Adverse Childhood Experiences (ACE)

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Learning Objectives

- Overview of CDC-Kaiser ACE Study
 Overview of Philadelphia Expanded ACE Study
 - 3 Resiliency Factors









Content warning

This training includes references to sensitive topics such as abuse, neglect, substance use, medical conditions, racism, and violence, among possible others. Attendees who may be sensitive to these elements, please take note.







CDC-Kaiser Permanente Adverse Childhood Experiences Study



CDC-Kaiser Adverse Childhood Experiences Study



2 waves of data collection from 1995 - 1997

Over 17,000 participants

Paper survey including questions about childhood experiences and current health status/behaviors



3 Categories of Adverse Childhood Experiences

Abuse

Neglect

Household Challenges







Neglect

Emotional Neglect

Physical Neglect



Household Challenges

Mother Treated Violently

Substance Abuse in the Household

Mental Illness in the Household

Parental Separation/Divorce

Incarcerated Household Member



What's my ACE Score?



Prior to your 18th birthday:

Did a parent or other adult in the household often or very often... Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?

No___If Yes, enter 1___



Did a parent or other adult in the household often or very often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?

No___If Yes, enter 1 ___



Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? or Attempt or actually have oral, anal, or vaginal intercourse with you?

No If Yes, enter 1

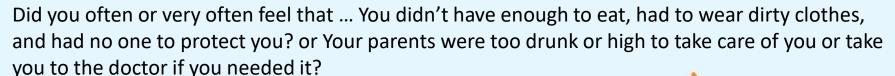




Prior to your 18th birthday:

Did you often or very often feel that ... No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other?

No___If Yes, enter 1___



No___If Yes, enter 1___

Were your parents ever separated or divorced?

No If Yes, enter 1___









Prior to your 18th birthday:

Was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had something thrown at her? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

No___If Yes, enter 1___

Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs? No If Yes, enter 1___

Was a household member depressed or mentally ill, or did a household member attempt suicide? No___If Yes, enter 1__

Did a household member go to prison?

No___If Yes, enter 1___

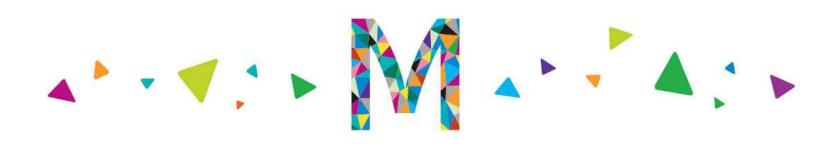








Findings From CDC-Kaiser Permanente ACE Study







87% of those participants had more than 1 ACE







Adults with ACE Score of 4 or Higher

Risk of chronic pulmonary lung disease increases 390%

Risk of hepatitis increases 240%

Risk of depression increases 460%

Risk of attempted suicide increases 1220%

1.4 – 1.6 fold increased risk of physical inactivity and severe obesity

2 - 4-fold increased risk of smoking, poor self-related health, multiple sexual partners, and STIs

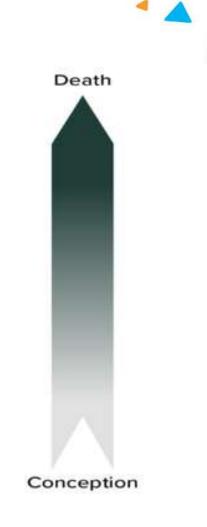
Increased likelihood of cardiovascular disease, cancer, AIDS, skeletal fractures, and liver disease



ACE Pyramid



Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan





Some Groups Are More Likely to Have Experienced ACEs

Multiple
studies show
that people
who identified
as members of
these groups
as adults
reported
experiencing
significantly
more ACEs:





Limitations of This Study



Participant Selection

Southern California

Predominantly White

Middle-Class

College Educated

Active Health Insurance



Demographics

Gender:

Female 54.0%, Male 46.0%

Race/Ethnicity:

White 74.8%, Black 4.5%, Asian/Pacific Islander 7.2%, Hispanic 11.2%, other 2.3%

Ages:

