

# *ACEs Workgroup*

## Resource Packet

### Crash Course in ACEs Research and Toxic Stress

#### **The ACEs Research**

##### *Adverse Childhood Experiences by Vince Felitti, MD*

This is a thirteen minute version of the presentation given in 2006 and edited (the full version is listed below). This presentation reviews the ACE's study results showing that growing up in adverse environments leads to long term health consequences.

- <https://www.youtube.com/watch?v=GQwJCWPG478>

#### **The Implications**

##### *Toxic Stress Derails Healthy Development*

Healthy development in the early years provides the building blocks for educational achievement, economic productivity, responsible citizenship, lifelong health, strong communities, and successful parenting of the next generation.

- [http://developingchild.harvard.edu/resources/multimedia/videos/three\\_core\\_concepts/toxic\\_stress/](http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/toxic_stress/)

##### *The Impact of Early Adversity on Children's Development*

An outline of basic concepts from the research on the biology of stress which show that major adversity can weaken developing brain architecture and permanently set the body's stress response system on high alert.

- <https://www.youtube.com/watch?v=chhQc0HShCo>

#### **What Can Be Done About It**

##### *Building Adult Capabilities to Improve Child Outcomes: A Theory of Change*

This 5-minute video depicts a theory of change from the Frontiers of Innovation community for achieving breakthrough outcomes for vulnerable children and families. It describes the need to focus on building the capabilities of caregivers and strengthening the communities that together form the environment of relationships essential to children's lifelong learning, health, and behavior.

- [http://developingchild.harvard.edu/resources/multimedia/videos/theory\\_of\\_change/](http://developingchild.harvard.edu/resources/multimedia/videos/theory_of_change/)

##### *Building Brain Architecture: The Foundations of Lifelong Learning, Health, and Achievement*

This online professional development module communicates the science of development to adults whose decisions affect children, youth, and families. It has four distinct sections, which provide a basic overview of how early child and brain development happens, how it can be derailed and supported, and what effects early development can have on lifetime health and learning.

- <http://www.del.wa.gov/partnerships/foi/module1/index.html>

## Web Resources

### *Iowa Aces 360*

Research, training, and information about how Iowa has addressed ACES

- <http://www.iowaaces360.org/>

### *Center for the Developing Child*

Information about “meaningful change in policy and practice that produces substantially larger impacts on the learning capacity, health, and economic and social mobility of vulnerable young children.”

- [http://developingchild.harvard.edu/resources/multimedia/videos/theory\\_of\\_change/](http://developingchild.harvard.edu/resources/multimedia/videos/theory_of_change/)

### *Center for Disease Control and Prevention*

Research partner with Kaiser Permanente in the original ACE study and a hub for academic publications, outcomes studies, policy reports, statistics, and a bibliography of related articles.

- <http://www.cdc.gov/violenceprevention/acestudy/>

### *The Adverse Childhood Experiences Study*

Dr Andi, Dr. Felitti, and Carol Redding’s webpage connecting the original researchers to the people looking for additional information. Includes a list of their original publications including the ACE questionnaire.

- <http://acestudy.org/>

### *Ace Response*

A collaborative project between SUNY Albany and Prevent Child Abuse America designed to raise awareness and mobilize comprehensive responses.

- <http://www.aceresponse.org/>

### *Aces Too High*

A news aggregator that pulls together current reporting and research on ACES. Topics range from epidemiology, neurobiology, and the biomedical and epigenetic consequences of toxic stress to how people, organizations, agencies and communities are implementing practices based on the research

- <http://acestoohigh.com/>

### *ACES Connection*

A community based resource approach to trauma-informed, resilience-building practices. Materials focus on preventing Adverse Childhood Experiences (ACEs), and encouraging systems changes that stop traumatizing already traumatized people.

