



# Comprehensive Health Education Foundation (CHEF)

**Founded:** 1974

**Mission:** Create enduring health equity.

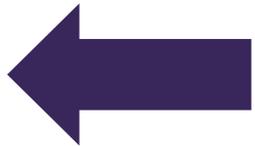
We believe that people and communities thrive when all are healthy, included and connected.

**Strategic focus:** Community based health solutions

By uniting community wisdom, proven science, emergent best practices and effective policy, we support people, communities and policy makers to create the conditions for health at the local, grassroots level.

# Poll Question

Do you have an ACE-informed public health initiative?



If you do, please share your initiatives in the Chat box.

“

When societal resources are distributed unequally by any factor, population health will be distributed unequally along those lines as well.

”

Unnatural Causes  
[www.unnaturalcauses.org](http://www.unnaturalcauses.org)

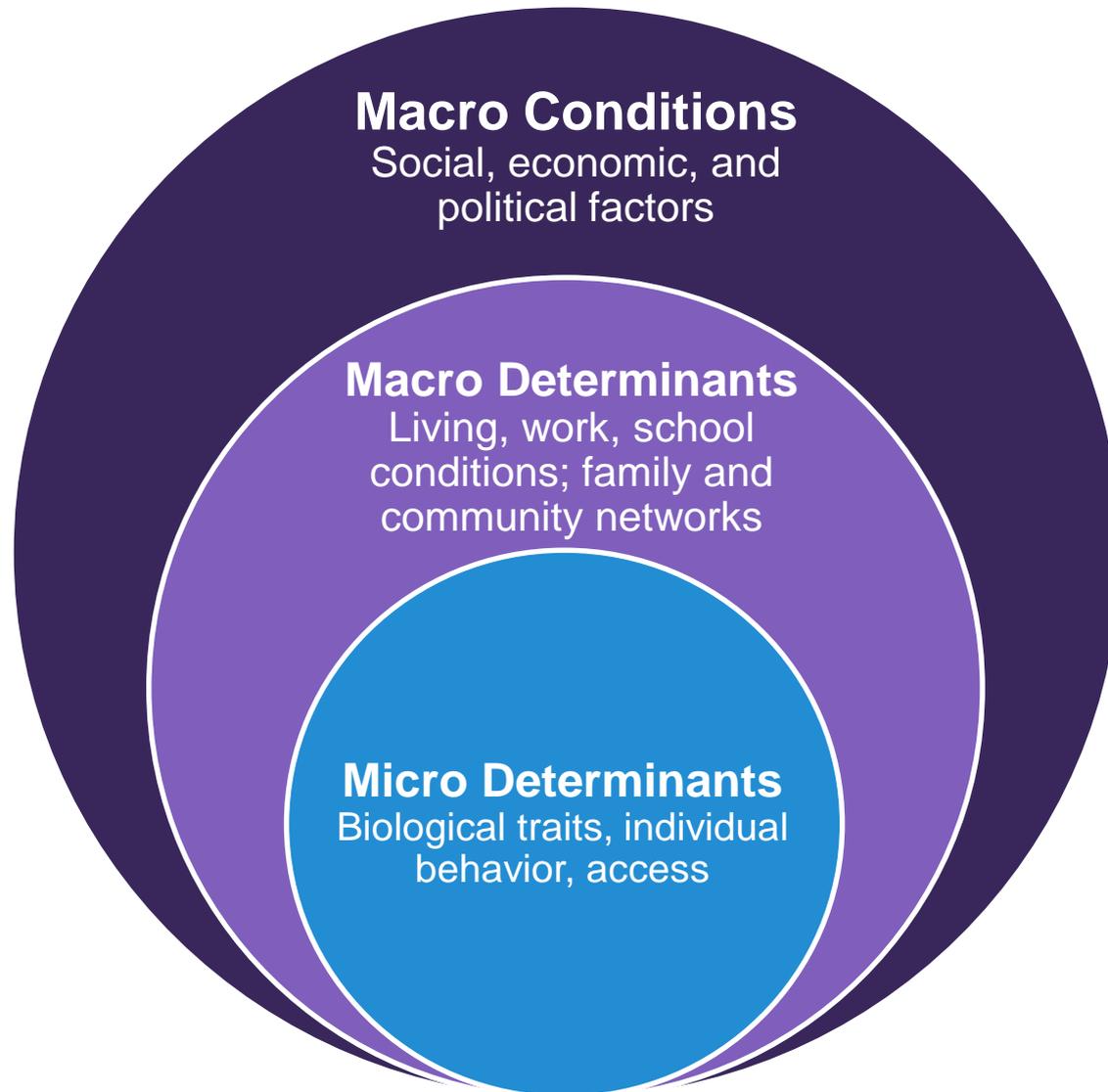
“

In order to improve public health, we need to improve society.

”

