

ADVERSE CHILDHOOD EXPERIENCES (ACEs)

How ACEs and trauma are affecting our society and what can be done to prevent it



Background of ACEs

- Scientific study done in 1996 by Centers for Disease Control and Prevention and Kaiser Permanente by Dr. Vincent Felitti and Dr. Robert Anda
- Approximately 17,000 people participated in the study in southern California (majority were middle-class Caucasians with college degrees)
- ACEs are categorized in three groups: abuse, neglect, and household challenges that occurred before the age of 18



Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score © 2016 02/2016

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household often ...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
Yes No If yes enter 1 _____
2. Did a parent or other adult in the household often ...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No If yes enter 1 _____
3. Did an adult or person at least 5 years older than you ever...
Touch or fondle you or have you touch their body in a sexual way?
or
Try to or actually have oral, anal, or vaginal sex with you?
Yes No If yes enter 1 _____
4. Did you often feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No If yes enter 1 _____
5. Did you often feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No If yes enter 1 _____
6. Were your parents ever separated or divorced?
Yes No If yes enter 1 _____
7. Was your mother or stepmother:
Often pushed, grabbed, slapped, or had something thrown at her?
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
Yes No If yes enter 1 _____
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No If yes enter 1 _____
9. Was a household member depressed or mentally ill or did a household member attempt suicide?
Yes No If yes enter 1 _____
10. Did a household member go to prison?
Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score





1 in 4 ADULTS
REPORT HAVING 3 OR MORE ACEs

Abuse and Neglect


Emotional Abuse


Emotional Neglect


Physical Abuse


Physical Neglect


Sexual Abuse

Family Exposure to Toxic Stress


Substance Abuse


Mother Treated Violently


Mental Illness


Separation or Divorce


Incarceration



Findings of ACEs

- Direct link between ACEs and chronic disease, mental illness, prison time, and work absenteeism
- 2/3 of adults in the study had experienced one or more ACEs
- 87% had experienced two or more
- The higher the ACE score, the higher the risk of mental, health, and social problems



Risk of ACEs

ACES can have lasting effects on....



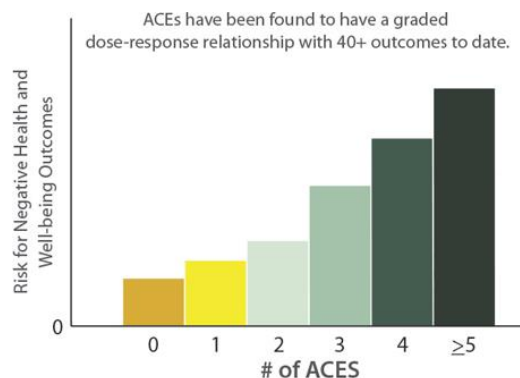
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)




*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

Risk of ACEs

THE ACE STUDY (con't)

The ACE Study clearly shows the connection between trauma and addiction & mental health issues:

The progressive impact of trauma



Someone with an ACE score of 4 compared to someone with an ACE score of 0:

- 5x more likely to have depression
- 7x more likely to be alcoholic
- 10x more likely to use illicit drugs
- 12x more likely to have attempted suicide

Here are more comparison statistics:

33% report no ACEs	51% report 1-3 ACEs	16% report 4-8 ACEs
With 0 ACEs	With 3 ACEs	With 7+ ACEs
1 in 16 smokes	1 in 9 smokes	1 in 6 smokes
1 in 69 are alcoholic	1 in 9 are alcoholic	1 in 6 are alcoholic
1 in 480 uses IV drugs	1 in 43 uses IV drugs	1 in 30 uses IV drugs
1 in 96 attempts suicide	1 in 10 attempts suicide	1 in 5 attempts suicide

The Adverse Childhood Experiences Study provides a clear link between trauma and addiction. When seeking help for addiction, it is crucial to identify and address the trauma that often contributes.

