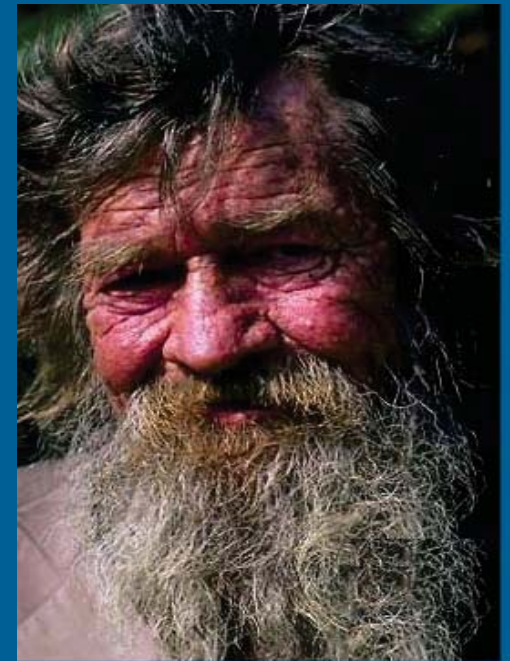


The Adverse Childhood Experiences (ACE) Study



The largest study of its kind ever to examine over the lifespan the medical, social, and economic consequences in adults of adverse childhood experiences.

(17,337 participants)



The ACE Study

Summary of Findings:



- Adverse Childhood Experiences (ACEs) are very common, but largely unrecognized.
- ACEs are strong predictors of later death, disease, health risks, social functioning, well-being, and medical care costs.
- ACEs are the basis for much of adult medicine and of many major public health and social problems.
- Adverse childhood experiences are interrelated, not solitary.
- This combination makes Adverse Childhood Experiences *the prime* determinant of the health, social, and economic well-being of our nation.

ACE Study Design

Survey Wave 1

71% response (9,508/13,454)

n=13,000

*All medical evaluations
abstracted*

Survey Wave II

n=13,000

*All medical evaluations
abstracted*

vs.

*Present
Health Status*

17,337 adults

Mortality

National Death Index

Morbidity

Hospitalization

Doctor Office Visits

Emergency Room Visits

Pharmacy Utilization

Prevalence of Adverse Childhood Experiences

	Prevalence (%)
Abuse, by Category	
Psychological (by parents)	11%
Physical (by parents)	28%
Sexual (anyone)	22%
Neglect, by Category	
Emotional	15%
Physical	10%
Household Dysfunction, by Category	
Alcoholism or drug use in home	27%
Loss of biological parent < age 18	23%
Depression or mental illness in home	17%
Mother treated violently	13%
Imprisoned household member	5%

Adverse Childhood Experiences Score

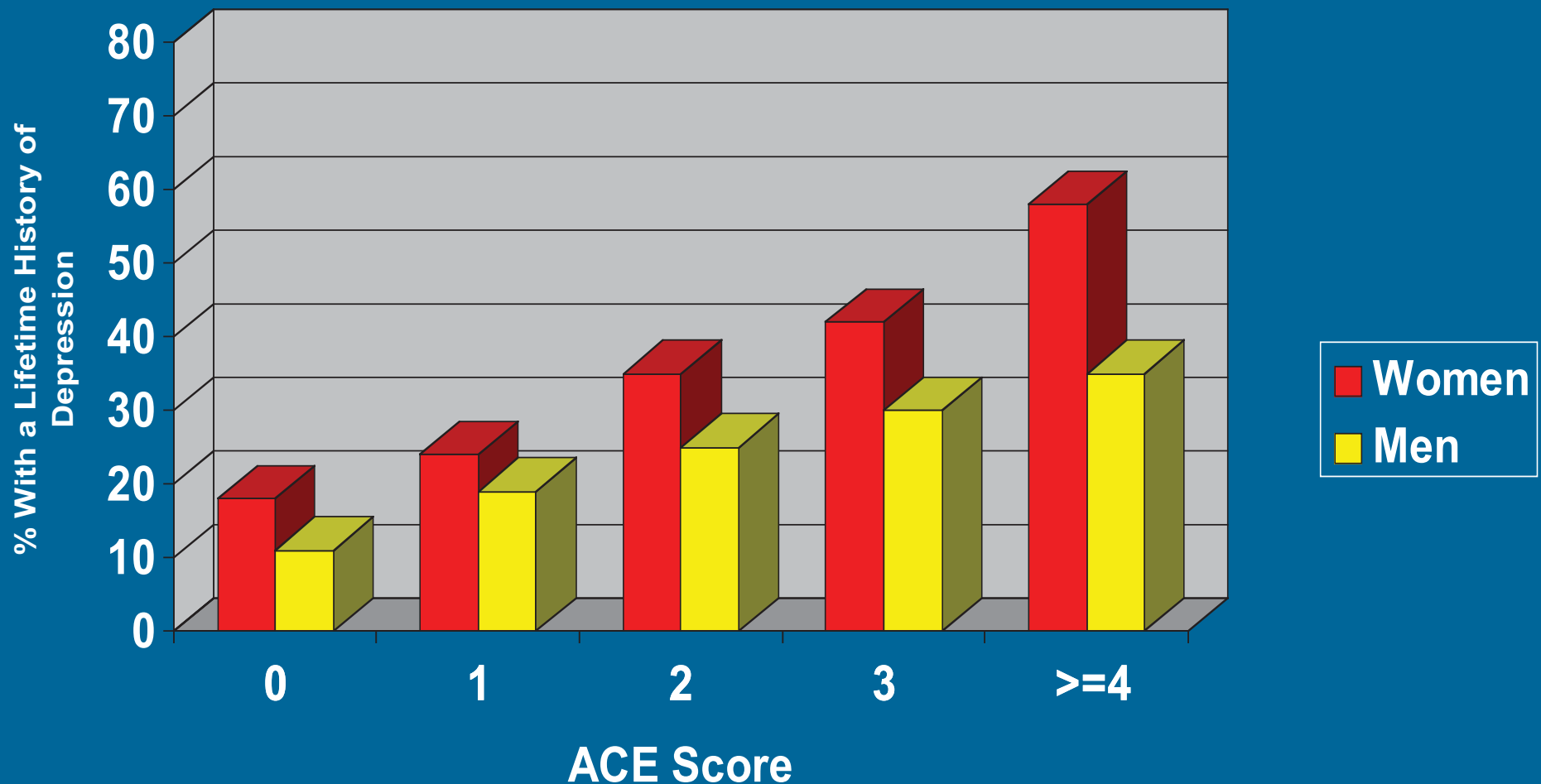
Number of categories (not events) is summed...