60+ 46.4%, 50 - 59 19.9%, 40 - 49 18.6%, 30 - 39 9.8%, 19 - 29 5.3%

Education:

non high school graduate 7.2%, HS graduate 17.6%, some college 35.9%, College grad/higher 39.3%



Additional Limitations

Binary Gender Questionnaires

Lack of focus on environmental, community, cultural factors



Philadelphia Expanded ACE Study

(aka the Philadelphia Urban ACE Survey)



Philadelphia Expanded ACE Study

Institute for Safe Families (ISF) formed ACE Task Force in 2012 to examine prevalence/impact of ACEs in Philadelphia

Telephonic survey of 1,784 participants from a more socioeconomically and racially diverse population than original study

Findings indicated a higher prevalence of ACEs than found in previous studies

Study highlighted the need to address unique environmental stressors experienced in urban neighborhoods



Demographics

Gender: Female 58.3%, Male 41.7%

Race/Ethnicity: White 44.1%, Black 42.5%, Asian/Pacific Islander 3.6%, Hispanic 3.5%, Biracial 3.8%, other 2.4%

Ages: 18 – 34 29.7%, 35 – 64 52.2%, 65+ 18.1%

Education: non high school graduate 10.3%, HS graduate 31.4%, some college 22.7%, College grad/higher 35.7%



Expanded Questions

Witnessing violence in one's neighborhood

Feeling discrimination based on race/ethnicity

Feeling unsafe in one's neighborhood

Being bullied

Living in foster care



Philadelphia Expanded ACE Questions look at Community-Level Adversity

Witness Violence

How often, if ever, did you see or hear someone being beaten up, stabbed, or shot in real life?

Felt Discrimination

While you were growing up...How often did you feel that you were treated badly or unfairly because of your race or ethnicity?

Adverse Neighborhood Experience Did you feel safe in your neighborhood? Did you feel people in your neighborhood looked out for each other, stood up for each other, and could be trusted?

Bullied

How often were you bullied by a peer or classmate?

Lived in Foster Care

Were you ever in foster care?



Findings From Philadelphia Expanded ACE Study



69.9% of respondents scored a 1 or higher (when looking at only the original CDC-Kaiser questions)



83.2% of respondents experienced at least 1 ACE when looking at the original + expanded questions







Racial Differences on Urban ACE Indicators

Table 10. Urban ACE Indicators by Race

	White	Black
Witnessed violence	25.9% (n=203)	52.0%*** (n=390)
Felt discrimination	15.8% (n=124)	49.5%*** (n=372)
Adverse neighborhood experience	19.3% (n=152)	29.2%*** (n=221)
Bullied	9.0% (n=70)	6.4% (n=48)
Lived in foster care	1.0% (n=8)	4.1%*** (n=31)

Notes: *p<.05 **p<.01 ***p<.001, Chi-square
Data Source: Philadelphia Urban ACE Survey, 2013

Data Prepared by: The Research and Evaluation Group at PHMC





Limitations

Smaller Overall Sample Size Than Original ACE Study

Smaller Sample Size of Participants Identifying as Asian, Latino, and Bi-Multi-racial led to Inability to Determine Statistical Significance for These Populations

Binary Gendered questions

Telephonic Questionnaire May Have Limited Selfdisclosure



Comparisons Between ACE Studies



Table 3. Abuse and Neglect Indicators among Philadelphia Urban ACE Survey and Kaiser ACE Study

	Philadelphia ACE Survey (N=1,784)	Kaiser ACE Study (N=17,337) ³
Emotional abuse ⁴	33.2% (n=1,190)	10.6% (n=1,838)
Physical abuse ⁵	35.0% (n=624)	28.3% (n=4,906)
Sexual abuse	16.2% (n=289)	20.7% (n=3,589)
Physical neglect ⁶	19.1% (n=340)	14.8% (n=2,566)
Emotional neglect ⁷	7.7% (n=136)	9.9% (n=1,716)

