking, ‘What’s wrong with them?’ we want them to know to ask, ‘What’s happened to them?’”**

*—Alice Forrester, executive director of the Clifford Beers Clinic*

The first thing Isaiah Márquez-Greene said when he learned his sister, Ana Grace, had been killed was, “I don’t want to be an only child.”

The second was, “Who’s going to return her library books?”

And then his body shut down. He shivered. His parents couldn’t make him warm enough. They put him in a coat and hat and under lots of blankets. His body went into shock.

About once a month after that, it happened again. Even when it was 95 degrees out, he would look at his parents and declare that he was cold.

Nelba Márquez-Greene, Isaiah and Ana’s mother, told the story at a conference last summer, one of many places she’s been asked to speak since her daughter was killed in her first-grade classroom at Sandy Hook Elementary School.

She told the story in part because, before her family experienced a trauma that drew worldwide attention, Márquez-Greene understood trauma as a professional, a licensed marriage and family therapist who’d worked with children and families across Connecticut.

She pointed out that if she and her husband, Jimmy Greene, didn’t understand the trauma that had caused

Isaiah's body to freeze even in the summer, they'd probably tell him, "How could you be cold? It's 95 degrees outside."

And that was the point of telling the story: She and Jimmy understood why their son reacted the way he did because they understood it was a response to trauma. They made sure they could be available to him, even through their own grief, and that he had the support of a strong network of family and friends.

But what, she said, about all the other children who've faced trauma that no one knows about, whose reactions are treated as strange or bad behavior, not symptoms that require love and care and sometimes treatment? What happens when they get told to sit down and be quiet, or to stop bothering the teacher, when no one reads their actions as the result of hurt?

**"We have thousands of kids in our state that are constantly retriggered based on an experience that we don't even know about."**

**— Nelba Márquez-Greene**  
Professional marriage and family therapist and mother of Ana Grace Márquez-Greene, a Sandy Hook victim

"We have thousands of kids in our state that are constantly retriggered based on an experience that we don't even know about," she said.

"Not all of our kids have stories that make the news. But all of our kids have a story."

And for many children, that story involves trauma.



Data on trauma prevalence varies, in part because definitions vary. The clinical definition refers to exposure to an event that carried a threat of death or serious injury.

But many people speak more broadly, about adverse experiences or chronic forms of severe stress, situations that can produce feelings of terror and helplessness and overwhelm a person's ability to cope.

In one national survey<sup>42</sup> that included a relatively wide range of experiences, researchers found that 60 percent of children under 17 had been victimized or witnessed violence in the previous year. Other research<sup>43</sup> has found similarly high levels of exposure to potentially traumatic experiences.

Not all children who go through a potentially traumatic event will develop symptoms.

"On the one hand, we have all these kids out there that have been victims of trauma, some of whom adjust and adapt fairly well, and they don't need treatment," said Jason Lang, a psychologist with an expertise in trauma who works at the Child Health and Development Institute of Connecticut. "But there's a relatively large subset, especially those that are chronically exposed, that kind of avoid talking about it or mentioning it unless they're asked directly."

Sometimes, children go through multiple unsuccessful treatments for other problems – like acting out, school troubles or aggressive behavior – before it becomes clear there's an underlying cause, like physical or sexual abuse, mental health providers say.

And sometimes, they end up in other systems. More than 80 percent of youth in Connecticut's juvenile justice system report having a history of trauma.

"I think we've done a pretty good job of making sure that our juvenile justice system is trauma-informed," said Abby Anderson, executive director of the Connecticut Juvenile Justice Alliance. "But we're really trying to push, what do we do to catch those cases before they come into the juvenile justice system?"



A coalition in New Haven is trying to do that, training

teachers to recognize the signs of trauma and potential triggers, and trying to make students feel comfortable speaking up about scary experiences. At a handful of schools, they're providing trauma treatment on site.