The Adverse Childhood Experience Study by Dr. Vincent Felitti and Dr. Robert Anda was initially published here:
Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study.
American Journal of Preventive Medicine (1998)

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Connection of ACEs and Drug Use

- Participants with an ACE score of 4 are 10 times more likely to have injected street drugs
- As the ACE score increases, the likelihood of IV drug use increases
- A male child with an ACE score of 6 is 46 times more likely to be an IV drug user later in life, compared with a male child with an ACE score of 0

Connection of ACEs and Drug Use

- Another study of approximately 8,600 adults examined the connection of ACEs and self-reported drug use
- Participants with an ACE score of 5 or higher were 7 to 10 times more likely to report drug addiction compared with participants having an ACE score of 0
- Higher ACE scores correlate to lifetime drug use



ACEs and Childhood Trauma

- Trauma—“. . . an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening, and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being”*
- Trauma is common in the lives of individuals with mental and substance use disorders

*FLEITAS (2019)



Toxic Stress

- Constant exposure to ACEs can produce toxic stress in our children
- “Toxic stress refers to strong, frequent, or prolonged activation of the body’s stress management system”*
- Toxic stress explains how ACEs physically impact the body and brain

*National Scientific Council on the Developing Child, 2014



Effects of Toxic Stress on the Body

- ACEs activate the stress response system (red alert mode) in the body
 - Fight/flight/freeze response
 - Rapid breathing, increased heart rate and blood pressure
 - Release of cortisol and adrenaline



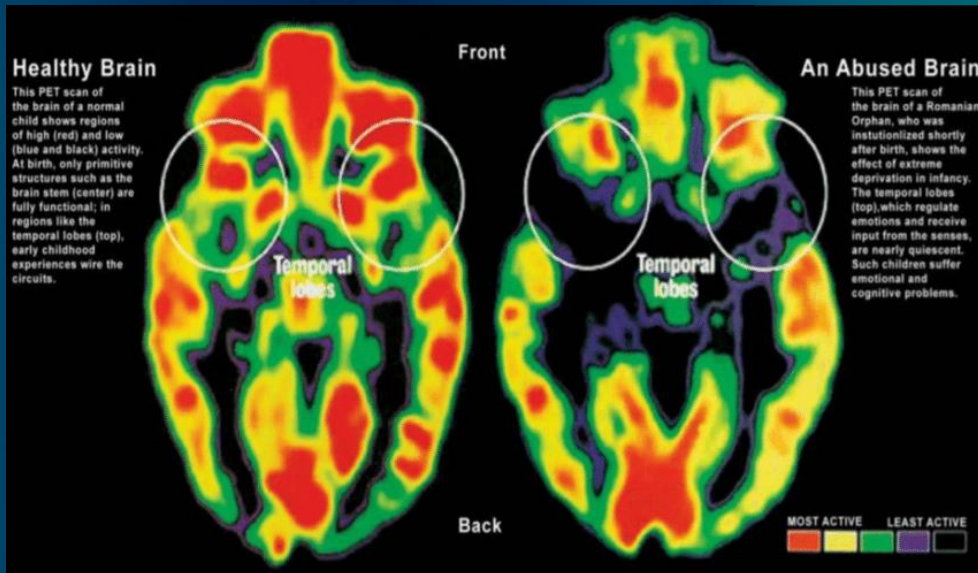
What if the bear lives with you?



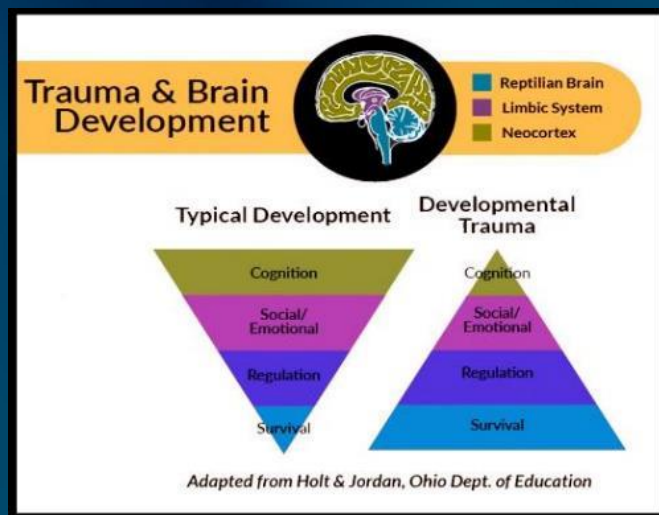
Constant Red Alert

- Rewires the brain for constant danger and fear
- Affects the development of the brain in children
- Learning and memory impairments
- Leads to chronic health problems
- Changes DNA development (epigenetics)

