An abstract graphic featuring several overlapping, flowing bands of color. The colors include purple, blue, light blue, yellow, orange, and red, arranged in a way that suggests movement and depth. The bands are layered, with some appearing in front of others, creating a sense of three-dimensional space. The overall effect is vibrant and dynamic.

Impact of Elevated ACE Scores on LGBT Health Disparities




- Medical Director LGBT+ Health for Novant Health
- Novant Health Midtown Family Medicine
- President NCAFP, 2016
- Charlotte Transgender Healthcare Group

- Davidson College
- Medical University of South Carolina
- Family Medicine Residency at Atrium Health

Objectives

- Understanding ACE Scores and the impact on health
- Review disparities in healthcare for LGBT community
- Implications for trauma informed care





The Adverse Childhood Experiences Study (ACE)

Collaboration between Kaiser Permanente's Department of Preventive Medicine in San Diego and the Center for Disease Control and Prevention (CDC)

Felitti,V. The relation between adverse childhood experiences and adult health: Turning Gold into lead. PermJ. 2002;6(1): 44-47.

Adverse Childhood Experiences are Common

Of the 17,000 HMO Members:

- **1 in 4** exposed to **2** categories of ACEs
- **1 in 16** was exposed to **4** categories.
- **22% were sexually abused as children.**
- **66% of the women** experienced abuse, violence or family strife in childhood.



Stress

- The response to demands encountered daily throughout a lifetime
- Physical, emotional, environmental or theoretical
- Stress response: stimulation of sympathetic nervous system with a cascade of neuro-endocrine-immune responses
- Increased cortisol and inflammatory markers
- Positive Stress
- Tolerable Stress
- Toxic Stress



ACE Questions

1. Did a parent often swear/insult/humiliate you?
2. Did a parent often push/grab/slap or throw something at you?
3. Did an adult touch fondle you in a sexual way?
4. Did you often feel no one in your family loved you?
5. Did you often feel you didn't have enough to eat, wear dirty clothes or no one to protect you?

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2. Did a parent often push/grab/slap or throw something at you?
3. Did an adult touch fondle you in a sexual way?
4. Did you often feel no one in your family loved you?
5. Did you often feel you didn't have enough to eat, wear dirty clothes or no one to protect you?
6. Were your parents ever separated or divorced?
7. Was your mother physically abused?
8. Did you live with anyone with alcohol or drug abuse issues?
9. Was a household member depressed/mentally ill or attempt suicide?
10. Did a household member go to prison?



What does the ACE Score Mean?

ACE Score of 0

Most likely are:

- Non-obese

- Non-smoking

- Non-diabetic

- Non-hypertensive

What does the ACE Score Mean?

ACE Score of 0

Most likely are:

Non-obese

Non-smoking

Non-diabetic

Non-hypertensive

- Those with an ACE score or 4
 - Had significant higher rates of heart disease and diabetes than those with a zero score
 - Twice as likely to smoke
 - 2.5 times the rate of hepatitis and STD
 - 2.5 times the rate of COPD
 - 3.2 times the rate of learning or behavioral problems
 - 4.5 times the rate of depression
 - 7 times the rate of alcoholism
 - 10 times higher rate of IV drug use

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Ace Score of 5 or more

2.9 times rate of unwanted pregnancies leading to abortion
3.8 times risk of 3 or more marriages
5.1 times risk of being victim or perpetrator of domestic violence
5.8 times higher rates of multiple sexual partners
8 times risk of alcohol abuse
8.9 times greater rate of having been raped
17 times higher risk of suicide attempt
46 times higher increased likelihood of becoming IV drug user

What does the ACE Score Mean?

ACE Score of 0

Most likely are:

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Non-smoking
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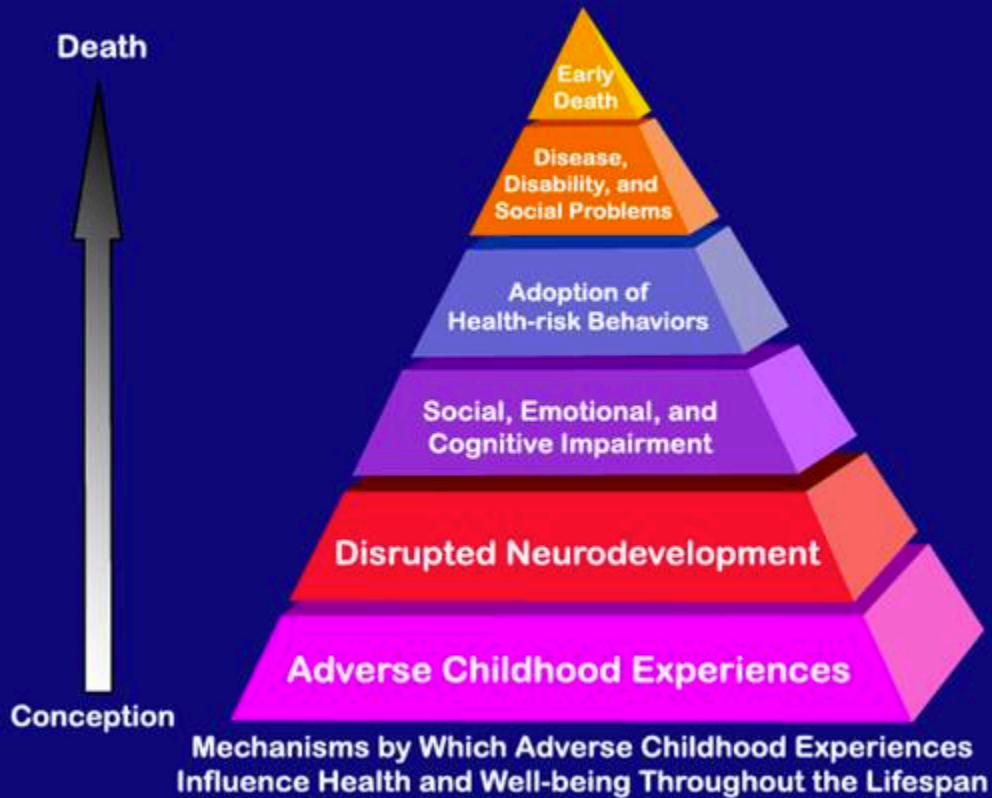
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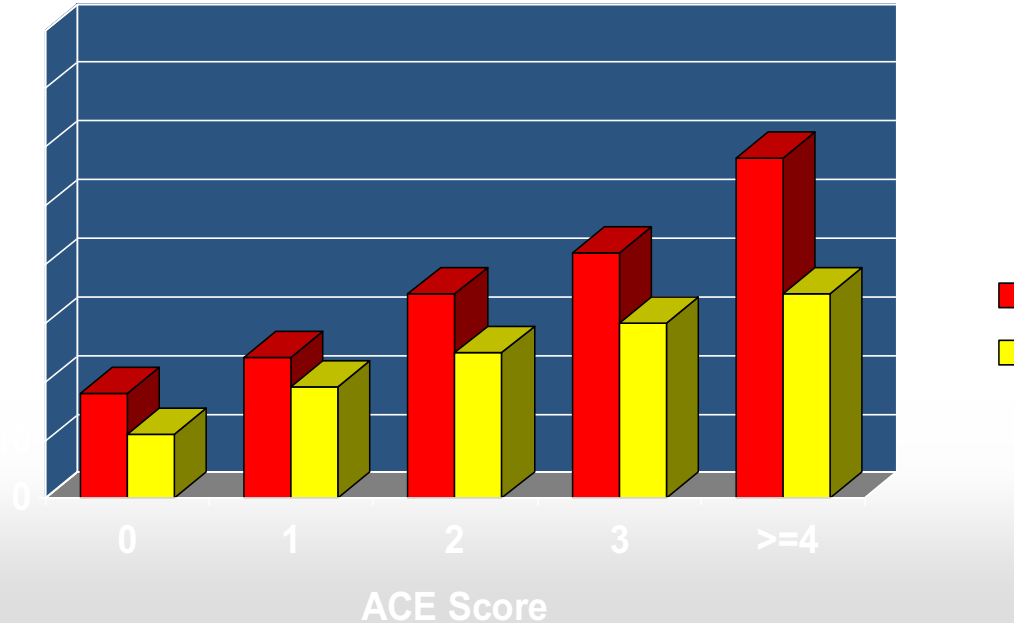
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Ace score of 6 or more:

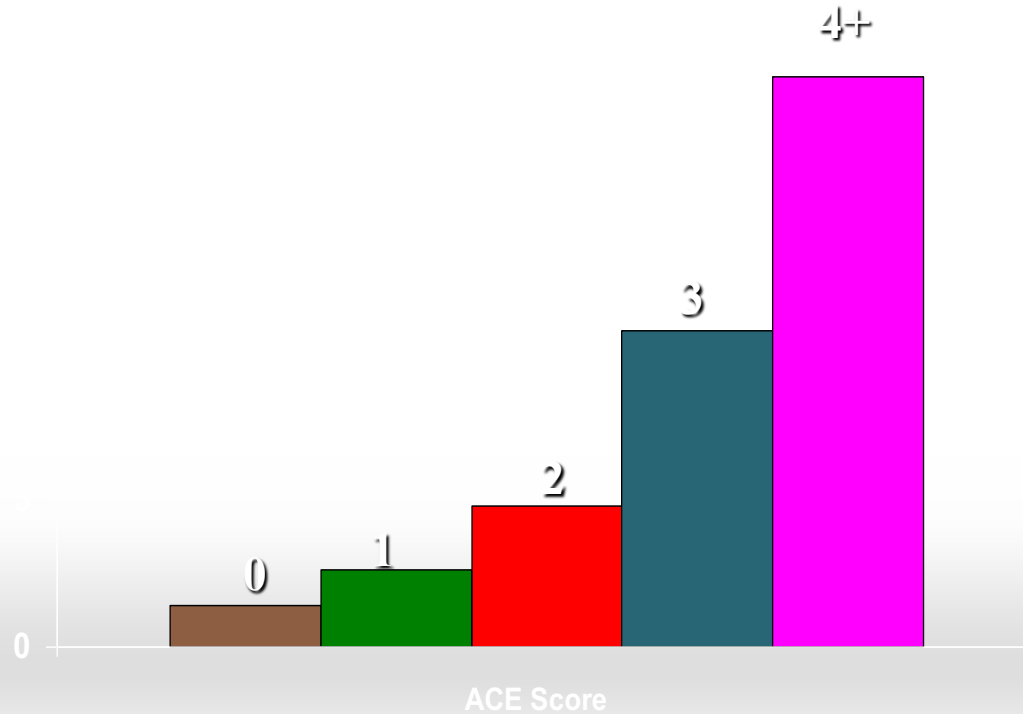
20 year shorter life expectancy



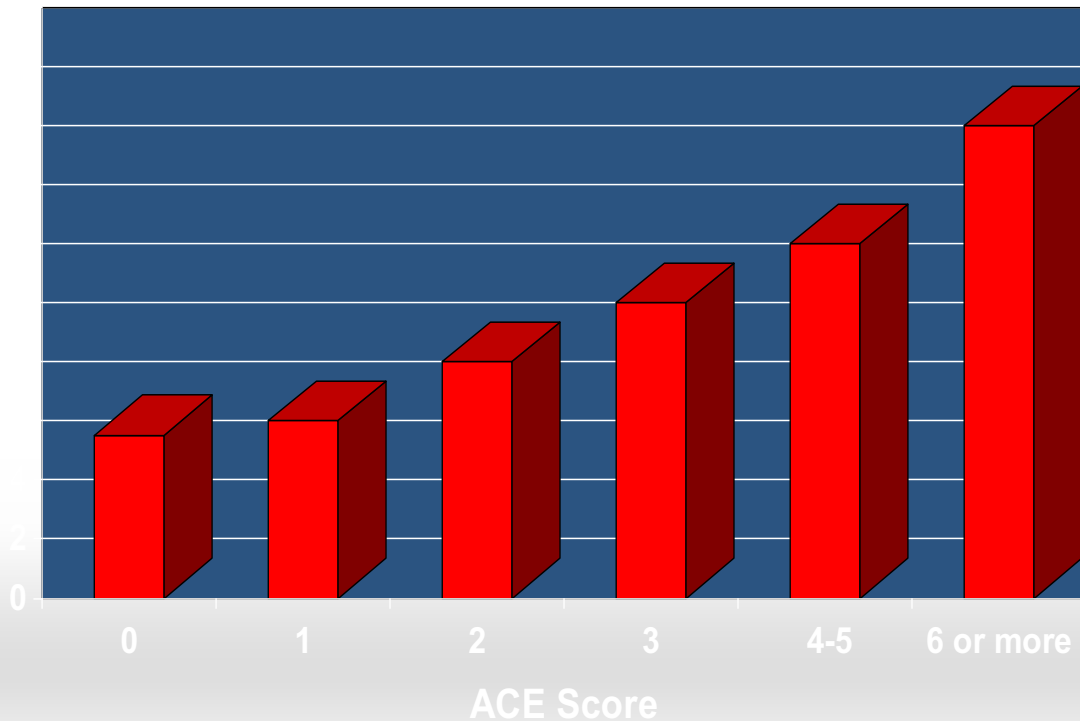
Childhood Experiences Underlie Chronic Depression