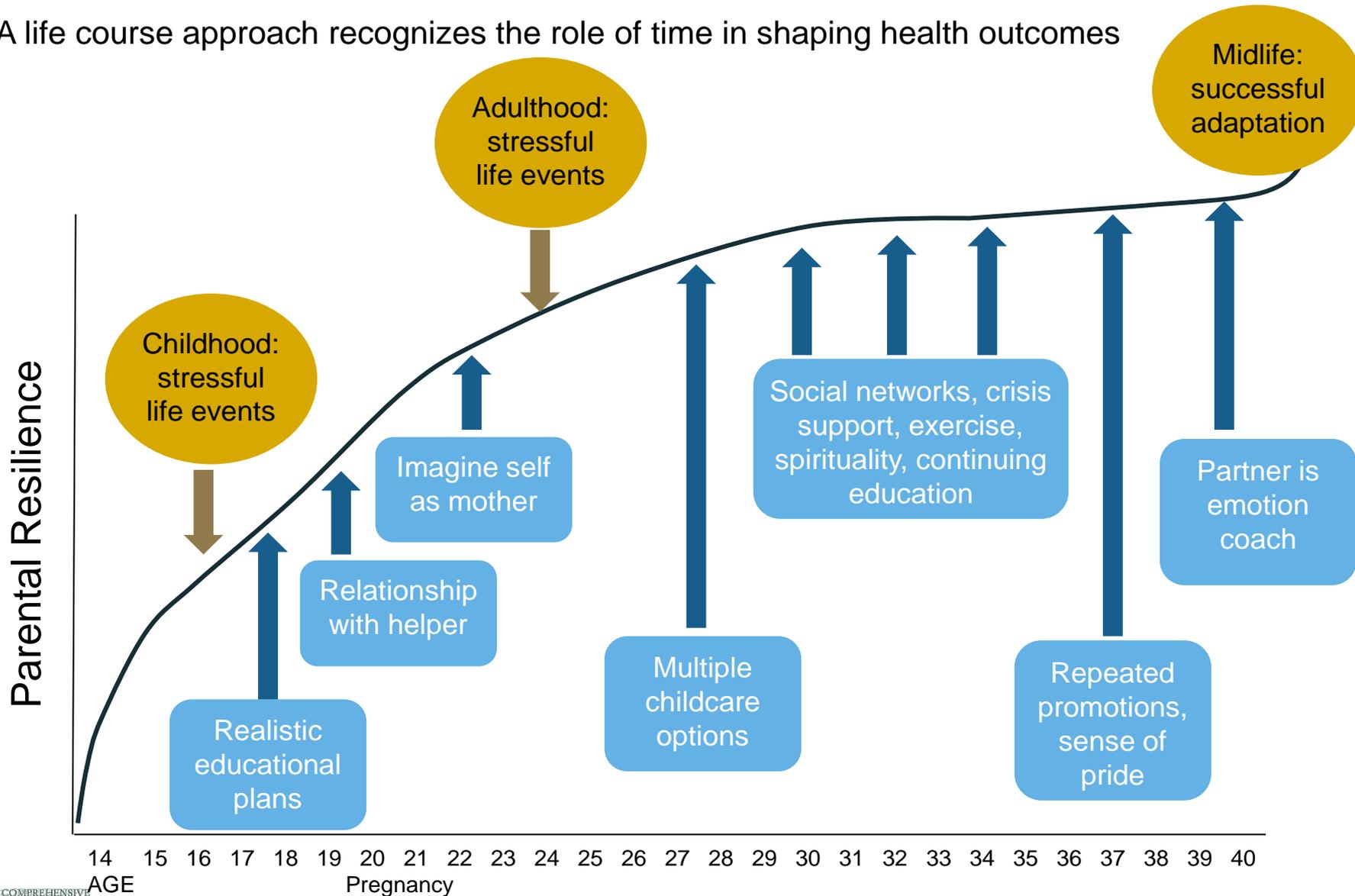
Sir Michael Marmot, Epidemiologist

# Ecological Model of Determinants of Health



# The Role of Time

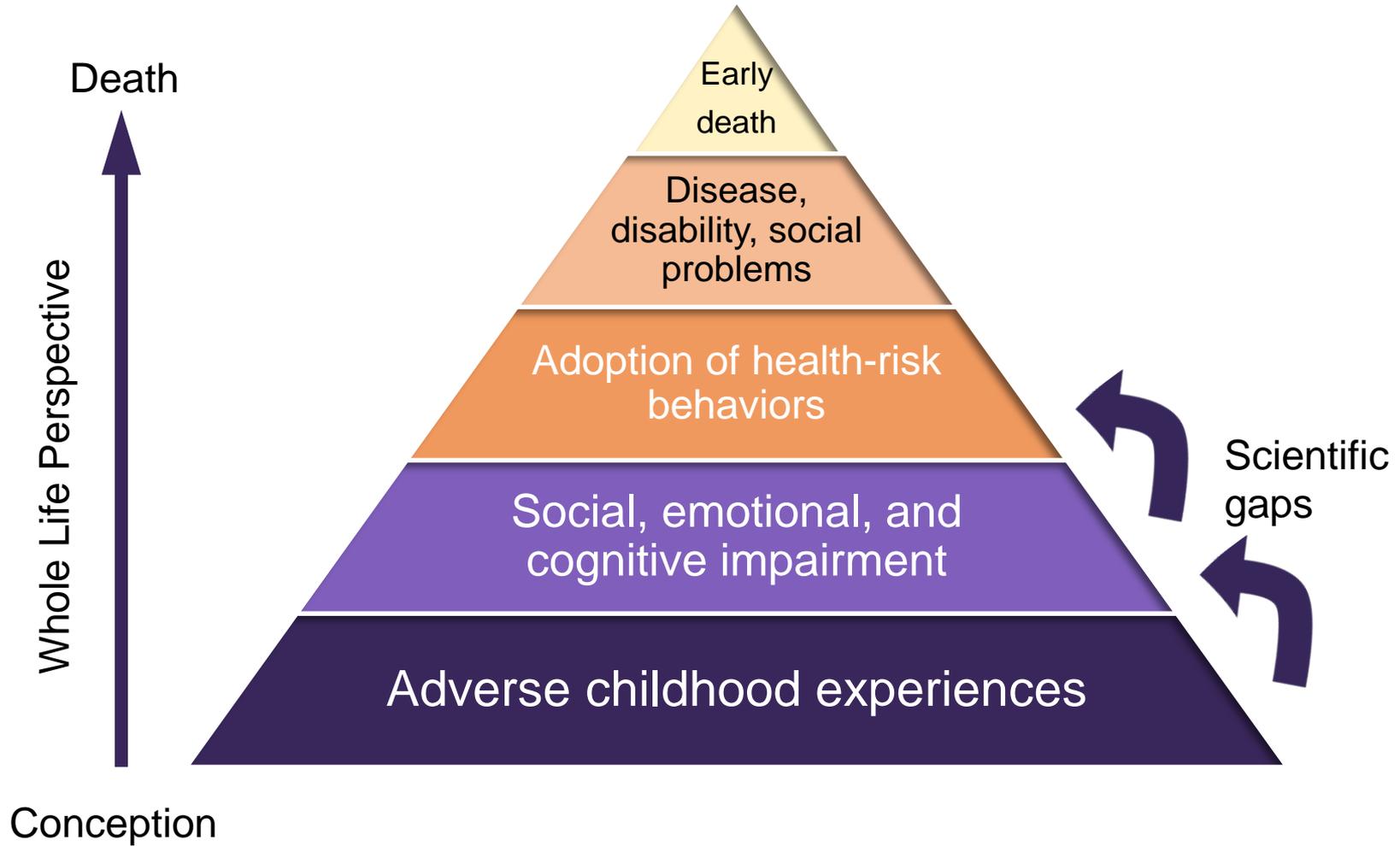
A life course approach recognizes the role of time in shaping health outcomes



# Life Course Approach: A New Set of Questions

- Pathways
- Trajectories
- Critical and sensitive periods
- Cumulative impacts
- History and context
- Complex interplay of biological and social factors

# The Ace Study



# Experiences Considered

## Indicators of Family Dysfunction

1. Mentally ill, depressed, or suicidal person in home
2. Drug addicted or alcoholic family member
3. Parental discord (divorce, separation, abandonment)
4. Witnessing domestic violence against the mother
5. Incarceration of any family member

## Abuse of Child

6. Physical
7. Sexual
8. Emotional

## Neglect

9. Physical
10. Emotional

ACE Score = Number of Categories (1-10)

