

Adverse Childhood Experiences

and Iowa's Opportunity to Respond



arly experiences shape the quality of our adult lives. The original Adverse Childhood Experiences (ACEs) Study, conducted in the mid-1990s, revealed how strongly negative experiences in childhood can derail a child's development, and lead to a host of health and social challenges throughout a lifetime.

Starting in 2012, lowa stakeholders joined other states in studying ACEs data in our population through the Behavioral Risk Factor Surveillance System (BRFSS). Our analysis of data from 2012-2014 confirms what the original study showed: most people experience childhood trauma, and the more types of trauma someone experiences in childhood, the more likely they are to have a wide range of poor outcomes in adulthood.

The ACEs Study gives us a new way to look at the health and social issues we are working to address in our communities – and is inspiring a movement to respond. **Emerging research shows that building caring connections promotes positive experiences** for children from the start and helps those with a history of trauma heal. Individuals, organizations and communities are implementing trauma-informed strategies that are changing the outcomes we see in the ACEs data.

This report updates the original lowa ACEs report released in October 2013 with more comprehensive data analysis and emerging response strategies. We hope that with greater understanding of these findings, you will be inspired to respond. Through hope and resiliency, we can improve the health and wellbeing of lowans and create a brighter future for our communities.

Central Iowa ACEs 360's mission is to improve the health and well-being of all by empowering communities, organizations, and people to take informed actions to prevent and mitigate the lifelong effects of childhood adversity.

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What are

Adverse Childhood Experiences?

Adverse Childhood Experiences (ACEs) are traumatic events that can dramatically upset a child's sense of safety and well-being.

he original ACEs Study identified two general categories of experiences – cases where the child was the target of abuse and cases where dysfunctional activities took place among the adults living in the home. The original ACEs Study looked at 10 types of events. Iowa's study focused on the eight categories listed at right from 2012-2014, with additional questions about childhood neglect added in 2014.

Although the lowa study focused on eight categories, trauma can occur at any age from many kinds of events including economic hardship, crime in the community and the loss of a loved one. What is experienced as trauma is personal and influenced by our past experiences, current relationships and the community in which we live.

THE ORIGINAL ACES STUDY

The ACEs Study is a large-scale, ongoing evaluation examining the link between childhood trauma, and risky behaviors and health issues in adulthood.

The original study was conducted from 1995 to 1997 by investigators Dr. Robert Anda, with the Centers for Disease Control and Prevention (CDC), and Dr. Vincent Felitti, with Kaiser Permanente. The investigators surveyed more than 17,000 Kaiser Permanente HMO adult members about their exposure to ten categories of abuse, neglect and household dysfunction during their childhood. The

results, combined with physical exams and ongoing tracking of members' health, showed a powerful correlation between harmful experiences in childhood and poor adult health outcomes decades later. ACEs were also found to be vastly common among the general population. Most participants in the original study were white, middle class, and educated.

HOW ACES ARE STUDIED IN IOWA

Through a public-private partnership (see full list on page 24), the Central lowa ACEs 360 Coalition added questions about ACEs to the Behavioral Risk Factor Surveillance System (BRFSS) starting in 2012. The annual state health survey, conducted by the lowa Department of Public Health (IDPH) in partnership with the CDC, provides a timely and accurate source of state data on healthrisk behaviors, preventative-health practices, and health-care access, primarily related to chronic disease and injury.

The CDC provided the questions used to study ACEs in lowa using similar questions to the original ACEs Study. ACEs data was analyzed in comparison to risky behaviors, health issues, and other outcomes gathered through the survey. Three years of data provides a more accurate and broader picture of how ACEs impact our state. This report also considers how other lowa data ties to ACEs, and how individuals, organizations and our state can respond.

Stypes of ACEs studied in Iowa

ABUSE

- Physical
- Emotional
- Sexual

HOUSEHOLD DYSFUNCTION

- Substance abuse in home
- Family member with mental illness
- Incarcerated family member
- Separation/divorce
- 8 Domestic violence

(ADDED IN 2014)

NEGLECT

Emotional Physical

How ACEs impact brain development

n infant's brain doubles in size during the first year of life. By age three, it is 80 percent of its adult size. Healthy brain development in these early years creates a strong foundation for future health, mental functioning and overall well-being. Positive interactions with caring adults in the early years builds the foundation needed for healthy brain development.

According to Harvard's Center on the Developing Child, learning to cope with adversity is an important part of child development. If we feel threatened, our bodies help us respond by increasing stress hormones, which raises heart

rate, blood pressure and muscle tone. When a young child experiences stress within an environment of supportive adult relationships, the effects of stress are buffered and naturally brought back down to baseline. This helps a child develop a healthy response to stress.

When a child experiences stress that is powerful, frequent, prolonged, and/or unpredictable without adequate adult support, that child's stress-response system remains on at all times. This high level of stress can disrupt the development of the brain and other organs, and increase the risk for poor health, learning, and social outcomes.

Relationships, setting priorities

BUILDING A STRONG FOUNDATION

Dr. Dan Siegel introduced the concept of the "upstairs" and "downstairs" brain as a way to talk about how the brain works.

The "downstairs" part of our brain develops first and focuses on regulating breathing, heart rate, and other basic functions. It provides our survival reaction to high levels of stress with a fight, flight or freeze response.

Our "upstairs" brain is not fully developed until age 25. It controls higher functioning including decision-making, setting priorities and building relationships. This part of our brain helps us regulate the more impulsive, reactive "downstairs" brain.

A high level of stress can push us downstairs in our brain. Over time, a high level of stress can further disrupt the development of the brain and increase the risk for poor outcomes including learning delays, substance abuse, heart disease, and depression. Supportive relationships help us move upstairs in our brain. Caring connections can improve an individual's brain function as well as their ability to form positive relationships with others.

UPSTAIRS:
Thinking & Learning Brain

Say or do things impulsively

Lose temper easily

Can't get along with others

DOWNSTAIRS:

Survival Brain

Source: Connections Matter

Reading,

speech,

HOW ARE ACES DEFINED?

From 2012-2014, more than 19,000 adults responded to the following questions to determine the prevalence of eight types of ACEs among Iowa's population. If an adult responded "once or more than once" or "yes" to a question below, they were considered to have experienced that category of ACEs. An ACEs score is determined by the total categories of ACEs an Iowa adult reported experiencing, with a total possible score of 8. The ACEs data only measures categories of ACEs, not frequency or severity of each ACE.

Emotional abuse. How often did a parent or adult in your home ever swear at you, insult you, or put you down?

Physical abuse. Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking.

Sexual abuse. How often did anyone at least 5 years older than you or an adult ever touch you sexually, try to make you touch them sexually, or force you to have sex?

