

# Trauma and Long-term Response for Children and Families

Terrorism and Disaster Coalition for Child and Family  
Resilience

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# Louisiana Disasters (1992-2005)



1992

Hurricane Andrew



1998

Tropical Storm Frances & Hurricane Georges



2001

Tropical Storm Allison



2002

Tropical Storm Isidore & Hurricane Lili



2004

Hurricane Ivan



2005

Hurricanes Katrina & Rita



# Louisiana Disasters (2008 - Present)



2008

Hurricanes  
Gustav &  
Ike



2010

Deepwater  
Horizon Oil  
Spill



2011

Mississippi  
River  
Flooding



2012

Hurricane  
Isaac



2016

Louisiana  
Floods



2017

Louisiana  
&  
Mississippi  
Tornadoes



# Recent Traumatic Events in the Gulf South



**July 2015**

Lafayette,  
LA, movie  
theater  
shooting



**June 2016**

Orlando,  
FL, Pulse  
nightclub  
shooting



**July 2016**

Shooting of  
police  
officers  
in Dallas, TX



**July 2016**

Shooting of  
police  
officers in  
Baton  
Rouge, LA



**May 2017**

Shootings  
in Bogue  
Chitto, MS

# Challenges for the Gulf Region

For over a decade, Louisiana and the Gulf South States have been in almost constant disaster recovery mode

- These unavoidable challenges present additional risk factors for children of all ages and families across the lifespan

# The Impact of Trauma on Children

- An event that overwhelms the child or adolescent's ability to cope
  - Causes fear, helplessness
  - Can be expressed by sadness, withdrawal, or disorganized / agitated behavior
- Witnessing or experiencing an event that poses a real or perceived threat to the life or well-being of the adolescent or someone close to him/him

# Types of Children & Adolescent Trauma



# What Does it Mean to Be Trauma-Informed?

- Instead of asking –
  - What Did You Do?
- Ask instead –
  - What Happened to You?



# The Effects of Trauma on Behavior and Emotions

- Derails the normal developmental trajectory and can contribute to:
  - Developmental delays
  - Emotional dysregulation
  - Behavioral dysregulation
  - Difficulties in forming attachments in childhood and later life

# The Impact of Trauma on Adults including Parents and Caregivers

- Ability to listen to child may be limited – parent/adult may be so stressed they cannot listen to or hear the child's distress
- Parent/adult may need to protect herself from feelings of vulnerability and trauma



BEHAVIOR

REST OF THE STORY

# A Continuum from Stress to Trauma

Normative,  
Developmentally  
Appropriate Stress

Emotionally  
Costly Stress

Traumatic  
Stress





Center on the Developing Child  
HARVARD UNIVERSITY

## Positive Stress

A necessary aspect of healthy development that occurs in the context of stable, supportive relationships.

Brief increases in heart rate and mild changes in stress hormone levels.

## Tolerable Stress

Stress responses that *could* disrupt brain architecture, but are buffered by supportive relationships.

Allows the brain an opportunity to recover from potentially damaging effects.



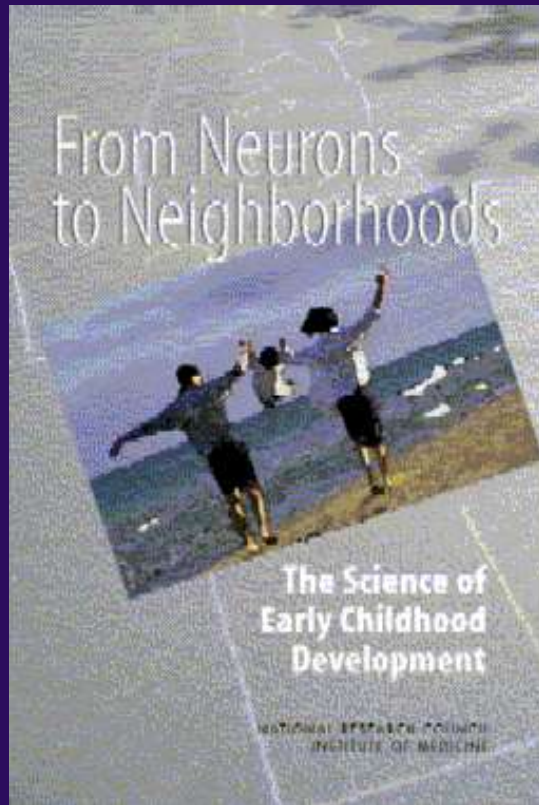
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## Toxic Stress

Strong, prolonged activation of the body's stress response systems in the absence of the buffering protection of adult support.

