A Systemic Approach and the Economic Benefits of Identifying and Treating Family Trauma
The Developing Brain

3 Year Old Children

Normal

Extreme Neglect
Evidence

The Adverse Childhood Experience Study:
- Collaborative between CDC and Kaiser Permanente HMO.
- > 17,000 adults surveyed about adverse childhood experiences.
- Average participant age - 57 years.
- Medical histories available for all participants.

Adverse Childhood Experience Study

10 adverse childhood experiences surveyed:

1. Physical abuse
2. Sexual abuse
3. Emotional abuse
4. Emotional neglect
5. Physical neglect
6. Witness domestic violence
7. Mental illness in home
8. Family member incarcerated
9. Alcohol/drug problems
10. Parental separation or divorce
ACE: Prevalence data

Key finding:

- About 2/3rd of those surveyed reported at least one ACE.
- The 1/3 of participants with no reported ACEs were consistently healthier across all measures.
Health Measures Now Linked to Adverse Childhood Experiences Score

- Stepwise increased risk for:
  - Heart disease
  - Asthma
  - Diabetes
  - Cancer
  - COPD
  - Skeletal fractures
  - Sexually transmitted diseases
  - Liver disease
  - Autoimmune disorders
  - Osteoarthritis
  - Smoking
  - Alcohol abuse
  - Over eating and obesity
  - Illicit drug use
  - Promiscuity
  - IV drug use
  - Clinical depression

- And
  - Autobiographical memory disturbance
  - Poor anger control
  - Relationship problems
  - Employment problems
  - Early age at first intercourse
  - Teen pregnancy
  - Unintended pregnancy
  - Teen paternity
  - Fetal death
  - Suicide
  - Domestic violence
  - Anxiety disorders
  - Hallucinations
  - Sleep disturbances
  - Chronic pain
  - Headaches
  - Early death
## 2013 Alaska BRFSS

### ACE SCORE

<table>
<thead>
<tr>
<th>ACE SCORE</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
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</thead>
<tbody>
<tr>
<td>All Alaskan Adults</td>
<td>35.6%</td>
<td>22.3%</td>
<td>14.7%</td>
<td>10.1%</td>
<td>6.5%</td>
<td>10.8%</td>
</tr>
</tbody>
</table>

### Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55+</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>34.0%</td>
<td>33.3%</td>
<td>30.4%</td>
<td>33.8%</td>
<td>41.7%</td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td>19.8%</td>
<td>26.8%</td>
<td>20.5%</td>
<td>20.6%</td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td></td>
<td>10.5%</td>
<td>13.6%</td>
<td>16.7%</td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td></td>
<td></td>
<td>6.2%</td>
<td>5.9%</td>
</tr>
<tr>
<td>55+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.5%</td>
</tr>
</tbody>
</table>

### Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38.9%</td>
<td>32.0%</td>
</tr>
<tr>
<td></td>
<td>22.5%</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td>16.1%</td>
<td>16.1%</td>
</tr>
<tr>
<td></td>
<td>8.5%</td>
<td>11.9%</td>
</tr>
<tr>
<td></td>
<td>5.6%</td>
<td>7.5%</td>
</tr>
<tr>
<td></td>
<td>8.5%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Adverse Childhood Experience*</td>
<td>Alaska</td>
<td>Arkansas</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Abuse</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Emotional</td>
<td>31.0</td>
<td>24.3</td>
</tr>
<tr>
<td>Physical</td>
<td>19.1</td>
<td>14.1</td>
</tr>
<tr>
<td>Sexual</td>
<td>14.8</td>
<td>10.9</td>
</tr>
</tbody>
</table>

