

# Understanding Adverse Childhood Experiences(ACEs)

The Impact on Health,  
Wellness & Education



Initiated in 1995-1997

**ACES: THE ORIGINAL STUDY**

# ACEs: the Original Study

## Facts

- Collaboration between the CDC & Kaiser Permanente
- Sample > 17,000
- 10 yes or no questions
- Continual monitoring through morbidity & mortality data
- Replicated nationally & internationally

## Findings

- Prevalence of trauma
- Correlation of childhood stress & negative outcomes
- The importance of Resilience

# Abuse

# Neglect

# Household Dysfunction



Physical



Physical



Mental Illness



Incarcerated Relative



Emotional



Emotional



Mother Treated Violently



Substance Abuse



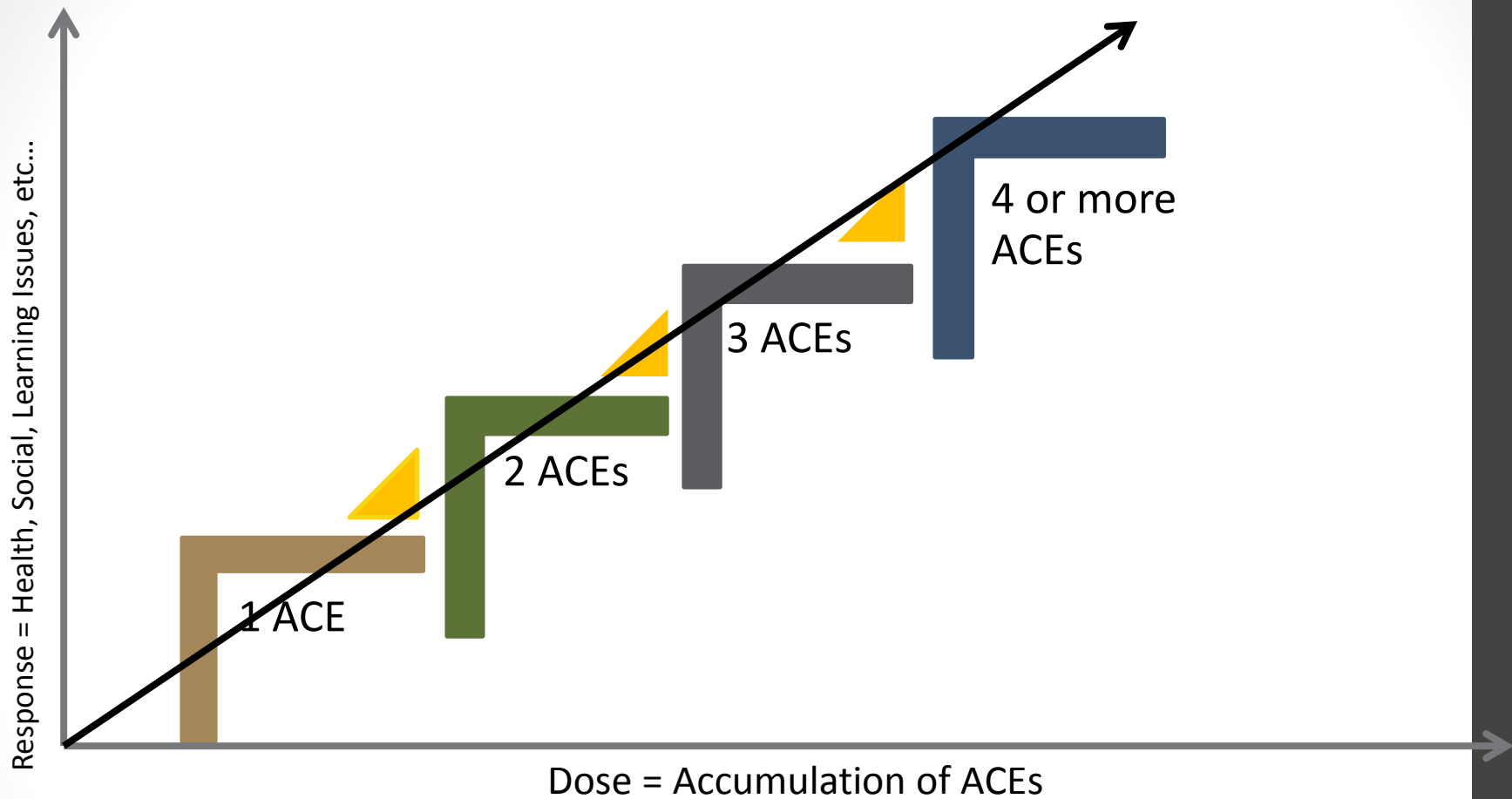
Sexual



Divorce

## What are the ACEs?

Before the age of 18 did you experience...



# A Dose-Response Relationship

## BEHAVIOR



Lack of physical activity



Smoking



Alcoholism



Drug use



Missed work

## PHYSICAL & MENTAL HEALTH



Severe obesity



Diabetes



Depression



Suicide attempts



STDs



Heart disease



Cancer



Stroke



COPD



Broken bones

# As ACEs Increase so does Risk...

# Odds for Academic & Health Problems

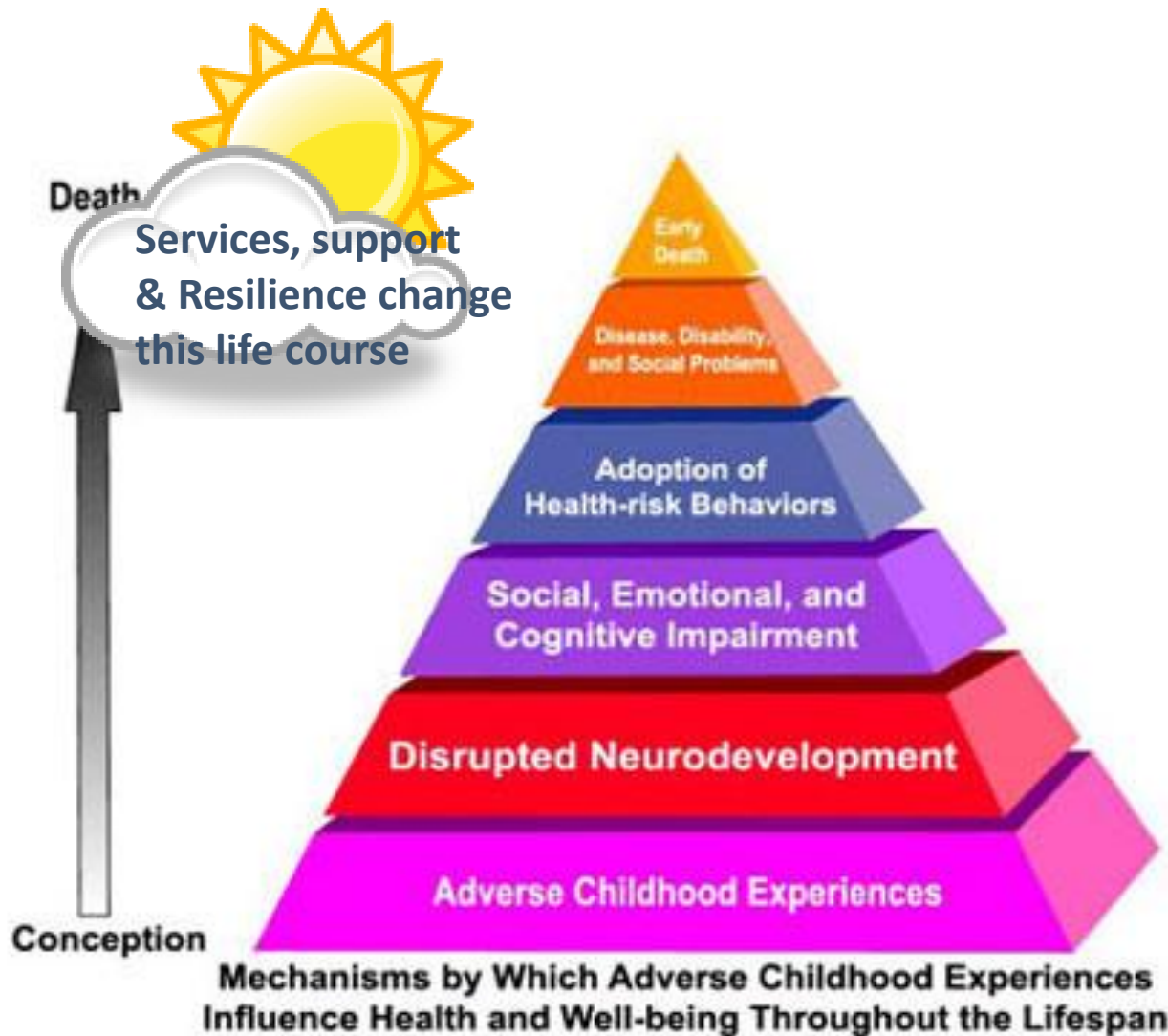
	Academic Failure	Severe Attendance Problems	Severe Behavior Concerns	Frequent Reported Poor Health
3+ ACEs n=248	3x	5x	6x	4x
2 ACEs n=213	2.5x	2.5x	4x	2.5x
1 ACE n=476	1.5x	2x	2.5x	2x
No Known ACEs n=1164	1	1	1	1