It might not be possible to prevent a child from experiencing trauma, noted Monica Daniels, project coordinator for the New Haven Trauma Coalition, the group behind the effort. But she said there's a chance to prevent some of the consequences of unaddressed trauma, like poor school performance, acting up, getting identified as a troublemaker or worse.

The coalition includes the city, New Haven Public Schools, the Clifford Beers Clinic and United Way. It's funded by the state Department of Children and Families.

**“His anger or bullyish behaviors or dysregulated behaviors were understood from a whole different perspective.”**

**— Alice Forrester**

**Clifford Beers' executive director,  
on what happened after telling a teacher  
a student had been sexually abused**

“We're looking for people to understand, when they see a kid, rather than asking, ‘What's wrong with them?’ we want them to know to ask, ‘What's happened to them?’” said Alice Forrester, Clifford Beers' executive director.

As a clinician, she occasionally spoke to a client's teacher – with the parent's permission – to let them know he had been sexually abused

“His anger or bullyish behaviors or dysregulated behaviors were understood from a whole different perspective,” Forrester said.

The idea isn't to excuse bad behavior, Forrester and others who advocate this type of approach say. Instead, they say it's about trying to understand if there's something underlying a child's actions and, if so, to respond more

effectively, to help him heal and change his behavior.

“I think we do that normally,” Anderson said. “If you have a kid who fails a test, you don't just say, ‘Well, you're stupid.’ You say, ‘What didn't you understand? Maybe you have a learning disability, or we need to go through this one more time.’ I think it's just another tool if our overall goal is to have as many kids as possible be successful.”



Márquez-Greene does a lot of public speaking about trauma. She wants people to know that it can happen to anybody, that it doesn't have to define people. She wants people to understand the importance of relationships in healing from trauma and building resilience — and in potentially preventing violence. She worries about the alternative, isolation.

It's something she knows as a mental health professional and from her own experience. She knows children who have been through horrible things but will be alright because they have a rich network of support. Long before the Dec. 14, 2012, shooting, her family had a big group of family and friends, some of whom would gather for the dinners they'd hold at their home.

**“I think we live in the smallest house in Newtown, so we didn't have some of those [material] things, but you know what we had? An amazing relational network.”**

**— Nelba Márquez-Greene**

**On what sustained her family  
after her daughter's death**

“When I think about 12/14, and I think about what has sustained us, it's really been an awareness of what's important, and a large extended relational network,” she said.

“I think we live in the smallest house in Newtown, so we

didn't have some of those [material] things, but you know what we had? An amazing relational network," she said. "We had already been a family that privileged spending time together."

She sees a dramatic contrast between her daughter's life and that of Adam Lanza, the 20-year-old who killed Ana, 25 other children and educators, his mother and himself.

"He lived in material wealth, but relational poverty," Márquez-Greene said.

Some people have chosen to avoid saying Lanza's name. Márquez-Greene hasn't.

"If we want to fix anything in our society," she said, "We also have to include those that committed the tragedy."

Lanza had a cell phone but never took a call on it, she noted, citing a finding from one of the investigations. Although they lived together, he only communicated with his mother by email. By the end of his life, Márquez-Greene said, it seemed that there was no one available in a significant way to figure out what was going on for him.

To understand the importance of relationships and the dangers of isolation, think about what you do when something scary happens.

"If you just about had a car accident, you probably call somebody and say, 'Oh my God, you can't believe what just happened to me,'" said Patricia Wilcox, a colleague of Márquez-Greene's who leads the Traumatic Stress Institute at Klingberg Family Centers in New Britain. You might think about a loved one who gave you advice or helped you cope in the past.

"If you haven't had people that cared about you that much, and people that you know have just run away or disappeared, you don't have those good feelings in your mind to help you with difficult times," Wilcox said. "When difficult times happen, you feel so lost and alone."

The program Marquez-Greene and her husband started in their daughter's name, The Ana Grace Project, is aimed at strengthening connections and relationships, things they believe can help prevent isolation and violence,

and help people heal. One of their efforts is to develop a curriculum that classrooms can use to help students learn self-regulation skills and empathy.