# Major Findings

ACE categories (ACEs) are interrelated

87% of people with 1 have more than one

ACEs are common

2/3 of adults have 1 or more  
27% have 3 or more  
5% have six or more

Accumulation of ACEs matters

Higher # (ACE Score) = higher population risk

ACEs are the most powerful known determinant of health

Mental, physical, behavioral, productivity, disability, & social problems

# Disease Risk

## Attributable to ACEs:

Smoking

Heavy drinking

Binge drinking

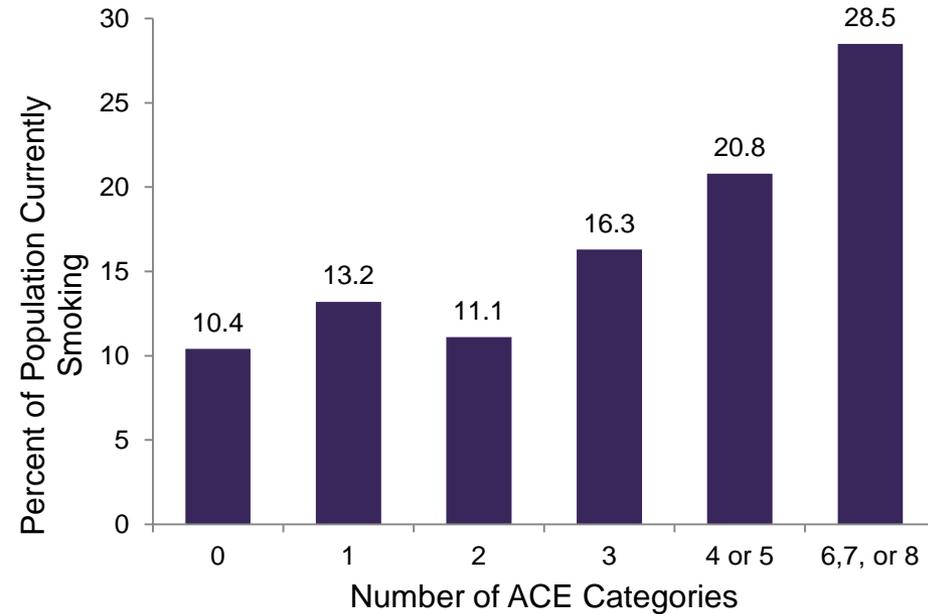
Drinking and driving

Had a drug problem

Addicted to drugs

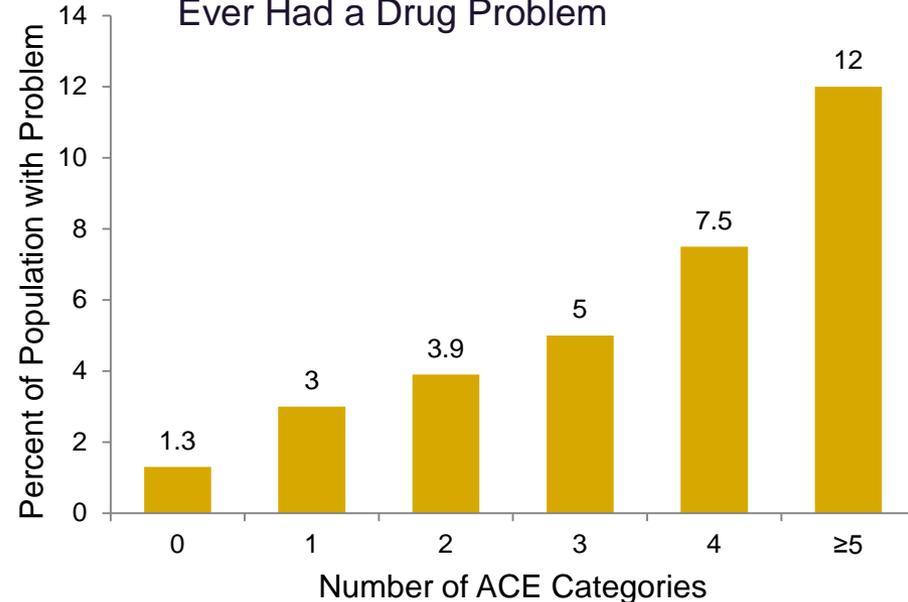
Ever injected drugs

### Current Smoking- Washington



### Original ACE Study

#### Ever Had a Drug Problem



# Mental Illness

## Attributable to ACEs:

Depression

Serious and persistent  
mental illness

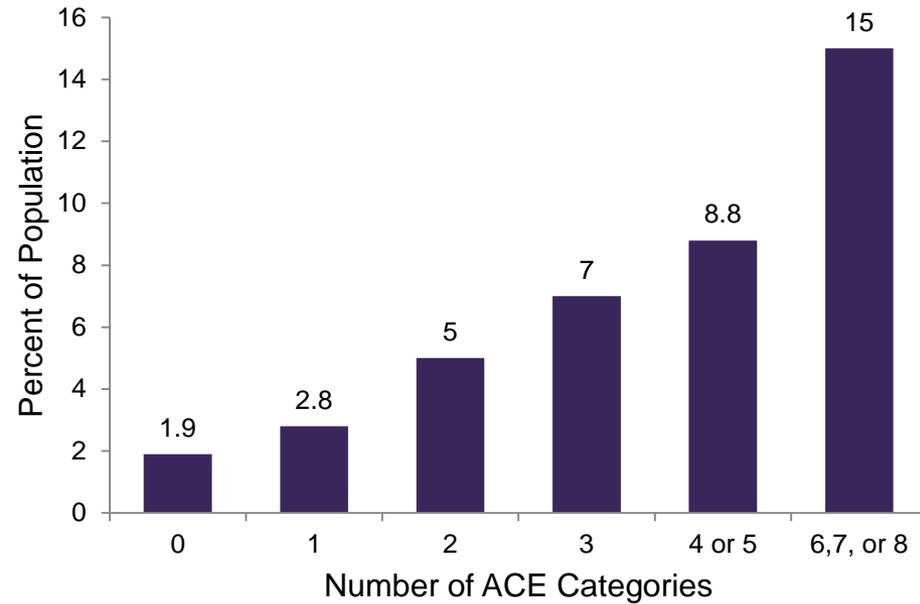
Frequent mental distress

Nervousness

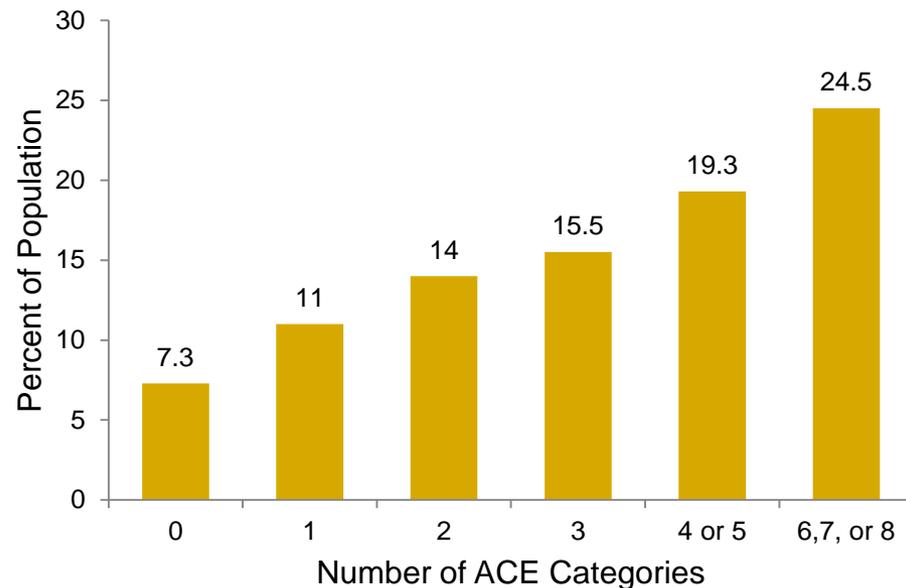
Suicide attempts

Emotional problems restrict  
activities

### Anxiety



### Treatment for Mental Health Condition



# ACEs and Work/Life

## Attributable to ACEs:

Worker injury

Work-related illness

Drugs/alcohol

Hopelessness

Health limits activity

Serious job problems

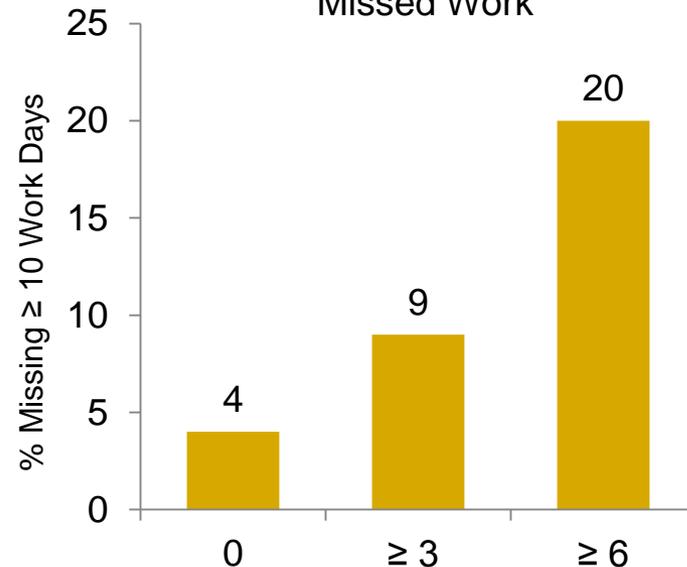
Serious financial problems

Disability-related days  
(can't do usual activities)

Work-Related Injury/Illness in Past Year



Missed Work



# Physical, Mental, & Behavioral Health Outcomes Linked to ACEs

## Prevalent Disease

- Cardiovascular
- Cancer
- Asthma
- Diabetes
- Auto-immune
- COPD
- Ischemic heart disease
- Liver disease

## Poor Mental Health

- Frequent mental distress
- Sleep disturbances
- Nervousness
- Requires medication
- Problems restrict activities
- Serious & persistent mental illness

## Health & Social Problems

- Fair or poor health
- Life dissatisfaction
- Health-related limits to quality of life
- Disability that impedes daily functioning
- Doesn't complete secondary education
- Unemployment
- History of adult homelessness

## Risk

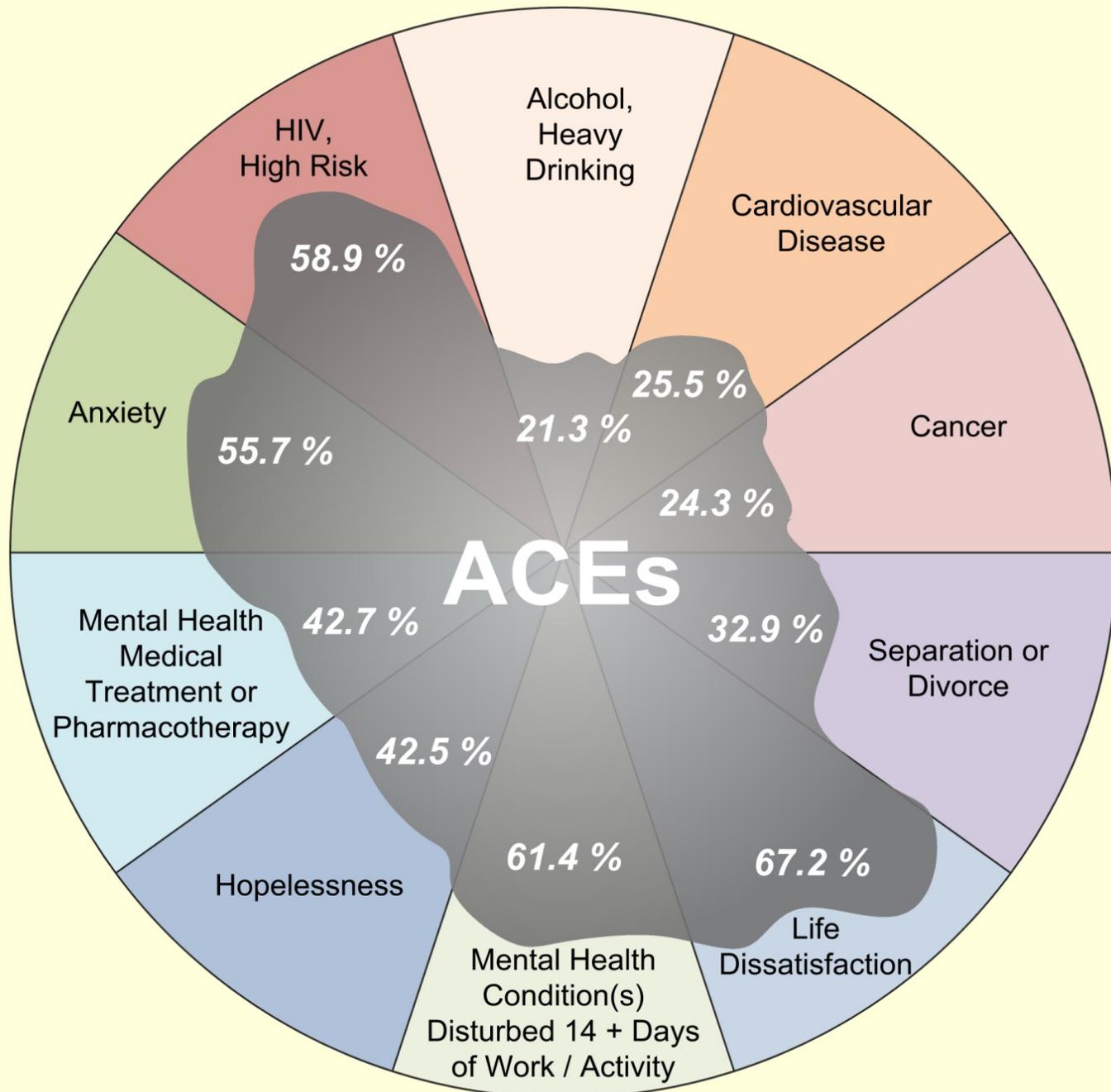
- Smoking
- Heavy drinking
- Obesity
- Risk of AIDS
- Taking painkillers to get high
- Obesity

## Intergenerational ACE Transmission

- Mental illness
- Drugs or alcohol problem
- Multiple divorces, separations
- Victim of family violence
- Adult incarceration

Magnitude  
of the  
solution...

It's in OUR hands.



# In Washington



## School-aged children

- Elementary children - 12% had more than three ACEs
- Increased absence and behavior problems



## High school-aged youth

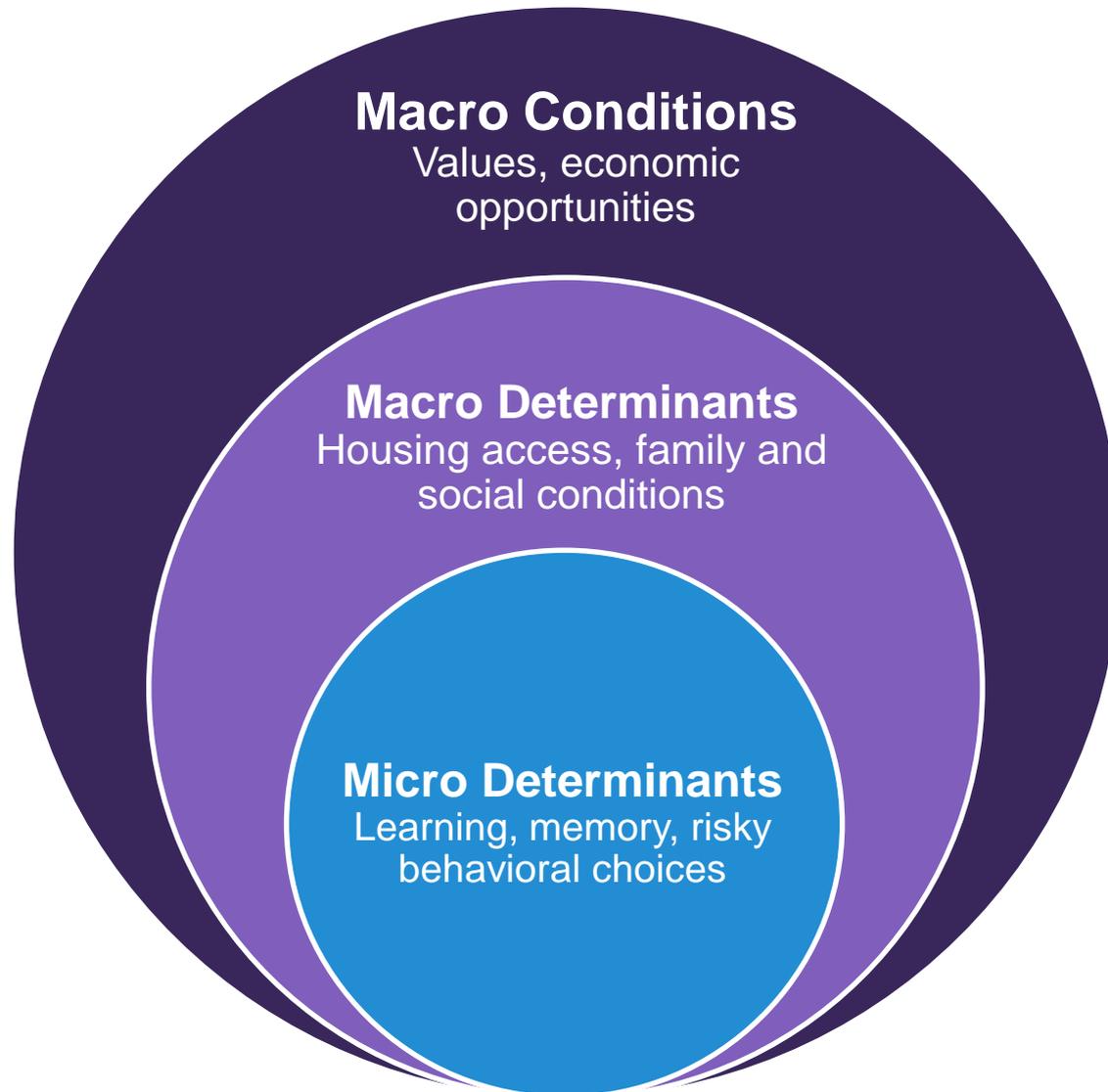
- 42% had more than three ACEs
- Increase in poor grades, suspensions, court involvement