Can damage developing brain architecture and create a short fuse for the body's stress response systems, leading to lifelong problems in learning, behavior, and both physical and mental health.

# Neurons to Neighborhoods



- National Academy of Science Panel
- What does science tell us about brain development in young children?
- Key conclusions

# *“From Neurons to Neighborhoods”*

## *Four Overarching Themes*

- All children are born wired and ready to learn
- Early environments matter and nurturing relationships are essential
- Society is changing and the needs of young children are not being addressed
- Interactions among early childhood science, policy, and practice are problematic and demand dramatic rethinking

National Research Council & Institute of Medicine 2000



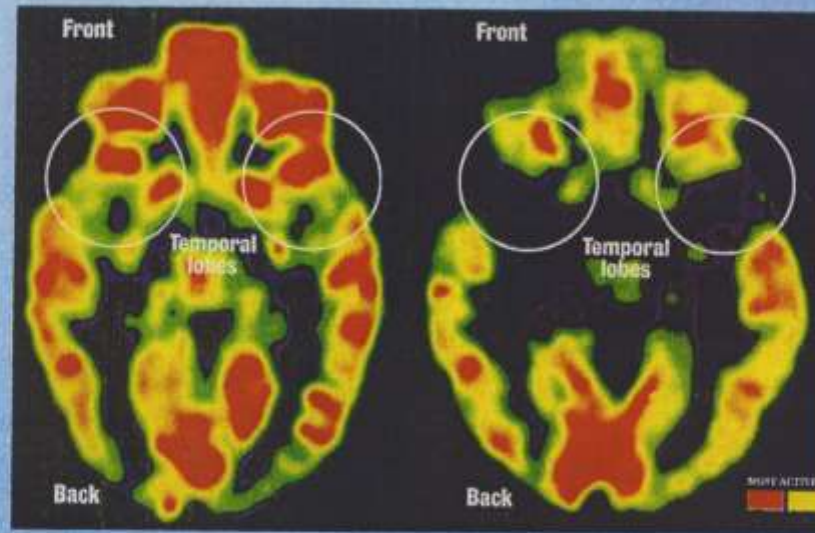
# How Early Experiences Affect Brain Development

- Parents and other caregivers play a crucial role in providing the nurturing and stimulation that children require
- A child's experience determines how his brain will develop

*Starting Smart: How Early Experiences Affect Brain Development*

An Ounce of Prevention Fund and Zero to Three Paper, 1998

# Effect of extreme deprivation



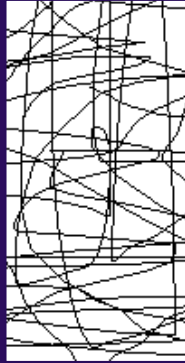
Healthy Brain

Abused Brain

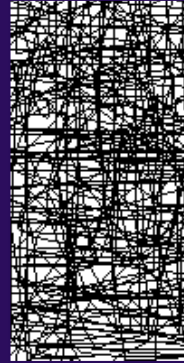
Center for Educational Enhancement and Development