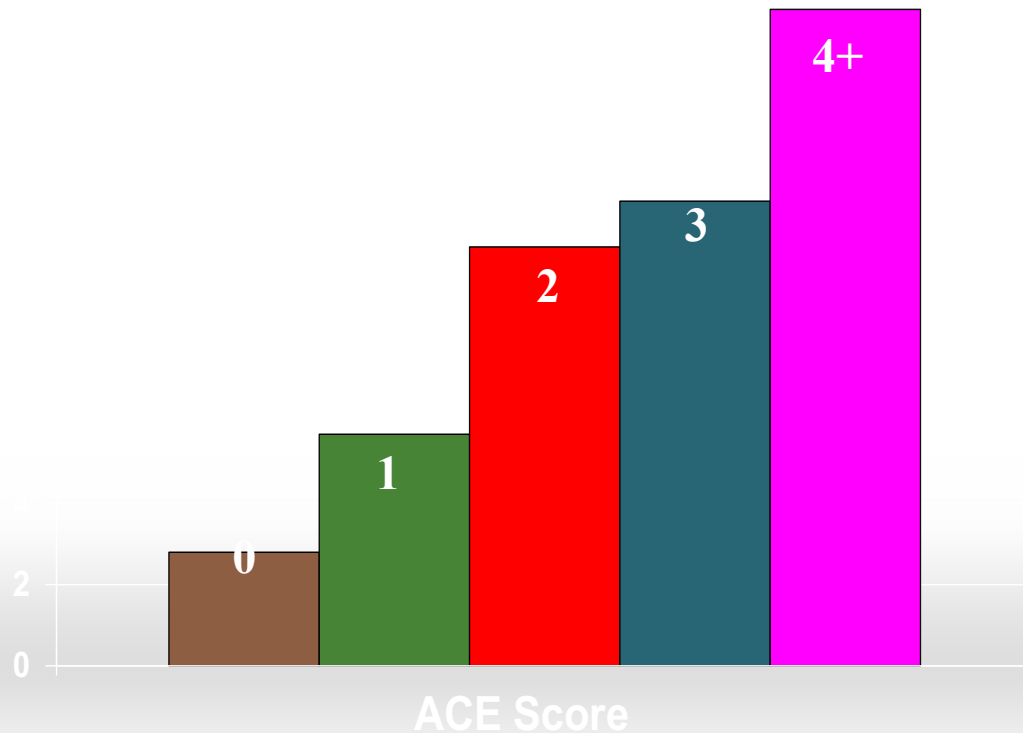
Childhood Experiences Underlie Suicide



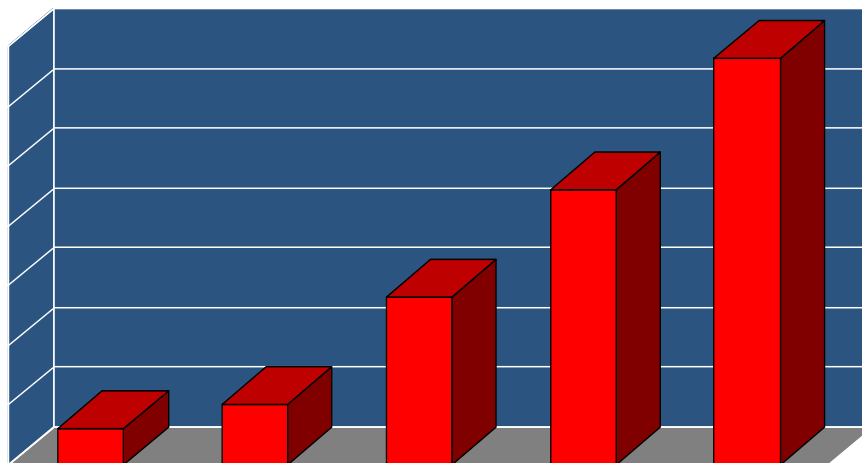
Adverse Childhood Experiences and Current Smoking



