Impact of Childhood Trauma on Health
Adverse Childhood Experiences and Resilience

Presented by:
Dr. Allison Sampson-Jackson, PhD, LCSW, LICSW, CSOTP
Defining Trauma

Individual trauma results from 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.

-SAMHSA definition 2014
Adverse Childhood Experiences – A Primer Video

- Emotional abuse
- Physically abuse
- Sexual abuse
- Not loved, not important
- Poverty
- Using drugs/substances
- Separation/divorce
- Mother- interpersonal violence
- Substance abuse
- Mentally health diagnosis
- Prison

*Remember this is a research tool or for your personal reflection now, not intended to be read to someone and used independently as a screen.*
Consequences of a Lifetime Exposure to Violence and Abuse

- Alcoholism and alcohol abuse
- Chronic obstructive pulmonary disease (COPD)
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease (IHD)
- Liver disease
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases (STDs)
- Smoking
- Suicide attempts
- Unintended pregnancies
- Early initiation of smoking
- Early initiation of sexual activity
- Adolescent pregnancy

http://www.coleva.net/
### ACEs Score: Adoption of At-Risk Health Behaviors

**http://www.iowaaces360.org/impact-of-aces.html**

<table>
<thead>
<tr>
<th>ACE Score</th>
<th>Risk</th>
</tr>
</thead>
</table>
| **4**     | - 260% more likely to develop COPD  
- 500% more likely to develop alcoholism  
- Females are 500% more likely to become victims of domestic violence.  
- Females are almost 900% more likely to become victims of rape  
- 242% more likely to smoke  
- 222% more likely to become obese  
- 357% more likely to experience depression  
- 443% more likely to use illicit drugs  
- 1133% more likely to use injected drugs  
- 298% more likely to contract an STD  
- 1525% more likely to attempt suicide  
- 555% more likely to develop alcoholism |
| **6**     | - 250% more likely to become adult smoker  
- A male child with an ACE score of 6 has a 4,600% increase in the likelihood that he will become an IV drug user later in life  
- More likely to die 20 years younger than a person with no ACEs |
| **7**     | - Adult suicide attempts increased 3,000%  
- Childhood and adolescent suicide attempts 5,100%  
- 5,000% more likely to develop hallucinations  
- Increased the risk of suicide attempts **51-fold** among children/adolescents  
- Increased risk of suicide attempts **30-fold** among adults |
ACEs and Leading Causes of Death
Linked to 7 out of the 10

http://www.who.int/mediacentre/factsheets/fs310/en/
# Recommendations for Improving Youth and Family Health

<table>
<thead>
<tr>
<th>#1 – Get a Baseline on Impact of ACEs in Virginia</th>
<th>VDH- BRFSS added 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2 – Over Sampling of BRFSS in key communities of concern</td>
<td>Norfolk, Petersburg, &amp; Richmond 2017</td>
</tr>
<tr>
<td>#3 – Coordinate Cross System Data Collection to Focus Health Response</td>
<td>Lora Porter &amp; Walla Walla WA work</td>
</tr>
<tr>
<td>#4 – Integrate ACEs Professional Development Plan across all Health &amp; Human Services Systems</td>
<td>ACEs Interface</td>
</tr>
<tr>
<td>#5 – Preventative Strategies for Next Generation Health</td>
<td>Washington NEAR HV Funding</td>
</tr>
<tr>
<td>#6 – Engage Hospitals in Preventative Healthcare Approaches</td>
<td>Bounce Back Campaign funding</td>
</tr>
<tr>
<td>#7 – Require Pediatricians to Screening for ACEs</td>
<td>CYW-ACEs Q</td>
</tr>
<tr>
<td>#8 – Integrate Trauma Informed Care into all 3 tiers of Schools</td>
<td>VTSS and DC model</td>
</tr>
<tr>
<td>#9 – Create Responsive Healthcare Systems for Super Utilizers via Enhanced Care Coordination</td>
<td>Camden Healthcare/Dr. Brenner Pilot Funding</td>
</tr>
<tr>
<td>#10 – Enhance Integration of Trauma Informed Care into Department of Juvenile Justice Screening and Programs while Enhancing Care Coordination</td>
<td>Restorative Practices Restorative Justice Continue to enhance Positive Youth Development Model</td>
</tr>
</tbody>
</table>
Recommendation One:
Get a Baseline on Impact of ACEs in Virginia
ACE Interface
Master Trainers
Active in 2016
Minnesota
Wisconsin
Alaska
South Carolina
Louisiana
Washington
East Iowa
Colorado
Oregon
Indiana
Sonoma County, CA
Recommendation Two: Over Sampling of BRFSS in Key Communities of Concern
Population Attributable Risk

