

**Impact of Elevated  
ACE Scores on  
LGBT Health  
Disparities**



- Medical Director LGBT+ Health for Novant Health
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# 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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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

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- 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

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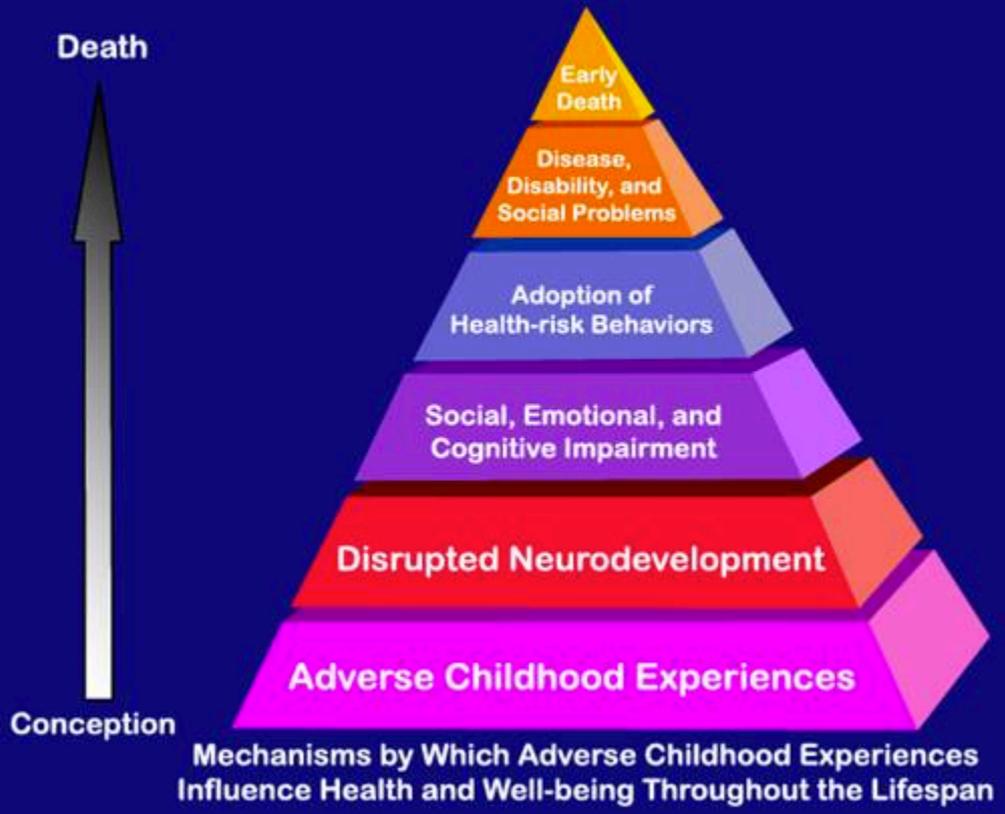
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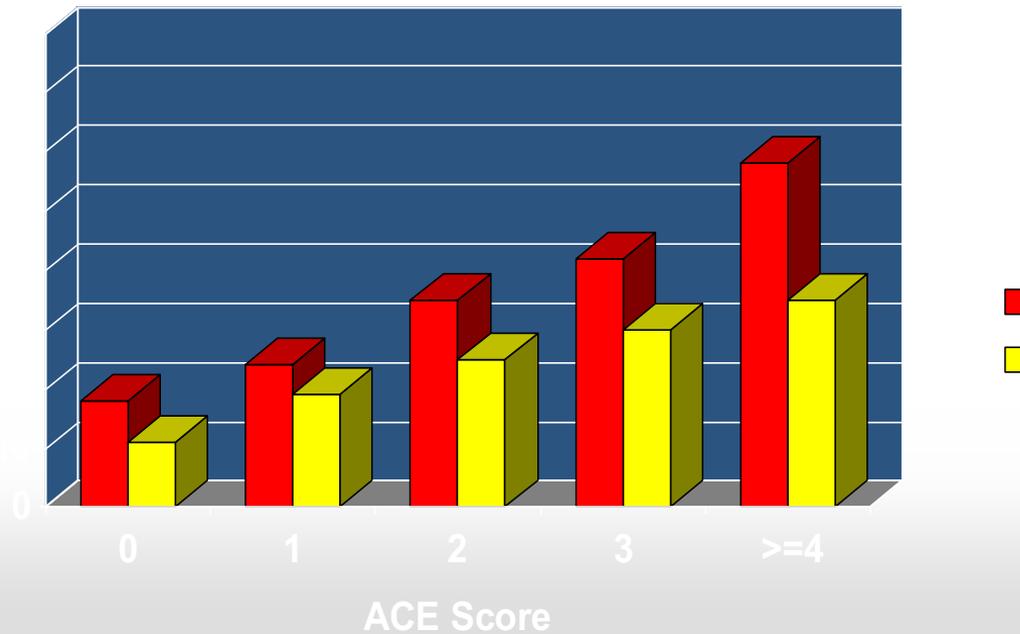
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## Ace score of 6 or more:

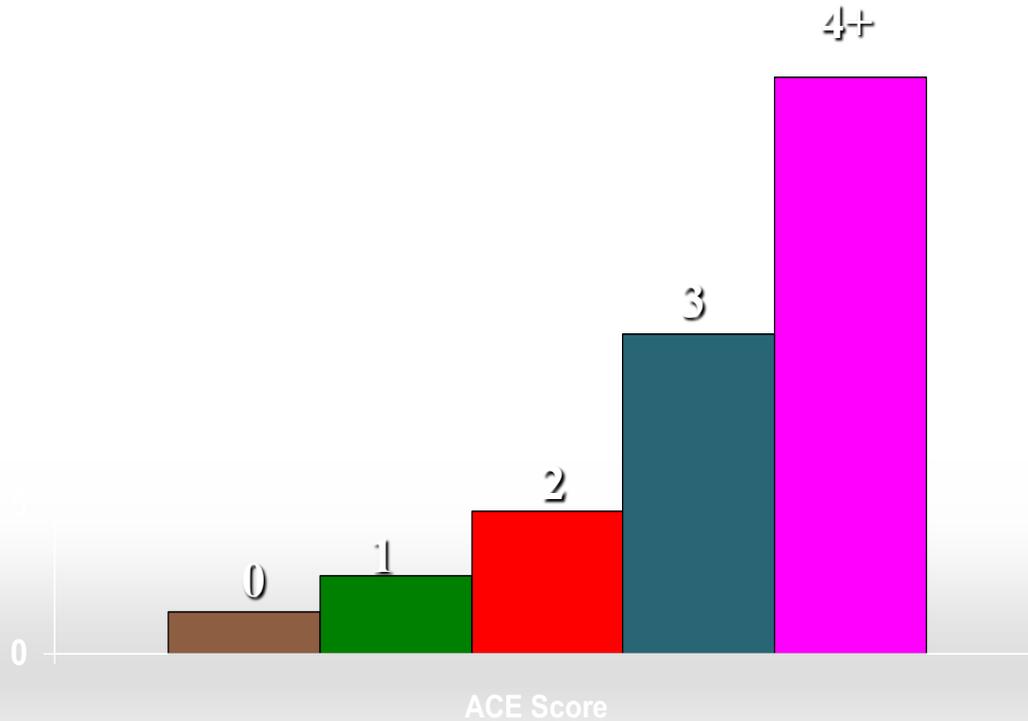
**20 year shorter life expectancy**



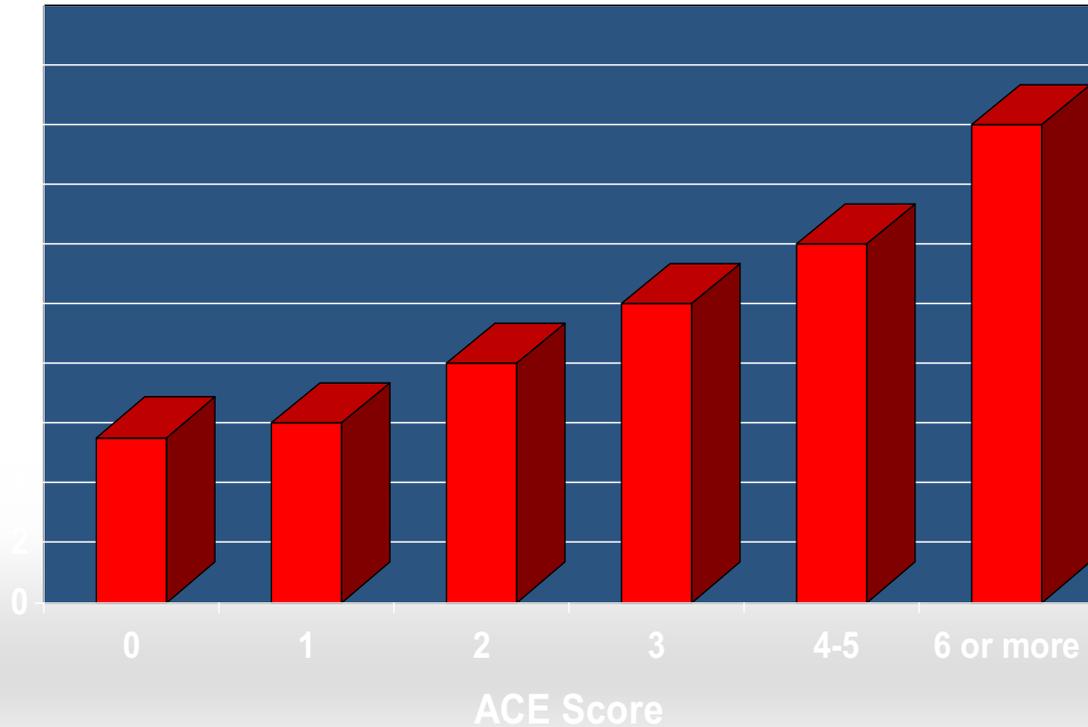
# Childhood Experiences Underlie Chronic Depression



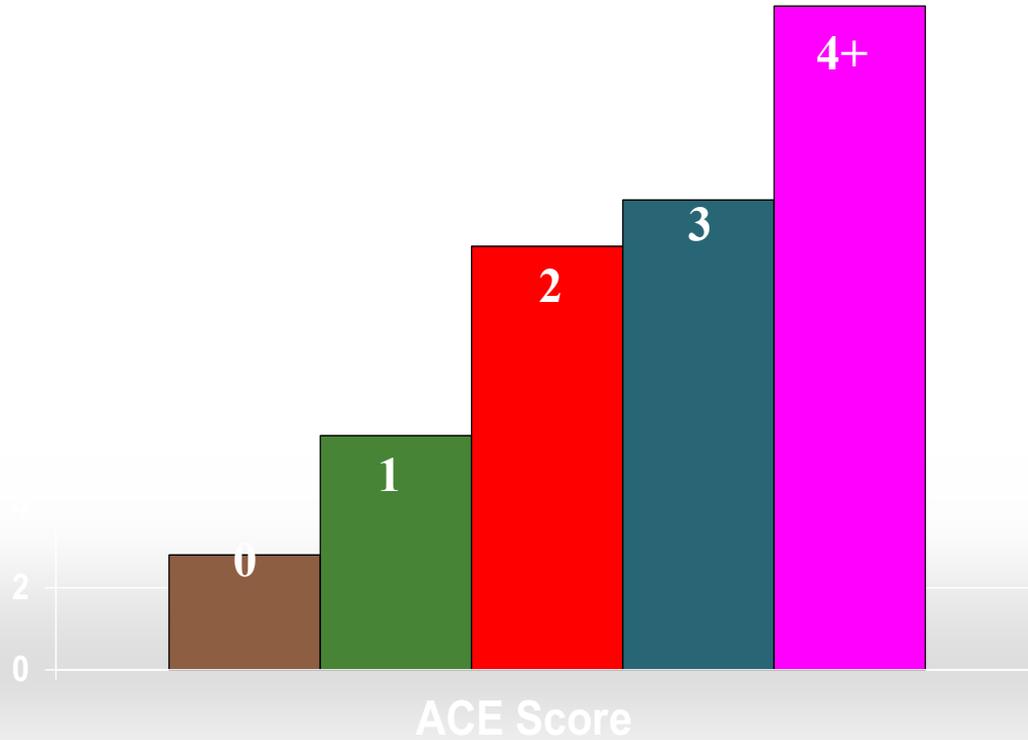
# Childhood Experiences Underlie Suicide