<i>ACE Score</i>	<i>Prevalence</i>
0	33%
1	25%
2	15%
3	10%
4	6%
5 or more	11%*



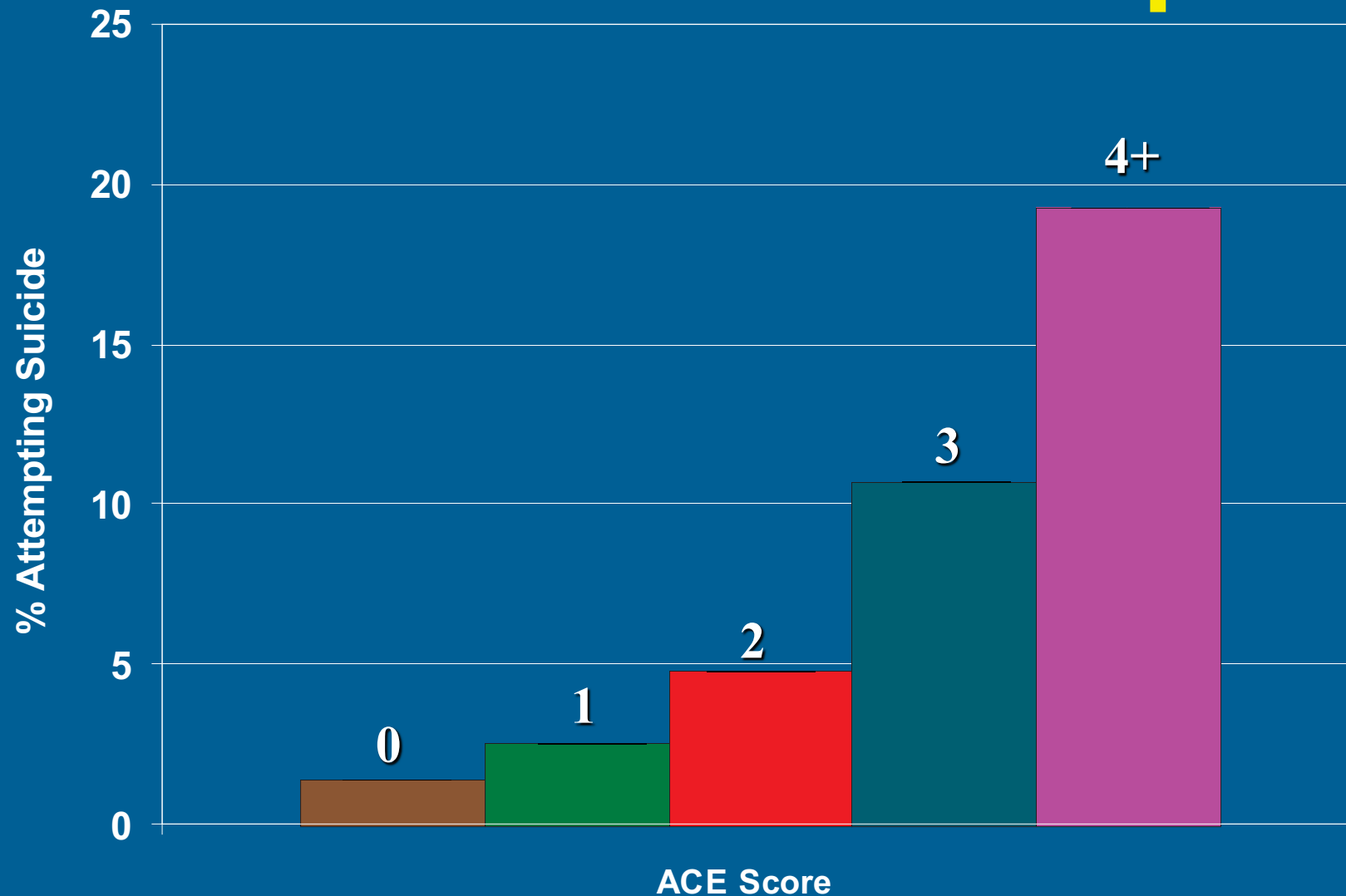
- Two out of three experienced at least one *category* of ACE.
- If any one ACE is present, there is an 87% chance *at least* one other category of ACE is present, and 50% chance of 3 or >.
- * Women are 50% more likely than men to have a Score >5.

Childhood Experiences Underlie Chronic Depression

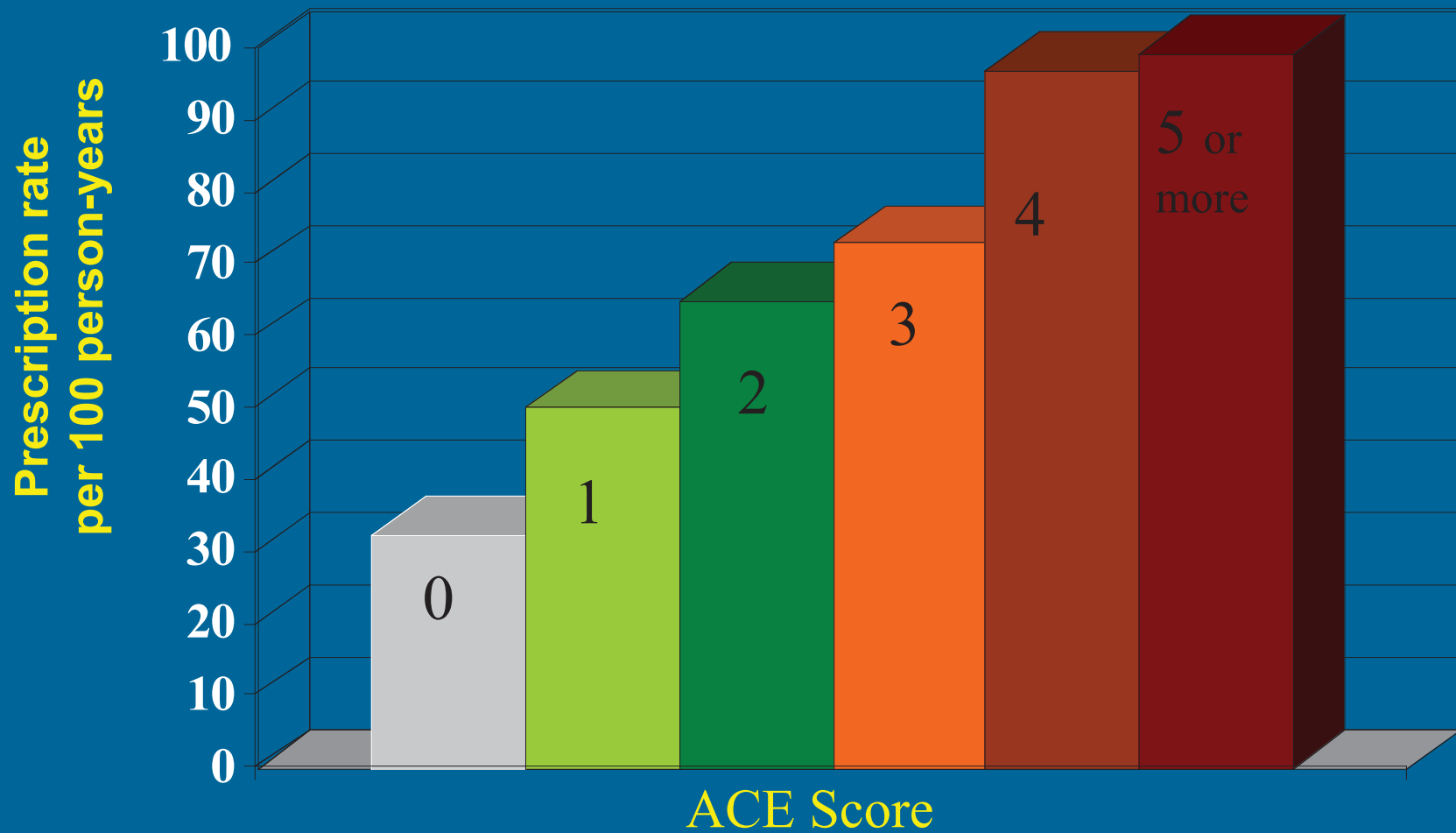


Well-being

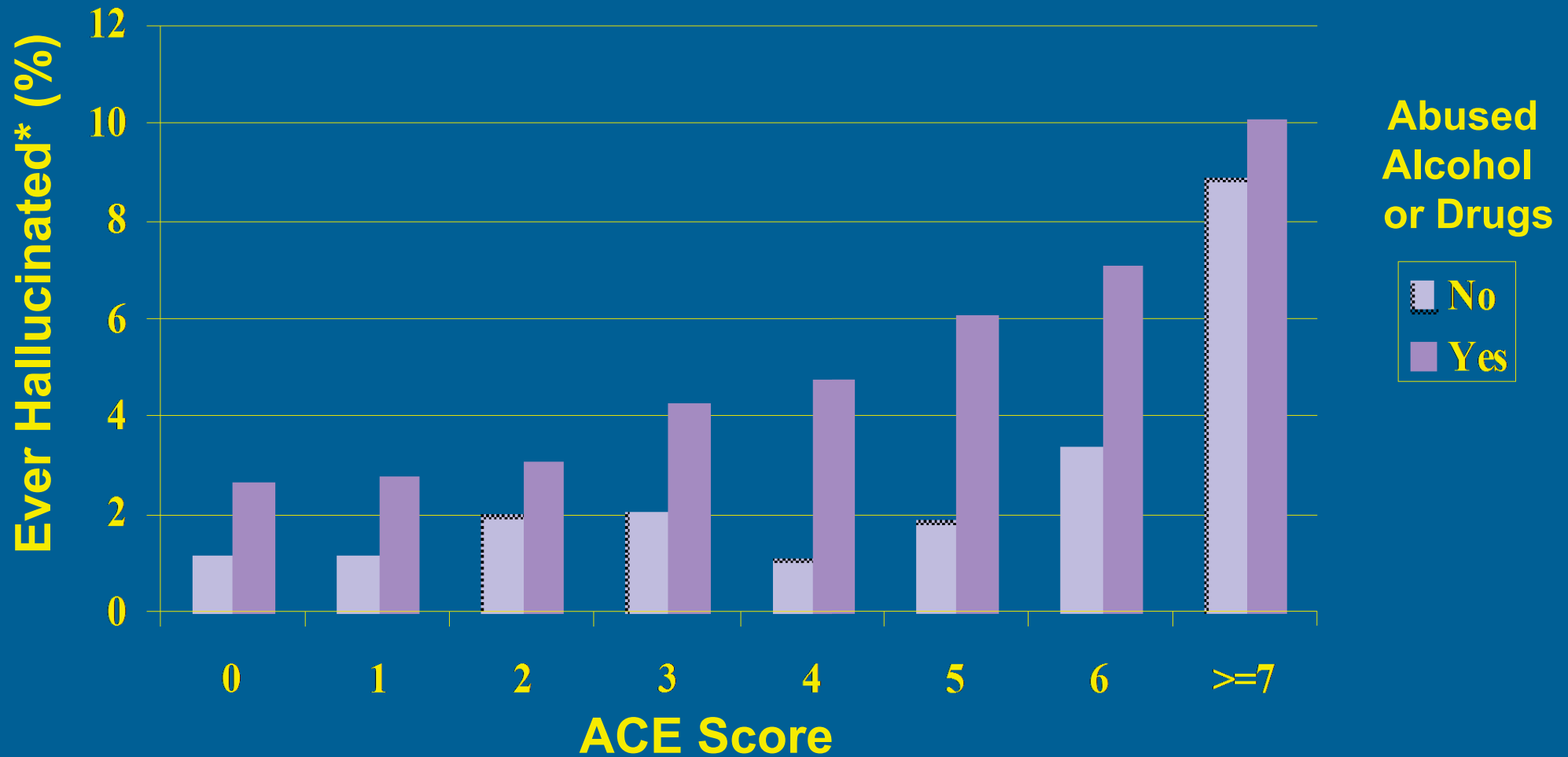
Childhood Experiences Underlie Suicide Attempts



