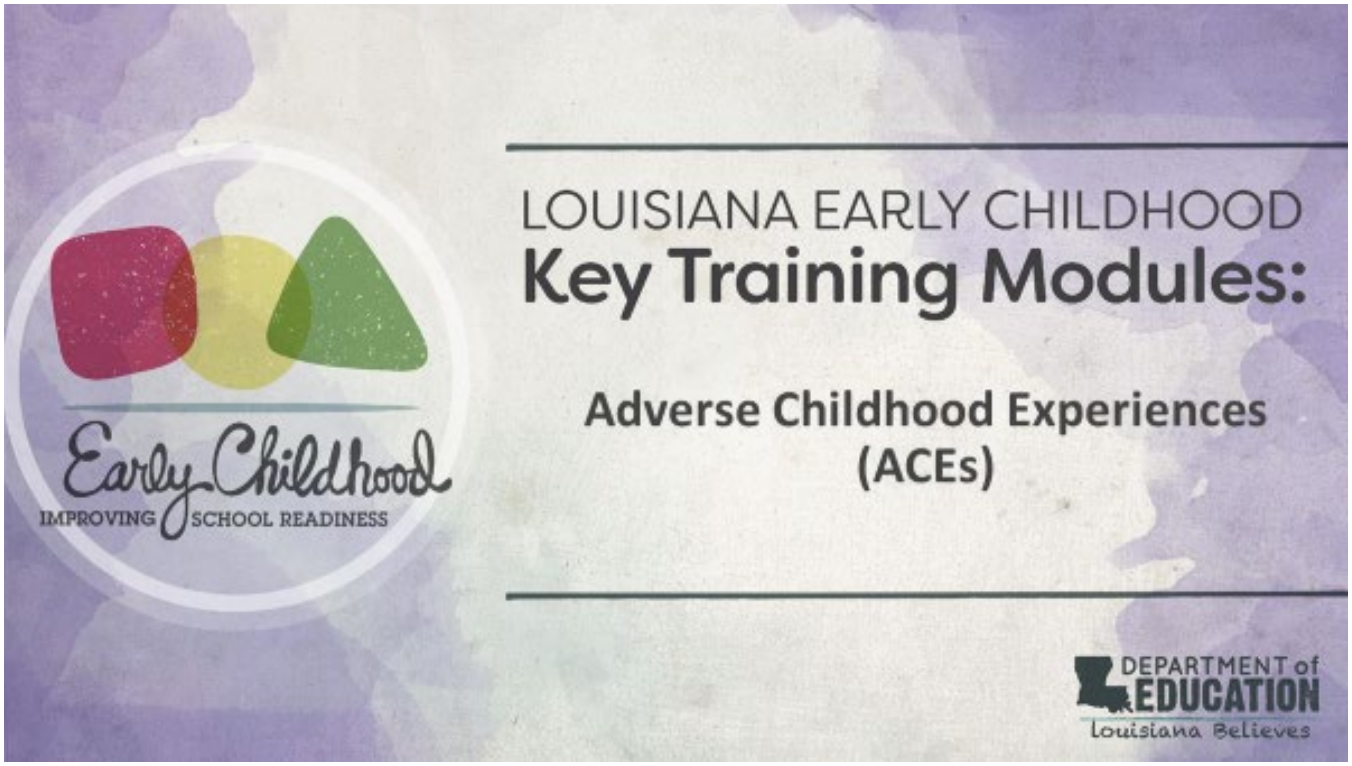
Module 3E: Outline & Manual

Adverse Childhood Experiences (ACEs)

Contents



Module Description

Early childhood is a critical period in brain development, creating a foundation for development throughout life. This two-hour module explores how Adverse Childhood Experiences (ACEs) and toxic stress can jeopardize that foundation by overwhelming physiological stress systems, potentially altering brain structure and development. Participants will learn how ACEs have been found to be linked to lifelong challenges, as well as early prevention and intervention strategies that can significantly improve outcomes. This module will cover evidence-based strategies that can prevent ACEs by supporting individuals, families, and communities. Early Childhood Educators will also have opportunities to engage with strategies that build resilience in the classroom.

Pre-Work

- Trainer should cut out the Vignettes ahead of time to be distributed to groups during the training.

Materials

- Chart paper and markers
- Copy paper
- Pencils or pens for participants
- Handouts
    - *Vignettes*
    - *Safety and Connection: Concepts*
    - *Safety and Connection: Strategies*
    - *Executive Function Activities*
    - *Pre- and Post-Assessments*

Learning Outcomes

Candidates who actively participate in this session will be able to…

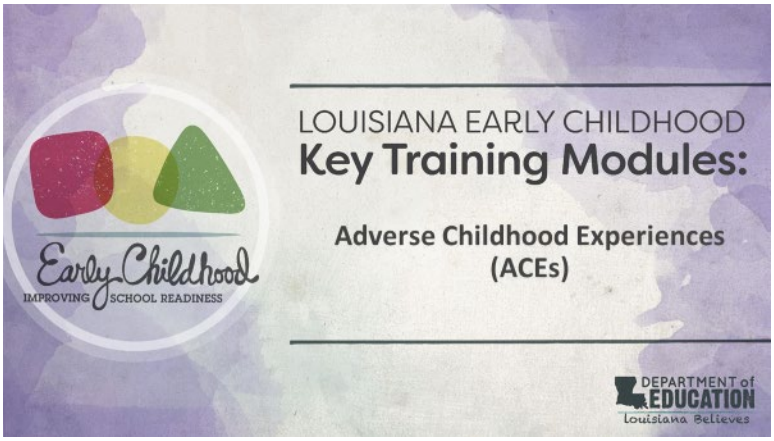
- Gain a general understanding of brain development, the finding of the ACEs study, and evidence-based prevention and intervention strategies
- Apply scientific findings about ACEs and toxic stress to development ages 0-3, and analyze impacts on behaviors and developmental milestones
- Connect information presented to their own experiences
- Practice applying evidence-based strategies for creating safe, stable, nurturing relationships and environments

Training Agenda

Total Content Time: 2.0 hours
Total Session Time: 3.0 hours

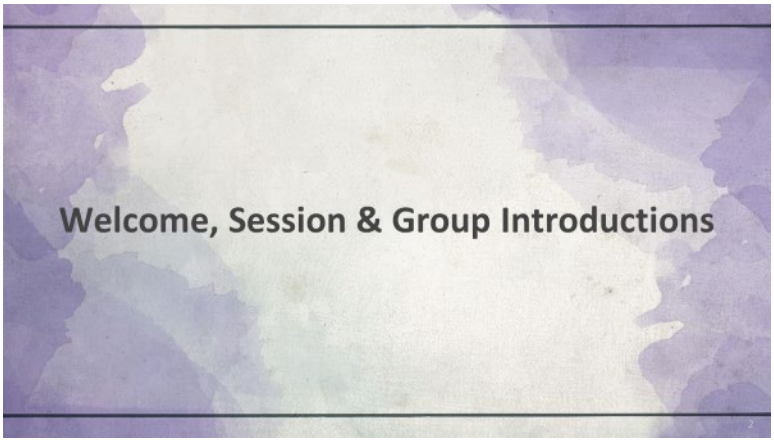
Item	**Time/Duration**
Registration/Sign-In	30 minutes prior to course start (*not included in total course time*)
Welcome, Session & Group Introductions	20 minutes
Understanding ACEs and Development	25 minutes
ACEs Across Generations	30 minutes
Preventing ACEs: Safety and Connection	30 minutes
Vignettes	20 minutes
Session Closing & Post-Assessment	15 minutes (*not included in total course time*)
Individualized Q&A	15 minutes following course completion (*not included in total course time*)

Training Manual



Distribute the Pre-Assessment Evaluation as participants enter the training.

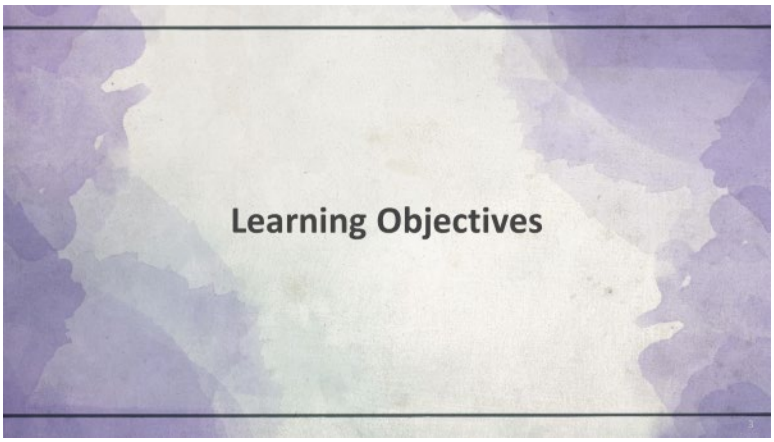
- *Ask them to complete the Pre-Assessment Evaluation and return to you*
- *Briefly review the forms to identify the group's needs*
- *Emphasize the learning objective(s) identified by the group as needing support*
- *Modify the session to spend more time on knowledge, skills, and abilities needed by the group*

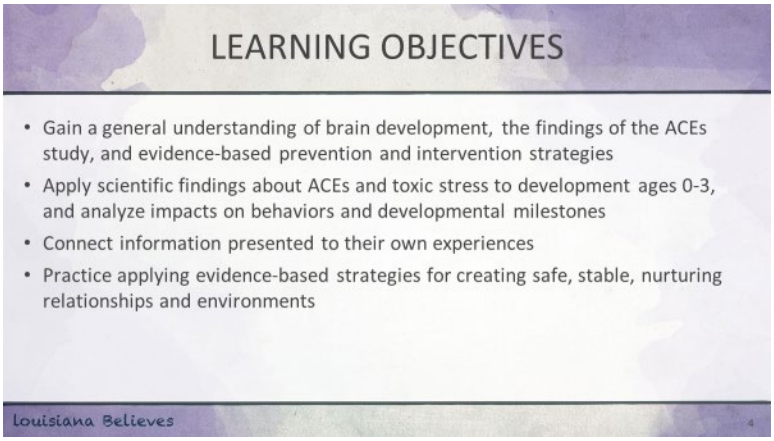


Good morning/afternoon. This is a presentation of the Louisiana Early Childhood Key Training Modules. I am (insert name) and I will be your trainer today.

This morning/afternoon, we will begin by getting to know a little bit about one another, and also review what you will be learning today.

First, I want to welcome and thank you for taking the time to join us today. I/we appreciate your dedication to young children in Louisiana. Your efforts to grow will help them grow, so thank you.





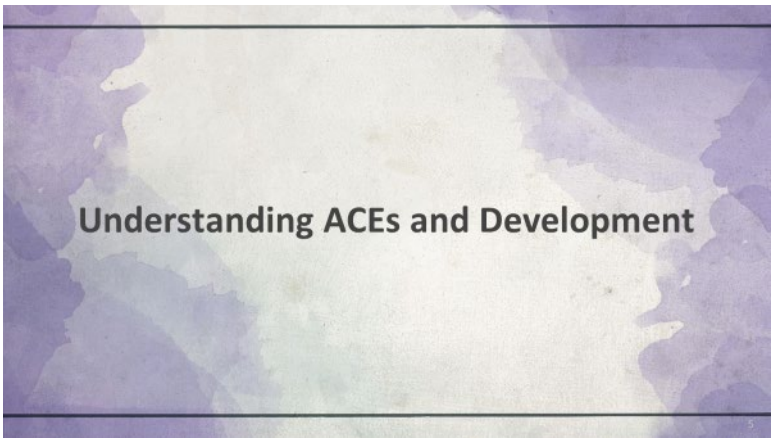
Let's look at the learning objectives for today's session.

Read each learning objective aloud.

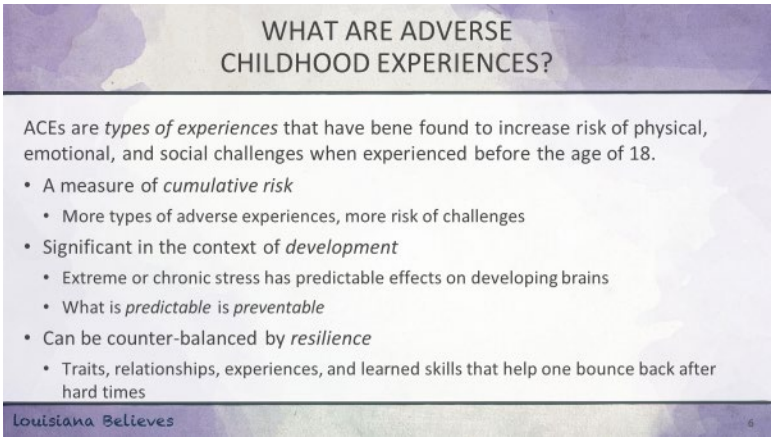
- **Gain a general understanding of brain development, the findings of the ACEs study, and evidence-based prevention and intervention strategies**
- **Apply scientific findings about ACEs and toxic stress to development ages 0-3, and analyze impacts on behaviors and developmental milestones**
- **Connect information presented to their own experiences**
- **Practice applying evidence-based strategies for creating safe, stable, nurturing relationships and environments**

Are there any additional points we should add to our list of objectives for today?

Record responses on chart paper.



A central message of this training module is that adverse or traumatic experiences early in life can influence the development of brain structures and functions in ways that keep children safe, but increase risk of physical, social, and emotional challenges later in life. Let's look at how this happens.



Adverse Childhood Experiences, or **ACEs**, **are types of experiences that have been found to increase a person's risk of physical, emotional, and social challenges, when experienced before the age of 18.**

These are factors in children's environments that can lead to extreme or chronic stress, initiating the body's stress response and influencing the brain to adapt to a world that is threatening or in which basic needs are not met.

Talking about ACEs is a way of talking about **cumulative risk**. When children experience **more types** of these **experiences**, the stressors add up to increase the risk that child will also experience **challenges** related to overwhelming stress.

Another important thing to understand about ACEs is that they are specifically identified in the context of **development**. Traumatic experiences can happen at any point in life, and adults who have experienced trauma need resources for healing. In this training, we will focus on children's experiences, but we need to acknowledge that trauma experienced by parents and caregivers has to be taken into consideration as we talk about prevention and intervention strategies.