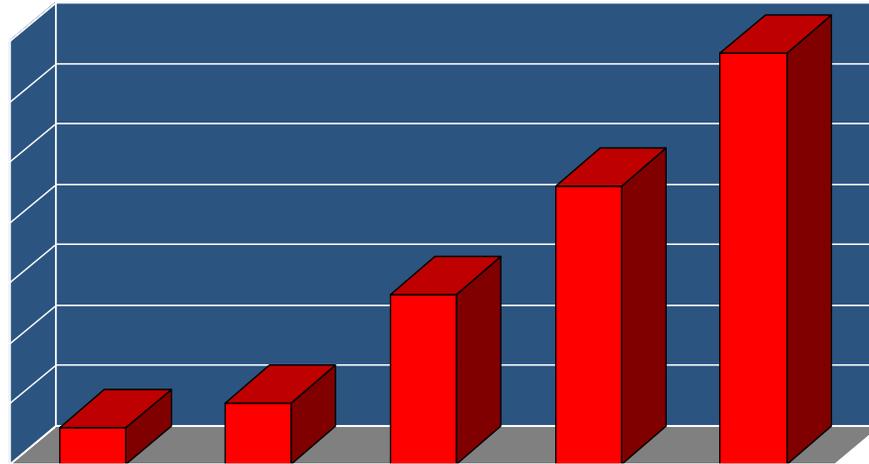
# Adverse Childhood Experiences and Current Smoking