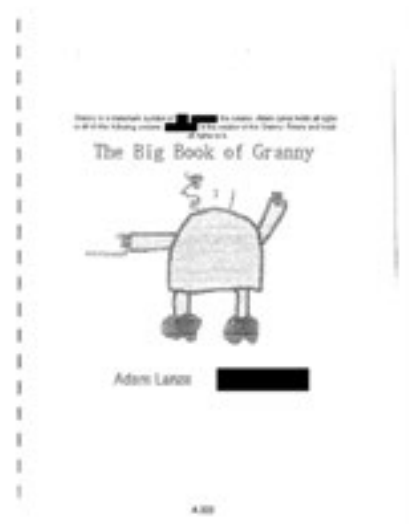
Márquez-Greene wants it to be something that could have helped "both an Ana and an Adam."

"People like to talk about how sad it is that Ana died," she said. "I spend a lot of time thinking about what we could've done to make Adam's life more comfortable."



Márquez-Greene worries about the disparity in the way children with symptoms of trauma are viewed. In urban settings, she said, they're often treated punitively.

She made a slide to use in presentations to make that point. It has three photographs on it.



'The Big Book of Granny' was something Adam Lanza and a classmate made in elementary school. It depicts a grandmother with a cane that shoots bullets.

One is the cover of "The Big Book of Granny," something Lanza and another student made in elementary school, depicting a grandmother with a cane that shoots bullets. A report by the state's child advocate said the book portrayed "intense violence" that experts said should have warranted referral to a mental health professional.

Next to it on the slide is a picture of a bathroom light switch plate from Márquez-Greene's house, with four letters carved in it: "Ana G." Isaiah did it about two weeks after the shooting.

The third image came from the playground in Hartford's Elizabeth Park that was built in Ana's memory. Near the playscape, there's a sign that says "Ana Grace" and "Love wins." Not long after the playground opened, graffiti appeared. "Peace 2 Sandy Hook," someone wrote on a corner of the sign.



A playground was built at Elizabeth Park in Hartford in Ana's memory.

(Arielle Levin Becker / CT Mirror)

"For me, they are all symptoms of expression in children," Márquez-Greene said during a presentation last summer. "And we need to pay attention when our kids are vulnerable enough to share what's on their minds."

But each picture got different reactions.

The carving in the switch plate brought support.

"When my son was grieving and he did this, no one got on him about drawing on the wall," she said. "We were there. We caught him. We loved him. We said, 'Oh my gosh, we miss her too, let's all draw on something.'"

She's not sure what kind of response Lanza got when he made those drawings, who might have been able to read the signs.

The graffiti at Ana's playground made the news.

Márquez-Greene got phone calls asking, "What do you think should happen to the person who tagged her playground?"

She hadn't seen it yet. When she did, she said, "I was moved."

It happened in a city where violence is far more commonplace than in Newtown, but where residents don't get the sort of outpouring of love and support that people in Sandy Hook did.

"Someone in the Hartford community, despite the disparity in response, was wishing us peace," she said. "Yet the response was, 'What do you think should happen?' It was very punitive."

"Every one of those individuals are children who reached out and asked for help," she said. "It deserves our response." ♦





# HOW TO TALK ABOUT TRAUMA

*Studies indicate that most children will be exposed to at least one potentially traumatic event by the time they're 18. Many of them won't develop symptoms or require treatment. But many who need help don't get it, experts say. Here are some things to know about trauma and how to address it.*

## What is trauma?

Definitions vary, but experts generally say a traumatic event is something that overwhelms a person's ability to cope. Examples of potentially traumatic events include experiencing abuse, witnessing violence or being in a natural disaster or car accident. But people's responses vary, and an event that produces symptoms of traumatic stress for one child might not for another.