- A large portion of many health, safety and prosperity conditions is attributable to Adverse Childhood Experience.
- ACE reduction reliably predicts a decrease in all of these conditions simultaneously

### Population Attributable Risk

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Health Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>61%</td>
<td>Incarceration for Adults</td>
</tr>
<tr>
<td>22%</td>
<td>Fell ≥3x in 3 months</td>
</tr>
<tr>
<td>31%</td>
<td>Current Smoker</td>
</tr>
<tr>
<td>31%</td>
<td>Drinking and Driving</td>
</tr>
<tr>
<td>51%</td>
<td>High Risk HIV</td>
</tr>
<tr>
<td>15%</td>
<td>Insulin Diabetes</td>
</tr>
<tr>
<td>17%</td>
<td>Asthma</td>
</tr>
<tr>
<td>69%</td>
<td>Mental Illness</td>
</tr>
<tr>
<td>41%</td>
<td>Chronic Depression</td>
</tr>
<tr>
<td>67%</td>
<td>Suicide Attempts</td>
</tr>
<tr>
<td>65%</td>
<td>Alcoholism</td>
</tr>
<tr>
<td>78%</td>
<td>IV Drug Use</td>
</tr>
<tr>
<td>54%</td>
<td>Painkillers to get high</td>
</tr>
<tr>
<td>14%</td>
<td>Not graduating college or tech</td>
</tr>
<tr>
<td>20%</td>
<td>Out of Work ≥ 1 year</td>
</tr>
<tr>
<td>25%</td>
<td>Job Injury (medical)</td>
</tr>
<tr>
<td>43%</td>
<td>Interrupted activities ≥ of 30 days</td>
</tr>
</tbody>
</table>

BRFSS Data in Washington Example

PREVALENCE OF 6-8 ACES AMONG WASHINGTON ADULTS AGE 18-44

Recommendation Three:
Coordinate Cross System Data Collection and Thriving Maps in these Areas to Focus Health Response
Building a Trauma Informed Community – Resilience Trumps Aces
High Capacity Communities
Reduce Percent of Young Adults With ≥ 3 ACEs

POSITIVE ACE TREND MEANS REDUCED CASES:

- Lack of Social Support: 1888
- Limited Activity (due to disability): 5767
- Asthma: 2128
- Cancer: 2828
- Heart Disease: 1004
- Missed work due to MI: 1065
- Mental Illness (MI): 3845
- HIV: 1264
- Binge Drinking: 3727
- Smoking: 10874

ACE REDUCTION IS A WINNABLE ISSUE

Youngest Age Cohort
Washington Community Capacity Building

Funded Community Networks showed significant improvement in Severity Index

- Out of home placement
- Loss of parental rights
- Child hospitalization rates for accident and injury
- High School Drop Out
- Juvenile Suicide Attempts
- Juvenile arrests for alcohol, drugs, and violent crime
- Juvenile offenders
- Teen births
- Low birth weights
- No third trimester maternity care
- Infant mortality
- Fourth grade performance on standardized testing

Recommendation Four: Integrate a ACEs Professional Development Plan across all Health and Human Services Systems
ACEs Interface Master Training

Throughout the nation, people are talking about the ACE Study because study findings reveal this is the largest public health discovery of our time. In any great public health discovery the most important actions in the first decades are:

To tell everyone – share the findings effectively and with fidelity, and
To change ourselves and promote changes within our spheres of influence.

The ACE Interface *Train the Master Trainer Program* is designed to support rapid dissemination of ACE and resilience science, and promote understanding and application of the science to improve health and wellbeing across the lifespan. In less than a year, *the Master Trainer Program* enables delivery ACE information to diverse communities--*with fidelity to science and concepts*--to tens of thousands of people.
Recommendation Five: Preventative Strategies for Next Generation Health
NEAR Science

• Neuroscience
• Epigenetics
• Adverse Childhood Experiences
• Resilience

http://www.healthygen.org/resources/nearhome-toolkit

http://www.healthygen.org/resources/laura-porter-keynote-address-near-science-wa-state-resilience-findings
NEAR: What Help actually Helps?