Washington State University Spokane, 2013

## Why should schools care?

What do we know about outcomes for students like these?

# The Impact on Health & Wellness





**FIGHT**

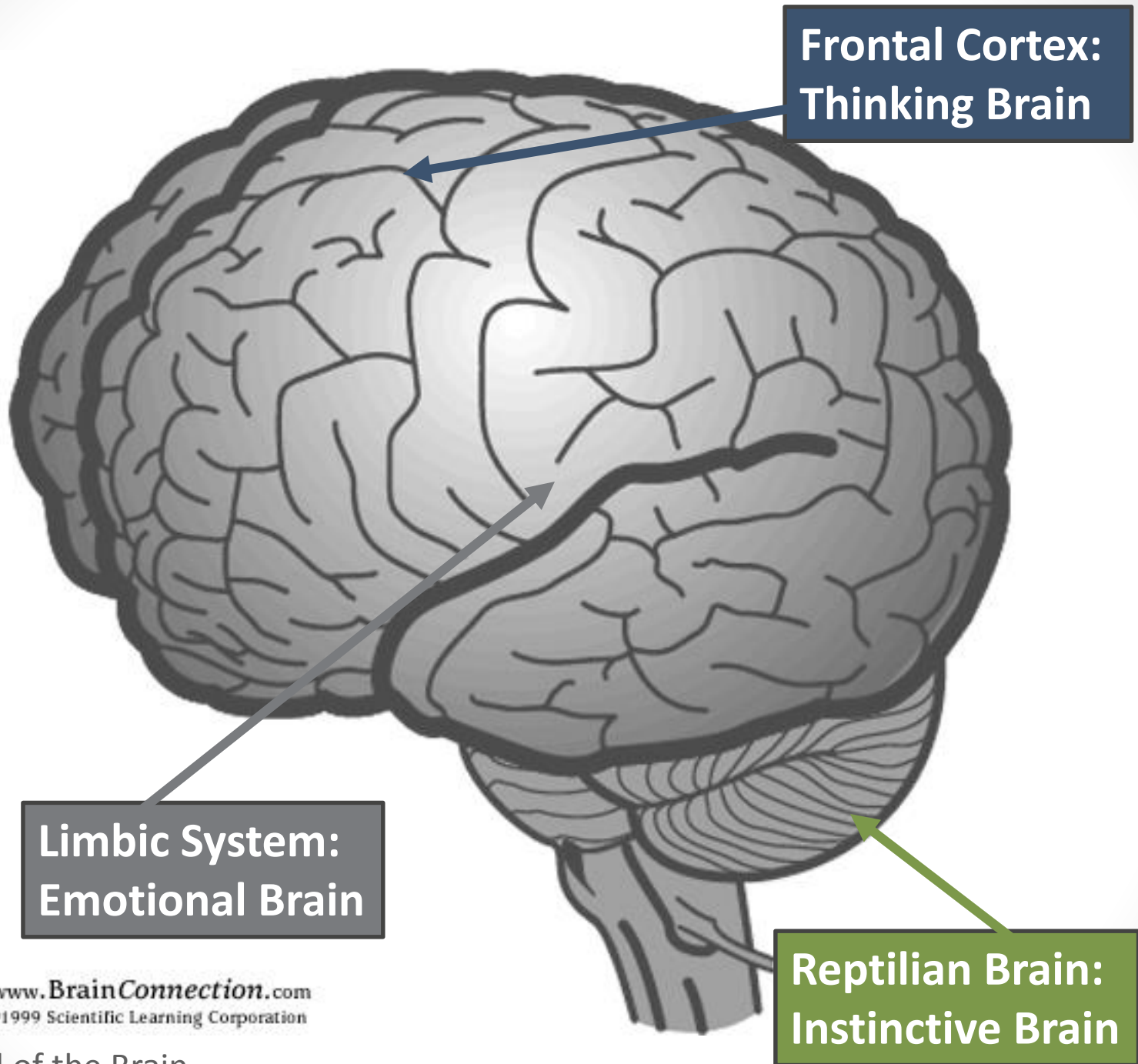


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**FREEZE**

Source: The Croods, 2013



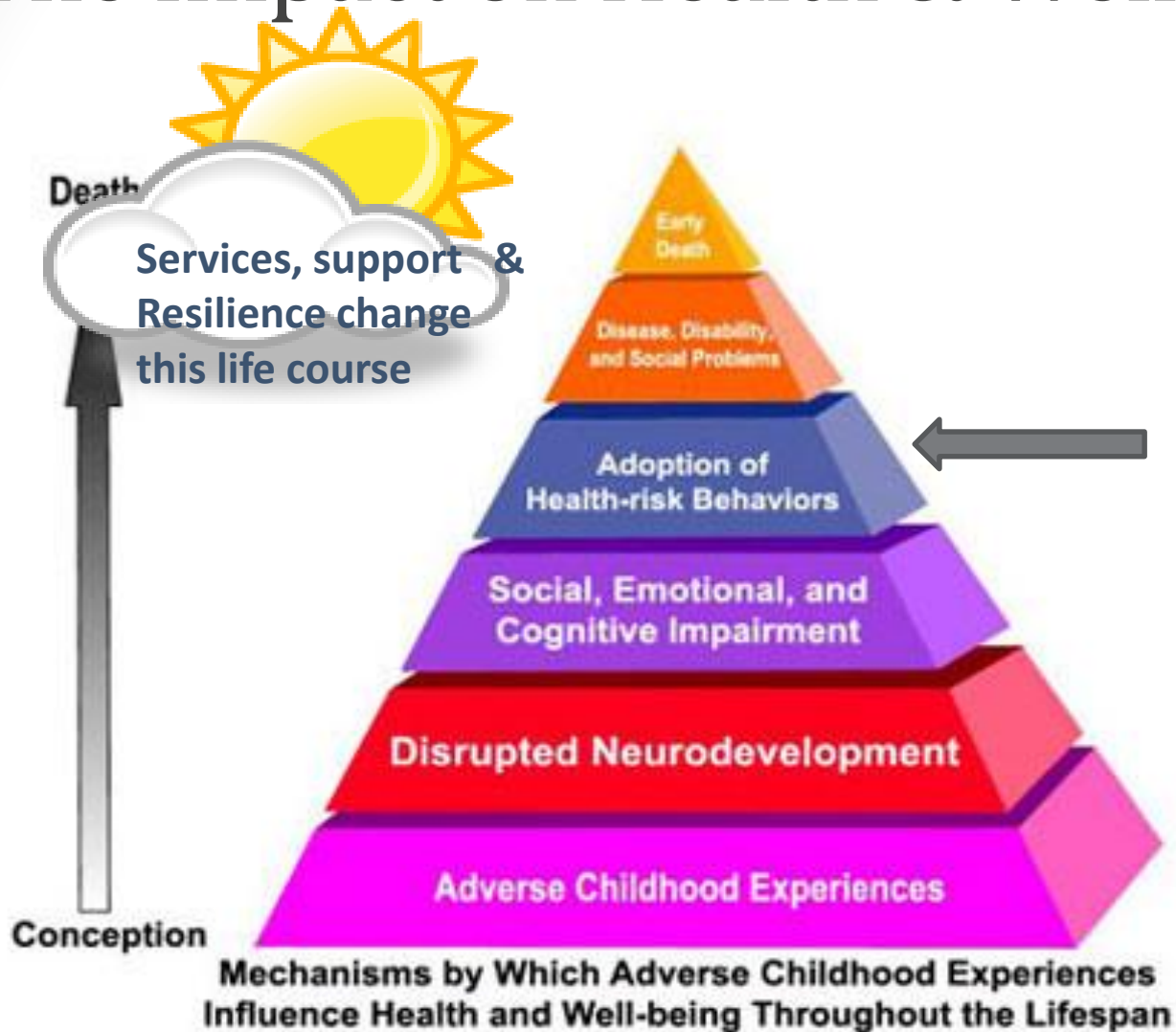
**Frontal Cortex:  
Thinking Brain**

**Limbic System:  
Emotional Brain**

**Reptilian Brain:  
Instinctive Brain**

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# The Impact on Health & Wellness





Assessing the ACEs in Monroe County

**THE YOUTH RISK BEHAVIOR SURVEY**

## Youth Risk Behavior Survey (YRBS)

Developed in 1990 to monitor priority health risk behaviors that markedly contribute to the leading causes of death, disability & social problems among youth & adults in the U.S.

Often established during childhood and early adolescence, these behaviors include:

- Alcohol and other drug use
- Tobacco use
- Unhealthy dietary behaviors
- Inadequate physical activity
- Behaviors that contribute to unintentional injuries and violence
- Sexual behaviors that contribute to unintended pregnancy and sexually transmitted infections, including HIV infection

# Monroe County YRBS

## Implementation & Assessment:

- ❖ Conducted every 4 years by the Monroe County Department of Public Health
  - Conducted bi-annually 1991-2011
- ❖ Local questions determined 3-4 months prior through school district representation & discussion
- ❖ Most mirror the national YRBS. Recent additions reflect issues relevant to Monroe County:
  - Prescription drug Abuse
  - Bullying