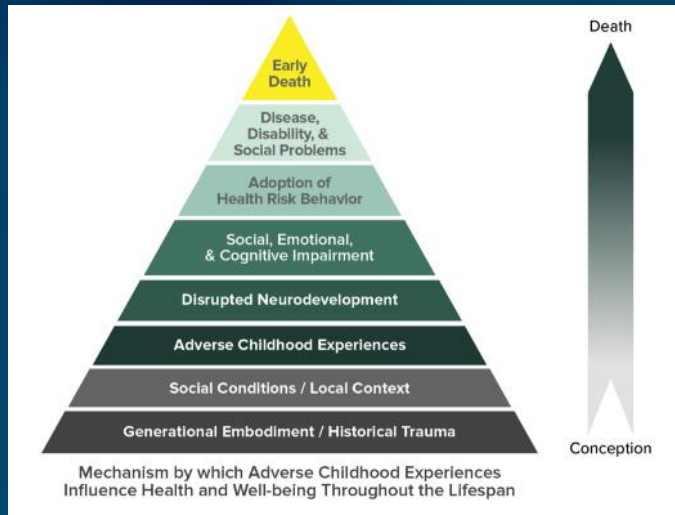




Trauma and Brain Development



Progression of Trauma



Resiliency

- “The ability to overcome serious hardship”*
- It is the key to mitigating ACEs—there is HOPE
- Build protective factors across the child, family, and community levels
- The most common protective factor—one stable and committed adult in a child’s life

*Center on the Developing Child, 2017



HOPE (Health Outcomes of Positive Experience)

- Supportive, healthy relationships build resilience
- Neurofeedback with mother and child creates a healthy brain
- Build and strengthen families
- Safe and supportive neighborhoods and schools
- Greatest positive impact was feeling supported by family and friends



Prevention and Mitigation of ACEs

- Educate the community about ACEs and how to be trauma informed
- Educate parents about ACEs and the effects on their parenting and children
- Build the five protective factors in a family to strengthen the family
- Build the resiliency in children by creating safe, supportive environments in the community



Five Protective Factors

- Parental resilience
- Social connections
- Knowledge of parenting and child development
- Social and emotional competence in children
- Concrete support in times of need

An aerial photograph of a city, likely a small town or suburb, showing a mix of residential houses, commercial buildings, and green spaces. A railway line runs diagonally across the right side of the image. The text "Our CITY" is overlaid in the upper left, and "Our PLAN" is overlaid in the lower right, both in a large, white, sans-serif font with a thin black outline.

Our CITY
Our PLAN



THE
MARTINSBURG
INITIATIVE

A Model Solution to a National Problem



The Martinsburg Initiative

Founded on a school-centered, family-based approach and applying the science of the Adverse Childhood Experiences (ACEs) study, the *Martinsburg Initiative* is building strong families and empowering communities

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EASTERN PANHANDLE
**EMPOWERMENT
CENTER**



United Way
of the Eastern Panhandle, Inc.



JUNIOR MENTORING PROGRAMS



Caring for Children Since 18



BOYS & GIRLS CLUB
OF THE
EASTERN PANHANDLE



**The Martinsburg Initiative
is partnered with
the *WV ACEs Coalition***

- **ADVOCATE**—Provide wraparound services
- **COORDINATE**—Police, schools, and community
- **EDUCATE**—Educate to reduce and prevent ACEs



West Virginia SUBSTANCE ABUSE DEATH STATISTICS

The Centers for Disease Control and Prevention

West Virginia in Comparison to Other States (2017)