# Childhood Experiences and Adult Alcoholism



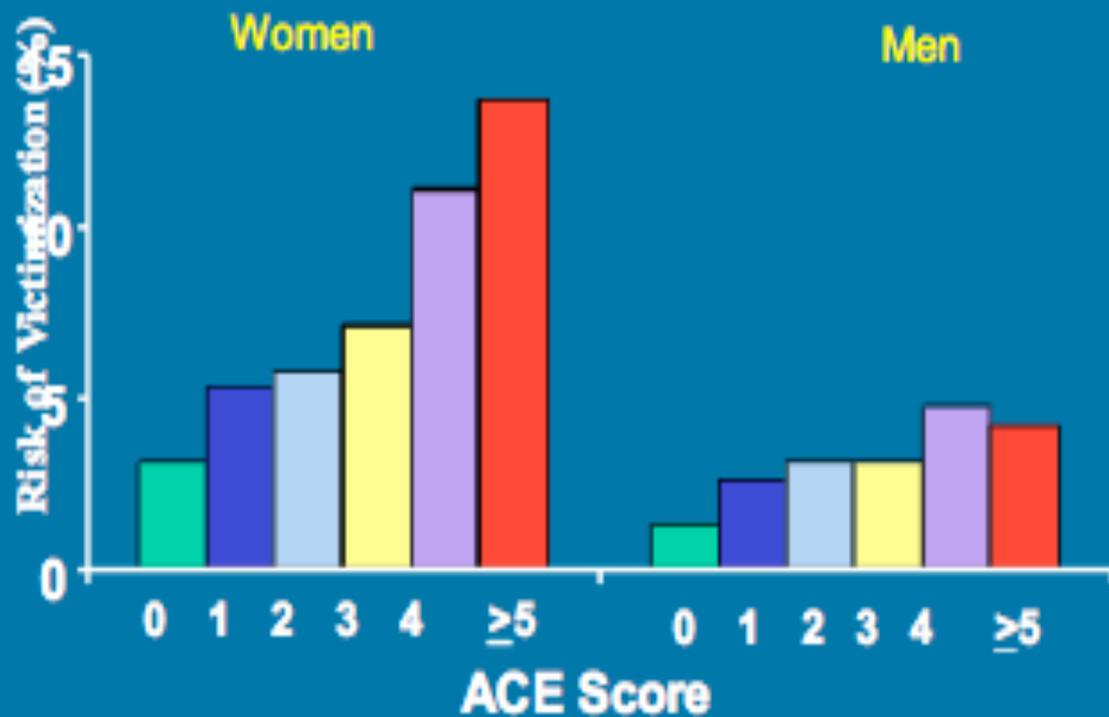
# ACE Score and Intravenous Drug Use



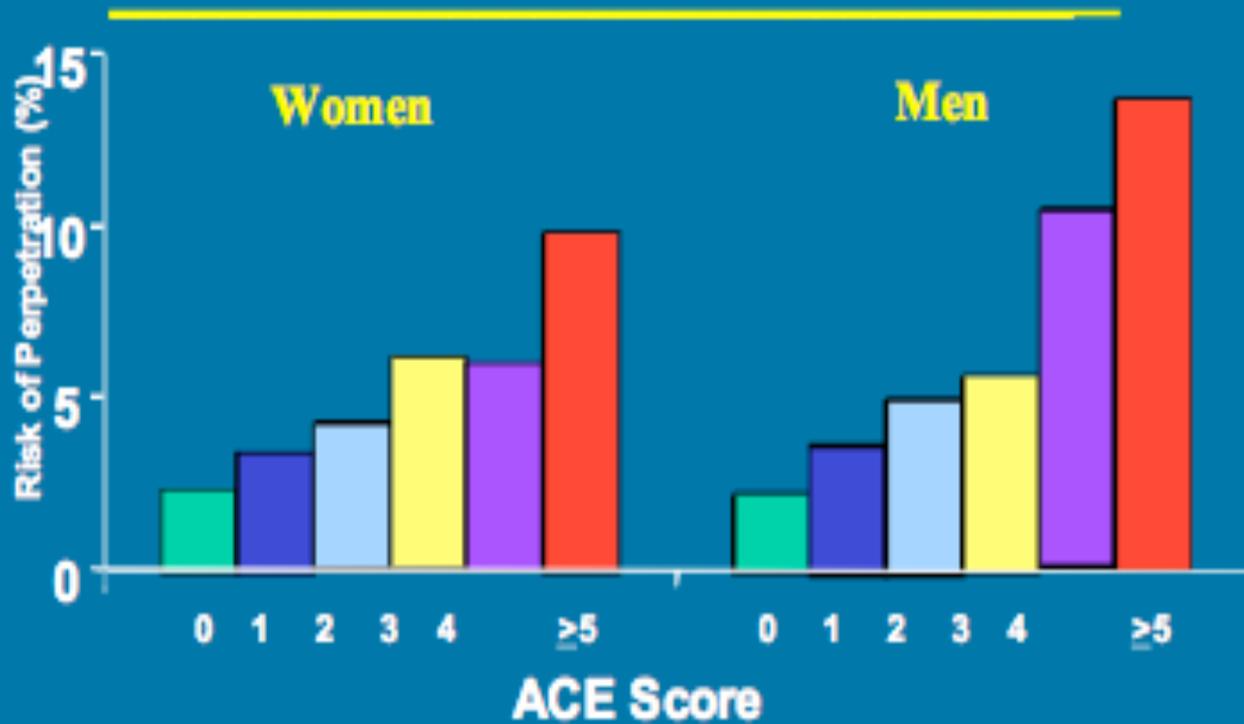
ACE Score

**N = 8,022**   **p < 0.001**

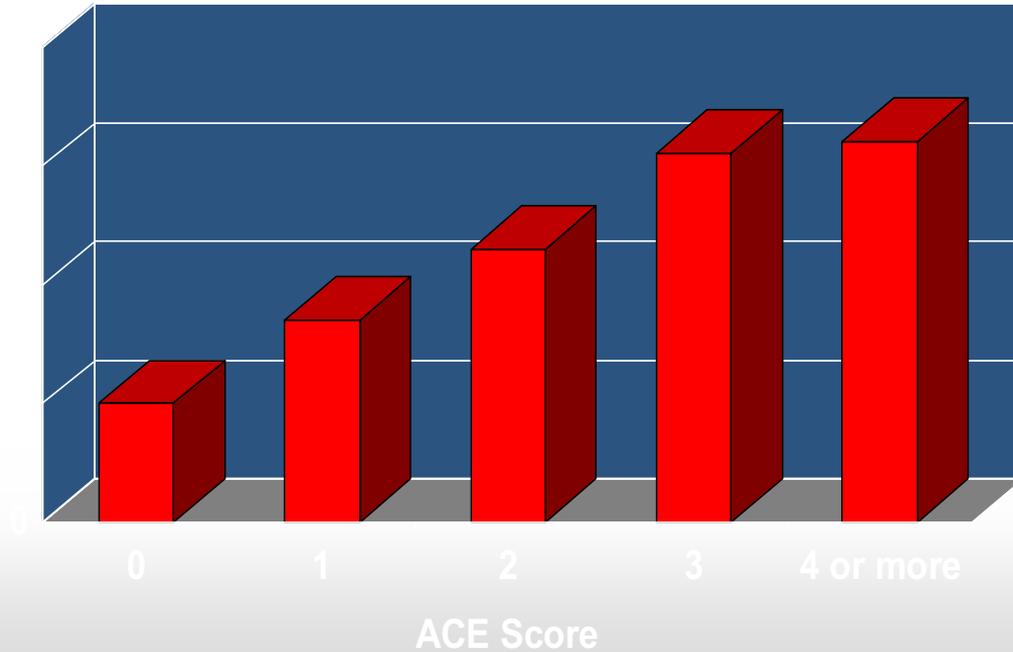
## ACE Score and the Risk of Being a Victim of Domestic Violence



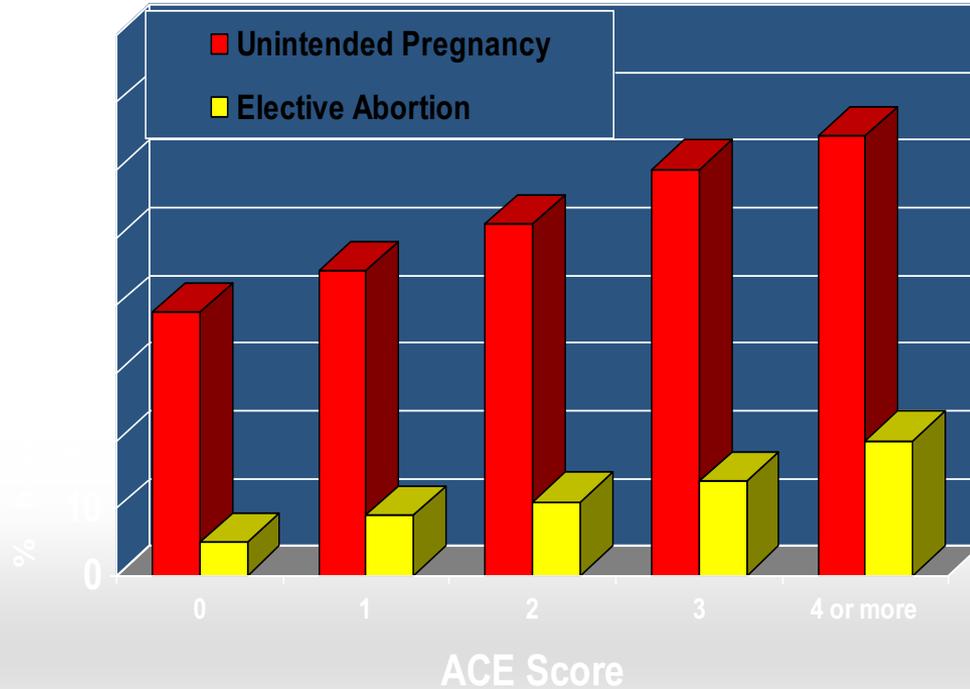
## ACE Score and the Risk of Perpetrating Domestic Violence