  - Electronic Bullying
  - Adverse Childhood Experiences
- ❖ Aggregate (County level) results shared with community
  - District-specific data provided to the home district
- ❖ Data incorporated into the Community Health Assessment (CHA)

# Monroe County YRBS

In 2015



- 12 districts surveyed all of their students so they can report results for their district
- 4 districts provided a sample only for the county sample
- 2 districts opted out

# Monroe County YRBS -ACEs

<b>Students Reported:</b>	<b>%</b>
Often or repeatedly a parent or adult their home swore at you, insulted you or put you down	15
Often or repeatedly a parent or adult in their home hit, beat, kick or physically hurt you in any way	4
Often or repeatedly parents or adults in their home hit, beat, kick or beat each other up	3
Often or repeatedly, their family has not had enough money to buy food or pay for housing	6
Ever lived with anyone who was an alcoholic, problem drinker, used illegal street drugs, took prescription drugs to get high, or was a problem gambler	23



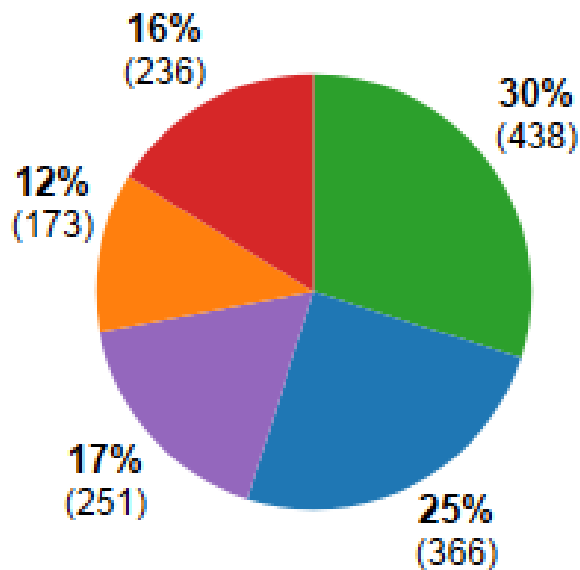
# Monroe County YRBS - ACEs

<b>Additionally, Students Reported:</b>	<b>%</b>
Ever lived with anyone who was depressed, mentally ill or suicidal	21
Ever had anyone in their household go to jail or prison	21
Ever witnessed someone get shot, stabbed or beaten in your neighborhood	19
Were ever forced to do any of the following: have sexual intercourse, touch someone sexually, or be touched by someone sexually	12
Currently do not live with both parents	42
Disagree, strongly disagree with the statement, “my family gives me the help and support I need”	8