When we talk about ACEs, we also talk about **resilience**. **Resilience describes a combination of traits, relationships, experiences, and learned skills** that help buoy us when things get hard. Having resilience does not mean that we are

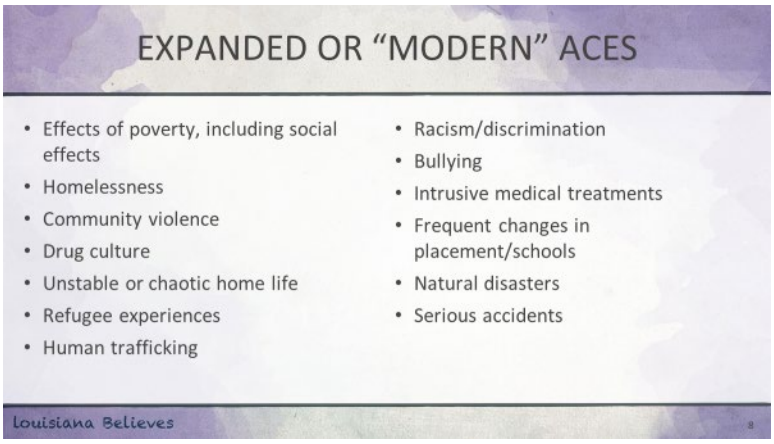
unaffected by adversity, just that we have internal and external resources and supports to help us cope and bounce back. In working with children, we have a lot of opportunities to promote and teach resilience, as we also work to keep children safe from adversity.

Let's go over some of the **experiences** that have been **identified as Adverse Childhood Experiences**.

- **Physical, emotional, or sexual abuse**
- **Physical or emotional neglect**
- **Household mental illness or substance abuse**
- **Separation from a parent due to divorce, or from a family member due to incarceration**
- **Domestic or partner violence toward the mother**

Two thirds of adults in the United States report experiencing at least one of these before the age of 18.

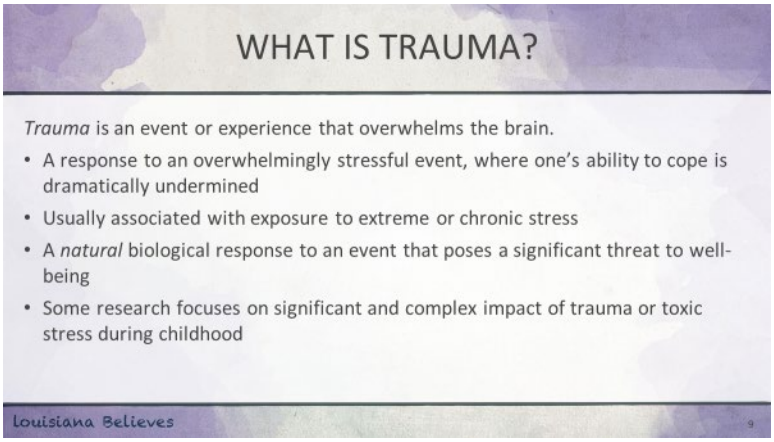
These "original" ACEs came from a study conducted by the Center for Disease Control and Kaiser Permanente Managed Health Consortium in the mid-90s. This is considered the original ACE study. We'll get into some more findings from this study a little later on. For now, know that these experiences were chosen as a focus because the researches thought they would be more common, and easier to define and measure, than some other experiences.



Since the mid-90s, when the original study was published, many subsequent studies have expanded the list of what we consider ACEs. Some additional ACEs include:

- **Effects of poverty, including social effects**
- **Homelessness**
- **Community violence**
- **Drug culture**
- **Unstable or chaotic home life**
- **Refugee experiences**
- **Human trafficking**
- **Racism/discrimination**
- **Bullying**
- **Intrusive medical treatments**
- **Frequent changes in placement/schools**
- **Natural disasters**
- **Serious accidents**

Think about the students you work with, and the way these experiences can accumulate and become overwhelming. For younger children, coping is even more difficult, and adults are needed to establish safety and teach resilience. For some people, ACEs is a new way of describing these experiences and their effects. Let's talk about some other terminology you may have heard.



Trauma describes an event, a series of events, or a set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening, and that has lasting adverse effects on the individual's functioning and well-being. These effects can be mental, physical, social, emotional, or spiritual. Traumatic events or experiences cause more emotion than the brain can deal with, overwhelming a person's ability to cope.

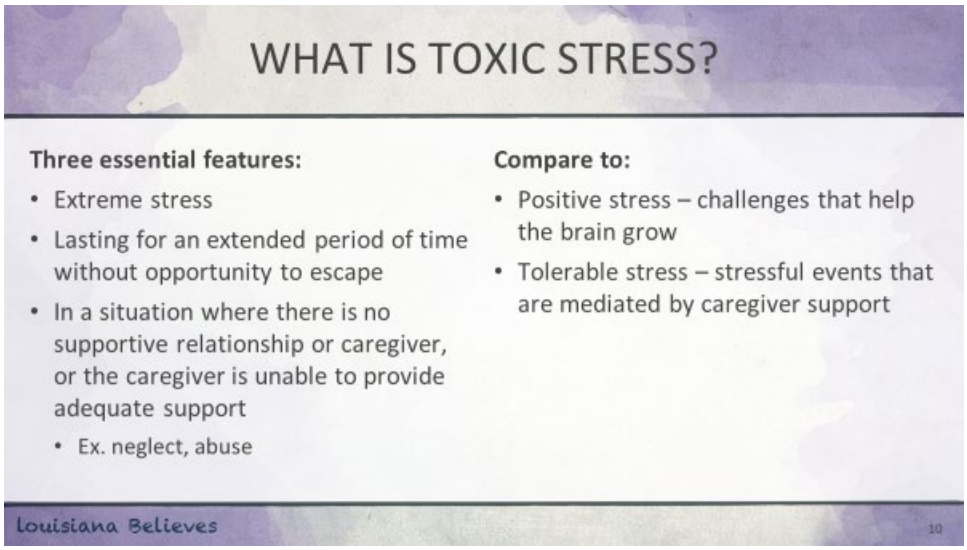
Trauma can happen at any point in a person's life, and is generally measured by an individual's subjective experience. Something that is traumatic for one person may not have the same effect, or may manifest differently, in another person.

Trauma arises from a natural biological response to an event that poses a significant threat to well-being. For an example, think of serious car accident. This is an unusual event that will normally cause a dramatic stress response, both emotionally and physically. It will take most people some time to recover their sense of calm when driving, and some may avoid cars and driving, or have flashbacks to the accident.

Trauma can also arise from chronic or frequent stress. Imagine that you get in a car accident every few days, and still have no choice but to drive your car regularly. Eventually, most people will develop physiological or behavioral resistance to getting into the car, and may experience other effects in their thoughts, feelings, and behaviors.

Some recent research on trauma focuses specifically on the significant and complex impact of trauma and toxic stress during childhood. This is part of a growing recognition that special attention is needed to understand how traumatic and toxic stress interact with developmental processes in childhood. Some adult outcomes that may be connected to developmental trauma include:

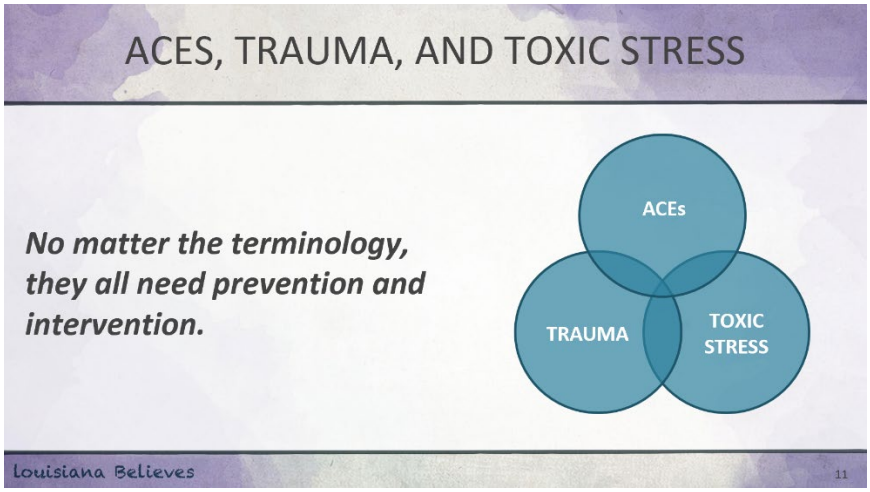
- Difficulty controlling emotions,
- Interpersonal disturbances, and
- Negative self-concept, among others.



Toxic stress is another term often used to describe the kind of experiences that can be challenging for developing brains to process and cope with. Toxic stress is **extreme stress**, lasting for an **extended period of time**, **in a situation where there is no supportive relationship with a caregiver, or the caregiver is unable to provide adequate support**. Most of the experiences described in earlier slides fit into this category.

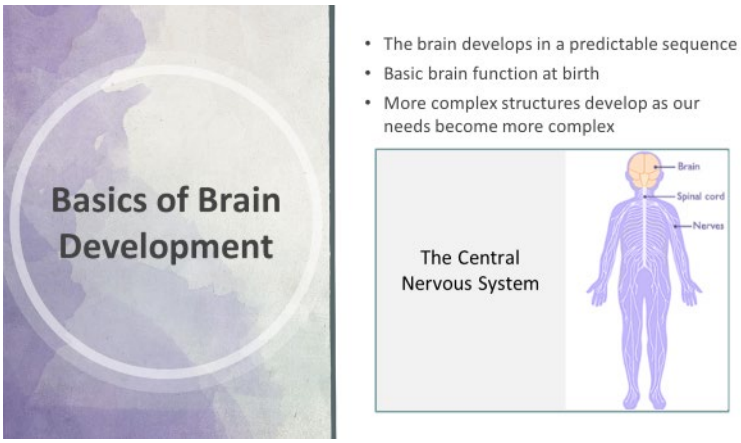
Toxic stress is different from tolerable or positive stress. **Positive stress** consists of **challenges that help the brain grow**, like meeting new people or participating in a performance. Children may still need support for these activities, but they are generally positive activities that bring their own rewards. **Tolerable stress** refers to **stressful events that are mediated by caregiver support**. These are experiences that could become toxic if a caregiver is unavailable or unresponsive. For example, evacuating a natural disaster may be experienced as tolerable by a child with good support from a caregiver, or toxic if the child's caregiver is unable or unwilling to respond to the child's need for safety and connection.

We'll talk more about what caregivers can do to help children cope later in this training.



Regardless of what language we use, we know there is a **need for prevention and intervention** wherever people are experiencing extreme stress, dangerous or destabilizing events, or chronic elevated stress.

Because we're focusing on early childhood, our focus today will be on Adverse Childhood Experiences, or ACEs. The science we look at will demonstrate the specific importance of recognizing the impact ACEs in early childhood can have on development and lifelong health.

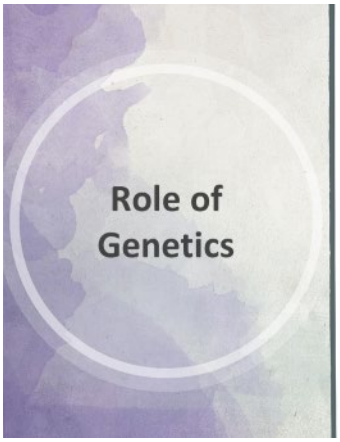


To understand the lifelong impacts that ACEs can have, it helps to understand a little bit about how the brain develops. Some of what researchers tell us about developing brains may seem obvious. The idea that a baby's environment plays a huge role in development is not new. However, understanding the developmental effects of abuse, neglect, and other ACEs can help us understand patterns in how these experiences affect development and what areas to target in helping children heal and recover.

From before we are born, our physical and neurological growth is deeply influenced by the world around us and our relationships with others. Our environment influences the development of our behaviors, learning abilities and styles, and our understanding of the world and ourselves. When young people are exposed to prolonged or chronic stress, such as abuse or neglect, their developing brains may adapt in ways that impact health, learning, and development.

The brain develops in a predictable sequence. This sequence is often described as “back to front, bottom to top.” The “back” or “bottom” of our brain is responsible for our most basic physical and survival functions. Our brains at birth can accomplish basic functions. Crying, eating, sleeping. These are the automatic processes that keep our bodies functioning, and the very first tools we use to interact, as we acclimate to life around us.

From the beginning, we begin to collect and integrate information from the world around us. This is a function of the Central Nervous System. The Central Nervous System is the network of nerves that runs throughout the body. These nerves pick up information from our senses, carries it to our brain to be processed, and carry messages that initiate our reaction. The classic example of this is touching a hot stove and pulling your hand away before your conscious mind is aware of what you’re doing. The Central Nervous System collects information about what to expect from the environment, and the brain develops capabilities to survive.



Developmental processes are driven by experiences, relationships, psychological processes, and our genes**. The genetic code**, half from the mother and half from the father, is the set of instructions our cells use to form from conception onward.

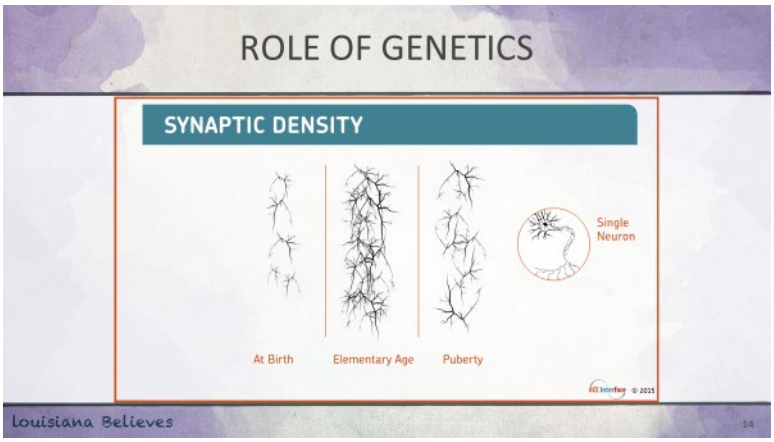
Our **genetic code** supplies **a blueprint** for the architecture of our brains. The genetic plan guides basic properties and interconnection of nerve cells within and across circuits. The environment determines whether there are abundant nutrients, absence of toxins, and environmental features that enable strong construction of the genetic plan. Some environmental adversities, even prenatally, can alter the genetic plan for the brain. One example of this is high exposure to environmental lead inhibiting brain development. Experience can further alter the genetic plan for the brain, shaping the architecture of the neural circuits to the needs and distinctive environment of the individual.

Epigenetics is the scientific field that looks at changes to our genetic expression, that are not written into our DNA. Epigenetic changes can switch genes on or off, sometimes as a result of environmental influence or experience. There is growing evidence that epigenetic changes in one generation may be inherited by the next.

If genes are the blueprint for the brain, epigenetics is the field that studies the notes and markings on the blueprint made by your parents, grandparents, great-grandparents, and so on. This has profound implications for intergenerational impacts of ACEs for individuals, as well as population-level traumas like slavery, genocide, and war.

In one experiment that illustrates epigenetic influence, mice were conditioned to fear the smell of cherry blossoms. When the smell was released into their cage, it was paired with an uncomfortable electric shock. Those mice had pups, who were raised normally. Once they had grown a little bit, the pups were separated from the parents and exposed to

the smell of cherry blossoms for the very first time. With no prior direct experience of the smell of prompting from the parents, the pups showed an automatic fear response to the cherry blossoms, just as their parents had.



