

**HCR**

**21**

<TARGET><BILL>HCR 21</BILL><SUBJECT>HCR  
21</SUBJECT><COMM>HHSS29</COMM></TARGET>



# ALASKA STATE LEGISLATURE



REPRESENTATIVE GERAN TARR

To: Representative Paul Seaton, Chair of House Health & Social Services Committee

From: Representative Geran Tarr *GT*

Re: Staff Contact, Teleconference and Audio/Visual Request for HCR 21 Hearing

March 4, 2016

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Bernice Nisbett is the staff contact for HCR 21. Her direct line is 465-3424. The main line is 465-4926

I would like place a teleconference request for the hearing on HCR 21 scheduled for Tuesday, March 15, 2016

I will provide a list of individuals we expect to testify, as well as locations, closer to the hearing date.

Additionally, I would like to request a laptop and projector so we can show a power point presentation during the hearing.

Thank you for your time. Feel free to contact me or my aide, Bernice Nisbett, at 465-3424 with any questions, concerns, or comments about the hearing or the resolution.



# ALASKA STATE LEGISLATURE



REPRESENTATIVE GERAN TARR

## HOUSE CONCURRENT RESOLUTION 21

*"Respond to adverse childhood experiences."*

### Sponsor Statement

HCR 21 urges Governor Walker to establish policy and programs to address the public and behavioral health epidemic of adverse childhood experiences (ACEs). Adverse childhood experiences (ACEs) are traumatic experiences that occur during childhood and have a lasting, negative effect on a child's developing brain and body.

The long-term effects of ACEs in Alaska are costly, and high ACE score are linked to social, emotional and cognitive impairment, adoption of health-risk behaviors, disease, disability and social problems and early death. Establishing HCR21 is important because more than 75% of Alaskans have experienced adverse childhood experiences. Alaska has some of the highest ACE rates among the five other states surveyed (Washington, Louisiana, Tennessee, Arkansas, and New Mexico).

Preventing ACEs and supporting those who have experienced childhood trauma will save the State of Alaska significant health care costs. According to a recent report by the Centers for Disease Control and Prevention, the average lifetime cost per victim of nonfatal child maltreatment is over \$48,000 per child. There are thousands of reports of child maltreatment every year in Alaska, meaning we are spending tens of millions of dollars every year for costs related to child abuse.

Alaska also spends millions of dollars annually on corrections, substance abuse, chronic health conditions, and other issues related to ACEs. For example, 40% of current Medicaid use can be attributed to ACEs. A recent report by the Advisory Board on Alcoholism and Drug Abuse found if we could have a modest reduction in the ACEs scores of Alaskans who use Medicaid we could see annual savings of \$39 million in Medicaid spending.

Left unacknowledged and untreated, ACEs can lead to poor health and risky behaviors during adulthood. This includes, but is not limited to physical, emotional, and sexual abuse, physical and emotional neglect, and household dysfunction, such as domestic violence, separation or divorce involving household members, and substance abuse, untreated mental illness, or incarceration of a household member.



# Fiscal Note

State of Alaska  
2016 Legislative Session

Bill Version: HCR 21  
Fiscal Note Number: \_\_\_\_\_  
( ) Publish Date: \_\_\_\_\_

Identifier: HCR 21 - HHSS - 04-04-16  
Title: RESPOND TO ADVERSE CHILDHOOD  
EXPERIENCES  
Sponsor: TARR  
Requester: HHSS

Department:  
Appropriation:  
Allocation:  
OMB Component Number: 0

## Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2017 Appropriation Requested	Included in Governor's FY2017 Request	Out-Year Cost Estimates					
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Services								
Commodities								
Capital Outlay								
Grants & Benefits								
Miscellaneous								
<b>Total Operating</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

## Fund Source (Operating Only)

None								
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

## Positions

Full-time								
Part-time								
Temporary								

<b>Change in Revenues</b>								
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**Estimated SUPPLEMENTAL (FY2016) cost:** 0.0 *(separate supplemental appropriation required)*  
*(discuss reasons and fund source(s) in analysis section)*

**Estimated CAPITAL (FY2017) cost:** 0.0 *(separate capital appropriation required)*  
*(discuss reasons and fund source(s) in analysis section)*

## ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No  
If yes, by what date are the regulations to be adopted, amended or repealed? N/A

## Why this fiscal note differs from previous version:

Initial version. One page, zero note.
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Prepared By: Representative Seaton Phone: (907)465-2689  
House Health and Social Services Committee Date: 04/04/2016





# SEALASKA HERITAGE

February 15, 2016

Patrick M. Anderson, Trustee  
Senior Research Fellow on Childhood Trauma

House Committee Health & Social Services  
The Honorable Paul Seaton, Chair  
State Capitol, Room 102  
Juneau, AK 99801-1182

Re: HCR21

Dear Representative Seaton and Members:

I am writing in full support of House Concurrent Resolution 21, titled "Urging Governor Bill Walker to join with the Alaska State Legislature to respond to the public and behavioral health epidemic of adverse childhood experiences by establishing a statewide policy and providing programs to address this epidemic." As the originator of a small group of Adverse Childhood Experience (ACE) experts who joined together to draft HCR21, it is my belief that the conversation intended through this resolution is timely for a variety of reasons. But before addressing those reasons, let me reveal other states with various degrees of focused attention on the negative impacts of ACE's.

The ACE Study was conducted at Kaiser Permanente in Sand Diego during the 1990's. Dr. Vincent Felitti and Dr. Robert Anda were the co-Principal Investigators of the study, which was funded by the Centers for Disease Control

The Washington State Legislature adopted Chapter 70.305 RCW in 2011. It's stated purpose is "...identify the primary causes of adverse childhood experiences in communities and to mobilize broad public and private support to prevent harm to young children and reduce the accumulated harm of adverse experiences throughout childhood." In 2014, the California Assemble adopted Assembly Concurrent Resolution 155 in which "...the Legislature urges the Governor to reduce children's exposure to adverse childhood experiences, address the impacts of those experiences, and invest in preventive health care and mental health and wellness interventions."

Other states have pending proposals to address ACE's. In Vermont, a physician legislator proposed the first ACE's health care screening bill, "H. 762, The Adverse Childhood Experience Questionnaire." While it has not been adopted yet, it is fostering discussion around the issue. Montana's legislature adopted Senate Joint Resolution 30 in 2011, authorizing a study about the impact of ACE's and with an additional purpose for identifying promising practices to prevent



and intervene. Senate Bill No. 298 was subsequently introduced in Montana under the title, "AN ACT RELATING TO PREVENTION AND REDUCTION OF ADVERSE CHILDHOOD EXPERIENCES; REQUIRING CONSIDERATION OF ADVERSE CHILDHOOD EXPERIENCES IN STATE PREVENTION EFFORTS; REQUIRING FUNDING OF ONE OR MORE PILOT PROJECTS; PROVIDING DEFINITIONS; AMENDING SECTIONS 2-15-225 AND 52-7-101, MCA; AND PROVIDING AN EFFECTIVE DATE." And while Massachusetts has not addressed ACE's with a blanket resolution, it has enacted a safe and supportive schools law requiring education institutions to address the impact of ACE's.

My support assumes that the Committee has information in its possession about the ACE Study, and I will not restate that history. I discovered the study in 2008, and have since been a passionate advocate for seeking state policy to address the deleterious health and behavioral consequences of ACE's. As the former Chief Executive of 2 Alaska Native health organizations, I observed first hand the severe consequences of unaddressed childhood inflicted trauma. Hardly any aspect of life in Alaska is untouched by this trauma. To build support for HCR21, Sealaska Heritage Institute brought Dr. Vincent Felitti to Juneau to discuss the Study during the week of February 8, 2016.

As a member of the American Indian/Alaska Native Task Force on Suicide Prevention, I became aware of the impact having a high ACE score has on suicide attempts. 6% of the original population studied had 5 or more ACE's, and account for a huge percentage of attempted suicides in the United States. Individuals with 6 or more ACE's have, according to Dr. Vincent Felitti, the originator and co-Principal Investigator of the ACE Study as he stated in his public lecture in Juneau on February 9, 2016, about a 20 year shorter life span than one who has no ACE's. Other behavioral issues are abundant in the highly traumatized ACE population at rates often thousands of percent higher than in the general population without this trauma. Behaviors such as alcohol and drug abuse; smoking; domestic violence; promiscuity and the spread of venereal disease; dropout, discipline and violence rates in public schools; poor parenting with its impacts on the child support system; and many others. Such behaviors contribute to the high rates of incarceration in Alaska. A policy discussion on how to address negative ACE outcomes is appropriate and should be facilitated by enactment of this resolution.

Education policy has benefitted from a more complete understanding of the impact of ACE's on students. Jim Sporleder, former Principal at Lincoln High School in Walla Walla, WA, completely overhauled their school discipline policy with outstanding results. Out of school suspensions were reduced by greater than 85% and rates of graduation increased as a result. The San Francisco School board adopted Resolution No. 1312-10A4 in 2014 to address school discipline by using a trauma informed approach. Massachusetts is a leader in helping traumatized children learn through innovative processes, and published "Helping Traumatized Children Learn" in 2005. I introduced this concept to Anchorage School Board Chair Jeannie Mackie and Superintendent Jim Browder in 2012.

Health care policy can benefit significantly from a consideration of the negative health impact of childhood trauma. Many of the negative behaviors seen in considerable volumes among high ACE individual have a cumulative impact on health deterioration and chronic disease. Heart attacks. Chronic Obstructive Pulmonary Disease, auto immune diseases, cancers and a host of other disease are assisted by a compromised immune system. Unrelenting childhood derived stress can create considerable fear and anxiety leading to a constant state of neurobiological activation that eventually suppresses the immune system.



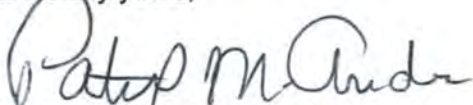
Juvenile Justice and Corrections policy will also benefit substantially from a trauma informed approach. President John Adams, while commenting on Blackstone's commentary, stated "It is more important that innocence should be protected, than it is, that guilt be punished; for guilt and crimes are so frequent in this world, that all of them cannot be punished...." Our Alaska approach of longer sentences and greater prosecution has led to a huge corrections budget. Yet research from other jurisdictions reveals the payback for a trauma informed approach to juvenile justice and education in reducing crime in Alaska. And research has demonstrated the wisdom of addressing childhood trauma within prisons. Although the literature is small, reductions in violence and recidivism from the teaching of Vipassana mediation in 3 prisons found promising results and lowered incident rates. If healing protocols involving mediation and other mind interventions work in prisons, they should work in earlier interventions as well.

As Alaska addresses its current fiscal challenges, we have a choice. We can choose to address the epidemic of childhood trauma and reduce the cost burden to our state in the long run, or ignore it and continue to increase the costs and suffering of our citizens. I think of it this way. One of the 10 ACE's studied was having a parent in prison. The likelihood that having a parent in prison is accompanied by 2 or more additional ACE's is greater than 50%. Our prosecution and sentencing policies have burdened many more children in Alaska with an ACE, accompanied by the likelihood of many more. Our current prosecution and sentencing policies are not only increasing our cost for prisons, but many other costs as well, in schools, local governments, college, the workplace and for healthcare. ACE's are ubiquitous in Alaska.

I encourage the Health & Social Services Committee to report HCR21 from committee unanimously with a favorable recommendation for passing. On February 10, 2016, Dr. Rosita Worl, Dr. Vincent Felitti and I met with Governor Walker, Lt. Governor Mallott, State Medical Jay Butler, MD and Corrections Commissioner Dean Williams and asked for their support for HCR21. Governor Walker committed to looking at the resolution and making a decision about support.

Thank you for considering HCR21 and reading this letter of support. If there is any additional information I can provide for you or the committee, I stand ready.

Gratefully yours,



Patrick M. Anderson, Trustee  
Senior Research Fellow on Childhood Trauma  
Sealaska Heritage Institute

cc. Dr. Rosita Worl  
Representative Geran Tarr  
Representative Neal Foster  
Governor Bill Walker  
Commissioner Dean Williams  
Dr. Jay Butler





2/15/2016

Representative Geran Tarr  
State Capitol Room 409  
Juneau, Alaska 99801

Dear Representative Tarr,

It is with great pleasure to provide this letter of support for the House Concurrent Resolution #21 – Adverse Childhood Experiences. Alaska Children's Trust (ACT) is the lead statewide organization focused on the prevention of child abuse and neglect.

One of our greatest assets is our children. We know that children who experience adversities (ACES) like abuse, neglect and other traumas are more likely to have poor school performance, abuse substances, and end up incarcerated, among other issues. We also know that the best way to help children deal with trauma are resilience factors including good relationships with competent care givers, social and emotional health, and social connections. By understanding this relationship, we can begin to act in a trauma-informed way.

Local data shows that more than two-thirds of adults surveyed report experience adverse childhood experiences at a rate higher than other states. These adversities have a significant cost to our state both economically and socially. This resolution encourages early intervention and investment in children and families to ensure less trauma and greater resilience.

We encourage the Governor and our State Legislators to work towards making Alaska a trauma-informed state by ensuring decisions take into account the principles of early childhood brain development and how trauma impacts that development.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Storrs", with a long horizontal stroke extending to the right.

Trevor Storrs  
Executive Director

First Lady Donna Walker  
*Honorary Chair*

Ginger Baim, *Chair*

Ivy Spohnholz, *Vice Chair*

Ma Wimmer, *Treasurer*

Janie Bahnke, *Secretary*

Ramona Reeves, *Past Chair*

Susan Anderson

Elsie Boudreau

Com. Valerie Davidson

Com. Michael Hanley

Carley Lawrence

Sherry Modrow

Tisa Northcutt

Marcus Wilson

Julie Woodworth

The logo consists of the words "Pick.", "Click.", and "Give." stacked vertically in a white, sans-serif font, set against a solid green square background.



February 22, 2016

Representative Tarr,

I am asking you to urge Governor Walker to join with the Alaska State Legislature to respond to the public and behavioral health epidemic of adverse childhood experiences by establishing a statewide policy and providing programs to address this epidemic. ACEs research supports prevention as a way of addressing this critical issue. Children who have experienced adverse experiences, such as abuse, neglect, and other traumas are more likely as adults to use Medicaid and government food programs, abuse substances and smoke, drop out of high school, become depressed and suicidal, to become obese or have other chronic health issues, experience homelessness, etc. The cost to the State for adverse childhood experiences is estimated to be approximately \$774,000,000 annually, according to the Alaska Mental Health Board and the Advisory Board on Alcoholism and Drug Abuse. Prevention is the only intelligent solution.

Thank you, Representative Tarr, for your consideration and your commitment to making Alaska a better home for our children.

Barbara Pastorino

4935 Wren Drive, Juneau



## Bernice Nisbett


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**From:** Raymond Pastorino <pastorino@gci.net>  
**Sent:** Monday, February 22, 2016 11:22 AM  
**To:** Bernice Nisbett  
**Subject:** Support Resolution NO. 21

Representative Tarr, I am asking you to urge Governor Walker to join with the Alaska State Legislature to respond to the public and behavioral health epidemic of adverse childhood experiences by establishing a statewide policy and providing programs to address this epidemic. ACEs research supports prevention as a way of addressing this critical issue. Children who have experienced adverse experiences, such as abuse, neglect, and other traumas are more likely as adults to use Medicaid and government food programs, abuse substances and smoke, drop out of high school, become depressed and suicidal, to become obese or have other chronic health issues, experience homelessness, etc. The cost to the State for adverse childhood experiences is estimated to be approximately \$774,000,000 annually, according to the Alaska Mental Health Board and the Advisory Board on Alcoholism and Drug Abuse. Prevention is the only intelligent solution. Thank you, Representative Tarr, for your consideration and your commitment to making Alaska a better home for our children.


Barbara Pastorino - 4935 Wren Drive, Juneau.





March 1, 2016

Slowly, it appears to me, our country and Alaskans are awakening to the significance of mental health to the overall health of our population. In addition the importance of very early childhood experiences on lifelong physical and mental health is now well documented by high quality, reproduced evidence. The period from birth to three years where 80% of the adult head size occurs not by producing more neurons but by the development of more connections and interactions between existing neurons. This “wiring” progresses as a result of stimulation and experience as the infant learns. Conversely a lack of stimulation can lead to permanent pruning away of unused neurons (why waste energy on unused neurons?) and permanent lifelong consequences. We also know that our brains are amazing at learning but very poor at unlearning. (Ever try to unlearn how to ride a bike?) These facts taken together clarify why very early childhood experiences of abuse, neglect, conflict, etc. are not “unlearned” but have to be treated later, if they get any attention at all. Without treatment (or prevention) anxiety, depression, substance abuse, shorter life spans and productivity, and cycling of the effects to the next generation occur. This describes a situation where once again prevention clearly is far less expensive and more successful than treatment. Thus I greatly support HCR 21 despite the clear present economic realities. We ALL need to provide all the support we can muster for such an important effort to prevent adverse childhood experiences.



Thad L Woodard, MD  
Pediatrician,  
Alaska Center for Pediatrics,  
Anchorage, Alaska, 99508



## Bernice Nisbett

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**From:** LPNAKA@aol.com  
**Sent:** Wednesday, March 02, 2016 12:44 PM  
**To:** Bernice Nisbett  
**Cc:** Garethh@jys.org  
**Subject:** House Concurrent Resolution No 21

Representative Geran Tarr

03/02/2016

My name is Dr. Peter Nakamura. I have been a residence of Juneau Alaska since 1991. Prior to that date, I Provided and directed health services to our Native American People in the States of Arizona, New Mexico, Oregon, Washington, and Idaho as well as in Anchorage, Bethel, and in the rural communities of the Yukon Kuskokwim and Bristol Bay regions of Alaska. I moved to Juneau in 1991 to serve ten years as the Public Health Director for the State of Alaska under the governorship of our two major political parties. I retired in 2001 and presently participate as a citizen volunteer member of the Juneau Suicide Prevention Coalition. I share my professional resume only to demonstrate that my concern for House Concurrent Resolution No 21 is sincere and based on experiences related to the issues it addresses.