# How many kids are we talking about?

## Distribution by ACES Total Score Category

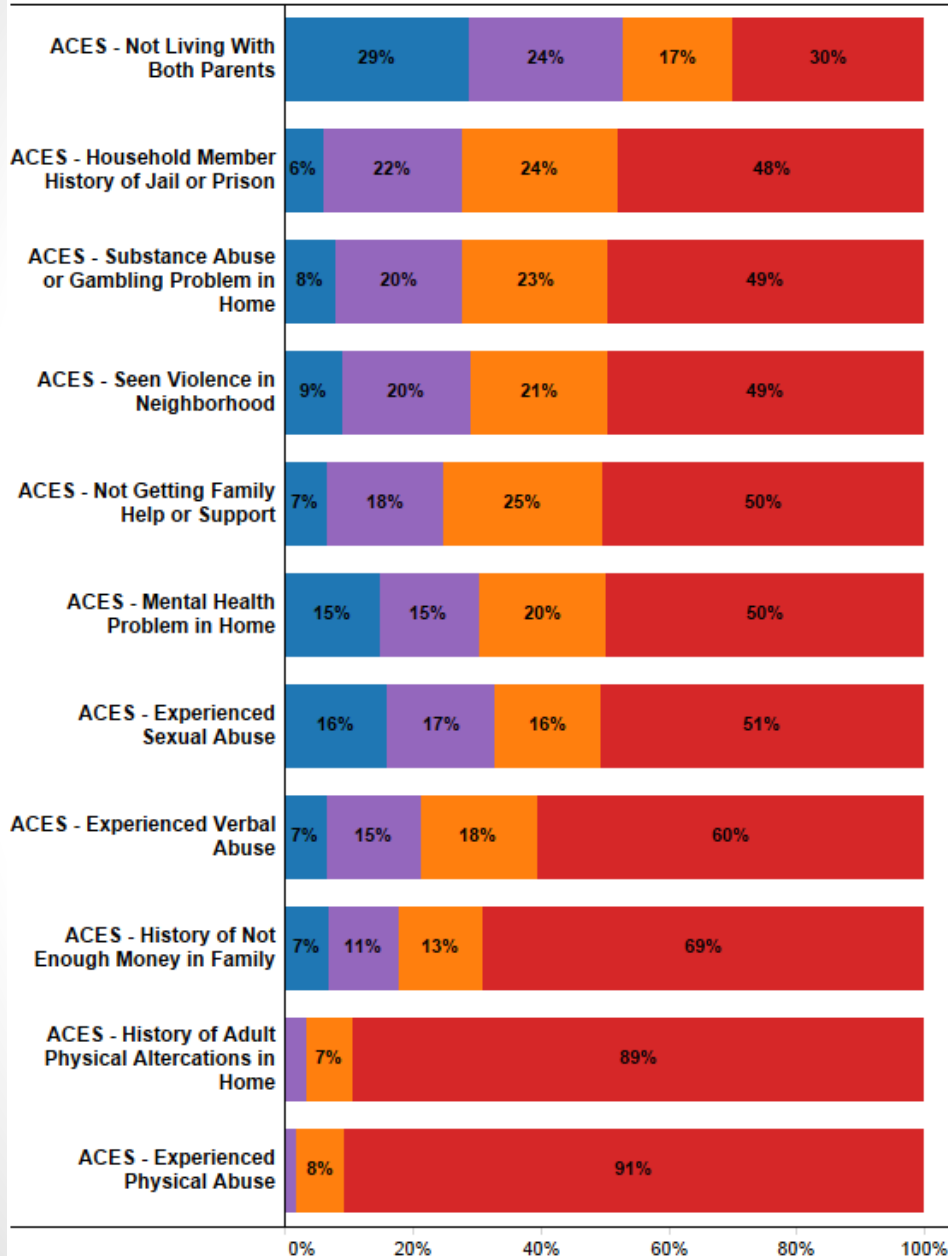
n=1464



### ACES Total Score Category

- No ACES Flags
- 1 ACES Flag
- 2 ACES Flags
- 3 ACES Flags
- 4 or More ACES Flags

Distribution of ACES Score for Each ACES Flags



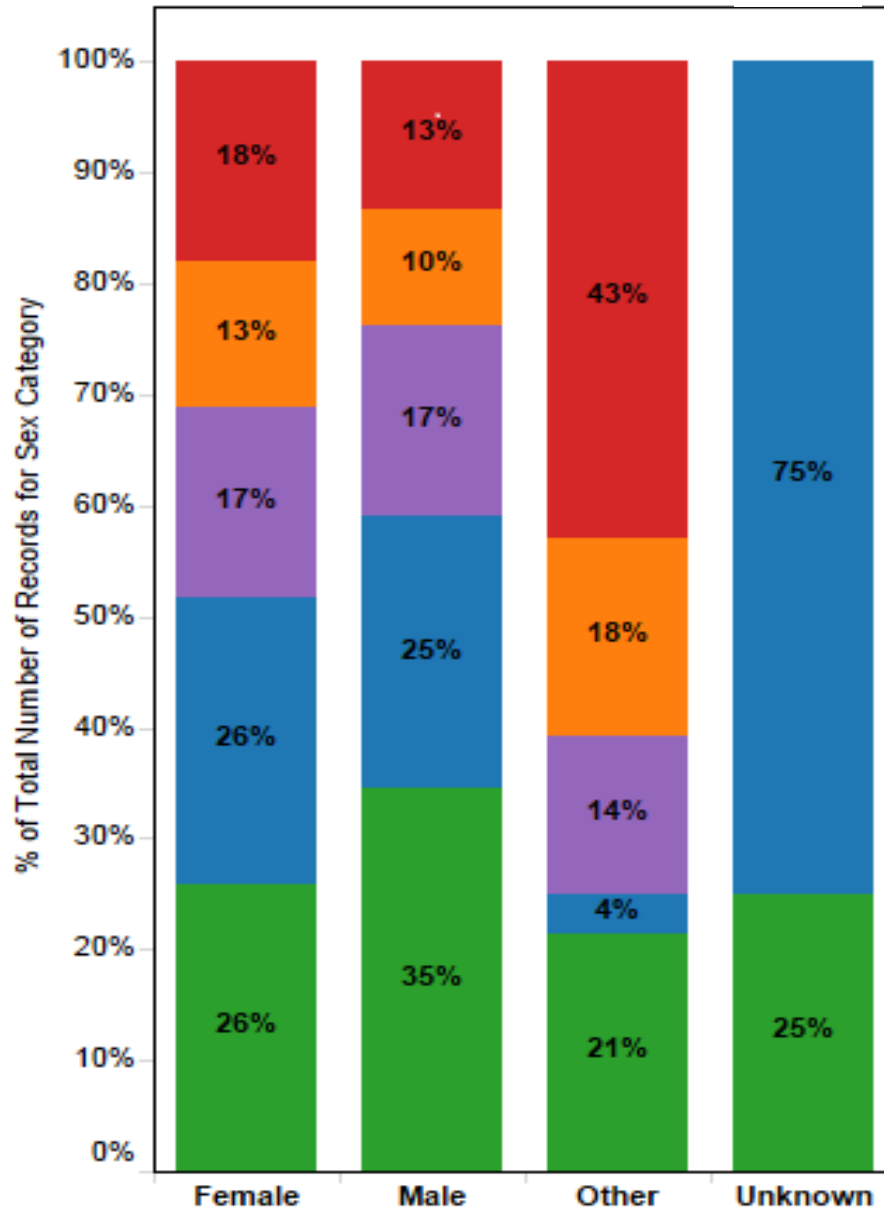
# The Accumulation of ACEs

Observing the pattern of distribution provides clues around the clustering of ACEs and indications of what questions might we be asking of these youth

## ACES Total Score Category

- No ACES Flags
- 1 ACES Flag
- 2 ACES Flags
- 3 ACES Flags
- 4 or More ACES Flags

## Distribution of ACES Score by Gender



## Monroe County ACEs by Gender

Demonstrates the distribution of ACE scores within each self-identified gender category

