What is the ACE (Adverse Childhood Experience) study?
- 17,000 participants in the first study done by the CDC.
- Study repeated by 18 other states with similar results.

- Study results: The more ACEs you have as a child (higher ACE score) → higher risk for health and behavioral problems as an adult. Problems such as:
  - Alcoholism + alcohol abuse
  - COPD
  - Depression
  - Fetal death
  - Health-related quality of life
  - Illicit drug use
  - Ischemic heart disease (IHD)
  - Liver disease
  - Risk for intimate partner violence
  - Multiple sexual partners
  - STDs
  - Smoking
  - Suicide attempts
  - Unintended pregnancies
  - Early initiation of smoking
  - Early initiation of sexual activity
  - Adolescent pregnancy

What are ACEs?
- Growing up experiencing any of the following before age 18:
  1. Recurrent physical abuse
  2. Recurrent emotional abuse
  3. Contact sexual abuse
  4. Alcohol and/or drug abuser in the household
  5. An incarcerated household member
  6. Family member who is suicidal, chronically depressed, mentally ill, or institutionalized
  7. Mother is treated violently
  8. One or no parents
  9. Physical neglect
  10. Emotional neglect

Why are ACEs important? Because they are everybody’s problem!
- Your health!
  - ACEs are implicated in the 10 leading causes of death in the U.S.

<table>
<thead>
<tr>
<th>ACE score</th>
<th>Health / Behavior association</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-100 % increased risk of rheumatic autoimmune disease</td>
</tr>
<tr>
<td>4</td>
<td>- 3-4x higher risk of depression</td>
</tr>
<tr>
<td></td>
<td>- 5x more likely to become an alcoholic</td>
</tr>
<tr>
<td></td>
<td>- 8x more likely to be a victim of rape</td>
</tr>
<tr>
<td></td>
<td>- up to 10x more likely to attempt suicide</td>
</tr>
<tr>
<td>6 or higher</td>
<td>- 2.6x more likely to have COPD</td>
</tr>
<tr>
<td></td>
<td>- 3x more likely to have lung cancer</td>
</tr>
<tr>
<td></td>
<td>- 4,600x more likely to abuse IV drugs</td>
</tr>
</tbody>
</table>

- Your child’s health!
  - ACEs can damage your child’s brain structures/functions.
    - How? A child living much of their life in stress due to ACEs → brain gets overloaded with stress hormones → brain stops working properly → child falls behind in school and/or fail to develop healthy relationships → child develops feelings of anger, helplessness, frustration and/or guilt → un/consciously develop coping mechanisms that involve drug, alcohol, food, risky behavior, etc. → health problems.

- Taxpayers cost!
  - $124 BILLION cost associated with just 1 year of confirmed ACE cases.
  - Cost of ACE rivals cost of other high profile public health problems.

Are ACEs common in Vermont? Yes!
- In 2011, the Vermont Department of Health reported:
  - 58% of VT adults experienced at least 1 ACE.
  - 14% of VT adults experienced 4 or more ACEs.
  - 17% of Vermont women have 4 or more ACEs.

Are there interventions and treatment available for individuals with ACEs? Yes!
- Earlier in life an intervention occurs for an individual with ACEs, the more likely that intervention is to be successful.