ADVERSE CHILDHOOD EXPERIENCES AND BEHAVIORAL HEALTH

Presentation to the State Epidemiological Outcomes Workgroup
By Aileen Fink, Ph.D.
aileen.fink@state.de.us
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  ▫ Iman Sharif, M.D., M.P.H., Division of General Pediatrics, Nemours/A.I. DuPont Children’s Hospital
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ADVERSE CHILDHOOD EXPERIENCES

• What are Adverse Childhood Experiences (ACEs)?
  ▫ Events/experiences that occur prior to age 18 such as abuse, neglect, and household functioning problems including substance use

• Why are ACEs important?
  ▫ Exposure to ACEs is common
  ▫ ACE exposure has been shown to correlate with adoption of health risk behaviors and development of chronic health problems
  ➡ Given the prevalence of exposure and impact on health, ACEs are being called a major public health problem
  ▫ Understanding ACEs provides opportunities for prevention and intervention to promote health and wellbeing
## ACE DATA SOURCES

<table>
<thead>
<tr>
<th>SURVEY</th>
<th>DATA COLLECTION</th>
<th># PARTICIPANTS</th>
<th>ACE EVENTS</th>
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</thead>
</table>
| Kaiser/CDC                   | 1995-97         | 17,377         | 10 ACEs  
Physical, sexual, emotional abuse; physical, emotional neglect, divorce/separation, household mental illness, household substance use, incarceration, domestic violence |
| Delaware Household Health Survey (DHHS) | 2015             | 2,609          | 12 ACEs  
Physical, sexual, emotional abuse; physical, emotional neglect; divorce/separation; household mental illness; household substance use; incarceration; domestic violence;  
discrimination; bullying |
| National Survey of Children’s Health (NSCH) | 2011-12         | 1,824          | 9 ACEs  
Divorce/separation; household mental illness; household substance use; incarceration; domestic violence; Economic hardship;  
parental death; community violence; discrimination |
ITEM WORDING

• Mental Illness
  ▫ Kaiser and DHHS: “Was a household member depressed or mentally ill or did a household member attempt suicide?”
  ▫ NSCH: “Did [child] ever live with someone who was mentally ill or suicidal, or severely depressed for more than a couple of weeks?”

• Substance Use
  ▫ Kaiser and DHHS: “Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?”
  ▫ NSCH: “Did [child] ever live with someone who had a problem with alcohol or drugs?”
KAISER/CDC ACE STUDY n=17,377

- Study found that ACEs
  - were common
  - co-occurred
  - had a dose-response relationship with a wide range of physical and behavioral health outcomes including depression, suicide and substance use problems

http://vetoviolence.cdc.gov/apps/phl/resource_center_infographic.html
DELWARE ADULT ACE DATA n=2,506

- The Delaware Public Health Institute conducted a household survey of Delaware adults via landline/cell phone
  - Survey asked a variety of health indicators including overall health, diagnosis of mental illness and substance use problems

![Pie chart showing percentage distribution of ACEs](chart.png)
EXPOSURE TO HOUSEHOLD FUNCTIONING PROBLEMS

Percent of Delaware Adults 18 and older who indicated having a dysfunctional household, 2015

- Parental separation/divorce (n = 751): 32.6%
- Witnessing maternal/caregiver violence (n = 203): 8.7%
- Substance abuse (n = 528): 21.1%
- Mental illness (n = 274): 12.1%
- Incarceration (n = 181): 7.9%
ACE EXPOSURE AND PHYSICAL & BEHAVIOR HEALTH

SUBSTANCE USE AND TREATMENT

Of the over 75,000 adults who have been told they have a substance abuse problem, more than 32,000 (43%) have not received any form of treatment.

#1 Reason adults do not seek treatment for substance abuse:

“I don’t have a problem.”
ACES AND ADULT HEALTH OUTCOMES

Adjusted Odds Ratio* with 95% Confidence Intervals for Exposure to any ACEs and Health Conditions

Notes: ACE variable is a dichotomous variable with "unexposed" as referent category
*Adjusted for gender, age, and race and ethnicity.
¶Not statistically significant

NATIONAL SURVEY OF CHILDREN’S HEALTH (NSCH)

• Over 100 indicators of child health & wellbeing as reported by the child’s parent or guardian
  ▫ Funded by the Maternal and Child Health Bureau; conducted by the CDC and Prevention’s National Center for Health Statistics
  ▫ Primarily landline
  ▫ 2011-12 survey added 9 ACE events
  ▫ Health indicators include overall health status, chronic health conditions, flourishing, ADHD, Autism, use of medication for behavioral health, developmental delay
NSCH DELAWARE CHILD ACE DATA (n=1,824)

- Prevalence of exposure
  - 48% of children had been exposed to at least one
- Most frequent ACE types
  - Economic hardship = 25% often or somewhat
  - Divorce/separation = 21%
  - Neighborhood violence = 12%
- Number of ACE exposures was correlated with:
  - health status
  - flourishing
ACES AND OVERALL HEALTH OF DE CHILDREN

![Bar chart showing odds of child having poor physical health for different ACE scores.](chart.png)
HOUSEHOLD MENTAL ILLNESS

- Delaware children living with an *adult with mental illness* were significantly more likely to:
  - be exposed to 5 or more of the other ACEs
  - experience separation from a caregiver
  - 7 times more likely to have parent incarcerated
  - 3 times more likely to have parent who died
  - 4 times more likely to have parents separated/divorced
  - be described as having poor health and chronic health conditions

**More likely to be living with an adult with substance use**
RELATIONSHIP HOUSEHOLD SUBSTANCE ABUSE

% Delaware Children Exposed to Household Substance Use Problems

No Mental Illness  | Mental Illness

0 1 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

7.6

48.2
ACE DATA LIMITATIONS

- Exposure type differences across surveys
- Question wording different across surveys
  - Original ACE survey suicide question: Have you ever attempted to commit suicide?
  - DHHS suicide question: During the past 12 months, was there ever a time you felt so sad or hopeless that you wanted to do something to purposely hurt yourself or end your life
- Survey administration differences
- Correlational data
DISCUSSION?
THANK YOU!