ACE Score and Rates of Antidepressant Prescriptions approximately 50 years later



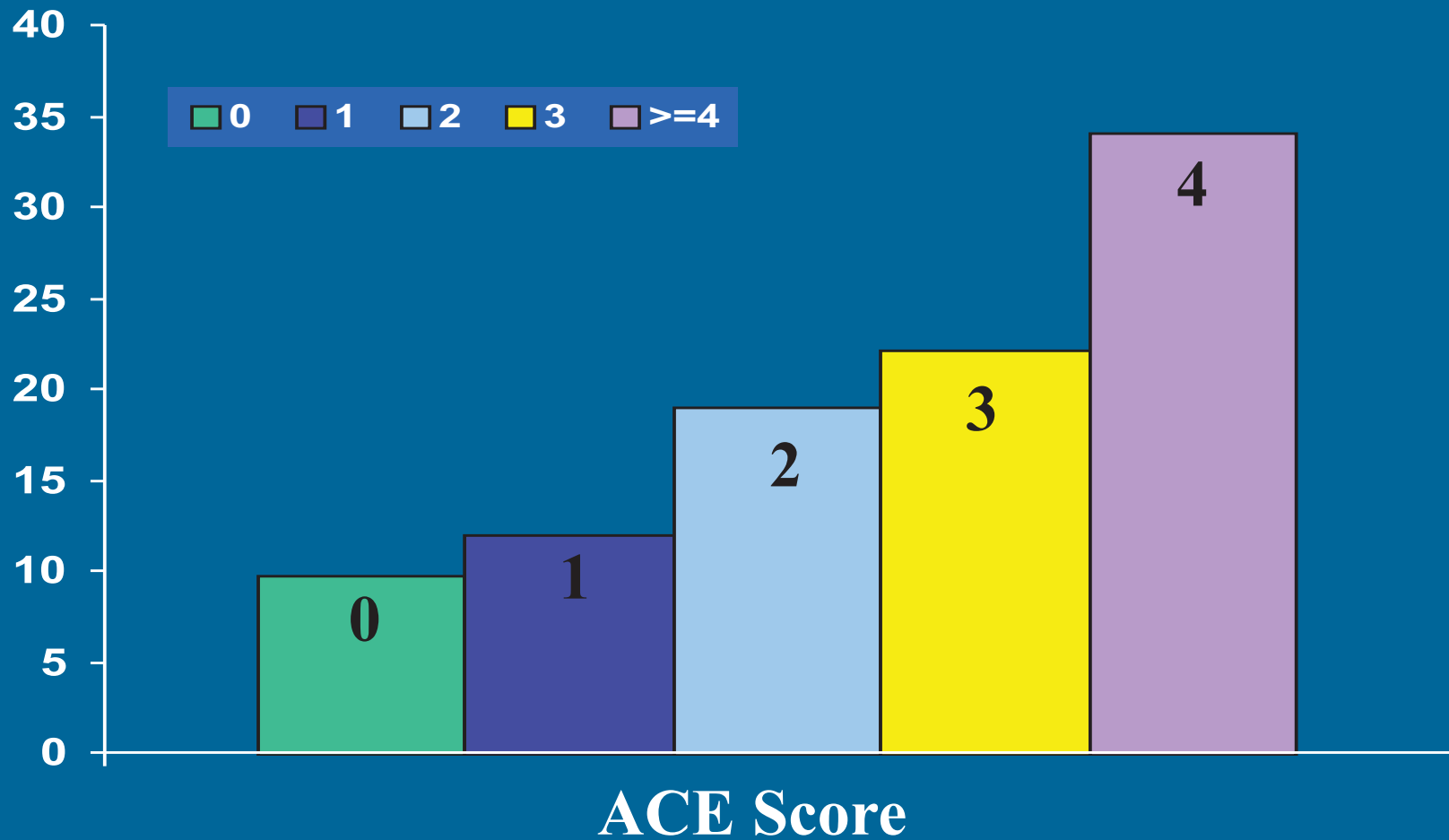
ACE Score and Hallucinations



*Adjusted for age, sex, race, and education.