To address significant issues negatively impacting on the lives of our Alaskan people, especially our young children, it is imperative that a statewide policy including programs to address these issues be established and readily accessible to those affected. Adverse childhood experiences have been proven to be a major precursor to the many economic and personal tragedies experienced by our citizens.

The responsible control and hopefully reduction or elimination of these negative life issues requires the identification, monitoring, prevention, and direct intervention by State sponsored Programs involving our State and local leadership, citizens, and professional staff, as well as those endangered with or contributing to adverse childhood experiences.

**Solving the problem first starts with a commitment to address the issue but also requires a commitment to develop and support a comprehensive program addressing the issue of "adverse childhood experiences".**

Thank you for your involvement and efforts on resolution no 21.

Peter Nakamura



2346 Ka See An Drive

Juneau, Alaska





## Bernice Nisbett

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**From:** Gayle Trivette <gayletriv@gci.net>  
**Sent:** Friday, March 04, 2016 10:29 AM  
**To:** Bernice Nisbett  
**Subject:** HCR 21

I am writing to voice my support for HCR 21. Research has shown irrefutably that Adverse Childhood Experiences contribute to a host of problems that are not only costly to the affected individuals but to society. <http://dhss.alaska.gov/abada/ace-ak/Documents/ACEsEconomicCosts-AK.pdf>

In order to be good stewards of Alaska's financial and human resources, it is critical that the recommendations of HCR 21 be followed.

Thank you for your service to Alaska.  
Gayle Trivette  
7870 Glacier Hwy  
Juneau, AK 99801



Dear Governor Walker,

I am writing a letter in support of HCR21. I am a member of Jesuit Volunteer Corps NW/Americorps, and I am serving for a year in Juneau at the Zach Gordon Youth Center. My primary responsibility as a full-time volunteer at the Zach Gordon Youth Center is to build relationships with youth, many of whom who have experienced or are currently experiencing childhood trauma.

The youth who frequent the center are brilliant human beings with ample potential, but they are vulnerable to developing dire physical, emotional, and mental health issues on account of Adverse Childhood Experiences (ACEs). Many of the youth I work with already exhibit the negative effects of trauma through behavioral issues, depression and anxiety, and unhealthy habits like drug and alcohol use.

I am concerned that Juneau, and the state of Alaska, lacks adequate policies and programs to address and prevent childhood trauma. Studies suggest that Alaskans experience Adverse Childhood Experiences at a higher frequency than the national average. Widespread instances of childhood trauma are detrimental to individuals and the community as a whole. The government ought to recognize ACEs and develop comprehensive programs to prevent childhood trauma and provide healing for individuals who have experienced childhood trauma. Not only will programs addressing ACEs build stronger and healthier communities, they will save the state millions of dollars annually in health care costs, corrections, and substance abuse.

Thank you for your consideration,  
Alexandra Douglas





3/4/16

Representative Geran Tarr  
State Capital Room 409  
Juneau, Alaska 99801

Dear Representative Tarr,

Thank you for your work on House Concurrent Resolution 21 regarding Adverse Childhood Experiences (ACEs). The Juneau Suicide Prevention Coalition is pleased to add our support. We are a coalition of nearly 100 Juneau residents. We are survivors, statisticians, volunteers, board members, frontline youth care providers, clinicians, counselors, educators, doctors, and concerned citizens. We see firsthand the impact of childhood trauma, neglect, and abuse and are focusing our efforts on breaking the link between childhood trauma and suicide.

Nationally, Alaska is first in some wonderful things—wilderness, scenery, natural resources, mountains, and miles of coastline. Our fisheries remain the envy of much of the world. Hike a mountain in Alaska and the mountains go back and back and back. The sun sets and rises seamlessly. The salmon run our clean, gleaming streams.

As noted in House Concurrent Resolution 21, we are also first in ACEs. Two-thirds of our citizenry report traumatic childhood experiences at rates higher than other surveyed states. In 2009 Alaska had the highest ACEs scores in sexual abuse, family member incarceration, substance abuse, and divorce. Alaska scored a very close second in every other category. When looked at in this light, our fish are often better set up for success than our most valuable resource—our children.

A person with four or more ACEs is 12.2 times more likely to commit suicide, 10.3 times more likely to use injection drugs, and 7.4 times more likely to be an alcoholic. We score highest in four categories. We know that these levels of toxic trauma and stress are not only driving addiction but damaging brain development, and impacting our youth's ability to learn and make healthy choices. The Alaska Mental Health Board and the Alcoholism and Drug Abuse Advisory Board estimate this is costing us, as a state, approximately \$774,000,000 a year.

The Juneau Suicide Prevention Coalition encourages our state legislators and Governor to work closely with each other to create more trauma-informed schools, increase risk screening in primary care, support early-childhood and parenting programs, as well as develop programs that address the high cost and impact of ACEs on Alaska's youth and communities.

Sincerely,

Gareth Hummel  
Suicide Prevention Specialist  
On behalf of  
The Juneau Suicide Prevention Coalition



## Bernice Nisbett

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**To:** Rep. Geran Tarr  
**Subject:** RE: Support HCR 21 to help our children

**From:** Anne Fuller [mailto:fernleafgt@yahoo.com]  
**Sent:** Sunday, March 06, 2016 9:01 PM  
**To:** Rep. Geran Tarr <Rep.Geran.Tarr@akleg.gov>  
**Cc:** Rep. Sam Kito <Rep.Sam.Kito.III@akleg.gov>; Rep. Cathy Munoz <Rep.Cathy.Munoz@akleg.gov>; Sen. Dennis Egan <Sen.Dennis.Egan@akleg.gov>  
**Subject:** Support HCR 21 to help our children

Ms. Tarr,  
Thank you for introducing the HCR 21 in the legislature this year.  
We should consider the research that shows trauma is a root cause of problems that cost so much (from addiction, violence, chronic illnesses).

Building a society which reduces adversity for youngsters is exactly what we need to be doing. Leaving our vulnerable ones to self-medicate, to flee, or to fight is not teaching them ways of living in harmony with other people and with nature.

We know that the statistics for domestic violence, child abuse, suicide and more in Alaska are horrifying. We know that past institutions, individuals, and policies have hurt children. Yes, understanding that schools in the past have damaged students means we need to also understand how schools now can heal students. This resolution is a way to address the issue and create statewide solutions.

Anne Fuller  
7943 N Douglas Hwy  
*Juneau, AK 99801*



**Sam Trivette**  
**7870 Glacier Hwy.**  
**Juneau, AK. 99801**  
**[907] 789-0732 or 789-5116**  
**samtriv@gci.net**

**March 9, 2016**

**Representative Geran Tarr**  
**Alaska House of Representatives**  
**State Capitol, Rm. 409**  
**Juneau, AK 99801-1182**

**RE: HCR 21**

**Dear Rep. Tarr:**

**Thank you for your work and your collaboration with other Alaskans to get one of the co-authors of the Adverse Childhood Experiences Study [ACES] to Juneau, to present seminars and community work sessions. His knowledge and experience with these issues were invaluable.**

**I have been a member of the Juneau Suicide Prevention Coalition for over 8 years. The coalition has received accolades for its innovative work with suicide prevention. We have an astounding group of expert volunteers that are always looking to improve services to Alaskans. Several years ago, we became aware of ACES and its impact on greatly increasing the risk of suicide when individuals have experienced ACES. That is a large part of one of the grants the Coalition has, and JSPC has been working diligently to educate more and more Alaskans.**

**If we hope to break the cycle of abuse and neglect, we will need to enlist the help of medical professionals, counselors, school, religious leaders, and other leaders in our communities. The costs to society are huge and we simply cannot afford ignore the impact of ACES.**



**Accordingly, I strongly support this resolution. You have done an excellent job in laying forth the research that supports the need to begin to slow down and reverse ACES in Alaskan communities.**

**Very sincerely**

**Sam Trivette**

**HCR 21**



March 13, 2016

Dear Representative Geran Tarr,

My name is Matt Hirschfeld MD/PhD, and I've been a pediatrician in Alaska for over 10 years. By writing this letter, I'm showing my support for HCR 21.


HCR 21 urges Governor Walker to establish policy and programs to address the public and behavioral health epidemic of adverse childhood experiences (ACEs). Adverse childhood experiences (ACEs) are traumatic experiences that occur during childhood and have a lasting, negative effect on a child's developing brain and body. The long-term effects of ACEs in Alaska are costly. High ACE scores are linked to social, emotional and cognitive impairment; adoption of health-risk behaviors; disease; disability and social problems; and early death. More than 75% of Alaskans have experienced adverse childhood experiences. Alaska has some of the highest ACE rates among the five other states surveyed (Washington, Louisiana, Tennessee, Arkansas, and New Mexico).

Preventing ACEs and supporting those who have experienced childhood trauma will save the State of Alaska significant health care costs. According to a recent report by the Centers for Disease Control and Prevention, the average lifetime cost per victim of nonfatal child maltreatment is over \$48,000 per child. There are thousands of reports of child maltreatment every year in Alaska, meaning we are spending tens of millions of dollars every year for costs related to child abuse. Alaska also spends millions of dollars annually on corrections, substance abuse, chronic health conditions, and other issues related to ACEs. For example, 40% of current Medicaid use can be attributed to ACEs. A recent report by the Advisory Board on Alcoholism and Drug Abuse found that with a modest reduction in the ACEs scores of Alaskans who use Medicaid, we could see annual savings of \$39 million in Medicaid spending.

Left unacknowledged and untreated, ACEs can lead to poor health and risky behaviors during adulthood. This includes, but is not limited to, physical, emotional, and sexual abuse; physical and emotional neglect; and household dysfunction, such as domestic violence, separation or divorce, and substance abuse, untreated mental illness, or incarceration of a household member

In short, supporting HCR 21 is a vital step to reducing ACEs in Alaska, and I wholeheartedly endorse the resolution. Please don't hesitate to contact me with any questions or clarifications regarding this letter.

Sincerely,



Matt Hirschfeld, MD/PhD





# Sunshine Community Health Center

HC 89 Box 8190, Mile 4.4 Talkeetna Spur Rd, Talkeetna, AK 99576  
Willow Clinic: PO Box 1049, 24091 Long Lake Road, Willow, AK 99688  
Telephone: 907-733-2273 Fax: 907-733-1735 E-Mail: [SCHC@sunshinedclinic.org](mailto:SCHC@sunshinedclinic.org)

March 15, 2016

Dear Governor Bill Walker,

Child abuse and neglect in Alaska are a chronic and devastating problem. To overcome the high rates of trauma experienced by our children and youth, prevention efforts need to be deployed at multiple levels.

Unfortunately, the trauma and sustained toxic stress associated with child abuse, neglect and a list of other adverse childhood experiences (ACEs) such as incarceration of a parent and drug and alcohol abuse have been shown to undermine a child's healthy development. Such factors damage the developing brain and adversely impact a child's learning and behavior, making academic achievement more difficult. Moreover, such factors increase susceptibility to physical and mental illness and put children at higher risk for involvement in delinquent and/or criminal activities. When children do not have equal opportunity for healthy growth and development, we are putting the future society of Alaska at risk.

The long-term effects of ACEs in Alaska are costly. High ACE scores are linked to social, emotional and cognitive impairment; adoption of health-risk behaviors; chronic medical diseases; disability and social problems; and early death. More than 65 percent of Alaskans have experienced adverse childhood experiences in their lifetimes. Additionally, Alaska has some of the highest adverse trauma rates among the five other states surveyed by the Behavioral Risk Factor Surveillance Systems survey (Washington, Louisiana, Tennessee, Arkansas, and New Mexico).

Preventing childhood trauma and supporting those who have experienced childhood trauma will save the State of Alaska significant costs across the board including spending on health care, Medicaid, incarceration and juvenile justice systems. According to a recent report by the Centers for Disease Control and Prevention, the average lifetime cost per victim of nonfatal child maltreatment is over \$48,000 per child. There are thousands of reports of child maltreatment every year in Alaska, meaning we are spending tens of millions of dollars every year for costs related to child abuse.

Sunshine Community Health Center supports HCR21 as one component of a statewide prevention system needed to help reduce traumatic experiences among our children, but also as an investment in our state's infrastructure and future.

Sincerely,

Shelis Jorgensen, DNP, ANP  
Medical Director



March 16, 2016

Donald E. Roberts Jr.  
264 Lilly Drive  
Apt C2  
Kodiak, AK 99615

Alaska House Health and Social Services Committee  
Alaska House Finance Committee

RE: Support for HCR 21 – Respond to Adverse Childhood Experiences

Members of the Alaska House Health and Social Services and Finance Committees, my name is Don Roberts, I have lived in Alaska Since May of 1997. I offer my unequivocal support for HCR 21 which “urges Governor Walker to establish policy and programs to address the public and behavioral health epidemic of adverse childhood experiences (ACES)”.

You’ve heard that “an ounce of prevention is worth a pound of cure”? Acknowledging and addressing adverse childhood experiences is that “ounce of prevention.” And while prevention is not always possible, being able to resolve these experiences early is far more effective than waiting, or worse, doing nothing.

Without delving too far into my personal life my childhood was rife with such experiences: domestic violence, racial violence, parental separation, family sickness (my mother had Multiple Sclerosis and had gran mal seizures – something I had to experience and help my mother with as my parents were separated) and childhood poverty. Now at the age of 58 I am dealing with a number of health issues, many of which could have been prevented (or assuaged had the resources been available to me) and I would not be languishing in poverty.

As the ACES studies have been around since the late 1980s I think it’s time for Alaska to catch up to other states and makes use of the research and resources available so that other people will not live in perpetual ill-health and poverty.

Thank you.

Donald E. Roberts Jr.





THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

## Department of Health and Social Services

ALASKA MENTAL HEALTH BOARD  
ADVISORY BOARD ON ALCOHOLISM  
AND DRUG ABUSE

431 North Franklin Street, Suite 200

Juneau, Alaska 99801

Main: 907.465.8920

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March 29, 2016

Representative Paul Seaton, Chairman  
House Health and Social Services Committee  
State Capitol Room 102  
Juneau, Alaska 99801

Re: HCR 21 – Adverse Childhood Experiences

Dear Representative Seaton,

The Alaska Mental Health Board and the Advisory Board on Alcoholism and Drug Abuse support House Concurrent Resolution 21 in response to the impact of adverse childhood experiences (ACEs) in Alaska. The Boards have been instrumental in educating Alaskans about ACEs through use of specific data regarding the childhood experiences of Alaskans of all ages and the impact adverse events have throughout a lifetime, and we appreciate the work of Representative Tarr and your community to expand the knowledge base on ACEs in Alaska.

More than two-thirds of Alaskan adults experienced ACEs prior to their eighteenth birthday. The neural networks being “wired” in the developing brains of children and youth are especially susceptible to traumatic events. Research is showing that ACEs can affect the normal development of children and that these are the mechanisms behind the poor outcomes associated with childhood trauma. From poor school and work performance to substance abuse and mental illness to poor physical health outcomes, the link to ACEs has been shown in Alaskan and other states’ populations as well. Hundreds of millions of Alaska’s dollars in state and private funds are spent each year as a result of traumatic events experienced during childhood. Even modest reductions in childhood trauma would have immediate and long-term benefits to our state financially and socially.

All over Alaska, communities are addressing ACEs in big and small ways. HCR 21 recognizes and supports the need continued research and evidence-based efforts to prevent and mitigate the impact of ACEs. Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "J. Kate Burkhart".

J. Kate Burkhart  
Executive Director

cc: Representative Geran Tarr



March 29, 2016

Dear Representative Seaton,

Child abuse and neglect in Alaska are a chronic and devastating problem. To overcome the high rates of trauma experienced by our children and youth, prevention efforts need to be deployed at multiple levels.

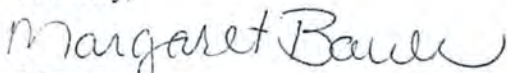
Unfortunately, the trauma and sustained toxic stress associated with child abuse, neglect and a list of other adverse childhood experiences (ACEs) such as incarceration of a parent and drug and alcohol abuse have been shown to undermine a child's healthy development. Such factors damage the developing brain and adversely impact a child's learning and behavior, making academic achievement more difficult. Moreover, such factors increase susceptibility to physical and mental illness and put children at higher risk for involvement in delinquent and/or criminal activities. When children do not have equal opportunity for healthy growth and development, we are putting the future society of Alaska at risk.

The long-term effects of ACEs in Alaska are costly. High ACE scores are linked to social, emotional and cognitive impairment; adoption of health-risk behaviors; chronic medical diseases; disability and social problems; and early death. More than 65 percent of Alaskans have experienced adverse childhood experiences in their lifetimes. Additionally, Alaska has some of the highest adverse trauma rates among the five other states surveyed by the Behavioral Risk Factor Surveillance Systems survey (Washington, Louisiana, Tennessee, Arkansas, and New Mexico).

Preventing childhood trauma and supporting those who have experienced childhood trauma will save the State of Alaska significant costs across the board including spending on health care, Medicaid, incarceration and juvenile justice systems. According to a recent report by the Centers for Disease Control and Prevention, the average lifetime cost per victim of nonfatal child maltreatment is over \$48,000 per child. There are thousands of reports of child maltreatment every year in Alaska, meaning we are spending tens of millions of dollars every year for costs related to child abuse.

Alaska Early Childhood Advocacy Group supports HCR21 as one component of a statewide prevention system needed to help reduce traumatic experiences among our children, but also as an investment in our state's infrastructure and future.

Sincerely,



Margaret Bauer  
Chair AK Early Childhood Advocacy Group







# BEST BEGINNINGS

## Alaska's Early Childhood Investment

March 31, 2013

Dear Rep Tarr,

I'm writing in support of HCR 21, urging Governor Walker and the Legislature to establish statewide policies and provide programs to address the public and behavioral health epidemic of adverse childhood experiences.

April is Child Abuse Prevention Month and is a perfect time to take up this resolution and actions.