## Parents

- With more than 5 ACEs
- Were 14 X more likely to have conditions that make ACEs for kids

# ACEs & Determinants of Health



# Too Common to Rely Exclusively on Intervention/Treatment

## Public Health Approach

- Assessment
- Policy
- Assurance

## Public Education **Necessary** But Not Sufficient

- Hope-filled action
- Attend to macro conditions
- Macro determinants of health

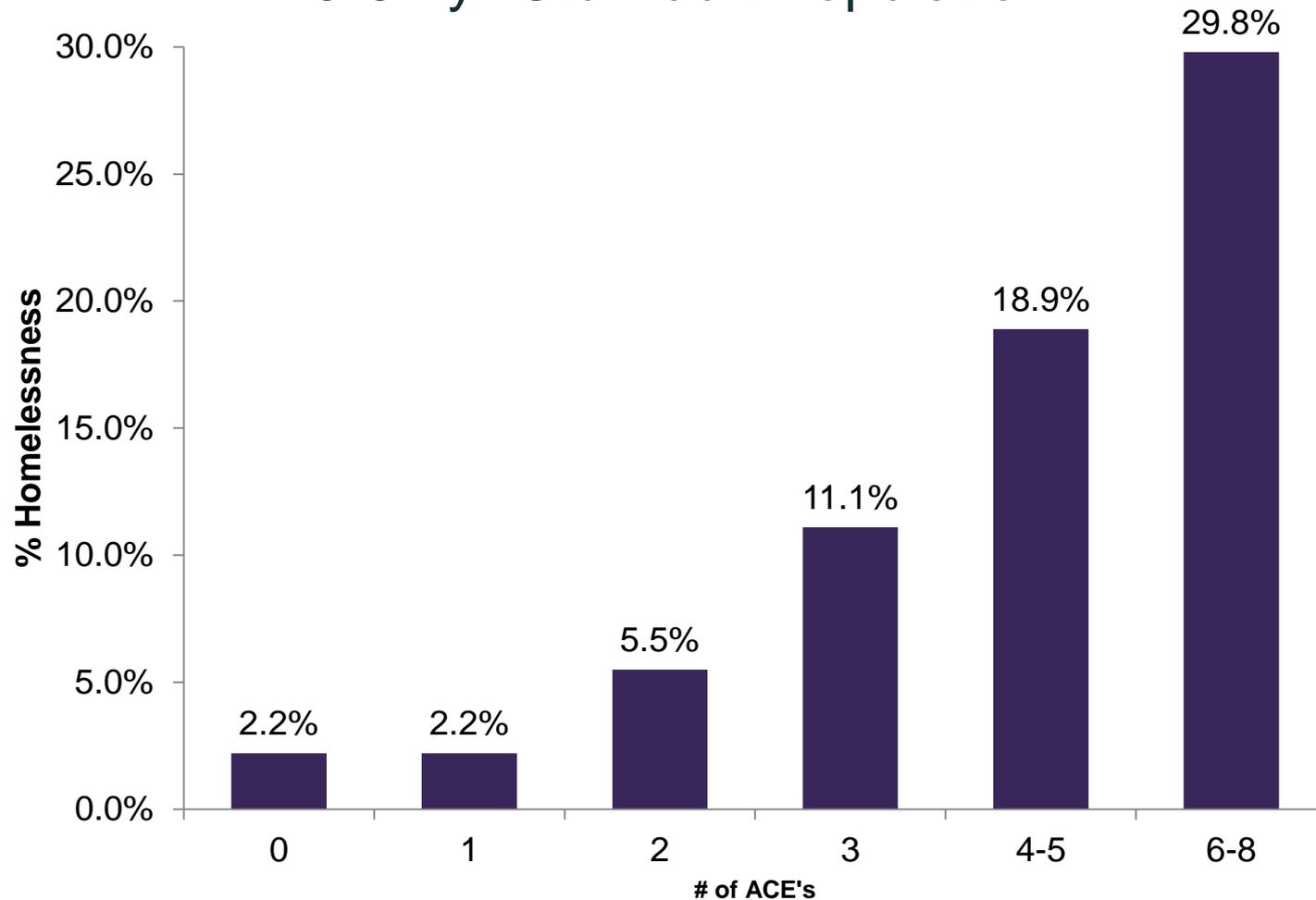
# Assessment

- Add ACE module each decade
- Systematically adding questions to surveillance instruments
  - Life course
  - Cumulative effects
  - Community context
  - Resilience