This is a picture of what happens in our brains as we learn about our bodies, our environment, and how best to function.

The name for the connections you see here is synaptic connection. These connections are the “circuits” in our brain that allow messages to travel. Like the electrical wiring in a house, synaptic connections power all of our neurological processes, from breathing to solving complex problems. As new structures in our brains develop, synaptic connections form to “wire” them into our ongoing processes.

When we are born, we only have to do a few things, so we don’t start out with a lot of connections. Everything a baby experiences, both internally and externally, spurs formation of neural circuits.

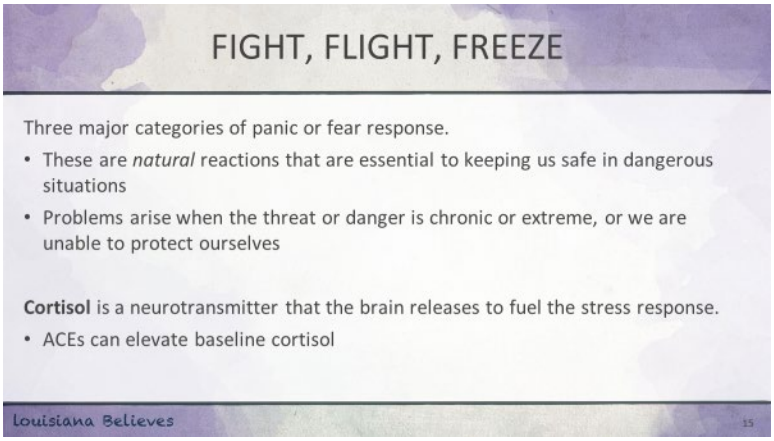
In the first 3-5 years of life, our brains grow at an astounding rate. Experiences, physiological processes, and genetics all work together to spur the formation of millions of connections every day. The brain doubles in size in the first three years, reaching up to 80% of its adult volume.

During this time, the brain forms many more synaptic connections than we will need – Up to twice as many. Connections that we activate more often become stronger. People we see often, foods we eat often, or words we hear often all become very familiar to us and the related connections become strong and more complex. Connections related to experiences and information that are not as important tend to be weaker and less complex.

When we reach puberty, our brains begin to prune away connections we have not used very often. This process allows us to use our brains more efficiently for our environments, and to solve complex problems. Connections that aren’t useful to us become weaker and sometimes disappear. A game we played once growing up may not be important for our continued success, so we don’t retain detailed information about it.

Think of this process in the context of ACEs. What might this mean for a child that has not had a lot of loving encouragement or attachment? Or for a child who has experienced many stressful or frightening situations?

Children may need help building the connections and internal resources that come with supportive relationships, or managing neural networks that are very active in response to stress or perceptions of threat.



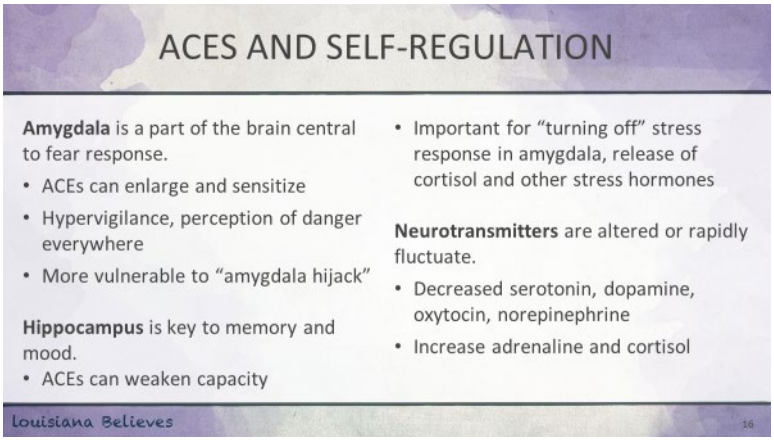
At birth, we can sense danger but can do very little to protect ourselves. Our amygdala and hippocampus are among the first brain structures to develop. Together, these areas of our brains help us recognize, react to, and remember threats to our safety.

The amygdala is central to our physiological **fight, flight, or freeze response**. When this is triggered, heart rate speeds up, digestion slows down, sweat keeps us cool, and fast breathing or gasping gets a blast of oxygen to the brain. The hippocampus, a center for memory, helps us record memories of danger so that we can react more quickly the next time. It also records memories of what has kept us safe, and signals the amygdala when it can "shut off" the fight, flight, freeze response.

Behaviorally, this response can take many forms. "Fight" includes behaviors that move toward or seek to control the threat, like arguing, refusing to follow instructions, or acting impulsively to change the situation. "Flight" includes behaviors that attempt to separate us from or resist engaging with the threat, such as socially shutting down, withdrawing, or physically moving away. "Freeze" includes behaviors that use the mind to attempt to move away from the threat or bad feelings associated with it, such as dissociating, sleeping, or having difficulty processing information.

This stress response can be disruptive or difficult to manage in the moment, and is soothed by restoring the child's feeling of safety and connection. For children who have experienced trauma or ACEs, these stress reactions may be triggered more often and may be more difficult to soothe. This is because chronic activation of this system can elevate baseline levels of **cortisol, a neurotransmitter the brain releases to fuel this stress response**. This makes us more likely to perceive a neutral or ambiguous situation as dangerous. Over time, elevated cortisol and other stress hormones can cause a "weathering" effect, wearing the body down.

During development, extreme stress can influence brain architecture in some specific ways.

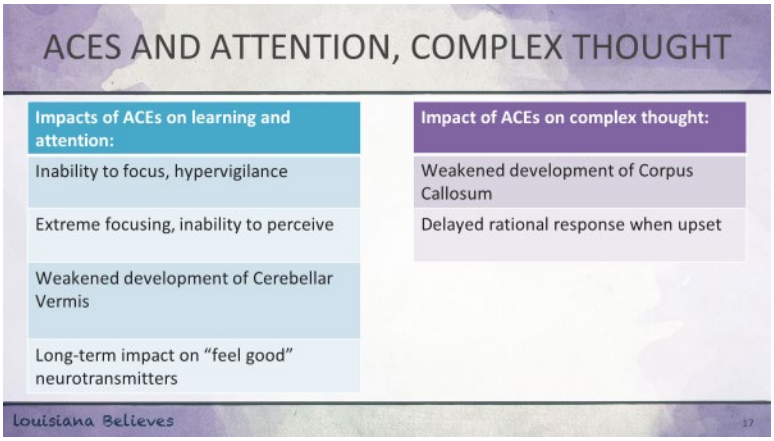


When we see this fight, flight, freeze reaction in the classroom or childcare setting, it can affect many domains that are central to learning, social skills, and behavior. One of these is S**elf-Regulation**. This refers to a person's ability to calm themselves when they become upset.

The part of our brain called the **amygdala** plays a role in this. This **brain structure is central to the fear response** and fight, flight, freeze. Children who experience ACEs without intervention may later have an amygdala that is **enlarged and sensitized, leading to hypervigilance and a perception of danger everywhere**. They may be more vulnerable to what we call "**amygdala hijack**." This is what we see when someone goes from zero to one hundred in response to a threat, even when that threat is unclear or ambiguous to others. In that moment, other, more rational parts of the brain are unable to keep control of the person's stress response. Fight, Flight, Freeze takes over.

The **hippocampus** is another brain structure involved in self-regulation. The hippocampus **is important for "turning off" the stress response in the amygdala** by signaling that the threat has passed. The hippocampus is also where memories of emotional events are stored, and may play a role in non-threatening events "triggering" the fight, flight, freeze response. When children experience ACEs without intervention, they may have a weakened hippocampus capacity later in life.

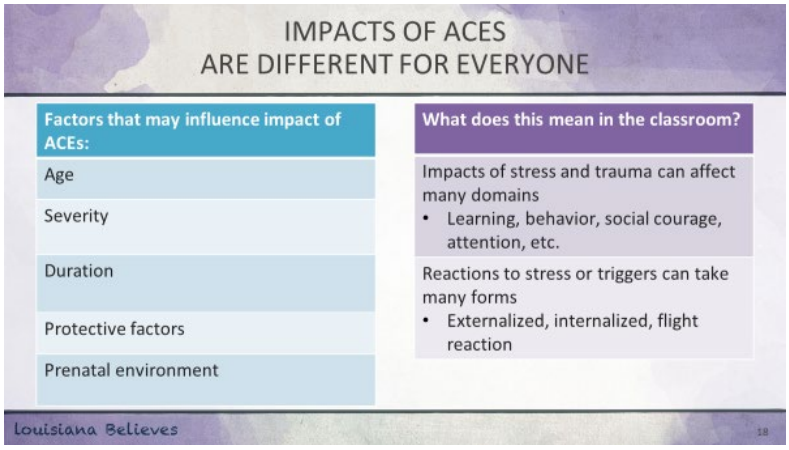
Lastly, ACEs in early life can influence baseline levels of many **neurotransmitters**. **Serotonin, dopamine, norepinephrine, and oxytocin** (the "love and cuddle" hormone released with loving touch) all may occur in lower levels in someone who has experienced a high number of ACEs that have never been addressed. These are all "feel good" neurotransmitters, essential to emotional balance and well-being, energy, and satisfaction. **Adrenaline and cortisol**, among other stress hormones, may occur in higher levels, increasing the tendency to perceive experiences as stressful or threatening.



Two more essential domains of classroom skills that may be impacted by ACEs are learning and complex thought.

ACEs can cause **hypervigilance and an inability to focus**, as well as **extreme focusing** and **difficulty perceiving** peripheral information. When ACEs are experienced during sensitive developmental periods for the cerebellar vermis, these problems with focusing may become exacerbated. This is because **the cerebellar vermis** plays a key role in attentional balance, and can be weakened by extreme stress. A later life impact arising from changes to this brain structure is diminished capacity to create **"feel good" neurotransmitters**, like dopamine and serotonin.

Some ACEs can **impact development of the Corpus Callosum**, the brain structure that acts a "superhighway," connecting multiple centers in the brain to solve complex problem. A child exposed to ACEs without intervention may have smaller mass, lower density, and less myelination of the Corpus Callosum. Myelin in the brain is like the insulation in electrical wires – it coats the outside to help messages move quickly and efficiently. The Corpus Callosum helps us do everything from mix our verbal and mathematics skills to solve word problems, to **respond to rational messages** when we are extremely upset.



Not everybody who experiences ACEs will have all of these outcomes. In fact, the developmental impact of ACEs can vary widely from one person to another. This depends on a number of factors:

- Access to supportive relationships,
- **Severity and duration** of adverse experiences, and
- Connection to community activities, for example.

Some factors that affect the impact of ACEs are internal, and must be understood through a developmental lens. **age, severity, duration, protective factors, and prenatal environment all have an influence on developmental impact of ACEs.** As our brains follow their developmental trajectory, different neural circuits grow and mature at different times.

As we said earlier, this is part of a process that allows us to develop increasingly complex ways of interacting with our environments as our environments become more complex. Most neural circuits are especially sensitive to environment and experience at the time when they are beginning to grow. This means that the effects of both good and bad experiences are more potent during these sensitive periods.

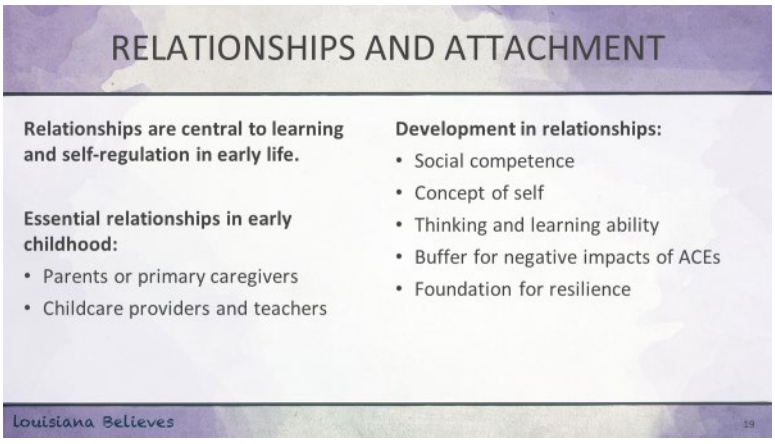
A one-year-old and nine-year-old will have different developmental impacts of toxic stress. Both are vulnerable to the effects of ACEs. However, they are vulnerable in different ways because their brains are at different stages of development. Their sensitivity to a situation or event, and risk of long-term impacts, depends on which neural circuits have already developed and which are still waiting to grow.

For the nine-year-old, whose brain has already developed a set architecture for some neural circuits, experience has a limited ability to alter the fundamental patterns of matured circuitry. However, experience can influence the development of structures that have not yet developed, all of which are still important domains of development. For example, toxic stress at this age may impact brain structures having to do with interpretation of nuanced social cues, effecting social interactions for the long-term.

For the one-year-old, elevated cortisol can also damage what are known as “seedling cells,” cells that are primed to develop during a set developmental stage. Delayed symptoms from toxic stress may not be seen until years later, when these cells do not grow and produce brain mass to their full potential. Toxic stress in the one-year-old’s brain may have a long-term influence on sensitivity to threats, management of emotion and emotional memories, and attachment.

By the time we are in our 20s, our brains have moved through their sensitive developmental processes. Adversity we experienced, combined with age of experience, type of adversity, and gender, will have an influence on how we interpret and react to stress. Impacts of stress and trauma may be apparent much earlier. They can affect many **domains, including learning, behavior, attention, and social courage**.

Reactions to stress or triggers can take many forms. Some children may externalize, and try to fight or move toward the source of their stress. Some may **internalize**, and try to mentally disassociate from the source of the threat. Others may try to flee or hide, as in **flight reaction**.



Relationships we experience early in life also have profound influence on our cognitive, emotional, and behavioral development.

Positive relationships with **primary caregivers and childcare providers** are essential to learning and self-regulation early in life. These relationships can buffer negative impacts of adversity and help children build the foundations of resilience from the earliest years. Conversely, deficits in relationships with parents, childcare providers, and teachers can have a negative impact on the development of important skills and capabilities.

Relationships with parents or primary caregivers are central to the development of brain architecture for babies. Babies are affirmed and nurtured by "serve and return" with parents, in which babies reach out for interactions and parents respond with matched vocalizing and gesturing. Babies who have healthy relationships with caregivers are more likely to develop insight into other people's feelings, needs, and thoughts, and are more likely to develop strong cognitive skills, **social competence**, and work skills in school.

Babies need to be able to rely on parents to provide safety and nurturing in times of distress. When parents have mental health problems or experience family violence, it can be harder for parents to respond in this way, and have a negative impact on emotional development, social sensitivity, and **concept of self**.