Neglect, the most common form of maltreatment, doesn't meet clinical definitions of trauma that refer to a specific traumatic event, but experts say it can be particularly harmful<sup>44</sup> to children's development. And they say children who are neglected often experience other forms of trauma.

## Signs of trauma

Signs that a child could be struggling with trauma include difficulty sleeping, nightmares, appetite problems, withdrawing from normal activities or other changes in behavior.

"If you had a gregarious, outgoing, good student who suddenly becomes withdrawn, sad, [has] difficulty studying, focusing, that's your biggest thing," said Kimberly Shaunesey, chief operating officer at Boys & Girls Village, a Milford treatment provider.

Often, traumatic experiences can manifest as negative behaviors, like becoming more irritable, clingy or negative, said Alice Forrester, executive director of the Clifford Beers Clinic in New Haven. She suggested that parents try to determine what's behind those behaviors, rather than immediately disciplining the child.

## What parents can do

### Talk about emotional issues early

Experts recommend making a habit of talking to kids about emotions and how their experiences affect them. That can help them feel comfortable mentioning something more serious or traumatic if it occurs.

"People should be willing to have ongoing conversations, which makes a conversation in the more extreme much easier," said Steven Kant, president and CEO of Boys & Girls Village.

For example, he said, a parent might ask a child how he's feeling about starting a new grade, or mention that it's not unusual to feel a little anxious about starting a new sport and that they can talk about it if he wants.

Kenneth Spiegelman, a Manchester pediatrician who trains other medical providers about trauma, asks patients if anything scary or uncomfortable has happened in their lives. He likened it to putting out a welcome mat to let his patients and their families know they can talk to him about serious or traumatic issues. "Unless you invite them to and make it easy for them to, they never will," he said.

### If you know about a potentially traumatic event, talk to your child about how it could affect them.

When a student was stabbed at the local high school, Kant urged parents to talk to their teenagers with some basic messages: Experiences like this can make people feel upset or anxious. If you begin to feel that way, we should talk about it. I'll check in another month and see how you're doing.

## **If you suspect a problem**

If you think your child is struggling with something, ask about it the way you would typically talk to him or her, Forrester said. “Is something worrying you?” is one way to start.

The child might say no and not want to talk. That’s okay, Forrester said. Asking helps to establish that you’re willing to listen and someone they can trust if and when they need to talk.

## **When someone has experienced trauma**

### **Ways to help**

Children often believe that things that happen to them are their fault. The National Child Traumatic Stress Network recommends that parents explain to children that they are not responsible for what happened and assure them that they’re safe. The organization also recommends that parents take a balanced perspective: Take the child’s reaction seriously – don’t minimize it or say, “It wasn’t so bad.” But recognize that children can recover from the effects of trauma.

### **How to find help**

Not everyone who experiences trauma will develop symptoms or require treatment. But for those who do, there are many forms of treatment, including some, like cognitive-behavioral therapy, that have been shown in studies to reduce post-traumatic stress symptoms.

The state’s Infoline, reachable by calling 2-1-1, can provide information about nearby child guidance clinics and other resources. Pediatricians and school counselors are also good sources for suggestions, experts said.

Kant suggested asking kids who they would feel most comfortable talking to.

If there’s an acute situation, families can call 2-1-1 to reach the state’s emergency mobile psychiatric services.

### **Healing varies**

Not every treatment approach works for every person. The same goes for therapists.

“It’s very unique. It’s very individual, and you’ve got to find the right fit,” said Nelba Márquez-Greene, a licensed marriage and family therapist.

While many forms of therapy are short-term or time-limited, Márquez-Greene said it’s important to recognize that healing does not follow a strict pattern.

“There is no timeline for healing,” she said. “Healing is as individual as a thumbprint.”

### **Get help for yourself if necessary**

Márquez-Greene said the instructions on airplanes about oxygen masks – put yours on first, then put on your child’s – apply here.

“The healthier and stronger a parent or caregiver can be, the more likely it is that the child is going to respond to that,” she said. “But if you’re drowning, you won’t be able to be helpful.”