- Second-highest number of heroin overdose deaths
- Highest death rate for synthetic opioid-involved overdoses
- Number one in prescription opioid-involved deaths



A Multilevel Strategy

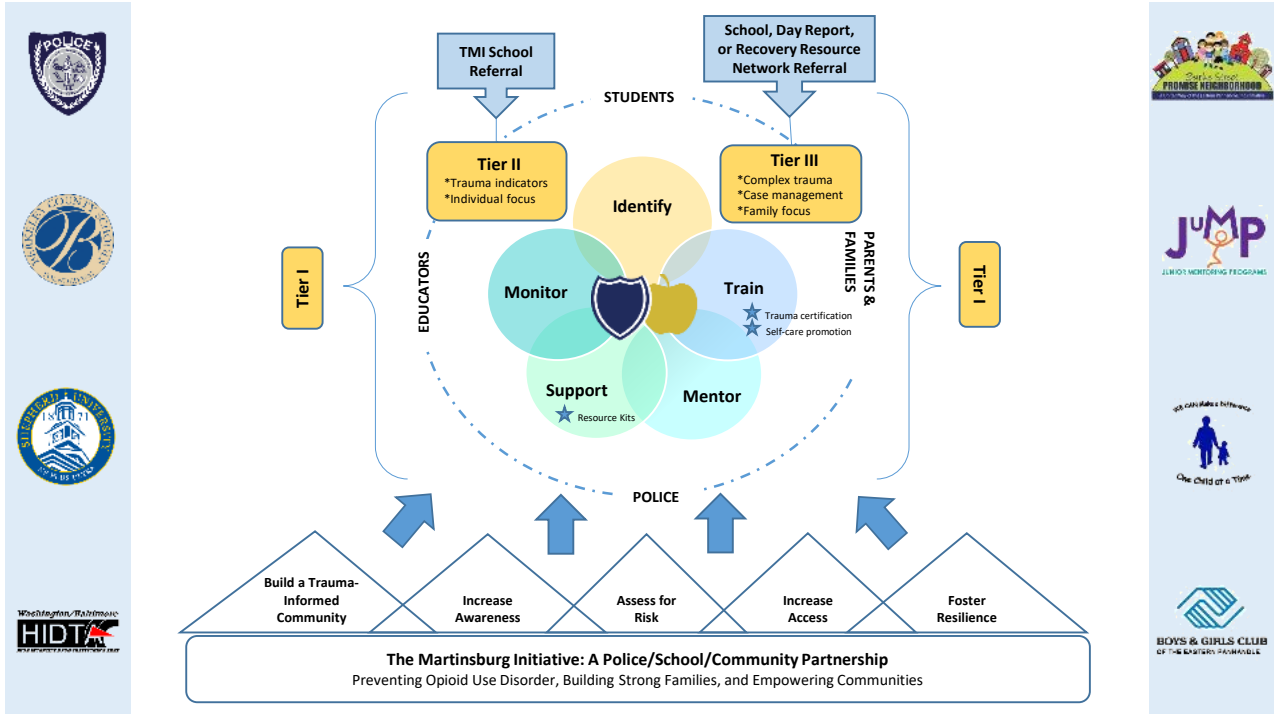
ENFORCEMENT TREATMENT PREVENTION

"We can't arrest or treat our way out of the problem"