When a family is experiencing severe trouble, children are more prone to developing behavioral disorders and conduct problems.

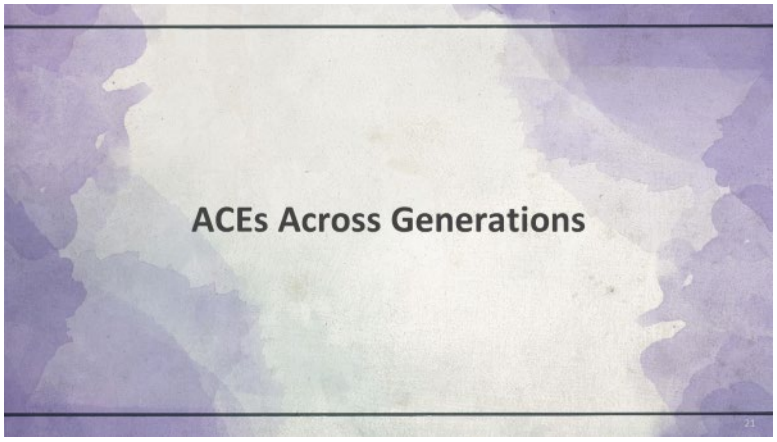
Warm and supportive childcare providers are also essential. Like parents, childcare providers who are safe, consistent, and dependable let children know that they can rely on someone to protect them. In childcare settings that are cognitively stimulating, predictable, and that support positive relationships with other kids, young children are more likely to develop greater social competence, fewer behavior problems, and enhanced thinking and reasoning skills at school age. At school age, kids who have good relationships with their kindergarten teachers are more excited about learning, more positive about coming to school, more self-confident, and achieve more in the classroom. Childcare programs with low turnover, good program design, and quality training are most able to deliver these developmental benefits.

As children get older, they rely more on relationships with peers. The development of friendships with other young children creates an environment of learning how to interact with others, to take the needs and desires of others into account, and to manage their own impulses. Children interact differently, and some children may have normal difficulties with making and sustaining friendships. These children will do better with supportive guidance from caring adults. Children are naturally curious and will want to interact with other kids. Some kids who have experienced trauma have a very hard time bonding and getting along with peers. When children experience significant barriers to peer engagement as they get older, this may pose another risk for adverse developmental consequences.

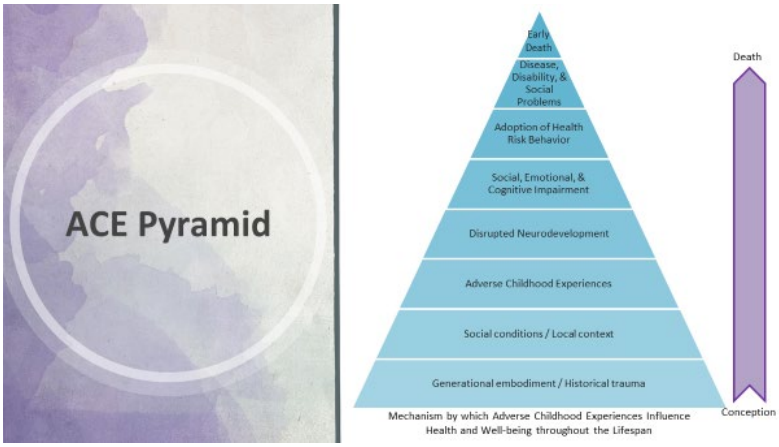
I would like you to turn to someone next to you and think about how some of what we have learned looks like in your work. **How have you seen ACEs or trauma show up in your work**? Take a few minutes to discuss.

Allow participants 3-4 minutes to discuss with a partner. Have one or two participants share with the larger group.

<u>Trainer Note:</u> This question can elicit a lot of stories. Keep an eye on the time, and encourage your audience to keep sharing these stories with each other after the session.



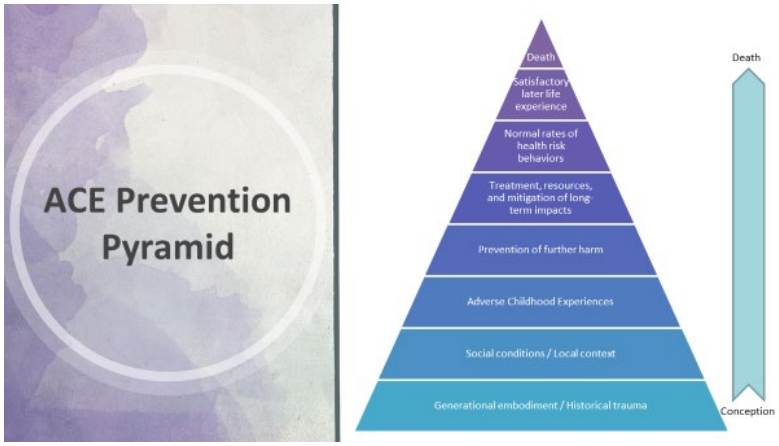
When we talk about the well-being of kids, it makes sense to also talk about the well-being of families, parents, and caregivers. We're going to talk a little bit about the effects ACEs can have on adults' lives when stress continues to accumulate and there are limited opportunities to heal or recover. Parents who are coping with unresolved ACEs deserve resources and support, so that they can better support their kids.



This pyramid demonstrates one pathway for the accumulation of trauma and toxic stress over the lifespan and across generations. This is the model that current research supports. Generational embodiment and historical trauma, adverse social conditions (like barriers to economic stability), and adverse childhood experiences build up and lead to toxic stress.

As the developing brain is forced to adapt to danger and instability, neurodevelopmental processes are disrupted. When there is no supportive intervention, this can lead to social, emotional, & cognitive challenges. This may manifest as depression, a tendency toward anger and confrontation, diminished sense of self-worth, and dissociation and withdrawal from relationships.

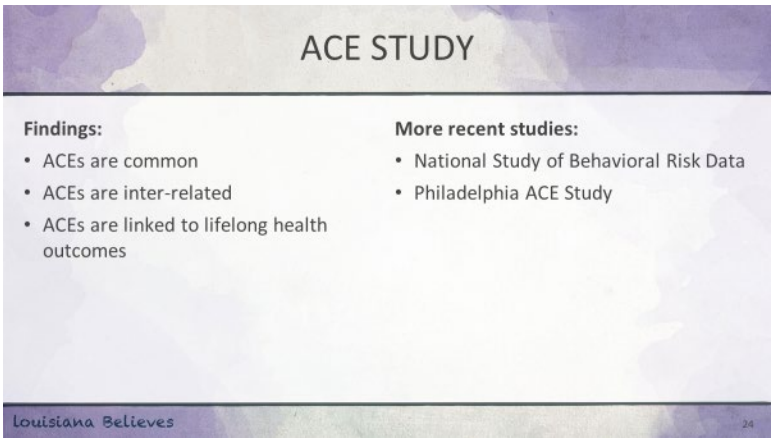
To cope with these challenges, some will adopt health risk behaviors like drinking and smoking. Others will experience weathering effects of chronic stress over long periods. Both of these lead to increased risk of disease, disability, and social problems like difficulty working. Ultimately, this path has been shown to result in a decreased life expectancy.



Of course, we have the choice to do something to prevent this progression. In this pyramid, we see what we hope will be the trajectory following the introduction of far-reaching prevention and mitigation efforts. When we introduce prevention, treatment, and mitigation early, we hope to diminish the tendency for kids who have experienced trauma to grow into adults dealing with depression, physical health problems, or health risk behaviors like smoking. When we prevent the later life impacts of trauma and ACEs, we hope to see increased later life satisfaction and average life expectancy.

In the 25 years since the ACE Study was conducted, many researchers have found ways to put kids on this trajectory. Many strategies are now available that have demonstrated effectiveness in initial findings. Long term outcomes are still being evaluated.

Many of these evidence-based programs to prevent ACEs involved intergenerational strategies. Home visiting programs, for example, may be one avenue for working with parents of young children to address the intergenerational build-up of adversity, and mitigate its impact on future generations. It helps all of us to understand adult experiences of ACEs because they are likely to impact the children we see every day.



The original ACE Study looked at adult reports of their own childhood experiences, and compared ACEs experienced to lifelong health outcomes. The study was conducted by the Center for Disease Control and Kaiser Permanente Managed Health Consortium in the mid-90s in San Diego, CA.

There are three central findings of the original Ace Study. First, **ACEs are common**. In this study, two thirds of participants reported at least one ACE, and one in four had experienced three ACEs or more. Second, **ACEs are interrelated** – or co-occur. For those who reported one ACE, 87% reported a second ACE as well. Third, ACEs are **linked to lifelong health outcomes**. We will look at some graphs in a moment that illustrate this connection for many different health outcomes and health risk behaviors.

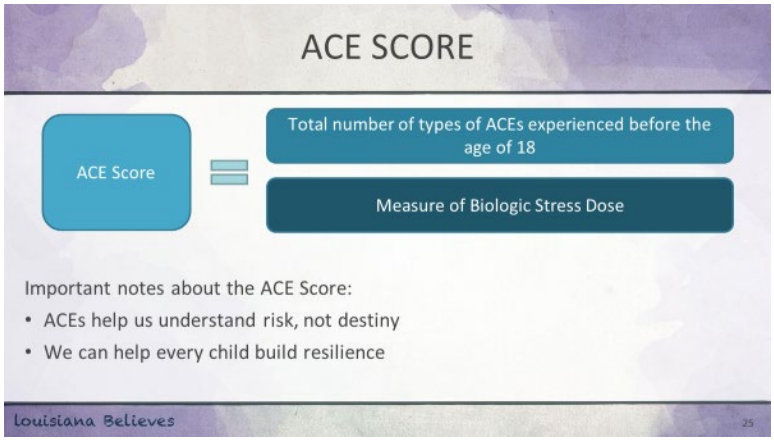
The population of this original study was easy to research, because Kaiser Permanente already had access to their health records. It was a large number of people, 17,000. Many of them are still updating researchers with their health information.

Although large, there are demographic limitations on this study population. The participants were majority, white, middle class, and college educated, and all of them had access to excellent healthcare. Subsequent studies have replicated the original findings with various demographics and populations.

A recent study of ACEs and health risk data from 26 states, including Louisiana, found ACEs occurring at similar rates to the original study. This study found that ACEs are associated with increased risk for 9 of the 10 leading causes of mortality nationwide. This study also found that women, African Americans, and Native Americans experienced slightly higher exposure to ACEs.

Another study, the Philadelphia ACE Study, looked at some of the expanded ACEs we talked about earlier. The Philadelphia Ace Study found that ACEs were common in the majority African American population surveyed. In addition, when they added experiences of adversity like community violence or experiencing discrimination, their findings raise the possibility that their population experienced an elevated dose of toxic stress compared to the original study population.

From these studies, we can see that ACEs are common across populations and demographics. In this way, prevention of ACEs and trauma-informed interventions are a universal precaution – They will benefit everybody. At the same time, prevention strategies need to address inequities and toxic stress arising from a legacy of disenfranchisement and discrimination.

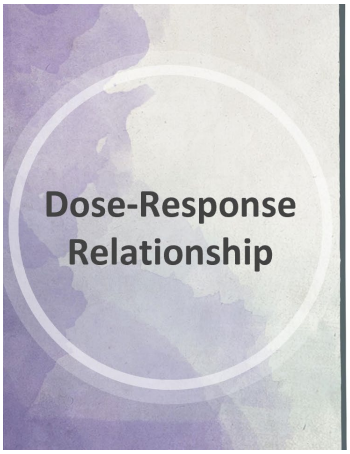


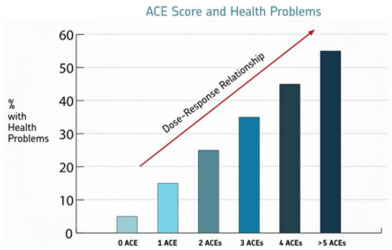
The original 10 ACEs that we looked at earlier came from the original ACE study – physical, emotional, or sexual abuse; emotional or physical neglect; and five dimensions of household stress – mental illness, substance abuse, parental incarceration, domestic violence, and separation from a parent due to divorce.

This study added up the **total number of types of ACEs experienced before age 18**. Information on severity and duration was not collected. Each question was asked in the format, "Before the age of 18, did you ever experience..?" Total number of types of experience are added up to give us a way to **measure the biologic stress dose**. This is called the ACE Score.

For example, if a parent or household member ever overused substances, there is "one" in the ACE score. If, in addition, a household member experienced significant depression and there was interpersonal violence between adults in the home, each of these add one to the ACE Score. The total score is now three.

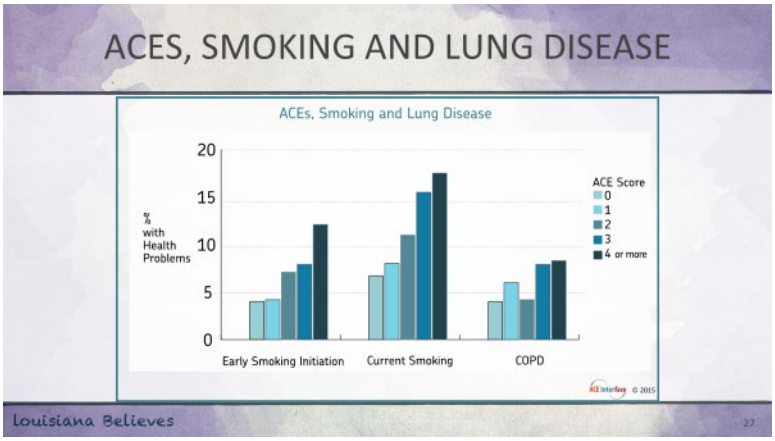
It is important to note that the ACE Score tells us a lot about populations, like the ACE burden on a school community, and somewhat less about individuals. Someone with an ACE Score of 0 or 1 may experience hardship and challenges. Someone with an ACE score of 7 or 8 may have had significant support and opportunities to build resilience. The ACE Score can help us **understand risk, but it is not a measure of destiny**. If we take this opportunity to **help every child build resilience**, we will help those who have experienced ACEs heal and cope and prepare all children for challenges that may come later.





When we talk about increased health risk associated with increased ACE Scores, this is what we mean.

The ACE Study looked at how ACE Scores correlated with overall health history. They found a **Dose-Response relationship** with many individual healthy problems and health risk behaviors. As you can see, as the ACE Score goes up (measured along the bottom), the percent of people in the study who experienced health problems also goes up. This is measured along the left-hand side.