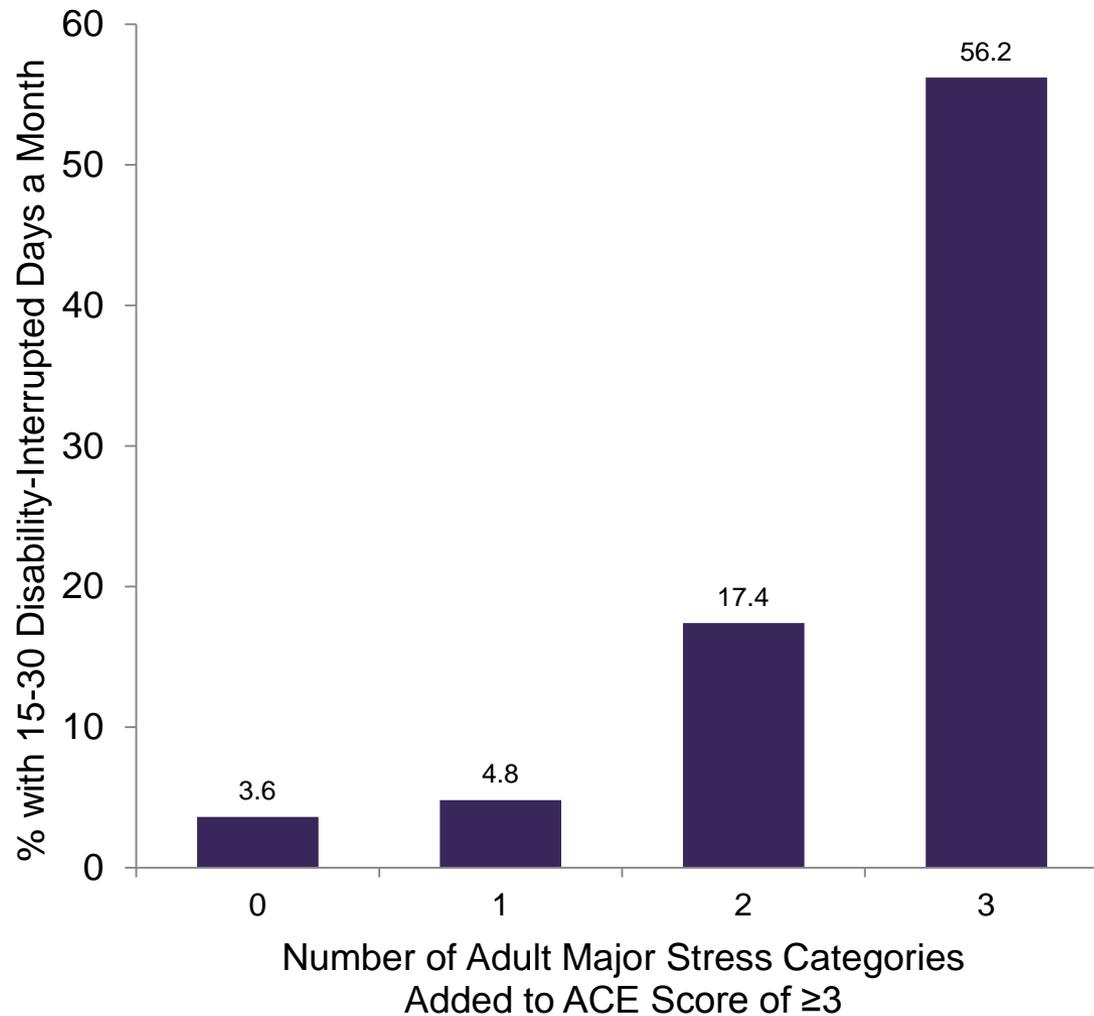


# ACEs and History of Homelessness

## 25-54 yr Old Adult Population



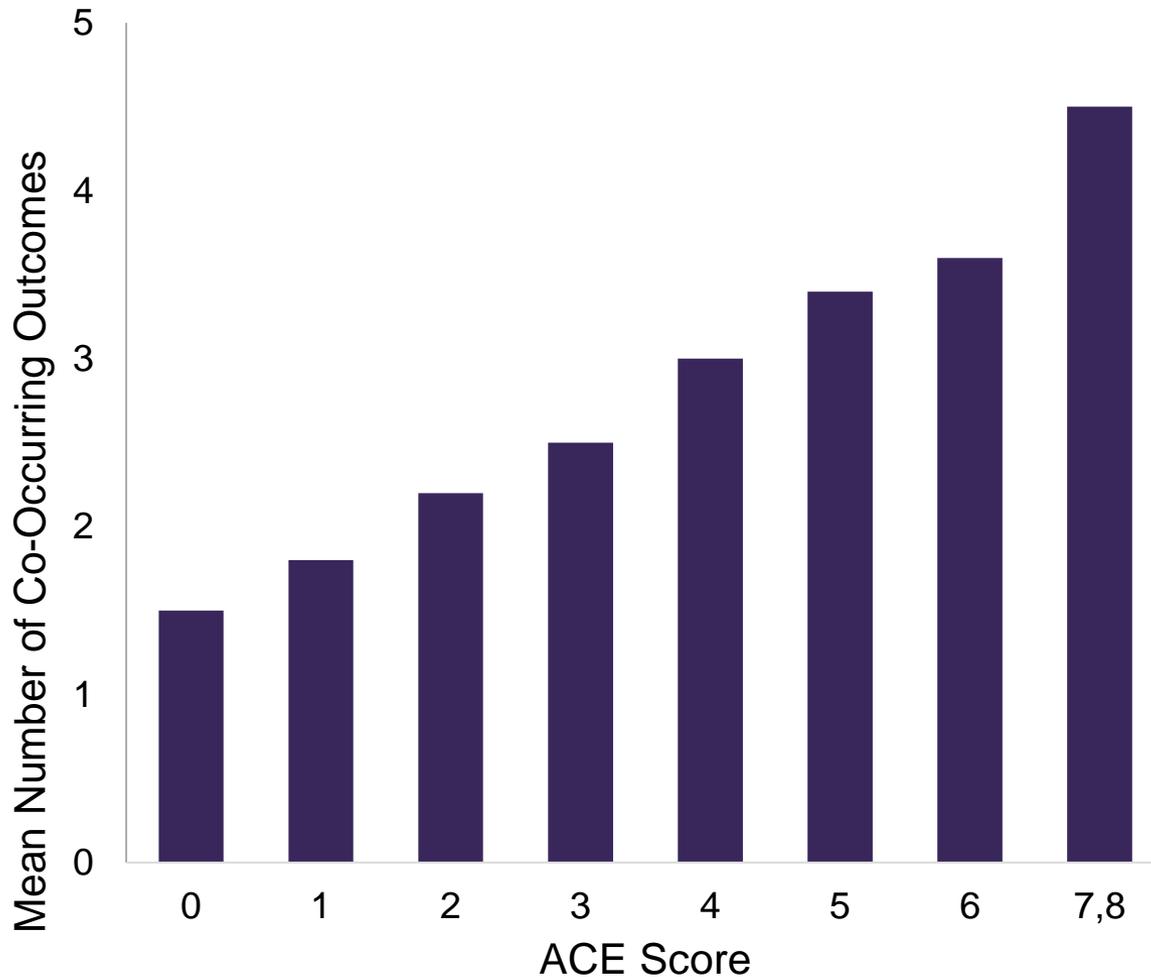
# Adult Adversity Compounds Effects



## Adults with $\geq 3$ ACEs Plus Major Stress Categories:

1. Homelessness
2. Incarceration
3. Chronic illness
4. Separation/Divorce
5. Severe Depression
6. Work-related Injury/Illness

# ACEs and Co-Occurring Problems



## Health & Social Problems

Panic Reactions  
Depression  
Anxiety  
Hallucinations  
Sleep Disturbances  
Severe Obesity  
Pain  
Smoking  
Alcoholism  
Illicit Drug Use  
IV Drug Use  
Early Intercourse  
Promiscuity  
Sexual Dissatisfaction  
Amnesia (Childhood)  
Problems with Anger  
Perpetration of Family Violence

# Resilience Questions in BRFSS\*

## Individual

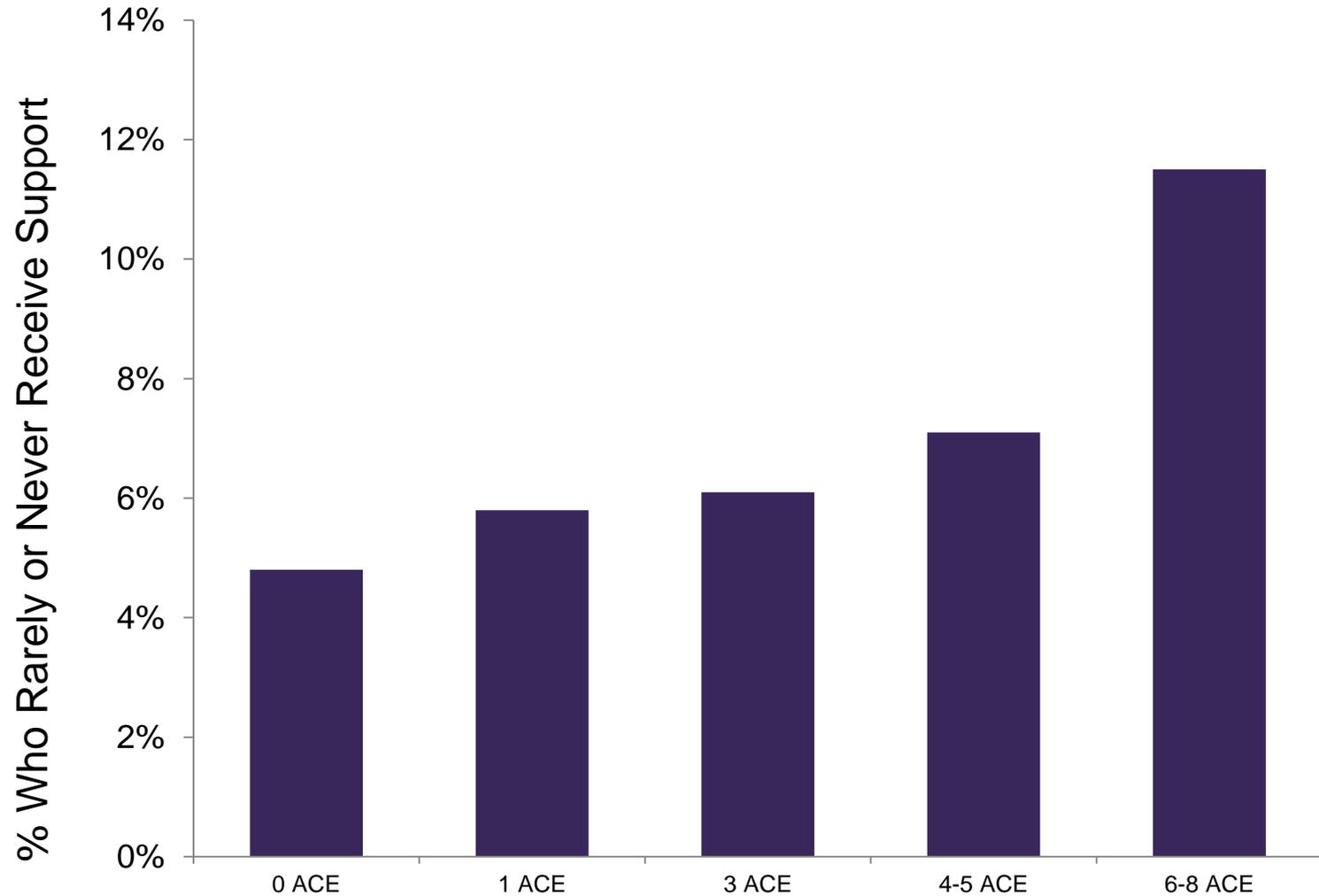
- How often do you get your social/emotional needs met?
- How many people can you count on for help?
- In general, how satisfied are you with our life?

# Resilience Questions in BRFSS, cont.

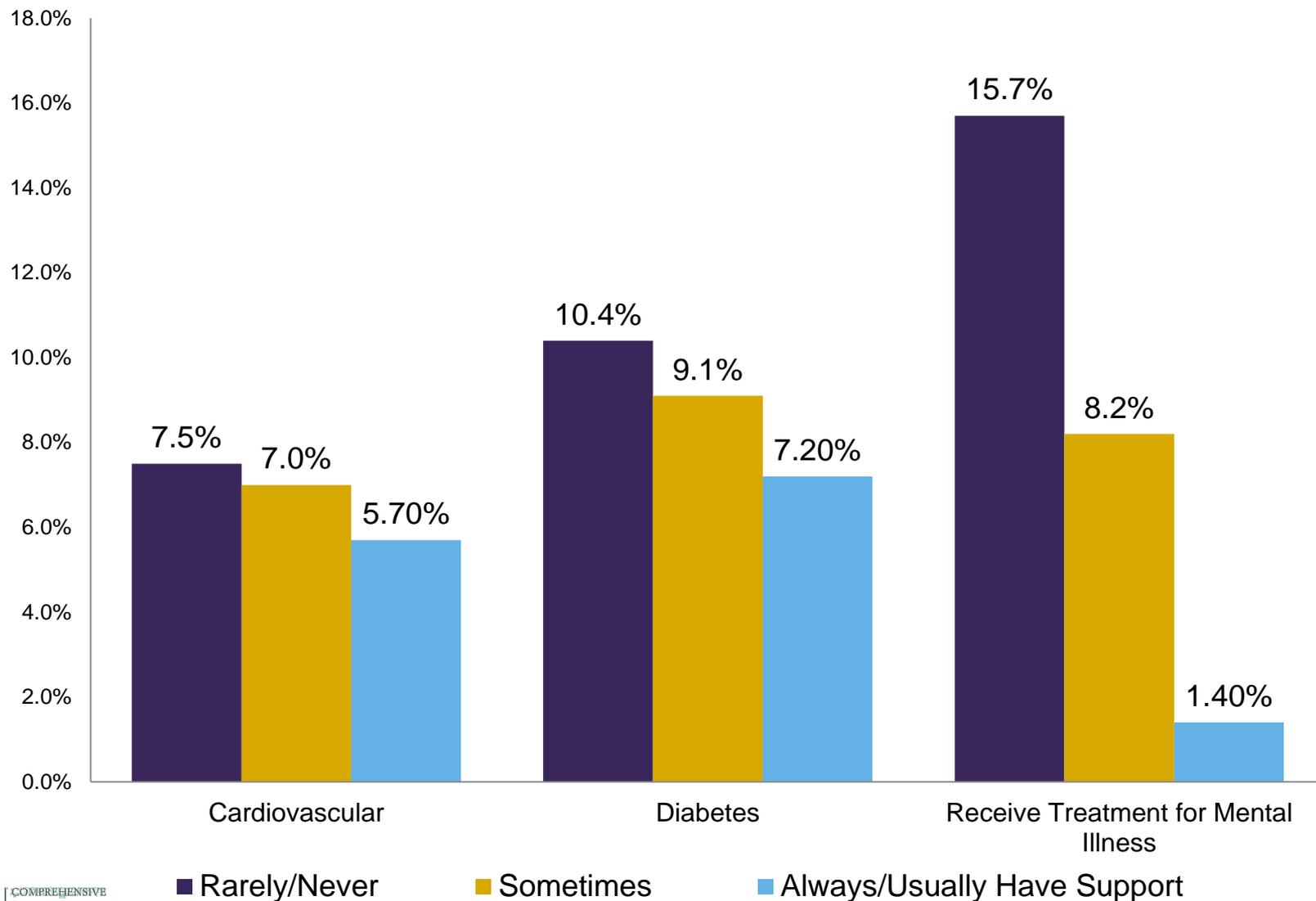
## Community

- How often do you and people in your community do favors for each other? By favors we mean such things as helping with shopping, lending garden or house tools, watching over property, and other small acts of kindness.
- Please tell me how much you agree or disagree with the following statement: You can count on adults in your community to watch out that children are safe and don't get in trouble.
- Think about the people you rely on for help and support. How common is it for you to reach outside this circle of people to give or receive practical help or social and emotional support?