*Percentages in red are the highest of the states compared.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion
Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm
<table>
<thead>
<tr>
<th>Adverse Childhood Experience*</th>
<th>Alaska</th>
<th>Arkansas</th>
<th>Louisiana</th>
<th>New Mexico</th>
<th>Tennessee</th>
<th>Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Dysfunction</strong></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Mental Illness in the Home</td>
<td>21.9</td>
<td>17.0</td>
<td>16.6</td>
<td>19.4</td>
<td>17.1</td>
<td><strong>24.3</strong></td>
</tr>
<tr>
<td>Incarcerated Family Member</td>
<td>11.5</td>
<td>5.5</td>
<td>7.2</td>
<td>7.1</td>
<td>8.6</td>
<td>6.6</td>
</tr>
<tr>
<td>Substance Abuse in Home</td>
<td>33.8</td>
<td>25.5</td>
<td>26.6</td>
<td>29.9</td>
<td>28.3</td>
<td>32.7</td>
</tr>
<tr>
<td>Separation or Divorce</td>
<td>31.7</td>
<td>23.3</td>
<td>27.1</td>
<td>24.4</td>
<td>29.1</td>
<td>26.0</td>
</tr>
<tr>
<td>Witnessed Domestic Violence</td>
<td>18.7</td>
<td>15.1</td>
<td>14.5</td>
<td><strong>18.9</strong></td>
<td>17.1</td>
<td>16.6</td>
</tr>
</tbody>
</table>

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Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm
Prevalence of Specific ACEs Experienced by AN People Compared with Non-AN

- Substance Abuse in Household: AN 49.8%, Non-AN 31%
- Separated or Divorced Parent: AN 39.4%, Non-AN 30.4%
- Verbal Abuse: AN 33%, Non-AN 16.2%
- Witnessed Domestic Violence: AN 21.9%, Non-AN 13.6%
- Mental Illness in Household: AN 20%, Non-AN 10.1%
- Physical Abuse: AN 19.5%, Non-AN 13.6%
- Sexual Abuse: AN 19.5%, Non-AN 13.6%
- Incarcerated Household Member: AN 10.1%, Non-AN 9.5%

Source: 2013 Alaska BRFSS
How Do We Work Together to Decrease Alaska ACEs?
American Academy of Pediatrics
Policy Statement

- Front line: Providers
  - Providers need to *actively assist* parents, child care providers, teachers, policy makers, civic leaders, and the general public to address many of the most persistent and costly problems facing contemporary society, including:
    - Limited educational achievement
    - Diminished economic productivity
    - Criminality
    - Disparities in health
Why Are Providers the Front Line?

Age at Which Children Are Seen in a Provider’s Office
Parent-Screening Questionnaires

Dear Parent or Caregiver: Being a parent is not always easy. We want to help families have a safe environment for kids. So, we’re asking everyone these questions. They are about problems that affect many families. If there’s a problem, we’ll try to help.

Please answer the questions about your child being seen today for a checkup. If there’s more than one child, please answer “yes” if it applies to any one of them. This is voluntary. You don’t have to answer any question you prefer not to.

Today’s Date: __/__/__
Child’s Name: __________________
Child’s Date of Birth: __/__/__

PLEASE CHECK
☐ Yes ☐ No  Do you need the phone number for Poison Control?
☐ Yes ☐ No  Do you need a smoke detector for your home?
☐ Yes ☐ No  Does anyone smoke tobacco at home?
☐ Yes ☐ No  In the last year, did you worry that your food would run out before you get money or Food Stamps to buy more?
☐ Yes ☐ No  In the last year, did the food you bought just not last and you didn’t have money to get more?
☐ Yes ☐ No  Do you often feel your child is difficult to take care of?
☐ Yes ☐ No  Do you sometimes find you need to hit/spark your child?
☐ Yes ☐ No  Do you wish you had more help with your child?
☐ Yes ☐ No  Do you often feel under extreme stress?
☐ Yes ☐ No  In the past month, have you often felt down, depressed, or hopeless?
☐ Yes ☐ No  In the past month, have you felt very little interest or pleasure in things you used to enjoy?
☐ Yes ☐ No  In the past year, have you been afraid of your partner?
☐ Yes ☐ No  In the past year, have you had a problem with drugs or alcohol?
☐ Yes ☐ No  In the past year, have you felt the need to cut back on drinking or drug use?
☐ Yes ☐ No  Are there any other problems you’d like help with today?