Support: Feeling socially and emotionally supported and hopeful
- Social Emotional Competence Building
- Hope and a Sense of Future

Help: Having two or more people who give concrete help when needed
- Concrete Supports (not Facebook Friends)

Community Reciprocity: Watching out for children, intervening when they are in trouble, and doing favors for one another
- Primary network of protection in your community
- People you see each day and see you

Social Bridging: Reaching outside one’s immediate circle of friends to recruit help for someone inside that circle
- Asking for help
- Trusting Systems and People outside your circle to respond and be safe

http://www.healthygen.org/resources/laura-porter-keynote-address-near-science-wa-state-resilience-findings
Creating the Virtuous Cycle

Promote Virtuous Cycle of Health

Moderate ACE Effects, Improve Wellbeing Among Parenting Adults

Prevent High ACE Scores among Children

Mutually Reinforcing
Recommendation Six: Engage Hospitals in Preventative HealthCare Approaches
Engage Hospitals, VDH and Health Clinics in Statewide Resilience Campaigns

http://www.bouncebackproject.org/
Solution Seven: 
Require Pediatricians to Screening for ACEs
What’s important to know about the ACEs Tool ...

• Important to note that at this time, there are no psychometrically tested and validated ACEs screens for children

• ACEs measure was developed originally as a research tool to gather history from adults 18 years or older

• Dr. Anda and Laura Porter prefer to call it a history gathering tool versus a “screening” tool

• ACEs scores are not predictive at the individual level therefore it should not be used to determine eligibility or diagnosis independent of a comprehensive psychosocial assessment with the use of valid and reliable tools that are shown to help in predicting likelihood of mental health challenges in living

Laura Porter (personal communication 10/16/2016)
“In the American Academy of Pediatrics (AAP) policy statement, “Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science into Lifelong Health,” the AAP explicitly calls on pediatricians to “actively screen for precipitants of toxic stress that are common in their particular practices” 26.”

Burke Harris, N. and Renschler, T. (version 7/2015). Center for Youth Wellness ACE-Questionnaire (CYW ACE-Q Child, Teen, Teen SR). Center for Youth Wellness. San Francisco, CA. Pg.8

SECTION 1 Ten items assessing exposure to the original ten ACEs

* Population level data for disease risk in adults

SECTION 2 Seven or nine items assessing for exposure to additional early life stressors relevant to children/youth served in community clinics

* Hypothesized to lead to disruption in neuro-endocrine-immune axis
* Not yet correlated with population level data about risk of disease

Burke Harris, N. and Renschler, T.  
(version 7/2015).  
Center for Youth Wellness ACE-Questionnaire  
(CYW ACE-Q Child, Teen, Teen SR). Center for  
Youth Wellness. San Francisco, CA.  
Page 10
Iowa

2015
• New patient records for nine month well exams
• NCQA Requirements for a Patient-Centered Medical Home
  o Enhance Access and Continuity
  o Identify and Manage Patient Populations
  o Plan and Manage Care
  o Provide Self-Care and Community Support
  o Track and Coordinate Care
  o Measure and Improve Performance
    www.ncqa.org

• Created Iowa EPSDT Care for Kids Health Maintenance Recommendations for Pediatricians

2016
• Resiliency Toolkit
  http://www.iowaaces360.org/individuals-and-families.html#resiliency
Recommendation Eight: Integrate Trauma Informed Care into all Three Tiers of Schools
Be a F.O.R.S.E. in your community

Image by Lincoln High student Brendon Gilman

Focus
On
Resilience &
Social-Emotional
District of Columbia
Trauma Sensitive Process