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# Pruning



Newborn



Early



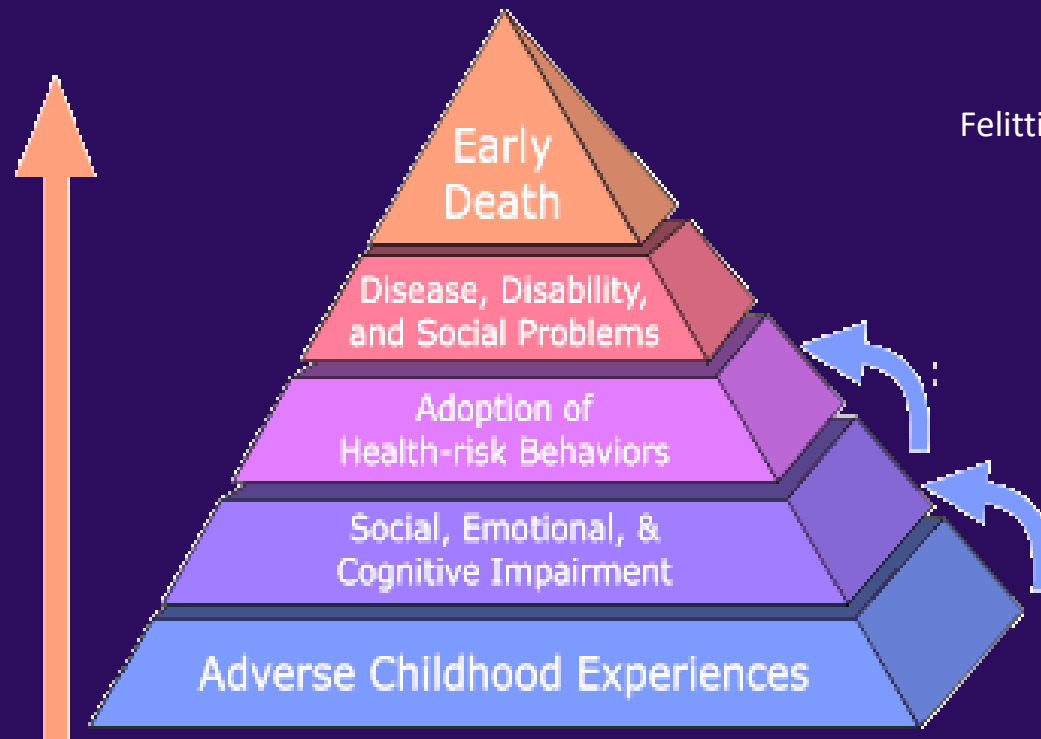
Later



# The Adverse Childhood Experiences (ACE) Study

- The largest study of its kind ever done to examine the health and social effects of adverse childhood experiences over the lifespan (18,000 participants)
- Basic Findings: Trauma exposure is associated with a higher number of common health problems

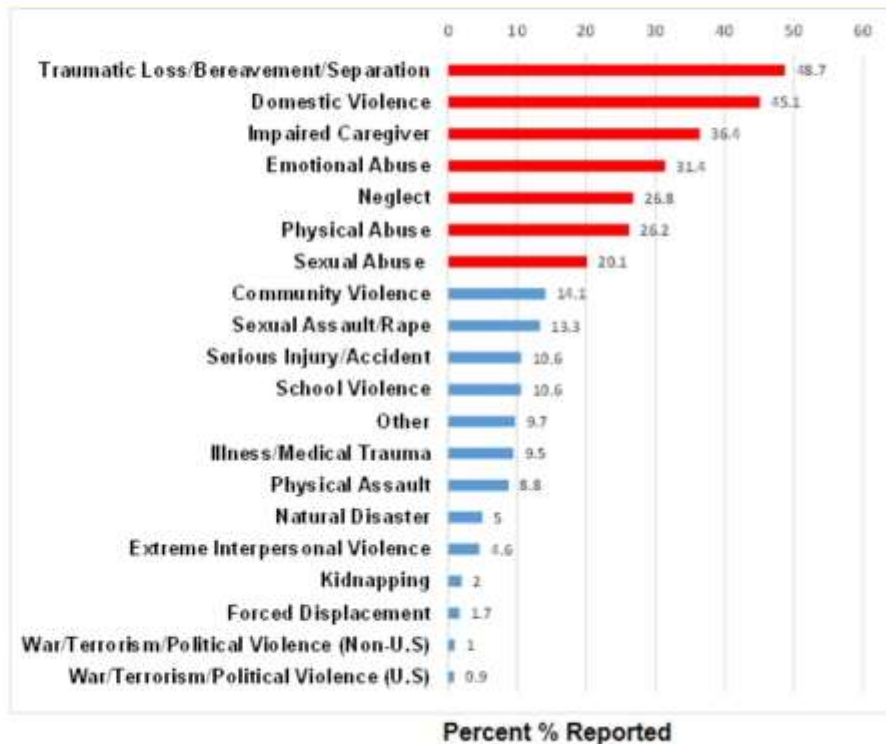
# Adverse Childhood Experiences



Felitti, Anda, et al. (1998)

# The ACES are Among Many Childhood Traumas and Adversities Measured by the National Child Traumatic Stress Network N=10,991<sup>1</sup>

- The original ACES (in red) are among the most commonly reported traumas in studies that look at additional traumas.
- Over 40% of the children and adolescents served by the NCTSN experienced 4 or more different types of trauma and adversity.