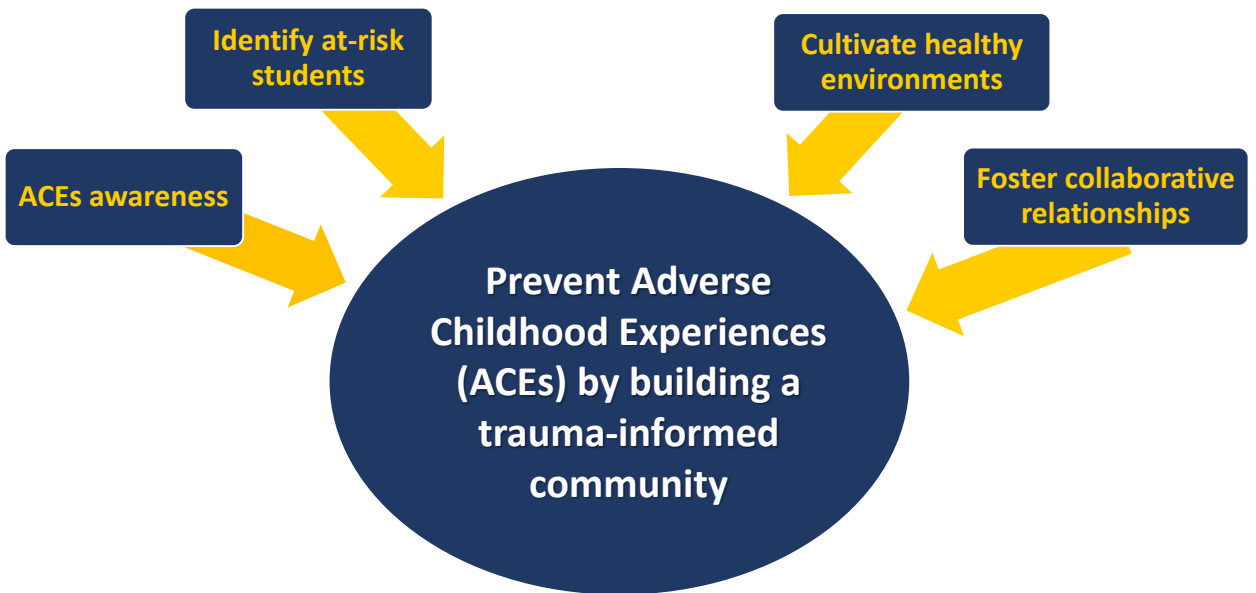


"Adopt a Classroom"