In the first few years of life, a baby's brain makes 700 synapses or neural connections every second, a phenomenal exuberance of activity. Neural connections are formed through the interaction of genes and a baby's environment and experiences, especially "serve and return" interaction with adults. These are the connections that build brain architecture – the foundation upon which all later learning, behavior, and health depend.

Significant adversity impairs development in the first three years of life – and the more adversity a child faces, the greater the odds of a developmental delay. There is a 90-100% chance of developmental delays when children experience six to seven risk factors. We learned recently that young children in Alaska have acquired half of their accumulated adverse childhood experiences by the age of 3.

Clearly, it is more effective and less costly to positively influence the architecture of a young child's developing brain than to try to make up for inadequate learning opportunities, poor health, and negative behaviors later in life.

As is stated in the resolution, we strongly promote early investment and intervention in early childhood years as important strategies to achieve a lasting foundation for a more prosperous and sustainable state.

Best Beginnings supports HCR 21 as one component of a statewide prevention system needed to help reduce traumatic experiences among our children.

Sincerely,

Abbe Hensley, Executive Director

3350 Commercial Drive, Suite 104A • Anchorage, Alaska 99501  
t. 907.297.3300 • f. 907.297.3304 • [BestBeginningsAlaska.org](http://BestBeginningsAlaska.org)

*Best Beginnings* is a public-private partnership that mobilizes people and resources to ensure all Alaska children begin school ready to succeed.



## Alaska Association for Infant & Early Childhood Mental Health



AK-AIMH

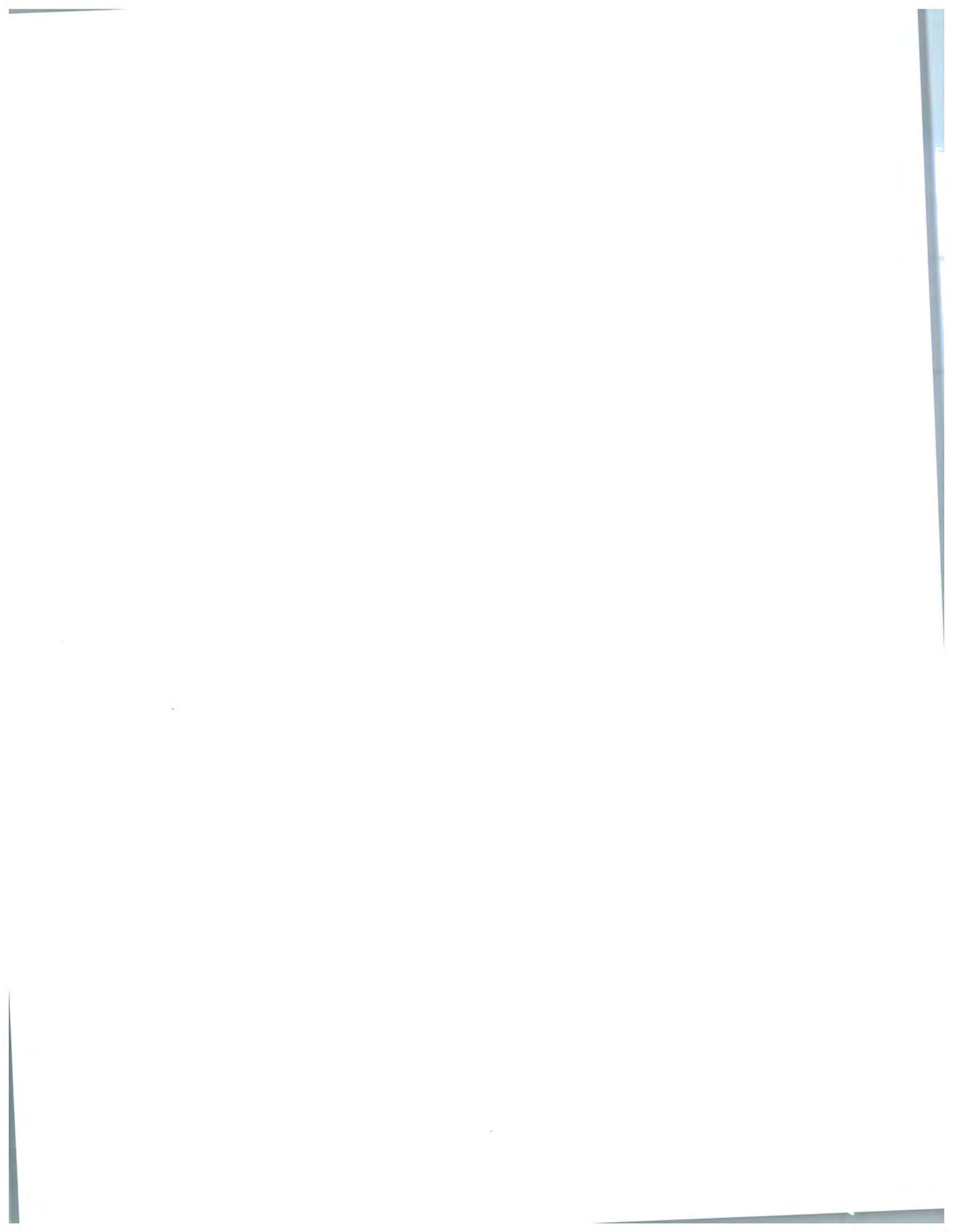
April 1, 2016

This letter is to support House Current Resolution 21 introduced by Representative Geran Tarr that urges Governor Walker to establish policy and programs to address the public and behavioral health epidemic of adverse childhood experiences (ACEs). The Alaska Infant and Early Childhood Association is a non-profit organization whose mission is to support the social and emotional well-being of children between the ages of 0-5 and their families. Our main focus is centered on educating the general public about infant mental health as well as building capacity in the workforce to be able to provide appropriate services to this specific group of children.

The infant mental health professionals who work in this field witness the effects of ACE's on infants and very young children. To catch up and to keep pace with the science of child development, we must ensure that Alaska creates a continuum of strategies and programs to prevent mental health problems, to promote social and emotional well-being, and to treat mental health disorders beginning in pregnancy and continuing on throughout the early years of life and beyond. Contrary to common belief, mental health problems can occur in children under the age of 5 years. Mental health problems for infants and young children might be reflected in physical symptoms, delayed development, inconsolable crying, sleep problems, aggressive or impulsive behavior, and paralyzing fears. Over time, untreated symptoms of mental health problems can "take root" in young children and accumulate to seriously affect their ability to learn and functions. Because infants and young children develop in the context of close, consistent relationships, their own emotional well-being is directly tied to the emotional functioning of their caregivers and families. Untreated parental depression, substance abuse, domestic violence, and trauma disrupt parenting and can affect the mental health of children.

Research demonstrates that early prevention and treatment strategies are more beneficial and cost-effective than attempting to treat emotional difficulties and their effects on learning and health after they become more serious. Therefore it is imperative that Alaska's state policy decisions acknowledge and take into account the importance of the early years offer a unique window of opportunity to prevent the intergenerational transmission of the effects of ACE's and heal the effect of ACE's on the caregivers of infants and toddlers.

Sincerely,  
Alaska Infant and Early Childhood Mental Health  
Board of Directors



## Recognizing and Healing Your Toxic Stress

You have a lot going for you as an adult. You have a good job. You might be in a relationship you are happy with. You might even be at the top of your field, recognized for the work you do and envied for the life you lead. Or you might just be making do. You think you are resilient because you came from humble, or a modest, background, and made it. You survived a rough childhood. Sure you feel down at times. And yes, you have certain feelings in your body and mind, but you have them under control. You are tough, and you power through obstacles, barriers and problems. Maybe you have a bit of an anger problem, but your family and friends understand. They give you some slack. And when you go out for an evening, you take a cab home instead of drive. You have pretty decent control of your life, and most of the time you believe you have it under control.

Or do you?

The science of life and living has advanced a lot in the past 30 years. We recognize that we can endure a lot of abuse during childhood, and survive. Do we have a choice? As children, we cannot change our environment. The parents we are born to are the parents we must rely on to raise us. And what happens to us as children matters. And what happens to us as children happens because we have the parents we have. Now this is not an attack on parents. What may have happened to you probably happened to them. And what happened to them is probably happening to you. You might be doing well as an adult, but you have issues. Well, they had issues too, so you grow up believing that the issues you share are issues faced by everyone. But they are not.

If you grew up with certain experiences in common with your parents, a combination of brain adaptation and culture leaves you with an approach to life that may not be ideal, or even satisfactory. You might have what the American Academy of Pediatrics refers to as Toxic Stress, or stress experienced at a time when your brain was developing rapidly. And if you have Toxic Stress, you probably don't know it. You think you are normal and just have bad luck. Or you have found a way to convince people that you are who you are and they need to accept you as you are. What is Toxic Stress, and how come you aren't aware of it if you have it?

In the 1990's, a ground breaking study was conducted at the Kaiser Permanente medical center in San Diego. 17,400 patients were asked questions about their childhood experiences. The results shocked the scientists who conducted the study. What they found was that 10 experiences that many children had while growing up had a strong impact on both their health and behaviors as adults. Here is one to the results. If you had 6 of the experiences asked about, your life expectancy was 20 years shorter than an adult who had none of them. Instead of living until your 80's, you only make it to your 60's. In scientific terms, the study showed both cause for the health and behavior outcomes, and significant correlation. What happened to you has a child was found to matter, a lot.

The study was called the Adverse Childhood Experience Study (or ACES). And the 10 questions that were asked leads to a profile of pretty common childhood experiences shared by many adults. Here they are. Remember. The question is, did you experience this during childhood?

- Did you have an absent biological parent
- Was one or both your parents an alcoholic

- Did you have a parent or family member in prison
- Was one of your parents or family members depressed or have a mental illness
- Did you witness your mother being treated violently in the household
- Were you a victim of contact sexual abuse
- Were you physically abused
- Were you emotionally abused
- Were you physically neglected
- Were you emotionally neglected

The results showed that the experiences were common among a significant portion of the studied population. And the population that participated in the study weren't just a troubled population. For the most part, they were white, employed and middle class, most with some college and middle aged (average age of 57). This was a group of successful people. But they often had dark sides because of what happened to them. Successful but damaged.

Let's examine how many people had ACE's by the number experienced. But first, let's make it clear that not everyone experiences every negative we discuss. The more ACE's you have experienced, the more likely it is that you will have a behavior or health outcome, but it doesn't mean that you will have them. Part of the population studied had no ACE's, but still have some of the poor health or behavior outcomes. And part of the population with 7 or more ACE's might not have any (although unlikely). And if you have health or behavior outcomes, how severe they become varies greatly. There is no common experience, and that makes it somewhat difficult to accept being a victim of Toxic Stress. The first step is to answer the questions about the 10 experiences listed above, and see how many you think you had growing up (birth through age 17).

Growing up with multiple ACE's has an impact on your growing brain. Each ACE represents a threat to a child and their brain develops with each treat in mind. We are all born with an instinctive response to threats. Your Threat Response is automatic. You don't really know about it. It's not triggered by the fear of emotion. In nature, if your brain waited to recognize fear and react to it, you might be injured or dead. The Threat Response prepares your body to "Fight, Flee or Freeze." To prepare your body, the Threat Response releases a chemical that starts a chain of reactions in your body. Oxygen and Glucose (energy) flow to your Prefrontal Cortex, the thinking part of your brain, is diminished. Cortisol is dumped into your blood and your body prepares for physical activity and healing from injury if that happens. Adults who have had multiple ACE's while growing up have a Threat Response that is more frequent than Adults who have not had ACE's. Because of what happened to you as children, you are different. But you don't know that because your life is the only one you are familiar with. You don't recognize if you have Toxic Stress. But your brain does. And your brain will do all it can to help you survive. That's its mission.

So let's assume you have multiple ACE's, and you have certain types of feelings. You feel afraid a lot. Or you are frequently angry and acting out. Perhaps you experience incredible anxiety and fear what might happen to you. Now you are feeling the Emotions that attach to what your body does. The two major emotions you feel are Fear (from experiences in your past) and Anxiety (worried about what might happen in your future). However your emotions develop, they are linked to the way you were raised. And that, too, is different from how others you know were raised. You are unique. No one else has either the same experiences you have, nor have they developed the way you did. And that's neither good nor bad. It just is.

With multiple ACE's, your brain is busy meeting the threats it believe it is experiencing. And it does so a lot. But because you aren't typically need to flee or fight, you spend most of your time in a freeze state. Your body is not using up the chemicals your brain produces to help you flee or fight. When you freeze, your body must find other ways of neutralizing the chemicals. So they are either stored, channeled into behaviors or dissipated in other ways your brain finds soothing. A lot of things have been happening because of your Toxic Stress, and this is just one of several way your body might react.

As a baby, there isn't much you can do to reach to activation of your Threat Response. You can fuss, cry and seek comfort in food. Perhaps your mother gives you a bottle with a sugary drink in it. Your brain recognizes an accelerated dose of glucose from the sugar and reacts positively. Your brain decides it wants more sugar, so it causes you to learn how to get more sugar. You might cry or fuss until you get it. Or you might seek it out when you learn how to crawl or walk. You may avoid certain foods in favor of the sugary foods. Your brain knows that sugar makes you feel better and it makes sure you learn how to get more of it.

And then you get a cold. Your parents don't happen to have a pediatric alcohol free cold formula around so they give you some of theirs to try and soothe you. The alcohol hits your brain and WOW, it feels great. You get some relief from your Toxic Stress. So the brain remembers the feeling and looks for every opportunity to get more. As you start walking, you might use the fight part of your threat response to take a toy away from a playmate. And your brain feels good. The little fight you have to get the toy gives you pleasure twice. You dissipate of the the Threat Response chemicals and you get something that makes your brain feel good—the toy. If you parents smoke around you, the brain remembers how the smoke makes it feel. As you grow older, some things make you feel better. There are many things that can make you feel better, but some are not available to everyone. Perhaps you are a good looking child and adults tell you how beautiful or handsome you are. That's more brain candy and pretty soon you start seeking our compliments. You start paying attention to how you dress and if you get a compliment about your clothing, your brain recognizes it and pretty soon you start thinking about clothing and what to buy. Do you get the idea now? Your brain finds something that makes it feel better, and helps you find ways to get more of it. Positive brain chemicals are chased by your brain and the behaviors it is teaching you to offset the Toxic Stress brain chemicals. And because positive brain chemicals don't last very long, the source of stimulating more of the positive brain chemicals is done more and more. In some, this is the start of addiction.

Now I hope to explain that there are differences in the types of stimuli your brain seeks. I refer to them as Positive, Neutral and Negative.

Negative behaviors are the ones that are either prohibited, frowned upon or punished. Smoking, drug or alcohol use, domestic violence or bullying, suicide, depression, promiscuity and other offensive behaviors provide stimuli that makes your brain feel good. So you keep doing them unless the consequences for doing them become severe and you stop.

Neutral behaviors are behaviors that people have no real judgments about. If you play Bingo or Pull Tabs, it excites your brain with the prospect of winning and having cash to get things your brain wants. But no one is really offended unless you reach the point of relentless gambling. Some women refer to "retail therapy" as a way to feel good. You dream of buying the jewelry, shoes or clothes that bring out compliments from those who are around you.

Positive behaviors are behaviors that help you succeed, but don't necessarily heal your Toxic Stress. And yes, very successful people suffer from Toxic Stress. A positive behavior is one you get praised for, and your brain tells you to repeat it frequently so you get more praise. When you are a teenager, being successful in academics, sports, arts and other very public involvements can earn you praise. Since the praise makes your brain feel better, you chase that success like an alcoholic chases the next drink. For many, Promiscuity is a Positive that can quickly turn into a negative. Being sought out by prospective partners can make you feel pretty good about yourself, but the reality of spending time with someone who eventually lets criticism take the place of what was once constant praise can be difficult for some people. And, of course, an addiction to one person can lead to domestic violence and stalking behaviors.

Most victims of Toxic Stress will combine all 3 types of behaviors in a mixture that keeps them out of too much trouble. But as I mentioned, a Positive can quickly turn into a Negative. A Neutral can become either. But our brain will seek out a mixture of behaviors that ultimately mould us into a distinct person. While being successful in our profession, we may have had multiple marriages and relationships. Perhaps we drink a lot after work, which isn't bad for careers until it slips into alcohol abuse. We may physically or emotionally abuse those we love, and start the process of transferring our Toxic Stress to the next generation. Maybe we cross the line and, despite our success, end up in jail. It happens to many people. And the sadness of it all is that justice is very selective. If 22% of the population studied during the ACE Study were sexually abused as children, then why isn't 22% of the U.S. population in jail. It's because law enforcement is selective.

What I hope you learn from this is that we are all unique and the circumstances of our birth control, in many respects, who we become. If we grow up with a heavy burden of Toxic Stress, we might end up on the street as a homeless addict. But we could just as well end up as a CEO, politician or successful professional—always just a step away from complete and total destruction of our lives. I have argued that we need to be more tolerant of those around us, and not judge, blame nor shame them for who they turned out to be. Instead, we should help everyone explore what made them the way they are today—successful or not—and let them make the choice about truly healing from whatever Toxic Stress they have experienced while growing up.

So I encourage you to explore your history and try to understand who you have become, without judging or criticizing yourself or those who may have inflicted the Toxic Stress on you. Doing so is important for your personal happiness. Not everyone has multiple ACE's. In the study, 6% of the 17,400 participants had 5 or more ACE's. That's just 1,050 people. But that is significant. In the U.S. population, 6% is more than 20 million people. If you have multiple ACE's, numerous Positive, Negative and Neutral Behaviors and are unhappy or family and friends are unhappy with you, you could benefit from healing from your Toxic Stress. That will be the topic for the next paper in this series.

