

Adverse Childhood Experiences and their Relationship to Adult Health and Well-being: *Turning gold into lead*



A collaborative effort between
Kaiser Permanente and the CDC

QuickTime™ and a
H.264 decompressor
are needed to see this picture.



Human Nature & Early Experience

Notre Dame University, IN

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What is the *Core Problem* Here?



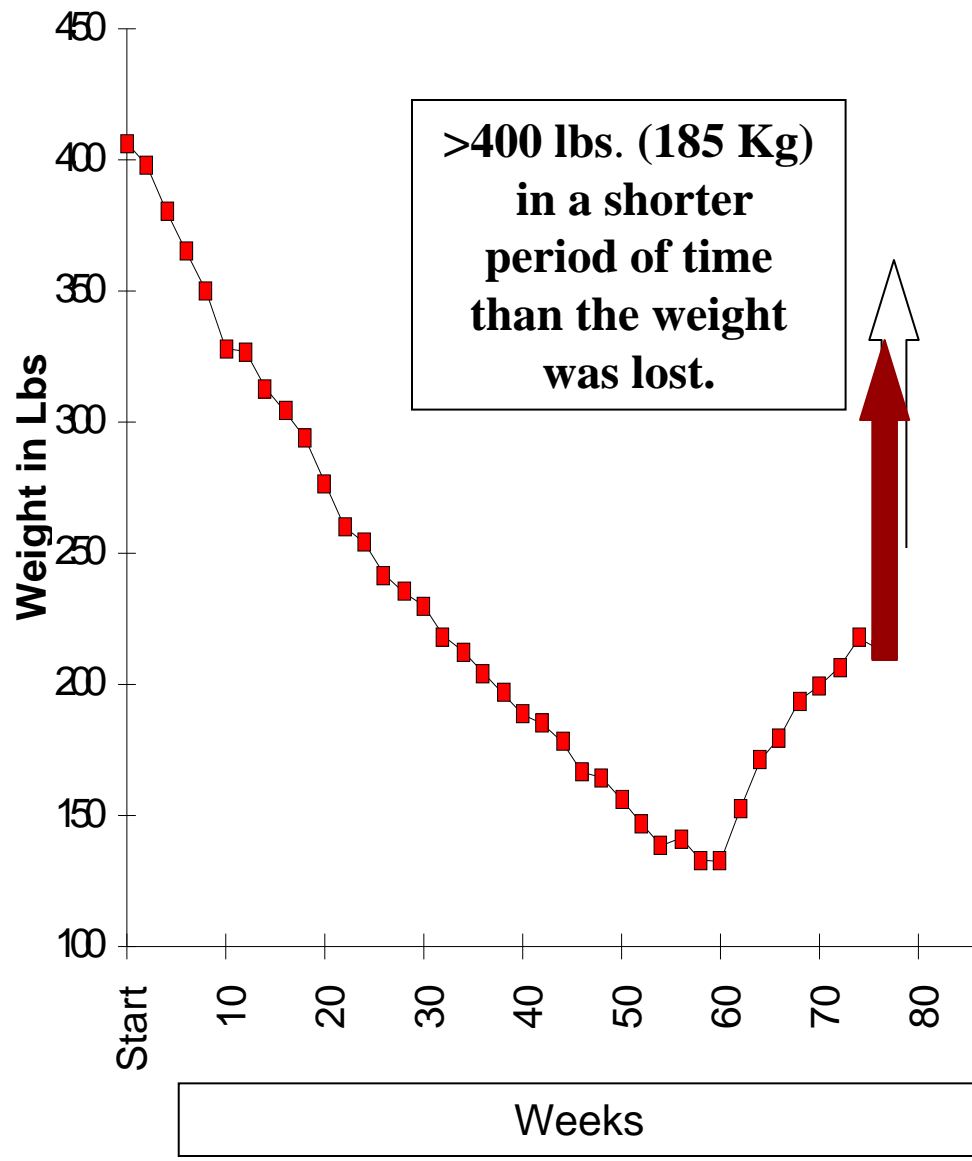
In 51 weeks:

408 ➡ 132 lbs

185 Kg ➡ 56 Kg



Unrecognized Childhood Origins of Adult Health Risks



ACE Study Design

Survey Wave 1

n=13,000

71% response

*All medical evaluations
abstracted*

Survey Wave II

n=13,000

*All medical evaluations
abstracted*

vs.

*Present
Health Status*

17,433 adults

Mortality

National Death Index

Morbidity

Hospital Discharges
Doctor Office Visits
Emergency Room Visits
Pharmacy Costs

& →

Categories 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 <18	23%
Depression or mental illness in home	17%
Mother treated violently	13%
Imprisoned household member	6%

