Adverse Childhood Experiences (ACEs) Among Kansas Adults

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Introduction

What are the Adverse Childhood Experiences?

- Childhood experiences of abuse, neglect & family dysfunction

What is their impact?

- These incidents harm social, cognitive & emotional functioning of children;
- Dramatically upset the safe, nurturing environments children need to thrive.
One of the largest study to assess associations between childhood maltreatment health & well-being later in life

Collaboration the Centers of Disease Control & Kaiser Permanente’s Health Appraisal Clinic in San Diego, CA

Initial phase 1995 - 1997
ACE Study - Conceptual Framework

- Conception
- Adverse Childhood Experiences
- Social, Emotional, & Cognitive Impairment
- Adoption of Health-risk Behaviors
- Disease, Disability, and Social Problems
- Early Death
- Death

Whole Life Perspective
The ACE Study & Additional Research

ACE Study findings ➔ certain experiences are major risk factors for the leading causes of death, illness & poor quality of life

ACE Prospective Study (>17,000 participants) ➔ is still underway

Additional population based research ➔ Behavioral Risk Factor Surveillance System (BRFSS) to assess the relationships between ACEs & health outcomes
Assessment of Relationships Between ACEs & Health Outcomes In Kansas

Understanding of relationship between ACEs & health outcomes at population level
2014 & 2015 KS BRFSS

Sharing & discussion of the population based findings
State wide partners

Discussion for addressing the issue with state wide partners
Planning of state wide prevention efforts
Kansas BRFSS

- Random digit dial telephone (landline and cell phone) survey of health-related risk behaviors, chronic health conditions & use of preventive services among non-institutionalized adults 18 years & older adults - conducted annually since 1992
- Sample size: 10,000+ in even years, 20,000+ in odd years
- Core section & state added section
CDC developed a standardized ACE Module in 2008

KS BRFSS included ACE Module in 2014 & 2015 Surveys

Module comprised of 11 questions

8 categories of ACEs are assessed by the module

Categories reflect childhood abuse or household dysfunction
### ACE Categories

<table>
<thead>
<tr>
<th>Childhood Abuse</th>
<th>Household Dysfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Physical abuse</td>
<td>• Household member who was depressed, mentally ill, or suicidal</td>
</tr>
<tr>
<td>• Sexual abuse</td>
<td>• Alcohol or drug abuse in household</td>
</tr>
<tr>
<td>• Emotional abuse</td>
<td>• Incarcerated household member</td>
</tr>
<tr>
<td></td>
<td>• Violence between adults in the household</td>
</tr>
<tr>
<td></td>
<td>• Parental divorce or separation</td>
</tr>
</tbody>
</table>
ACE Categories & Questions

All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age -

**Physical Abuse**
- How often did your parent or an adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking.
- Responses: *Never/ Once/More than once*

**Sexual Abuse**
- How often did anyone at least 5 years older than you or an adult ........
- ...ever touch you sexually?
- …try to make you touch them sexually?
- …force you to have sex?”
- Responses: *Never/ Once/More than once*
ACE Categories & Questions

- All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age -

**Emotional Abuse**

- How often did your parent or an adult in your home ever swear at you, insult you or put you down
- Responses: *Never/ Once/More than once*

**Mentally Ill Household Member**

- Did you live with anyone who was depressed, mentally ill or suicidal?
- Responses: *Yes/ No*
ACE Categories & Questions

- All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age -

<table>
<thead>
<tr>
<th>Substance Abuse in Household</th>
<th>Incarcerated Household Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Did you live with anyone who .....</td>
<td>• Did you live with anyone who served time or was sentenced to serve time in a prison, jail or other correctional facility?</td>
</tr>
<tr>
<td>• ... was a problem drinker or alcoholic?</td>
<td>• Responses: Yes/No</td>
</tr>
<tr>
<td>• ... used illegal street drugs or who abused prescription medications?</td>
<td></td>
</tr>
<tr>
<td>• Responses: Yes/No</td>
<td></td>
</tr>
</tbody>
</table>
ACE Categories & Questions

- All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age -

<table>
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<th>Violence in Household</th>
<th>Parental Separation or Divorce</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?</td>
<td>• Were your parents separated or divorced?</td>
</tr>
<tr>
<td>• Responses: Never/Once/More than once</td>
<td>• Responses: Yes/No</td>
</tr>
</tbody>
</table>

- All questions refer to the time period before you were 18 years of age.
Analysis of ACE Module Data

Development of ACE Score

- Calculated based on the 8 categories of ACEs assessed
- Exposure to any single category counts as one point toward score
- Final score is a sum of total number of points (range: 0 to 8)
- Measure of cumulative exposure to ACEs, not frequency or severity
Analysis of ACE Module Data

- Weighted survey procedures used to calculate overall and subpopulation prevalence estimates of each ACE category & ACE score – SAS software 9.4

- Prevalence estimates of various health risk behaviors & health conditions also examined by ACE score
Results of ACE Module Data