# ACEs and Social Emotional Support



# Resilience: Social/Emotional Support



# Learning from the Data

- Which resilience factors correlate with better outcomes?
- Are there geographic or demographic differences for resilience factors?
- Are some resilience factors correlated with lower intergenerational transmission of ACEs?

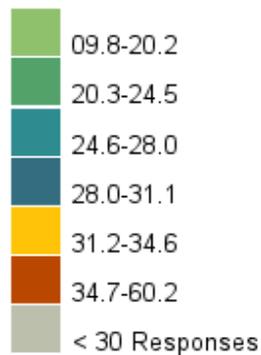


# Community Variation

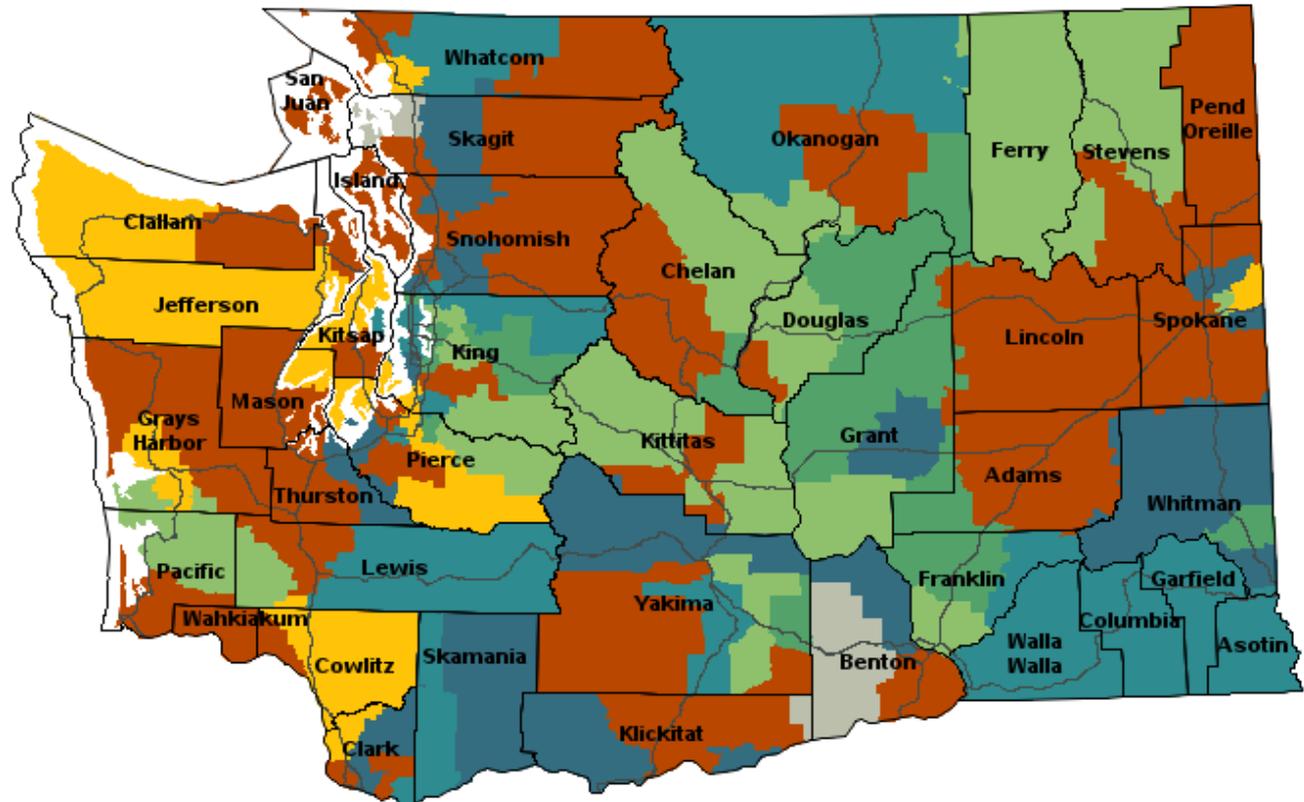
**Ages 18-54, 3 or More ACEs**  
Same Quantiles as for All Ages