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%*



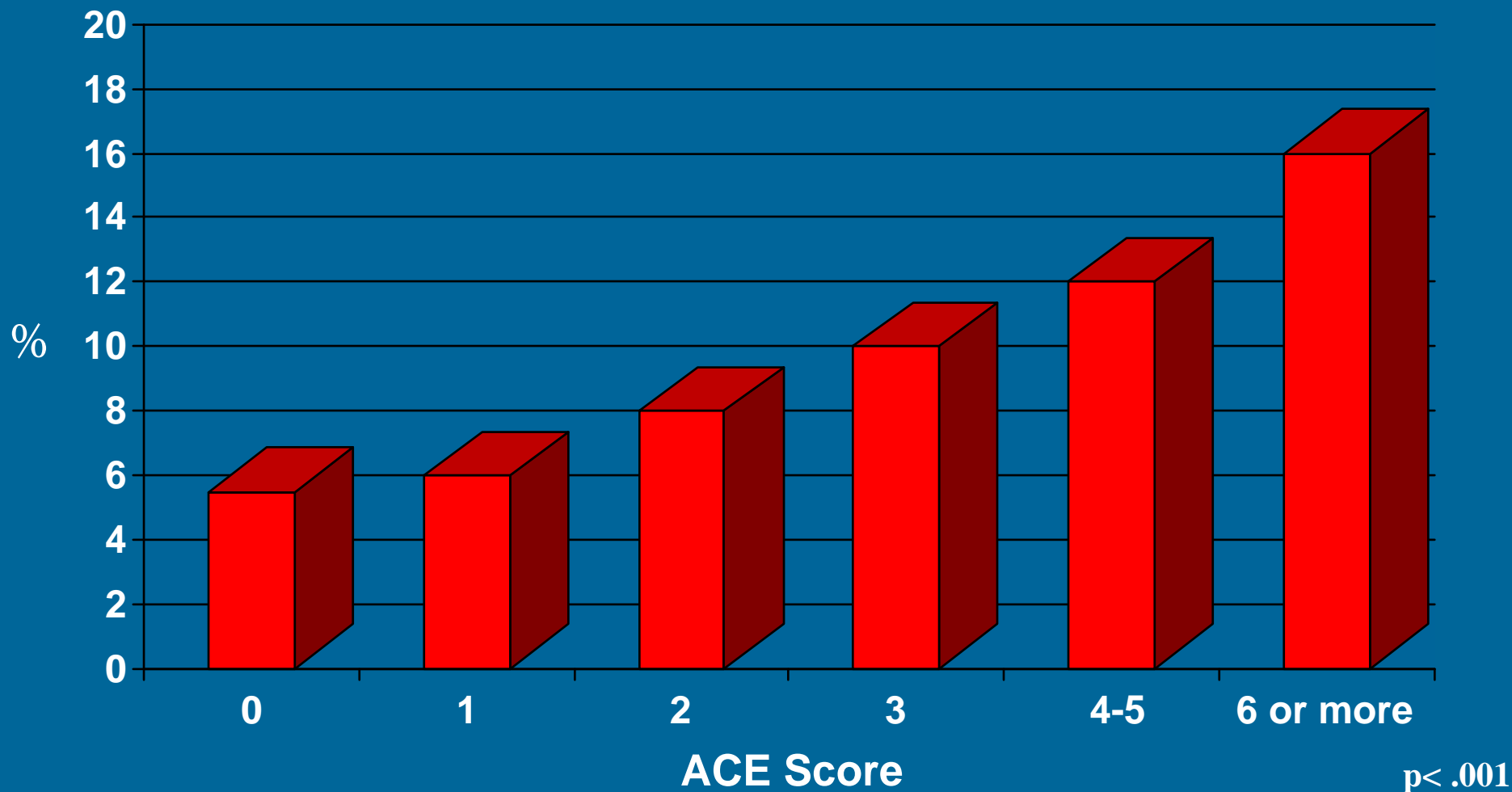
- Two out of three adults experienced at least one *category* of ACE.
- Women are 50% more likely than men to have an ACE Score >5.
- If *any* one ACE is present, there is an 87% chance *at least* one other ACE category is present, and a 50% chance of 3 others.

Risk Behaviors: 'Addictions'

Smoking to Self-Medicate

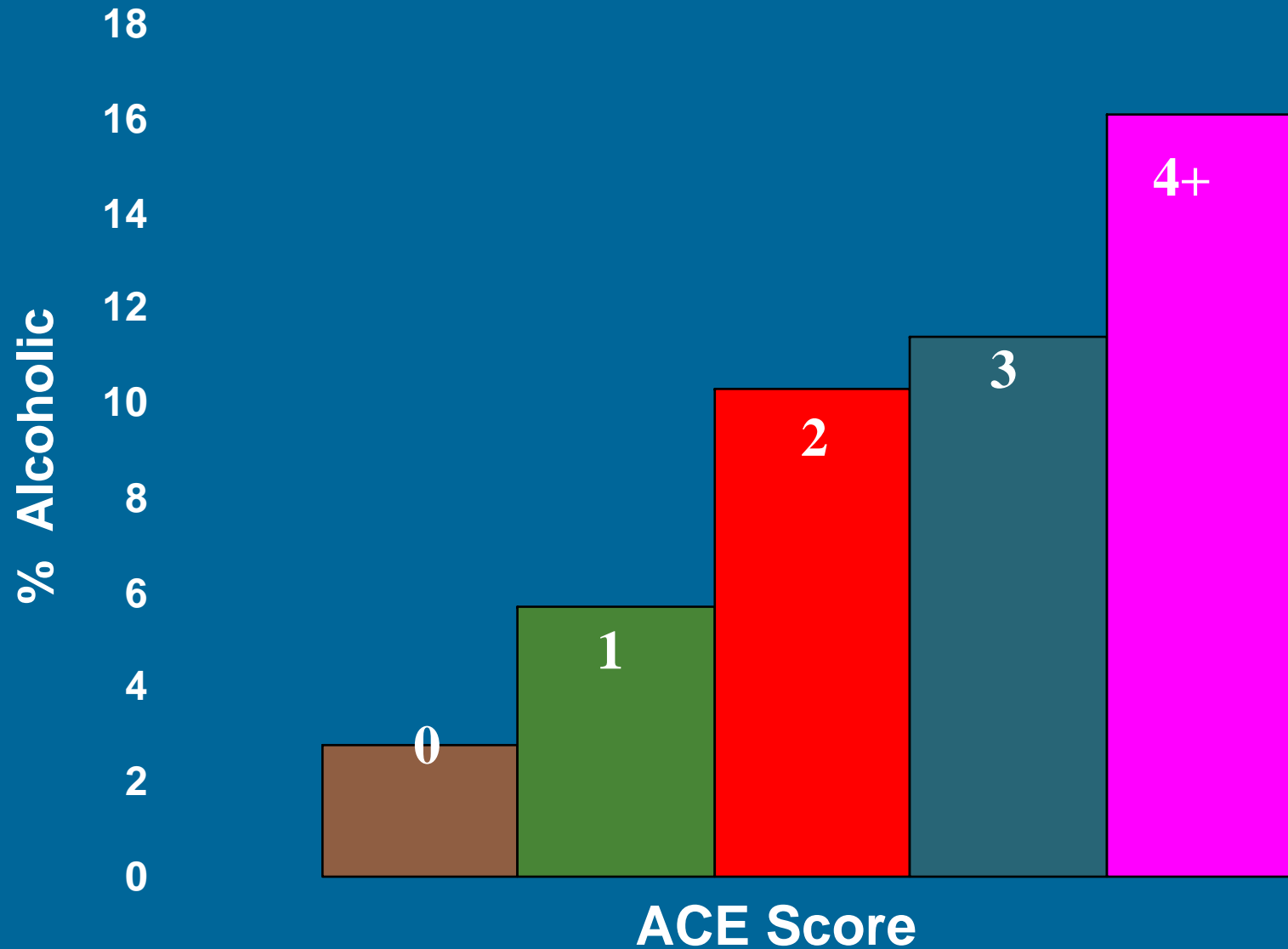
QuickTime™ and a
Cinepak decompressor
are needed to see this picture.