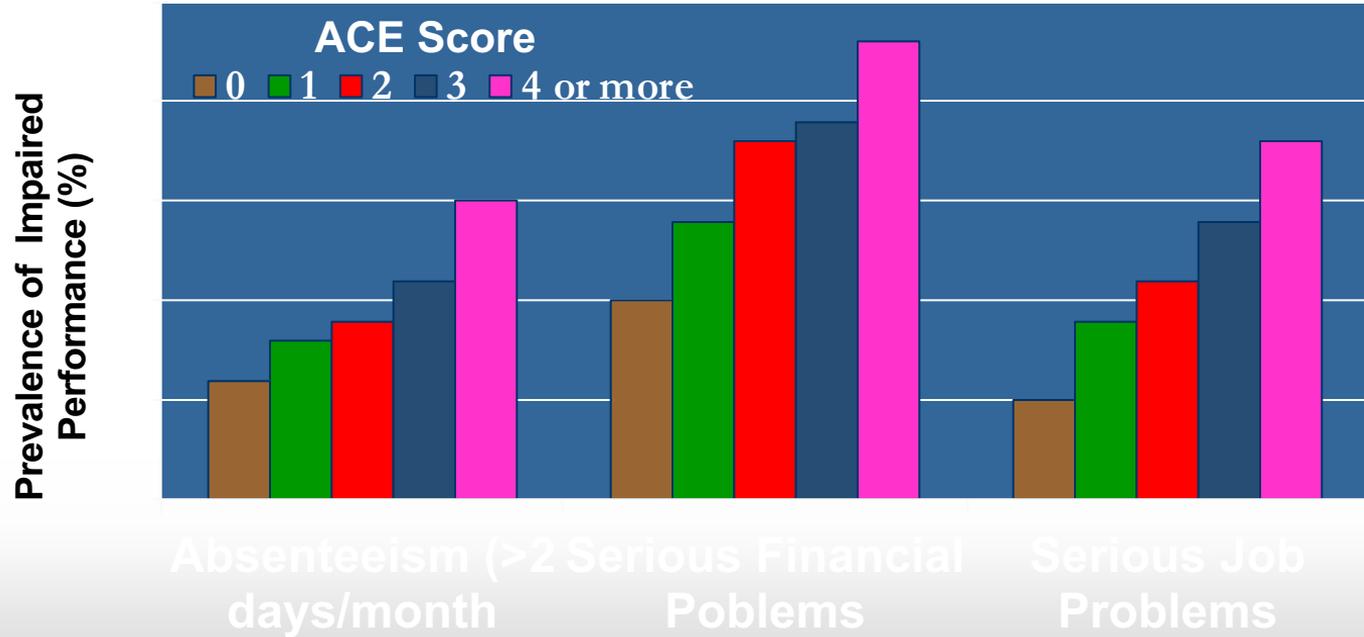
# Adverse Childhood Experiences and Likelihood of > 50 Sexual Partners



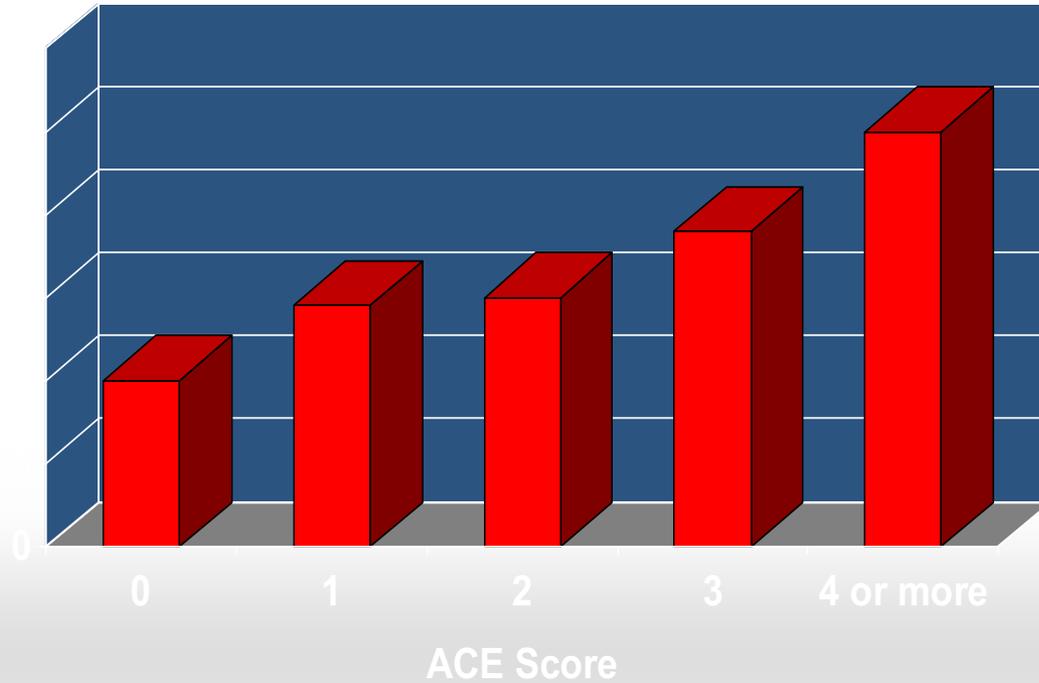
# ACE Score and Unintended Pregnancy or Elective Abortion



