Understanding Adverse Childhood Experiences

Building Self-Healing Communities

ACE Interface
Memory of our experiences is stored in our body.
It’s about you and me

Changing the future of public health

Discovery
HUMAN NERVOUS SYSTEM

Nervous system ORCHESTRATES BODY FUNCTIONS & PERCEPTIONS

Neuroscience HELPS US UNDERSTAND WHY A C E s ARE SO POWERFUL

Brain
Spinal Cord
Peripheral Nerves
Single Nerve Cell
SYNAPTIC DENSITY

At Birth  Elementary Age  Puberty

Single Neuron
ADAPTATIONS VS EXPECTATIONS

WHEN BIOLOGY collides WITH SOCIAL EXPECTATIONS we run into TROUBLE
Epigenetics & Enduring Health
Understanding Health Behaviors

adaptations to ADVERSITY
FINDING MORE CONNECTIONS

how multiple forms of childhood adversity can affect many important PUBLIC HEALTH PROBLEMS
# Adverse Childhood Experiences Are Common

<table>
<thead>
<tr>
<th>Household Dysfunction</th>
<th>Neglect</th>
<th>Abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Abuse</td>
<td>Emotional 15%</td>
<td>Emotional 11%</td>
</tr>
<tr>
<td>Parental Sep/Divorce</td>
<td>Physical 10%</td>
<td>Physical 28%</td>
</tr>
<tr>
<td>Mental Illness</td>
<td></td>
<td>Sexual 21%</td>
</tr>
<tr>
<td>Battered Mothers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal Behavior</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Emotional 15%</th>
<th>Physical 10%</th>
<th>Sexual 21%</th>
</tr>
</thead>
</table>

**Total 10 ACEs**
ACE Score and Health Problems

% with Health Problems

Dose-Response Relationship

0 ACE  1 ACE  2 ACEs  3 ACEs  4 ACEs  <5 ACEs
ACE Score and Liver Disease

% with Liver Disease

ACE SCORE

0 1 2 3 4 or +

0 2 4 6 8 10 12
Neurobiology and Epidemiology Converge

Mean Number of Co-Occurring Outcomes

ACE SCORE

0 1 2 3 4 5 6 7.8

Health and Social Problems
- panic reactions
- depression
- anxiety
- hallucinations
- sleep disturbances
- severe obesity
- pain
- smoking
- alcoholism
- illicit drug use
- IV drug use
- early intercourse
- promiscuity
- sexual dissatisfaction
- amnesia (childhood)
- high stress
- problems with anger
- perpetrating
- domestic violence
ACEs are Common, Interrelated, Powerful

- High ACE Scores in Population
- Increased Risk of Multiple Health and Social Problems
- Intergenerational Transmission of ACEs
“Nurturing the healthy development of these protective systems affords the most important preparation or ‘inoculation’ for overcoming potential threats and adversities in human development. Similarly, damage or destruction of these systems has dire consequences for the positive adaptive capacity of individuals.”

Ann Masten, 2009
Community Capacity Development

- Leadership Expansion
- Coming Together
- Shared Learning
- Results-Oriented Decisions
- Leadership Expansion
- Coming Together
- Shared Learning
- Results-Oriented Decisions
Cultural Respect and Continuity is Vital

Reclaiming cultural ways after a time of loss is a powerful driver of well-being. “One of the first things that has to be done is to ask the community what is important to the community.”

*Duran & Duran, 1995*
"There is no power for change greater than a community discovering what it cares about"
-Margaret J. Wheatley
Thank YOU!

www.aceinterface.com