Adverse Childhood Experiences vs. Smoking as an Adult

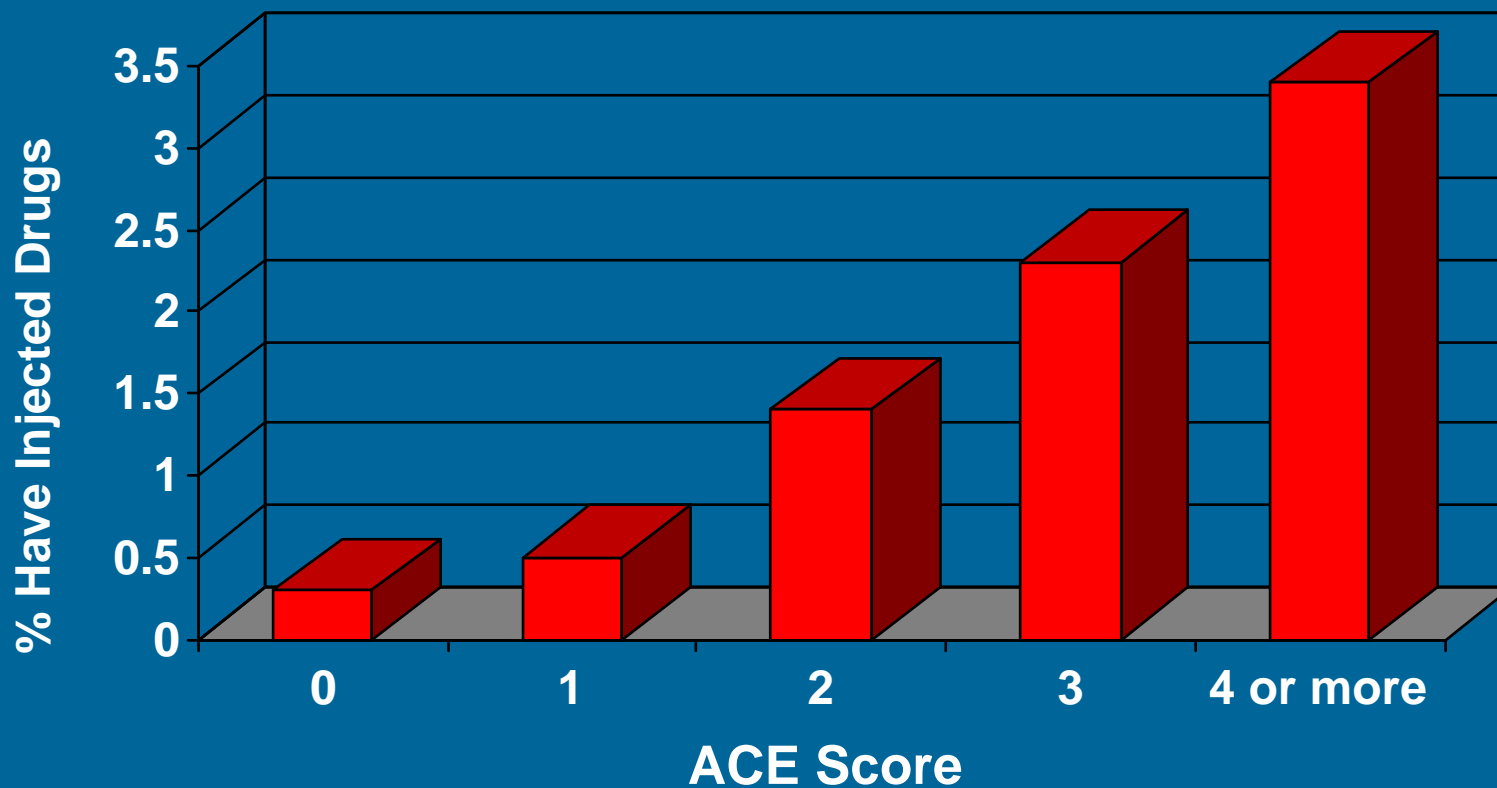


Health Risks

Childhood Experiences vs. Adult Alcoholism



ACE Score vs Intravenous Drug Use



$p < 0.001$

The traditional concept:

“Addiction is due to the characteristics intrinsic in the molecular structure of some substance.”

In the ACE Study, we found that:

“Addiction highly correlates with characteristics intrinsic to that individual’s childhood experiences.”

Dismissing them as “bad habits”
or self-destructive behavior”
comfortably hides
their functionality.



Obesity is Protective

QuickTime™ and a
Cinepak decompressor
are needed to see this picture.

... and weight loss is threatening

Molestation in Childhood

QuickTime™ and a
Cinepak decompressor
are needed to see this picture.

Depression:

Most people say depression is a disease.

Many say depression is genetic.