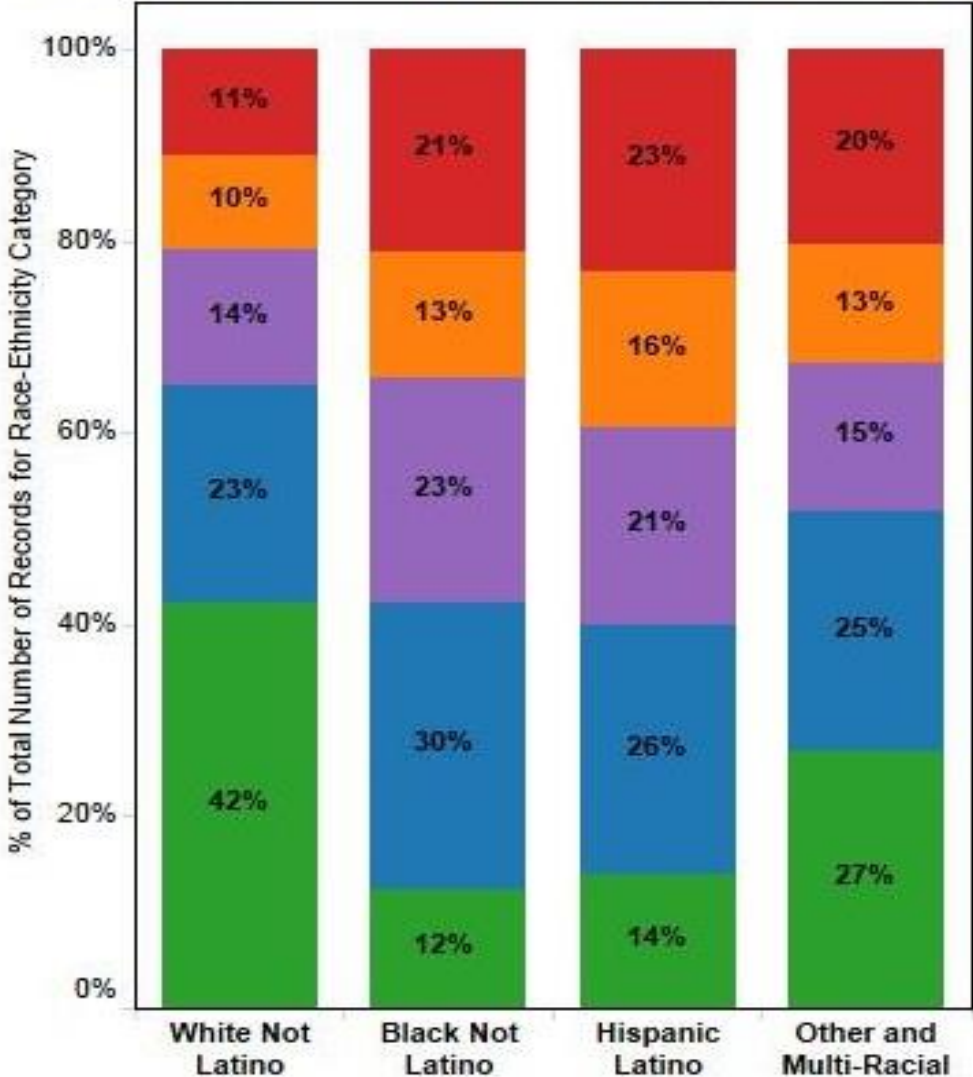
### ACES Total Score Category

- No ACES Flags
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- 3 ACES Flags
- 4 or More ACES Flags

# Monroe County ACEs by Race-Ethnicity

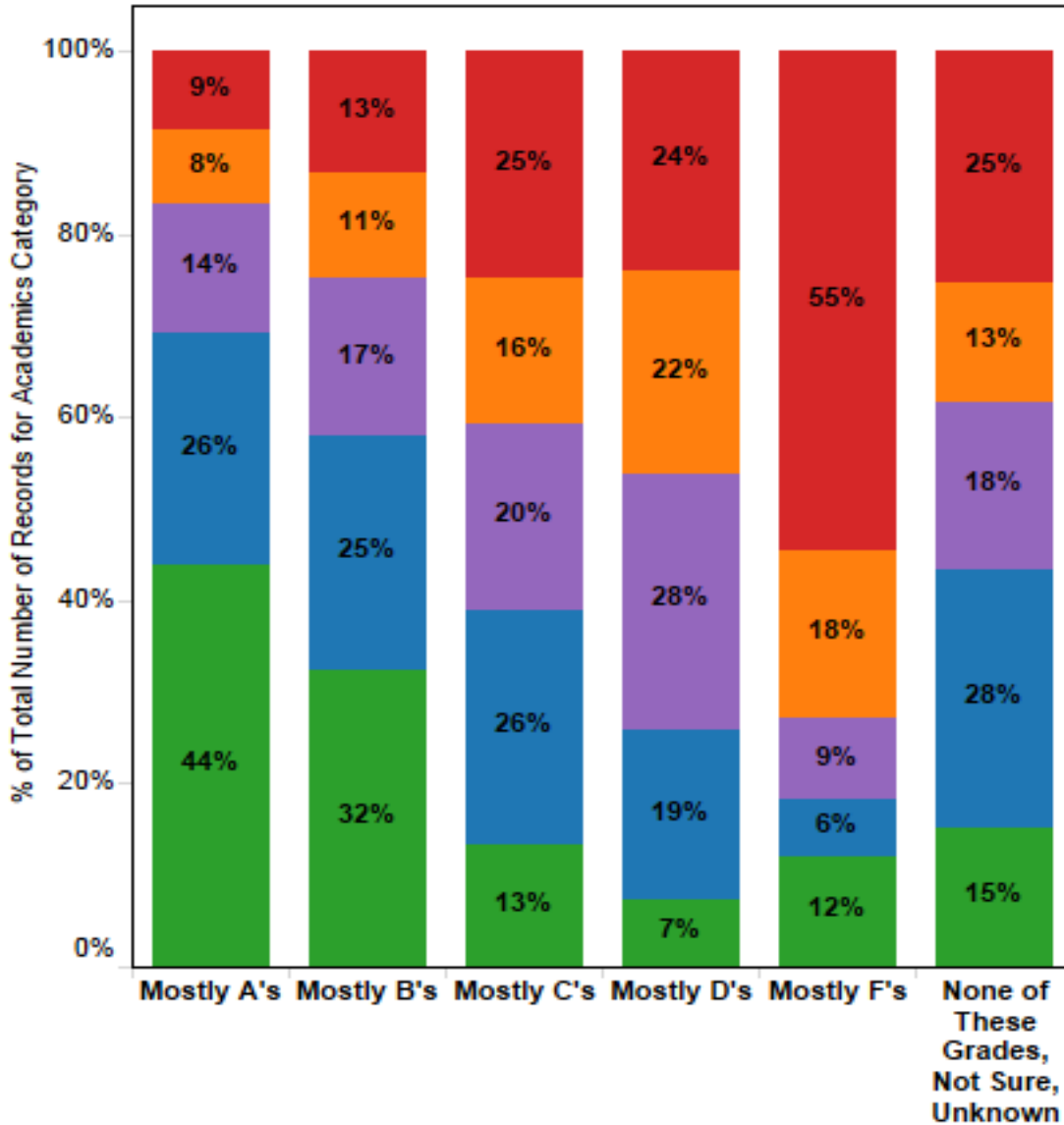
Demonstrates the distribution of ACE scores within each self-identified racial or ethnic category

Distribution of ACES Score by Race-Ethnicity



- ACES Total Score Category**
- No ACEs Flags
  - 1 ACEs Flag
  - 2 ACEs Flags
  - 3 ACEs Flags
  - 4 or More ACEs Flags

**Distribution of ACES Score by Academic Grades**



# The Academic Impact

Students were asked to identify their average grades over the last 12 months

- 73% of those who reported receiving Mostly F's have experienced 3 or more ACEs

## ACES Total Score Category

- No ACES Flags
- 1 ACES Flag
- 2 ACES Flags
- 3 ACES Flags
- 4 or More ACES Flags