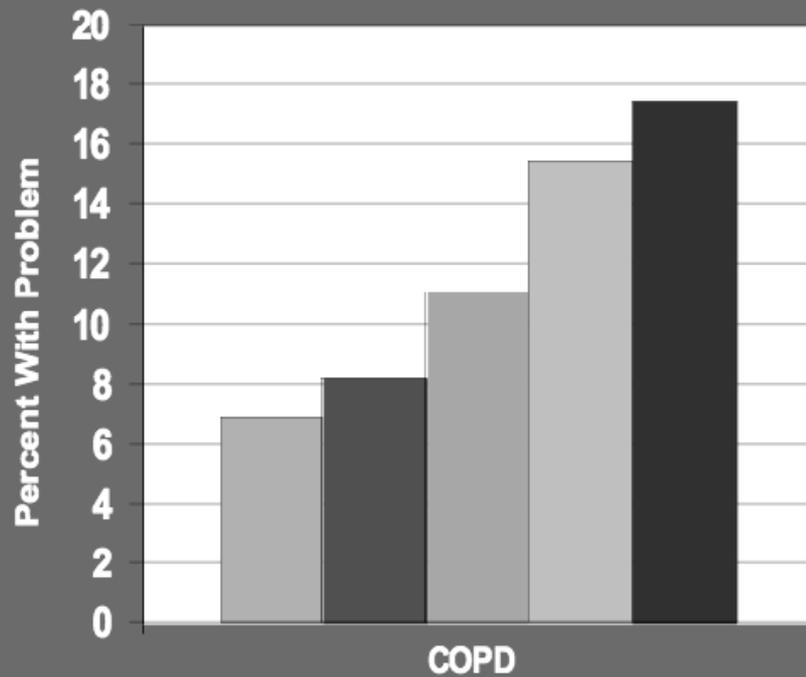
# ACE Score and Indicators of Impaired Worker Performance



# Adverse Childhood Experiences and History of STD



## ACE Score vs. COPD

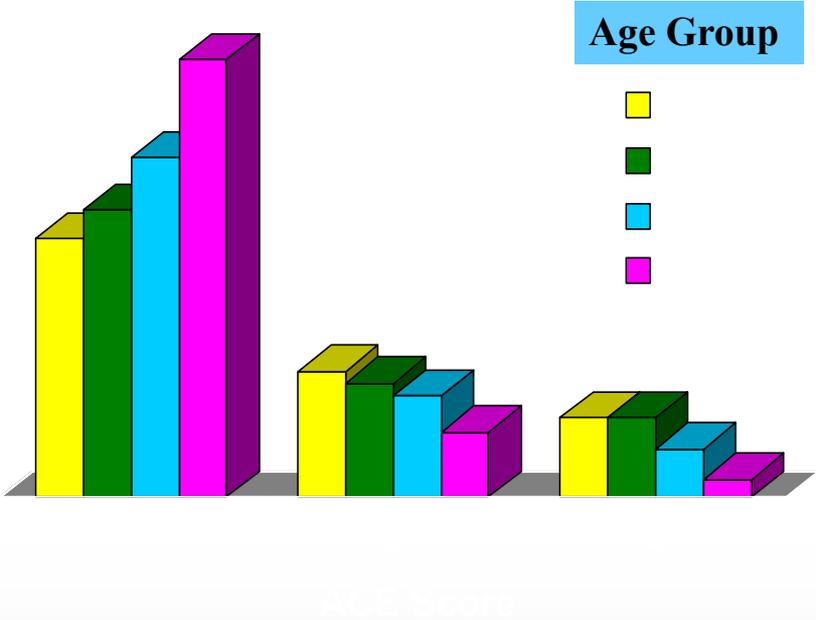


## ACEs Increase Likelihood of Heart Disease\*

- 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

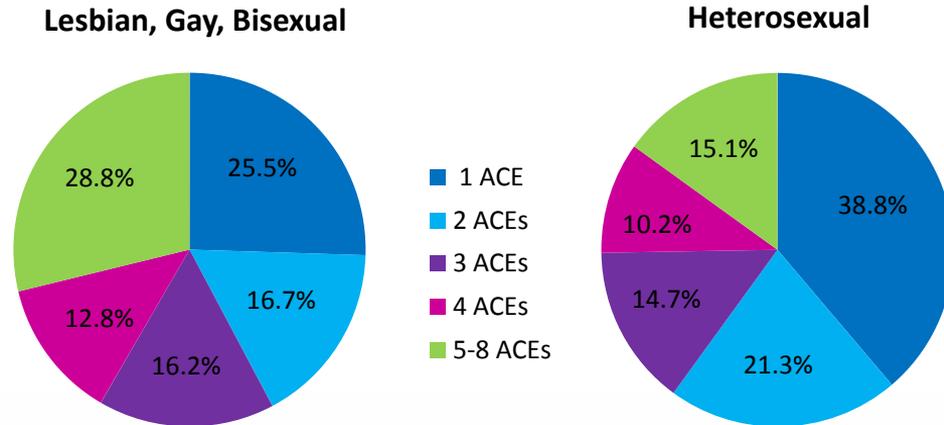


# Effect of ACEs on Mortality



# ACE Scores in LGBT Population

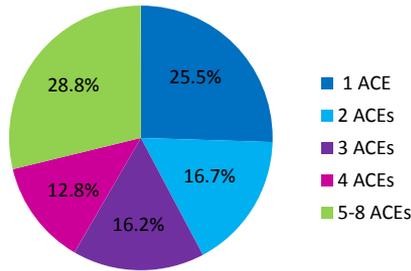
## Prevalence of ACE Score by Sexual Orientation Among those Reporting One or More ACEs