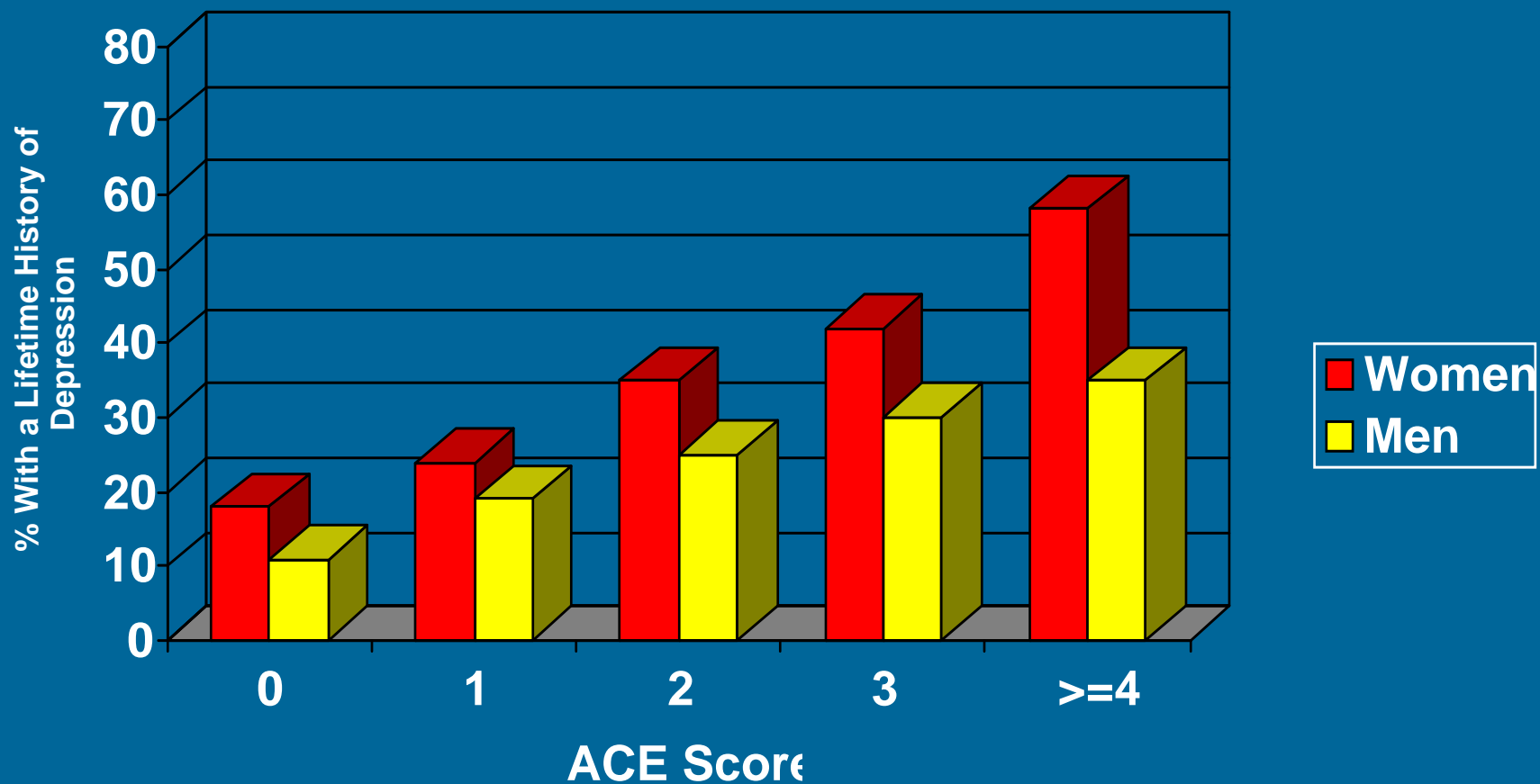
Some say it is due to a chemical imbalance.



What if depression were *not* a disease,
but a *normal response* to
abnormal life experiences?