Please give this form to the doctor or nurse you’re seeing today. Thank you!

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Three Questions—Gets Almost Everything

- Has anything really stressful happened to your child since the last time I saw you?
- How has that affected your child’s behavior?
  - Corollary question: How has this event and any changes in your child’s behavior affected you?
- What have you done that’s really fun with your child since the last time I saw you?
- Give me three words to describe your child
HelpMeGrow

- Connects at-risk children with the services they need
  - Four Core Components
    - Child health care provider outreach to support screening
    - Community outreach to identify resources
    - Centralized telephone access point
    - Collection of data, including service gap analysis
  - Builds collaboration across sectors to improve access
  - Identifies gaps and barriers to access systems

- www.helpmegrownational.org
Care Coordinators provide

- Assessment of needs & referrals to services
- Education on development, behavior management and programs
- Ongoing developmental monitoring
- Advocacy and follow up
What Can Policy Makers and Funders Do?

- Support reimbursement of screening and other aspects of the patient-centered medical home
- Support the development of programs like Help Me Grow that have been shown to improve family wellness and decrease system costs
- Preferentially support organizations and programs that focus on intervention in early childhood
  - ACEs Resolution in the House
What If We Reduced Alaska’s ACE Score by \( \frac{1}{2} \) Point
Reducing Alaska’s ACE Score by ½

- If we just look at the reduction of
  - Obesity
  - Adult Medicaid recipients
  - Smoking
  - Binge drinking
  - Diabetes
  - Arthritis

- Alaska will save $90 million annually
What Does $90 Million Buy in Alaska?

• 258 three bedroom homes in Anchorage (average price $347,000)
• 915 kindergarten teachers (wages only $66,384 + 40%) $97,938
• 846 police officers (wages only $75,672 + 40%) $105,941
• 518 mechanical engineers (wages only $123,600 + 40%) $173,040
• 339 pediatricians (wages only $189,000 + 40%) $264,600
• Office of Children’s Services - General Funds 2016 – Operations
• All of the Behavioral Health State Medicaid Costs + $18 million
• The General Funds for the Department of Commerce, Community & Economic Development + The Department of Labor & Workforce Development
• 103,307 Flights from Ketchikan to Barrow in July ($868)
• Boeing 737-800 + $17 million for fuel and crew.

Pick One!

http://live.laborstats.alaska.gov/occ/alloccs.cfm#L
If Alaska Had ACE Rates Similar to Arkansas and Vermont the Estimated Reduction in Number of Alaskan Adults for Each Category of Economic and Educational Outcome

Calculations based on 2013 Alaska BRFSS data conducted by the Alaska Mental Health Board and Advisory Board on Alcoholism and Drug Abuse Staff
If Alaska Had ACE Rates Similar to Arkansas and Vermont the Estimated Reduction in Number of Alaskan Adults for Each Category of Behavioral Health Outcome

Calculations based on 2013 Alaska BRFSS data conducted by the Alaska Mental Health Board and Advisory Board on Alcoholism and Drug Abuse Staff
If Alaska Had ACE Rates Similar to Arkansas and Vermont the Estimated Reduction in Number of Alaskan Adults for Each Category of Food Insecurity Outcome

- Cut the Size of, or Skipped Meals Because Couldn’t Get Food: 4,176 (11.6%)
- Were Hungry & Did Not Eat Because No Food: 10,103 (8.9%)
- Used Community Food Bank: 2,464 (7.0%)
- Used Government Food Program: 5,549 (7.0%)

Calculations based on 2013 Alaska BRFSS data conducted by the Alaska Mental Health Board and Advisory Board on Alcoholism and Drug Abuse Staff.
“In the brain, as in the economy, getting it right the first time is ultimately more effective and less costly than trying to fix it later. “

James Heckman
Nobel Laureate Economist

National Scientific Council
http://www.developingchild.net
Thank you!!!

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  - (907) 729-1084