Data Source: Philadelphia Urban ACE Survey, 2013 and Felit et al., 1998

Data Prepared by: The Research and Evaluation Group at PHMC



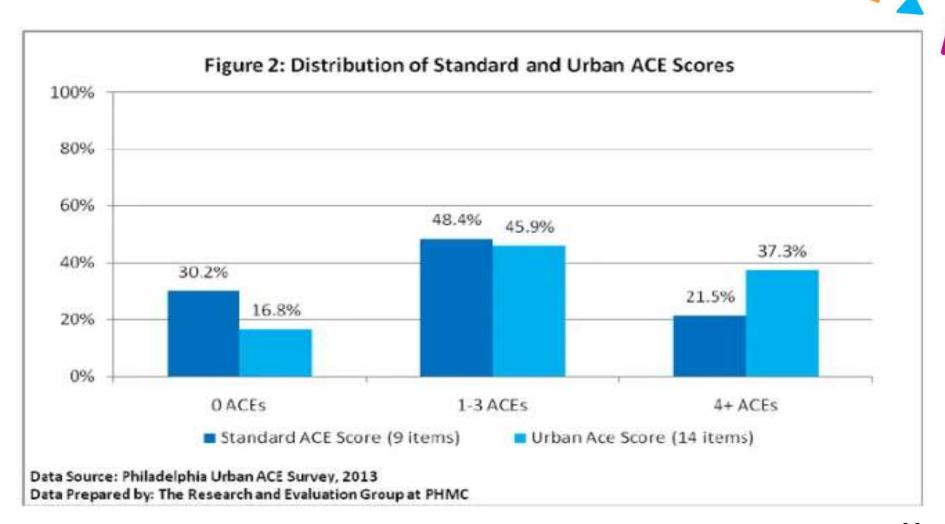
Table 6. Indicators of Household Dysfunction among Philadelphia Urban ACE Survey and Kaiser ACE Study

	Philadelphia ACE Survey (N=1,784)	Kaiser ACE Study (N=17,3378)
Substance abusing household member	34.8% (n=620)	26.9% (n=4,664)
Mentally ill household member	24.1% (n=429)	19.4% (n=3,363)
Witnessed domestic violence	17.9% (n=319)	12.7% (N=2,202)
Household member in prison	12.9% (n=229)	4.7% (n=815)

Data Source: Philadelphia Urban ACE Survey, 2013 and Felit et al., 1998

Data Prepared by: The Research and Evaluation Group at PHMC







Toxic Stress and Resilience Factors



ACEs Can Accumulate and Their Effects Last Beyond Childhood

The effects of ACEs can add up over time and affect a person throughout their life.



Children who repeatedly and chronically experience adversity can suffer from **toxic stress**.



Toxic stress happens when the brain endures repeated stress or danger, then releases fight or flight hormones like cortisol.



This internal alarm system increases heart rate and blood pressure and damages the digestive and immune systems.



Toxic stress can disrupt organ, tissue, and brain development. Over time, this can limit a person's ability to process information, make decisions, interact with others, and regulate emotions. These consequences may follow a person into adulthood.



ACEs Can Increase Risk for Disease, Early Death, and Poor Social Outcomes

Research shows that experiencing a higher number of ACEs is associated with many of the leading causes of death like heart disease and cancer.



CHRONIC HEALTH CONDITIONS

- · Coronary heart disease
- Stroke
- Asthma
- Chronic obstructive pulmonary disease (COPD)
- Cancer
- Kidney disease
- Diabetes
- Obesity



MENTAL HEALTH CONDITIONS

Depression



HEALTH RISK BEHAVIORS

- Smoking
- Heavy drinking or alcoholism
- Substance misuse
- · Physical inactivity
- Risky sexual behavior
- Suicidal thoughts and behavior



SOCIAL

- Lack of health insurance
- Unemployment
- Less than high school diploma or equivalent education





The consequences of ACEs can be passed down from one generation to the next if children don't have protective buffers like...



positive childhood experiences

OR



a caring adult in their lives. Also, when families experience historical and systemic racism or living in poverty for generations, the effects of ACEs can add up over time.