Substance abuse in home. Did you live with anyone who was a problem drinker or alcoholic, used illegal street drugs, or abused prescription medications?

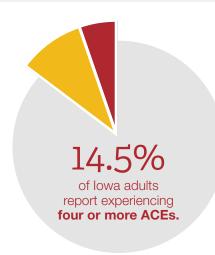
Incarcerated family member. *Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?*

Family member with mental illness.

Did you ever live with anyone who was depressed, mentally ill or suicidal?

Domestic violence. How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up?

Separation/divorce. Were your parents separated or divorced?



Prevalence of ACEs among **Iowa adults**

dverse childhood experiences are common among lowa adults. Analysis of 2012-2014 ACEs data shows that 56 percent of lowa adults report experiencing at least one of eight categories of child abuse and household dysfunction growing up. 14.5 percent experienced four or more ACEs, indicating a significant level of childhood trauma that greatly increases the risk of poor outcomes.

56% of lowa adults report experiencing at least one ACE.

PERCENT OF IOWA ADULTS REPORTING EACH CATEGORY OF ACES

CHILD ABUSE	%
Emotional abuse	26.8
Physical abuse	15.9
Sexual abuse	9.7

HOUSEHOLD DYSFUNCTION

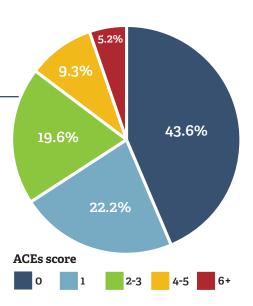
Substance abuse in home	26.1
Separation/divorce	23.2
Family member with mental illness	18
Domestic violence	15.3
Incarcerated family member	6.8

Any ACE 56

SHARE OF IOWA ADULT POPULATION BY TOTAL NUMBER OF ACES REPORTED

This chart shows the percentages of the lowa adult population experiencing specific numbers of ACEs. 43.6 percent experienced zero ACEs, 22.2 percent experienced 1 ACE and 19.6 percent experienced 2-3 ACEs. 14.5 percent experienced four or more ACEs.

This chart shows the percent of adults surveyed through the lowa Behavioral Risk Factor Surveillance System who reported experiencing each category of ACEs. The most common was childhood emotional abuse, reported by 26.8 percent, followed by adult substance abuse (26.1 percent) and parental separation (23.2 percent). The least common ACEs reported were incarceration of an adult household member (6.8 percent) and childhood sexual abuse (9.7 percent). These findings are similar to those reported in the 2012 lowa ACEs report.



Prevalence of additional ACEs

hildhood trauma is often not an isolated incident. If an individual experiences one type of ACEs, they are more likely to experience one or more additional ACEs. For example, a child growing up in a home with an incarcerated family member is 85 percent likely to experience at least one additional ACE and 74 percent likely to experience at least two additional ACEs.

PREVALENCE OF ADDITIONAL ACES AMONG THOSE WHO EXPERIENCE EACH CATEGORY OF ACES

	% with 1+ additional ACE	% with 2+ additional ACEs
Emotional abuse	69	48
Physical abuse	84	69
Sexual abuse	73	56
Substance abuse in home	73	54
Incarcerated family member	85	74
Family member with mental illness	76	58
Domestic violence	86	73
Separation/divorce	71	51

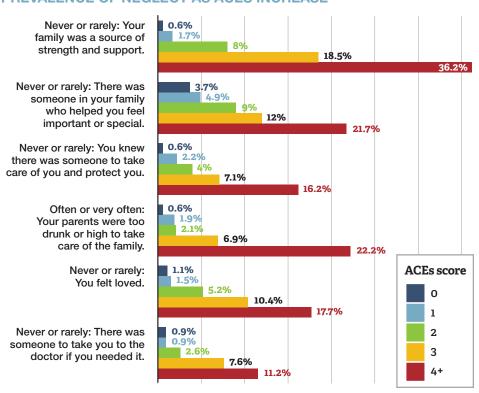
ACES AND NEGLECT

In lowa, nearly 80 percent of confirmed child abuse cases are considered "denial of critical care," defined as failure to provide adequate food, shelter, clothing, or other care necessary for a child's health and well-being.

In 2014, the Central Iowa ACEs Coalition added questions about child neglect to the BRFSS. Of the six questions about neglect added to that survey, 17 percent of Iowa adults indicated they had experienced neglect on at least one question and 9 percent indicated neglect on at least two questions.

Findings from 2014 data show that as the number of reported ACEs increases, so does the likelihood of having experienced child neglect. For example, 36.2 percent of people with four or more ACEs reported that their family was rarely or never a source of strength or support. 22.2 percent of those with four or more ACEs noted that their parents were too drunk or high to take care of the family.

PREVALENCE OF NEGLECT AS ACES INCREASE



Prevalence of ACEs by **demographics**

he original ACEs Study was significant in that it revealed childhood trauma is common among adults regardless of age, race and education level. The original study from southern California found that two-thirds of adults from a predominantly white, middle class, and educated population had experienced at least one ACE growing up and 12.5 percent had experienced four or more ACEs.

lowa's findings, capturing a broader population, are similar to the original ACEs Study findings. Still, looking at the age, race and education level among those reporting higher ACEs reveals some significant differences among lowans.

ACES BY AGE

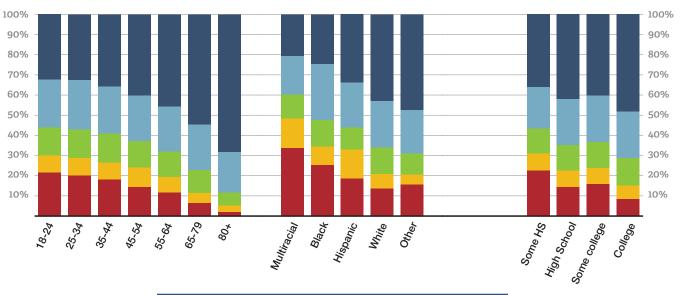
Younger lowa adults are reporting a higher number of ACEs. For example, 21.4 percent of those ages 18-24 reported four or more ACEs compared to 6.4 percent of those ages 65-79.

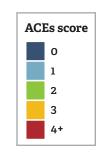
ACES BY RACE

White respondents were nearly twice as likely as black respondents to report zero ACEs and less likely than black and Hispanic respondents to report experiencing four or more ACEs in lowa.

ACES BY EDUCATION LEVEL

lowa adults who have not graduated high school are about 2.5 times more likely to report having four or more ACEs than those who have graduated from college.