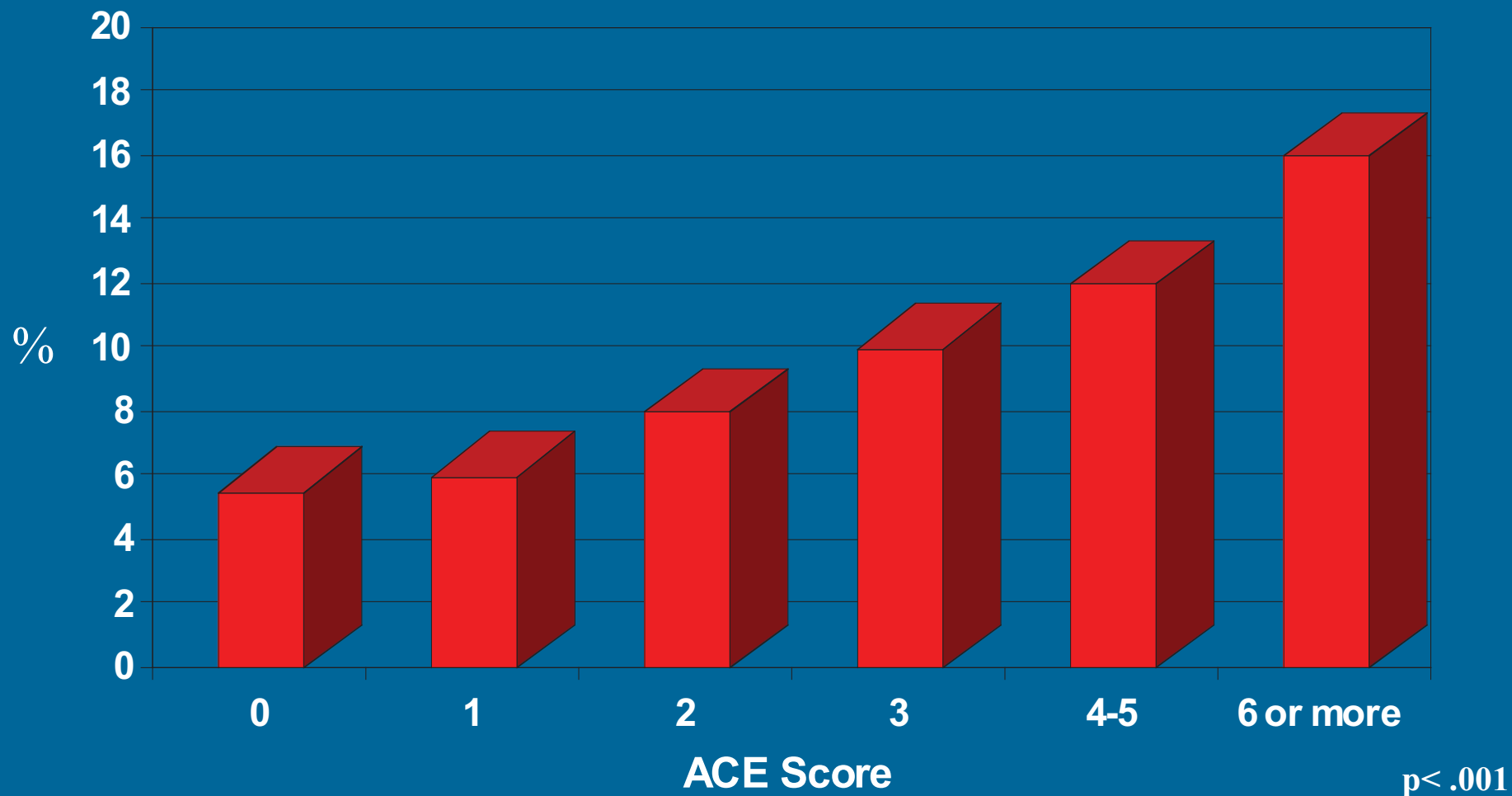
Well-being

ACE Score and Impaired Memory of Childhood

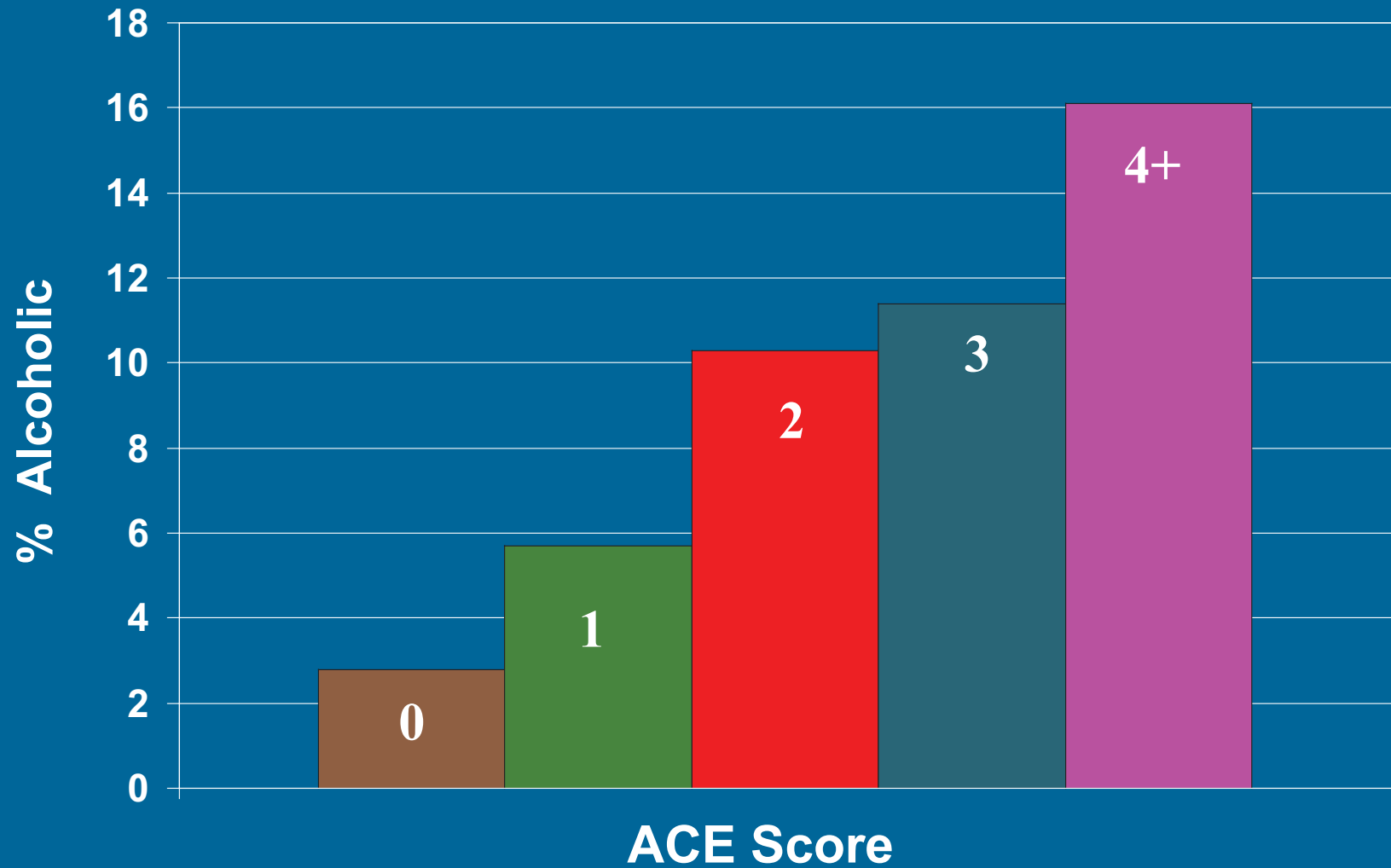


Health Risks

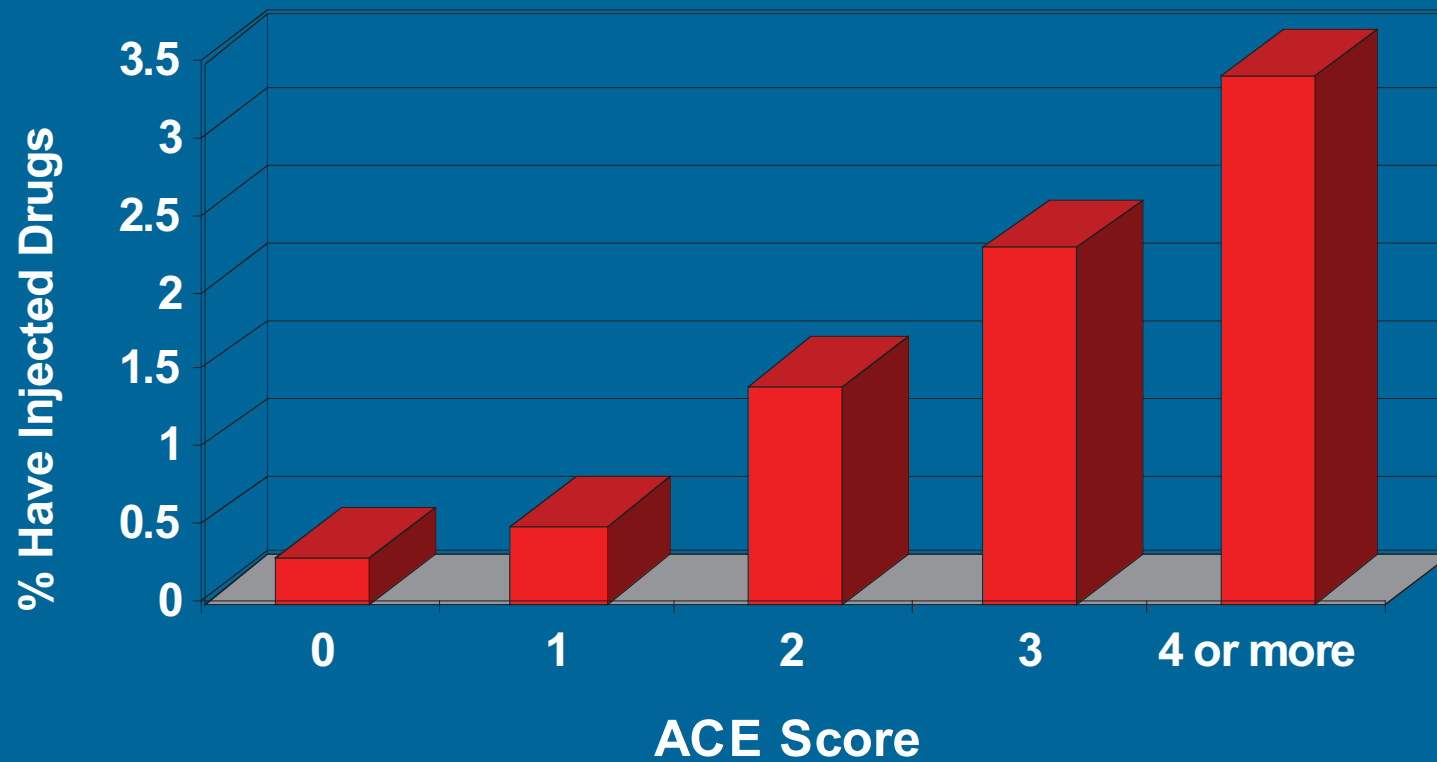
Adverse Childhood Experiences vs. Smoking as an Adult