## Healing Your Toxic Stress (Part 2)

OK. You have assessed your Trauma Profile and determined that you have 6 ACE's in total. I use that number because it's how many I have identified in my life. Let me caution you before we start with healing. You might be angry at your parents, or those whom you believe, inflicted this Trauma Burden on you. The chances are very good that they also had a heavy trauma burden. Their behaviors most likely developed because of their ACE's, and they have the same probability of developing in you as they did in them. The power of family and neighborhood culture is powerful, and interacts with your Trauma Burden to develop your behaviors. Because you see their behaviors regularly, you will most likely adopt many of them.

Bear in mind that if you have debilitating high levels of trauma and are at risk of harming yourself, this healing protocol is not where you should start. If you need level 5, professional assistance, go there first. And don't be embarrassed about seeking level 5 help. Remember that what happened to you during childhood is likely the cause for your need. And if it isn't, then something that happened to you as an adult may be the cause. You do not need to feel ashamed.

If you don't seek level 5 help, then your first step in healing has been finished. And even if you are seeking level 5 help, this healing protocol can help you a lot.

You assessed your Trauma Burden and accepted its presence. If you can do that without anger, you now have the "Knowledge" that will help you heal. Healing involves acceptance and acknowledgement of your problems. Once you have done that, you can start to work at healing them.

Why is knowledge important? Dr. Vincent Felitti, a Principal Investigator of the ACE Study, found that Knowledge alone reduced the frequency of patient visits to a doctor by one third for a period of time after the Knowledge was acquired. And many doctors say they have difficulty finding cause for many medical symptoms in some patients. Shorthand for not finding any medical reason for symptoms is referred to as "Medically Unexplained Symptoms" or MUS. Research says that the reason for a lot of MUS is stress, in the form of fear and anxiety. Higher ACE Patients have higher levels of stress than lower ACE patients, and higher levels of medical and MUS visits. If your acceptance of this Knowledge is complete, and you acknowledge that many of your behaviors, Negative, Neutral and Positive, can be linked to the number of ACE's you have, you have taken the first step to healing. You understand your problems and why they exist. It's not genetic, it's not because you are a bad person, and it's not because you just are who you are. You can improve those problems that you recognize and accept

The second step I recommend for healing is based on nutrition. Many of us have poor diets. We are heading to chronic disease for a variety of reasons we need to take care of. But first, I have 3 recommendations.

Most of us do not get enough Omega 3 fatty acids. Our traditional sources of Omega 3's are not longer present. If you eat farmed fish instead of wild fish, they are deficient in Omega 3's. Meat animals and fowl raised on corn or seed usually don't have much Omega 3's. Omega 3's come from plant and algae sources that are also consumed by fish and animals. The impact of Omega 6 deficiencies show up in a lack of ability to learn, mood such as anger, and have been demonstrated to be a factor increasing suicides among U.S. Veterans. In a couple of

experiments in prisons, prisoners supplemented with Omega 3's have about a third fewer violent episodes than a non-supplemented group. And among grade school students who took Omega 3 supplements, some informal experiments have produced significant improvements in learning in the supplemented group over a non-supplemented group.

Vitamin D3 deficiencies are also common in the United States, which may contribute to depression and mental issues. And for individuals who have an inability to properly metabolize the B Vitamins, supplementation may have significant benefit, especially for people with problems with alcohol.

Nutrition may very well play a significant healing role for those of us who have multiple traumas, and should be tried before starting the next step.

The third level of healing focuses on exercise. When our brain perceives a threat, it automatically responds by releasing chemicals that prepare your body for fighting, running or, if you can do neither, freezing. Childhood trauma "Habituates" our threat response system, the hypothalamus, pituitary and adrenal glands, to higher levels of these chemicals. This means there must be more of the chemical produced in order to get a response. Think of alcohol use. The first time you use it, you can appear drunk after a few drinks. Later on, after lots of drinking, your blood alcohol levels can reach very high levels without the appearance of being drunk when you first start drinking.

The main stress response chemical is Cortisol. Cortisol forces the release of Adrenaline, Epinephrine and Norepinephrine, among others. While the stress chemicals are released to prepare you for action, we rarely get to use them by fighting or fleeing. Think about it. When you are stressed by the actions of your boss at work, fighting or running will lose you your job. If you are stressed by your romantic partner, hitting will get you in criminal trouble and running (which we do anyway) will most likely end the relationship. And when you are a child, you really can't fight effectively against adults or bigger people, and you can't run away for very long because you are very dependent on your caregivers. Believe me, I tried as a 4 year old to run away and didn't make it very far.

Our goal in this third phase of healing is to restore balance through exercise, specifically a set of exercise referred to as "Trauma Release Exercise" (TRE). Developed by Dr. David Berceli, TRE helps the body release deep muscle stress, tension and trauma. A series of 7 exercises, followed by laying on your back on a floor with your feet on the ground and your knees up, induces tremoring, a rhythmic shaking of your body. Because your body is a complex system, TRE engages your muscles to use up the chemicals through the exercises and the followup tremoring.

Why does TRE work? Well, after an animal freezes, they don't release their stress chemicals by fighting or fleeing. When the threat has passed, they begin to tremor. If you want to see a Polar Bear tremoring after a stressful event, look at this video. ([Polar Bear Link](#))

Humans also tremor when they are under great stress. Tremoring helps restore you back to a more balanced state. Exercise also releases endorphins, a chemical that helps to fight pain and stress. Other types of exercise can support balance and the release of endorphins by soothing

and calming through slow and rhythmic movement. They include Yoga, Tai Chi and Qi Jong, among others.

A fourth level of healing is one that I sometimes refer to as mentally exercising away your fear and anxiety. This explanation requires a little bit of back ground. You have a threat response system. It doesn't connect to any emotions. When your brain senses a threat, it reacts. If you had to think before you reacted, you would most likely be injured or dead. Because the threat response developed when real physical threats existed, it still reacts that way. But as I mentioned earlier, fighting or running, although they are totally normal reactions to threats, can have bad consequences in our lives. What now happens is that our emotions become connected to our threat response because of the culture we grow up in. We actually learn emotional responses like fear and anxiety because, I believe, we are not able to dissipate the Threat Response chemicals like nature intended. So we develop a capacity for unnecessary worry. Our fear response is linked to our past and because we dwell on it, it gets strong enough to activate our stress response. Anxiety is worry about the future. And because we are afraid of things that might happen to use, it also activates our stress response. Either way we lose. We build up stress chemicals and can't dissipate them unless we know about them.

So how do we mentally exercise the stress away? We first need to learn how to become aware of what our body feels like when we encounter stress. As Cortisol is produced, our body reacts. We become tense, anxious, fearful, tired, angry, flighty, sweaty and a host of other feelings that translate through mental reactions. We react by scanning (looking for danger), hiding (sitting in a corner with our backs to a wall so nobody can sneak up), startling quickly, and in extreme cases through actions such as disassociation (mind separates from our body). Our goal is to become aware of when our body is escalating its alertness to threats, and our emotional reactions to the fear and anxiety this threat generates. We have similarities to our threat response, and we have differences. Our threat profile is personal, and may change over time. We need to become aware of escalation and counter it. I refer to escalation as our response to any threats. Body awareness is recognizing when we escalate so we can intervene.

How exactly do we intervene? During a Threat Response, our body stops any excess flow of oxygen and glucose to our thinking brain. The body's first goal is to survive, and any extra oxygen and glucose will be needed to run or fight. Because your brain uses up to 25% of the oxygen and glucose in your body, it's a natural place to draw away any excess. Your digestion stops too, as do other body functions. Your body believes it is in a fight for life, and responds with total preparation to run or fight. And as I wrote earlier, we don't usually have an option to fight or run. As we look at intervening, we must become aware of how our body reacts.

And while I do not dismiss the benefits of talk therapy, I move it to the fifth level of healing. Most of our response to threats are automatic, and are not linked to our emotions. Emotions emerge later and feed the cycle to threat response. Talk therapy is usually related to one event or relationship, and does not encompass your lengthy and frequent exposure to Childhood Trauma. And you may not remember any specifics about that Childhood Trauma. Instead, your reactions reach a higher and more frequent level than people who have little or no trauma. How can you talk about something you don't remember. Instead, there are a variety of healing techniques that have a proven benefit. They include Eye movement desensitization and reprocessing (EMDR), Emotional Freedom Technique (EFT), Ericksonian Hypnotherapy, Meditation and Mindfulness. Each therapy has its benefits, and there are enough of them to allow experimentation for finding out what works for you.

Let's look at one therapy that can be viewed in action through a video. Emotional Freedom Technique is also referred to as "Tapping." Gary Craig, who identified the therapy, conducted a week long healing session with six U.S. Veterans and their families. ([EFT Link here](#)) In one week, every Veteran resolved between 50% and 100% of their symptoms. That relief lasted. Because EFT does not require someone to administer it, you can practice it anytime you are aware of escalating (body awareness).

Meditation is like exercising the brain to dismiss fear and anxiety. I think of it like this. When we establish a meditation mind, we try to dismiss all thoughts and concentrate on something like our breathing. Through Meditation, we can become aware of how our body reacts to our thoughts and achieve greater awareness of our body. After a period of learning and practice, we begin to recognize thoughts as they enter our consciousness. Because our conscious mind is so limited, we have a lot of thoughts processed subconsciously. While you may not be aware of it, your subconscious mind is processing emotions related to your Threat Response system constantly. Your subconscious mind is the memory chips and processor for your brain as a computer. It's all hidden from you, and what you are aware of is on the monitor. In brain wave terms, what you are aware of occupy your "Beta" brain waves. "Alpha" brain waves are what we are trying to achieve through medication. We want to access our Theta Brain waves in order to influence our subconscious and reprogram some of its reaction to our personal Threat Response profile.

So here is the exercise part as I describe it. When you enter a Meditative frame of mind, thoughts will enter your head. They will either be Fear or Anxiety. When it enters your thoughts, greet it as an old friend, because that is what it is. It may cause you damage in your life, but I call it an old friend because it has been around for so long, and you need to realize that a fear response is just one you have developed as an emotional response to your Threat Profile. Welcome it as an old friend and tell that you will be dismissing it as soon as you are able to. Do the same with thought you recognize as Anxiety. You want to accept both thoughts because they will force their way from your subconscious into your conscious mind anyway. By welcoming the thought, treating it as an old friend, you take away the body reactions and reduce the escalation by your Threat System. As you practice, you will come to recognize your reaction and dismiss it more quickly. If you practice enough, you will find your Threat response is less frequent, and you become more adept at reacting to your body escalating because of that Threat. Your subconscious will learn this response because of your actions in teaching it.

Remember that your body reduces both oxygen and glucose to the brain in response to a Threat? Meditation teaches you how to breathe deeply. You restore oxygen to your brain through meditation. And by reducing your Threat response, you begin to slow the glucose drain and retain your ability to think. Become aware of your body's reaction to Threats (Fear and Anxiety are the emotional output of the Threat Response). Meditate it away as best you can, and strive to reach a state of "Mindfulness." Lean to live in the present, and dismiss fear and anxiety as soon as you can. Breathe and smile. Smiling releases serotonin, another good chemical that produces happiness. And say good things to yourself. Ignore the negative comment from others through mindfulness and accept that they do what they do as a reaction to their own fear and anxiety emotions.

EMDR and Ericksonian Hypnosis require outside help so if you want to try them, you need to seek a practitioner.

If you are able to achieve the first four levels of healing, you most likely will be feeling the effects after a couple of months. But keep practicing. If you have a greater need because of addiction or true mental illness, level 5 is the final level. That is to seek professional help. You may benefit from prescription drug use, and higher level healing therapies.



# Adverse Childhood Experiences (ACE)

The crisis that happens when we do not invest in early childhood and Pre-Kindergarten

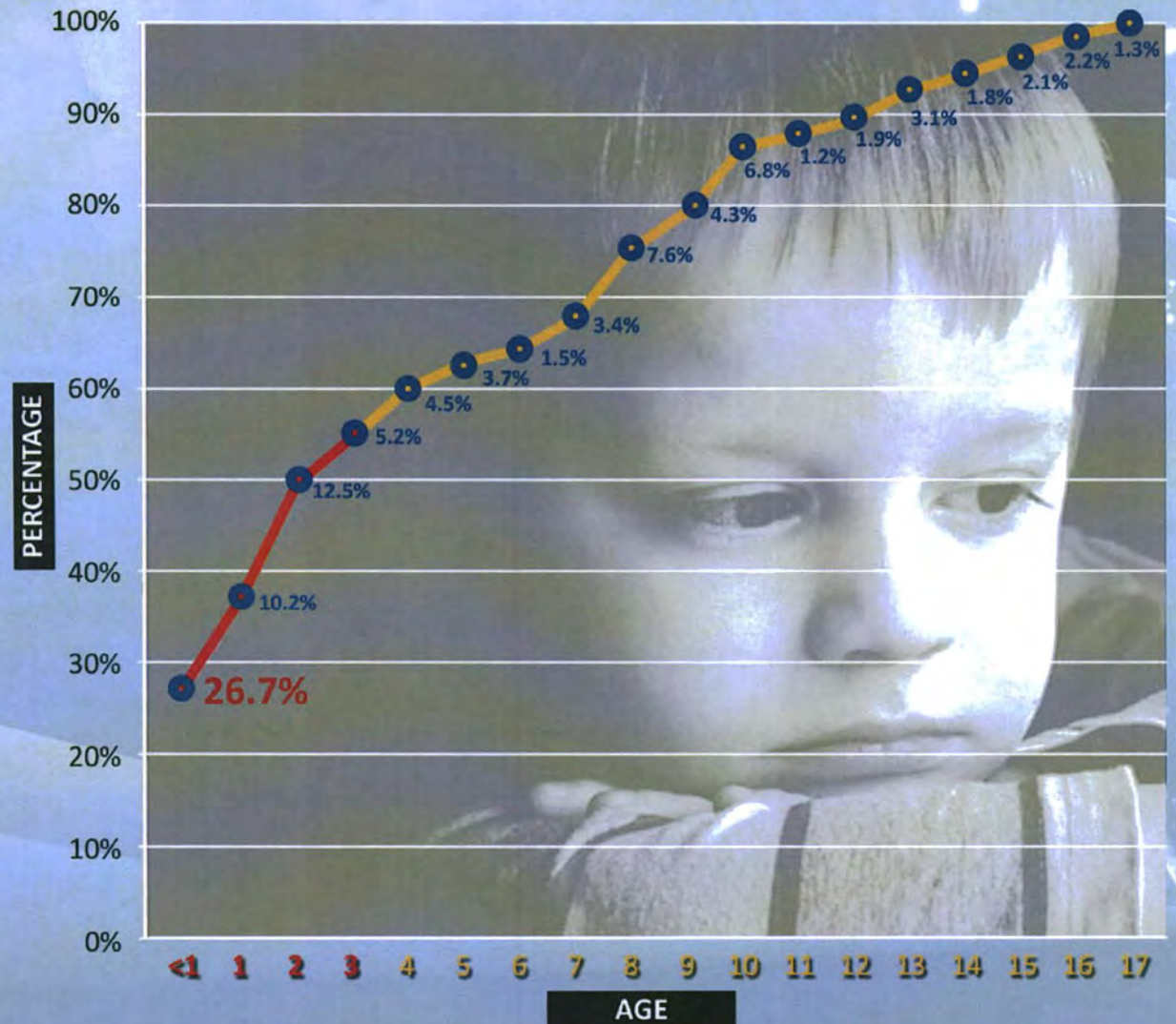


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**ACEs** are traumatic events that can happen in a child's life. These events cause the child high levels of stress that, if not buffered by a strong, supportive adult relationship in the early years of brain development, can permanently damage the young child's developing brain and lead to a long list of negative physical and mental health outcomes in adulthood.

An adult relationship can be with a parent, grandparent, caregiver, teacher or any competent and caring adult who maintains regular contact with the child. Funding early intervention provides the largest possible return on investment.

## The Percentage of the Full Dosage of ACEs accumulated in the 50 States Child and youth populations by age group



Young Alaskans  
have acquired HALF  
of their accumulated  
ACEs by the  
age of **3**



# Adverse Childhood Experiences



## What is ACES?

- ▶ 1998 study asked middle class Americans about traumas experienced as a child
- ▶ Traumas include physical abuse, sexual abuse, domestic violence, having a parent in jail
- ▶ Developed as ACE score based on answers
- ▶ Score can be 0-10



## What is your ACES Score?

- ▶ Group exercise to take the test and produce your own score
- ▶ Can be found online at <http://www.npr.org/sections/health-shots/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean>



## ACES Studies in Alaska

- ▶ 2 Key Findings
  - ▶ Childhood trauma is far more common than previously realized
  - ▶ The impact of this trauma affects individuals over a lifetime and societies over generations



# ACES Scores in Alaska

ACES Score	Prevalence
0	33%
1	26%
2	16%
3	10%
4+	16%



## Select Negative Health Outcomes

- ▶ Medicaid
  - ▶ 40.6%
- ▶ Current Smoker
  - ▶ 32%
- ▶ Heavy Drinking
  - ▶ 20.5%
- ▶ Poor Physical Health
  - ▶ 33.2%



## Costs Associated with ACES

- ▶ Reduce smoking cost of \$576 million by 32% = \$186 million in savings
- ▶ Reduce substance abuse by 20% = \$350 million in savings
- ▶ Reduce Medicaid costs by 40.6% = \$350 million in savings
- ▶ **Total = \$886 million in annual savings by preventing ACES**



# Opportunities for Prevention

- ▶ Trauma-informed health care
- ▶ Trauma informed curriculum
- ▶ Raise awareness by distributing information related to ACES to state and local entities
- ▶ Increase community's ability to respond to, prevent, and address ACES
- ▶ Pilot programs to conduct Alaska based research



# Building a Statewide Movement

- ▶ 27 letters of support from organizations across the state
  - ▶ Alaska Children's Trust
  - ▶ Sealaska Heritage
  - ▶ Juneau Suicide Prevention Council
  - ▶ Alaska Mental Health Board & Advisory Board on Alcoholism and Drug Abuse
  - ▶ Best Beginnings
  - ▶ Alaska Infant and Early Childhood Mental Health
  - ▶ Sunshine Community Mental Health Center



# ACES is About Connecting the Dots

- ▶ Understanding ACES brings together the professionals in the areas of early learning, mental health, substance abuse, pediatrics, behavioral health, domestic violence, and education
- ▶ Understanding ACES impact on early life and the age at which young Alaskans accumulate ACES (Young Alaskans have acquired half of ACES by age 3)
- ▶ Building awareness is part of the effort and can be accomplished without funding a new program
  - ▶ Sharing information this month for Child Abuse Prevention Month & Sexual Assault Awareness Month
  - ▶ Offering training opportunities for educators and practitioners or support groups for skill building at organizations
  - ▶ Create policy alternatives that can work for Alaska



## Reverse Alchemy in Childhood: Turning Gold into Lead

By Vincent J. Felitti, MD

### The Adverse Childhood Experiences (ACE) Study

The Adverse Childhood Experiences Study is a major piece of medical research that compares current adult health to childhood experiences decades earlier. The findings are important medically, socially, and economically. They provide a remarkable insight into how we become what we are as individuals and as a nation. The ACE Study reveals a powerful relationship between our emotional experiences as children and our adult emotional health, physical health, and mortality. Moreover, the time factors in the Study

make it clear that time does not heal some of the adverse experiences we found so common in the childhoods of a population of middle-aged, middle class Americans. One doesn't 'just get over' some things.