- Overall Prevalence Estimates of ACEs in Kansas
- Prevalence Estimates of ACEs among Demographic Groups
Prevalence of Adverse Childhood Experiences (ACEs) among Kansas adults, by category, KS BRFSS 2014-2015

- Parental separation/divorce: 26.5%
- Emotional abuse: 26.0%
- Substance abuse in household: 24.9%
- Mentally ill household member: 15.7%
- Physical abuse: 15.5%
- Violence between adults in household: 15.1%
- Sexual abuse: 11.7%
- Incarcerated household member: 6.4%
Prevalence of Adverse Childhood Experiences (ACEs) among Kansas adults, KS BRFSS 2014 - 2015

- 55% of adults have at least one ACE
- 1 in 3 adults (33%) have 2 or more ACE
- 1 in 5 (21%) adults have 3 or more ACE
Prevalence of no, low and high ACEs among Kansas adults, KS BRFSS 2014 – 2015

- 0 (No ACE) 45.2%
- 1 to 2 (Low ACE) 33.9%
- 3+ (High ACE) 20.9%
Prevalence of high (3+) ACE score among Kansas adults, by gender, KS BRFSS 2014-2015

- About 1 in 4 women have high ACE score
- About 1 in 6 men have high ACE score
- Significantly higher % of women have high ACE score than men

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Males</td>
<td>18.2%</td>
</tr>
<tr>
<td>Females</td>
<td>23.5%</td>
</tr>
</tbody>
</table>
Among 18-64 years old age groups – about 1 in 4 adults have high ACE score.

Significantly higher % of younger adults have high score than 65 years & older adults.
1 in 3 adults with low income have high ACE score
Significantly higher % of adults with low income have high score than those with higher income
1 in 3 adults with lower education have high ACE score

Significantly higher % of adults with lower education have high score than those with higher education

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Graduate</td>
<td>14.9%</td>
</tr>
<tr>
<td>Some college</td>
<td>23.8%</td>
</tr>
<tr>
<td>H.S. grad or G.E.D.</td>
<td>21.2%</td>
</tr>
<tr>
<td>Less than H.S.</td>
<td>28.0%</td>
</tr>
</tbody>
</table>
Significantly higher % of adults in Hispanic, AA & other racial groups have high score than non-Hispanic Whites.
Results of ACE Module Data

- Health status of adults with high ACE score compared to those with no ACE
  - Health Risk Behaviors
  - General, physical & mental health
  - Disability status
  - Disease Conditions
More adults with high ACE score smoke and binge drink than those with no ACE.
More adults with high ACE score are less active & have poor general health than those with no ACE.
More adults with high ACE score have poor physical & mental health than those with no ACE.
More adults with high ACE score have depression & live with a disability than those with no ACE.
More adults with high ACE score are obese & have asthma than those with no ACE.

Prevalence of **obesity** among Kansas adults, by ACE score, KS BRFSS 2014-2015

- 0 (No ACE): 29.7%
- 1 to 2 (Low ACE): 34.2%
- 3+ (High ACE): 38.8%

Prevalence of **asthma** among Kansas adults, by ACE score, KS BRFSS 2014-2015

- 0 (No ACE): 6.3%
- 1 to 2 (Low ACE): 8.1%
- 3+ (High ACE): 13.0%
More adults with high ACE score have arthritis & kidney disease than those with no ACE.
More adults with high ACE score have Chronic Obstructive Pulmonary Disease (COPD) than those with no ACE.
Results of Adjusted Analysis

Association between health conditions/behaviors & ACE score after controlling for age, gender, race/ethnicity, education and income

After controlling for age, gender, race/ethnicity, education & income, compared to adults with “No ACE”,

- More adults with high ACE score smoke, binge drink & are obese & less active
- More adults with high ACE score have poor general, physical & mental health, live with a disability & have depression
- More adults with high ACE score have arthritis, asthma, cancer, COPD, diabetes, heart attack, kidney disease & stroke
Summary of Results

ACEs are highly prevalent
1 in 2 KS adults experience at least one ACE.

High ACE scores (3+)
among younger adults;
among women

High ACE scores (3+)
among those with lower educational attainment

High ACE scores (3+)
among those with lower annual household income

High ACE scores (3+)
Among non-Hispanic African Americans, other and multiracial adults; among Hispanics
Summary of Results

- When compared to adults with no ACE, the adults with high ACE scores have higher prevalence of:
  - Health risk behaviors
  - Poor general health; Poor physical health; Poor mental health; disability
  - Depression
  - Several Chronic diseases

- Kansas data mirror findings in other states
Public Health Implications

- KS data highlight need to increase awareness of ACEs as a public health issue
- ACE prevention may have beneficial effects on long-term health of Kansans
- Collaboration between state wide partners will be required to address this complex issue.
Next Steps For Analysis & Reporting of KS BRFSS ACE Module Results

- Full report on results of combined 2014 & 2015 survey data will be released in Spring 2017
- Reports for Wyandotte and Sedgwick Counties will also be released in 2017
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