Childhood Experiences and Adult Alcoholism



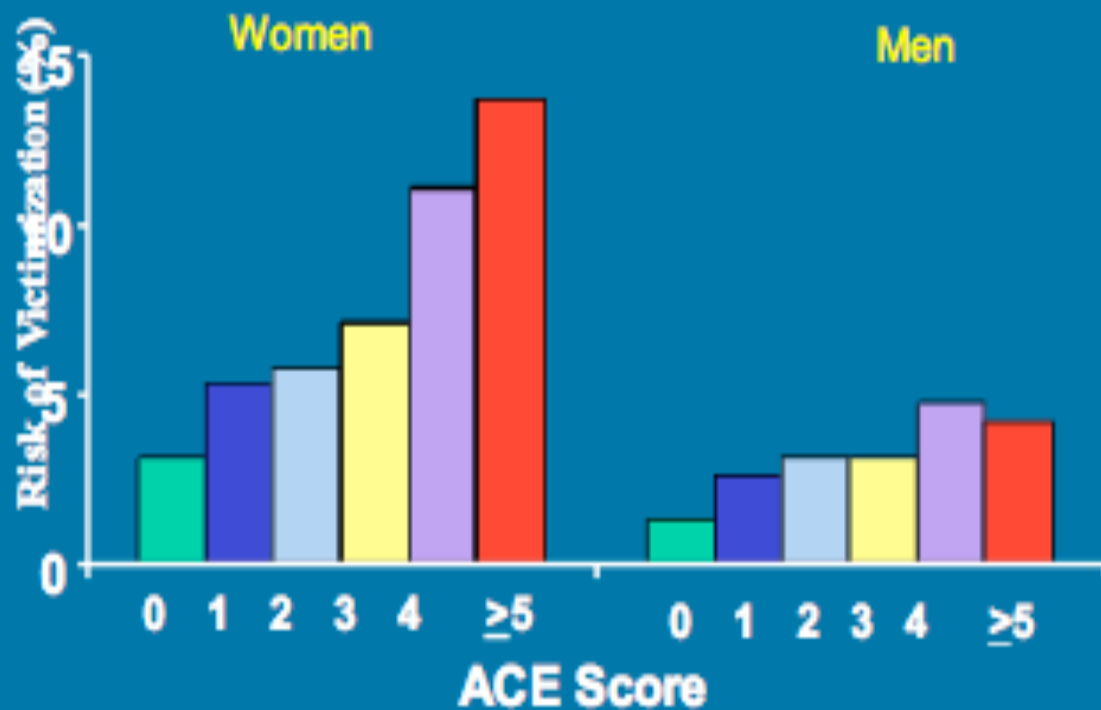
ACE Score and Intravenous Drug Use



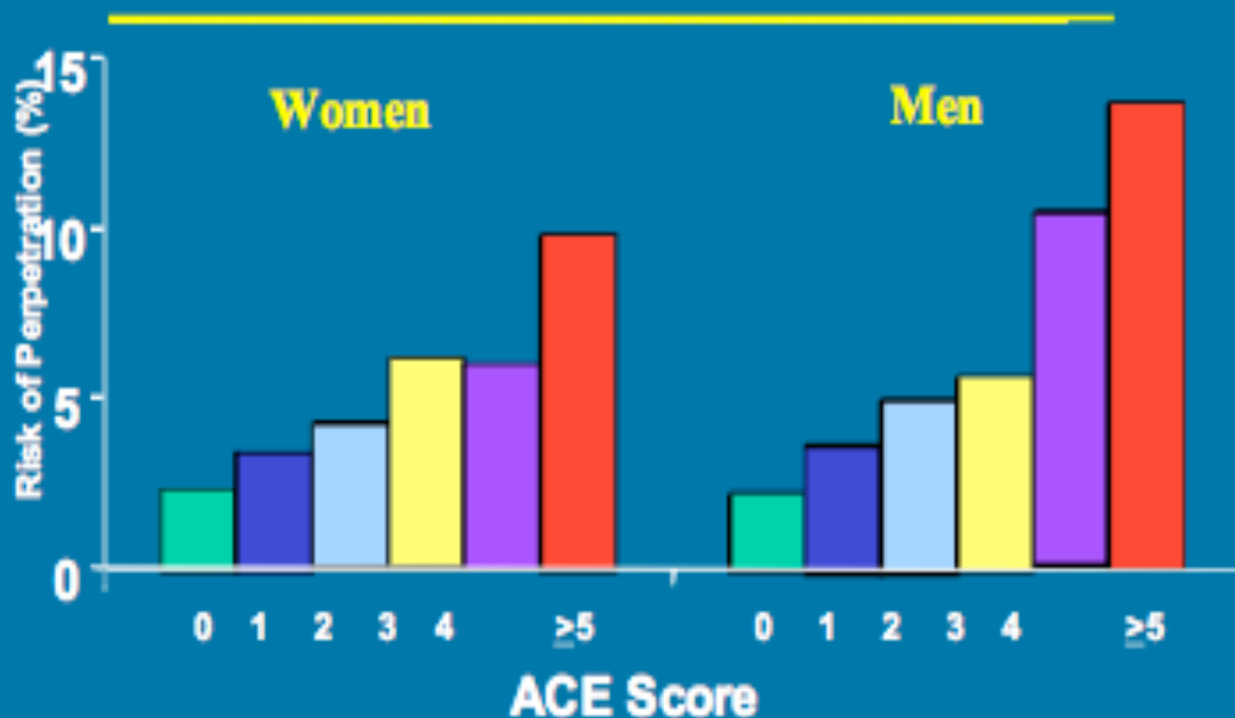
ACE Score

N = 8,022 **p < 0.001**

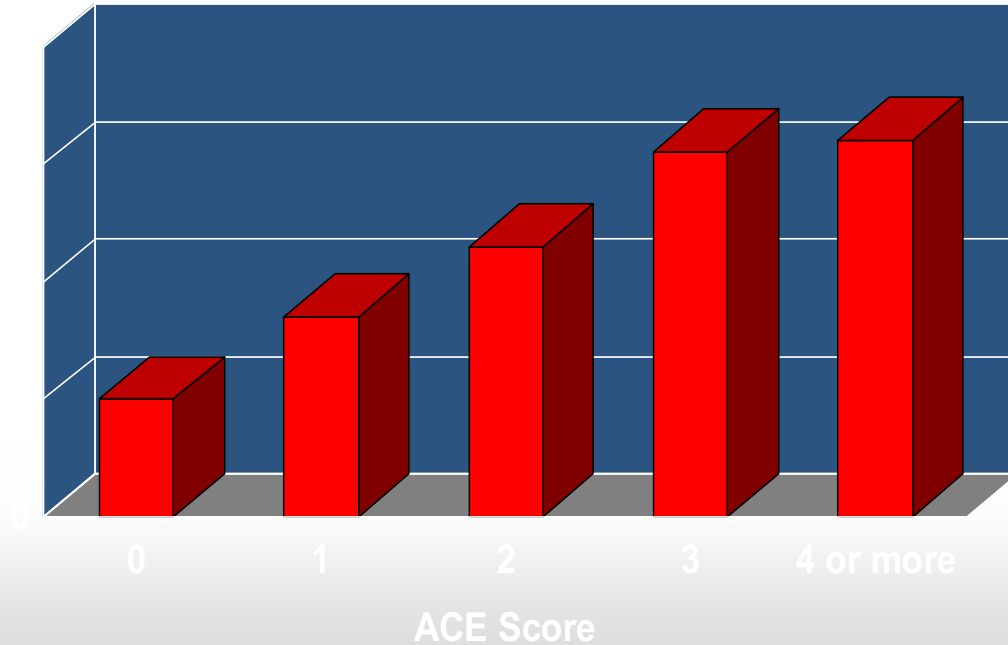
ACE Score and the Risk of Being a Victim of Domestic Violence



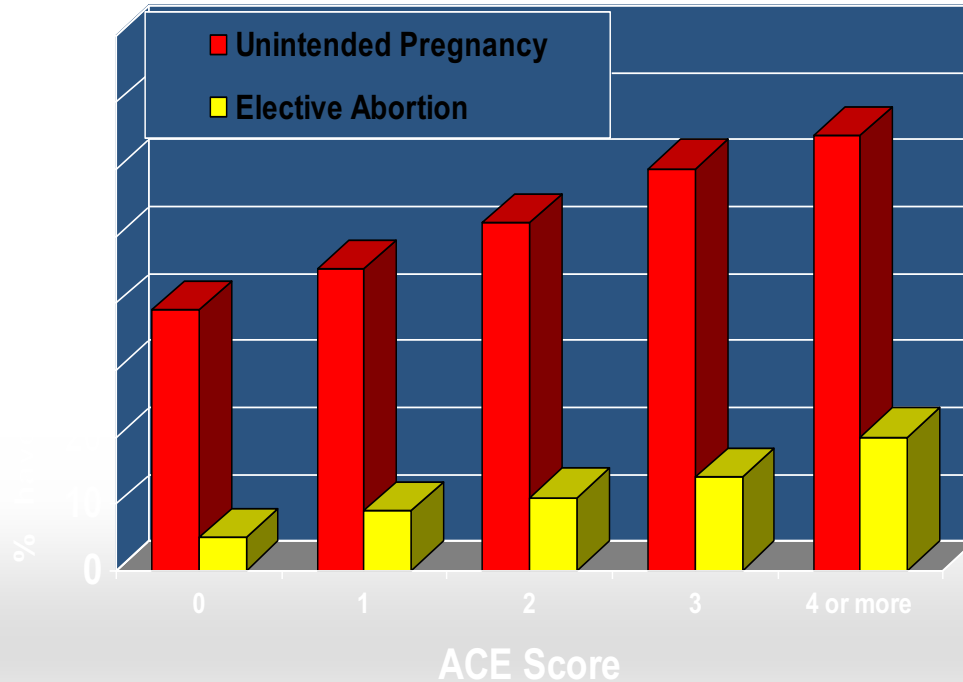
ACE Score and the Risk of Perpetrating Domestic Violence