Childhood Experiences vs. Adult Alcoholism



ACE Score vs Injection Drug Use

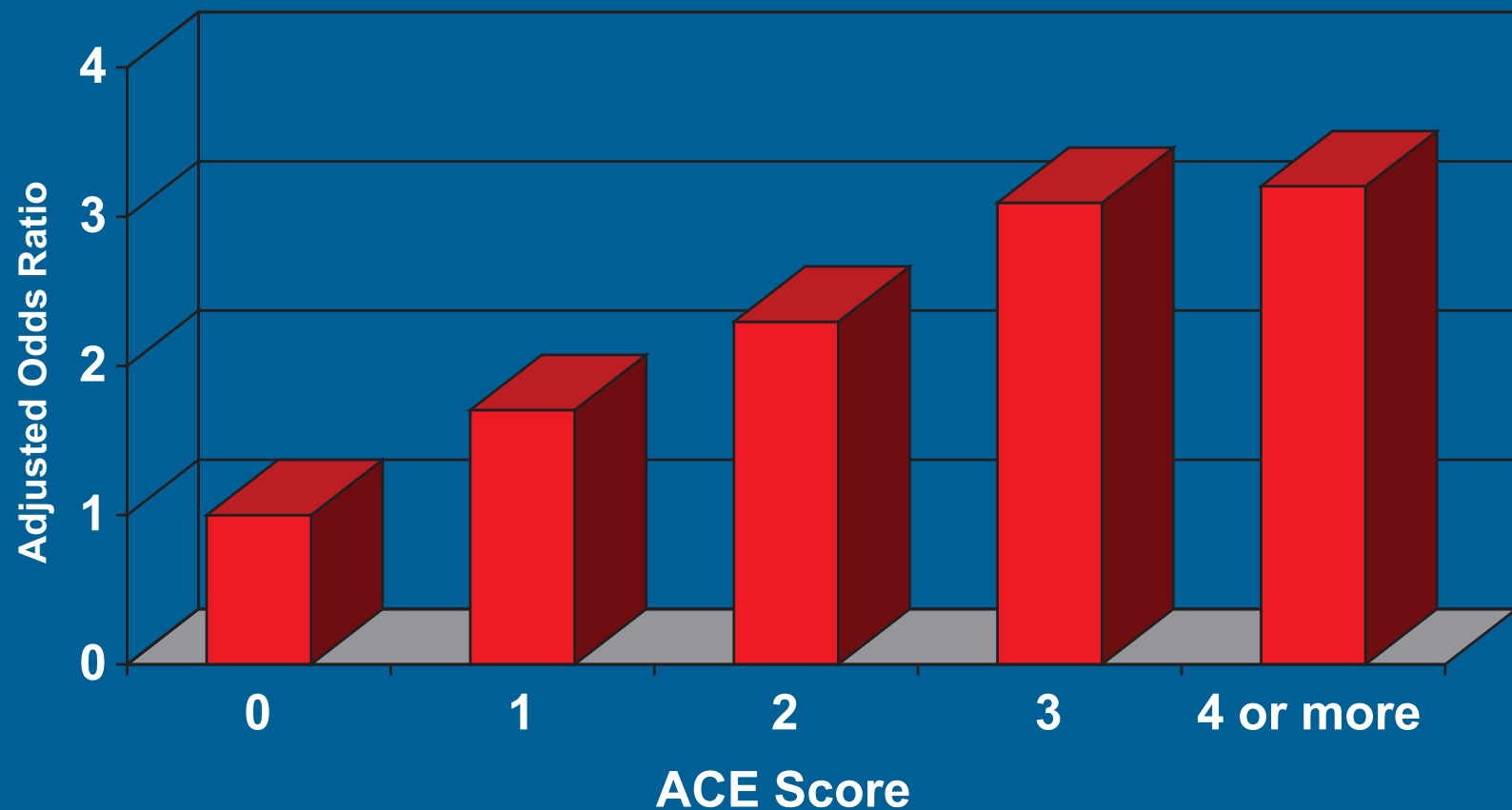


$p < 0.001$

Health risks, Social function:

Looking for Love

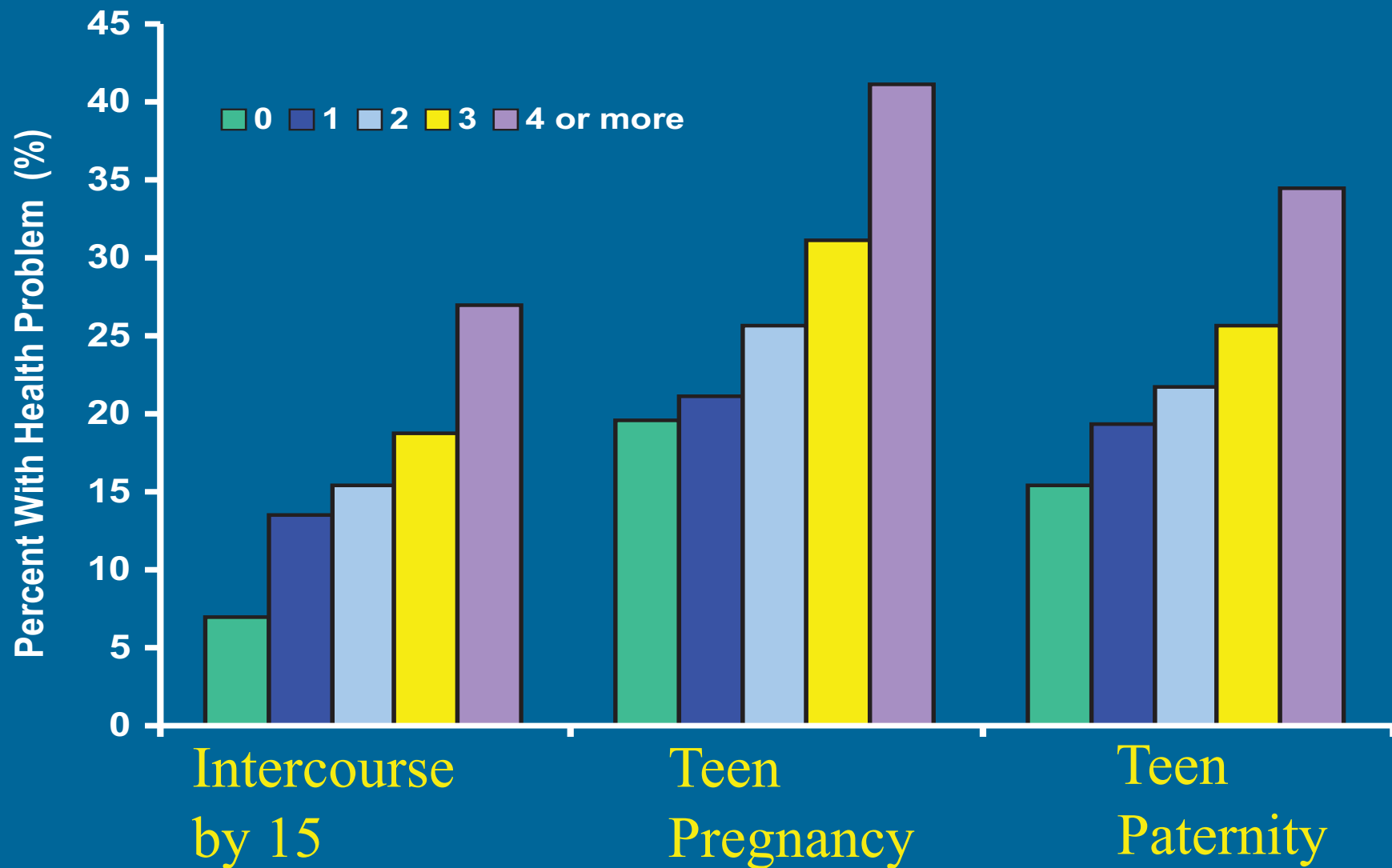
ACE Score vs > 50 Sexual Partners



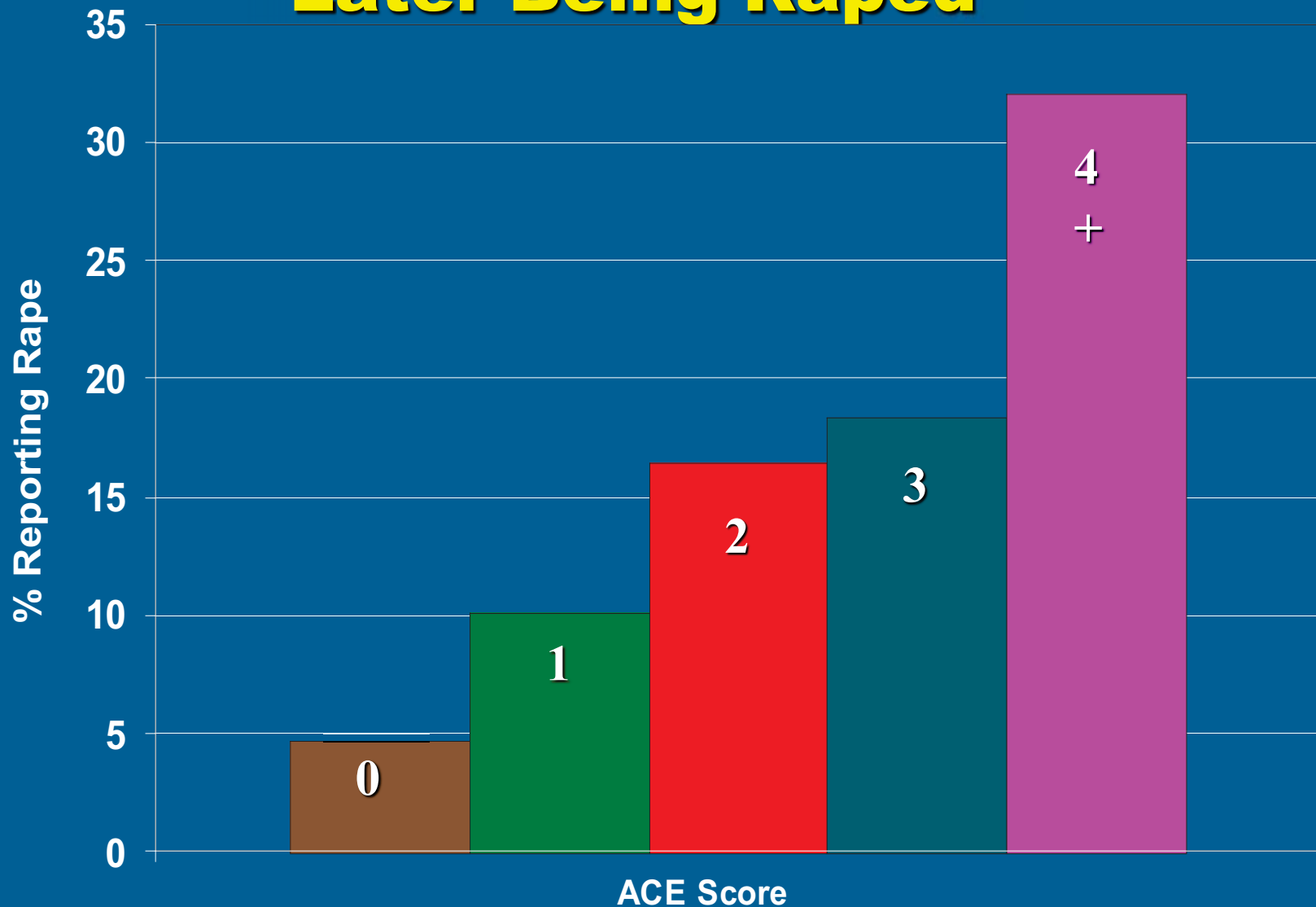
Social function

ACE Score and Teen Sexual Behaviors

Looking for love

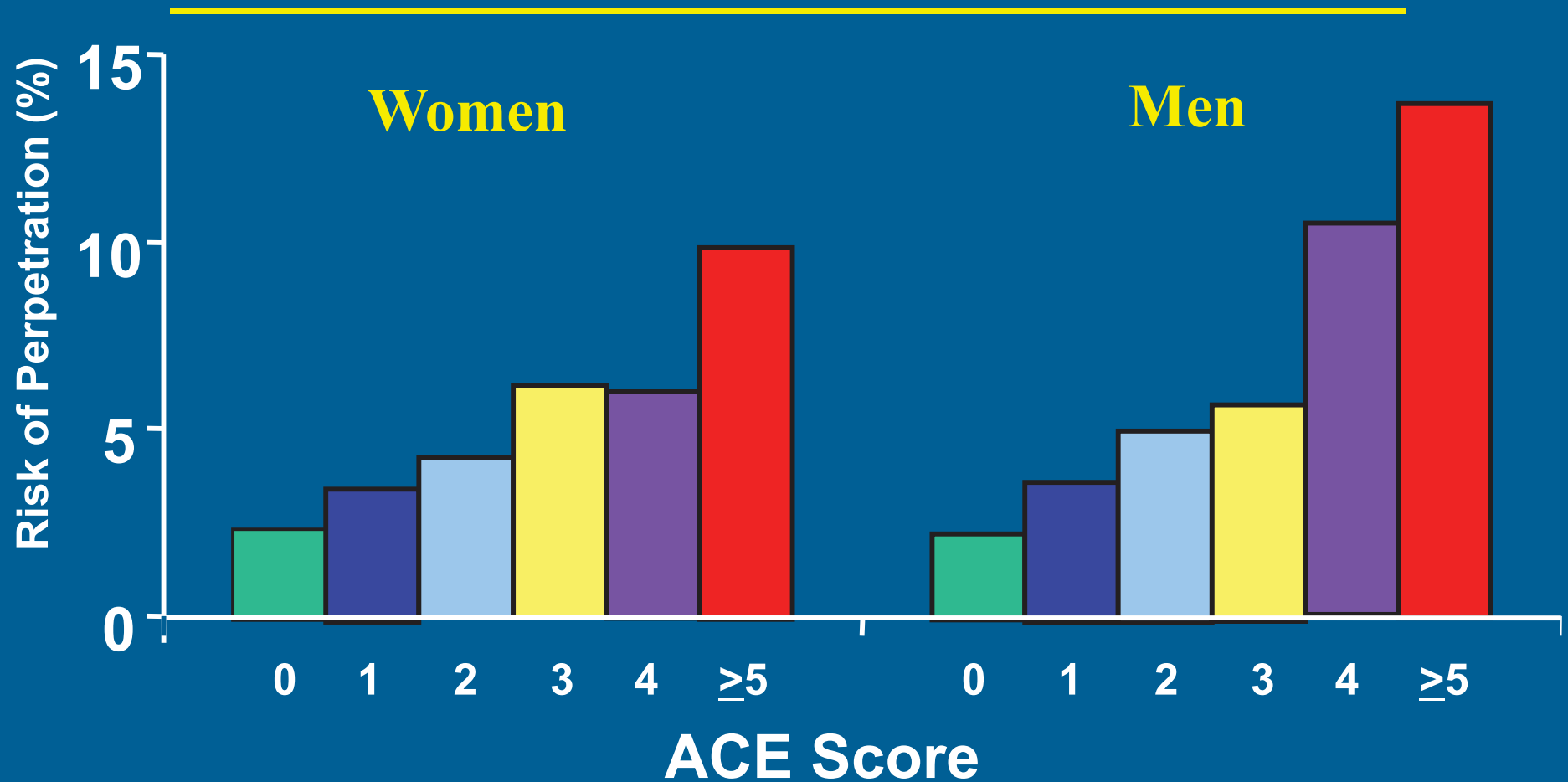