Early Childhood
• Identified via Gold Assessment

K-12th Grade
• Identified via Early Warning Indicators

9th Grade Repeaters
• Universal Screening
# Early Warning Indicator System

**Screening for MH and Trauma**

<table>
<thead>
<tr>
<th>Early Warning Indicators</th>
<th>On-Track (Tier I)</th>
<th>Sliding (Tier II)</th>
<th>Off-Track (Tier III)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEHAVIOR</strong></td>
<td>No Office Discipline Referrals (ODR) or suspensions</td>
<td>2-3 ODRs and/or 1 suspension</td>
<td>3+ ODRs and/or 2+ suspensions</td>
</tr>
<tr>
<td><strong>ATTENDANCE</strong></td>
<td>missed &lt; 5% instructional days</td>
<td>missed ≥ 5-9% instructional days</td>
<td>≥ 10% instructional days</td>
</tr>
<tr>
<td><strong>ACADEMICS: READING and Math</strong></td>
<td>Above Proficient or Proficient on interim assessment</td>
<td>Below Proficient</td>
<td>Far Below Proficient</td>
</tr>
</tbody>
</table>
**Tiered Trauma Sensitive Model**

- **Tier III-Intensive**
  Individualized intervention with community support for children who have active mental health symptoms or special education behavior support goals.

- **Tier II-Targeted Intervention**
  Early intervention for students who are identified as at risk for developing mental health, behavioral issues or educational issues.

- **Tier I- Universal Prevention**
  Social emotional learning programs to support ALL STUDENTS. Can be implemented by school social workers, teachers, counselors, nurses, etc.
Tier One

Tier I: Universal Prevention/Consultation and Mental Health Promotion:

Social Emotional Support services at this tier are provided universally to the entire student body, school staff, or parents/guardians. These services aim to prevent the development of serious mental health problems and to promote pro-social skill development among children and youth.

Examples of interventions at this tier include:

- School-wide PBIS or classroom-based social emotional learning programs, including substance abuse and violence prevention programs (i.e., bullying prevention; Good touch, Bad touch; peer mediation; conflict resolution)
- Staff professional development (i.e., mental health awareness, classroom management)
- Mental health educational workshops for parents/guardians or students
- Mental Health Consultation*

*During Tier One: Consultation is focused on increasing the general knowledge base of general education teachers regarding social emotional development, impairments, and the relationship to the curriculum and function in age-appropriate activities.
Tier Two

Tier II: Targeted or Early Intervention/Prevention:
Students who are at elevated risks for developing a mental health problem are offered various early intervention services to target specific risk factors. These interventions are delivered to children and youth who have social emotional challenges, behavioral symptoms and/or mental health needs that may not be severe enough to meet diagnostic criteria or eligibility for special education services.

Evidence Based Interventions
- Cognitive Behavior Therapy (CBT-Elementary, Middle and High School)
- Child Centered Play Therapy (CCPT-Elementary School)
- Cognitive Behavioral Intervention For Trauma in Schools (CBITS-Middle and High School)
- Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS-Middle and High School)
- Theatre Troupe/ Peer Education Project (TT/PEP-Middle and High School)
- Cannabis Youth Treatment (CYT-Middle and High School)

Additional interventions may include:
- Support groups (e.g., grief and loss, children of divorce, etc.)
- Focused skills training groups (social skills, anger management)
- Crisis management
- Interventions that target specific behaviors, such as aggression, withdrawal, sadness etc.
- Attendance interventions, dropout prevention programs, and training or consultation for families and teachers who work with identified children.
- Mental Health Consultation
- FBA and BIP-Level I
Cognitive Behavioral Intervention for Trauma in Schools (CBITS)

- School-based intervention
- Delivered by licensed mental health professionals
- Proven effective in research trials
- Visit: Rand.org OR cbitsprogram.org
Tier Three

Tier III: Intensive Intervention:

Students who have active mental health symptoms that meet diagnostic criteria are offered intensive interventions to improve functioning in school and decrease impact on academic achievement. Interventions at this level are appropriate for meeting the needs of students who have specific mental health needs that are impacting their functioning in the school, home, and/or community.

Evidence Based Interventions

- Cognitive Behavior Therapy (CBT-Elementary, Middle and High School)
- Child Centered Play Therapy (CCPT-Elementary School)
- Cognitive Behavioral Intervention For Trauma in Schools (CBITS-Middle and High School)
- Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS-Middle and High School)
- Cannabis Youth Treatment (CYT-Middle and High School)

Interventions at this tier may include any combination of the following:

- Behavior Support Services on an IEP utilizing evidenced based interventions (listed above)
- Individual and or group counseling
- Psycho-education
- Crisis intervention
- Referral to and Service coordination with community mental health providers
Support for Students Exposed to Trauma (SSET) – Modified for Use by Teachers

- Modified version of CBITS
- Delivered by: Teachers, Graduate Interns and School Counselors
- Proven effective in research trials
Recommendation Nine: Create Responsive HealthCare Systems for Super Utilizers via Enhanced Care Coordination
Changes in Healthcare Systems

Camden Coalition of Healthcare Providers
A Video from Robert Wood Johnson Foundation

2003 - Physician Jeffrey Brenner founds the Camden Coalition of Healthcare Providers, an integrated health care system designed to provide preventive and primary care while also addressing patients’ social needs.