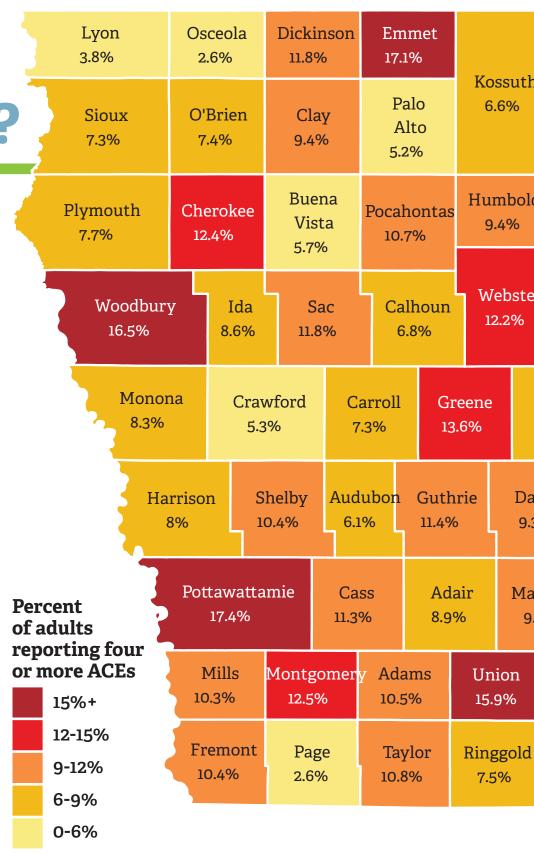
The Behavioral Risk Factor Surveillance System (BRFSS) survey is administered annually via telephone interviews to residents ages 18 and over. Sampling procedures are designed to ensure that minority populations are included in adequate numbers to make comparisons, but a weighting system is also in place to make valid population estimates from the data. Procedures are also in place to contact cell phone users and to sort out place of residence. All efforts ensure that the findings in lowa's ACE Study fairly represent lowa's population.

Where do Iowa adults with ACEs

live now?

hree years of lowa ACEs data gives us a more accurate picture of where lowa adults who have experienced ACEs live now. All lowa counties have adults who report experiencing significant adversity in childhood. Areas in lowa with a higher percentage of adults reporting four or more ACEs include Council Bluffs, Creston, Des Moines, Ottumwa, and Sioux City.

On average, fewer adults with a high percentage of ACEs live in suburban counties, places with high incomes and relatively few social strains. A greater than average share of adults reporting four or more ACEs live in counties containing lowa's largest cities and its smaller, regional centers. Regional centers – places like Burlington, Fort Dodge and Ottumwa – are non-metropolitan counties with an urban core of at least 10,000 and fewer than 50,000 people, or adjacent counties with a high degree of social and economic integration to the urban core.



2012-2014 data

^{*} Map does not reflect where trauma occurred, but rather where adults with four or more ACEs currently live.

1		nebag 3.1%	nebago Worth 10.2%			Mitchell 8.2%			Howard 5.8% Winneshi			k Allamakee 6.7%				
	Hancock 11.1% Cerro Gordo 10.6%		do	Floyd 7.6%			Chickasaw 9.4%		,		5.7	6.776				
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Healing for her family

earning about The Adverse Childhood Experiences (ACEs) Study changed Jan's view of the world. She used to be afraid that someone would know she had grown up experiencing eight out of ten categories of child abuse and household dysfunction, based on the number of categories in the original study.

"I am no longer ashamed to tell the world that I have an ACE score of 8," she said, "because my story is about hope and healing, not shame and blame. I am excited to tell my story in hopes that it will give others the courage to tell theirs."

Jan's story begins in a family that provided little security due to poverty and substance abuse. Her dad faced serious alcohol addiction and aggression until he committed suicide when Jan was 12, which led to her mom's increasing alcoholism. Both her parents, Jan said, grew up with many ACEs in their childhood.

"I was very scared as a child," Jan said. "People saw me as shy, but I was actually terrified and disconnected."

Her life has been a long journey of healing, but her story is more than just about her; it is about stopping the generational cycle of ACEs. Jan watched her nephew grow up in the same traumatic environment in which she was raised. Forty years later, he died in an emergency room after experiencing chronic homelessness, disease and addiction.

Meanwhile, Jan's son was born after she had begun to heal through supports in her community, especially her faith. With these supports, her son was raised with zero ACEs, and he has grown to be successful in his family, work, and faith



community. All of Jan's children and grandchildren are living healthy lives, which Jan claims as her happiest gift. Learning about resiliency gave her a model to understand why some can live well in spite of ACEs.

The ARC model for resilience she uses focuses on:

- Attachment: Jan's greatest support in this area came
 when a friend led her to understand God's love and
 redemption. Through faith teachings, modeling, and
 support, Jan learned about healthy love and how to
 raise a family.
- **Regulation:** Education, counseling, and the church helped strengthen her regulation skills and boundaries.
- Competence: Being a naturally strong reader helped her succeed through education. Jan set the goal of going to college, achieving a master's degree, and is now pursuing a doctorate through the University of lowa.

As Jan has learned about the ACEs Study and resilience, she has helped others as a school counselor and by working on projects to address the findings in the ACEs Study. She is co-leading a research project with the University of Iowa to study the effects of training schools on ACEs, resilience, and trauma-informed practices. She participates in United Way ACEs committees and leads the ACEs student group at Iowa BIG school.

"My goal for the first half of my life was to have a happy family," she says. "My goal for the rest of my life is to help others find hope and healing, and to prevent ACEs for future generations."



"My story is about hope and healing, not shame and blame. I am excited to tell my story in hopes that it will give others the courage to tell theirs."

ACEs impact lifelong health

"The child may not remember, but the body remembers."

> - Dr. Jack Shonkoff Center on the Developing Child at Haward University

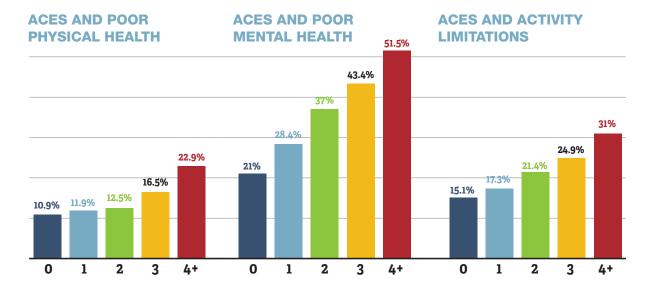
he environments and events children face early in life shape their developing brain and strongly affect lifelong well-being.

The ACEs research reveals a strong correlation between experiencing childhood trauma and having a wide range of health, mental health, and social challenges as an adult. It also shows that as the number of ACEs an individual has increases, so does the level of risk in developing a particular health or mental health issue.

The charts on the following pages share some of the health, mental health and risky behavior outcomes linked to ACEs. All of the charts

reveal the same stair-step progression of increased risk as the number of ACEs rises.