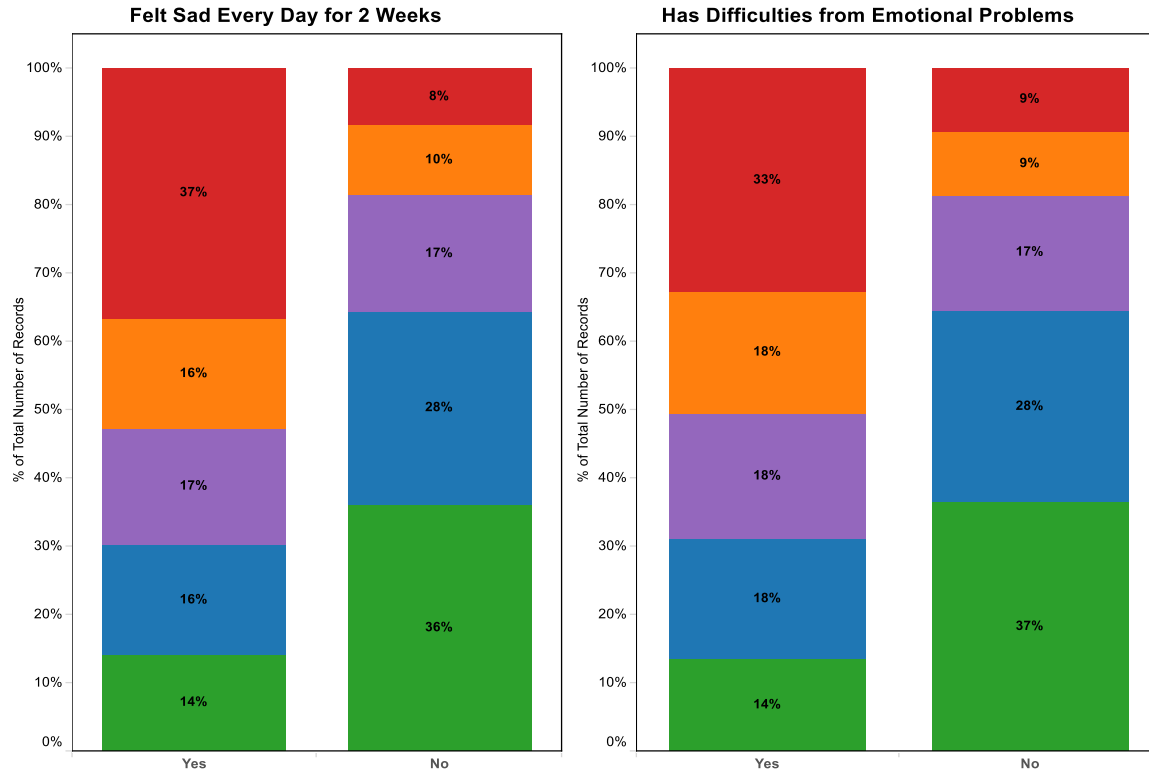


What did we find in Monroe County?

## THE OVERLAY OF ADVERSE CHILDHOOD EXPERIENCES & RISK BEHAVIORS

# Distribution of Mental Health Measures

Distribution by ACES Category for Measures Related to Mental Health



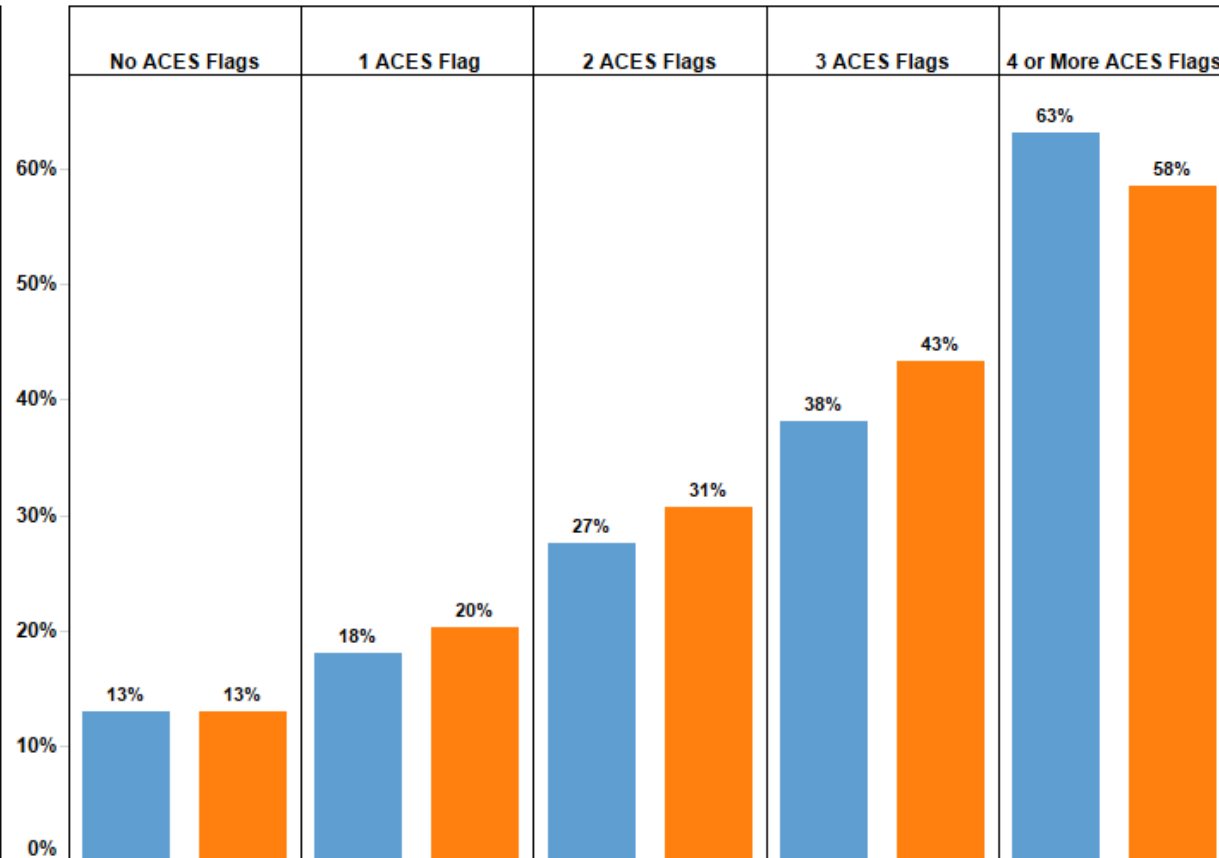
SchoolDistrict  
MC DPH Sample

- Felt sad for 2+ Weeks: 407/1464 = 28%
- Had difficulties from Emotional Problems: 421/1464 = 29%