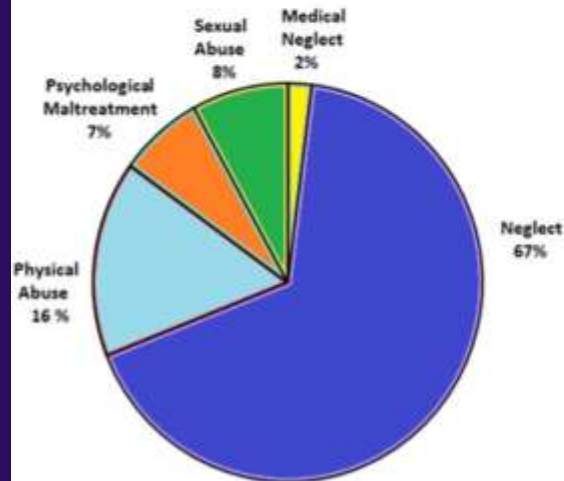


<sup>1</sup>Pyne et. al (2014). Psychological Trauma: Theory, Research, Practice and Policy. 6:S9-S13.

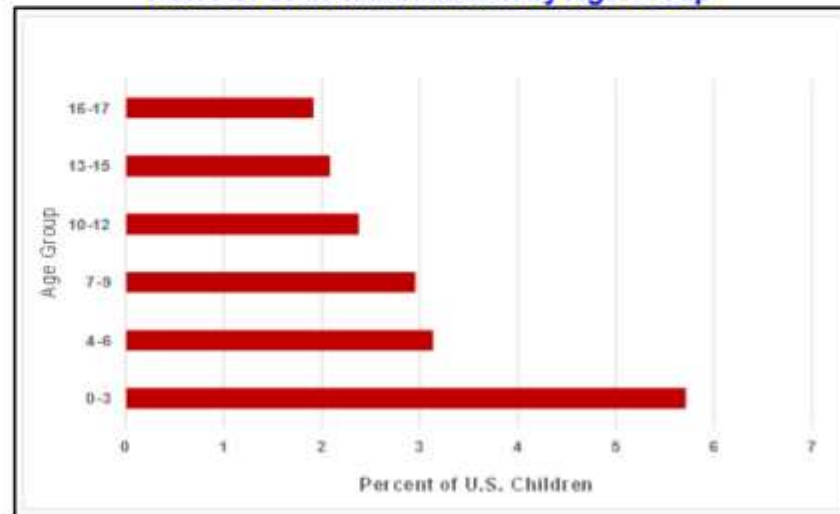
# Rates of Maltreatment by Age<sup>1</sup>

- Most maltreatment happens to younger children.
- Maltreatment has greater negative effects at younger ages.

Types of Child Maltreatment



Rates of Child Maltreatment by Age Group



<sup>1</sup>Child Maltreatment 2012. Washington, DC: US Department of Health and Human Services; 2014.



# How the ACES Work

## Adverse Childhood Experiences

- Abuse and Neglect (e.g., psychological, physical, sexual)
- Household Dysfunction (e.g., domestic violence, substance abuse, mental illness)



## Impact on Child Development

- Neurobiologic Effects (e.g., brain abnormalities, stress hormone dysregulation)
- Psychosocial Effects (e.g., poor attachment, poor socialization, poor self-efficacy)
- Health Risk Behaviors (e.g., smoking, obesity, substance abuse, promiscuity)