The chart below provides a broad perspective of how ACEs relate to quality of life. Poor physical and mental health can jeopardize a person's everyday functioning, impairing activities such as employment, parenting, attendance, relationships and self-care.



People with four or more ACEs compared to those with zero ACEs:

2 times as many self-rate their health as "poor" or "fair"

2.5 times as many rate their mental health (including stress, depression, and problems with emotions) as not good

2.5 times as many report limits in activities because of physical, mental or emotional problems

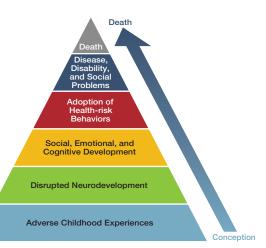
ACEs impact

health-risk behaviors

esearch shows that up to half of early deaths can be attributed to behavioral or lifestyle patterns. Behaviors such as smoking, substance use and risky sexual behavior can lead to more serious health conditions. Addressing these behaviors, such as helping someone quit smoking, is an important point of intervention. However, the ACEs research also shows that we must consider the underlying issues that might be promoting these behaviors.

The ACEs Study pyramid (right) explains how ACEs are strongly related to developing risk factors for disease and disability throughout a lifespan. Early traumatic experiences shape brain development and can lead to impaired social, emotional and cognitive development, which then increases the risk of poor outcomes.

Some health-risk behaviors
may have less to do with poor
decision-making than with fulfilling
a physiological need, such as to
de-stress, protect oneself, or feel love. A
smoker, for example, may find that smoking
assists in relaxing their overactive stressresponse system.



The ACEs Study found a powerful correlation between harmful experiences in childhood and poor adult health decades later.

Of the 3 trillion dollars spent on health care each year, only **5%** is spent on **preventive medicine**.

- Resilience

ACES AND BINGE DRINKING

lowa has an overall higher rate of binge drinking (21.7 percent) than the national average (16.9 percent). Binge drinking is defined as males having five or more drinks and females having four or more drinks on one occasion in the past 30 days. The chart shows that a higher share of people with four or more ACEs (26.3 percent) report binge drinking than those with zero ACEs (16.8 percent).

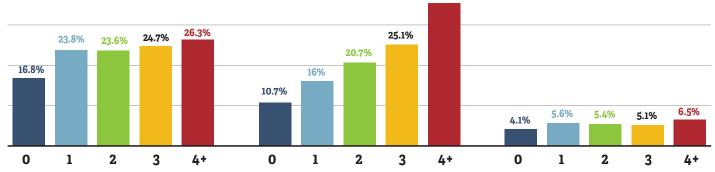
ACES AND SMOKING

This chart shows that those with four or more ACEs are more than three times as likely to smoke as those with no ACEs. Current smoking is defined as a response of "every day" or "some days" to the question: "Do you now smoke cigarettes every day, some days, or not at all?"

35.4%

SEATBELT USE

Research shows that even seatbelt use is correlated with experiencing adversity in childhood. People with four or more ACEs are 1.6 times more likely to report they do not wear a seat belt "always" or "nearly always" as compared to people with fewer ACEs.



Support for dads

s the fatherhood coordinator for Children & Families of Iowa, Larry oversees the "24/7 Dad" education program in 22 counties and three prison systems. In Ottumwa, where he lives today, Larry has coordinated efforts to better support and engage fathers, leading to a Dads' Day Out community event and an in-patient treatment facility offering a place for a dad to bring his kids like it allows for mothers.

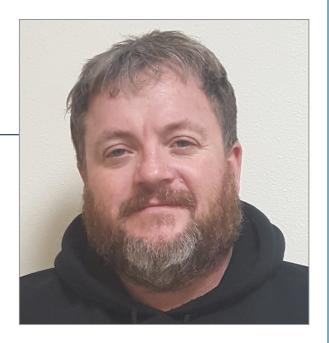
Larry advocated for these changes after becoming sober five years ago. He recognized the lack of support and education he had when he raised his daughters, now ages 21 and 20. The turning point was when he had to sign custody of his children over to his parents while he went through the Wapello County Family Treatment Court.

"Sara Persons and Judge Owens with the Family Treatment Court believed in me when I didn't believe in myself," Larry said. "I needed someone to believe in something I didn't think I had."

Larry was 40 when he entered the treatment court. He had been addicted to meth on and off since age 15. He drank heavily, had been violent toward his wife, and often relied on his parents to watch his daughters. But this time, as he went through in-patient treatment, counseling and parenting classes, he confronted the issues he'd held onto.

The hardest was admitting he'd been sexually abused as a young child. "As a guy, you're ashamed, but there wasn't anything I could do about it," Larry said. "Once I put my pride and ego to the side, then it wasn't really all that difficult to talk about."

Larry also grew up with domestic violence in the home. Instead of watching Saturday morning cartoons, he was chopping wood and doing other chores. His father, a police chief, and mother, who worked at a nursing home, had night shifts. Starting in third grade, Larry joined his older siblings in drinking, smoking marijuana, and taking pills while his parents were gone. By the end of high school, he was dealing meth and entered a cycle of sobering up, becoming stable, and then falling back into using drugs and alcohol.



"I needed someone to believe in something I didn't think I had."

"My dad taught me a lot of things – a lot of it was good, some of it was bad," said Larry. "I took the bad stuff and ran with it."

Then at age 40, with treatment services and community support, Larry started to find a new normal. He enrolled in college and became a parent partner, guiding other parents who were going through the lowa Department of Human Services system. He has worked to repair his relationships with his daughters, one of whom has a one-year-old boy.

His greatest pride is giving fathers a stronger voice and advocating for more community support, like bringing the "24/7 Dad" education program to lowa. The program, he says, doesn't preach what is right, but rather, helps dads analyze their decisions and make better ones, changing their mindset.

He tells professionals working with parents in the system now: "The opinion that we have on people is what determines whether they get to keep their kids. Stay passionate about what you're doing and do not get burned out. Look deeper for the good stuff."

ACEs impact **physical health**

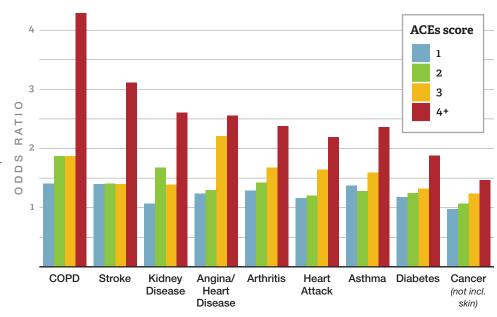
he chart on this page reveals the likelihood of adults with ACEs to experience specific health conditions compared to those without ACEs.