- <http://www.acesconnection.com/>

### *SAMSHA*

Discussion about the impact of ACEs on substance abuse and strategies for incorporating ACEs information into prevention efforts

- <http://captus.samhsa.gov/prevention-practice/targeted-prevention/adverse-childhood-experiences/1>

### *Robert Wood Johnson Foundation*

Early childhood experiences and environments can greatly affect health, well into adulthood. RWJF supports initiatives to help schools, families and communities provide children the best foundation for a healthy, productive life.

- <http://www.rwjf.org/en/our-topics/topics/early-childhood-development.html>

## Scholarly Articles

*Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults*  
Felitti and Anda's original article connecting 10 domains of abuse and household dysfunction to multiple risk factors for common causes of death in adults.

- <http://www.ajpmonline.org/article/S0749-3797%2898%2900017-8/fulltext>

*Adverse Childhood Experiences and the Risk of Premature Mortality*

ACEs are associated with an increased risk of premature death, although a graded increase in the risk of premature death was not observed across the number of categories of ACEs. The increase in risk was only partly explained by documented ACE-related health and social problems, suggesting other possible mechanisms by which ACEs may contribute to premature death.

- <http://www.ajpmonline.org/article/S0749-3797%2809%2900506-6/pdf>

*Separate and cumulative effects of adverse childhood experiences in predicting adult health and health care utilization*

This study suggests that childhood abuse and other adverse childhood experiences are overlapping risk factors for long-term adult health problems and that the accumulation of these adverse experiences increases the risk of poor adult health.

- <http://www.sciencedirect.com/science/article/pii/S0145213410000955>

*Poverty Grown Up: How Childhood Socioeconomic Status Impacts Adult Health*

Children with low-socioeconomic status not only experience greater health problems in childhood but also aspects of their socioeconomic status become biologically incorporated through both critical periods of development and cumulative effects, leading to poor health outcomes as adults.

- [http://journals.lww.com/jrnldb/Abstract/2010/02000/Poverty\\_Grown\\_Up\\_\\_How\\_Childhood\\_Socioeconomic.11.aspx](http://journals.lww.com/jrnldb/Abstract/2010/02000/Poverty_Grown_Up__How_Childhood_Socioeconomic.11.aspx)

*Relationships between childhood maltreatment, adult health and psychiatric outcomes, and medical utilization*

Individuals with a history of childhood abuse, particularly sexual abuse, are more likely than individuals with no history of abuse to become high utilizers of medical care and emergency services.

- [http://www.universitypsychiatry.com/clientuploads/pes/Arnow\\_JCP\\_2004\\_65\\_s12\\_10.pdf](http://www.universitypsychiatry.com/clientuploads/pes/Arnow_JCP_2004_65_s12_10.pdf)

*Adverse Childhood Experiences and Adult Criminality: How Long Must We Live before We Possess Our Own Lives?*

Criminal behavior can be added to the host of negative outcomes associated with scores on the ACE Questionnaire. Childhood adversity is associated with adult criminality. We suggest that to decrease criminal recidivism, treatment interventions must focus on the effects of early life experiences.

- <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662280/>

*Childhood Abuse, Household Dysfunction, and the Risk of Attempted Suicide Throughout the Life Span*

A powerful graded relationship exists between adverse childhood experiences and risk of attempted suicide throughout the life span. Alcoholism, depressed affect, and illicit drug use, which are strongly associated with such experiences, appear to partially mediate this relationship. Because estimates of the attributable risk fraction caused by these experiences were large, prevention of these experiences and the treatment of persons affected by them may lead to progress in suicide prevention.

- <http://jama.jamanetwork.com/article.aspx?articleid=194504>

## Popular Press

### *The Psych Approach*

The link between childhood trauma and adult outcomes was striking. People with an ACE score of 4 were seven times more likely to be alcoholics as adults than people with an ACE score of 0. They were six times more likely to have had sex before age 15, twice as likely to be diagnosed with cancer, four times as likely to suffer emphysema. People with an ACE score above 6 were 30 times more likely to have attempted suicide.