Resilience Factors That Can Mitigate Toxic Stress

Being in Nurturing, Supportive Relationships

Living, Developing, Playing, & Learning in Safe, Stable, Protective, & Equitable Environments

Having Opportunities for Constructive Social Engagement

Developing a Sense of Connectedness

Learning Social and Emotional Competencies



We Can Create Positive Childhood Experiences



Strengthen families' financial stability

- · Paid time off
- Child tax credits
- Flexible and consistent work schedules



Teach healthy relationship skills

- Conflict resolution
- Negative feeling management
- · Pressure from peers
- Healthy non-violent dating relationships



Promote social norms that protect against violence

- Positive parenting practices
- Prevention efforts involving men and boys



Connect youth with activities and caring adults

- School or community mentoring programs
- After-school activities



Help kids have a good start

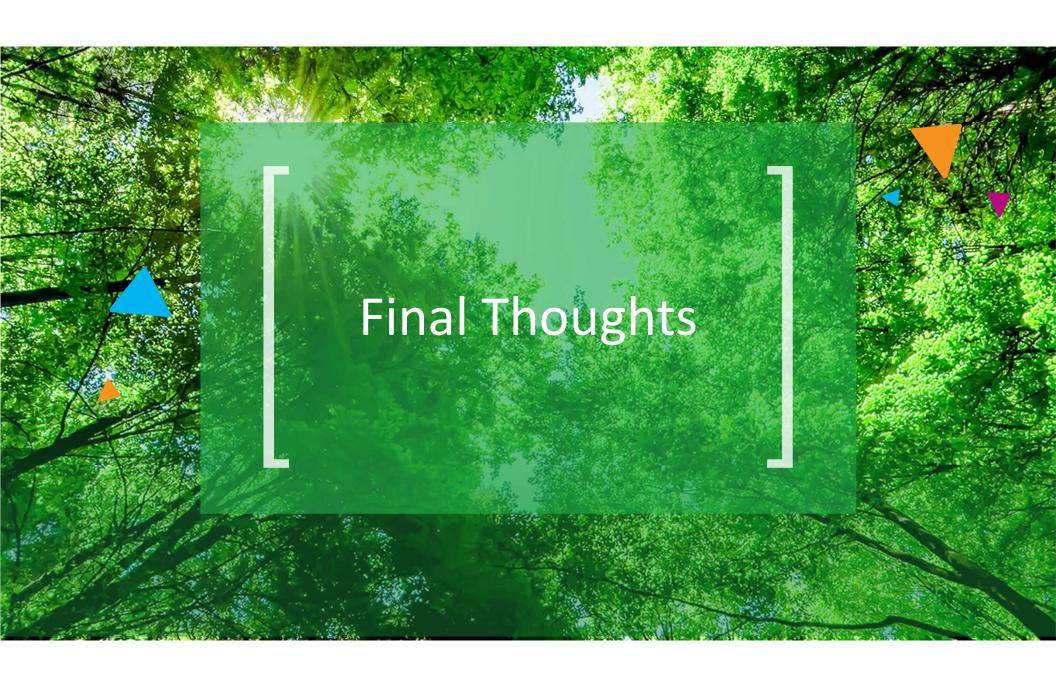
- · Early learning programs
- Affordable preschool and childcare programs



Intervene to lessen immediate and long-term harms

- ACEs education
- Therapy
- Family-centered treatment for substance abuse





References/Resources

Centers for Disease Control and Prevention www.cdc.gov/violenceprevention/aces/index.html

The Philadelphia ACE Project www.philadelphiaaces.org

RESPONDING TO ACES WITH HOPE: HEALTH OUTCOMES FROM POSITIVE EXPERIENCES https://www.academicpedsjnl.net/article/s1876-2859(17)30107-9/FULLTEXT#TBL2

HTTPS://ACESTOOHIGH.COM/GOT-YOUR-ACE-SCORE/









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