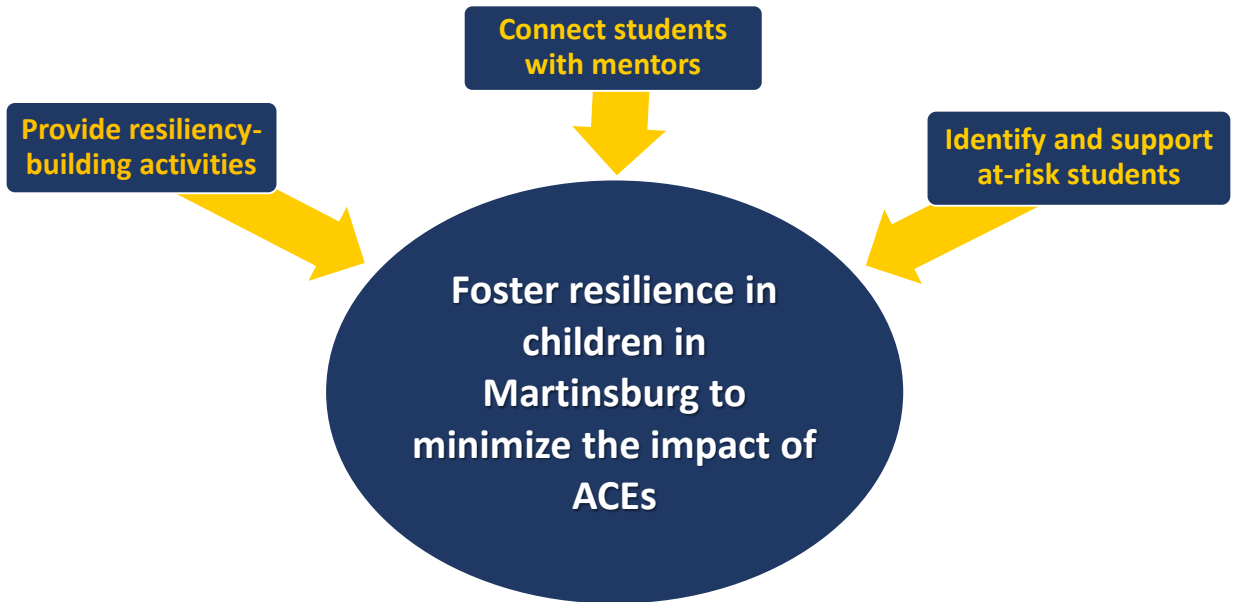




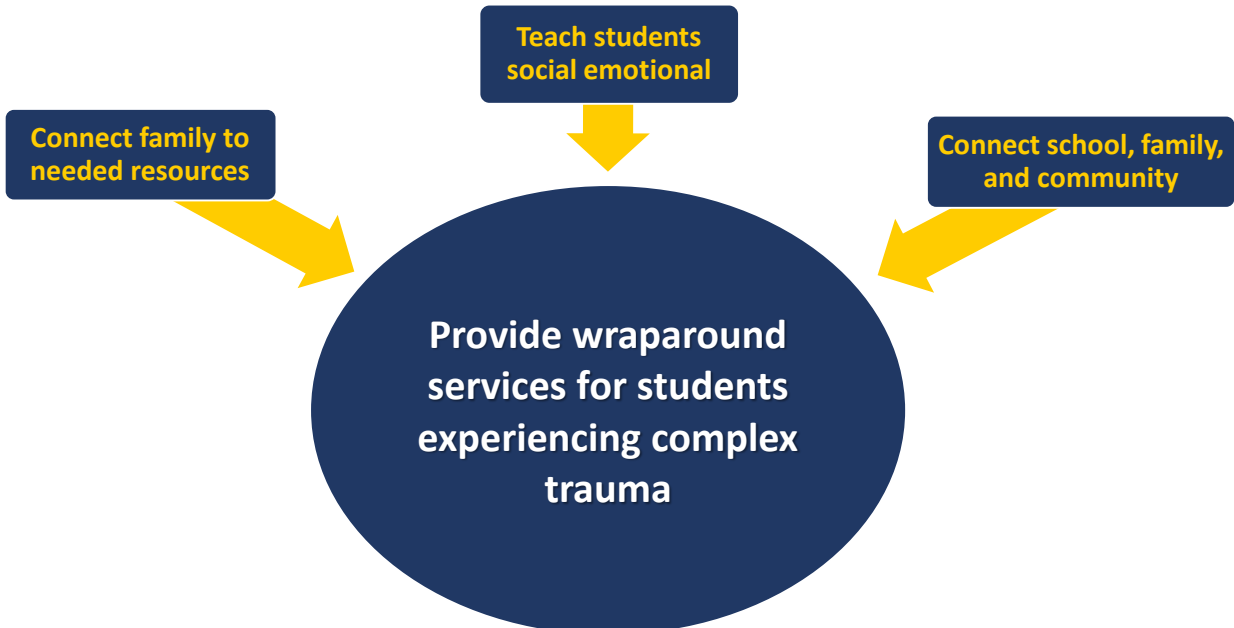
GOAL 1



GOAL 2



GOAL 3



TIERS



TIER 1



TRAUMA-INFORMED TRAININGS



A Nurtured-Heart Approach



CURRICULUM



Too Good for Drugs





POLICE and SCHOOLS

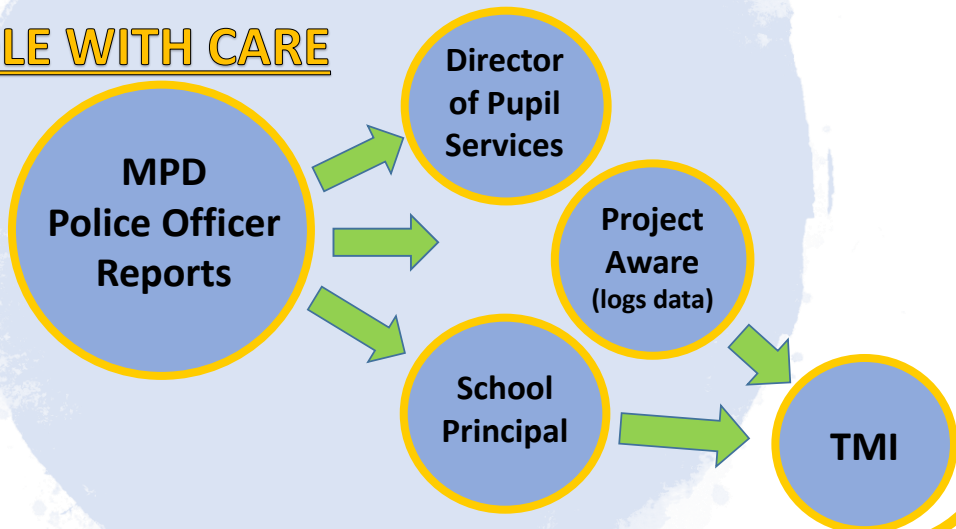
The police and the school have a unique connection with at-risk children and their families, often providing the only hope, safety, and stability the children and families experience