- [http://www.nytimes.com/2012/09/28/opinion/brooks-the-psych-approach.html?\\_r=0](http://www.nytimes.com/2012/09/28/opinion/brooks-the-psych-approach.html?_r=0)

### *The Adverse Childhood Experiences Study -- the Largest Public Health Study You Never Heard Of*

The ACE Study - probably the most important public health study you never heard of - emerged from an obesity clinic on a quiet street in San Diego.

- [http://www.huffingtonpost.com/jane-ellen-stevens/the-adverse-childhood-exp\\_1\\_b\\_1943647.html](http://www.huffingtonpost.com/jane-ellen-stevens/the-adverse-childhood-exp_1_b_1943647.html)

### *The Poverty Clinic*

A story about Nadine Burke's application of ACE information in her pediatric practice.

- <http://www.newyorker.com/magazine/2011/03/21/the-poverty-clinic>

### *Stress alters children's genomes*

Growing up in a stressful social environment leaves lasting marks on young chromosomes. Telomeres, repetitive DNA sequences that protect the ends of chromosomes from fraying over time, are shorter in children from poor and unstable homes than in children from more nurturing families

- <http://www.nature.com/news/stress-alters-children-s-genomes-1.14997>

### *It's Not in Your Head, It's in Your Body*

The conventional medical approach segments body parts by specialty in the first place, so how could we make room for the idea that our life stories, specifically what may have happened to us as children, could make us sick or keep us well?

- [http://www.huffingtonpost.com/marcelle-pick-rnc/adverse-childhood-experiences\\_b\\_3489949.html](http://www.huffingtonpost.com/marcelle-pick-rnc/adverse-childhood-experiences_b_3489949.html)

### *Adverse Childhood Experiences (ACEs): How ACEs can create a lifetime of misfortune*

ACEs are "adverse childhood experiences" that can usher in a lifetime of misfortune - and frequently then pass troubles on to succeeding generations. These are events beyond a young person's control.

- <https://www.psychologytoday.com/blog/therapy-it-s-more-just-talk/201311/adverse-childhood-experiences-aces>

### *A New Take on Childhood Trauma: Expanding the diagnostic frame for childhood trauma*

Explores how many people with ACE scores experience symptoms that are not easily clustered in an existing diagnostic category.

- <https://www.psychologytoday.com/blog/trauma-and-stress-in-childhood/201101/new-take-childhood-trauma>

### *What doesn't kill you doesn't necessarily make you stronger*

By perpetuating the belief that pain is edifying, we place the onus on survivors to heal themselves — and we deemphasize the value of prevention and support services.

- [http://www.washingtonpost.com/opinions/what-doesnt-kill-you-doesnt-necessarily-make-you-stronger/2015/01/02/939f250e-8f7e-11e4-ba53-a477d66580ed\\_story.html](http://www.washingtonpost.com/opinions/what-doesnt-kill-you-doesnt-necessarily-make-you-stronger/2015/01/02/939f250e-8f7e-11e4-ba53-a477d66580ed_story.html)

## YouTube Videos

### *Adverse Childhood Experiences by Vince Felitti, MD*

This is the full version of his presentation in 2006 and runs 1.5 hours. It discusses the findings that adverse childhood experiences have significant impact on long term health outcomes. You can see most of the information by watching the thirteen minute version instead.

- <https://www.youtube.com/watch?v=Me07G3Erbw8>

### *Adverse Childhood Experiences (ACE), featuring Dr. Robert Anda*

Childhood trauma expert Dr. Robert Anda, co-investigator of the Centers for Disease Control Adverse Childhood Experiences (ACE) Study, spoke on 23 October 2012 at University of Alaska Anchorage on "Adverse Childhood Experiences: How Can UAA Help Address ACES? What Do Future Leaders Need to.

- <https://www.youtube.com/watch?v=QLfUi4ssHmY>

### *Adverse Childhood Experiences: A Conversation with Dr. Nadine Burke Harris*

Dr. Nadine Burke Harris, the innovative pediatrician and founder of the Center for Youth Wellness, discusses her public health approach to childhood adversity and trauma with Chris Watney, President and CEO of the Colorado Children's Campaign at our 2014 Annual Luncheon, Nov. 18 in Denver.