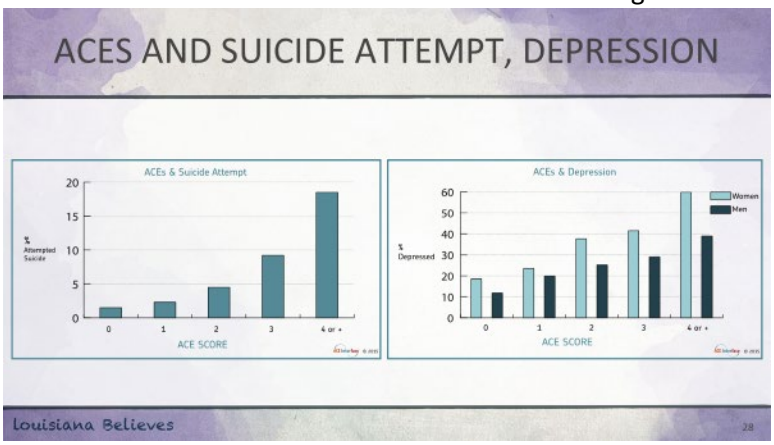


Here is one example of the relationship between ACEs and health. In the first cluster, you can see that people with higher ACE scores are more likely to start smoking early in life, before the age of 12. These risk levels rise a little bit, and still increase as the ACE Score increases, when we look at people who were smoking at the time of the study (middle cluster). In the last cluster, we see increased risk of Chronic Obstructive Pulmonary Disease, a chronic lung disease, in study participants with higher ACE Scores.

Notice that the highest percentage reported on these charts, that of current smokers with ACE scores of four or more, is still less than 20%. This is a significant number when compared to people with zero ACEs, but it also reminds us that ACEs are not destiny.

What can we learn from those with high ACE Scores who never smoked, and how can we use that bring this rate of risk down? *Pause to allow participants to respond.*

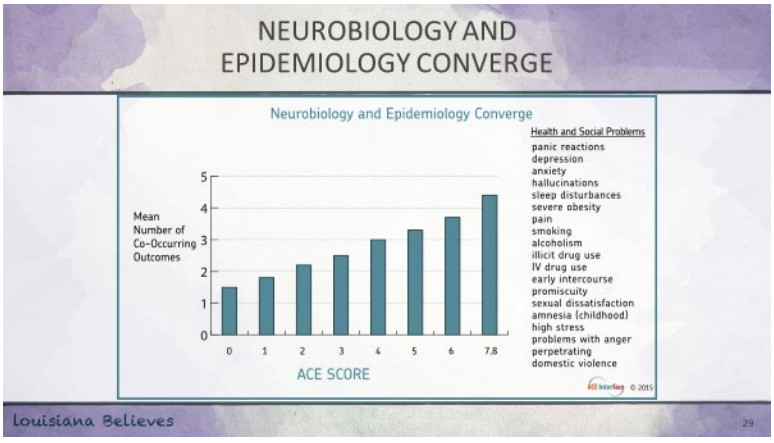
Now, we're going to look at some other later-life outcomes that correlate with higher ACE Scores.



In these two graphs, you can see the dose-response relationships that ACEs have with both **suicide attempt** and **depression**. These are outcomes we may start to see early in life. Recent data tells us that 27% of youth in Louisiana have one or more emotional, behavioral, or developmental conditions. We can reasonably guess that some portion of this is associated with ACEs – though, without systems in place to assess and address ACEs, we cannot say for sure what impacts ACEs are having on Louisiana youth.

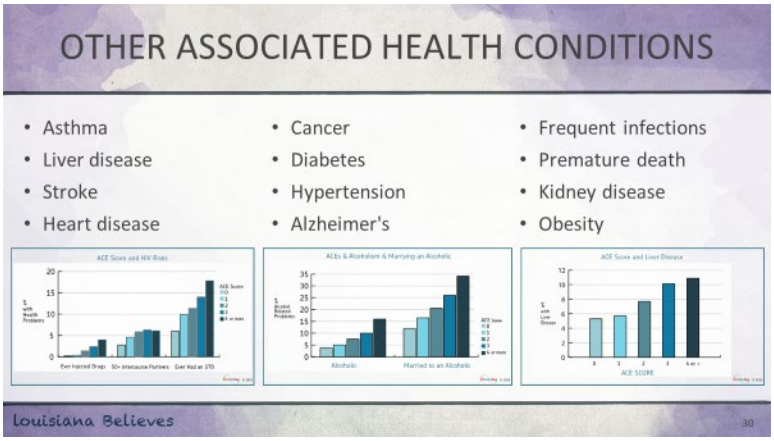
We can look to communities that have addressed youth suicide and depression by addressing ACEs and toxic stress, and see that they have been successful in improving youth well-being.

If we are going to address ACEs in the households of young children, we have to think about what resources parents and families need. Adults in our communities deal with many sources of stress, including barriers to economic mobility, illness and violence in the community, and adults' own unresolved life adversity. All of these can contribute to depression and other household factors that affect young children. In these cases, we need to support parents to support their babies. This is sometimes called a "two-generation approach."



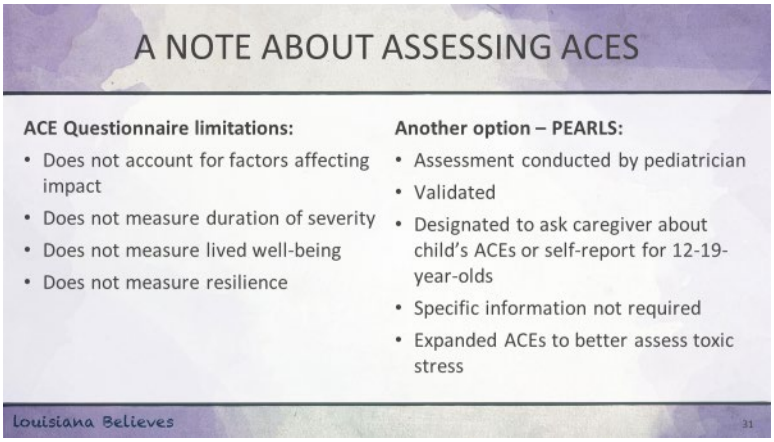
This graph shows a different dose-response relationship. People with higher ACE Scores reported a higher mean number of co-occurring outcomes. These outcomes included panic reactions, hallucinations, sleep disturbance, problems with anger – everything from the list on the right.

Any one of these can be difficult to manage with the demands of daily life, and especially while raising one or more children. When they build up and coverage, we can see how difficult life becomes. The two-generation approach again shows up the importance of helping adults get connected to resources that will help them meet basic needs, manage stress, and provide safety and nurturing for children.



These are some more of the health outcomes that have been associated with a build-up of adversity in childhood. One national leader in building momentum to address ACEs, California Surgeon General Dr. Nadine Burke Harris, put it this way: "When I learned about the ACE Study it was like a bolt of lightning…ACEs are a better indicator of risk for ischemic heart disease than all of the traditional indicators (exercise, diet)."

Many of these are health issues that experts in Louisiana and across the nation have been trying to reduce for many years. The association of these chronic health conditions with ACEs makes it clear that we must act when children are young to prevent ACEs and mitigate their effects, if we want future generations to have improved health outcomes.

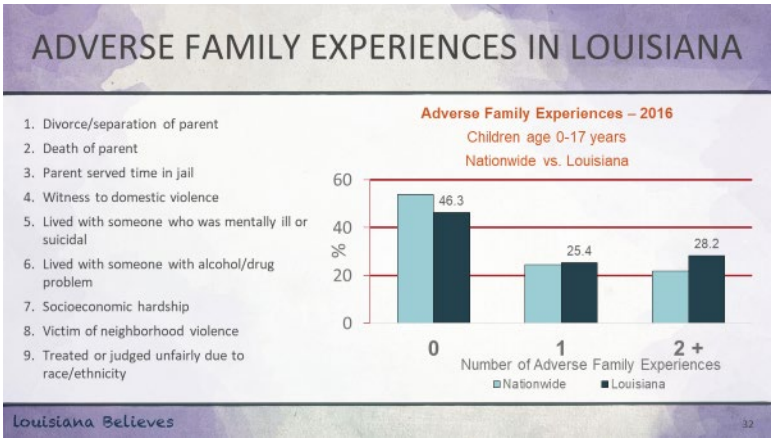


I would like to make a note about the ACE Score and assessment of ACEs. This initial questionnaire is easy to find, but has limitations, as we discussed. It was designed as a public health data collection tool, to be used with adults in regard to their own childhood experiences. The information it provides is limited, especially when the person performing the assessment is not also providing mental health services.

As we discussed when learning about the brain, the long term effects of ACEs can vary widely. Some factors influencing this variation are the type of ACE experienced, the age at which it was experienced, and developmental influence of

gender. Support in learning resilience and the presence of caring and competent caregiver relationships both have a significant impact on ACEs-related outcomes, as well. Two 17-year-olds who both have ACE Scores of 4 may have had very different life experiences, and may have very different ways of dealing with those experiences in the present. To best support them both, some more assessment will need to be done to understand their needs.

An alternative assessment was recently released for use by Medicaid providers in California. It is called PEARLS, and is available for use at no cost. It has been validated in initial trials and is undergoing further validation. The PEARLS assessment has been designed to ask caregivers about their children, rather than their own experiences. Adolescents 12-19 years old can also self-report. The PEARLS Assessment is designed to give the assessor the option of asking for individual items or for an aggregated score, preserving confidentiality and autonomy for the caregiver or adolescent taking the assessment. The PEARLS also includes an expanded list of ACEs, to better measure toxic stress. More information about the PEARLS Assessment can be found at ACESaware.org.



Now we are going to look at some data that comes from Louisiana. The National Survey of Children's Health is a national survey that asks caregivers about the health and well-being of children age 0 to 17 in their households. In 2016, they included questions about Adverse Family Experiences.

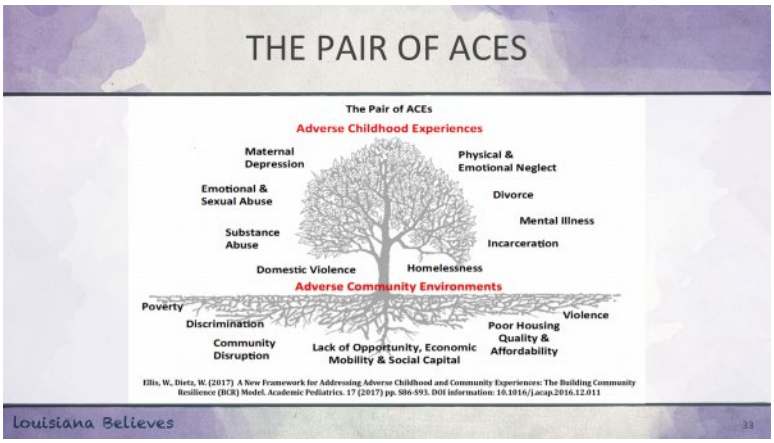
Five of these reflect questions from the ACE Study:

- **Divorce,**
- **Incarceration of a parent,**
- **Domestic violence,**
- **Mental illness,** and
- **Substance abuse.**

Four are considered "expanded" ACEs:

- **Death of a parent,**
- **Socioeconomic hardship,**
- **Victim of neighborhood violence,** and
- **Treated unfairly due to race or ethnicity.**

In 2016, 28% of children aged 0-17 experienced two or more of these. You can see that we have somewhat higher incidence of these experiences than the national average.

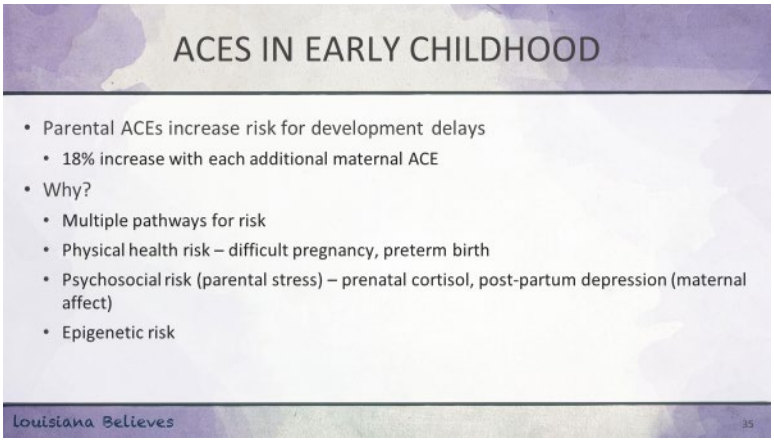


This picture can help us understand the dual experience of Adverse Childhood Experiences that happen to individuals or families, and adverse community experiences that are felt by groups of people and communities. Adverse Community Experiences not only cause toxic stress on their own, they raise the level of stress experienced by families and households, elevating the risk of some adverse childhood experiences.

All of the experiences here are part of a trajectory that derails children's potential, undermines adults' thriving, and disrupts cooperation and peace in our communities. All of these experiences call for effective and meaningful intervene to promote healing, build skills, and learn resilience together.

Research confirms, as well, that these experiences are inter-related. When households are under stress, the children in those households are affected by the stress. You see this in your classrooms.

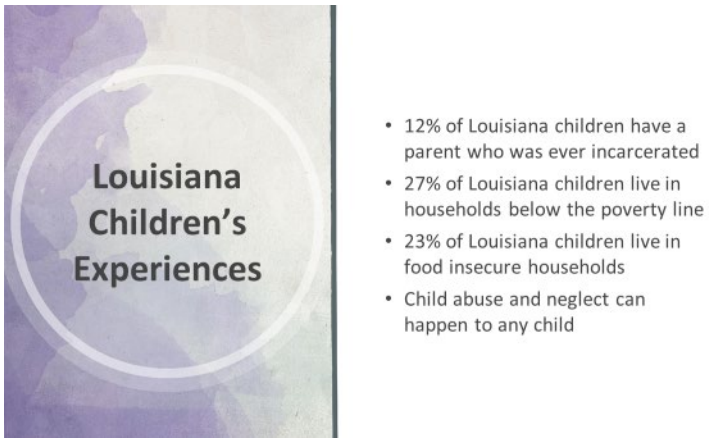
This includes young children. Nationally, in 2015, **1 in 4 confirmed child abuse or neglect cases involved a child under 3**. **Of children who experience domestic violence, 60% are under age 6 at the time of the first exposure**.



Even parents who are doing their best, but who haven't received the support and healing they need, may be unknowingly passing stress from their lives onto their children. When parents have higher ACEs, their children are at higher risk for developmental delays. One study found that each additional maternal ACE **increased this risk by 18%**. A similar trend was found for paternal ACEs. Before we judge what kind of intervention could prevent this, we need to understand the mechanisms behind it.

There are multiple pathways for risk. Mothers with high ACEs are at greater risk for difficult pregnancy and preterm birth, both of which can adversely affect the baby. In addition, babies may be exposed to high doses of cortisol while in the womb, based on the mother's experiences of stress and whether or not she has enough social supports. After birth, one in ten mothers in Louisiana experience Post-Partum Depression. This can make it hard for the mother to engage in call-and-response and responsive engagement with the new baby, and may increase relationship tensions in the family. Finally, there is the **epigenetic risk** we discussed earlier.

