Childhood Trauma:
Data from the California Behavioral Risk Factor Survey

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Testimony to the California State Assembly Select Committee on Delinquency Prevention and Youth Development, Los Angeles CA, April 4, 2014
Acknowledgments

• Brendan Darsie, Cal-EIS Fellow, SAC Branch, and management of the Chronic Disease and Injury Control Division and Center for Chronic Disease Prevention and Health Promotion, CDPH

• Mary Lou Fulton, Senior Program Manager, The California Endowment Foundation
Science of Early Childhood Development

- Growing body of scientific knowledge

ACE Study

Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health

The Lifelong Effects of Early Childhood Adversity and Toxic Stress

Morbidity and Mortality Weekly Report (MMWR) Adverse Childhood Experiences Reported by Adults -- Five States, 2009

Early Childhood Investments Substantially Boost Adult Health

Science 28 March 2014:
Felitti, V. & Anda, RF The Relationship of Adverse Childhood Experiences to Adult Health Status
A collaborative effort of Kaiser Permanente and The Centers for Disease Control [http://www.cdc.gov/ace/]
Cascade of Risks over the Life Span

Life course model adapted from racial disparities work by Michael Lu
California Behavioral Risk Factor Survey

- Behavioral Risk Factor Surveillance System
  - Established by the Centers for Disease Control and Prevention (CDC) in 1984; conducted in all 50 states
- California Behavior Risk Factor Survey (BRFS)
  - Collaborative effort among CDC, California Departments of Health Care Services and Social Services and Public Health Institute
  - Random-digit dial land line telephone survey of non-institutionalized adults (18+ years of age) conducted in English and Spanish
  - Sample weighted to better represent CA adult population
Adverse Childhood Experiences (ACEs)

- California first state to use ACEs Module (2008)
- 2011 BRFS ACEs module (11 questions)
  - Mental Illness
  - Substance Abuse
  - Incarceration
  - Parental Separation/Divorce
  - Domestic Violence
  - Physical Abuse
  - Sexual Abuse
  - Emotional Abuse
- Sample size
  - 9,526 respondents completed the ACEs Module
California Adverse Childhood Experiences (ACEs), CA BRFS, 2011

- Incarcerated Household
- Sexual Abuse
- Mentally Illness Among
- Violence Between Adults
- Physical Abuse
- Parent Separation/Divorce
- Adult Substance Abuse
- Verbal Abuse
California ACEs, CA BRFS, 2011

ACEs Count

0 1+ 2+ 3+ 4+ 5+ 6+ 7+ 8

0% 10% 20% 30% 40% 50% 60% 70%
Cumulative Risk

<table>
<thead>
<tr>
<th>Event</th>
<th>Mean Number of ACEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incarcerated Household Member</td>
<td>4.6</td>
</tr>
<tr>
<td>Violence Between Adults</td>
<td>3.9</td>
</tr>
<tr>
<td>Mentally Illness Among Adults</td>
<td>3.8</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>3.8</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>3.8</td>
</tr>
<tr>
<td>Adult Substance Abuse</td>
<td>3.5</td>
</tr>
<tr>
<td>Verbal Abuse</td>
<td>3.4</td>
</tr>
<tr>
<td>Parent Separation/Divorce</td>
<td>3.2</td>
</tr>
</tbody>
</table>
ACEs and Race

Average number of ACEs for each race/ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Average Number of ACEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>2.6</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>0.9</td>
</tr>
<tr>
<td>Black</td>
<td>1.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.7</td>
</tr>
<tr>
<td>White</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Medi-Cal Status and Exposure to ACEs

- One or more ACEs
  - 69% of Medi-Cal clients
  - 61% of non-Medi-Cal clients

- Four or more ACEs
  - 23% of Medi-Cal clients
  - 15% of non-Medi-Cal clients
ACEs and Poverty

Psychological Distress

- 0 ACEs
- 4+ ACEs

<table>
<thead>
<tr>
<th>FPL</th>
<th>Psychological Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>130%+</td>
<td>5%</td>
</tr>
<tr>
<td>&lt;130% FPL</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>52%</td>
</tr>
</tbody>
</table>

Fair/Poor Self-Rated Health

- 0 ACEs
- 4+ ACEs

<table>
<thead>
<tr>
<th>FPL</th>
<th>Prevalence of Poor/Fair Self-Rated Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>130%+</td>
<td>9%</td>
</tr>
<tr>
<td>&lt;130% FPL</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>47%</td>
</tr>
</tbody>
</table>
ACEs and Adult Sexual Violence Prevalence

<table>
<thead>
<tr>
<th>Number of ACEs</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ACEs</td>
<td>0.3%</td>
<td>1.5%</td>
</tr>
<tr>
<td>1-3 ACEs</td>
<td>0.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td>4+ ACEs</td>
<td>2.3%</td>
<td>17.4%</td>
</tr>
</tbody>
</table>
ACEs and Health Behavior

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>0 ACEs</th>
<th>1-3 ACEs</th>
<th>4+ ACEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Risk of HIV</td>
<td>2%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Current Smoking</td>
<td>6%</td>
<td>12%</td>
<td>21%</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>11%</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>Sleep Problems</td>
<td>30%</td>
<td>32%</td>
<td>39%</td>
</tr>
</tbody>
</table>
ACEs and Mental Health

- Depression
  - 0 ACEs: 5%
  - 1-3 ACEs: 13%
  - 4+ ACEs: 28%

- Psychological Distress
  - 0 ACEs: 6%
  - 1-3 ACEs: 13%
  - 4+ ACEs: 29%

- 14+ Poor Mental Health Days (in last 30)
  - 0 ACEs: 7%
  - 1-3 ACEs: 10%
  - 4+ ACEs: 25%
ACES and Cardiovascular Diseases

- **Stroke**
  - 0 ACEs: 1.2%
  - 1-3 ACEs: 2.3%
  - 4+ ACEs: 2.8%

- **Heart Attack**
  - 0 ACEs: 2.6%
  - 1-3 ACEs: 3.3%
  - 4+ ACEs: 4.1%

- **Cardiovascular Disease**
  - 0 ACEs: 12%
  - 1-3 ACEs: 15%
  - 4+ ACEs: 17%
ACEs and Chronic Diseases

- Kidney Disease: 2% 2% 5%
- COPD: 2% 4% 9%
- Asthma: 6% 8% 15%
- Diabetes: 8% 9% 11%
- 14+ Poor Physical Health Days (in last 30): 8% 11% 18%
- Arthritis: 28% 21% 15%
Summary

- Childhood trauma is common
- Extreme traumas tend to cluster together to produce cumulative impacts
- Poverty increases the negative impacts of trauma
- Consistent health impacts across multiple domains
  - Social emotional impairment
  - Unhealthy behaviors
  - Mental problems
  - Physical health problems
  - Chronic diseases
- Prevention and recovery are possible