- <https://www.youtube.com/watch?v=bOrMMY41i6Y>

## TED Talks

### *How childhood trauma affects health across a lifetime*

Pediatrician Nadine Burke Harris explains that the repeated stress of abuse, neglect and parents struggling with mental health or substance abuse issues has real, tangible effects on the development of the brain. This unfolds across a lifetime, to the point where those who've experienced high levels of trauma are at triple the risk for heart disease and lung cancer.

- [http://www.ted.com/talks/nadine\\_burke\\_harris\\_how\\_childhood\\_trauma\\_affects\\_health\\_across\\_a\\_lifetime](http://www.ted.com/talks/nadine_burke_harris_how_childhood_trauma_affects_health_across_a_lifetime)

## Radio Programs

### *What Shapes Health: National Public Radio*

Health is more than the sum of its parts. Sometimes in surprising ways, factors such as childhood experiences, housing conditions, poor diets and health care access drive who ends up sick — and who does not. As part of our series "What Shapes Health," created in partnership with the Robert Wood Johnson Foundation and the Harvard T.H. Chan School of Public Health, Harvard sponsored a webcast on the question.

- <http://www.npr.org/blogs/health/2015/03/03/389479898/what-shapes-health-join-the-discussion-on-harvards-webcast>
- <http://www.npr.org/blogs/health/2015/03/02/377569413/can-family-secrets-make-you-sick>
- <http://www.npr.org/blogs/health/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean>
- <http://www.npr.org/blogs/health/2015/03/03/377569539/even-some-doctors-fear-these-10-questions>

## Information about ACES in Vermont

### *Integrating ACE-Informed Practice into the Blueprint for Health*

The Director of the Blueprint for Health and the Chair of the Green Mountain Care Board emphasize the importance of improving and maintaining the Blueprint for Health as a foundation of primary care and of a high value health system in Vermont. The options that this report presents for preventing and treating ACEs require building on the Blueprint for Health.

- <http://blueprintforhealth.vermont.gov/sites/blueprint/files/BlueprintPDF/ACES-Report-Final-1-14-15.pdf>

### *AHS ACES Conference Site*

On October 25 and 26, 2013 the Agency of Human Services hosted a conference to increase Vermont's recognition that trauma is related to health outcomes over the life span and is pervasive across class and culture. The work of Dr. Vincent Felitti, MD through the CDC-Kaiser-Permanente Adverse Childhood Experiences Study was featured. You will find the presentation materials and links to additional information in this folder.

- <http://humanservices.vermont.gov/center-for-prevention-and-treatment-of-sexual-abuse/social-service-professionals/research/vt-ace-conference-improving-clinical-outcomes-for-complex-patients/>

### *AHS Presentation on ACES and Medical Providers*

A slide show by AHS intended for medical providers about how ACES impact physical health and how a pilot implementation plan could be enacted

- [http://hcr.vermont.gov/sites/hcr/files/pdfs/BP\\_SemiAnnualConf/RecognizingImpactTraumaticEventsPCPatients.pdf](http://hcr.vermont.gov/sites/hcr/files/pdfs/BP_SemiAnnualConf/RecognizingImpactTraumaticEventsPCPatients.pdf)

### *Radio Interview with Dr. Felitti and Tracy Dolan, the Deputy Commissioner of the Vermont Dept. of Health*

Dr. Felitti explains the connections he's found between childhood trauma such as domestic violence or a parent in prison, and long-term chronic disease, including obesity and addiction. Tracy Dolan, deputy commissioner of the Vermont Department of Health, also joins us to explain what these findings mean for public health experts in Vermont.

- <http://digital.vpr.net/post/child-trauma-adult-chronic-illness>

### *Vermont ACE Date*

Behavioral Risk Factor Surveillance System, 2010 & 2011

- <http://healthvermont.gov/research/brfss/brfss.aspx>