Childhood Experiences Underlie Later Being Raped



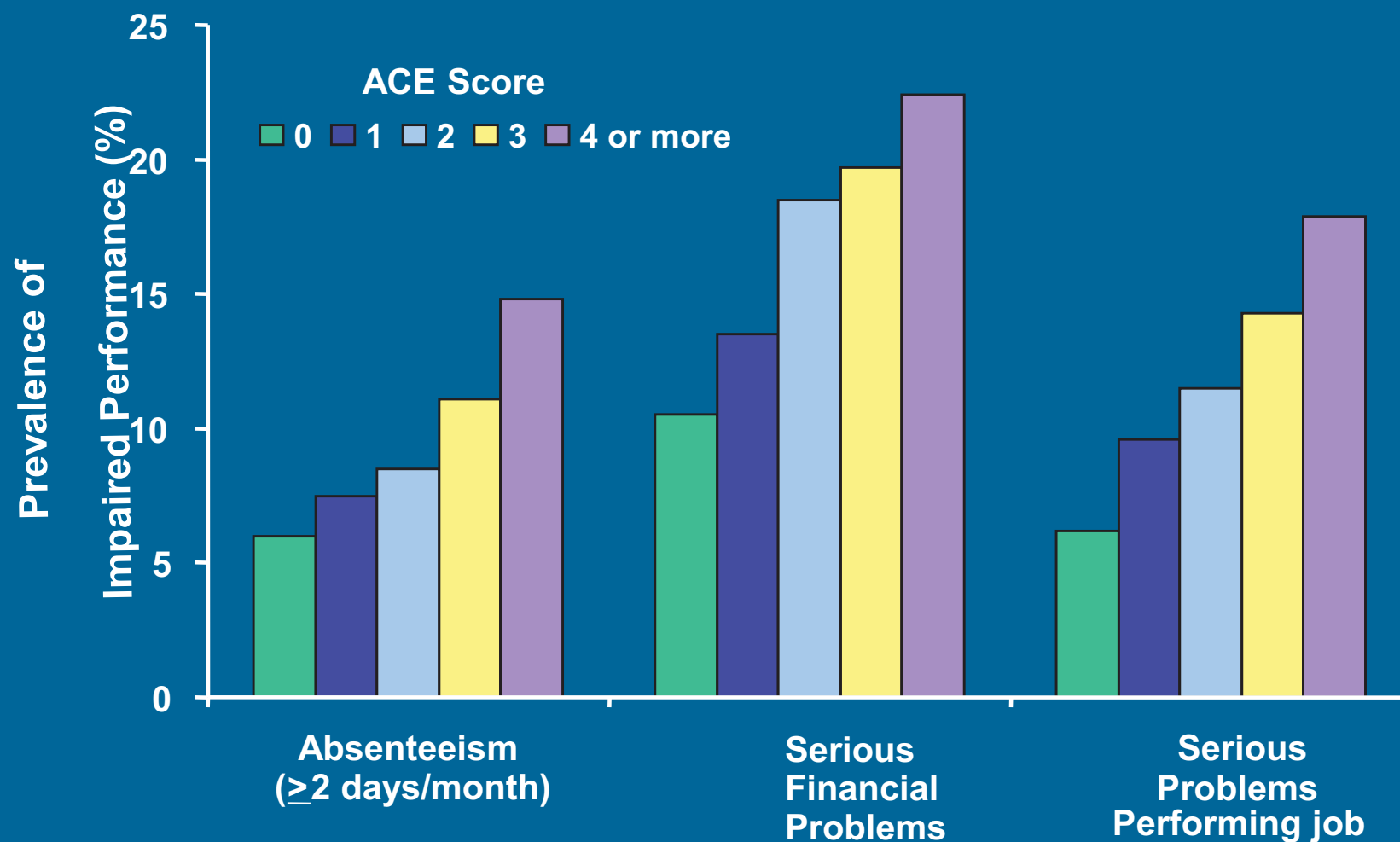
Social function:

ACE Score and the Risk of *Perpetrating* Domestic Violence



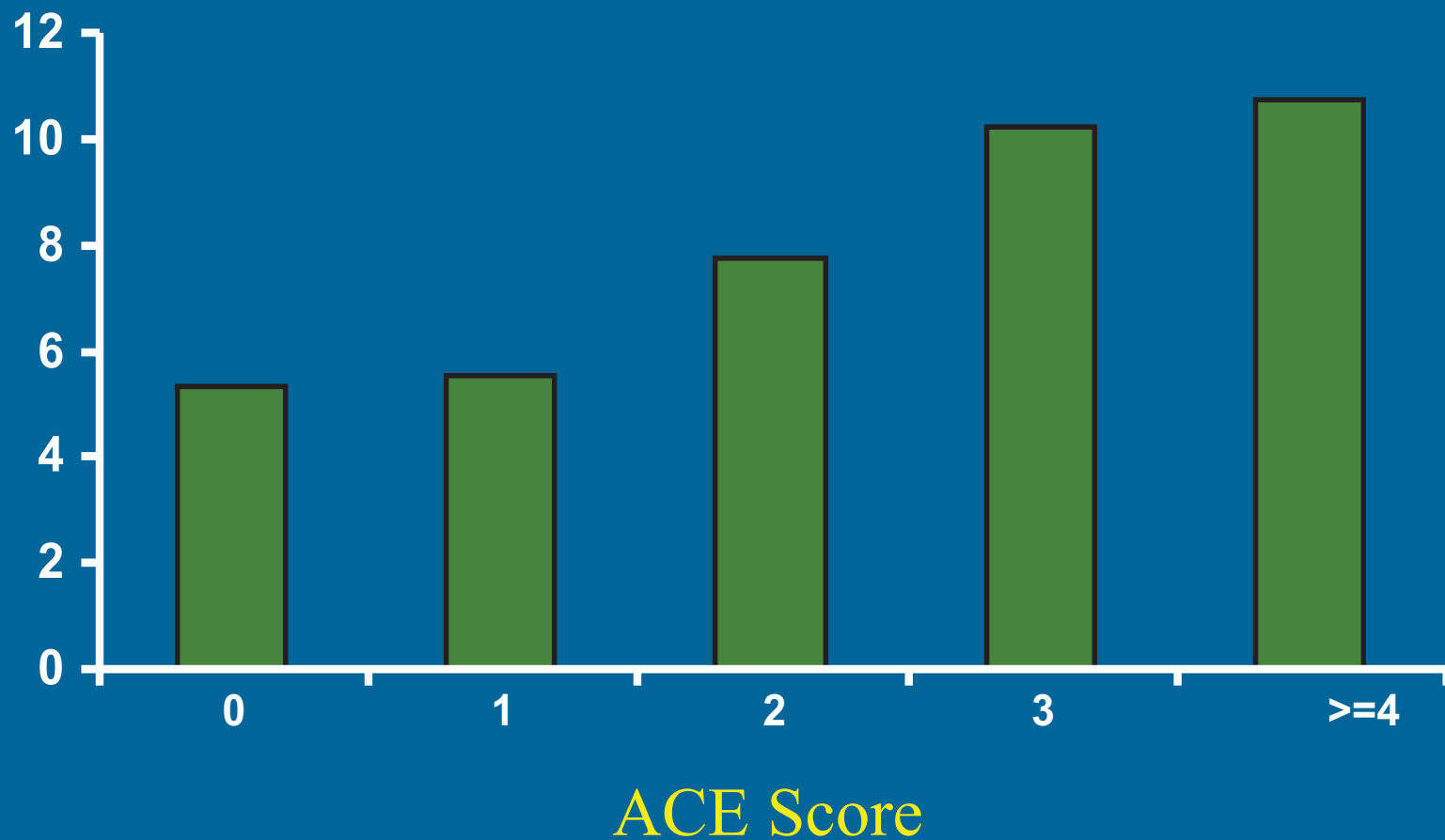
Social function:

ACE Score and Indicators of Impaired Worker Performance

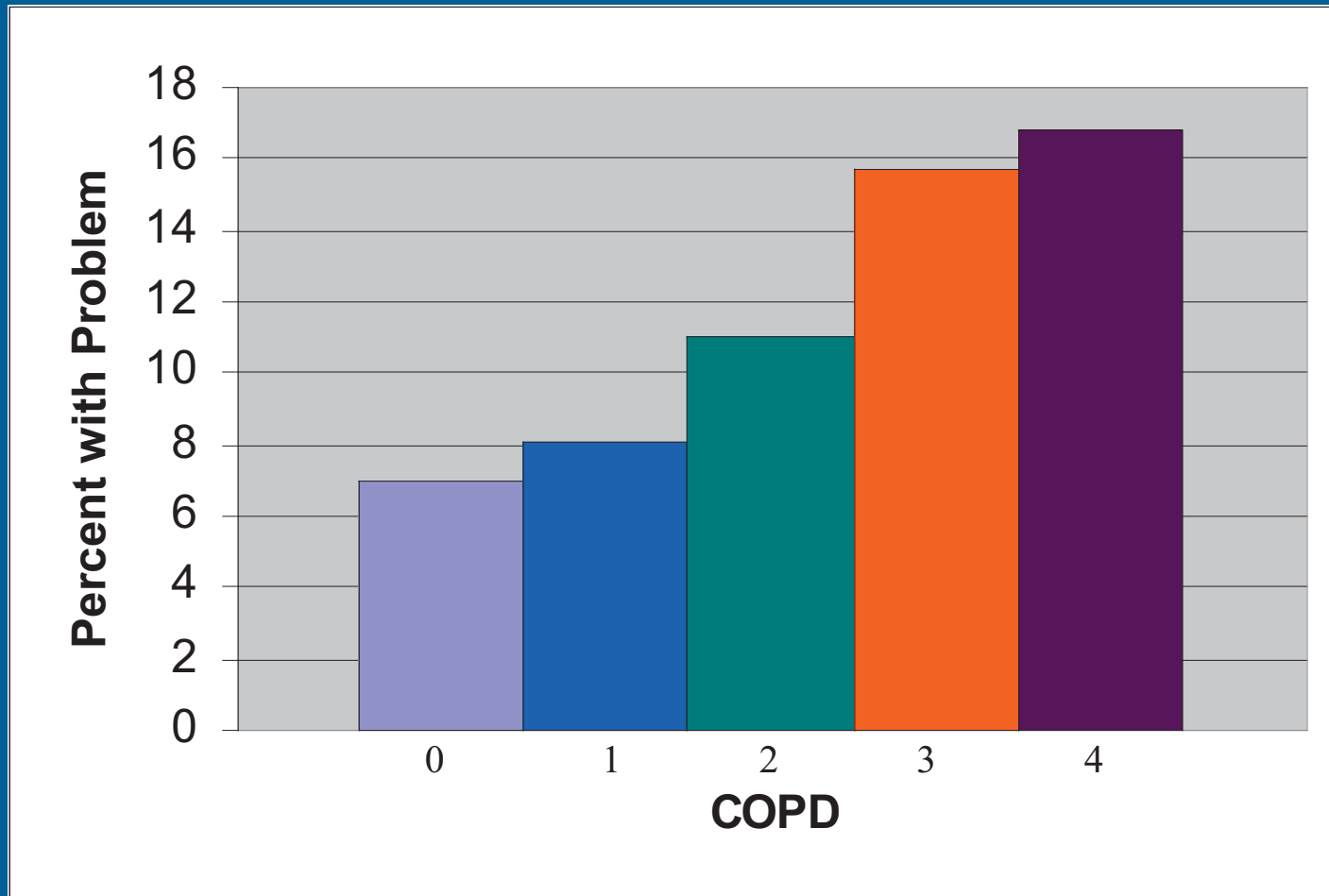


Biomedical Disease

The ACE Score and the Prevalence of Liver Disease (Hepatitis/Jaundice)



ACE Score vs. COPD



Biomedical disease

ACEs Increase Likelihood of Heart Disease*

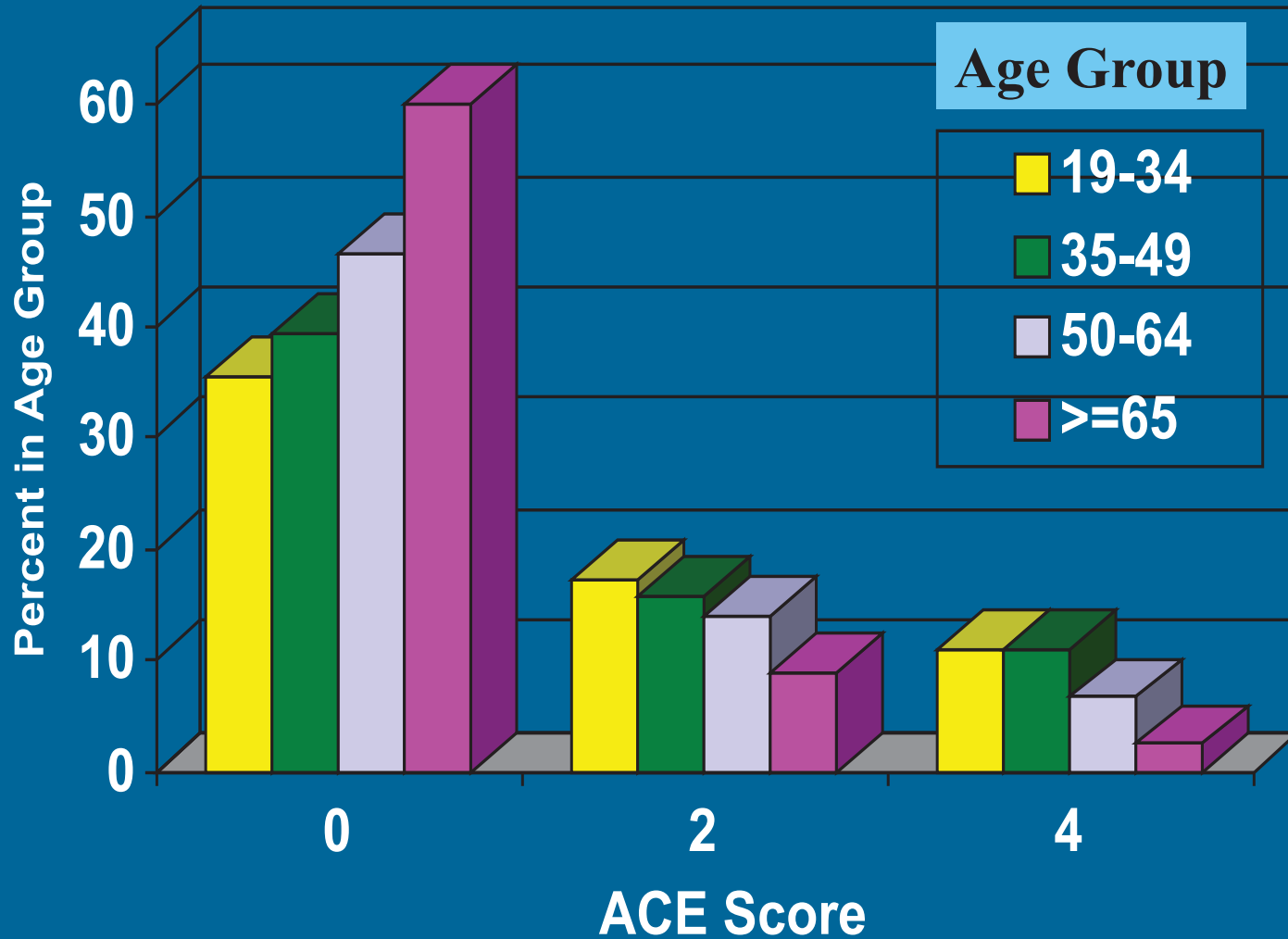
- Emotional abuse 1.7x
- Physical abuse 1.5x
- Sexual abuse 1.4x
- Domestic violence 1.4x
- Mental illness 1.4x
- Substance abuse 1.3x
- Household criminal 1.7x
- Emotional neglect 1.3x
- Physical neglect 1.4x



*After correction for age, race, education, and conventional risk factors like smoking and diabetes. *Circulation*, Sept 2004.

Effect of ACEs on Death Rate

(Null hypothesis)



How and why do
Adverse Childhood Experiences
exert their influence throughout life?

Why is treatment so difficult?

In Summary, the ACE Study indicates:

Adverse childhood experiences are the most *basic and long-lasting* cause of health risk behaviors, mental illness, social malfunction, disease, disability, death, and healthcare costs.

Adverse Childhood Experiences Underlie these National Problems

- **adult biomedical health**
- **reproductive health**
- **smoking**
- **alcohol abuse**
- **illicit drug use**
- **sexual behavior**
- **mental health**
- **risk of re-victimization**
- **stability of relationships**
- **performance in the workforce**

A Public Health Paradox

What are conventionally viewed as Public Health *problems* are often personal *solutions* to long-concealed adverse childhood experiences.

What Can We Do Today?

- Routinely seek a history of adverse childhood experiences from all patients/inmates, by questionnaire.
- Acknowledge their reality by asking, *“How has this affected you later in your life?”*
- Use existing systems to help with current problems.
- *Develop* systems for primary prevention.

Final Insights from the ACE Study

- Adverse childhood experiences are common but typically unrecognized.
- Their link to major problems later in life is strong, proportionate, and logical.
- They are the nation's *most basic* public health problem.
- It is comforting to mistake intermediary mechanism for basic cause.
- What presents as the 'Problem' may in fact be an attempted solution.
- Treating the solution may threaten people and cause flight from treatment.
- Change will be resisted by us in spite of enormous benefits.