When we look at this data, we start to understand that effective prevention for ACEs needs to start in pregnancy and before, with support and resources to reduce stress on families and help adults heal and build resilience.

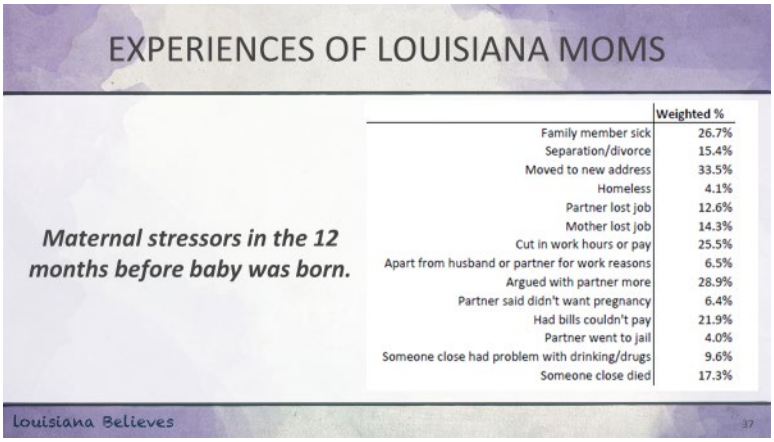


Here we have data from the Annie E. Casey Foundation, from 2017 and 2018. In Louisiana:

- **12% of children have a parent who was ever incarcerated**
- **27% live in households below the poverty line**

- **23% live in food insecure households**

This data shows us that ACEs, households under socioeconomic and emotional stress, kids with emotional trouble – none of these are marginal experiences. These are present in schools and classrooms across the state. As Dr. Nadine Burke Harris puts it: "Everyone is within one degree of this problem."

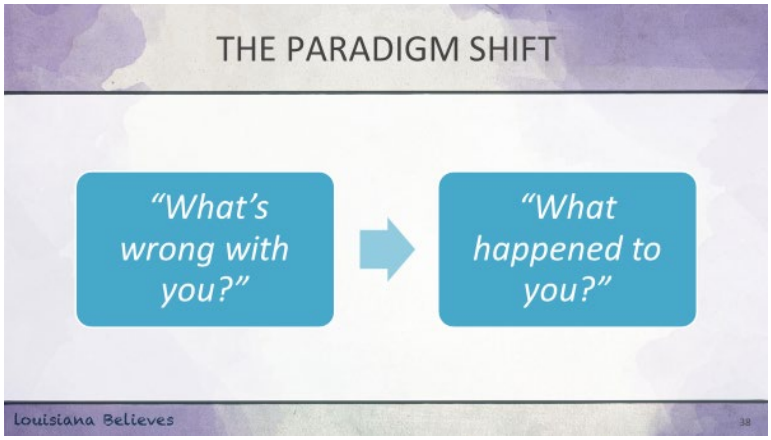


The Pregnancy Risk Assessment Monitoring System (PRAMS), coordinated by Louisiana Department of Health, asks mothers directly what kind of stress they experience during pregnancy. You can see those stressors here.

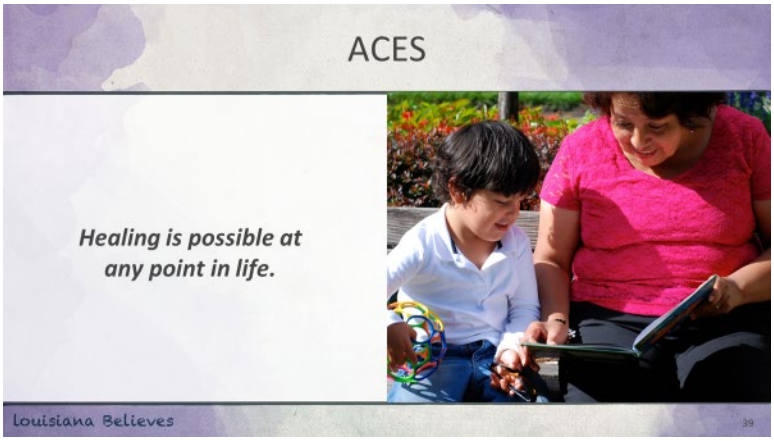
In the **12 months before their baby was born**:

- **Almost 30% of moms argued with their partner more, and 15% had a separation or divorce**
- **27% had a sick family member;**
- **26% had a cut in work hours or pay**
- **22% had bills she couldn't pay**
- **17% grieved the death of someone close**
- **14% lost her job, and 13% reported that a partner lost their job**
- **4% were homeless**

Many of these problems are complex and difficult to solve, requiring coordination of public and private organizations to improve the overall health and well-being of everyone. However, we can start improving supports to pregnant women, new parents, and young children immediately. We can treat parents and children with compassion and patience and make ourselves aware of the difficulty stress can cause. We can steer our relationships with children and parents toward offering support and helping others build the internal self-worth and capabilities that are the foundation of resilience.

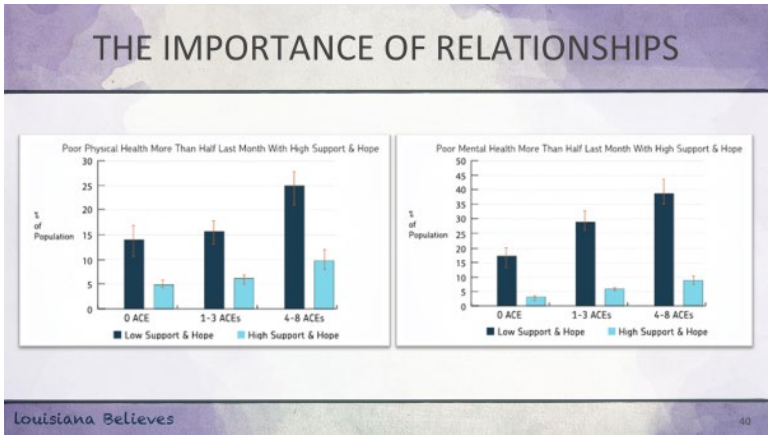


The first, foundational step we can each take in beginning to understand and address ACEs in our work and lives is to shift our thinking. To stop asking, "**What's wrong with you?**" when kids are hard to deal with, oppositional, or slow to understand. If we ask instead, "**What happened to you?,**" "What is happening to you?," or "what do you need?" we can begin to identify kids' learned self-protective behaviors, what each child needs to feel safe and connected, and how we can help them build resilience for the future.



As we transition into talking about strategies and practices to prevent ACEs and toxic stress, it's important to remember that **healing is possible at any point in life**.

Children and adults may express pain and fear differently, and need different kinds of support to heal, build resilience, and move forward. However, there is a possibility for extraordinary transformation at any age. Whether we are working with children dealing with ongoing adversity, working with parents or caregivers grappling with experiences from many years ago, or reflecting on our own experiences, there are possibilities for every person, at every age, to build resilience and benefit from supportive connections with others.



These two graphs are an example of the difference that healing and connection can make.

In the top chart, you can see the impact of relationships on physical health for people with no ACEs, 1-3 ACEs, and 4-8 ACEs. The dark blue bar is the experience of people who did not have 2 or more people they could call for concrete help when they needed it. You can see that 25% of people with the higher range of ACEs experienced poor physical health on more than half of the days in a given month. For people with the same range of ACEs, but who had concrete support and hope, the number of people experiencing that amount of poor physical health dropped to 10%.

The bottom chart shows a similar effect on experiences of poor mental health. Of people in the sample who had 4-8 ACEs, 40% experienced poor mental health more than half the month. With concrete support and hope, this number drops below 10%.

When we say healing is possible and that there is profound hope, we mean it. Communities around the country are figuring out how to prevent and heal ACEs across generations.

- Does this change your thinking about ACEs and trauma? How?
- What do you think can be done to prevent ACEs and heal trauma?

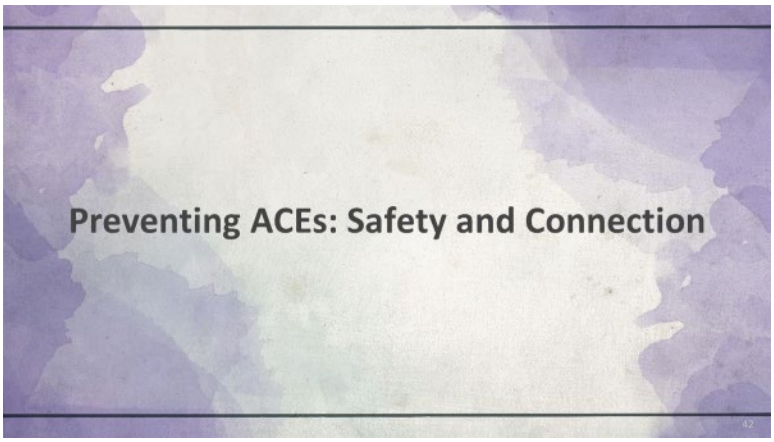
I would like you to turn to a partner for another short discussion.

Does this change your thinking about ACEs and trauma? How?

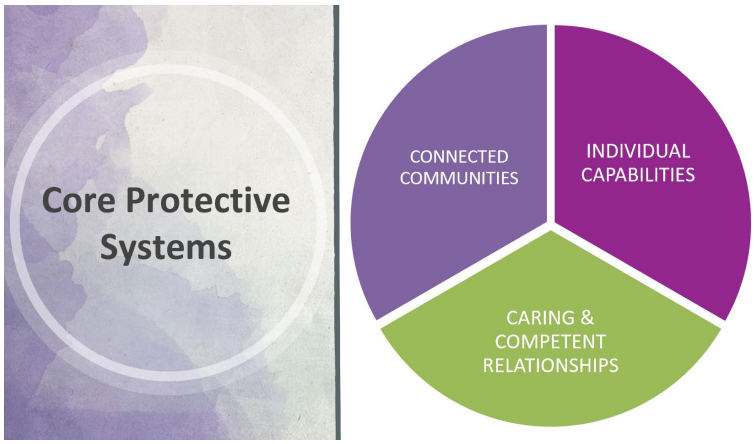
What do you think can be done to prevent ACEs and heal trauma?

Allow participants 3-4 minutes to discuss with a partner. Have one or two participants share with the larger group.

<u>Trainer Note:</u> This question can elicit a lot of stories. Keep an eye on the time, and encourage your audience to keep sharing these stories with each other after the session.



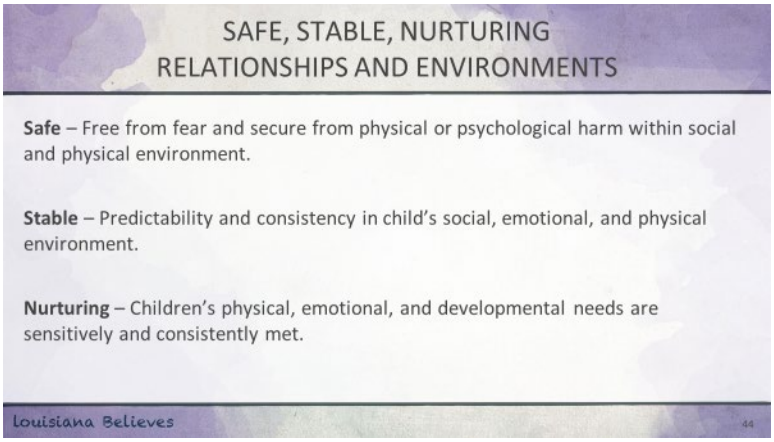
For us, our prevention discussion will focus on the needs and experiences of young children. Because the experiences of caregivers are so essential to the well-being of children, we will also talk about some two-generation approaches.



There are overlapping systems in a child's life that can all be activated and enriched to promote resilience and prevent toxic stress. **Individual capabilities** like developing language, exploring, sensory learning, and other activities that help the brain grow all help children develop executive function. This is the set of skills that will be essential to complex thought later in life. Working memory, inhibition, cognitive flexibility, and other skills begin developing early. Caregivers can help these skills develop as early as 6 months.

Caring and competent relationships are the number one factor in whether stress is toxic or tolerable. It is important for caregivers to have information and support that help them to be both caring and competent. Some caring adults may find that they don't know how to deal with especially challenging behaviors. Some adults may have lots of clinical knowledge about these behaviors, but lack the kind of compassion-based relationship that helps them really understand and meet a child's needs. Children do best when the adults in their lives bot care for them deeply and know how to help them grow.

Connected communities provide support to children, families, and each other by creating safe spaces for exploration, offering mutual aid to meet family's needs, and creating a sense of belonging that helps adults and children thrive.



In these three core protective systems, we want to focus on building safety and connection.

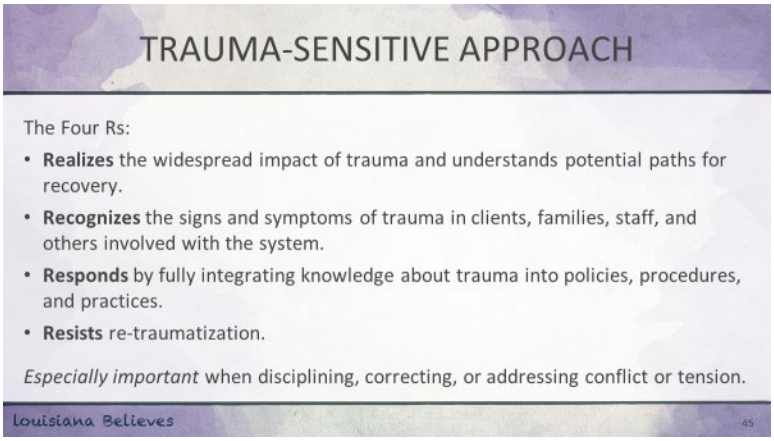
Environments and relationships that are safe, stable, and nurturing provide a barrier against the effects of ACEs and are fundamental to brain development and learning resilience skills. These types of environments reduce exposure to ACEs and reduce negative effects of ACEs that occur. Just like ACEs have a cumulative impact on health, supportive relationships and environments add up over time, creating cumulative positive experiences.

What does safe, stable and nurturing mean?

Safety is the extent to which a child is **free from fear and secure from physical or psychological harm in their social and physical environment**. **Stability** is the degree of **predictability and consistency in a child's social, emotional, and physical environment**. **Nurturing** is the extent to which **children's physical, emotional, and developmental needs are sensitively and consistently met**.

There are many evidence-based strategies for supporting and promoting safe, stable, and nurturing relationships and environments, across settings and systems. Some things that systems and communities can do include strengthening economic supports to families, enhancing primary care and access to clinical treatment, and investing in public engagement campaigns to support parents.