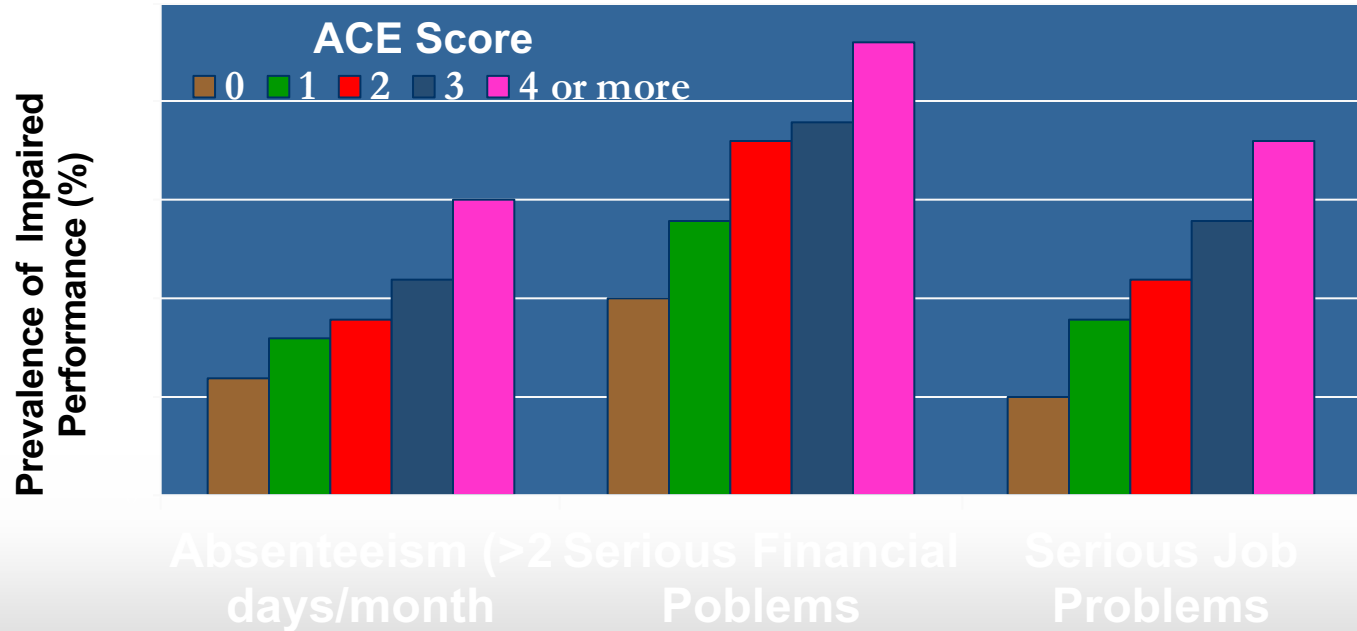
Adverse Childhood Experiences and Likelihood of > 50 Sexual Partners



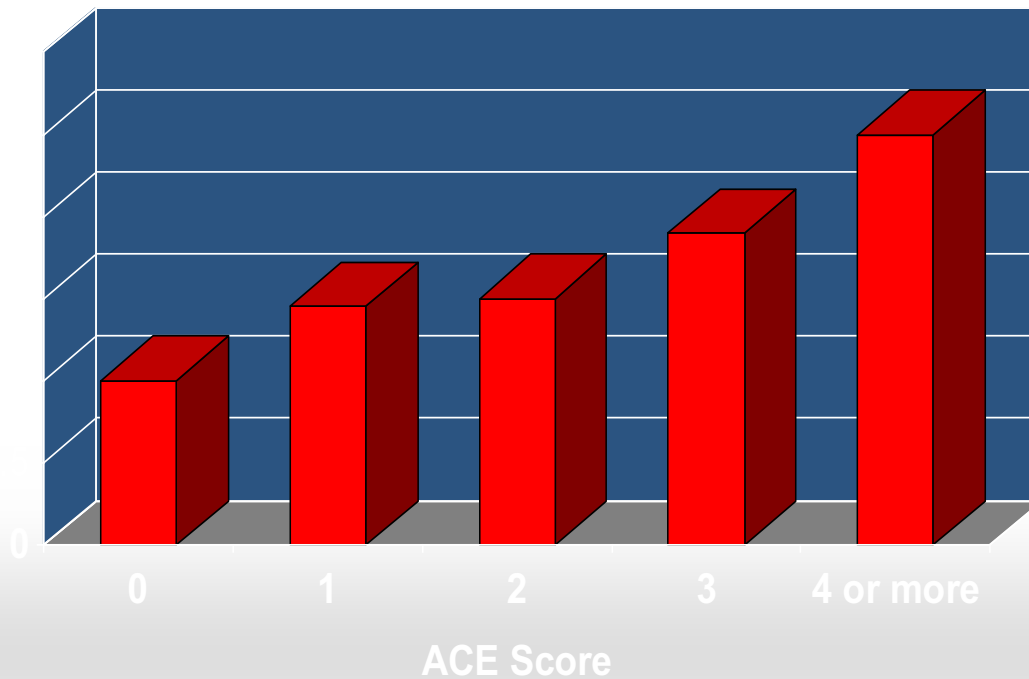
ACE Score and Unintended Pregnancy or Elective Abortion