As noted on page 12, some serious health outcomes can stem from the adoption of health-risk behaviors. However, the health risks of early toxic stress cannot be attributed to behavior alone. Researchers who conducted the initial ACEs Study looked at patients with an ACEs score of seven or higher who didn't smoke, didn't drink to excess and weren't overweight. They found that the risk of ischemic heart disease (the most common cause of death in the United States) in this population was 360 percent higher compared to patients with a score of 0. This proves that an increase in stress hormones within the body affects health over time.

CDC research has found that trauma in childhood could reduce life expectancy by up to

20 years.

LIKELIHOOD TO DEVELOP HEALTH CONDITIONS BASED ON ACES



This chart represents odds ratios, or how many times more likely an adult with ACEs is to experience a given health outcome compared to those without ACEs. For example, those with four or more ACEs are 4.3 times more likely to have chronic obstructive pulmonary disease (COPD), 2.4 times more likely to develop asthma, and 2.2 times more likely to have a heart attack than those without ACEs.

"When you look at adverse childhood experiences, they're actually a stronger predictor of risk of ischemic heart disease than any of the traditional risk factors when you think of high blood pressure, high cholesterol and smoking."

– Dr. Nadine Burke Harris Center for Youth Wellness, from Resilience

TAKE ACTION

Not every adult who has experienced ACEs will have poor health outcomes, but many will experience problems and some will experience serious difficulties. By looking at the root cause of adult disease and addressing those issues early, we can prevent many adverse health outcomes.

Practitioners can work to address toxic stress in individuals as well as advocate for trauma-informed systems. Take action in the following ways:

- Educate all staff in your organization on the impact of trauma and how to respond to patients
- 2) Build partnerships that improve access to community supports
- **3) Share** your knowledge on the impact of toxic stress on health with peers and community leaders

Learn more at www.iowaaces360.org.

ACEs impact mental health

xperiencing trauma in childhood greatly increases the risk of having mental health issues as an adult. Iowa adults with four or more ACEs were 6 times more likely to have been diagnosed with depression compared to those with zero ACEs. Depression is one of the most common mental health disorders in the United States today.

The chart below reports how respondents answered the question: About how often in the last 30 days did vou feel nervous, hopeless. restless, so depressed nothing could cheer you up, worthless, or that everything was an effort. Those with four or more ACEs were seven times more likely to report restlessness than those without ACEs and 4.9 percent more likely to report that everything was an effort.

lowa adults with four or more ACEs were

diagnosed with depression.

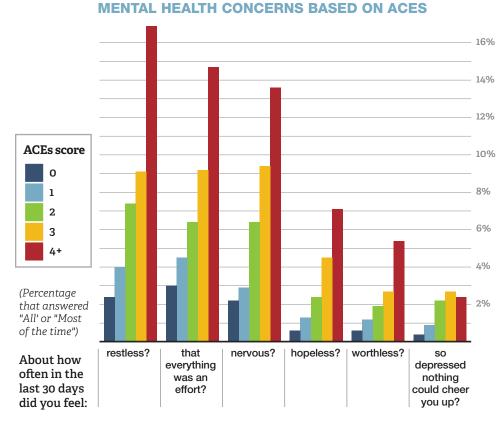
TAKE ACTION

Organizations and individuals can respond by building a culture that focuses on understanding, recognizing and responding to trauma. Trauma-informed care emphasizes the physical, mental, and emotional safety of consumers and providers, and helps survivors of trauma rebuild a sense of control and empowerment. Learn more at

www.traumainformedcareproject.org

more likely to have been

PERCENTAGE OF IOWA ADULTS REPORTING



RESPONSE STRATEGY

Refugee Mental Health Services

ll refugees arriving in Iowa have experienced trauma, many well beyond the eight types of ACEs studied in Iowa. Often, as the excitement of arriving in the U.S. fades and initial services end, refugees face additional challenges that can lead to depression, anxiety and other mental health problems. In September 2015, the U.S. Committee for Refugees and Immigrants began working with about two-dozen refugee clients in Central Iowa to access services and find supports that can improve their mental health. Often, this work involves listening to clients and helping them overcome stigmas about mental health so they will access needed services.

"The moment you say 'mental health' to a refugee, the conversation is over," said Clayton Boeyink, who started this program. "There are all of these connotations of being crazy, locked up, or being the laughing stock of the village."

Boevink developed training for mental health providers and other professionals on overcoming barriers while working with refugees. One key to success is having health advocates who speak with most refugees in their native languages and form the strong relationships needed to better support them.

To learn more about the Refugee Mental Health Program, visit

www.iowaaces360.org.

Breaking the cycle: **parenting**

n average, one out of six children in lowa lives with a parent with four or more ACEs. As a result, many parents are at greater risk for behaviors and health issues that can make caring for children difficult.

In addition, lowa's families face increasingly stressful situations. Still, many families thrive despite these factors, especially with strong community support.

TAKE ACTION -

Research shows that having safe, stable, and nurturing relationships as early in life as possible can prevent or even reverse the damaging effects of childhood trauma.

Key to building a safe, nurturing environment for children is promoting protective factors in families, which buffer against stress and reduce the likelihood that abuse will occur. Strengthening parents' ability to care for their children not only improves adults' well-being, but also children's healthy development, impacting two generations simultaneously.

PROTECTIVE FACTORS

Knowledge of Parenting and Child Development

Understanding child development can lead to early secure attachments and help parents respond appropriately to a child's behavior.

Parental Resilience

Recognizing the signs of stress and enhancing problem-solving skills can improve parents' capacity to cope, and enhance nurturing attention to one's child.

Social Connections

Identifying a network of family, friends, and neighbors provides parents support in times of need and confidence to help others.

Concrete Supports

Offering parents access to financial, housing, medical, and other resources helps parents meet their basic needs, so they can focus on their role as parents.

Children's Social and Emotional Competence

Being responsive to a child and helping them develop self-regulating behaviors promote healthy development.

Source: Center for the Study of Social Policy

promote healthy development.

MORE FAMILIES IN IOWA FACE STRESSFUL ENVIRONMENTS

15.5%

of Iowa's children
(ages 0-17) lived
below the poverty
line in 2014, a 43.9
percent increase
since 2000.
Children growing
up in poverty are
more likely than
their peers to
experience stress
and deprivation that
hinders development
and readiness for

21%

of Iowa children
ages four months
to 5 years are
at moderate
or high risk of
developmental,
behavioral or social
delays. Children
with special needs
require a greater
level of support.

25%

of Iowa women
with young children
in the home have
a high school
diploma or less, a
key indicator of child
outcomes. This level
of education can
make finding a wellpaying job difficult.