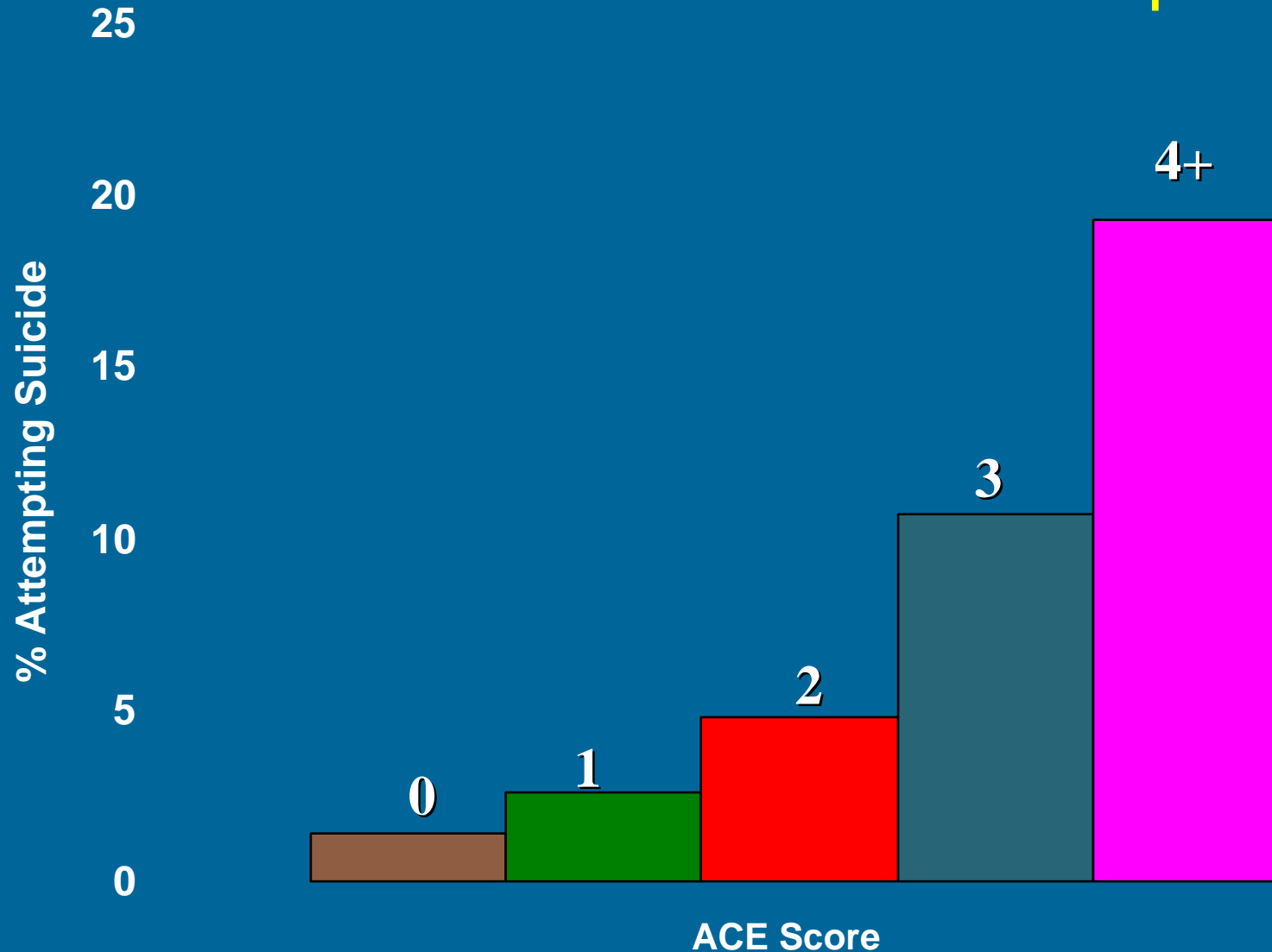


Childhood Experiences Underlie Chronic Depression



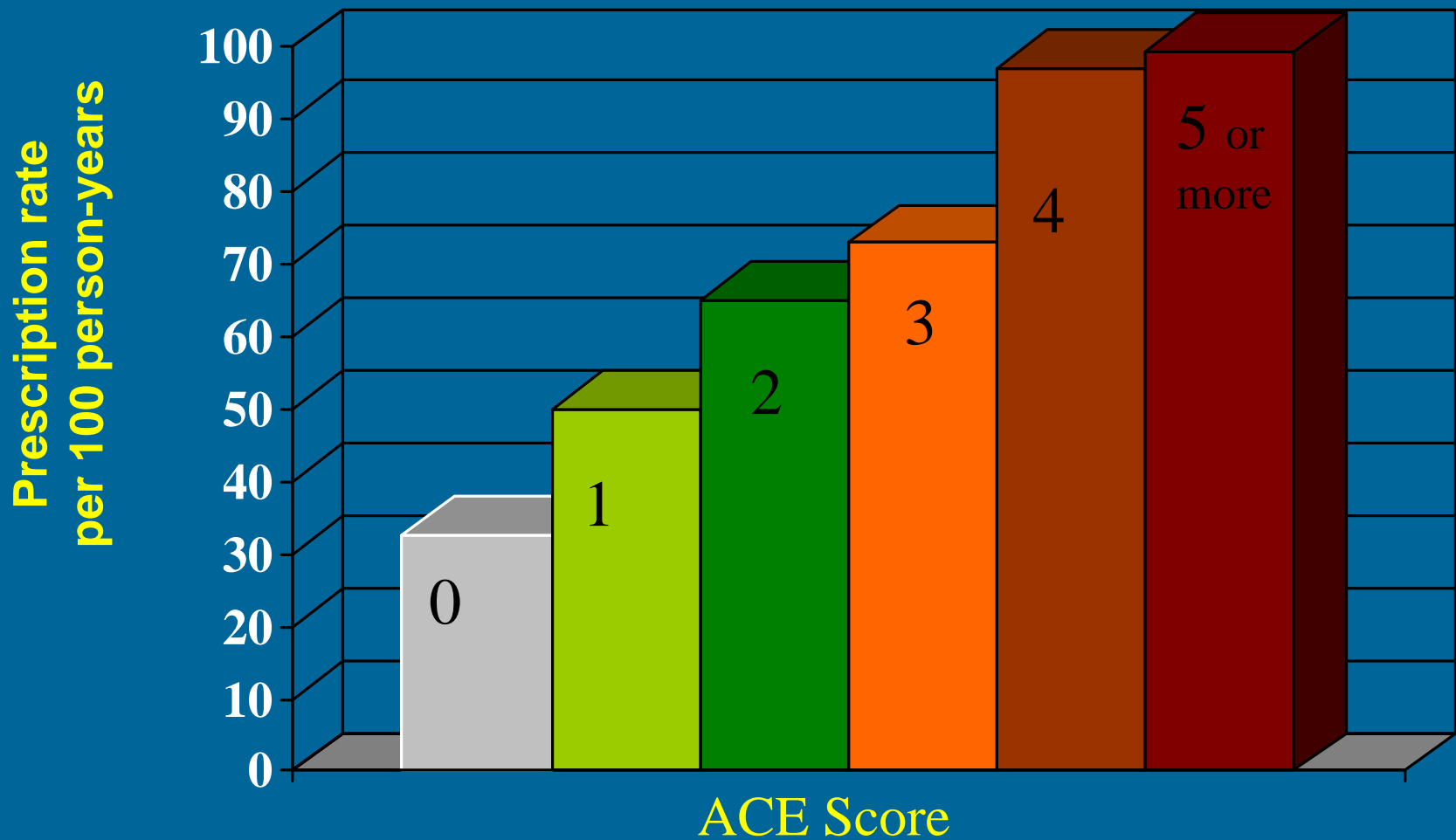
Death