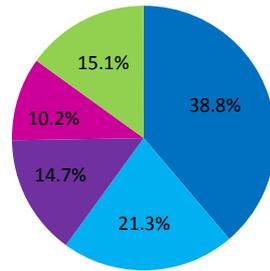
# ACE Scores in LGBT Population

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

Lesbian, Gay, Bisexual



Heterosexual



- 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

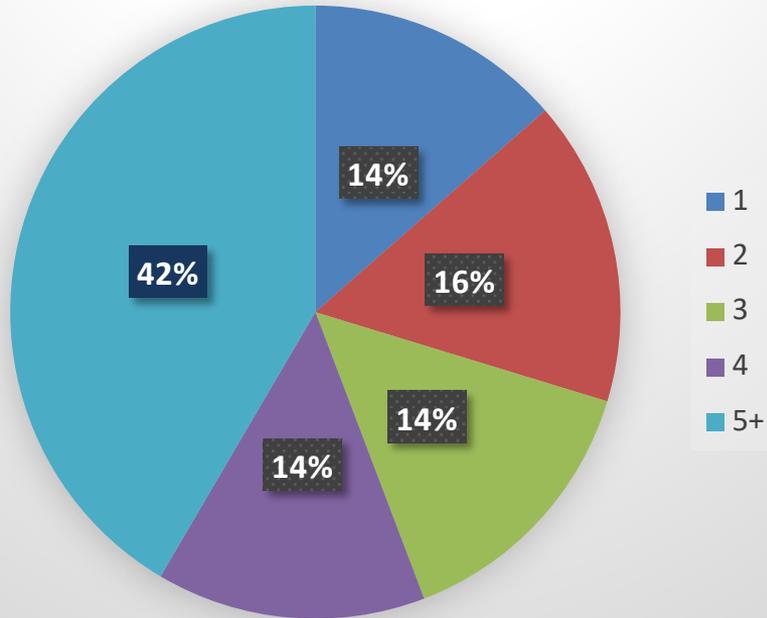


Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS

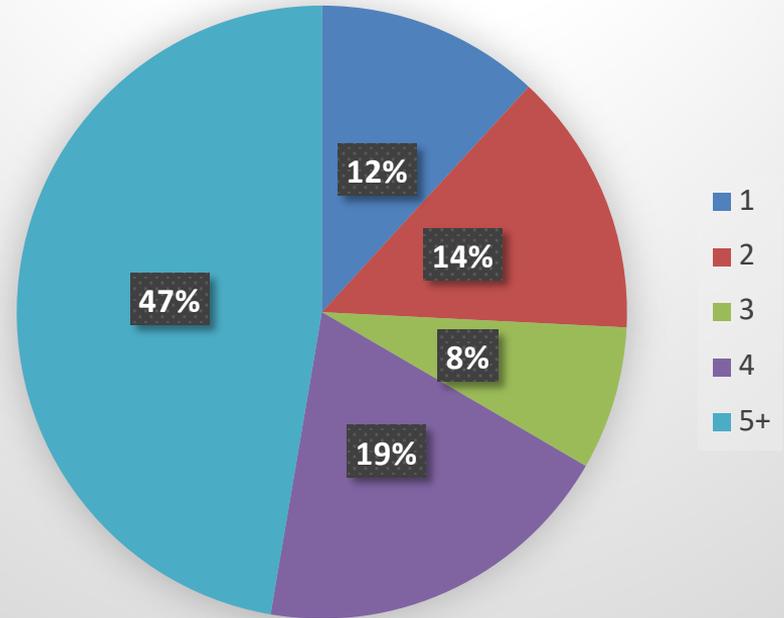
North Carolina  
Injury & Violence  
PREVENTION Branch

# 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**

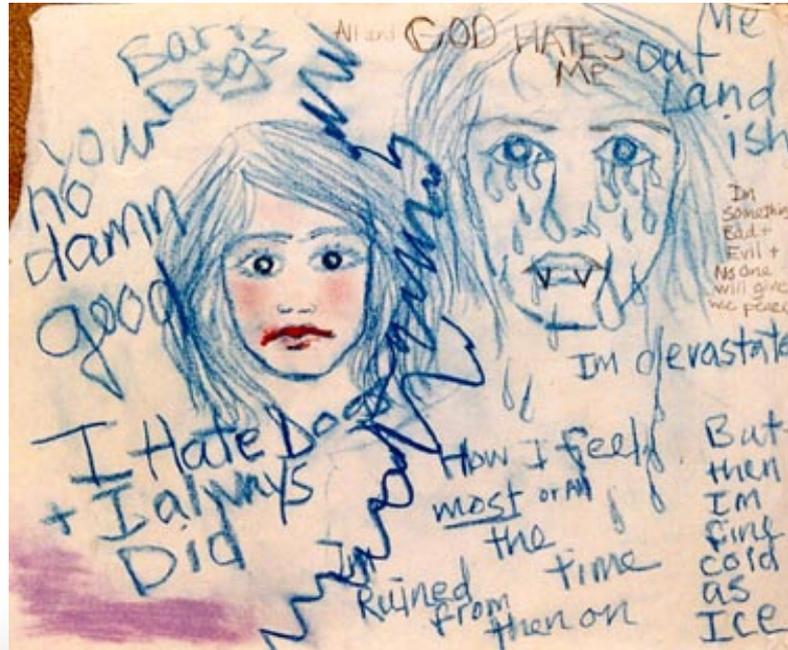
# Sense of Shame, Guilt, Self-Blame, Being Bad