Low

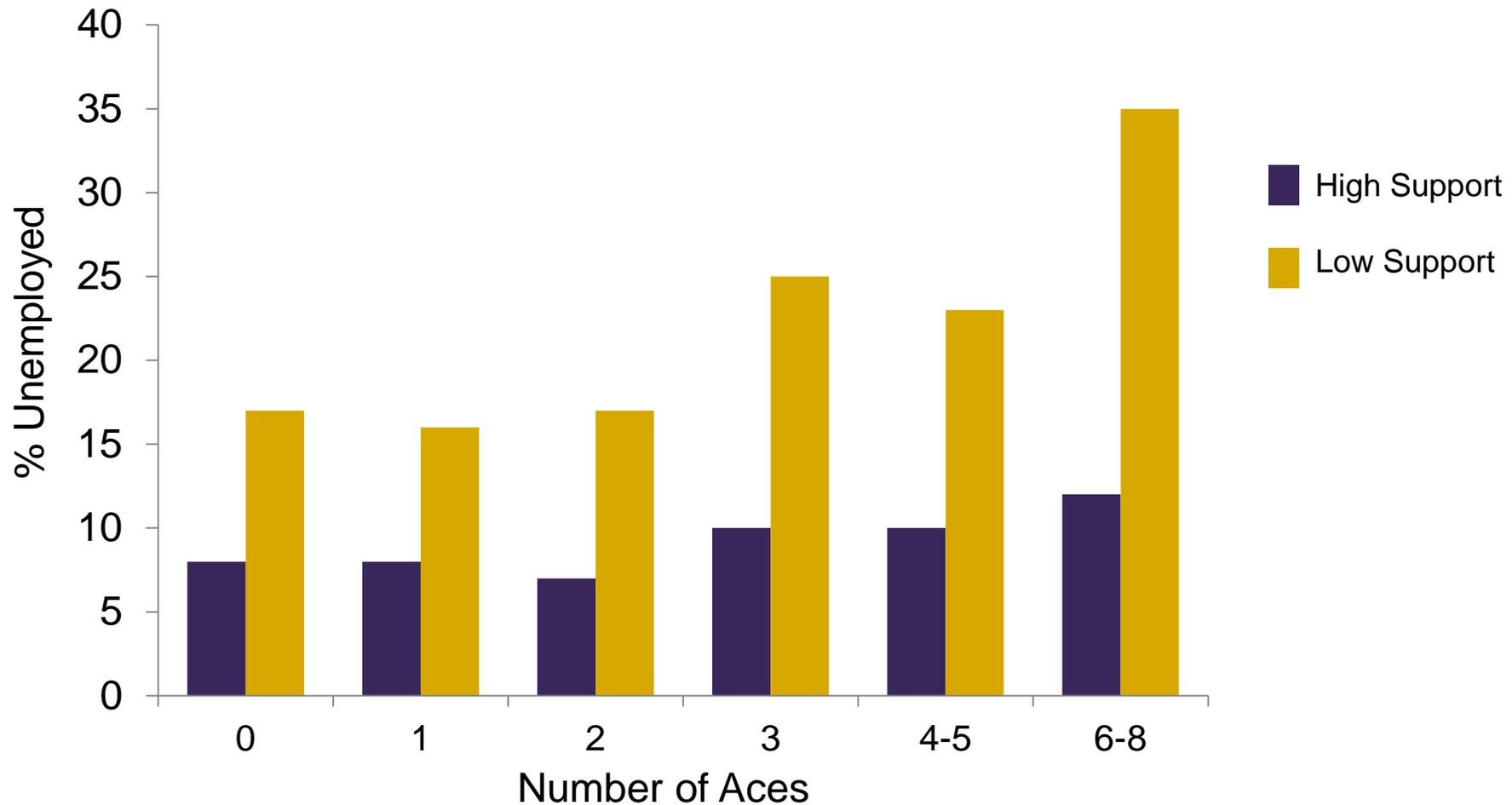
% 3 or more ACEs



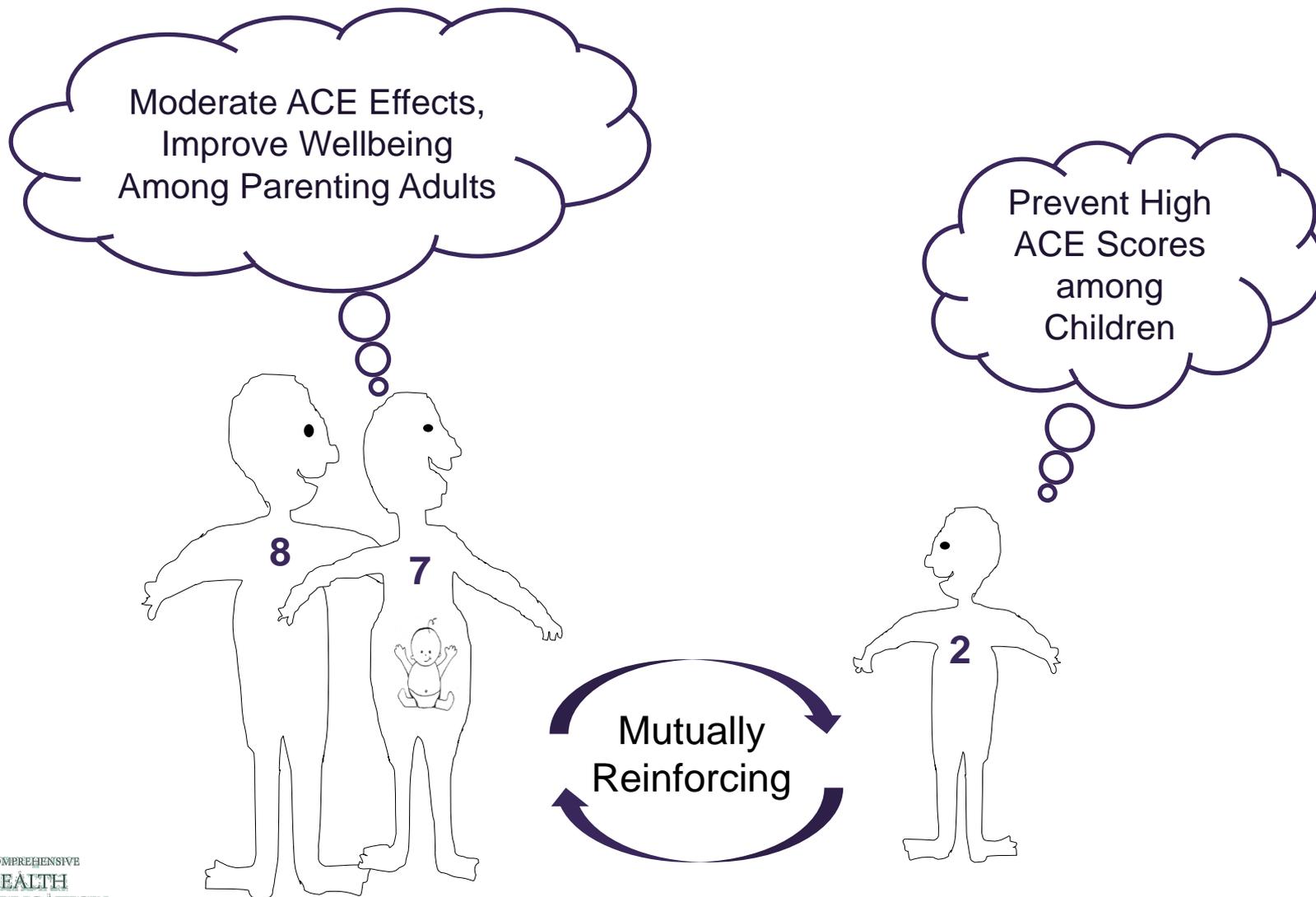
High



# Unemployment ACEs by Social/Emotional Support



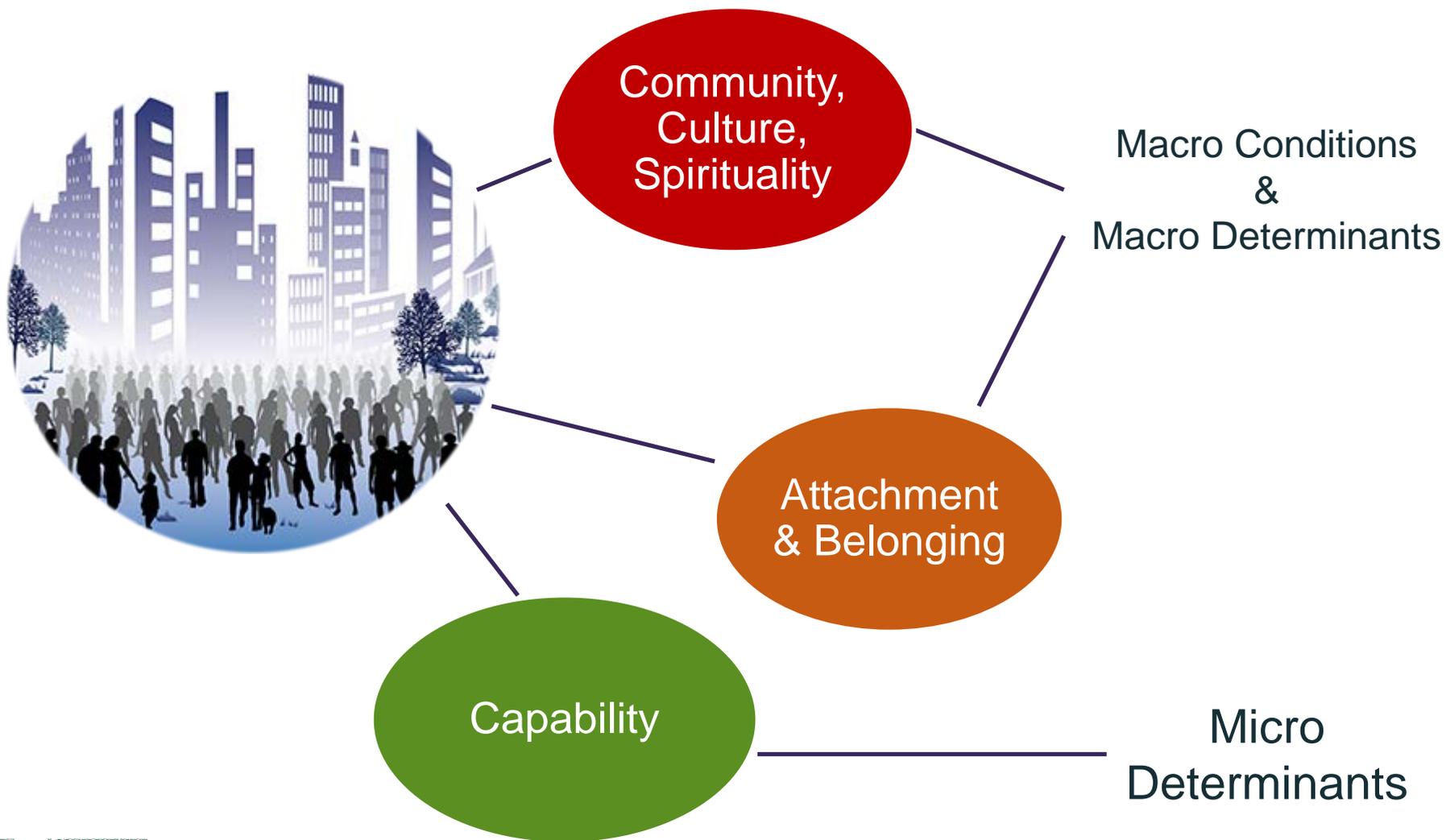
# Promote Virtuous Cycle of Health



# Principles of Trauma Informed Care

- Understanding trauma and its impact
- Promoting safety
- Ensuring cultural competence
- Supporting consumer control, choice, autonomy
- Sharing power and governance
- Integrating care for whole person
- Healing happens in relationships
- Recovery is possible

# Resilience-Building Systems



# New Era of Prevention

- Affects whole person and context
- Considers experience over time
- Invests in positive adaptation
- Employs dual generation strategies
- Shifts the status-quo interplay of stress & neurogenesis