## Long-Term Consequences

### Disease and Disability

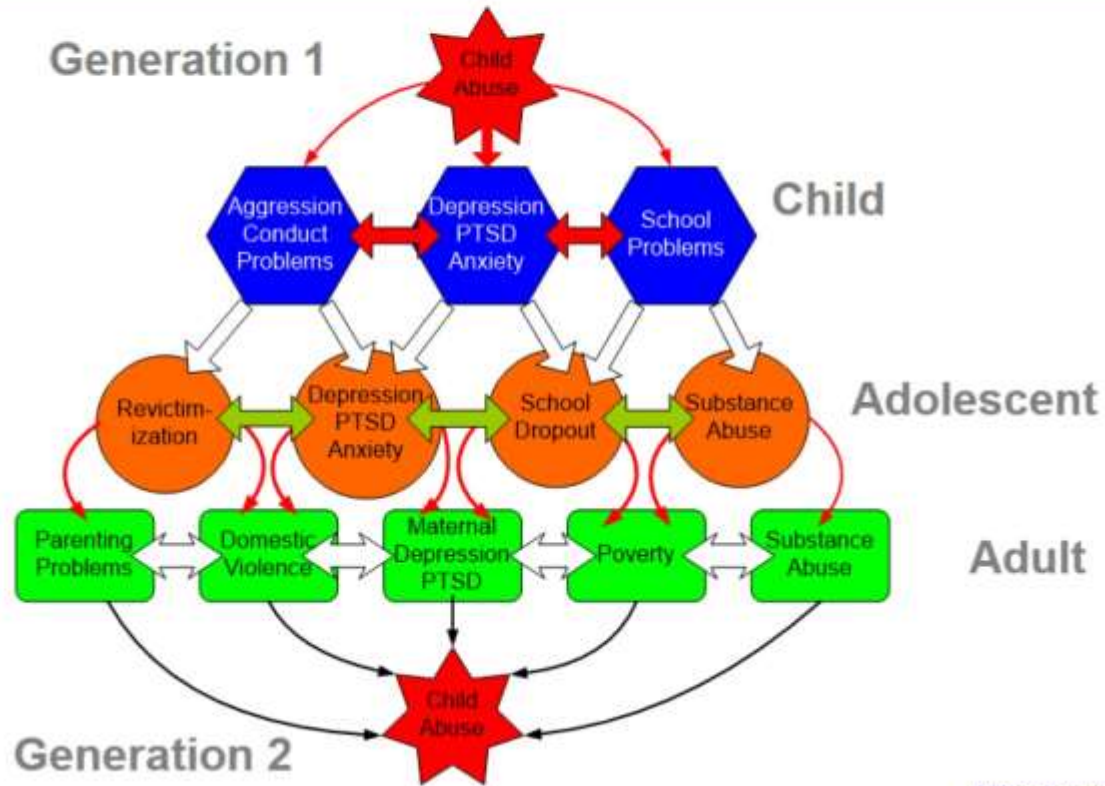
- Major Depression, Suicide, PTSD
- Drug and Alcohol Abuse
- Heart Disease
- Cancer
- Chronic Lung Disease
- Sexually Transmitted Diseases
- Intergenerational transmission of abuse

### Social Problems

- Homelessness
- Prostitution
- Criminal Behavior
- Unemployment
- Parenting problems
- High utilization of health and social services
- Shortened Lifespan

CANarratives.org

# How ACES Cross Generations



CANarratives.org

# Cumulative ACES Increase Risk for Poor Outcomes

# Disaster related Risk Factors

Since Hurricane Katrina in 2005, ongoing research from the Louisiana State University Health Sciences Center (LSUHSC) team identified risk factors for children and adolescents

- Displacement
- Separation from Caregiver
- Lack of social support
- Disruptions to infrastructure, including schools
- Previous and subsequent traumas
- Economic issues

# How to Understand the Effects of Disasters on Children

In collaboration with schools, LSUHSC Department of Psychiatry conducted annual screenings to identify:

- Which students may benefit from services;
- What type of services are needed
- Where resources should be directed

Screening was done with a modification of the National Child Traumatic Stress Network Hurricane Assessment and Referral Tool

Screening data was used to inform current responses and those following future disasters

# Risk Factors for Trauma Symptoms

Over 50,000 children  
(3-18 years of age) were  
screened following  
Hurricane Katrina