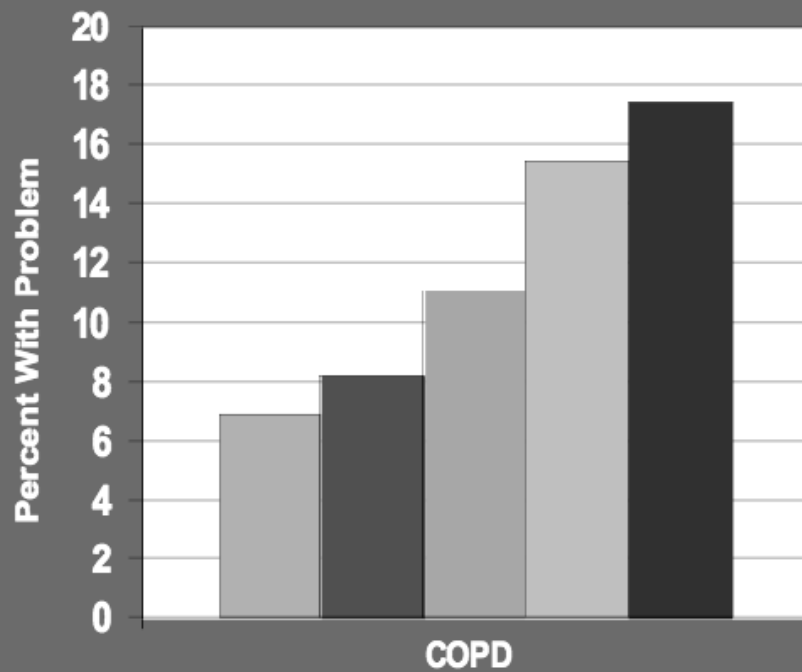
ACE Score and Indicators of Impaired Worker Performance



Adverse Childhood Experiences and History of STD



ACE Score vs. COPD

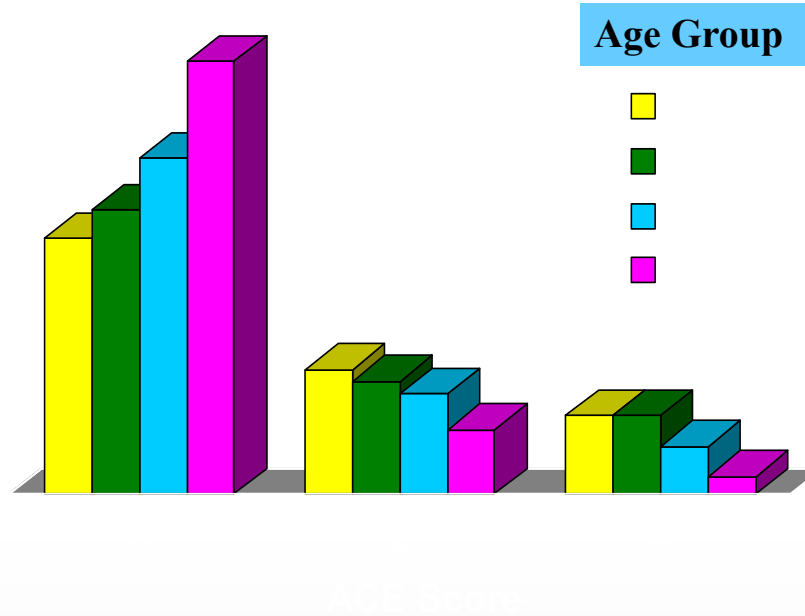


ACEs Increase Likelihood of Heart Disease*

- Emotional abuse 1.7x
- Physical abuse 1.5x
- Sexual abuse 1.4x
- Domestic violence 1.4x
- Mental illness 1.4x
- Substance abuse 1.3x
- Household criminal 1.7x
- Emotional neglect 1.3x
- Physical neglect 1.4x

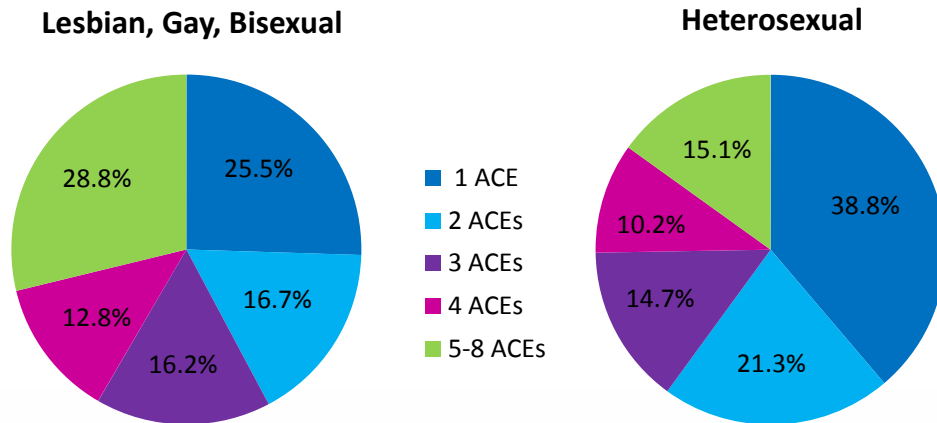


Effect of ACEs on Mortality



ACE Scores in LGBT Population

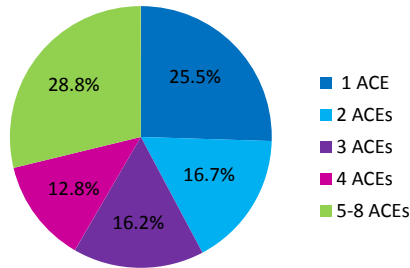
Prevalence of ACE Score by Sexual Orientation Among those Reporting One or More ACEs



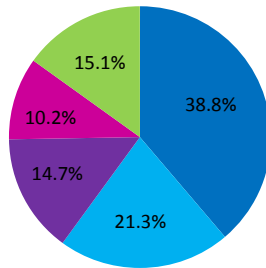
ACE Scores in LGBT Population

Prevalence of ACE Score by Sexual Orientation
Among those Reporting One or More ACEs

Lesbian, Gay, Bisexual



Heterosexual



■ 1 ACE
■ 2 ACEs
■ 3 ACEs
■ 4 ACEs
■ 5-8 ACEs

- LGB Victims of childhood abuse and trauma are at a higher increased risk for abuse in adulthood
- After controlling for ACE scores, LGB was NOT associated with current smoking, binge drinking or 14 or more days of poor physical health in the past 30 days