How does one perform reverse alchemy, going from a normal newborn with almost unlimited potential to a diseased, depressed adult? How does one turn gold into lead? The ACE Study was triggered by observations we made in the mid 1980s in an obesity program at Kaiser Permanente's San Diego Department of Preventive Medicine. This program had a high dropout rate, and the first of many counterintuitive findings was that the great majority of these dropouts actually were successfully losing weight. Detailed life interviews of almost 200 such individuals revealed that childhood abuse was remarkably common and antedated the onset of their obesity. Many patients spoke openly of an association between the two. The counterintuitive aspect was that for many people obesity was not their problem; it was their protective solution to problems that previously had never been discussed with anyone. An early insight was the memorable remark of a woman who was raped at twenty-three and gained 105 pounds in the year subsequent: "Overweight is overlooked and that's the way I need to be." The contrast was striking between this statement and her desire to lose weight.

*Continued on page 2*

**W**ith the increasing attention to examining the effects of witnessing domestic violence on children and the many complicated issues it presents for health care providers, domestic violence advocates, and policy makers, this issue of Health Alert is dedicated to discussing this critical issue. We begin by highlighting the groundbreaking Adverse Childhood Experiences (ACE) Study with this article by Vincent Felitti, MD, which shows a clear link between exposure to abuse or household dysfunction, including witnessing violence against mothers and multiple risk factors for several of the leading causes of death in adults, and calls us to engage in early screening and intervention in families for the sake of mothers and children. Betsy McAlister Groves, MSW, LICSW, then offers us insight for how these findings are important and cautions us on the complicated issues faced when responding to domestic violence in homes with children. We have included excerpts from the "Children: The Hidden Victims of Domestic Violence" plenary session from the 2000 National Conference on Health Care and Domestic Violence that also add valuable insight to this discussion.

—Peter Sawires, FVPP



## Reverse Alchemy in Childhood...

Continued from previous page

Similarly, two men who were guards at the State Penitentiary became anxious after each losing over one hundred pounds. They made it clear that they felt much safer going to work looking big as a refrigerator rather than normal size. Overall, we found the simultaneous presence of opposing forces to be common; many of our weight program patients were driving with one foot on the brakes and one on the gas, wanting to lose weight but fearful of change.

In 1990 in Atlanta, I presented information about the frequent relationship of obesity and abusive childhood experiences to a largely skeptical audience at the North American Association for the Study of Obesity. Unexpectedly, this led to contacts with researchers at the Centers for Disease Control and Prevention who recognized the importance of what had been reported. They proposed a large epidemiological study to provide definitive evidence of our clinical observations. This was the beginning of the Adverse Childhood Experiences Study that was carried out in the Department of Preventive Medicine where we had been carrying out detailed biomedical, psychological, and social (biopsychosocial) evaluations of over 50,000 adult Kaiser Health Plan members each year. It was relatively easy to ask 30,000 adults coming through the Department if they would be interested in helping us understand how childhood events might affect adult health status. Seventy-one percent agreed to, understanding the information they provided about their childhoods would never be in their medical records.

The ACE Study compared the current adult health status of these many thousands of participants to seven categories of adverse childhood experience that we frequently identified in the weight program. Three categories were of personal abuse: recurrent physical abuse, recurrent emotional abuse, and sexual abuse. Four were categories of household dysfunction: growing up in a household with an alcoholic or a drug user; where someone was imprisoned; where someone was chronically depressed, mentally ill, or suicidal; and where the mother was treated violently.

In addition, we decided to follow this large cohort for at least five years into the future to compare childhood experiences against adult pharmacy utilization, doctor office visits, Emergency Department use, hospitalization, and death. For purposes of analyzing the huge mass of information we gathered, an ACE Score was constructed. An individual exposed to none of these categories had an ACE Score of zero; an individual exposed to any four had an ACE Score of four, etc.

Because the average participant was 57 years old, we actually measured the effect of these childhood experiences on adult health status a half-century later. The retrospective and prospective components of the Study were designed with great skill by Robert Anda MD, my co-principal investigator at CDC. Here I will only touch upon some highlights of our findings; details may be sought in the anchor article of a series of publications deriving from the ACE Study. The initial article was published in May 1998 in the *American Journal of Preventive Medicine*, v.14:245-258; full text is at their web site: [http://www.meddevel.com/site.mash?left=/library.exe&m1=4&m2=1&right=/library.exe&action=search\\_form&search.mode=simple&ite=AJPM&jcode=AMEPRE](http://www.meddevel.com/site.mash?left=/library.exe&m1=4&m2=1&right=/library.exe&action=search_form&search.mode=simple&ite=AJPM&jcode=AMEPRE)

### Adverse Childhood Experiences are Common and Dramatically Affect Adult Health

Our first finding was that adverse childhood experiences are vastly more common than acknowledged. Of equal importance was our observation that they had a powerful correlation to adult health a half century later. It is this combination that makes them so important. Slightly more than half of our middle class American population experienced one or more of the categories we studied. One in four were exposed to two categories of abusive experience, one in sixteen to four categories. Given an exposure to one category, there is 80% chance likelihood of exposure to another. All this, of course, is well shielded by social taboos against obtaining this information. Furthermore, one may miss the forest for the trees if one studies these issues individually. They do not occur in isolation; for instance, a child does not grow up with an alcoholic or domestic violence in an otherwise ideal household.

The Family Violence Prevention Fund (FVPF) is a national non-profit organization focusing on domestic violence prevention, education and public policy reform. Founded in 1980, the FUND has developed pioneering strategies to address the problem of domestic violence in the justice, health care, child welfare, workplace and communication fields.



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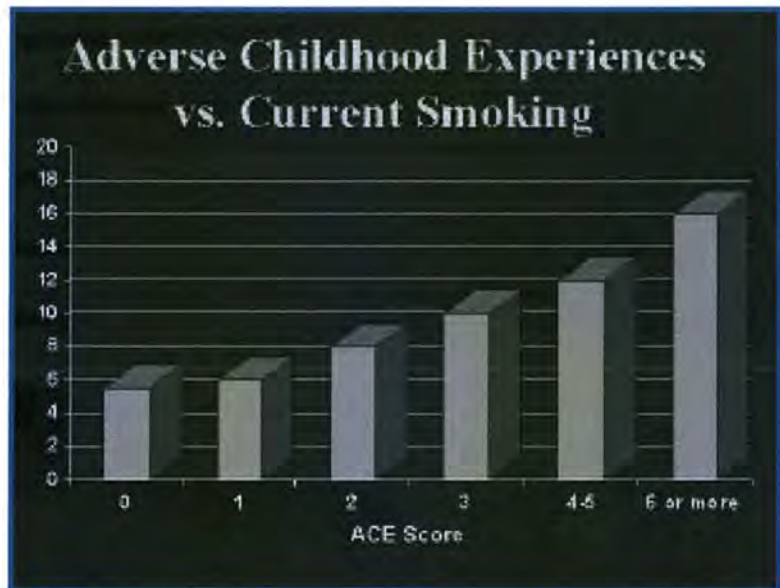
How will these childhood experiences play out decades later in a doctor's office?

Smoking is a useful starting example to illustrate what we found; moreover, it provides us with a minimally threatening topic. In California there are now profound social pressures against smoking; persisting in the face of these is often attributed to 'addiction'. Did you know that current smoking has a high degree of association with what happened decades ago in childhood? Here is a graphic illustration of how the ACE Score has a graded, dose-response effect on the probability of current smoking. The higher the ACE Score, the greater the likelihood of current smoking. This graded, dose-response effect is present for all the associations we found, although I will only present three. All the relationships have a p value of .001 or less.

Lest one doubt the significance of this, we found that chronic obstructive pulmonary disease (COPD, emphysema) has a strong relationship to the ACE Score. A person with a mid-range ACE Score of four is 390% more likely to have COPD than is a person with an ACE Score of zero. What does this do to the conventional concept of smoking that attributes addiction to characteristics that are intrinsic within nicotine? We instead found 'addiction' attributable to characteristics that are intrinsic in early life experiences. If early emotional stresses predict COPD, is COPD properly understood as a psychosomatic condition? Are certain common chronic diseases the result of attempts at self-treatment of concealed problems?

When we looked at self-defined current depression, we found that an individual with an ACE Score of four or more was 460% more likely to be suffering from depression than an individual with an ACE Score of zero. Should one doubt the reliability of this, we found that there was a 1,220% increase in the history of attempted suicide between these two groups. At higher ACE Scores, the prevalence of attempted suicide increases twenty-thirty fold. Using the analytic technique of population attributable risk, we found that about 80% of attempted suicides could be attributed to adverse childhood experiences.

Intravenous drug use is a major public health problem. In spite of massive efforts to curtail it, little progress has been made. We saw that iv drug use may properly be viewed as a personal solution to problems that are well concealed by social niceties and convention. For instance, a male child with an ACE Score of



six has a 4,600% increase in the likelihood of later becoming an iv drug user. This relationship to adverse childhood experiences is powerful and graded at every step; it provides an exemplary dose-response curve. Since no one shoots heroin to get endocarditis or AIDS, might it be used for relief of profound anguish dating back to childhood experiences; might it be the best coping device an individual can find? If so, is this a public health problem or a personal solution? How often are public health problems personal solutions? Is drug abuse self-destructive or is it a desperate attempt at self-healing, albeit at a significant future cost? This is an important point because primary prevention is far more difficult than anticipated. Is this because incomplete understanding of the benefits of so-called health risk behaviors leads them to be viewed as irrational and having solely negative consequences? Does this leave us mouthing cautionary platitudes instead of understanding the cause of our intractable public health problems?

Beyond these three examples, we found many other measures of adult health to have a strong, graded relationship to what happened in childhood: hepatitis, heart disease, fractures, diabetes, obesity, alcoholism, occupational health, and job performance. These are detailed in the original and subsequent articles and will further be reported in publications of the yet-to-be-analyzed prospective arm of the ACE Study.

#### Early Intervention and Prevention Must be Engaged

What do these findings mean for medical practice and for society? Clearly, we have shown that adverse childhood experiences are both common and

*Continued on page 4*



destructive. This combination makes them one of the most important, if not the most important, determinants of the health and well being of the nation. Unfortunately, these problems are painful to recognize and difficult to deal with. Most physicians would far rather deal with traditional organic disease. Certainly, it is easier to do so, but that approach also leads to treatment failures and the frustration of expensive diagnostic quandaries where everything is ruled out but nothing is ruled in.

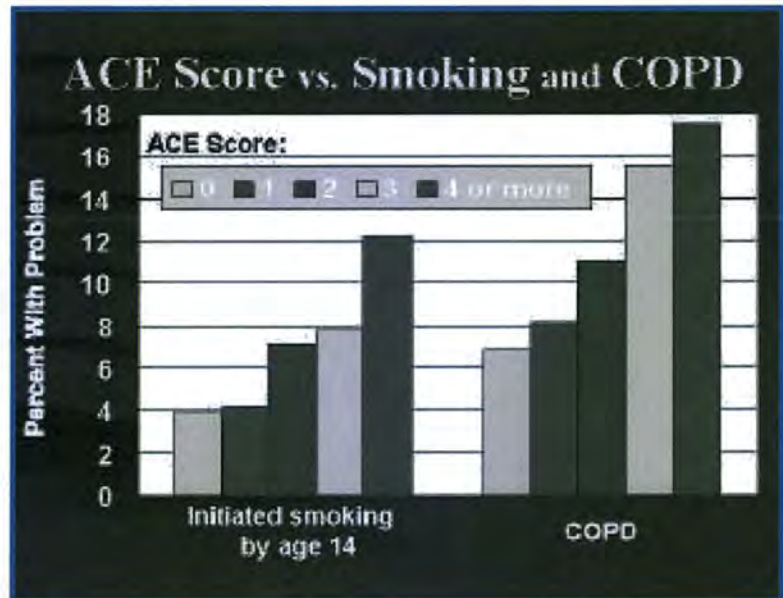
Our approach to many common adult chronic diseases reminds us of the relationship of smoke to fire. It is tempting initially to treat the smoke because that is the most visible aspect of the problem. What we have learned in the ACE Study represents the underlying fire. Fortunately, fire departments learned to distinguish cause from effect long ago; else, they would carry fans rather than water hoses to their work.

If the treatment implications of what we found in the ACE Study are far-reaching, the prevention aspects are positively daunting. The very nature of the material is such as to make one uncomfortable. Why would one want to leave the relative comfort of traditional organic disease and enter this area of threatening uncertainty that none of us have been trained to deal with? And yet, literally as I am writing these words, I am interrupted to consult on a 70 year old woman who is diabetic and hypertensive. The initial description given to me left out the fact that she is morbidly obese. Review of her chart shows her to be chronically depressed, never married, and, because we ask the question of 57,000 adults a year, to have been raped by her older brother six decades ago when she was ten. He also molested her sister who is said also to be leading a troubled life. We found that 22% of our Kaiser members were sexually abused as children. How does that affect a person later in life? That simple question is useful to ask patients, "How did that affect you later in life?"

What is this woman's diagnosis? Is she just another hypertensive, diabetic old woman or is there more to the practice of medicine? Here is the way we conceptualized her problems:

- Childhood sexual abuse
- Chronic depression
- Morbid obesity
- Diabetes mellitus
- Hypertension
- Hyperlipidemia
- Coronary artery disease
- Macular degeneration
- Psoriasis

This is not a comfortable diagnostic formulation because it points out that our attention is focused on tertiary consequences, far downstream. It reveals that the primary issues are well protected by social con-



vention and taboo. It points out that we have limited ourselves to the smallest part of the problem, that part where we are comfortable as mere prescribers of medication. Which diagnostic choice shall we make? Who shall make it? And, if not now, when?

**Selected articles published from the ACE study include:**

Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. Felitti VJ, Anda RF, Nordenberg D, et al. *American Journal of Preventive Medicine* 1998 May; Vol 14 (4): 245-258

Adverse childhood experiences and smoking during adolescence and adulthood. Anda RF; Croft JB; Felitti VJ; et al. *JAMA* 1999 Nov 3; Vol 282 (17): 1652-1658

Unintended pregnancy among adult women exposed to abuse or household dysfunction during their childhood. Dietz PM; Spitz AM; Anda RF; et al. *JAMA* 1999 Oct 13; Vol 282 (14): 1359-1364

Adverse childhood experiences and sexually transmitted diseases in men and women: a retrospective study. Hillis SD; Anda RF; Felitti VJ; Nordenberg D; Marchbanks PA *Pediatrics* 2000 Jul; Vol 106 (1): E11

Vincent J. Felitti, MD is an internist, formerly doing infectious disease work, who created and ran for its first 25 years the Department of Preventive Medicine at Kaiser Permanente in San Diego.



# ACE Study Offers Important Insights That Must be Approached Cautiously

Betsy McAlister Groves, MSW, LICSW

The Adverse Childhood Experiences (ACE) Study, authored by Vincent Felitti, Robert Anda, Dale Nordenberg, et. al. is important research, both because of the large cohort that was studied (drawn from a non-clinical sample of 30,000 members of the Kaiser Health Plan) and for its findings of a strong relationship between risk factors established in childhood and medical problems in later life. Felitti et al. also demonstrate the synergistic effect of these risk factors. Exposure to one adverse experience carries modest risk for adult health problems; exposure to four or more experiences carries a two-four-fold increase in smoking and poor self-rated health, and eight-twelve times the risk of alcoholism, depression and drug abuse. In addition, these risk factors often cluster in individuals: if a person had exposure to one experience, there is an 80% chance of exposure to another risk factor.

Of particular interest to those of us who work with families affected by domestic violence is the inclusion of exposure to violence against mother as one of the seven adverse experiences investigated. The study yields important data about the prevalence of childhood exposure to domestic violence and about the association of exposure to domestic violence with other risk factors for children. As we know, a child's exposure to domestic violence is highly correlated with direct physical abuse of the child, another factor included in Dr. Felitti's study. In his study, 12.5% of respondents indicated childhood exposure to domestic violence and 10.8% indicated a history of child abuse. This finding is an important addition to existing studies of childhood exposure to domestic violence, indicating that more than 10% of the adult population has grown up in homes in which women were the victims of physically assaultive behavior. The study also underscores the longer-term consequences of exposure to domestic violence and adult health and well-being. It reminds us that there are both direct and indirect victims of domestic violence: children suffer as the hidden victims of violence against women. It also reinforces what many advocates and survivors know

all too well: that children's exposure to violence reverberates into adult life.

## Implications for the Field

The ACE study suggests several priorities for policy and practice. First, we should re-double our efforts at primary prevention of violence against women. The benefits of preventing domestic violence are obvious for women and for the future health and well-being of their children. Efforts to provide education to teenagers about healthy relationships, to raise awareness of the issue, to engage communities in addressing violence against women, to hold perpetrators accountable for the violence are of paramount importance and should be a priority in funding. Indeed, Felitti's study helps to frame the challenge of prevention in public health and mental health terms that broaden the base of professionals who should engage in prevention efforts.