Márquez-Greene’s daughter, Ana, was one of 20 first graders killed at Sandy Hook Elementary School. For her and her husband, a part of the grieving process has been recognizing that their son knows that his parents can’t always keep him safe and shield him from harm, or solve everything.

“Be okay with the fact that you may not be able to fix it,” she said.

### **People can recover from trauma**

“Traumatic events are things that stay with us forever,” Márquez-Greene said. “They don’t have to negatively impact us forever, but they just stay with us forever.” ♦



# RESOURCES

## Where to find help

### Dial 2-1-1

People in Connecticut can dial 2-1-1 to reach a specialist who can provide referrals for a wide range of services, including mental health care, providers who specialize in treating trauma, help meeting basic needs and other community resources. It's run by United Way of Connecticut and available 24 hours a day. Information is also available online at [www.211ct.org](http://www.211ct.org).

### Emergency Mobile Psychiatric Services

This program is a mobile intervention for children and adolescents experiencing a behavioral or mental health crisis. People can reach it by calling 2-1-1.

### Connecticut Sexual Assault Crisis Services statewide hotline

1-888-999-5545 English

1-888-568-8332 Spanish

[connsacs.org](http://connsacs.org)

Calling this number will connect you to the sexual assault crisis center closest to you. The centers provide counseling, accompaniment to medical care, legal advocacy, support groups, information and referrals. The hotline is free and available 24 hours a day. All services are free and confidential.

### Connecticut Coalition Against Domestic Violence statewide hotline

888-774-2900 for English

844-831-9200 for Spanish

[ctcadv.org](http://ctcadv.org)

People can call this number for support, advocacy, information and referrals. It is available 24 hours a day and calls are confidential. People don't have to be in crisis to call.

You can find a list of local domestic violence service providers at this link: <http://www.ctcadv.org/find-help/find-a-ct-provider/>

### Child Development Infoline

1-800-505-7000

People with questions about child development, challenging behaviors, disabilities or other health-related issues involving children can call the Child Development Infoline to reach a care coordinator who can help address the questions and provide links to resources. People can also use this number to access services for children and families.

Those services include Help Me Grow, which is intended to identify children at risk for developmental or behavioral problems and connect them to resources; and Birth to Three, which serves young children with developmental delays or disabilities. The infoline is run by United Way of Connecticut and staffed Monday through Friday from 8 a.m. to 6 p.m.

### **Kids Mental Health Info**

[kidsmentalhealthinfo.com](http://kidsmentalhealthinfo.com)

This website, created by the Child Health and Development Institute of Connecticut, includes information about children's mental health issues and answers to questions including how to tell if a child needs help and where to turn for assistance. It includes a section on child trauma and Connecticut-specific resources, including a list of providers trained in treating trauma.

### **National Alliance on Mental Illness, Connecticut**

[Namict.org](http://Namict.org)

National Alliance on Mental Illness, Connecticut, has many support groups for people living with mental illness and their friends and family. ♦



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#### **About The Mirror:**

The Connecticut Mirror is an independent, nonpartisan, nonprofit news organization created in 2009 to reinvigorate coverage of state government, public policy and politics. Its mission is to ensure that the people of Connecticut are better informed about their government so they can more effectively participate in the development of public policy and hold officials accountable for addressing the state's needs. The Mirror's in-depth coverage by veteran reporters is available at [www.ctmirror.org](http://www.ctmirror.org).

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#### **About the Children's Fund of Connecticut:**

The Children's Fund of Connecticut is a public charitable foundation dedicated to improving the quality of children's lives by building stronger health systems. To carry out this mission, the Children's Fund champions sustainable system, policy and practice improvements through innovative grant making and through the work of its non-profit subsidiary, the Child Health and Development Institute of Connecticut (CHDI). Together, these two organizations support and advance initiatives in the areas of health, mental health and early childhood.



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