WEST VIRGINIA CENTER FOR CHILDREN'S JUSTICE

PROTECT • HEAL • THRIVE

HANDLE WITH CARE

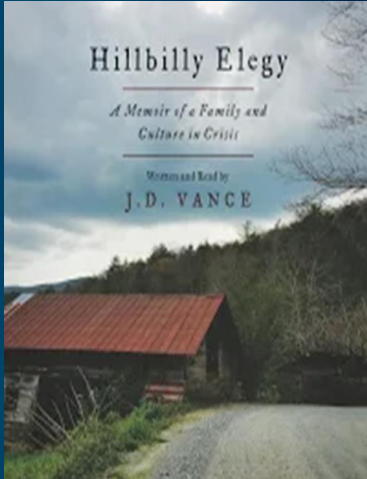


SCHOOL PROGRAMS and ACTIVITIES



TIER 2

Mentors—Prevention and Building Resilience



- Children mentored 3 times per month for 1 year:
 - Use illegal drugs — 26% less
 - Start drinking — 27% less
 - Skip school — 52% less

Source: www.mentoring.org



Transforming the Future— Discipline, Self-Responsibility, and Persistence



MPD JUNIOR
POLICE ACADEMY
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TIER 3



Wraparound Services

Table 2
Caret – Self report agreement on Strengths and Difficulties Questionnaire items from social behaviour subscales
(Number, Brief item name)

Item	N	Intra class correlation coefficient
Peer Problems		
4. Solitary		
11. One good friend (reverse scored)	29	0.39
14. Liked (reverse scored)	32	0.29
19. Bullied	29	0.36
23. Adults	28	0.68*
	30	0.23
Pro-social Behaviour		
1. Considerate	32	0.1
4. Shares	29	0.31
9. Helpful	32	0.79
17. Kind	31	0.42
20. Volunteers	30	0.32
Hyperactivity		
2. Restless	29	0.1
10. Constantly fidgeting	32	0.31
15. Easily distracted	31	0.79
21. Thinks things out (reverse scored)	30	0.42
25. Sees tasks through to the end (reverse scored)	30	0.32
Emotional Symptoms		
3. Often complains of headaches...	29	0.49*
8. Many worries	30	0.42*
13. Often unhappy	30	0.35
16. Nervous or clingy	29	0.35
24. Many fears	32	0.46*
Conduct Problem		
5. Often has tempers	31	0.75*
7. Generally obedient (reverse scored)	30	0.58*
12. Often fights with others	30	0.41
18. Often lies or cheats	30	-0.12
22. Steals from home or school	30	0.30
	31	0.75*
	28	0.51*
	29	0.07
	29	0.66*
	29	0.79*

* p < 0.005



2018 OUTCOMES



Positive Outcomes to Celebrate

- * At the end of 2018, 878 ACE assessments had been completed by school personnel and community members who had taken trauma-informed training (including every pre-K teacher and all bus drivers)
- * To date, TMI has provided trauma-informed training to 330 educators
- * At the end of 2018, we had 20 mentors; we now have 24 more in various stages of mentor training
- * Shepherd University is offering a special-topic class for students who want to become mentors
- * “Adopt a Classroom” has provided police visits to more than 100 classrooms, positively interacting with nearly 4,000 students
- * To date, TMI has held 49 trauma-informed trainings



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