Childhood Experiences Underlie Suicide Attempts



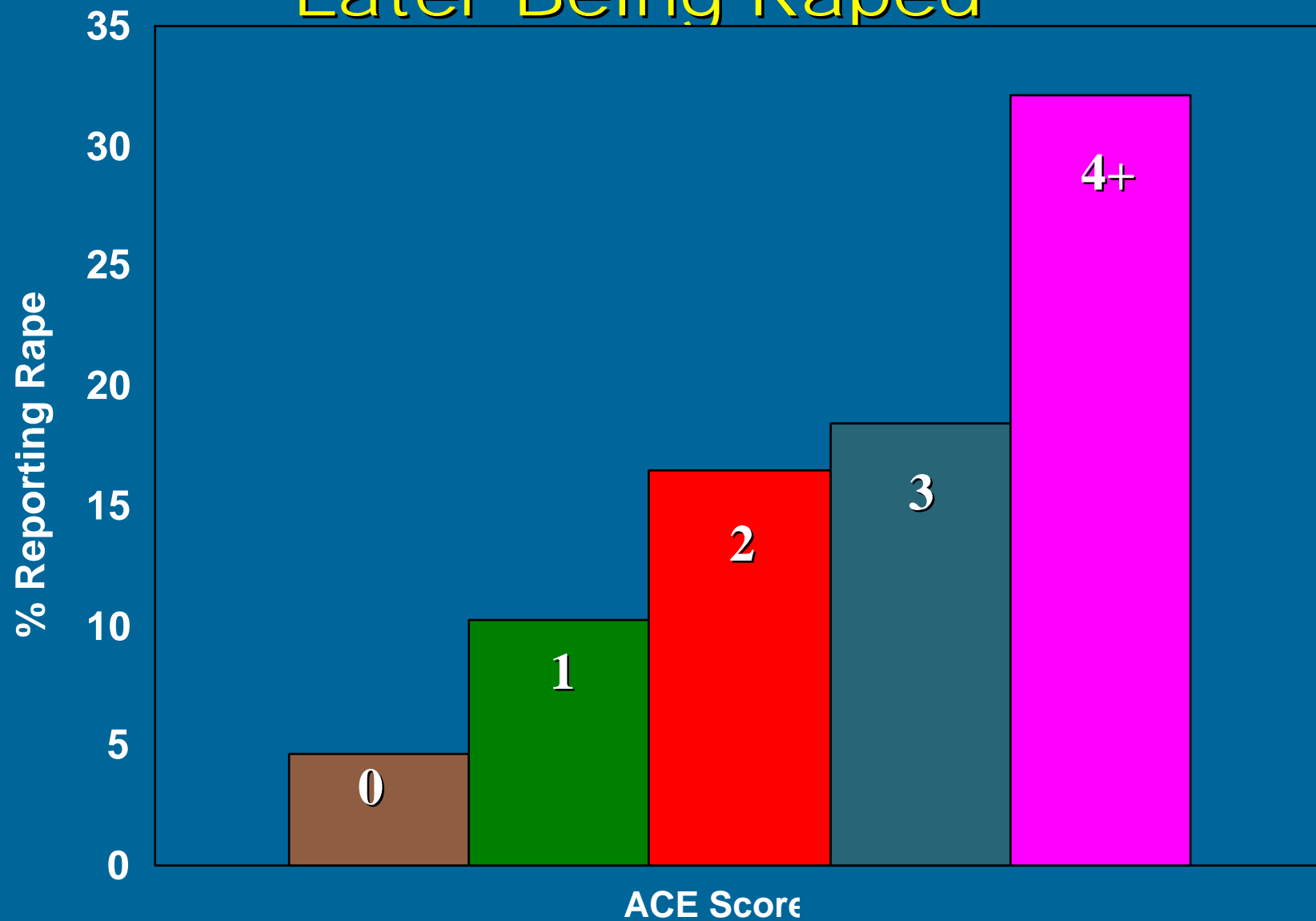
ACE Score and Rates of Antidepressant Prescriptions