Alongside these community strategies, children benefit significantly from quality care and education in early life, through enriched early learning and childcare centers. Early childhood education and childcare providers have a golden opportunity to improve children's cognitive and social/emotional development and to use trauma-sensitive care approaches to help children with difficult or challenging behavior. When children are less likely to exhibit difficult behavior at home, they are also less likely to experience adverse effects of parental stress and conflict.



We are going to look at a few specific strategies for improving outcomes related to ACEs and trauma that are recommended by experts or are evidence-based, starting with a trauma-sensitive approach.

A **trauma-sensitive approach** has for essential elements.

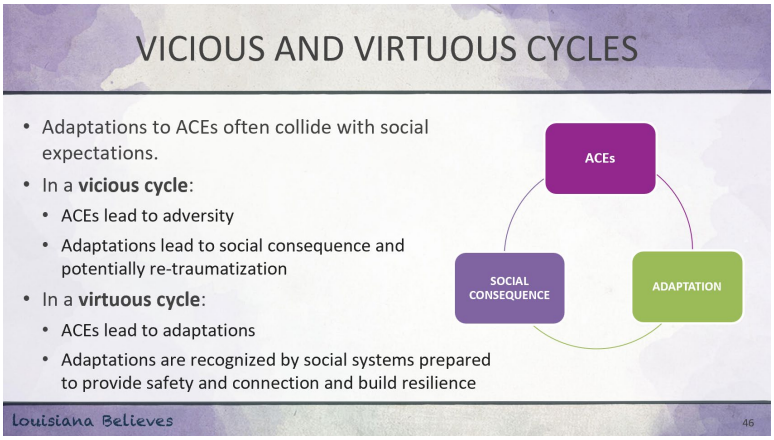
Realize the widespread impact of trauma and understand the potential paths for recovery. Some people talk about trauma-informed care as "universal precaution." In other words, treat everyone as though they may have experienced trauma. The data we saw earlier confirmed that trauma and adversity are widespread in Louisiana. Many of our shared experiences, like hurricanes, flooding, COVID, and the BP oil spill, are also potentially traumatic experiences. Understanding the widespread impact of trauma highlights the widespread need for compassion, safety, and connection.

Recognize the signs and symptoms of trauma in clients, families, and staff. To provide trauma-informed care, we need to be able to recognize emotions and behaviors that arise from trauma. We also need to be aware that trauma may play a role in the lives of our colleagues and ourselves. Teams built to offer each other support are better able to support clients or students, especially when coming to work means encountering stories of injustice or mistreatment. Recognition of secondary trauma, the exposure of professionals to trauma experienced by their clients, is an essential part of supporting staff.

Responds by fully integrating knowledge about trauma into policies, procedures, and practices. Once we have realized that trauma is widespread and recognized its presence in our work, the real work begins. At every level of an organization, knowledge about trauma can be integrated into daily practices, long-term goals, and discipline and behavior policies.

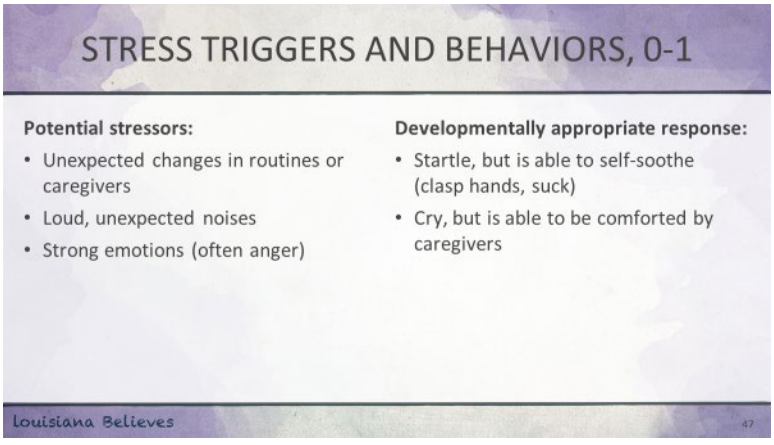
Resists re-traumatization. When trauma-induced behaviors are met with practices that revoke safety or connection, this can cause re-traumatization. Responses to trauma-induced behavior that don't recognize the need behind the behavior, that isolate or reprimand, or that leave the student to navigate a threatening situation without support can have the effect of recalling traumatic experiences. These are missed opportunities to actively help children re-wire their stress response, learn resilience skills, and build their sense of self-worth and capability.

These four things are especially important to keep in mind when **disciplining, correcting, or addressing conflict or tension**.



One of the long-term advantages of trauma-sensitive care is the role it plays in changing **a vicious cycle** of ACEs and re-traumatization into a **virtuous cycle** of healing and inclusion. Behaviors resulting from a heightened fight, flight, freeze response -- like hypervigilance, impulsivity, extreme shyness or withdrawal – collide with expectations in settings where children are expected to be patient, cooperate, and engage socially. For many of us, our past tendencies when a person goes into fight, flight, or freeze mode have been to isolate, reprimand, or eject. These reactions not only fail to restore safety and connection but can lead to larger social consequences later in life if uninterrupted. Consequences like suspension, substance abuse, or juvenile detention are more common for kids grow up with greater exposure to adversity.

In the **vicious cycle** of rejection and exclusion, **ACEs lead to adaptations** for surviving adversity and a heightened fight, flight, freeze response. These **adaptations collide with social expectations**, and lead to **social consequences and potentially re-traumatization**. Trauma-sensitive care is one element of creating a virtuous cycle. In a **virtuous cycle, ACEs lead to adaptations for surviving adversity**. When those adaptations show up in a trauma-sensitive environment, supportive caregivers are able to recognize the impacts of trauma, are prepared to **provide safety & connection** and to help the child **build resilience**, and can help interrupt the connection between ACEs and later life adversity.



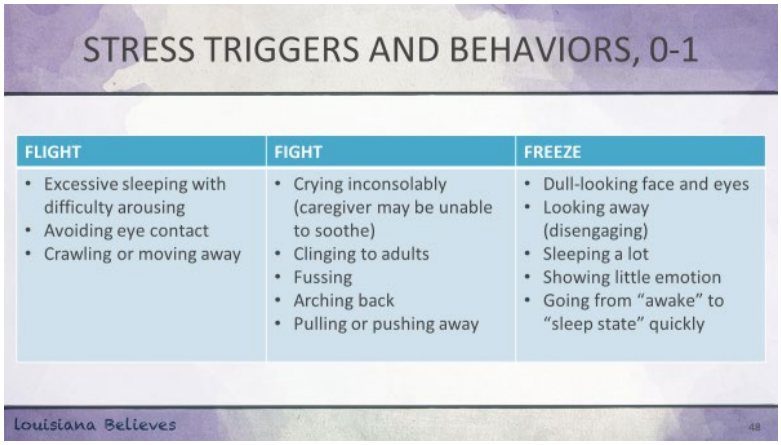
To help us put it all together, we're going to look at some specifics of a trauma-sensitive approach in early childhood.

In years 0-1, **potential stressors** might include:

- **Unexpected changes in routines or caregivers**

- **Loud or unexpected noises**, or
- **Strong emotions, especially anger**.

Developmentally appropriate responses to these stressors would be to **startle but manage to self-soothe**, such as by **clasping hands or sucking**, or to **cry but be able to be comforted by caregivers**.



A **flight** response involves trying to move away from the person thought to be a threat. At this age, that may mean:

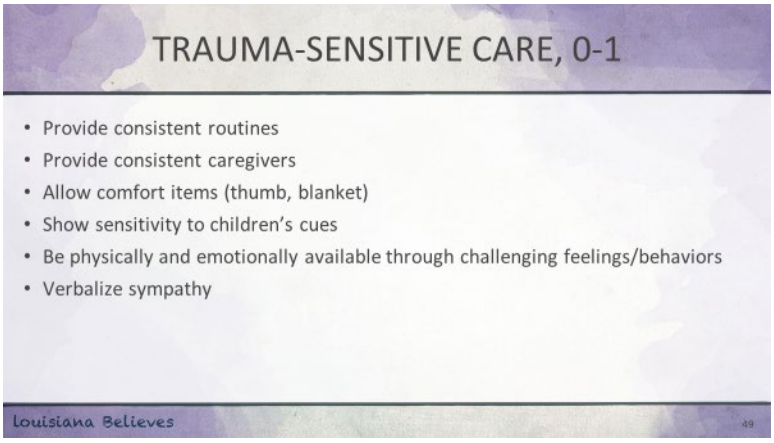
- **Excessive sleeping with difficulty arousing**,
- **Avoiding eye contact**, or
- **Crawling or moving away**.

A **fight** response means the child moves toward or pushes back at the person thought to be a threat. At this age, a fight response may include:

- **Crying inconsolably,**
- **Clinging to adults,**
- **Fussing,**
- **Arching the back**, or
- **Pulling or pushing away**.

A **freeze** response uses the mind to move away from the person thought to be a threat. In babies, this may include:

- **A dull look in the face or eyes,**
- **Looking away or disengaging,**
- **Sleeping a lot,**
- **Showing little emotion**, or
- **Going from "awake" to "sleep state" very quickly**.

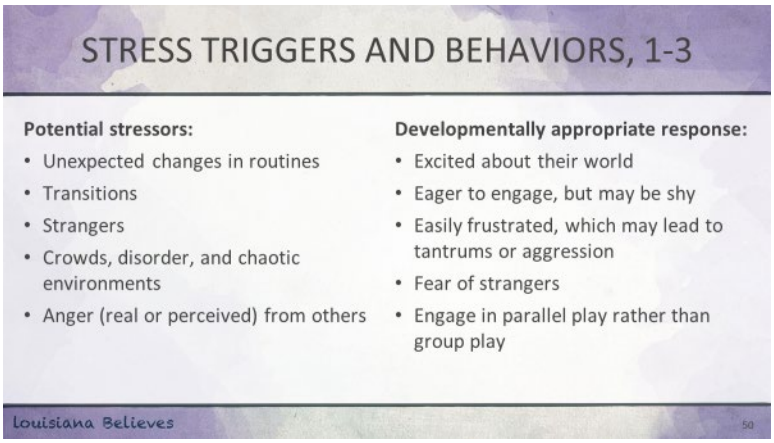


To prevent and soothe fight, flight, freeze responses, you can use trauma-sensitive care techniques that are appropriate for this age.

Provide consistent routines and **consistent caregivers** as much as possible. Try to prepare babies for changes by changing things in slow increments, if you can. **Allow comfort items like a thumb or blanket. Show sensitivity to children's cues**, and **be physically and emotionally available through challenging feelings or behaviors.**

In situations where we may have an urge to pull back or punish, sometimes because that is what we have been taught or how we were raised, we can use a trauma-sensitive approach to recognize the role trauma might have and change our response accordingly. When we do so, we can do a great deal to help that child build positive connections by remaining sensitive and available. Another helpful thing we can do is **verbalize sympathy**.

Can anyone share a story of seeing one of these practices, or something similar, in action? *Allow about 3-5 minutes for discussion.*



Now let's look at some stressors and responses for children ages one to three.

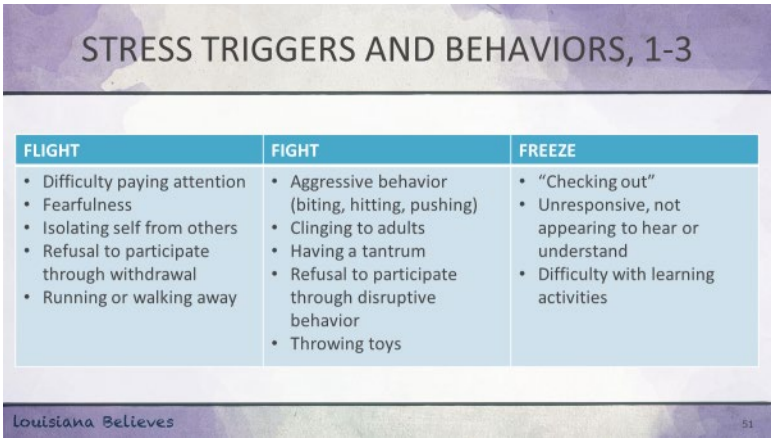
In years 1-3, **potential stressors** might include:

- **Unexpected changes in routines,**
- **Transitions,**

- **Strangers,**
- **Crowds, disorder, and chaotic environments,** or
- **Real or perceived anger from others.**

A **developmentally appropriate response** to these stressors may include:

- **Being excited about their world,**
- **Being eager to engage even if they are shy,**
- **Being easily frustrated and possibly having tantrums or showing aggression,**
- **A fear of strangers,** and
- **Engaging in parallel play rather than group play.**



A **flight** response at this age may involve:

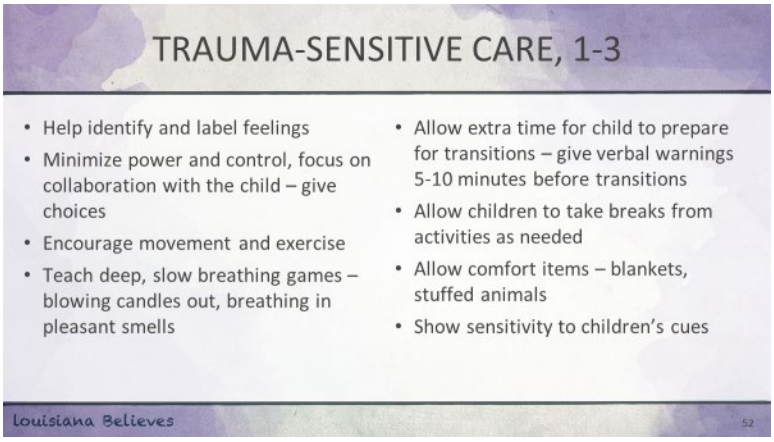
- **Difficulty paying attention,**
- **Fearfulness,**
- **Isolating oneself from others,**
- **Refusal to participate through withdrawal,** or
- **Running or walking away.**

A **fight** response may include:

- **Aggressive behavior like biting or hitting,**
- **Clinging to adults,**
- **Having a tantrum,**
- **Refusal to participate through disruptive behavior,** or
- **Throwing toys.**

A **freeze** response may include:

- **"Checking out,"**
- **Unresponsive, not appearing to hear or understand,**
- **Difficulty with learning activities.**

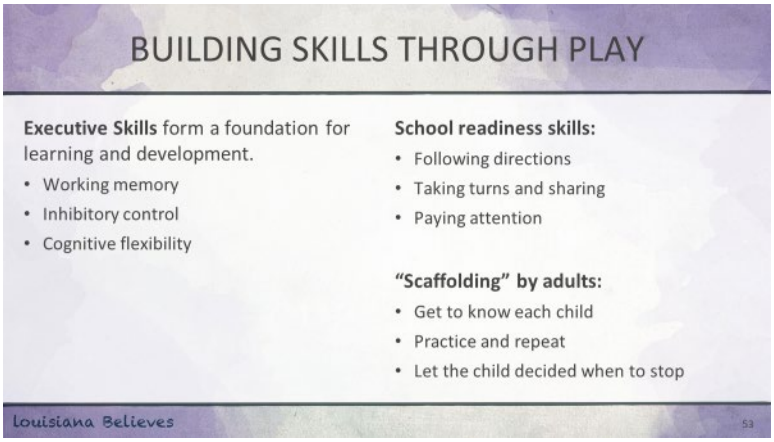


Trauma-sensitive care that is age appropriate for children one to three includes **helping the child identify and label feelings.** As caregivers, we can **focus on collaboration with the child** – by offering choices or options, for example – an **minimize** our own reactions that seek **power and control**.