# Mental Health

General Mental Health Indicators by ACES Score



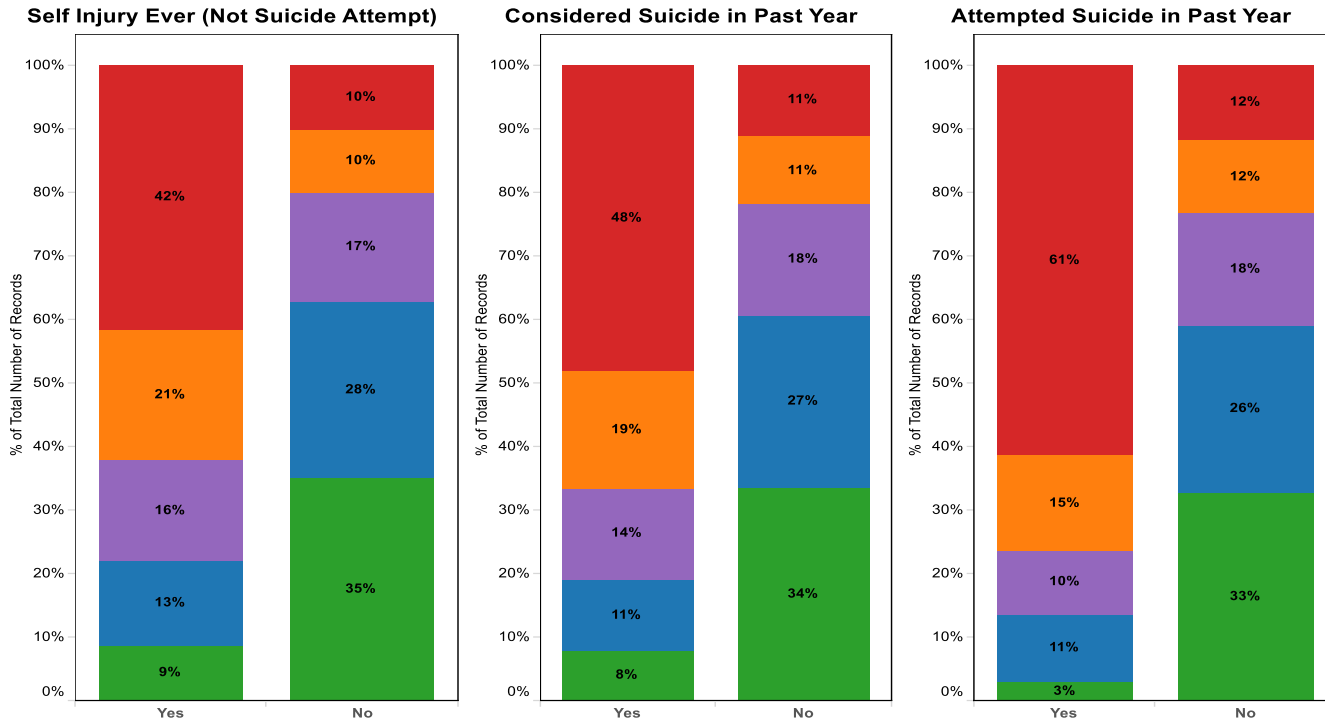
- 63% of students with **4 or more ACEs** reported feeling sad for 2 or more weeks in the past year
- 58% of students with **4 or more ACEs** reported difficulties from emotional problems

■ % total felt sad 2+ weeks in past year

■ % total for emotional problems

# Distribution of Factors: Self-Harm or Suicide

Distribution by ACES Category for Measures Related to Suicide

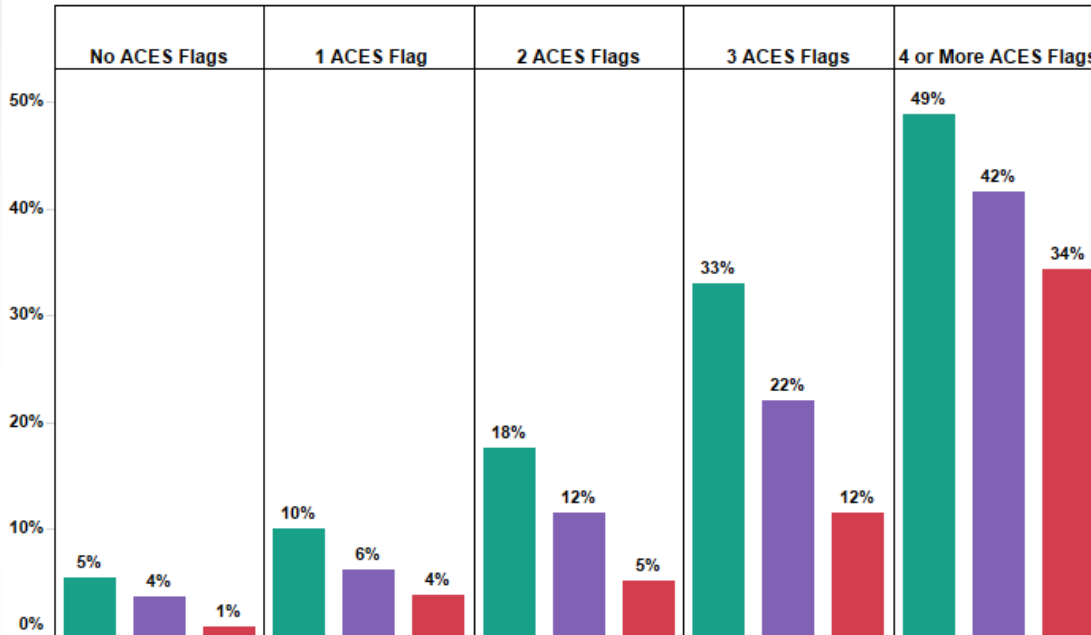


SchoolDistrict  
MC DPH Sample

- Non-Suicidal Self-Injury:  $277/1464 = 19\%$
- Considered Suicide within Past Year:  $204/1464 = 14\%$
- Attempted Suicide within Past year:  $132/1464 = 9\%$

# Suicide

Suicide Indicators by ACES Score

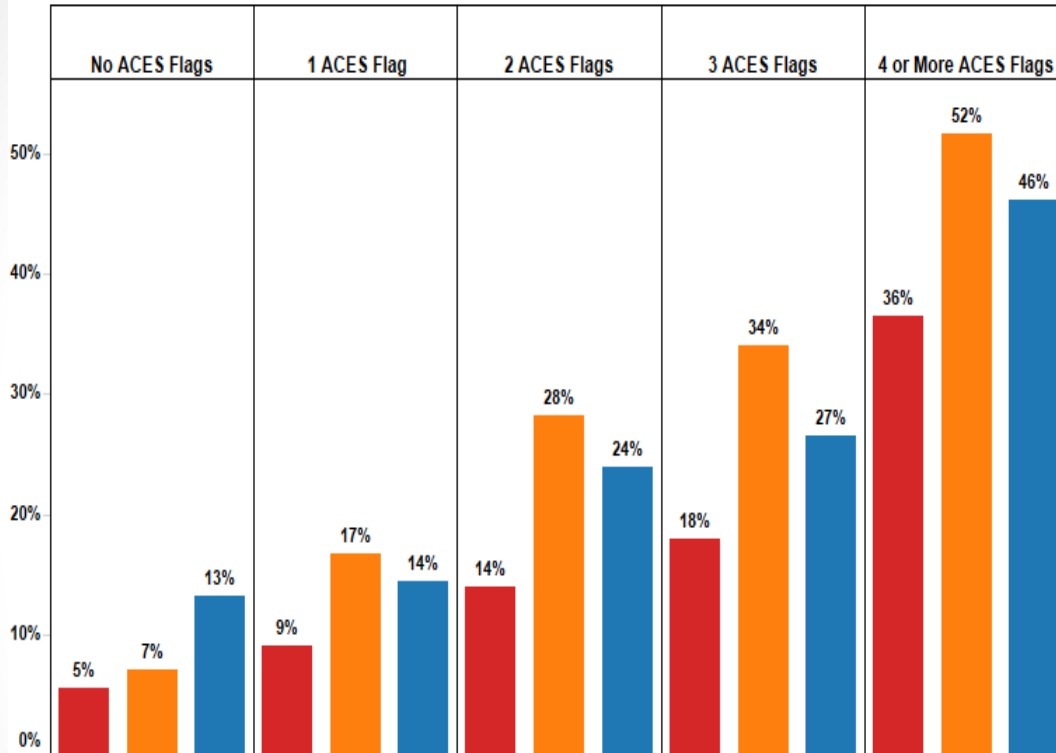


- % total non-suicidal self-injury ever
- % total considered suicide in the past year
- % total attempted suicide in the past year

- 49% of student with **4 or more ACEs** reported engaging in self-injury
- 42% of students with **4 or more ACEs** reported considering suicide in the past year
- 34% of students with **4 or more ACEs** reported attempting suicide in the past year