approximately 50 years later

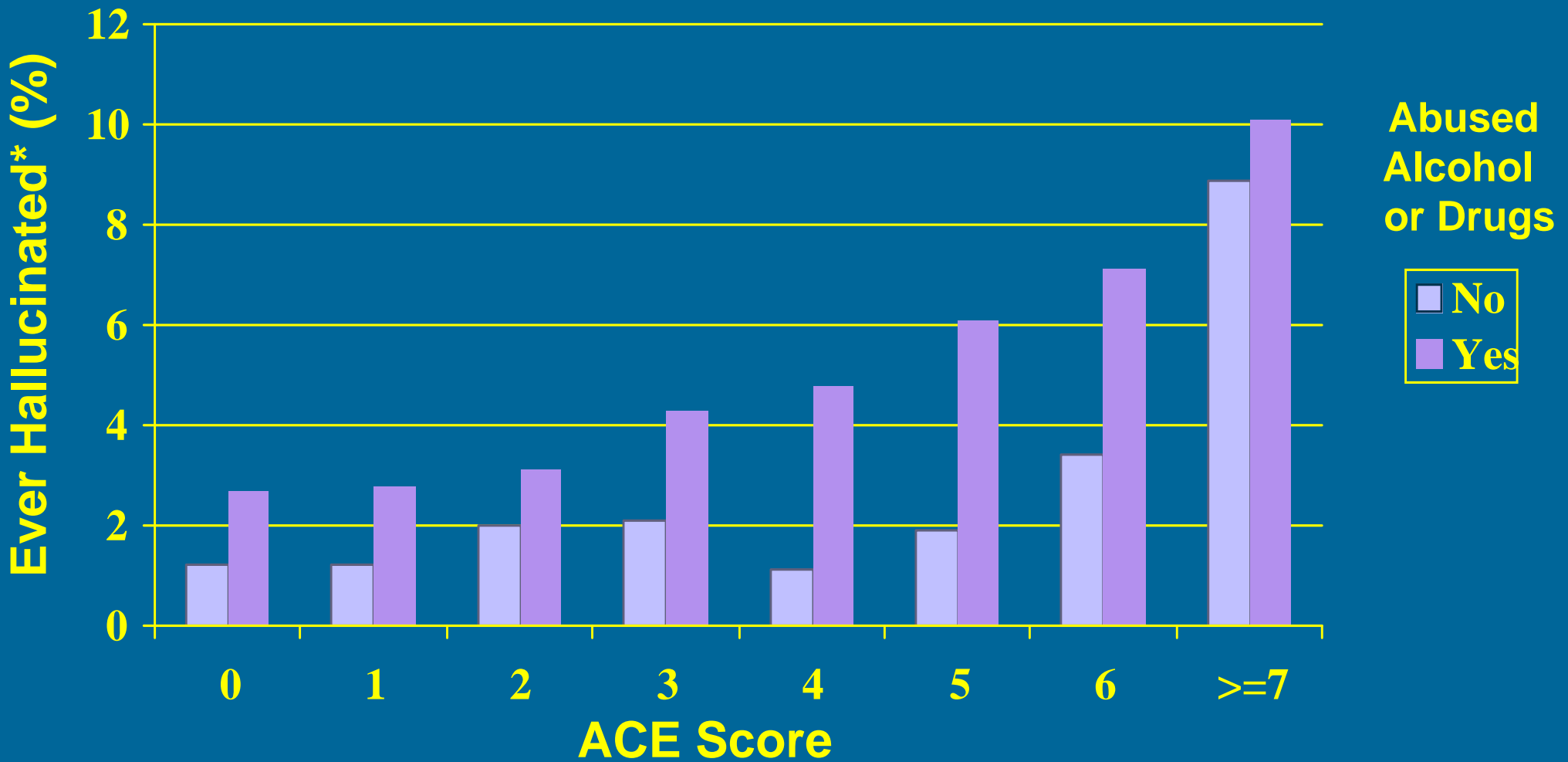


Well-being

Childhood Experiences Underlie Later Being Raped



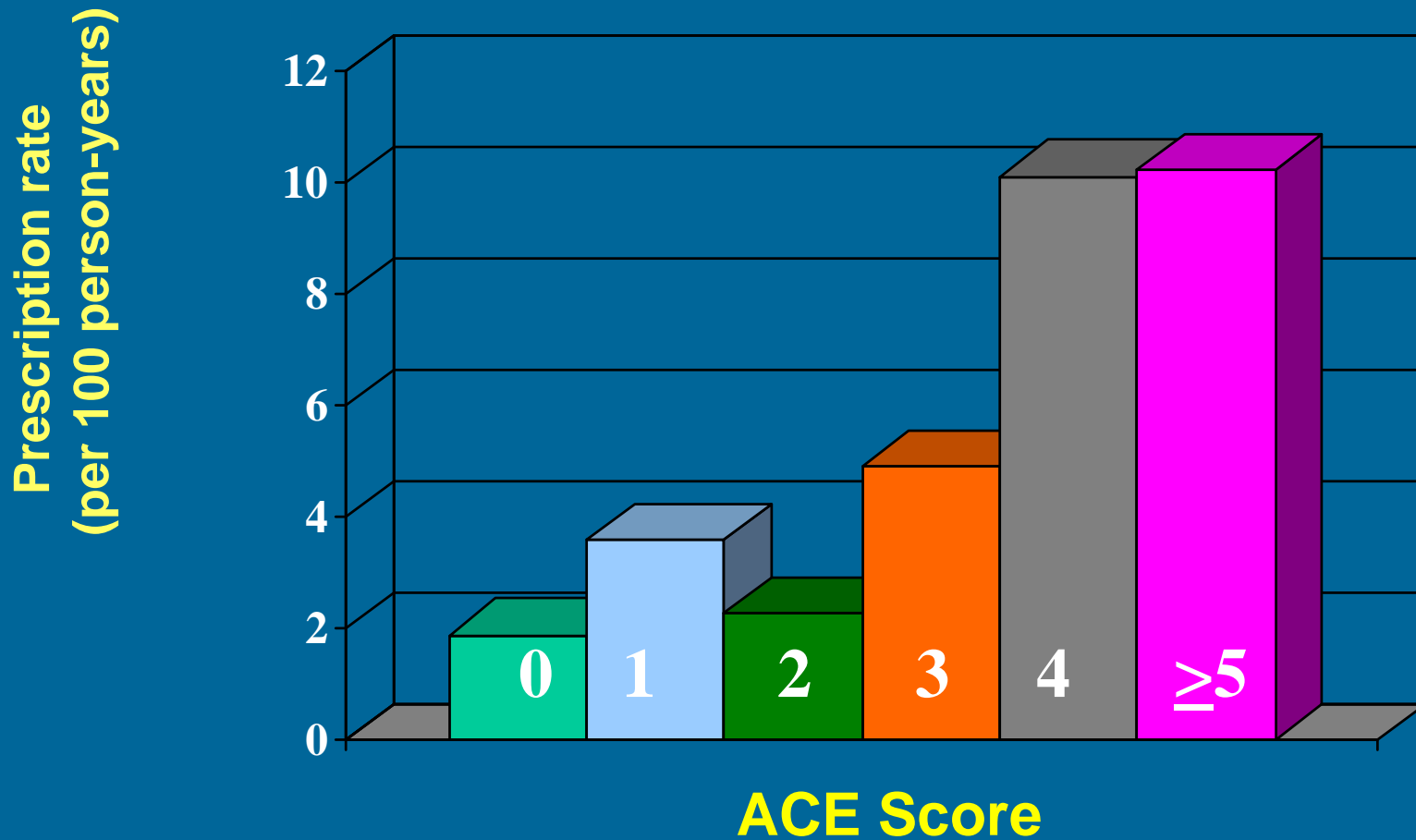
ACE Score and Hallucinations



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