Second, we must develop strategies for early identification of and support for children who are exposed to domestic violence. As with any of the adverse child experiences cited in Felitti's study, early identification has the potential to be early intervention, thereby decreasing the risk of adverse health outcomes in adult life. Health care systems are an important setting for such screening and response. Almost all children see health providers and young children and their parents have frequent intersection with health care systems. Screening and intervention protocols for partner violence are used in adult medicine and obstetrics/gynecology practice. However, there is no standard for screening and almost no funding for services in pediatric settings. The results of the ACE study make a strong case for the importance of screening and responding to children in pediatric practices. Implementing strategies for identifying children and families affected by domestic violence are a priority, but they should be done with careful thought of the potential consequences of identification such as the quandary

*Continued on page 6*



that providers may face about mandatory reporting of identified children to child protection services.

### We Must Move Forward Cautiously

As with most research, there are certain cautions to consider before translating this study's findings into policy or practice. In his first publication of the results, Felitti reminds us that these results show correlation, not causation.<sup>i</sup> It is tempting to assume from this study that exposure to adverse childhood experiences directly causes health problems in later life. However, there are many intervening events and variables that mediate childhood exposure and later health problems in adults. Understanding more about the intervening variables is an important goal of continued research.

It is also important to consider that children are affected in a range of ways by exposure to adverse experiences, including domestic violence. There are factors in their genes, their temperaments and their environments that affect their ability to withstand stressful experiences. Both research and clinical experience demonstrate that not all children are doomed by growing up with domestic violence and that some children seem to withstand its effects better than others<sup>ii</sup>. The research agenda should focus on how and why some children are more resilient to adverse experiences.

A final caution should be reiterated about the use of the ACE study's findings about childhood exposure to domestic violence: in the zeal to protect children from the longer-term consequences of exposure to adverse childhood experiences, we are tempted to enact policies that are punitive to women and in the long run, not helpful to children. For example, there have been tendencies to use studies that focus on childhood exposure to domestic violence to argue for increased penalties against mothers for "failure to protect" children. This has been particularly true with protective services policies, and is increasingly problematic for African Americans and other people of color who are over-represented in the system because of potential racial bias.<sup>iii</sup> A growing number of states have determined that exposure to domestic violence is

*"Implementing strategies for identifying children and families affected by domestic violence are a priority, but they should be done with careful thought of the potential consequences of identification"*

grounds for removal of children from both their parents.<sup>iv</sup> In addition, some states are adding enhanced legal penalties for adults who commit assaults in front of a child. While these policies may be well intended, they have the troubling consequences of further punishing mothers, who are usually the direct victims of the violence, and they are not necessarily helpful to children. For example, children may be required to testify in court about what they witnessed in a domestic violence assault, or in cases of dual arrest, children may be separated from their mothers and unnecessarily placed in foster care further traumatizing the children. Additionally, with these policies in place many victims may be less willing to seek assistance for the violence, so that neither they nor their children receive much needed support and services.

In conclusion, the findings of the ACE study yield important confirmation of the prevalence of childhood exposure to domestic violence and to the association of this exposure with poor health and mental health outcomes for adults. The challenge for those who work with families affected by domestic violence is to renew our efforts to prevent violence against women and to advocate for implementation of policies that makes it easier to identify children who are at risk. At the same time, we must use caution in making certain that our practice and policy decisions do not ultimately create more harm than good.

*Betsy McAlister Groves, MSW, LICSW, is the founding Director of the Child Witness to Violence Project at Boston Medical Center and Assistant Professor of Pediatrics at Boston University School of Medicine. She is the recipient of an Open Society Institute Fellowship and has lectured widely on children and violence. Publications include articles in the Journal of the American Medical Association, Pediatrics, Harvard Mental Health Letter and Topics in Early Childhood Special Education. She is a member of the Massachusetts Governor's Commission on Domestic Violence and has served as consultant to the Mass Department of Social Services, the Massachusetts Judicial Institute and Family Communications, Inc., producers of Mr. Rogers' Neighborhood.*

i Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Kiss MP, Marks JS. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine*, 14 (4), 245-258.

ii Edelson J.(2000). Is childhood exposure to adult domestic violence a form of child maltreatment? Paper delivered at the conference "Children and Domestic Violence", Washington DC, April 10, 2000.

iii Morton, T.D. (1999). The Increasing Colorization of America's Child Welfare System: The Overrepresentation of African-American Children. *Policy and Practice of Public Human Services (formerly Public Welfare)*, 57(4), 23-30.

iv Sengupta S. (July 8, 2000). Tough Justice: Taking a child when one parent is battered. *New York Times*, p. A1 & A11.



# Children: The Hidden Victims of Domestic Violence

Robert M. Reece, MD, Betsy McAlister Groves\*, MSW, LICSW, Alicia Lieberman, PhD, Margaret McNamara, MD

**Robert M. Reece, MD:**

Dr. Vincent Felitti wrote in an editorial in *Pediatrics*, the journal of the American Academy of Pediatrics, "We are awash in a sea of violence in our society. There are over three million reported cases of child abuse in this country each year and up to 5,000 childhood fatalities resulting from child maltreatment. True statistics about domestic violence are a little harder to find because of a disparate reporting practice in the various reporting states, but a similar number is probable. It may even exceed that amount." This constitutes an epidemic in our society. We know that there are long and short-term effects secondary to family violence. We know that there are structural and functional changes to the brain itself. These come from the ravages of actual or threatened violence and increasingly we read scientific reports of similar changes in the brain from simply witnessing violence. We reviewed a paper just recently in the *Journal of the American Medical Association*, about home nurse visitation programs... This was a disturbing but also enlightening article in that it pointed out the fact that home health nurse visitation programs are not effective when there is domestic violence in the home... (Eckenrode, J., et al., "Preventing Child Abuse and Neglect With a Program of Nurse Home Visitation: The Limiting Effects of Domestic Violence," *JAMA*, 2000, Vol. 284, pages 1385 to 1391.)

The American Academy of Pediatrics has an official policy statement about domestic violence and the role of pediatricians in recognizing and intervening on behalf of abused women. It leads off by saying: "The abuse of women is a pediatric issue. The American Academy of Pediatrics and its membership recognizes the importance of improving the physician's ability to recognize partner violence as well as child abuse and other forms of family violence... The AAP recognizes that family and intimate partner violence is harmful to children." They go on to say that, "The AAP recommends that 1) Residency programs and continuing education program leaders incorporate education on family and intimate partner violence and its implications for child health into the curricula of pediatricians and pediatric emergency department physicians; 2) Pediatricians should attempt to recognize evidence

of family or intimate partner violence in the office setting; 3) Pediatricians should intervene in a sensitive and skillful manner that maximizes the safety of women and children victims; and, 4) Pediatricians should support local and national multidisciplinary efforts to recognize, treat and prevent family and intimate partner violence." (Full policy available at <http://www.aap.org/policy/re9748.html>)

I would like to suggest that education of medical personnel should be one of the major emphases. We need to make this a central objective for the curricula in medical and nursing schools and in our residency training programs. Perhaps more important, we need to assure that those who are already in primary care practice are given the necessary education and training to perform this most important task.

**Alicia F. Lieberman, PhD:**

Children who were exposed to domestic violence have more than double the rate of psychiatric problems than other children. This is the case even after children no longer are exposed to ongoing violence... And a child being exposed to domestic violence is the major predictor for adults engaging in domestic violence...

It has been long believed that very young children do not understand violence or forget about violence. That is not the case... The way children express their problems with witnessing aggression varies with age, but even babies under one year of age respond to violence with excessive crying, failure to gain weight, difficulty being soothed, exaggerated startle responses, frozen posture, stiffness, sad and withdrawn facial expression and lack of interest in exploration... Toddlers and preschoolers show aggression to adults and peers, defiance, noncompliance... Toddlers who witness violence also often have a very interesting characteristic, which is that they become reckless and accident-prone... As you know, toddlers do have temper tantrums but the ones that witness violence are intractable and they go on and on and on and on... They have night terrors, difficulty going to sleep, intense separation anxiety, hypervigilance, multiple fears, emotional withdrawal, and on and on. School

*Continued on page 8*



children and adolescents show all the same behaviors, but also early and excessive experimentation with sexuality and with illegal substances, anger at authorities, school failure and criminal behavior...

That leads us to the question of intervention. There is an unnecessary and regrettable gap between women's advocacy groups and children's advocacy groups... It is often overlooked that a very high percentage of battered women are also mothers and that their sense of self-esteem when they cannot relate to their children, when their children are having trouble at school, when their children are having intractable tantrums in the supermarket, their self-esteem, their sense of competence, their sense of being skillful suffers greatly. So our program helps the women become mothers with a higher sense of competence and a higher sense of understanding of what their children do. What we are finding is that many women who suffer domestic violence have also suffered abuse and neglect when they were growing up... As many as 70% fit criteria for post-traumatic stress disorder... So that we cannot just help the children. We have to be aware of the problems of the mothers.

I will give you a quick example of a child, a four-year-old who had intractable tantrums in which he would say, "Kill me, mom, kill me. I want to die..." One time the child jumped on a high shelf and threatened to fall down, the therapist took the child down and said, "I cannot let you jump. I don't want you to get hurt." The child started having a terrible intractable tantrum, which the therapist could not contain on her own. She said to the mother, "Let's hold him together. He really needs our help in knowing that we need him to be safe." And the child kept screaming, "Kill me, mom, kill me. You don't love me." And the mother would say, "I love you. You know I love you, don't you?" And the child would say, "No. You call me stupid. You don't love me." And the mother would be frozen, without knowing how to respond. The therapist said, "You know, you need to say to him really strongly, 'I love you, I won't let you get hurt.'" She kept repeating it as a mantra and as she kept repeating it the mother started to say it increasingly strongly. The child relaxed, cuddled up in her arms and fell asleep. The mother and the child were helped to rediscover their love for each other and the mother was helped to rediscover her competence in dealing with the child's fear and saying to the child "I do care about you..."

I want to get to the findings that we are getting when we look at about 70 mothers and children that we have treated this way, to tell you that the scores in cognitive tests for the children have gone up significantly, an average of 15 points. Their scores for social problems and emotional problems have gone down significantly, at the point of one statistical level. Equally exciting, the scores for maternal PTSD have gone down significantly, at the point of one level, so that in working with a mother/child relationship we

can make a difference not only for the children but for the mothers as well. It seems to me that it is a model. As we work on the relationship between mother and child, let us work on the relationship between child advocacy groups and mother advocacy groups and really find a joint language to speak to both of them.

#### **Margaret McNamara, MD:**

I do not have to convince anyone in this room about why pediatricians should routinely screen. We also know that routine screening is a more efficient way of going about this since specific indicators are not reliable. Additionally, routine screening serves to educate patients that domestic violence is a serious health issue for them and their children and to let them know that we can provide resources for them or their friends or family if they ever need it. Finally, as Betsy and Alicia have very eloquently told us, children are so often the silent victims, for whom pediatric healthcare providers can provide appropriate assistance.

As healthcare professionals who deal with children in our practices, we have a number of advantages when it comes to screening. We have very frequent visits with the family. We also, as pediatric healthcare providers, are in a trusted and privileged position to hear about family matters. Most parents understand that the health and well-being of their child is integrally connected with the health and well-being of the family. We routinely screen about a number of sensitive issues and so routine screening about domestic violence, just as with those other sensitive issues, is easier.

The screening that we use as pediatric healthcare professionals can be similar to an adult setting. Of course we face a number of challenges in a pediatric setting when we respond to domestic violence. Let us discuss the issues that are unique to the pediatric experience. The first is who is the designated patient. Domestic violence is not the only area in which we ask about parental behavior and how it might influence the child. We routinely ask about tobacco exposure, substance abuse, and many of us ask about the presence of firearms in the household. Many important issues affecting children are not specifically limited to questions about the child.

The second issue, which is the presence of children or other family members or friends in the room



*Margaret McNamara, MD, Alicia Lieberman, PhD, Betsy McAlister Groves, MSW, LICSW and Robert Reece, MD at the National Conference on Health Care and Domestic Violence.*



during screening, is a very difficult one and there is some difference of opinion in the literature in terms of how to deal with this. I would suggest that for the sake of the child, because we know the very profound effects that family violence has on the child growing up, that we are doing them a disservice not to screen, even with them in the room (excepting the perpetrator). More often than not, the child knows what is going on at home and if we simply decide not to ask about it, we send the message that we do not want to hear about it. Once children get to be about eleven or twelve years of age, I typically separate them from the parent during the physical exam anyway, for reasons of modesty and so that I can talk with them about other issues such as tobacco prevention. With these children I tend to not ask the parent directly and simply talk with the child about if they feel safe at home and how things go when people disagree at home. It takes the pressure off of the parent and the child if the child is in a situation where they might have allied themselves with one or the other of the parents.

Another major challenge is that there is a lack of resources available for providers if they uncover this kind of history in the home. This is a very difficult issue to tackle and I would simply suggest that if you do not ask and therefore do not find out about the incidence of this problem, we will never develop the resources that we need to help these children.

**Robert Reece, MD:**

I wanted to tell one little clinical experience that I had about ten years ago. It was sort of an epiphany for me because it brought home to me how important it is for a pediatrician to ask a mother about possible abuse in the family. It had to do with a little baby, four months old, who had been brought in at eighteen days of age with a what we call a hypoforengial perforation, which means just something had perforated the back of the throat. This baby was, for some unknown reason, returned to the parents and then came back at four months of age with a variety of skeletal fractures and other injuries. I talked with the mother and the father, both, and said, "Who takes care of the baby?" And they both said, "We do." I asked, "Is there anyone else who takes care of the baby? Is there a day-care provider, is there a babysitter or do you have one of the relatives watch the baby when you go out?" and so on. "No, we take care of the baby completely alone. Nobody else has ever had any contact with the baby but us." Well, that, in itself, was a little bit of a worry. Then I interviewed the mother alone and I said these injuries had to have been inflicted on the baby. They do not happen spontaneously or by accidents at four months of age and so either you or your partner has inflicted these on the baby. I just let the question sit there for oh, two minutes, with total silence in the room, and then I said, "Is he hitting you too?" And she broke down in a flood of tears, disclosed all that had gone on in this

baby's life. He had been rough with the baby, more than rough – fractured several of the bones – and had also injured her on several occasions.

So that was ten years ago or twelve years ago and it demonstrated to me more graphically than anything that I could read or hear about that this is the appropriate question in some instances to ask. The outcome of that was that the partner was removed from the family and the mother and the baby continued to live together and there was a much different outcome for that family as a result of the discovery.

I want to thank the panelists but I also want to say that we can work together as pediatricians and as people invested in the domestic violence field. As a matter of fact, we have to work together because the best interests of the child lies with the best interests of the mother and the family and until we get to a common ground on this, we are going to be fighting an uphill battle.

*\*Full transcripts from this plenary and all the other plenary sessions at the National Conference on Health Care and Domestic Violence will be available in late July on-line at [www.fvpf.org/health](http://www.fvpf.org/health) or by calling 1-888-Rx-ABUSE. Betsy McAlister Groves' comments will be published in a special issue of Violence Against Women this fall.*

*Robert M. Reece, MD, is a Clinical Professor of Pediatrics at Tufts University School of Medicine and Director of the Institute for Professional Education at the Massachusetts Society for the Prevention of Cruelty to Children. Dr. Reece is also the Chairman of the Section on Child Abuse of the American Academy of Pediatrics. He is the editor of two books on child maltreatment, child abuse, medical diagnosis and management, including, *The Treatment of Child Abuse*. He was honored in 1997 as the outstanding professional in the field of child abuse.*

*Alicia F. Lieberman, PhD, is a Professor of Psychology, in the Department of Psychiatry at the University of California, San Francisco. She is Director of the Child Trauma Research Project and Senior Psychologist, Infant Program, at the San Francisco General Hospital. Dr. Lieberman is the author of *The Emotional Life of the Toddler*, and numerous articles on disorders of attachment, infant/parent psychotherapy and the role of cultural factors in early childhood mental health interventions.*

*Margaret McNamara, MD, is an Assistant Clinical Professor, Department of Pediatrics at the University of California, San Francisco, and she practices at the UCSF/Mt. Zion Medical Center, where she serves as Chief of Pediatrics. Dr. McNamara has lectured and published widely on many issues related to pediatric primary care, including the effects of domestic violence on children and firearm injury prevention. She is a Fellow of the American Academy of Pediatrics, Executive Medical Board Member at Mt. Zion Medical Center and Chairperson of the Executive and Advisory Committees of the Violence Prevention Project.*



## Intimate Partner Homicide and Pregnancy

### Homicide Rates

A recent study by Isabelle L. Horon, DrPH and Diana Cheng MD published in the *Journal of the American Medical Association* (Vol. 285, No. 11) finds that pregnant or recently pregnant women are more likely to be the victims of homicide than to die from any other cause. The study, Enhanced Surveillance for Pregnancy-Associated Mortality, expands the definition for maternal death to include deaths "not traditionally considered to be related to pregnancy such as accidents, homicide, and suicide." The study compares the homicide rate of pregnant or recently pregnant women with that for women "aged 14 to 44 years who had not had a pregnancy in the year preceding death." It finds that the homicide rate is significantly higher for women in the first group. Overall, homicide accounted for 11.2% of deaths for women who were not pregnant (when adjusted for race and maternal age) compared with 20.2% of deaths for pregnant or recently pregnant women.

Additionally, homicide is the leading cause of death during pregnancy (43.4%) and during the 43 to 365-day period following delivery or termination of pregnancy (23.3%). Homicide accounted for 3.6% of deaths occurring within the first 42 days. The study does not distinguish whether a homicide was perpetrated by an intimate partner or by a non-intimate partner.