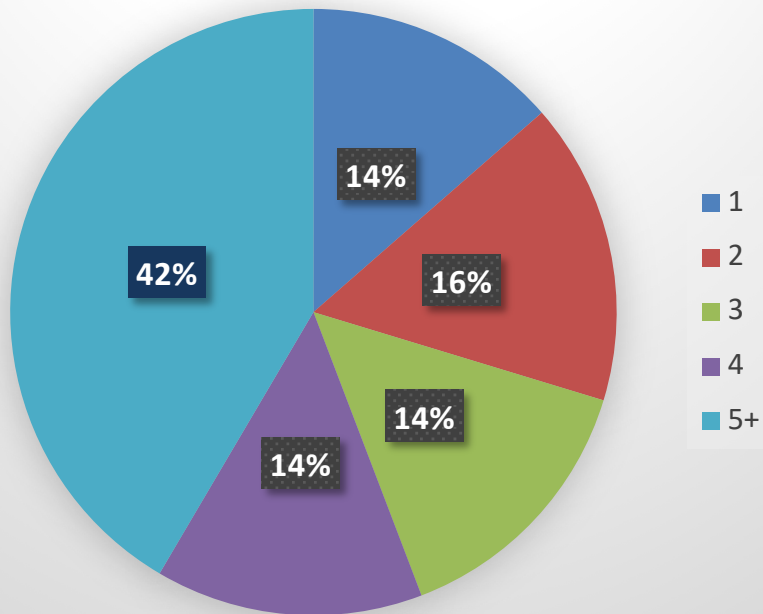


Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS

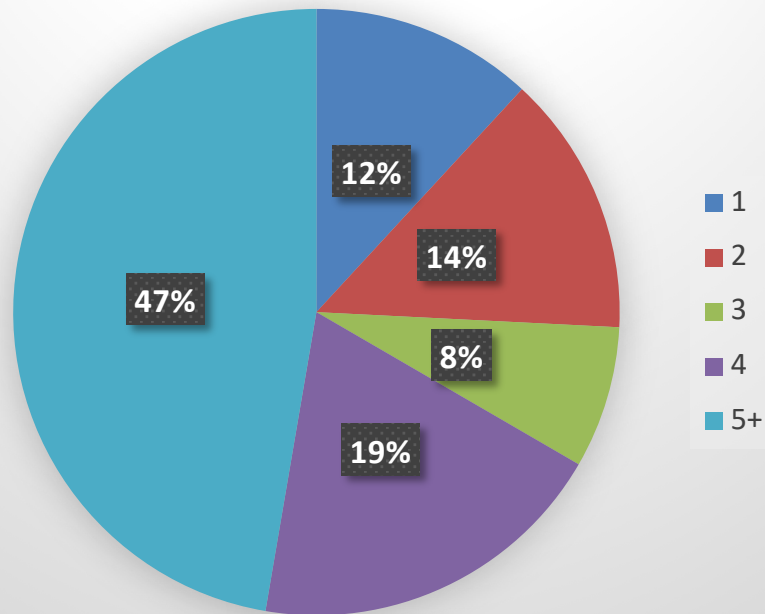
North Carolina
Injury & Violence
PREVENTION Branch

Transgender

Cisgender



Transgender



Intersectionality BMSM

- 90% BMSM with one ACE compared to 60% in general population studies
- All ACE scores associated with mental health
- Only physical neglect and household substance abuse associated with physical health
- 21% increase in odds/ACE score of reporting poor mental health
- Does not factor in structural adversities that BMSM face
- Early intervention is critical
- Structural-level interventions that reduce economic and social disparities



Lasting Alterations in Self Perception

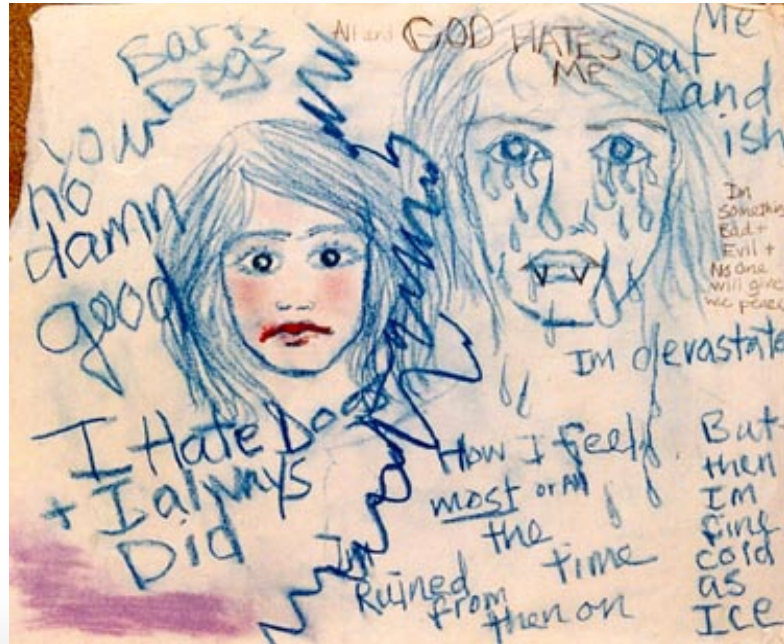
Sense of Shame, Guilt, Self-Blame, Being Bad



Continues over the lifespan

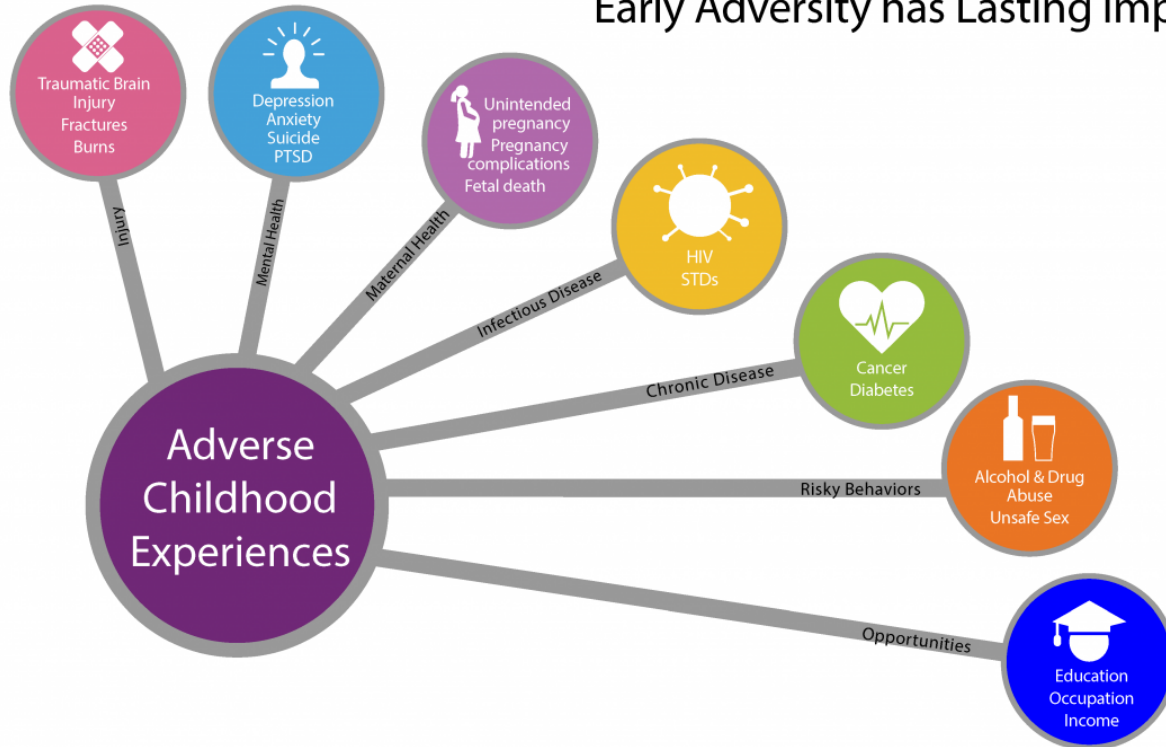
Jennings, A. The "Ace" Study & Unaddressed Childhood Trauma,
www.TheAnnaInstitute.org