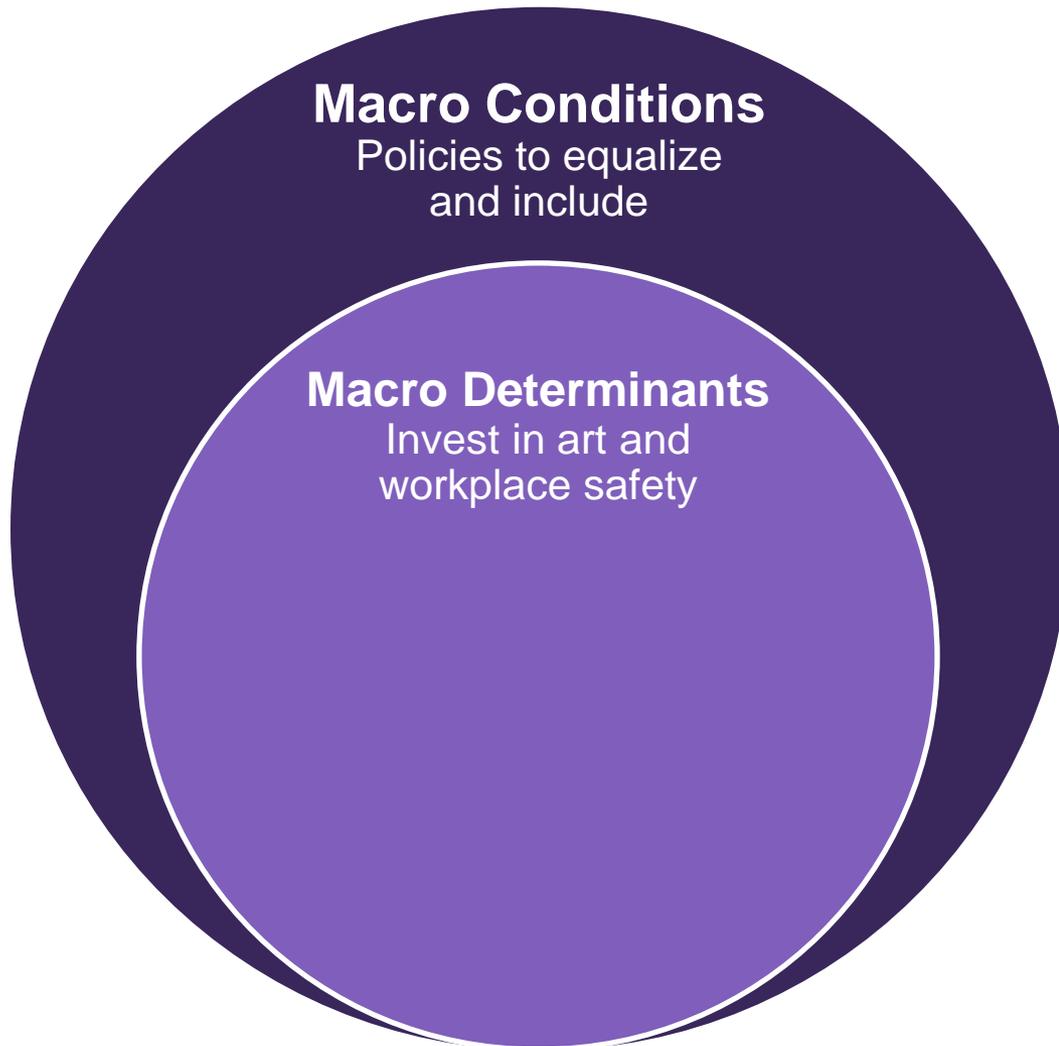
# Application of ACEs Science

## Macro Conditions

Policies to equalize  
and include

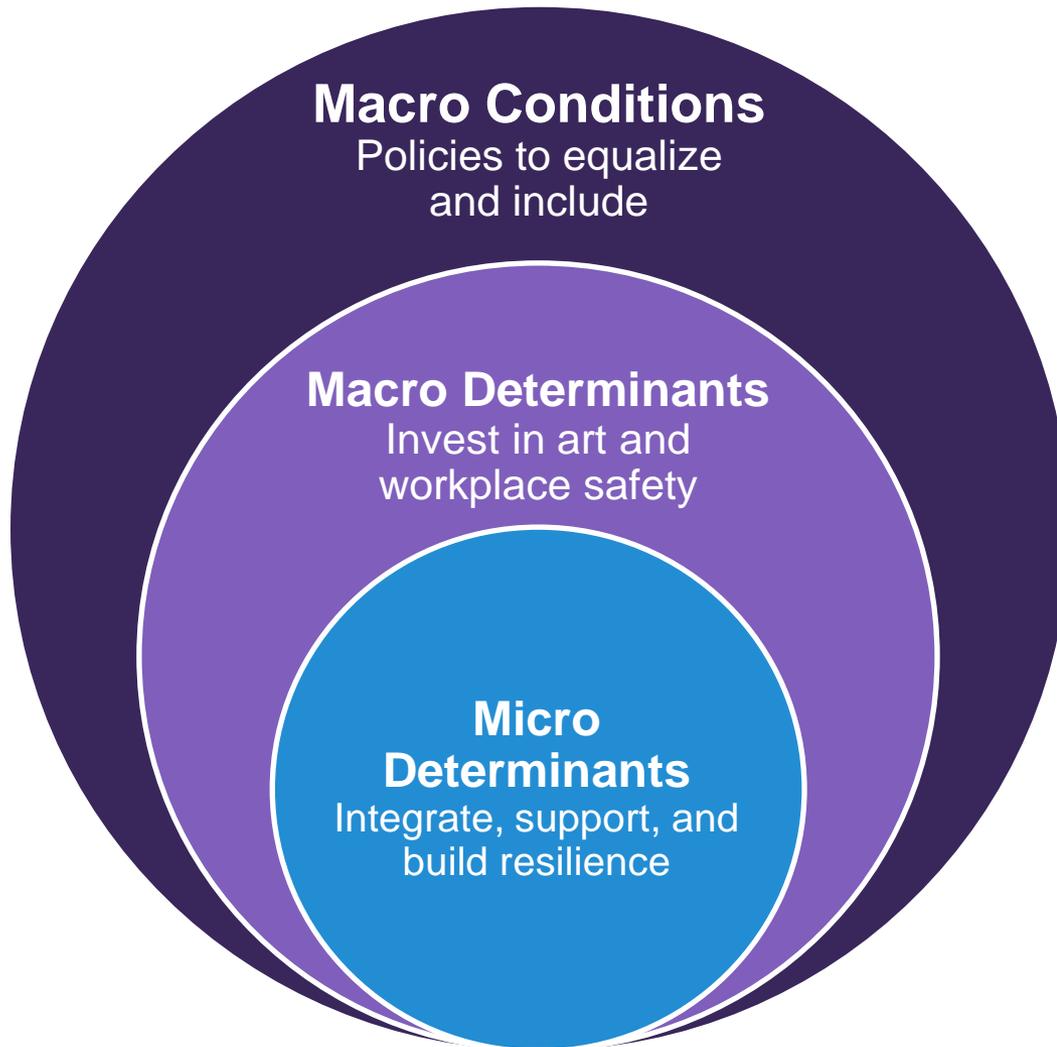
- Learning communities
- Social marketing
- Policy to protect ACE scores
- Policy to equalize access
- Civic engagement re: norms
- Inclusion of marginalized groups

# Application of ACEs Science



- Investment in art
- Peer education
- Workplace safety
- Service innovation & evaluation
- Use of ACE histories  
Professional training
- Trauma audits
- Leadership development
- Peer helping systems
- Community organization & engagement

# Application of ACEs Science



- Accommodate normal response to developmental stress
- Multiple supports in relationship-based programming
- Eligibility
- Professional accountability
- Partner to improve access
- Parenting education
- Build resilience at sensitive developmental periods

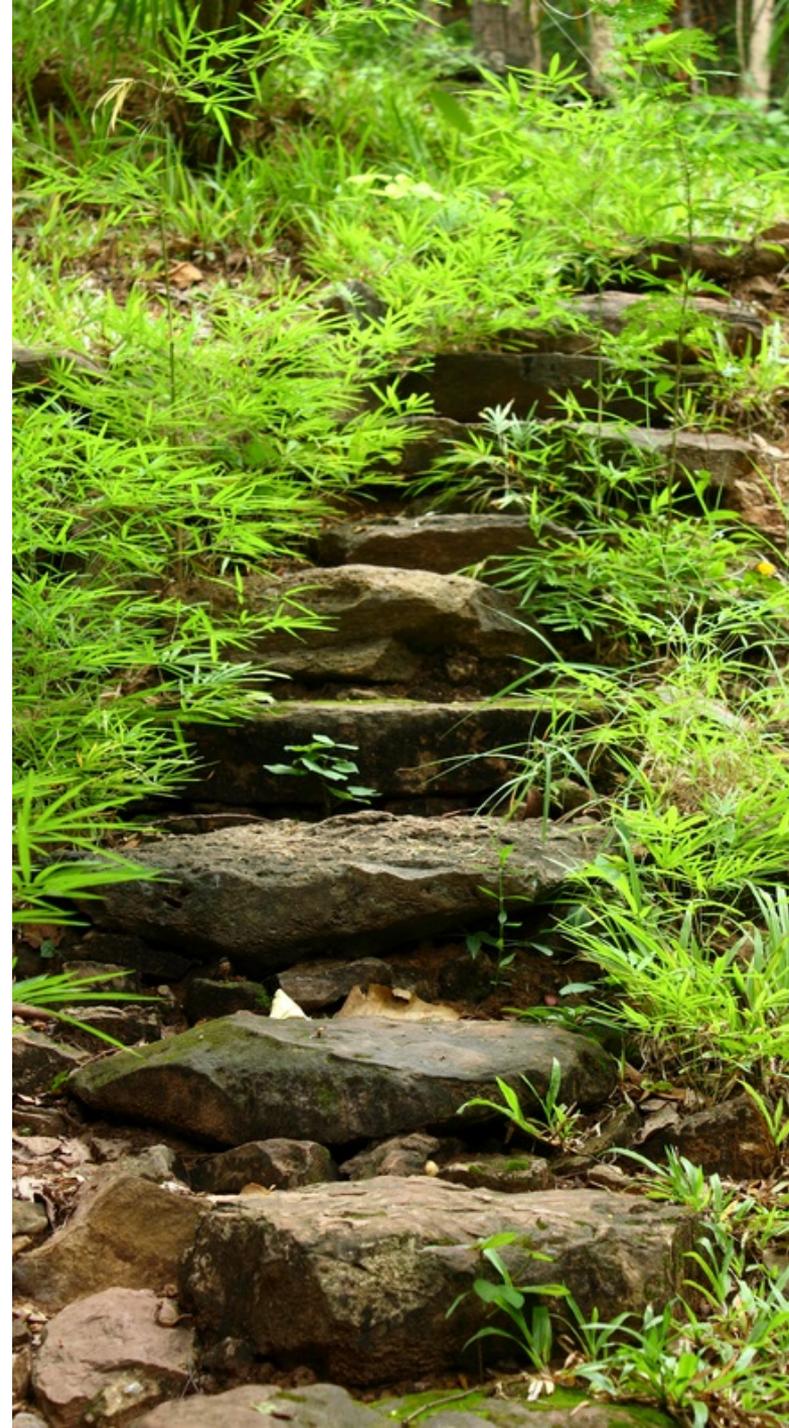
# Community Capacity Development

## A Public Health Approach to Solving Interrelated Problems

- By improving people's connections
- By sharing responsibility
- Resulting in the collective impacts of their efforts

# Next Steps

- Develop next questions for surveillance
- Let CHEF know what information is useful
- Improve understanding about public health approach
- Learn & distribute new knowledge
- Share strategies
- Upcoming events hosted by CHEF



# CHEF turns 40 this fall!

To celebrate, we are throwing a two day party (aka a statewide summit) and inviting you all to join us!

September 17 & 18, 2014

## Coalescing for Change: Community Based Health Solutions at the intersection of Neuroscience, ACEs, Resilience and Community Wisdom

[Register Now](#)

“Birthday Special” Registration Rate Available until 6/15: \$275

Hilton Seattle Airport & Conference Center  
17620 International Blvd, Seattle, WA 98188  
**September 17 & 18, 2014**



# Questions?



Melanie Gillespie: [melanieg@chef.org](mailto:melanieg@chef.org)

Laura Porter: [laurap@chef.org](mailto:laurap@chef.org)

Or [ACELearning@chef.org](mailto:ACELearning@chef.org)

# Upcoming Trainings

The Public Health  
Management Certificate



**Public Health Management Certificate**  
August 2014 to July 2015



**Summer Institute for Public Health Practice**  
August 4–7, 2014

Visit [www.nwcphp.org](http://www.nwcphp.org) to learn more.