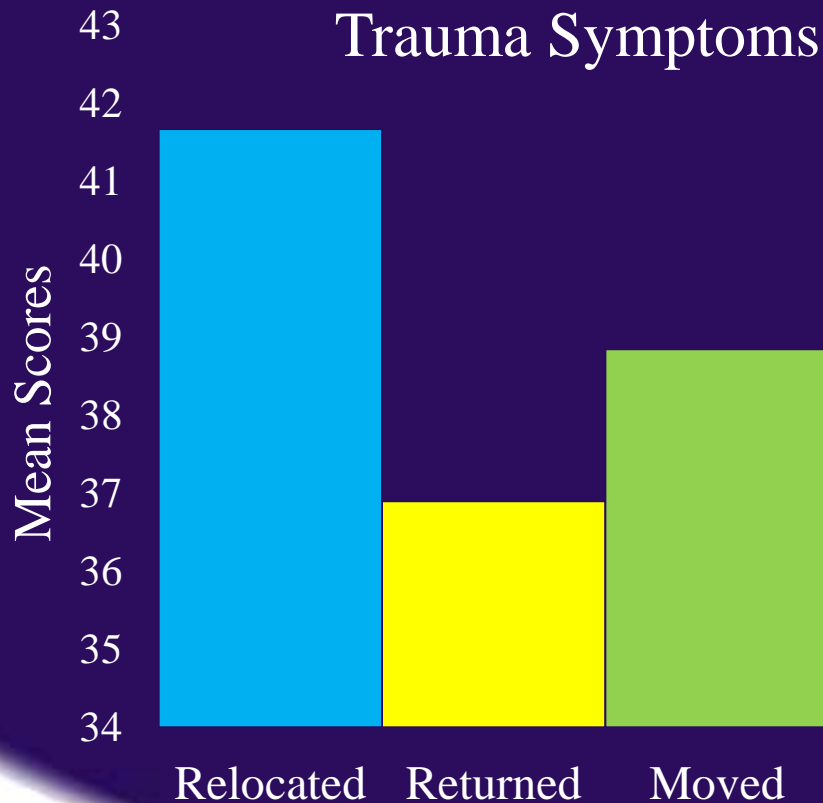
- Risk Factors
  - Family problems
  - Lack of social support
  - Previous trauma
  - Substance use
  - Parental separation
  - Poverty
  - Disrupted home environment

# Study of Forced Relocation following Hurricane Katrina

- 2009: 4 Years Post Storm
- 1,200 students from New Orleans area were attending Baton Rouge Public School
- School screenings were conducted at request of staff concerned about unresolved mental health needs



# Primary Finding of Long Term Relocation Study



- Students who relocated to Baton Rouge reported more trauma symptoms compared to students who returned or moved back to New Orleans (living in different zip codes)



# School Children Trajectories

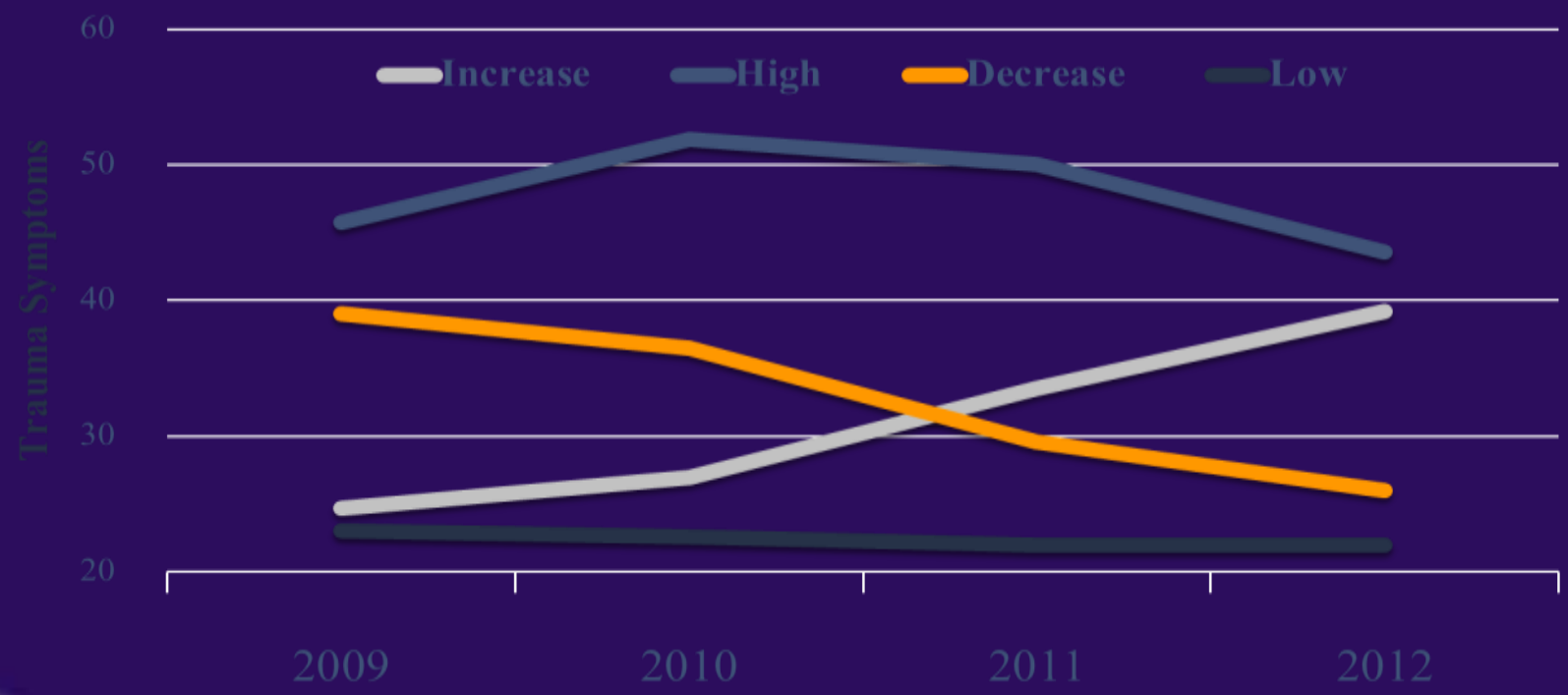
- A multiwave longitudinal design was used to follow 4,619 youth who were evaluated for PTSD symptoms, hurricane exposure, and oil spill exposure/stress at four time points over a period of 4 years.
- Trajectories were identified with cluster analyses and multilevel modeling.
- Ages 3-18 ( $M = 11.2$ ,  $SD = 3.7$ ),
- 54% girls; 52% Caucasian