### Homicide Prevention

The study is accompanied by a powerful editorial by Victoria Frye, MPH that expands on these findings and uses them to explore ways to prevent homicides, specifically those perpetrated by intimate partners, by focussing on the role health care providers can play in preventing the murder of pregnant women by their partners.

The editorial echoes the study's call for further research to develop prevention strategies, and highlights the social risk factors for pregnancy-associated deaths, such as domestic violence. It notes that "homicide is the leading killer of young women, pregnant or not," and that "much of the violence that women experience during pregnancy is perpetrated by intimate partners and that, for some, intimate partner violence begins during pregnancy."

Seventy-two percent of reproductive age women receive reproductive care, yet only 17% of OB/GYNs screen for domestic violence at their first visit and only 10% thereafter. Because most pregnant women have a relationship with a health care

provider and many of these women come into contact with the health care system before their death, these providers are in a unique position to prevent intimate partner homicide of women by routinely screening for domestic violence.

## Screening in the Pediatric Setting

### Screening for Postpartum Abuse of New Mothers

Another recent study by Sandra L. Martin, PhD et al. published in the *Journal of the American Medical Association* (Vol. 285, No. 12) found that most women who were abused after pregnancy were injured (77%), but that only 23% of those received medical treatment for their injuries. This study also found that both abused and nonabused women utilized well-baby care and that the numbers did not differ significantly by maternal patterns of abuse. These findings show that while an abused woman may not seek health care for herself, she may access the health care setting on behalf of her children. This provides an opportunity for pediatricians and other health care providers to screen women for domestic violence who may never otherwise access health care services.

### Routine Screening for Domestic Violence in Pediatric Practice

This guidebook focuses on the importance of routine screening for family violence in the pediatric setting. The guidebook is thorough in scope, addressing the impact on the mother, the child and the pediatrician when screening for domestic violence. It offers advice on preparing to screen, how to screen, follow-up strategies, coding and documentation, as well as training for health care providers. Also included is a Pediatrician Quick Reference Guide for Routine Screening. For more information call Melissa Strauss at 617/243-6522.

### Shelter from the Storm: Clinical Intervention with Young Children Affected by Domestic Violence

Shelter from the Storm is a curriculum for training child mental health clinicians who work with families and young children affected by domestic violence. The curriculum, produced by the Child Witness to Violence Project at Boston Medical Center, provides information and case examples that illustrate the complexities of working with families affected by domestic violence. It contains six flexible training modules:



- Domestic violence: principles of empowerment-based practice.
- The impact of domestic violence on children.
- Assessment of children affected by domestic violence.
- Individual and group treatment of children affected by domestic violence.
- Domestic violence, children and the court.
- Caring for the caregiver

For more information contact the project at 617/414-4244.

## Break the Cycle: Domestic Violence is Everyone's Business

Last October 15 riders commemorated Domestic Violence Awareness month by participating in the Break the Cycle of Violence bike tour in Northern California. Riders represented the California Clinic Collaborative on Domestic Violence, a project of the FVPF funded by the California Endowment, and succeeded in not only raising awareness, but also in raising over \$14,000 that went directly to their clinic's domestic violence programs. Participants, from beginners to more experienced riders, cycled an average of 40 miles per day on the three-day tour in the California wine country of Sonoma Valley. This year's ride, taking place September 22 -24, will be supported by Towanda Tours, a San Francisco based bike tour company specializing in tours to raise money for non-profit efforts. If you are interested in more information about this year's ride, or organizing a fundraising bike tour for your organization, contact Donna at 415/695-2726 or [donnaluna@mindspring.com](mailto:donnaluna@mindspring.com) or visit their website at [www.TowandaTours.com](http://www.TowandaTours.com).



## Breaking the Cycle of Domestic Violence, a resource for healthcare providers

Although the reporting guidelines and some resources listed are specific to Kansas, this video, developed by the Kansas Medical Society Alliance, with its accompanying resource manual contains the basic information needed to screen, document, and refer victims for additional assistance. The video is available from Fanlight Productions at 800/937-4113; Kansas residents can contact Becky Collier at the KMSA at 316/838-1410.

Available from the Health Resource Center 888-Rx-ABUSE, [www.fvpf.org/health](http://www.fvpf.org/health)

## Teen Dating Violence

This new packet for health care providers offers both informational and practical tools to improve their outreach to battered teens in the clinical setting. The packet includes: fact sheets on teen dating violence; a clinical overview of the problem; adolescent safety plan; resource sheet for health care providers and teens; bibliography; and information on barriers of adolescent disclosure including dynamics of battered pregnant teens and battered gay/lesbian/transgendered and queer youth.

## Violence Against Women with Disabilities

Available Fall 2001

This packet will provide health care providers with a starting point in recognizing and addressing the specific concerns of women with disabilities who are also the victims of domestic violence. The packet will include a fact sheet, ideas for safety planning, a resource list and bibliography.

## Voices of Survivors

This video, developed by Christina Nicolaidis, MD, MPH addresses the dynamics of domestic violence, prevalence of the issue, and the need for provider screening. The video is distinctive in that it addresses these issues from victims' perspective. It offers specific step by step instructions on how to screen for domestic violence, give support to victims, assess for safety, and give effective referrals. In addition, it describes the hidden costs and hidden physical and mental health issues that could be addressed sooner if screening were to occur. Running time: 31 minutes, cost: \$10.00. Available at [www.fvpf.org/store](http://www.fvpf.org/store) or 415/252-8900.



# Health Cares About Domestic Violence Day



**Wednesday, October 10th, 2001**

**H**elp the health care system identify and prevent domestic violence. Join health care professionals and domestic violence advocates by taking part in the Family Violence Prevention Fund's third annual Health Cares About Domestic Violence Day on October 10th, 2001.

## GET INVOLVED!

To learn more about this event and what you can do, visit the Family Violence Prevention Fund's website: [www.fvpf.org/health](http://www.fvpf.org/health) for on-line resources, free materials and up-to date information about national involvement on the issue, or if you don't have access to the web, call the National Health Resource Center on Domestic Violence toll-free: **(888) Rx-ABUSE**

## WE HAVE RESOURCES TO HELP GET YOU STARTED:

- National guidelines on how to screen for domestic violence.
- Simple steps health care providers can take to improve their response to domestic violence.
- Free patient & provider educational materials.
- Organizing ideas for October 10th activities and more!

[www.fvpf.org/health](http://www.fvpf.org/health)



Family Violence Prevention Fund  
383 Rhode Island Street, Suite 304  
San Francisco, CA 94103-5133  
[fund@fvpf.org](mailto:fund@fvpf.org)  
[www.fvpf.org](http://www.fvpf.org)

Non-Profit Organization  
U.S. Postage  
PAID  
Permit No. 2788  
San Francisco, CA



## Injury Prevention & Control : Division of Violence Prevention

The Adverse Childhood Experiences (ACE) Study is one of the largest investigations ever conducted to assess associations between childhood maltreatment and later-life health and well-being. The study is a collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente's Health Appraisal Clinic in San Diego.

More than 17,000 Health Maintenance Organization (HMO) members undergoing a comprehensive physical examination chose to provide detailed information about their childhood experience of abuse, neglect, and family dysfunction. To date, more than 50 scientific articles have been published and more than 100 conference and workshop presentations have been made.

The ACE Study findings suggest that certain experiences are major risk factors for the leading causes of illness and death as well as poor quality of life in the United States. It is critical to understand how some of the worst health and social problems in our nation can arise as a consequence of adverse childhood experiences. Realizing these connections is likely to improve efforts towards prevention and recovery.



### Publications by

- Health Outcome
- Year

### Data and Statistics

- Prevalence
- Participant Demographics

### Learn About the ACE Study

The initial phase of the ACE Study was conducted at Kaiser Permanente from 1995 to 1997. More than 17,000 participants completed a standardized physical examination. No further participants will be enrolled, but we are tracking the medical status of the baseline participants.

[More >](#)

### Featured Items

**Podcast: [Bad Memories](http://www2c.cdc.gov/podcasts/player.asp?f=4504243)**  
<http://www2c.cdc.gov/podcasts/player.asp?f=4504243>

**New Paper: [Adverse Childhood Experiences reported by adults—Five States, 2009](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm)**  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>





[http://www.cdc.gov/24-7/?s\\_cid=24-7\\_012](http://www.cdc.gov/24-7/?s_cid=24-7_012)



<http://vetoviolence.cdc.gov/evidence/#%26panel1-1>

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Content source: Centers for Disease Control and Prevention (<http://www.cdc.gov/>), National Center for Injury Prevention and Control (<http://www.cdc.gov/injury/>), Division of Violence Prevention (<http://www.cdc.gov/ViolencePrevention/index.html>)



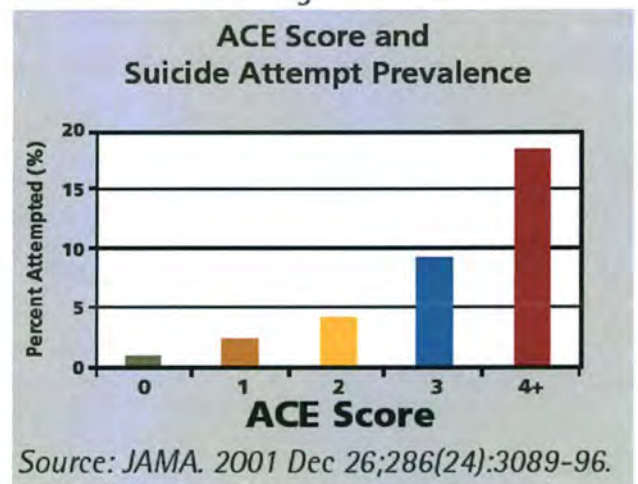
The eight most commonly measured\* traumas are in two general categories:

Table 1

Abuse	Household Dysfunction
1. Physical	4. Living with Someone with Mental Illness
2. Sexual	5. Living with Someone with Substance Abuse
3. Emotional	6. Separation or Divorce
	7. Living with Someone who went to Jail or Prison
	8. Witnessing Domestic Violence



ACE Score	Prevalence
0	33%
1	26%
2	16%
3	10%
4 +	16%



Source: Adverse Childhood Experiences: Overcoming ACES IN Alaska, State of Alaska, Department of Health and Social Services

From the office of Rep. Tarr



ACE Rates in Six States						
Adverse Childhood Experience	Alaska	Arkansas	Louisiana	New Mexico	Tennessee	Washington
Year study released	2013	2009				
<b>ABUSE</b>						
Verbal/Emotional	31.0%	24.3%	21.1%	28.1%	19.2%	<b>34.9%</b>
Physical	19.1%	14.1%	10.5%	<b>19.5%</b>	12.9%	18.1%
Sexual	<b>14.8%</b>	10.9%	9.9%	12.9%	12.7%	13.5%
<b>HOUSEHOLD DYSFUNCTION</b>						
Mental Illness in the Home	21.9%	17.0%	16.6%	19.4%	17.1%	<b>24.3%</b>
Incarcerated Family Member	<b>11.5%</b>	5.5%	7.2%	7.1%	8.6%	6.6%
Substance Abuse in Home	<b>33.8%</b>	25.5%	26.6%	29.9%	28.3%	32.7%
Separation or Divorce	<b>31.7%</b>	23.3%	27.1%	24.4%	29.1%	26.0%
Witnessed Domestic Violence	18.7%	15.1%	14.5%	<b>18.9%</b>	17.1%	16.6%

Alaska's 2013 Behavioral Risk Factor Surveillance Survey ACEs data compared to the CDC's five-state study in 2009 using the same BRFSS module. Numbers in red indicate the highest percentage of the problem of the states reviewed.

Source: CDC Morbidity and Mortality Weekly Report, Vol. 59, No. 49 Dec. 10, 2010; Alaska BRFSS, 2014

**Current Smoker**

32.0%

The Alaska ACE research indicates that, of adult smokers in 2013, the smoking of 32 percent could be linked back to ACEs. If we reduced the estimated \$576 million smoking cost for our state by 32 percent by eliminating ACEs, we could see a potential savings of \$186 million.

The **CO\$T**

20.5% Heavy Drinking

The Alaska research suggests that 20.5% of adult heavy drinking is linked back to ACEs. If 20 percent of other substance abuse is also tied to ACEs (a conservative estimate), then we can estimate that \$350 million in annual costs due to substance abuse in Alaska are linked to ACEs.

The **CO\$T**



**The Origins of Addiction:**  
**Evidence from the Adverse Childhood Experiences Study**

**Vincent J. Felitti, MD**

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Kindheitserfahrungen. Praxis der Kinderpsychologie und Kinderpsychiatrie, 2003;  
52:547-559.



## **The Origins of Addiction:** **Evidence from the Adverse Childhood Experiences Study**

*"In my beginning is my end."*

T.S. Eliot, "Four Quartets" <sup>1</sup>

### **ABSTRACT:**

A population-based analysis of over 17,000 middle-class American adults undergoing comprehensive, biopsychosocial medical evaluation indicates that three common categories of addiction are strongly related in a proportionate manner to several specific categories of adverse experiences during childhood. This, coupled with related information, suggests that the basic cause of addiction is predominantly experience-dependent during childhood and not substance-dependent. This challenge to the usual concept of the cause of addictions has significant implications for medical practice and for treatment programs.

### **Purpose:**

My intent is to challenge the usual concept of addiction with new evidence from a population-based clinical study of over 17,000 adult, middle-class Americans. The usual concept of addiction essentially states that the compulsive use of 'addictive' substances is in some way caused by properties intrinsic to their molecular structure. This view confuses mechanism with cause. Because any accepted explanation of addiction has social, medical, therapeutic, and legal implications, the way one understands addiction is important. Confusing mechanism with basic cause quickly leads one down a path that is misleading. Here, new data is presented to stimulate rethinking the basis of addiction.

### **Background:**

The information I present comes from the Adverse Childhood Experiences (ACE) Study.<sup>2</sup> The ACE Study deals with the basic causes underlying the 10 most common causes of death in America; addiction is only one of several outcomes studied.

In the mid-1980s, physicians in Kaiser Permanente's Department of Preventive Medicine in San Diego discovered that patients successfully losing weight in the Weight Program were the most likely to drop out. This unexpected observation led to our discovery that overeating and obesity were often being used unconsciously as protective solutions to unrecognized problems dating back to childhood.<sup>3,4</sup> Counterintuitively, obesity provided hidden benefits: it often was sexually, physically, or emotionally protective.



Our discovery that public health problems like obesity could also be personal solutions, and our finding an unexpectedly high prevalence of adverse childhood experiences in our middle class adult population, led to collaboration with the Centers for Disease Control (CDC) to document their prevalence and to study the implications of these unexpected clinical observations. I am deeply indebted to my colleague, Robert F. Anda MD, who skillfully designed the Adverse Childhood Experiences (ACE) Study in an epidemiologically sound manner, and whose group at CDC analyzed several hundred thousand pages of patient data to produce the data we have published.

Many of our obese patients had previously been heavy drinkers, heavy smokers, or users of illicit drugs. Of what relevance are these observations; do they imply some unspecified innate tendency to addiction? Is addiction genetic, as some have proposed for alcoholism? Is addiction a biomedical disease, a personality disorder, or something different? Are diseases and personality disorders separable, or are they ultimately related? What does one make of the dramatic recent findings in neurobiology that seem to promise a neurochemical explanation for addiction? Why does only a small percent of persons exposed to addictive substances become compulsive users?

Although the problem of narcotic addiction has led to extensive legislative attempts at eradication, its prevalence has not abated over the past century. However, the distribution pattern of narcotic use within the population has radically changed, attracting significant political attention and governmental action.<sup>5</sup> The inability to control addiction by these major, well-intended governmental efforts has drawn thoughtful and challenging commentary from a number of different viewpoints.<sup>6,7</sup>

In our detailed study of over 17,000 middle-class American adults of diverse ethnicity, we found that the compulsive use of nicotine, alcohol, and injected street drugs increases proportionally in a strong, graded, dose-response manner that closely parallels the intensity of adverse life experiences during childhood. This of course supports old psychoanalytic views and is at odds with current concepts, including those of biological psychiatry, drug-treatment programs, and drug-eradication programs. Our findings are disturbing to some because they imply that the basic causes of addiction lie within *us* and the way we treat each other, not in drug dealers or dangerous chemicals. They suggest that billions of dollars have been spent everywhere except where the answer is to be found.

#### **Study design:**

Kaiser Permanente (KP) is the largest prepaid, non-profit, healthcare delivery system in the United States; there are 500,000 KP members in San Diego, approximately 30% of the greater metropolitan population. We invited 26,000 consecutive adults voluntarily seeking comprehensive medical evaluation in the Department of Preventive Medicine to help us understand how events in childhood might later affect health status in adult life. Seventy percent agreed, understanding the information obtained was anonymous and would not become part of their medical records. Our cohort population was 80% white including Hispanic, 10% black, and 10% Asian. Their average age was 57 years; 74% had been to college, 44% had graduated college; 49.5% were men. In any four-year period, 81% of all adult Kaiser Health Plan members seek such medical



evaluation; there is no reason to believe that selection bias is a significant factor in the Study. The Study was carried out in two waves, to allow mid point correction if necessary. Further details of Study design are described in our initial publication.<sup>2</sup>

The ACE Study compares adverse childhood experiences against adult health status, on average a half-century later. The experiences studied were eight categories of adverse childhood experience commonly observed in the Weight Program. The prevalence of each category is stated in parentheses. The categories are:

- recurrent and severe physical abuse (11%)
- recurrent and severe emotional abuse (11%)
- contact sexual abuse (22%)
- growing up in a household with:
  - an alcoholic or drug-user (25%)
  - a member being imprisoned (3%)
  - a mentally ill, chronically depressed, or institutionalized member (19%)
  - the mother being treated violently (12%)
  - both biological parents *not* being present (22%)

The scoring system is simple: exposure during childhood or adolescence to any category of ACE was scored as one point. Multiple exposures within a category were not scored: one alcoholic within a household counted the same as an alcoholic and a drug user; if anything, this tends to understate our findings. The ACE Score therefore can range from 0 to 8. Less than half of this middle-class population had an ACE Score of 0; one in fourteen had an ACE Score of 4 or more.