**Sense of defilement, contamination, spoiled, degraded,
debased, despicable, evil**

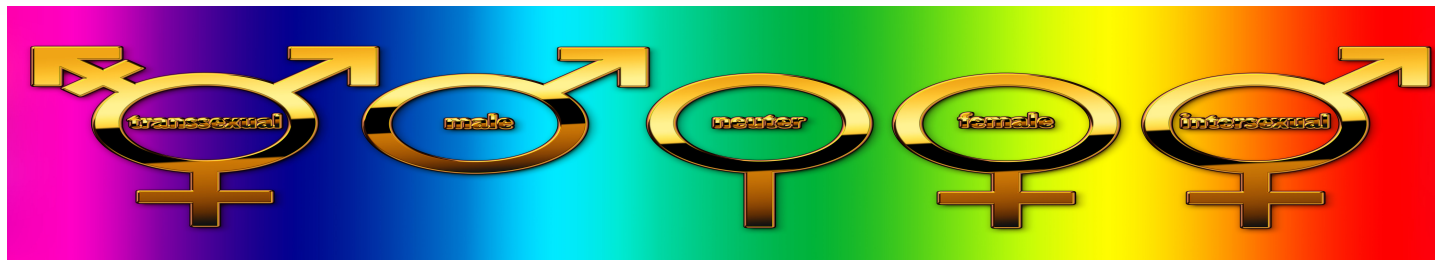


Continues over the lifespan

Early Adversity has Lasting Impacts



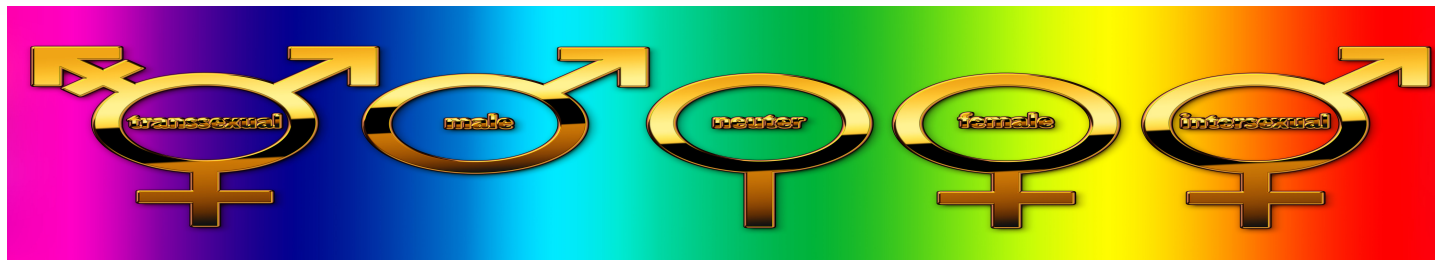
Health Care Disparities



- Gay Men
 - Higher rates of STD
 - Higher rates of smoking and substance abuse
 - Higher rates of mental health issues
 - Higher rates of violence and crime



Health Care Disparities



- **Lesbians:**
 - Higher rates of smoking
 - Obesity
 - Higher rates of breast cancer
 - Lower rates of Pap smear and mammograms

Health Care Disparities

- Transgender
 - Barriers to accessing health care
 - Insurance challenges
 - Higher rates of depression, anxiety and suicide
 - Higher rates of STD and substance abuse
 - Higher rates of trauma



Health Care Disparities

- Aging
 - Loneliness
 - Less likely to have children or family support
 - Less social and community support
 - Discrimination in long-term health care facilities
 - Higher rates of mental health concerns
 - Financially less secure



So What

- Primary prevention of ACEs as well as services designed to help LGB individuals recognize and cope with the stress of childhood adversity, may be effective strategy to improve long-term outcomes and reduce health disparities



BUT

ACE Scores do not tell the whole story



Resiliency Score



Resiliency Score

1. I believe my mother loved me
2. I believe my father loved me
3. Others helped my parents take care of me and loved me
4. When I was an infant others enjoyed playing with me
5. When a child, family member comforted me when I was sad
6. Neighbors, parent's friends seemed to like me
7. Teachers, coaches, ministers helped me

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7. Teachers, coaches, ministers helped me
8. Family cared about school
9. Family talked about making lives better
10. We had house rules
11. I could always find someone trusted to talk to
12. People noticed I was capable
13. I was independent/go-getter
14. I believe life is what you make it



Trauma Informed Care



BOOSTING RESILIENCY

BOOSTING RESILIENCY



Health Resiliency

Sleep

Nutrition

Movement

Mindfulness

Social interactions



Sleep

Give the brain a rest

7-9 hours of sleep reduces
depression, obesity and
disease risk



Health Resiliency



Nutrition

Healthy diet
promotes overall
health

Healthy eating
pattern on most
days

Dash Diet

Mediterranean Diet

Health Resiliency



Movement

Movement not exercise

Walking, dancing,
swimming, gardening, etc

150-300 min/week

10-60 min intervals-need
not be done in one setting

Health Resiliency



Mindfulness

Fully present & aware of
where we are and what
we are doing-not
overreacting to what is
going on around us

Practice Daily

Dispel judgmental
thoughts

Health Resiliency



Social Interactions

How a person interacts with community, friends and family

- Micro socialization
- Macro socialization

Health Resiliency



What are the Public Health Implications?

- Early identification of toxic stress
- Public policies
- Appropriate and available childcare
- Removing structural/institutional stressors/barriers
- Trauma informed care
- Resiliency-building programs

A vibrant, colorful background featuring a light pink surface. Scattered across the surface are numerous small, multi-colored clothespins in shades of red, green, blue, yellow, and white. In the center, a rectangular blue card with a slightly textured, torn-edge appearance is positioned. The card is held up by a single blue clothespin at its bottom center. On the card, the words "LET'S TALK!" are written in a bold, red, hand-drawn style. The overall composition is bright and cheerful, with a soft, out-of-focus effect on the clothespins in the background.

LET'S TALK!