**Continues over the lifespan**

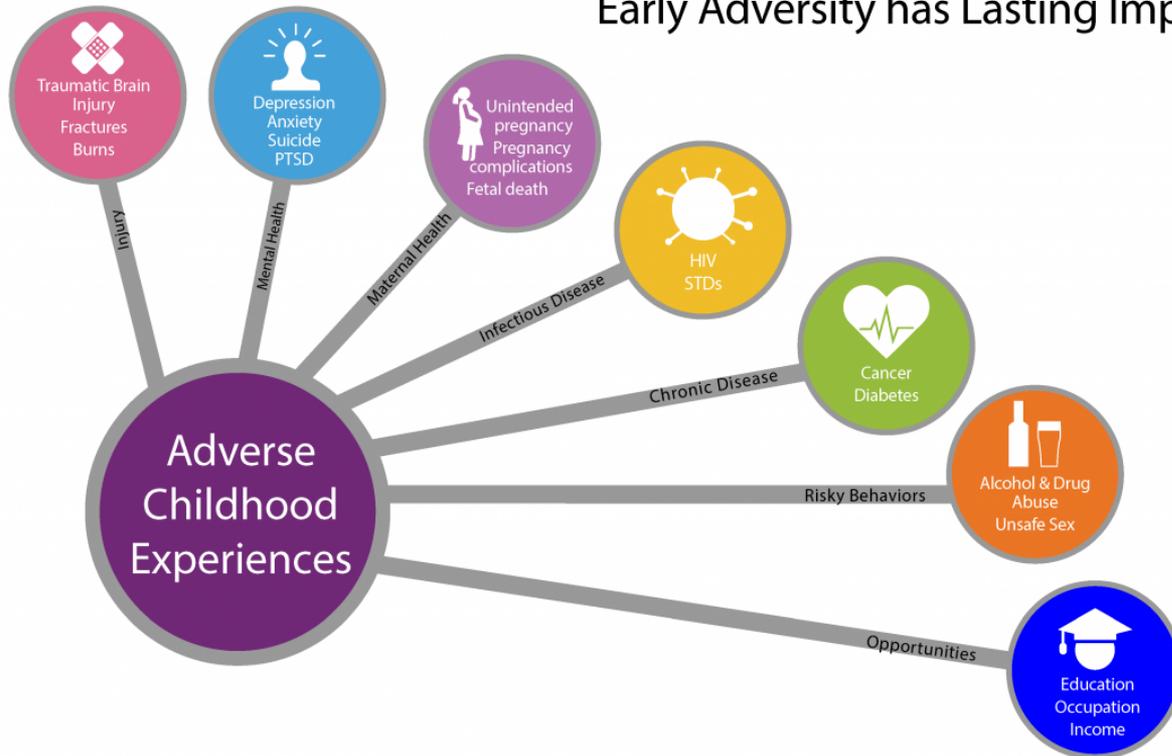
Jennings, A. The “Ace” Study & Unaddressed Childhood Trauma,  
[www.TheAnnaInstitute.org](http://www.TheAnnaInstitute.org)

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

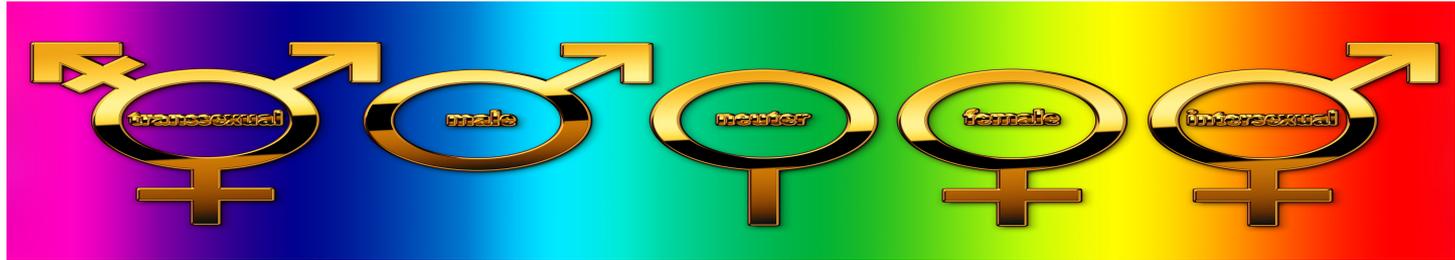


Continues over the lifespan

## Early Adversity has Lasting Impacts



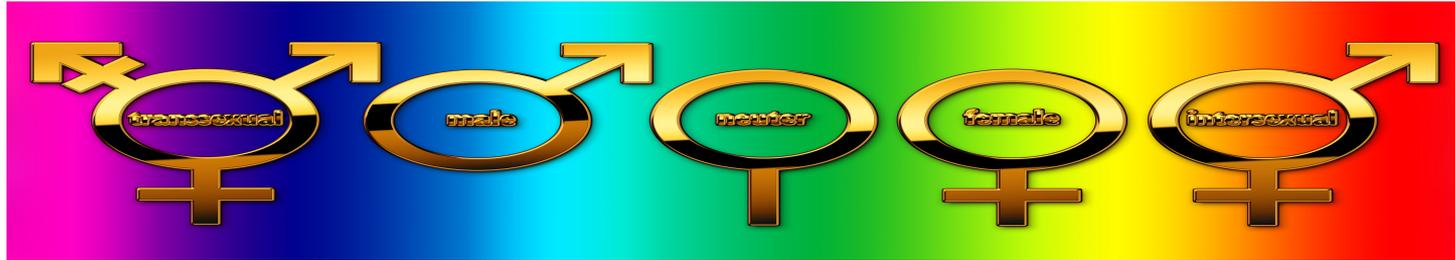
# Health Care Disparities



- 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 scene featuring a central blue card with the text "LET'S TALK!" written in red, hand-drawn letters. The card is held up by a blue clothespin at the bottom center. The background is a soft pink surface, scattered with numerous colorful clothespins in shades of red, green, yellow, blue, and white. The overall composition is bright and cheerful, suggesting a positive and open communication theme.

LET'S TALK!