30.8%

of families with children are headed by a single parent, a 23.7 percent increase since 2000. Singleparent families are at increased risk for stress and economic hardship.

Source: Iowa Kids Count

RESPONSE STRATEGY

1st Five

In Iowa, more than 90 percent of children ages birth to 5 are seen by a primary care provider, giving providers a unique opportunity to identify and respond early to risk factors that could impact a child's healthy development. 1st Five partners with these providers to screen for developmental delays and stressors in the home, then coordinates referrals and interventions with families.

From 2007-2014 1st Five, managed by the Iowa Department of Public Health, connected 7,588 families to 19,223 community services. The Iowa Legislature voted to expand 1st Five to 65 Iowa counties in 2015.

Here is one family's success story:

Two-year-old Samantha was referred to the 1st Five program due to social stressors, specifically financial concerns and domestic violence in the home. After speaking with the mom, 1st Five learned Samantha had suffered significant physical abuse as well as witnessed many acts of abuse towards her mom. Samantha's father was in jail as a result of a domestic violence incident.

1st Five was able to connect mom to a domestic violence advocate to help ensure her family's long-term safety as well as provide ongoing support. 1st Five also connected the mom and her three young children to counseling services, specifically play therapy for Samantha who was starting to show some aggressive behaviors. Through additional follow up calls, 1st Five helped mom link with the Family Investment Program, which provided her with job training. In a time of crisis, 1st Five helped mom get a gas card from a local church so that she could continue to take her children to day care and complete the training. At the time the referral was closed, mom had started working and felt like things were coming together.

Learn more about 1st Five at

www.iowaaces360.org or idph.iowa.gov/1stfive

school and life.

Breaking the cycle: youth

hile lowa ACEs data gives a picture of adult health and well-being today, we can gain an understanding of the next generation's health and behavior patterns by looking at youth risk factors.

The lowa Youth Survey, conducted by the lowa Department of Public Health, captures the perceptions, attitudes, and behaviors of lowa's 6th, 8th and 11th graders. Risk factors were identified by examining responses to 16 questions around issues including drinking alcohol, using drugs, having thoughts of suicide, being bullied, having a happy home, and feeling connected to the community.

Most youth reported no risk among these 16 questions. However, one in four students had at least three risk factors and eight percent had six-plus risk factors, indicating significant levels of stress.

Findings of lowa youth include:

- 23 percent have had a full drink of alcohol
- 13 percent have had thoughts of suicide
- 9 percent have experienced bullying
- 10 percent disagree with the statement "I have a happy home."
- 16 percent disagree with the statement,

"Adults in my community care about people my age."

These findings suggest that low children are experiencing adversity at levels similar to those reported by adults in The ACEs Study.

TAKE ACTION

The outcomes we see in adults today won't change in the next generation unless we take greater steps to intervene earlier. **Resiliency** is the ability to thrive, adapt and cope despite experiencing tough times.

Research shows that the key to building resiliency is to have supportive, responsive relationships with caring adults as early in life as possible. These relationships can help buffer against the impact of toxic stress and help youth build other resiliency factors within themselves, including feeling a sense of hope, learning strategies to manage stress, and developing positive self-esteem.

We can identify growth in resiliency in youth by focusing on questions in the lowa Youth Survey including "my neighborhood is a safe place to live" (only 7 percent disagreed with this statement) and "adults in my community care about people my age."

RESPONSE STRATEGY

Young Women's Resource Center

In 2015, the Young Women's Resource Center (YWRC) in Des Moines gave some teen moms in its programs the ACEs questionnaire. The staff found that the average score among its teen moms was 4.5 ACEs. The staff used this information to help teen moms understand the long-term effects of childhood trauma on their well-being and to recognize opportunities to prevent ACEs with their children. A small group of mothers with very high ACEs meets for intensive support with a staff therapist.

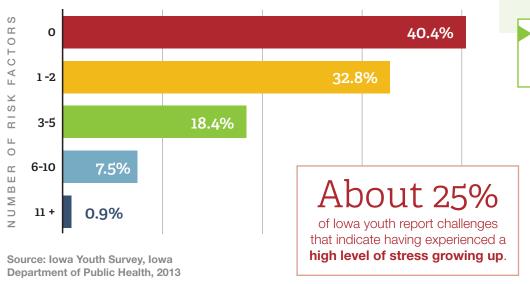
Key findings from this work include recognizing that the ACEs questionnaire is difficult for youth to understand and relate to, and it is not a good gauge of where youth could grow with resiliency. As a result, YWRC, with a grant from Mid-Iowa Health Foundation, is researching and developing a questionnaire for youth that measures some ACEs and resiliency factors. They also are looking at ways to promote resiliency across all programs. In addition, the staff and board have been trained on trauma-informed care principles.

"When you ask people those delicate questions about trauma, you have to be really careful about it, because you don't want to make them feel worse," said Tamra Jurgemeyer, program director. "And that score doesn't change. What you want to say is here are the protective factors; let's build on that."

Learn more about the **Young**Women's Resource Center at

www.iowaaces360.org or ywrc.org.

RISK FACTORS IN IOWA YOUTH



Breaking the cycle: education and early care

Graphic by Lemon Liu from the Noun Projec

A child who has experienced seven or more adverse events is nearly 100 percent likely to have a developmental delay.

- Harvard Center on the Developing Child

tudies show that by the time children enter preschool, one in four will have experienced a traumatic event. If, at a young age, a child cannot predict where, when or how much stress they will experience at any given time, their brains and bodies can become hardwired to react more quickly with a fight, flight or freeze response. They may startle easily, be confused by what is dangerous, avoid contact, or fear separation from familiar people and places. By the time they are in school, they may exhibit inappropriate behaviors in the classroom or have difficulty concentrating. Some children may not exhibit any symptoms until they are much older.

TAKE ACTION

Educators of children of all ages have an opportunity to respond. Educators can create positive environments for children by recognizing the way stress impacts children's behaviors and abilities, and by creating safe spaces for children to maintain and regain a sense of calm.

Educators and school systems can respond to the children they work with and the communities in which they operate in the following ways:

- 1) Educate everyone in the system on the impact of trauma and how to respond to children's social and emotional needs
- 2) Adopt trauma-informed practices among all staff
- 3) Integrate services for families into schools, such as partnering with health centers, food pantries and parent support groups

Students with a higher number of ACEs are more likely to:

- ▼ Score lower on a standardized test
- ▼ Have language difficulties
- ▼ Be suspended or expelled
- ▼ Have poorer health
- ▼ Fail a grade

RESPONSE STRATEGY

Prairie Crest Elementary School

In 2015, Prairie Crest Elementary School in Cedar Rapids teamed up with the University of Iowa to research the effects of training staff in the ACEs Study research and traumainformed approaches in an elementary school setting. About 35 staff members attended a three-hour session in August and continued to receive monthly training on ACEs, toxic stress and its impact on development, as well as trauma-informed practices that build resiliency.