# Violence

Violence Indicators by ACES Score



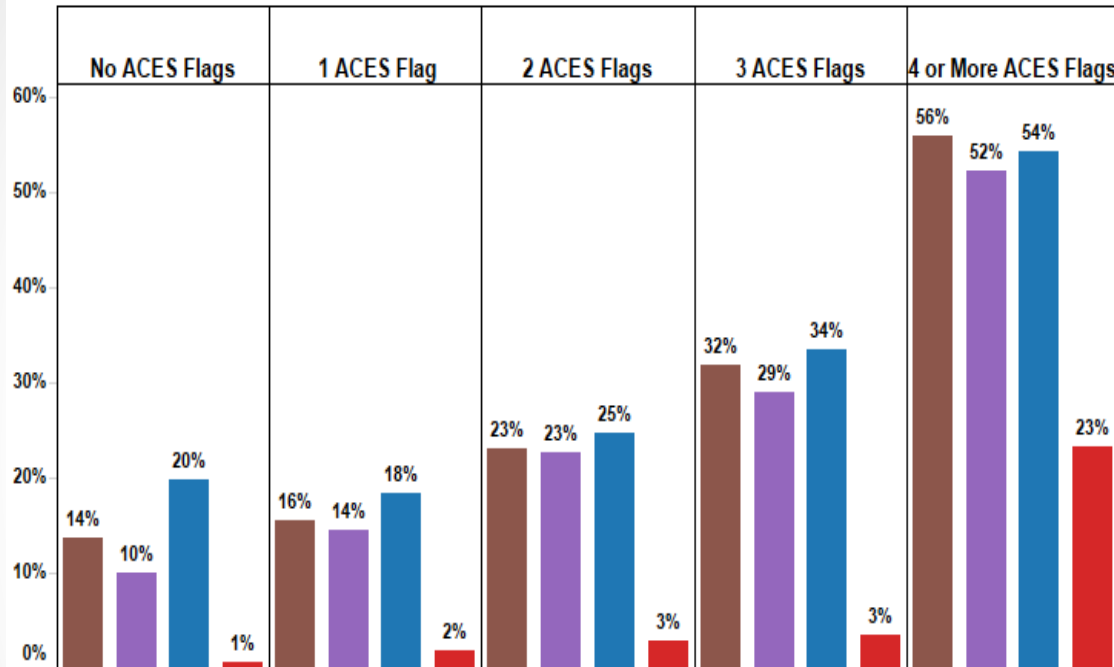
- % total carried weapons
- % total engaged in a fight
- % total victim in past 30 days

- 36% of students with **4 or more ACEs** reported carrying a weapon in the past 30 days
- 52% of students with **4 more ACEs** reported engaging in a fight in the past year
- 46% of students with **4 more ACEs** reported being a victim of violence in the past 30 days

# Substance Abuse:

In the last 30 days

Current Substance Use (Within Past 30 Days)



- Tobacco
- Marijuana
- Alcohol
- Any other drug

- 56% of students with **4 or more ACEs** reported using tobacco
- 53% of students with **4 or more ACEs** reported using marijuana
- 54% of students with **4 or more ACEs** reported using alcohol
- 23% of students with **4 or more ACEs** reported using other drugs

# Implications

What questions are we asking?

What questions are we NOT asking?

## How does our interpretation drive intervention?

- Responding vs. Reacting to behavior
- Diagnosis and treatment?
- What does this mean for Response to Intervention(Rti)?
- What are system or policy level implications?

## Community resources – does array match needs?

- Trauma treatment vs. trauma responsive

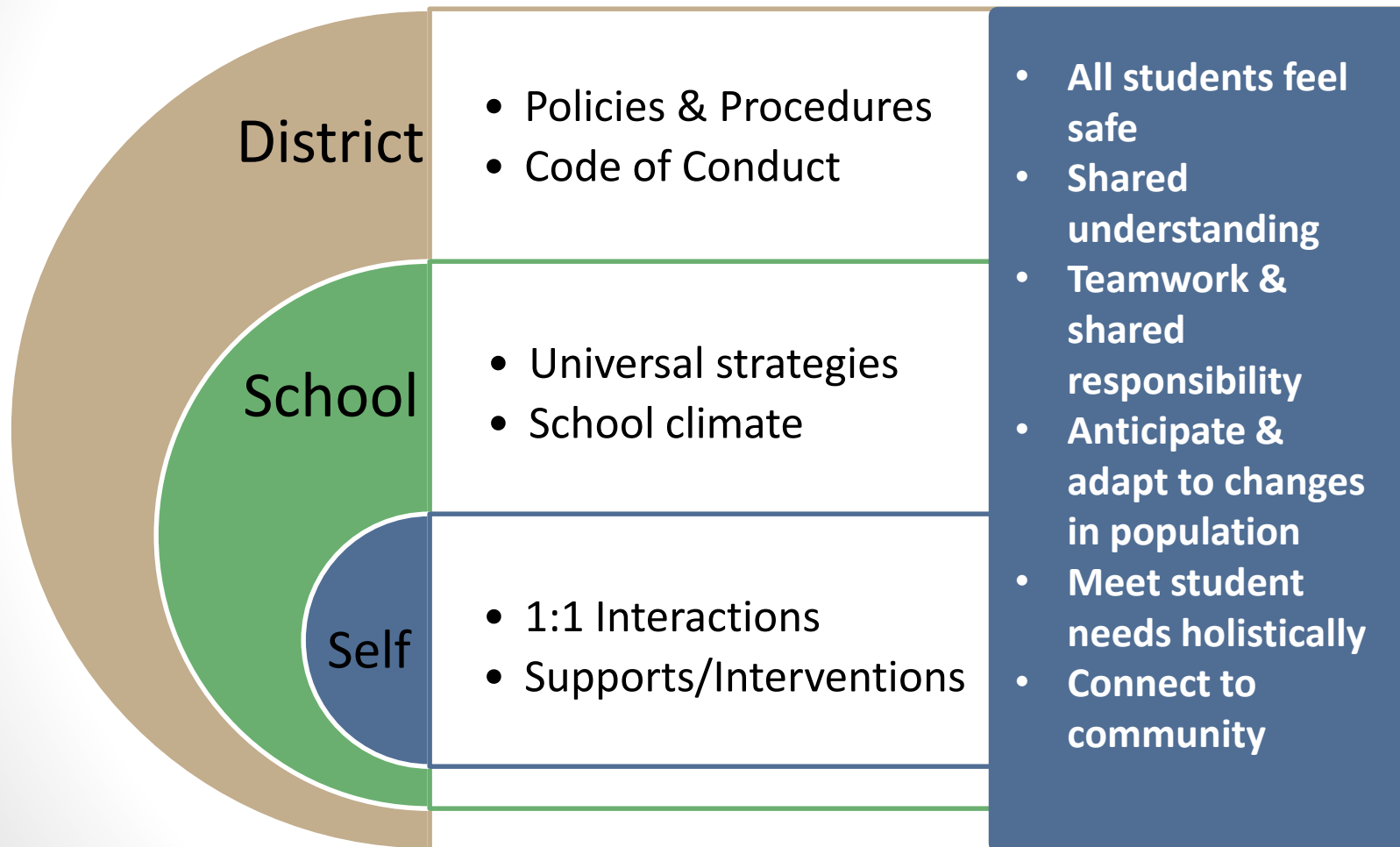
## Workforce development needs

- Foundational knowledge: What does everyone need to know?
- Intervention/approaches: What specialized skills are required?
- Vicarious trauma: How do we care for the workforce?



# The Principles of TRAUMA-RESPONSIVE SCHOOLS

# Trauma-Responsive Education







One Positive, Caring, Consistent  
Adult can make all the difference...

**THE POWER OF RESILIENCE**



## Contact Information

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