# Symptom Trajectories

4 trajectories were identified:

1. *Low: Stable-low symptoms, 52%*
2. *Decline: Declines following initial symptoms, 21%*
3. *Increase: Increasing symptoms, 18%*
4. *High: stable-high symptoms, 9%*

# Trajectory of Trauma Symptoms Over Time



# Youth Trajectory Results

- Both hurricane exposure and oil spill stress predicted trajectories and overall levels of PTSD symptoms.
- 28% of youth in the stable low group also reported either hurricane exposure or oil spill stress levels greater than or equal to the stable-high group indicating resilience
- Resilience also shown with decreased symptoms over time

# What about Protective Factors?

- Risk factors may contribute to post disaster symptomatology and...
- Protective factors can mitigate the negative impacts of disaster on survivor well-being

# Child and Adolescent Resilience: What Matters for Children and Adolescents?

Connections to competent and caring adults

Enhancing social connectedness and self efficacy

Effective schools and communities

Leadership and community involvement programs

Programs and services which build on social emotional and personal skills

Programs that support mental and behavioral health

Focusing on interconnectedness of individual, family, and community support

Supporting social capital and connectedness within the community

# Factors that Enhance Resilience



# Protective Factors

## Individual characteristics:

- Cognitive ability
- Self-efficacy
- Temperament
- Social skills

## Family characteristics:

- Family cohesion
- Supportive parent-child interaction
- Social and family support

## Community characteristics:

- Community resources
- Positive school experiences
- Supportive peers

## Cultural protective factors:

- Strong sense of cultural identity
- Spirituality
- Connection to cultural community
- Protective beliefs and values

<sup>1</sup> Benzius, K., & Mychasiuk, R. (2009). Fostering family resilience: A review of the key protective factors. *Child & Family Social Work, 14*, 103-114.

<sup>2</sup> Koball, H., Eichen, R., Solihoo, A., Barros, M., Dworsky, A., Lansing, J., ... Manning, A. E. (2011). *Synthesis of research and resources to support at-risk youth*. Retrieved from Administration for Children and Families Office of Planning, Research, and Evaluation website: [http://www.acf.hhs.gov/programs/opre/fys/youth\\_development/reports/Synthesis\\_youth.pdf](http://www.acf.hhs.gov/programs/opre/fys/youth_development/reports/Synthesis_youth.pdf)



# The Importance of Self-Care

- Maintain adequate self-care
  - Know and honor your personal limitations
  - Exercise compassion for yourself
  - Learn to say “no.”
- Maintain appropriate boundaries with clients
- Stay emotionally connected without becoming over-involved – “Whose needs am I meeting?”
- Leave work at work!

# The Importance of Self-Care