Jan Powers, formerly the Prairie Crest school counselor who helped bring this training to her school, is working with Dr. Carol Smith and Dr. Armeda Wojciak from the University of Iowa's College of Education to develop a manual that could be applied in other school settings. Next year, this work will expand to four additional elementary schools. The project was funded by the Institute for Clinical and Translational Science Community Engagement Grant.

This work is unique, Jan said, in that it is researching the impact of applying trauma-informed practices in an elementary school to develop evidence-based practices that help educators address students' increasingly complex backgrounds and needs. The school has implemented supports for students such as a "relax and return" station in each classroom where students can go to calm down, and a wellness room with trauma-sensitive activities for students who need more supports.

"I think a challenging mindset from the past is that kids' behavior just needs to be punished, and if you do that, it will stop," she said. "The problem is, it might stop it in the moment, but we haven't addressed the cause of the behavior. We haven't built relationships. We haven't taught them self-regulation. We haven't increased their competence. This training is developing tools for teachers to help build students' resilience."

Learn more about a student-led response project at

www.iowabig.org

Breaking the cycle: **business**

n average, five out of thirty employees will have four or more ACEs, indicating a significant level of childhood trauma.

According to research from the CDC and lowa ACEs, employees experiencing four or more ACEs compared to those with zero are:

2.2

times more likely to have a **heart attack**

2.3

times more likely to report serious financial problems

2.5

times more likely to have absenteeism (more than two days/month)

3.3

times more likely to **smoke**

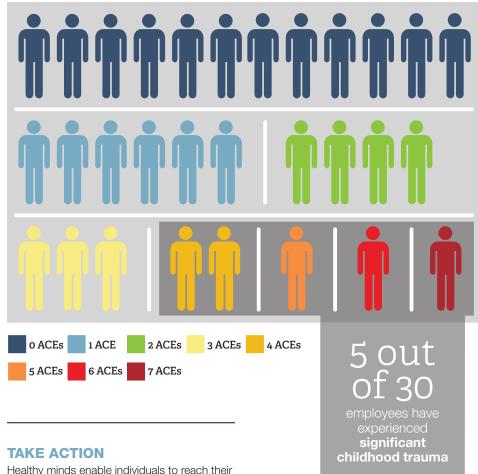
3.6

times more likely to have serious job problems

6

times more likely to have **depression**

AVERAGE NUMBER OF ACES AMONG EMPLOYEES



Healthy minds enable individuals to reach their full potential. Businesses can promote healthy brain functioning and employee well-being by helping employees manage stress and build stronger connections within the workplace and the community.

Take action in the following ways:

- 1) Implement policies such as flex-time that create healthier families and more productive employees
- **2) Train** managers on trauma-informed care principles
- 3) Use corporate-sponsored events to inform employees about community services that can support their well-being
- **4) Provide** funding for initiatives working to respond to ACEs

A new outcome with job training

hile in prison at age 50, Clifford made the decision to stop using drugs and alcohol. He had made this decision before, but this time, with the encouragement of another inmate, he was determined to change. Key to his success was finding a job.

"My mind was made up to be sober," he said, "but it helps when you have something to look forward to, a decent job to get up and go to."

Helping him through the transition to finding a decent paying job that would establish a new kind of life for Clifford was Project IOWA. The program's goal is to prepare participants for career success. As part of its training, the facilitators talk about childhood trauma and work to help participants heal.

Clifford grew up in the projects of New Haven, Conn., and New York City surrounded by what he described as "a rough neighborhood right after the Vietnam War with lots of drugs on the street." His father was absent and his mom often moved the family around to one of her ten siblings' homes.

Clifford describes himself as a "rebellious" child. He was first arrested for heroin possession at age 12. He moved to Des Moines to be with his father at age 23, and began to drink heavily and use other drugs. Eventually, the drug, theft and assault charges added up to more than a decade of prison time.

Along the way, Clifford intended to change but found his behaviors set. "I never wanted to do what I did, but it was just part of the environment," he said. "Once I realized I didn't have to and that I could be okay without, that is what made me put forward a strong effort."

The last time Clifford was released from prison, he found a job washing dishes at a local restaurant. When the restaurant closed, he joined Project IOWA's training program with the goal of finding a well-paying, stable job.

One of the key points Clifford took from Project IOWA was: "If you apply yourself and if you have some type of skill set, there is employment." He graduated the program with a job at Bridgestone Agricultural Tire.



"I never wanted to do what I did, but it was just part of the environment."

Now Clifford describes his life as "extremely basic, but I enjoy it." He has a one-bedroom efficiency apartment, a used vehicle and a recreational motorcycle that he rides for fun. At age 59, he tries not to worry about the other things those his age have achieved.

"When I look back on my life, I saw that I didn't deal with the pressure well," he said.

He is inspired by his seven children and looks forward to spending time with his grandchildren. "I wasn't a good parent and I don't take that from them," he said, but he has worked to heal those relationships.

His new goal for his life: "If my grandkids hear about my life, they won't believe it."

Learn more about Project IOWA at

www.iowaaces360.org or www.projectiowa.org.

Breaking the cycle: **our community**

merging research around ACEs shows that by building caring connections within our communities, we can prevent or mitigate many pressing social issues our communities are working to address.

In addition to questions about ACEs, Washington State has begun to ask questions about resiliency. Three years of data reveals some important findings:

- Respondents reporting high ACEs and high support/help often fare better in health and mental health than those with no ACEs and low support.
- Respondents reporting a high level of reciprocity and social bridging (such as watching out for the community's children, asking for help and intervening when someone is in trouble) had lower rates of obesity, mental illness and healthrisk factors.

In 2016, lowa began measuring resiliency data in the BRFSS to learn more about how these factors can mitigate the impact of ACEs.

TAKE ACTION

The simple actions we take to build caring connections with children, families and adults can improve community well-being. Take action by identifying your connection. Examples include:

- · Reach out to a neighbor
- Listen to someone's story
- · Spend time with a child
- Make a meal for a parent

RESPONSE STRATEGY

Connections Matter

onnections Matter is an initiative designed to engage community members in building caring connections to improve well-being. The project, developed by Central Iowa stakeholders, launched in September 2015 with a research-based curriculum and an awareness toolkit promoting a common call to action. To date, more than 400 Iowans have been trained to deliver the message that connections matter to developing brain, relationships and community. The project will continue to expand, with a broader awareness effort in 2017.

Here is how one community member has made an impact through caring connections:



DEB'S STORY

It started with a text: If there is something you want to talk about, let me know.