In retrospect, an initial design flaw was not scoring subtle issues like low-level neglect and lack of interest in a child who is otherwise the recipient of adequate physical care. This omission will not affect the interpretation of our First Wave findings, and may explain the presence of some unexpected outcomes in persons having ACE Score zero. Emotional neglect was studied in the Second Wave.

The ACE Study contains a prospective arm: the starting cohort is being followed forward in time to match adverse childhood experiences against current doctor office visits, emergency department visits, pharmacy costs, hospitalizations, and death. Publication of these analyses soon will begin.

### **Findings:**

Our overall findings, presented extensively in the American literature, demonstrate that:

- Adverse childhood experiences are surprisingly common, although typically concealed and unrecognized.
- ACEs still have a profound effect 50 years later, although now transformed from psychosocial experience into organic disease, social malfunction, and mental illness.
- Adverse childhood experiences are the main determinant of the health and social well-being of the nation.



Our overall findings challenge conventional views, some of which are clearly defensive. They also provide opportunities for new approaches to some of our most difficult public health problems. Findings from the ACE Study provide insights into changes that are needed in pediatrics and adult medicine, which expectedly will have a significant impact on the cost and effectiveness of medical care.

Our intent here is to present our findings only as they relate to the problem of addiction, using nicotine, alcohol, and injected illicit drugs as examples of substances that are commonly viewed as 'addicting'. If we know *why* things happen and *how*, then we may have a new basis for prevention.

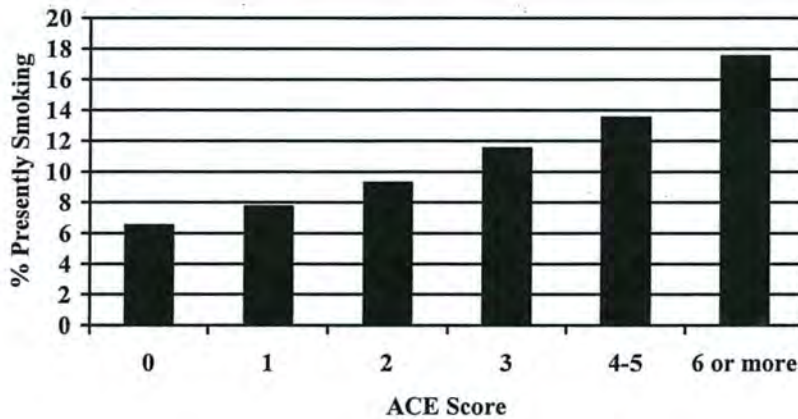
Smoking:

Smoking tobacco has come under heavy opposition in the United States, particularly in southern California where the ACE Study was carried out. Whereas at one time most men and many women smoked, only a minority does so now; it is illegal to smoke in office buildings, public transportation, restaurants, bars, and in most areas of hotels.

When we studied current smokers, we found that smoking had a strong, graded relationship to adverse childhood experiences. Figure 1 illustrates this clearly. The *p* value for this and all other data displays is .001 or better.

This stepwise 250% increase in the likelihood of an ACE Score 6 child being a

**ACE Score vs. Smoking**

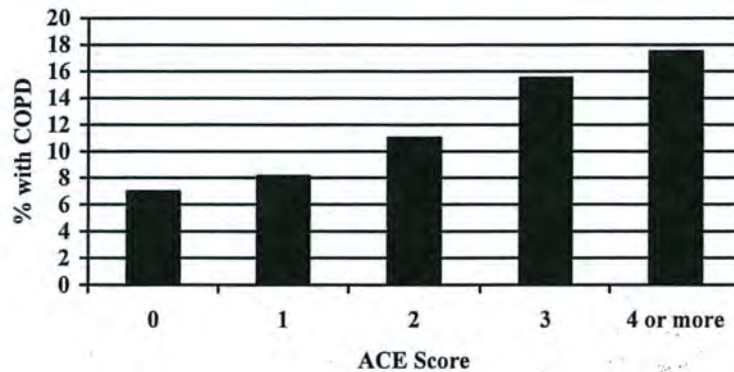


current smoker, compared to an ACE Score 0 child, is generally not known.<sup>8</sup> This simple observation has profound implications that illustrate the psychoactive *benefits* of nicotine<sup>9</sup>; this information has largely been lost in the public health onslaught against smoking, but is important in understanding the intractable nature of smoking in many people.<sup>10, 11, 12, 13</sup>



When we match the prevalence of adult chronic bronchitis and emphysema against ACEs, we again see a strong dose-response relationship. We thereby proceed from the relationship of adverse childhood experiences to a health-risk behavior to their relationship with an organic disease. In other words, Figure 2 illustrates the conversion of emotional stressors into an organic disease, through the intermediary mechanism of an emotionally beneficial (although medically unsafe) behavior.

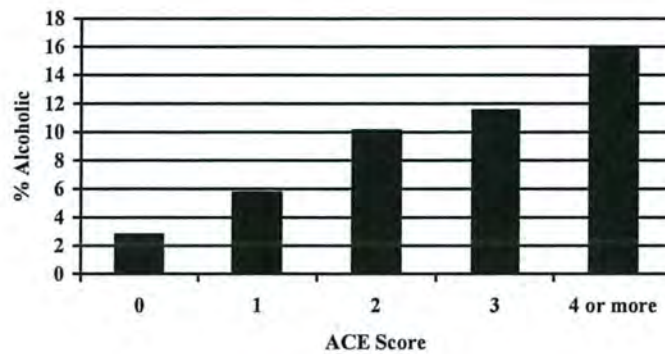
**ACE Score vs. COPD**



Alcoholism:

One's own alcoholism is not easily or comfortably acknowledged; therefore, when we asked our Study cohort if they had ever considered themselves to be alcoholic, we felt that *Yes* answers probably understated the truth, making the effect even stronger than is shown. The relationship of self-acknowledged alcoholism to adverse childhood experiences is depicted in Figure 3. Here we see that more than a 500% increase in adult alcoholism is related in a strong, graded manner to adverse childhood experiences.<sup>14</sup>

**ACE Score vs. Adult Alcoholism**

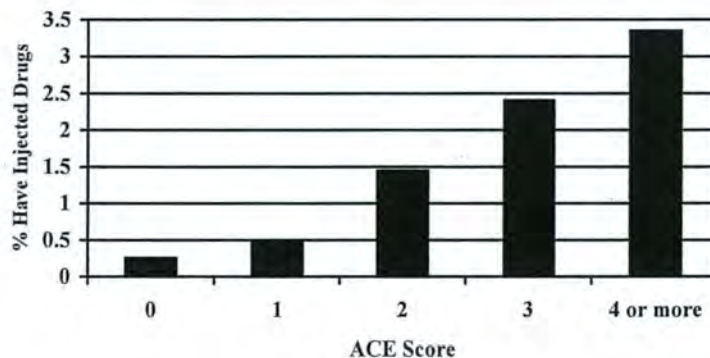




### Injection of illegal drugs:

In the United States, the most commonly injected street drugs are heroin and methamphetamine. Methamphetamine has the interesting property of being closely related to amphetamine, the first anti-depressant introduced by Ciba Pharmaceuticals in 1932. When we studied the relation of injecting illicit drugs to adverse childhood experiences, we again found a similar dose-response pattern; the likelihood of injection of street drugs increases strongly and in a graded fashion as the ACE Score increases. (Figure 4) At the extremes of ACE Score, the figures for injected drug use are even more powerful. For instance, a male child with an ACE Score of 6, when compared to a male child with an ACE Score of 0, has a 46-fold (4,600%) increase in the likelihood of becoming an injection drug user sometime later in life.

ACE Score vs. Injected Drug Use



### Discussion:

Although awareness of the hazards of smoking is now near universal, and has caused a significant reduction in smoking, in recent years the prevalence of smoking has remained largely unchanged. In fact, the association between ACE Score and smoking is stronger in age cohorts born after the Surgeon General's Report on Smoking. Do current smokers now represent a core of individuals who have a more profound need for the psychoactive benefits of nicotine than those who have given up smoking? Our clinical experience<sup>12</sup> and data from the ACE Study suggest this as a likely possibility. Certainly, there is good evidence of the psychoactive benefits of nicotine for moderating anger, anxiety, and hunger.<sup>9-12</sup>

Alcohol is well accepted as a psychoactive agent. This obvious explanation of alcoholism is now sometimes rejected in favor of a proposed genetic causality. Certainly, alcoholism may be familial, as is language spoken. Our findings support an experiential and psychodynamic explanation for alcoholism, although this may well be moderated by genetic and metabolic differences between races and individuals.

Analysis of our Study data for injected drug use shows a powerful relation to ACEs. Population Attributable Risk\* (PAR) analysis shows that 78% of drug injection by



women can be attributed to adverse childhood experiences. For men and women combined, the PAR is 67%. Moreover, this PAR has been constant in four age cohorts whose birth dates span a century; this indicates that the relation of adverse childhood experiences to illicit drug use has been constant in spite of major changes in drug availability and in social customs, and in the introduction of drug eradication programs.<sup>17</sup>

American soldiers in Vietnam provided an important although overlooked observation. Many enlisted men in Vietnam regularly used heroin. However, only 5% of those considered addicted were still using it 10 months after their return to the US.<sup>15, 16</sup> Treatment did not account for this high recovery rate. Why does not everyone become addicted when they repeatedly inject a substance reputedly as addicting as heroin? If a substance like heroin is not inherently addicting to everyone, but only to a small minority of human users, what determines this selectivity? Is it the substance that is intrinsically addicting, or do life experiences actually determine its compulsive use? Surely its chemical structure remains constant. Our findings indicate that the major factor underlying addiction is adverse childhood experiences that have not healed with time and that are overwhelmingly concealed from awareness by shame, secrecy, and social taboo. The compulsive user appears to be one who, not having other resolutions available, unconsciously seeks relief by using materials with known psychoactive benefit, accepting the known long-term risk of injecting illicit, impure chemicals. The ACE Study provides population-based clinical evidence that unrecognized adverse childhood experiences are a major, if not the major, determinant of who turns to psychoactive materials and becomes 'addicted'.

Given that the conventional concept of addiction is seriously flawed, and that we have presented strong evidence for an alternative explanation, we propose giving up our old mechanistic explanation of addiction in favor of one that explains it in terms of its psychodynamics: unconscious although understandable decisions being made to seek chemical relief from the ongoing effects of old trauma, often at the cost of accepting future health risk. Expressions like 'self-destructive behavior' are misleading and should be dropped because, while describing the acceptance of long-term risk, they overlook the importance of the obvious short-term benefits that drive the use of these substances.

This revised concept of addiction suggests new approaches to primary prevention and treatment. The current public health approach of repeated cautionary warnings has demonstrated its limitations, perhaps because the cautions do not respect the individual when they exhort change without understanding. Adverse childhood experiences are widespread and typically unrecognized. These experiences produce neurodevelopmental and emotional damage, and impair social and school performance. By adolescence, children have a sufficient skill and independence to seek relief through a small number of mechanisms, many of which have been in use since biblical times: drinking alcohol, sexual promiscuity, smoking tobacco, using psychoactive materials, and overeating. These coping devices are manifestly effective for their users, presumably through their ability to modulate the activity of various neurotransmitters. Nicotine, for instance, is a

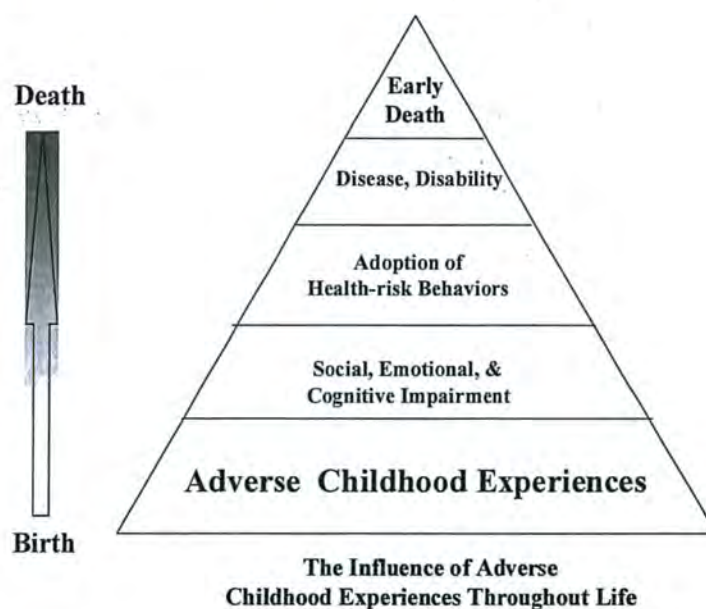
*\* Population Attributable Risk is a simple concept, although a complex calculation, that describes in a population that portion of a risk factor that can be attributed to a particular cause.*



powerful substitute for the neurotransmitter acetylcholine. Not surprisingly, the level of some neurotransmitters varies genetically between individuals<sup>18</sup>.

It is these coping devices, with their short-term emotional benefits, that often pose long-term risks leading to chronic disease; many lead to premature death. This sequence is depicted in the ACE Pyramid (Figure 5). The sequence is slow, often unstoppable, and is generally obscured by time, secrecy, and social taboo. Time does not heal in most of these instances. Because cause and effect usually lie within a family, it is understandably more comforting to demonize a chemical than to look within. We find that addiction overwhelmingly implies prior adverse life experiences.

The sequence in the ACE Pyramid supports psychoanalytic observations that addiction is primarily a consequence of adverse childhood experiences. Moreover, it does so by a population-based study, thereby escaping the potential selection bias of individual case reports. Addiction is not a brain disease, nor is it caused by chemical imbalance or genetics. Addiction is best viewed as an understandable, unconscious, compulsive use of psychoactive materials in response to abnormal prior life experiences, most of which are concealed by shame, secrecy, and social taboo.



Our findings show that childhood experiences profoundly and causally shape adult life. 'Chemical imbalances', whether genetically modulated or not, are the necessary intermediary mechanisms by which these causal life experiences are translated into manifest effect. It is important to distinguish between cause and mechanism. Uncertainty and confusion between the two will lead to needless polemics and misdirected efforts for preventing or treating addiction, whether on a social or an



individual scale. Our findings also make it clear that studying any one category of adverse experience, be it domestic violence, childhood sexual abuse, or other forms of family dysfunction is a conceptual error. None occur *in vacuo*; they are part of a complex systems failure: one does not grow up with an alcoholic where everything else in the household is fine.

**Treatment:**

If we are to improve the current unhappy situation, we must in medical settings routinely screen at the earliest possible point for adverse childhood experiences. It is feasible and acceptable to carry out mass screening for ACEs in the context of comprehensive medical evaluation. This identifies cases early and allows treatment of basic causes rather than vainly treating the symptom of the moment. We have screened over 450,000 adult members of Kaiser Health Plan for these eight categories of adverse childhood experiences. Our initial screening is by an expanded Review of Systems questionnaire; patients certainly do not spontaneously volunteer this information. 'Yes' answers then are pursued with conventional history taking: "I see that you were molested as a child. *Tell me how that has affected you later in your life.*"

Such screening has demonstrable value. Before we screened for adverse childhood experiences, our standardized comprehensive medical evaluation led to a 12% reduction in medical visits during the subsequent year. Later, in a pilot study, an on-site psychoanalyst conducted a one-time interview of depressed patients; this produced a 50% reduction in the utilization of this subset during the subsequent year. However, the reduction occurred only in those depressed patients who were high utilizers of medical care because of somatization disorders. Recently, we evaluated our current approach by a neural net analysis of the records of 135,000 patients who were screened for adverse childhood experiences as part of our redesigned comprehensive medical evaluation. This entire cohort showed an overall reduction of 35% in doctor office visits during the year subsequent to evaluation.<sup>19</sup>

Our experience asking these questions indicates that the magnitude of the ACE problem is so great that primary prevention is ultimately the only realistic solution. Primary prevention requires the development of a beneficial and acceptable intrusion into the closed realm of personal and family experience. Techniques for accomplishing such change *en masse* are yet to be developed because each of us, fearing the new and unknown as a potential crisis in self-esteem, often adjusts to the status quo. However, one possible approach to primary prevention lies in the mass media: the story lines of movies and television serials present a major therapeutic opportunity, unexploited thus far, for contrasting desirable and undesirable parenting skills in various life situations.

Because addiction is experience-dependent and not substance-dependent, and because compulsive use of only one substance is actually uncommon, one also might restructure treatment programs to deal with underlying causes rather than to focus on substance withdrawal. We have begun using this approach with benefit in our Obesity Program, and plan to do so with some of the more conventionally accepted addictions.



**Conclusion:**

The current concept of addiction is ill founded. Our study of the relationship of adverse childhood experiences to adult health status in over 17,000 persons shows addiction to be a readily understandable although largely unconscious attempt to gain relief from well-concealed prior life traumas by using psychoactive materials. Because it is difficult to get enough of something that doesn't quite work, the attempt is ultimately unsuccessful, apart from its risks. What we have shown will not surprise most psychoanalysts, although the magnitude of our observations is new, and our conclusions are sometimes vigorously challenged by other disciplines.

The evidence supporting our conclusions about the basic cause of addiction is powerful and its implications are daunting. The prevalence of adverse childhood experiences and their long-term effects are clearly a major determinant of the health and social well being of the nation. This is true whether looked at from the standpoint of social costs, the economics of health care, the quality of human existence, the focus of medical treatment, or the effects of public policy. Adverse childhood experiences are difficult issues, made more so because they strike close to home for many of us. Taking them on will create an ordeal of change, but will also provide for many the opportunity to have a better life.

***Footnote:***

*Abstracts of all past and future ACE Study articles may be found by searching under the author name (Felitti VJ) at the web site for the US National Library of Medicine:*

*<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>*

*Free subscription is available to an electronic newsletter dealing with various aspects of the ACE Study. Contact: [editor@acestudy.org](mailto:editor@acestudy.org)*



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**END**