A foundational feature of trauma-informed care for both children and adults is trying to help a person who has been overwhelmed by a feeling or experience regain the ability to manage their internal and external environments. Focusing on collaboration and choice is in support of this goal. It helps to **encourage movement and exercise. Teach deep, slow breathing games** – such as practicing or pretending to **blow candles out, breathe in a pleasant smell**, or blow up a balloon.

Allow extra time for a child to prepare for transitions, and give verbal warnings 5-10 minutes before transitions. When you get to know children individually, you can start to identify which children have an especially difficult time with transitions and build in extra preparation for them. If children become overwhelmed, **allow them to take breaks from activities**. Remember that ACEs and trauma may affect children's readiness for different kinds of activities. **Allow comfort items like blankets and stuffed animals**. Finally, all of these practices rest on our **sensitivity to children's cues.**

Can anyone share a story of seeing one of these practices, or something similar, in action? *Allow about 3-5 minutes for discussion.*



The first core protective system, individual capabilities, is just beginning to develop in early childhood. Children 0-3 are too young to effectively use individual capabilities independently. However, when caregivers invest in helping children build **executive skills**, this lays a foundation for resilience and development.

Executive Skills allow us to retain and work with information in our brains, focus our attention, filter distractions, and switch mental gears. There are three basic dimensions to these skills:

- **Working memory**, or the ability to hold information in mind and use it.
- **Inhibitory control**, the ability to master thoughts and impulses, to resist temptations, distractions, and habits, and to pause and think before acting.
- **Cognitive flexibility**, the capacity to switch gears and adjust to changing demands, priorities, and perspectives.

These activities also help develop key **school readiness skills**:

- **Following directions,**
- **Taking turns and sharing,** and
- **Paying attention.**

As adults, we use these skills to set goals, plan ways to meet those goals, assess our progress and adjust if necessary, and manage frustrations or disappointments. Children are not born with these sklils. They develop through meaningful social development and enjoyable activities. As infants and children develop these skills, adults can help by **"scaffolding" development**.

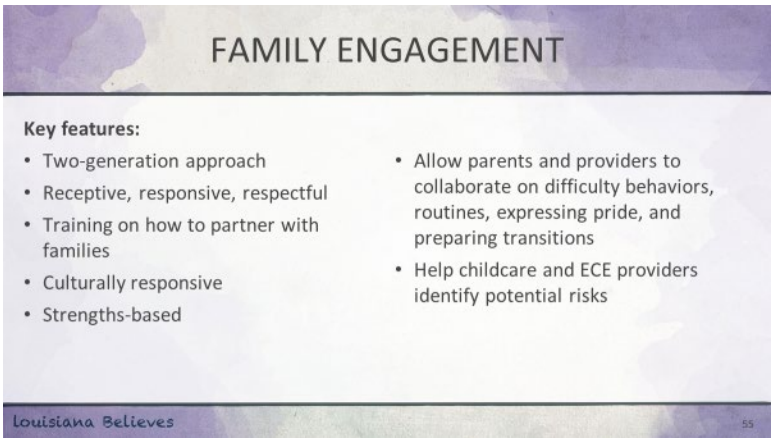
Getting to know each child helps adults know what games each child likes, which are challenging, and when to gradually step back to let each child manage activities independently. This also helps adults recognize signs of distress and respond sensitively, increasing positive challenges and providing extra support for distressing challenges.

Practice and repetition of games helps children develop working memory, focus, and practice managing expected surprises. **Letting the child decide when to stop** helps the child learn to identify internal signals and lets the child know their needs and wants are important.

When childcare providers engage in cognitive stimulating activities and support for developing positive relationships with other children, they are helping children develop greater social competence, fewer behavioral problems, and enhanced thinking and reasoning skills at school age.

These are some examples of age-appropriate games that build executive and self-regulation skills early in life. These are not the only or necessarily the best options, but they are recommended as good learning activities by experts.

You can see more about each of these games and how they help babies develop skills in the *Executive Function Activities* handout that will be distributed.



Young children experience their world as an environment of relationships. These relationships affect virtually every domain of a child's development. It is through quality and reliable relationships, both within and outside the family, that children learn that they are valued by others, who they are and what they can become, and motivation and skills to reach their potential. We have touched on some things early childhood education and childcare providers can do to support infants and children who have experienced ACEs. Now let's talk about ways to include and engage with parents and families.

While you may not be able to solve a family's problems, engaging with parents and families will help you understand a child's stressors and possibly alleviate the household stress by offering parents a chance to connect to other parents, discuss their strengths and challenges, and learn some new skills for interacting with their kids. The essence of a **two-generation approach** is the opportunity to benefit both parents and child simultaneously.

Early childhood programs that have implemented family engagement programs have learned a few things about what works well. Family engagement works best when it is **receptive, responsive, and respectful.** Childcare programs should be receptive to parent's priorities, interests, and concerns. This likely means integrating activities that give parents a chance to identify and express their priorities with childcare providers. Family engagement should be responsive to these priorities, integrating them into activities, sharing resources, and partnering to address family's needs. This may mean finding ways to connect parents to community resources, creating space for parents to get to know childcare providers and other staff, or focusing engagement activities on helping parents learn new parenting skills. Whatever activities become the focus of family engagement, all families should be treated with respect throughout.

Staff will benefit from focused **training on how to partner with families.** Training to be an exceptional early childhood educator does not necessarily include a comprehensive skillset for working with adults and family systems, especially if those families are experiencing significant interpersonal challenges. Focused training can help staff learn strategies for approaching families in a way that is **culturally responsive and strengths-based.** Training as a team can also prepare staff to support each other and work together cooperatively to build relationships with every family.

One of the most important factors in family engagement for kids that have experienced toxic stress or have difficult behaviors, is that it **enables parents and early childhood educators to collaborate** on the things that will help kids feel safe. A unified strategy for dealing with **difficult behaviors and keeping up routines** will reinforce self-regulation and stability. When all adults in a child's life recognize and praise good behavior and accomplishments, kids develop feelings of self-worth. Parents and providers can also work together to prepare kids who struggle with transitions for big changes: a change in childcare provider, transition to kindergarten, or a move across town.

These are just some of the many activities that could be used to engage and get to know families.

Parent Cafes are events that bring parents together for guided conversations designed to share the collective knowledge families and build a network of community support. Staff members act as facilitators of conversations between small groups of parents. Parents rotate between tables where facilitators ask questions on topics like parental resilience, social connections, knowledge of parenting and child development, concrete support in times of need, and social and emotional competence of children. At the end, facilitators identify major themes of conversations, and the group talks about ways to meet needs and address challenges.

Conversation starters can be used in one-on-one meetings, at parent cafes, or anytime parents and staff come together. A simple exercise like sharing bedtime routines and activities can elicit conversation about parents' experiences, strengths, and challenges. If staff have conversation starters on hand, they can use them when opportunities arise to engage parents.

Programs for dads can give fathers a chance to get to know each other and build relationships with school staff.

Playgroups, **story times, and family field trips** all offer parents a chance to interact with their children, other parents, and school staff, all at the same time. Parents can see first-hand how their children interact with peers and childcare providers.

Creating a **welcoming environment** can help set the tone for family engagement activities. Parents and children can draw or take pictures together, which can then be displayed in the childcare facility to highlight the importance of families.

Offering connections to resources or opportunities to learn **adult skills** can also be a way to be responsive to needs of parents and families. Community partners may be willing to offer free training on relevant skills, such as computer literacy, English as a Second Language, or GED classes.

Parents may be unable to participate in family engagement activities due to work, illness, or other obstacles. Some parents may be unwilling. Even if parents are hard to engage, changes in attendance, health, mood, interests, or eating habits all warrant a conversation to try to understand challenges that may be going on.

When one child has experienced trauma, it can affect the whole community. That's why solutions that prepare the whole community to deal with the trauma have been shown to be very effective in improving outcomes for kids.

Whole community approaches involve elements that target parents, teachers, and the children themselves. **Staff and parent training** help all of the adults learn how to recognize and respond to children's needs, as well as how to manage their own emotions when dealing with stressful environments. One intervention brought teachers together for one-hour every week over the course of several months, to learn strategies for recognizing and calming their own emotional reactions. Feedback from teachers showed improvement for both children and adults.

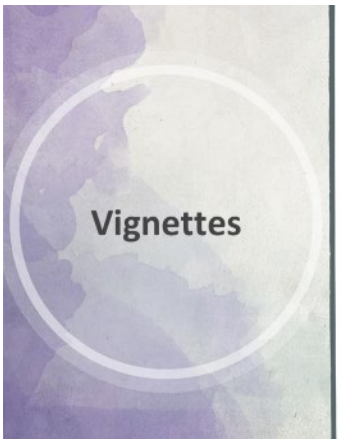
Intensive individual therapy for particularly affected children is often necessary to help children understand their experiences and how they have been impacted. **Individual treatment has been found to improve attention, depression, and anxiety.**

In-classroom skill-building and coaching for teachers offers the investment of professional development to support teachers in addressing extremely difficult problems, and supporting children dealing with overwhelming amounts of stress.

When children are in real danger, it is important for **mandated reporters** to know their responsibilities and how to make a child maltreatment report. When children are experiencing severe injury, sexual abuse, or other significant traumas, they need adults' help getting out of danger. As children grow older, they can learn about appropriate boundaries with adults. **Helping children learn boundaries** in regard to dangerous or harmful behavior from adults prepares them to seek help if they need it.

One program, known as Head Start-Trauma Start, used the combination of these approaches in Head Start programs serving three-to-five-year-olds. They saw significant **improvements in attention problems, attention deficit/hyperactivity, aggressive behavior, and oppositional defiance.**

In childcare centers serving communities with high impacts of ACEs and toxic stress, the most comprehensive intervention involves activating every part of children's community.



How could you address your situation in a trauma-informed way:

- With the child?
- With the family?
- As a community?

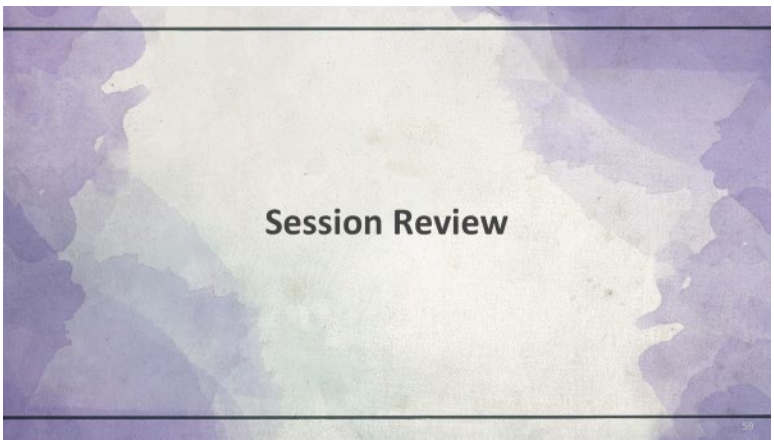
Now that we have learned a lot of different ways for approaching ACEs and their impact in our classrooms, we are going to break up into groups and brainstorm responses to some specific situations. I would like you all to get into six groups.

Allow time for participants to organize themselves into groups. Distribute the Vignettes, giving each group one scenario to discuss.

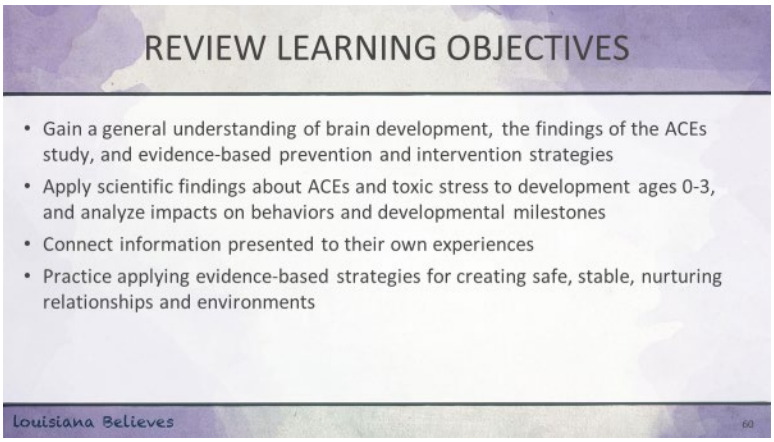
I would like each of you to discuss the situation presented, and report back with some ideas for how you can address it with the child, with the family, and as a community. Using the Safety & Connection handouts, answer the following questions: How could you address your situation in a trauma-informed way:

- **With the child?**
- **With the family? and**
- **As a community?**

Allow about 8-10 minutes for discussion. After 8-10 minutes, spend 10-15 minutes on group discussion.



To facilitate key points and reflections, encourage the participants to share how they plan to use the standards and respond using comments that align what they have learned during the training.



Explain that for each statement, they will show a "thumbs up" if they think we covered the objective, a "thumbs down" if we did not cover the objective, and a "sideways thumb" if we partially covered the objective.

Review Learning Objectives.

- **Gain a general understanding of brain development, the findings of the ACEs study, and evidence-based prevention and intervention strategies**
- **Apply scientific findings about ACEs and toxic stress to development ages 0-3, and analyze impacts on behaviors and developmental milestones**
- **Connect information presented to their own experiences**
- **Practice applying evidence-based strategies for creating safe, stable, nurturing relationships and environments**

Open the floor for participants' comments and questions.

That brings us to the end of our time. Thank you so much for your attention and hard work today. Before you go, please complete the Post-Assessment Evaluation.

Distribute the Post-Assessment Evaluation.

When you have completed the evaluation, please fold it and leave it in the center of your table before you leave. I hope this has been valuable! If you have any additional questions, I will be available to talk further.

Thank you.

Post-Assessment Evaluation Guidance

- *Review the forms to identify the group's responses*
- *Compare the results and identify the areas in which participants expressed greatest growth and the areas in which participants might still need support*
- *Share results with Louisiana DOE representative to inform local continuing professional development efforts*