Deb Nanda McCartney had seen Melissa Pacheco crying during a Latina Leadership Initiative class. Deb's text led to having lunch with Melissa and learning about her difficult living situation. Deb encouraged Melissa to set a goal of finding an apartment and began to send her listings and offer advice of what to look for. Within two months, Melissa was living in her own place.

Shortly after, Deb received Melissa's text: I want to thank you for everything. "It made me see that help in small packages can make a big difference," Deb said.

Many people have been touched by Deb in similar ways. At the dental clinic she runs with her husband, she gets to know each patient personally. When she hears about a life-changing event, such as high school graduation or a family member passing away, she sends a card and often a small gift.

"She has a lot of compassion for people," said Michelle Evans, the dental clinic's business coordinator for 14 years.

Learn more about Connections Matter at www.connectionsmatter.org.

Studies prove that communities connected through caring relationships have:

- ▼ Less crime
- Less homelessness
- ▼ Less substance abuse
- ▲ Increased school success
- ▲ Increased mental health
- ▲ Increased physical health

Iowa's opportunity to **respond**

"If you can weave the science through these different sectors and get it in the hands of the general population, they will invent very wise actions."

- Laura Porter co-founder of ACE Interface and leader in responding to ACEs in Washington State owa's ACEs data highlights the significant impact trauma can have on individuals. But we also know, more than ever before, that these outcomes can be prevented. Washington State demonstrated that a comprehensive approach to educating communities and empowering local leaders to take action reduces the rates of childhood trauma and health problems in the next generation.

lowa has taken a national lead in developing its unique response to ACEs. Coalitions in communities throughout the state have led activities to raise awareness of the findings and to collaborate among education, health care, social work, business and other sectors to implement trauma-informed strategies. These efforts have seen success in supporting individuals, changing systems and inspiring new policies that have the potential to lower the rates of trauma we measure each year in lowa's data.

WE ALL MUST TAKE ACTION

As community members, professionals, parents, advocates, educators, faith leaders, judges, business leaders, mentors, policymakers, philanthropists, and grandparents, we have a responsibility to respond to childhood trauma. When we all take steps to act with compassion and promote effective interventions, we create a better future for the individuals we serve and our community overall.

If you have experienced trauma and are seeking support please contact 211 for services in your area.

HERE'S WHAT YOU CAN DO

- Learn more about childhood trauma, its impact and effective response strategies at www.iowaaces360.org. Educate others about what you have learned.
- Respond to others with greater understanding by considering what happened to them instead of what is wrong with them.
- Build caring connections with the children, families and adults you touch in your everyday actions.
- Seek services that help you improve your well-being. Call 211 for local resources.
- Apply a trauma-informed approach to your organization's work.
- Foster communities focused on strengthening families and creating safe, nurturing environments for children.
- Advocate for trauma-informed strategies when making decisions.
- Increase early identification of and response to ACEs across systems including health care, education, justice, social services, and public health.
- **Give** to efforts working to raise awareness of ACEs and develop response strategies.

Our **Resiliency Toolkit** offers resources to help you take action. Learn more at

www.iowaaces360.org/resiliency-toolkit

Hope for a better future

hat is it about my story you might want to hear?" says Yolanda to the community members who have gathered to learn about the impact of childhood trauma. "Do you need to hear the desperation of a kid 'raised' in unimaginable conditions? Do you need to hear about how horrific things got for a mother of four children that would allow her to walk into DHS and say, 'I can't do it anymore?' Or what you're needing to hear is how the girl in front of you begged and pleaded for any relative including dad, grandmas, ex-step dad, even friends' parents to please come get me out of the children's shelter because 9-10 months is just too long?"

By age 12, Yolanda's life had hit rock bottom. Her ACEs score – the total categories of abuse, neglect and household dysfunction she'd experienced as a child – was a "perfect 10" based on the number of categories in the original study. The family dysfunction stemmed generations with both her mother and father having extremely traumatic experiences themselves. Yolanda began drinking and smoking marijuana at a young age. At age 14, she met a boy who claimed to love her and soon became pregnant.

Despite these odds, Yolanda was determined to not let her childhood define her.

"All I needed was just a tiny bit of hope that things could be different," she said, "and to be treated like and talked to as if my future could be whatever I decided it would be. I just needed someone standing at the fork in the road nodding their head in the right direction. I just needed little nudges."

These nudges began when her 5th grade teacher had her tested for the talented and gifted program. "This was the first time it occurred to me that maybe I am more than I thought," Yolanda said. Her therapist helped her see that repeat nightmares were the result of her environment, and her 7th grade writing teacher encouraged Yolanda to pour her emotions into her journal. While in foster care, her caseworker listened, advocated for Yolanda to keep her son, and even helped her get the diapers, bedding and clothing she needed when she suddenly decided to keep her son on the day he was born.



"All I needed was just a tiny bit of hope that things could be different."

"All it takes is the heart of someone in your exact position, whatever you may be, to change the lives of one individual," she tells the community group. "It takes you remembering that no matter their ACEs score and no matter what is seemingly going on in their life at the moment, it has no bearing on their potential. I want you to know that it wasn't one person in my life or one event or one program that saved me. It was little nudges all along the way."

Recently, Yolanda gave up a successful banking career to finish her bachelor's degree in social work and to serve as an AmeriCorps member with Families Making Connections in northern lowa, helping support children who face similar situations as her own. Her son has found his passion as well, and now Yolanda enjoys receiving pictures of the dishes her 18-year-old cooks up in culinary school.

"This teenage mom with an ACEs score of a perfect 10 raised a child to have an ACEs score of 3. Only a 3," she said. "Ideally, we want a zero. But I'll stand by that 3 proudly and will do everything I can so that his children have an even lower score."





With tremendous gratitude, we acknowledge the many individuals and organizations who share their time, expertise and passion for improving the well-being of all Iowans.

Thank you to the Central Iowa ACEs 360 Coalition representatives for understanding the importance of collecting, analyzing and sharing this critical research and for leading this effort:

Amanda the Panda

American Academy of Pediatrics, Iowa Chapter

Blank Children's Hospital

Child & Family Policy Center

Des Moines Public Schools

Iowa Department of Education

Iowa Department of Public Health

Mercy Medical Center

Mid-Iowa Health Foundation

Orchard Place Child Guidance Center

Polk County Decategorization

Polk County Health Department

Prevent Child Abuse Iowa

Project IOWA

Trauma-Informed Care Central Iowa Stakeholders

United Way of Central Iowa

UnityPoint Health

University of Iowa

U.S. Committee for Refugees and Immigrants

Thank you to the courageous Iowans who shared their stories in this report.

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For more information, please visit www.lowaAces360.org.