2011 - Brenner is the subject of a profile in The New Yorker that describes his use of data and mapping to identify “hot-spotters”—people with multiple and chronic ailments who are the heaviest users of health care—and respond with a team-based approach to help those patients manage their health, improve their stability and reduce the costs of their care.

Brenner receives a MacArthur “genius” grant for his model of cooperative care, now being replicated by more than ten communities across the country.
Dr. Brenner’s Problem Arising From Data

Nearly half of the city's approximately 77,000 residents were visiting an emergency department or hospital annually—most often for head colds, viral infections, ear infections, and sore throats.

Thirteen percent of the patients accounted for 80 percent of hospital costs; 20 percent of the patients accounted for 90 percent of the costs.
Process of linking to a Care Management Team

Pro-Actively and as Part of a Readmission Reduction Team

• The database identifies hospitalized patients with complicated medical and social needs

• A care management team—consisting of a social worker, nurse, community health worker and health "coach" (an AmeriCorps volunteer who plans to go into medicine or nursing)—visits the patient in the hospital, reviewing prescribed medications, conferring with doctors and nurses, and helping plan the discharge

• Team members visit the patient at home immediately after discharge and provide ongoing support for two to nine months, including connecting the patient to a primary care doctor, accompanying him or her to appointments, and helping line up needed social services. The goal is to leave patients with the ability to manage their health on their own
Improving Care Can Save Money

While Brenner's main purpose was to improve care, there is evidence that his model reduces costs.

The first 36 patients averaged a total of 62 hospital and emergency room visits per month before the intervention compared to 37 visits per month afterward.

Their hospital bill total fell from a monthly average of $1.2 million to just over $500,000—savings that benefit the federal and state governments in reduced Medicaid spending and the hospitals in reduced charity care costs.
Recommendation Ten: Enhance Integration of Trauma Informed Care into Department of Juvenile Justice Screening and Programs while Enhancing Care Coordination
Trauma and Juvenile Justice Population

Being abused or neglected as a child increased the likelihood of arrest as a juvenile by 59 percent and as an adult by 28 percent, and for a violent crime by 30 percent. The abused and neglected cases were younger at first arrest, committed nearly twice as many offenses, and were arrested more frequently (Widom, 1995; Widom and Maxfield, 2001).

• According to NCTSN, each year 2 million children come into contact with the Juvenile Justice System
• The majority of these youth have directly experienced or witnessed trauma
• Trauma informed approaches to their care in the Juvenile Justice System can reduce contact and recidivism
Crime is a wound

Justice should be healing
The Balanced Approach

Community Safety

Competency Development

Accountability
Restorative Justice Practices at a Glance
OJJDP: Balance and Restorative Justice Training Restorative Justice Foundations Module 1, Slide 68

Restitution

Circle Sentencing

Victim Impact Panels/Classes

Victim/Offender Mediation

Family Group Conferencing

Reparation Boards

Letters of Apology

Community Service

CONFERENCING MODELS
Additional Implementation Suggestions

• Continued enhancement of Positive Youth Development (PYD) Models focusing on protective factors and assets of youth

• Incorporation of Restorative Practices and Restorative Justice Models across the Department of Juvenile Justice Continuum

• Incorporation of Trauma Informed Organizational Assessments across continuum of services offered
Implications & Future Directions

Reduction of ACEs within linked lives context of parents and children

- Better assessment of factors that serve as mechanisms of stress proliferation, coping and support erosion, disability and health outcomes: Macro, Meso, Micro
- More data on children’s well-being within parental trajectories
- Main directions of Interventions should be on:
  - Strengthening “adaptive parental function”
  - Interrupting stress proliferation and stress embodiment
  - Resilience cannot thrive at any one level alone: Individual, family, community, structural needed

Paula S. Nurius, University of Washington
Illustrating NEAR-Related Findings from Surveillance Population Data:
Building Partnership Complementarity
Thanks