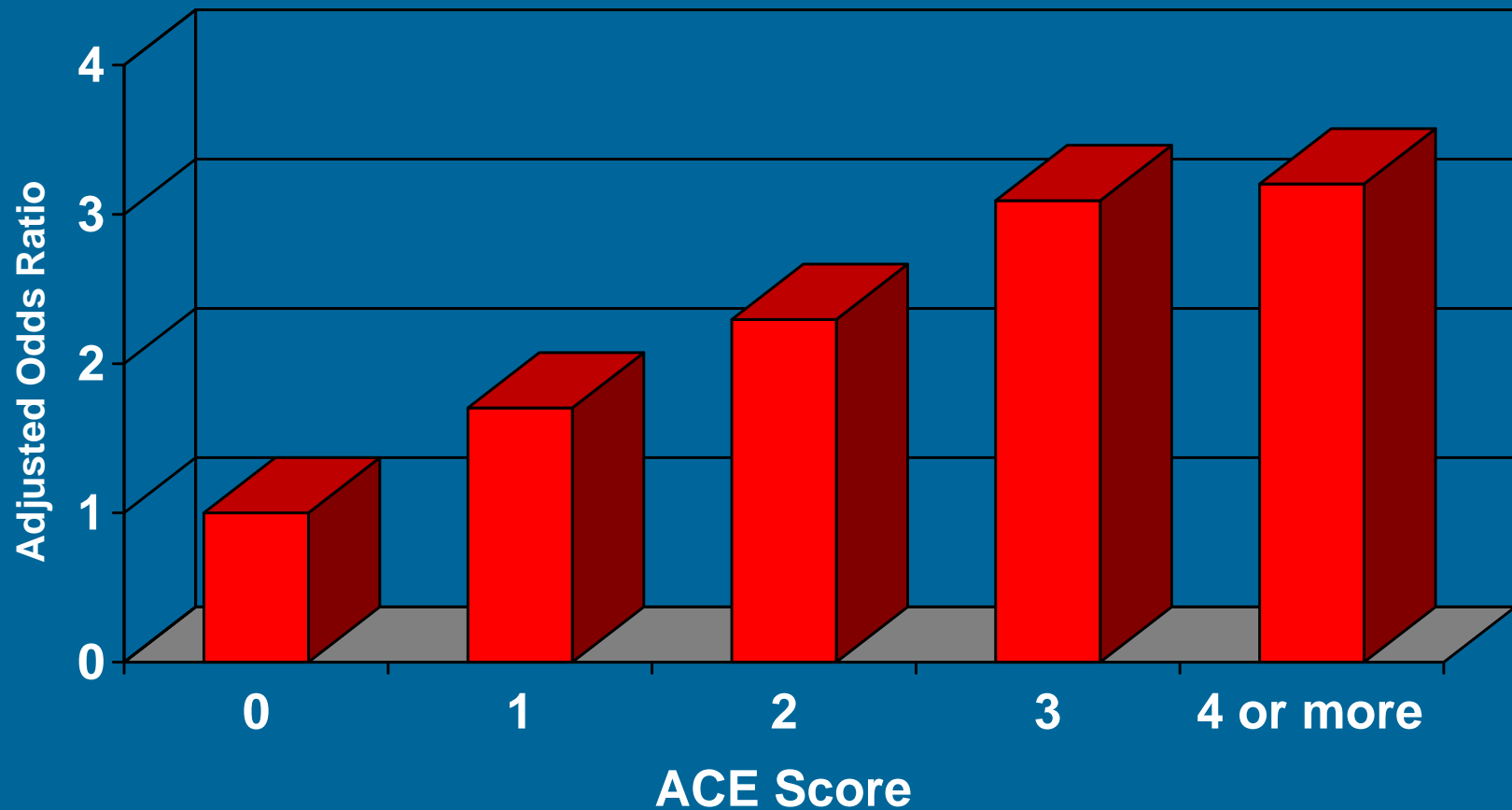
ACE Score and Rates of Antipsychotic Prescriptions

A half-century later, on average

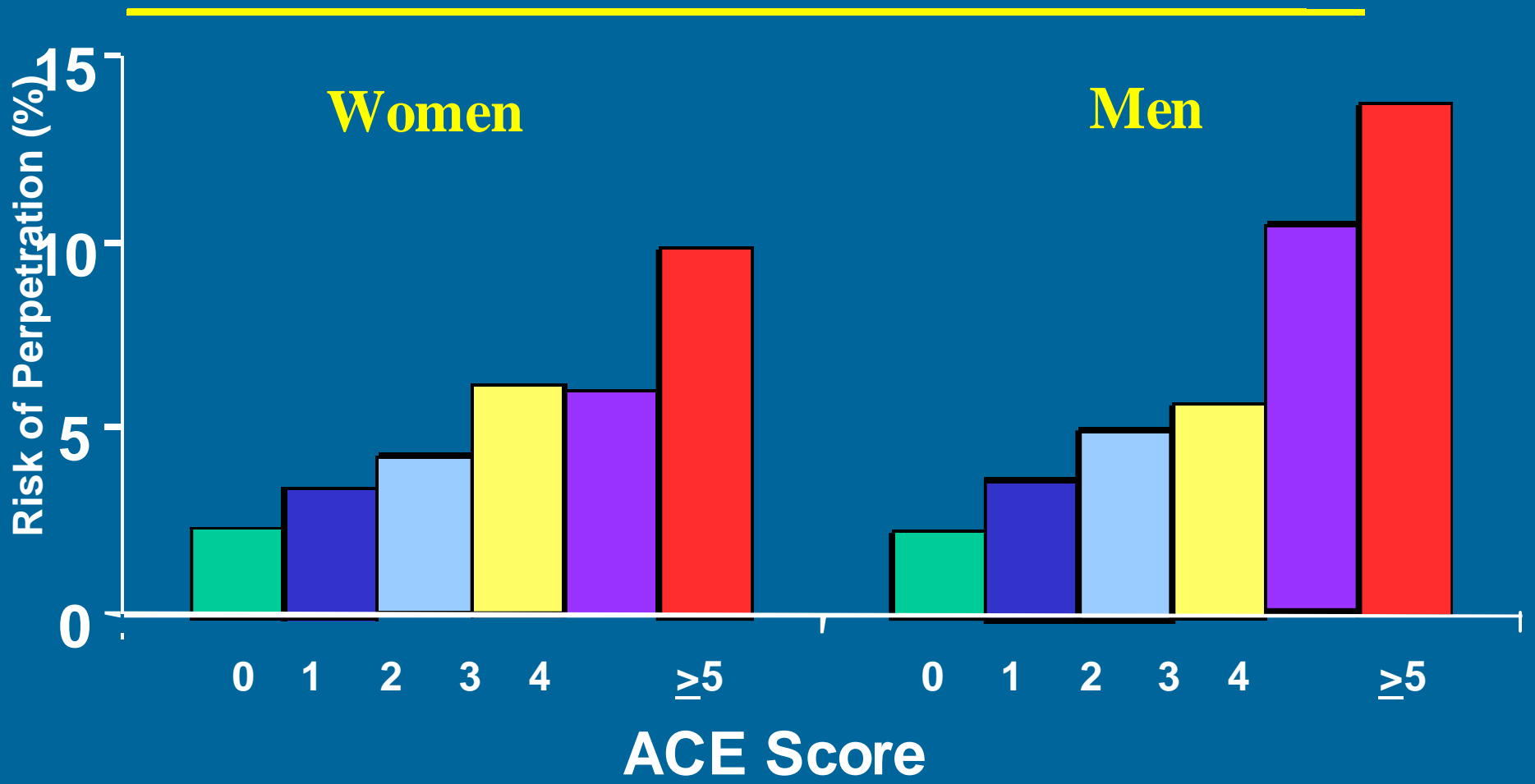


Health risks

Adverse Childhood Experiences vs. Likelihood of > 50 Sexual Partners

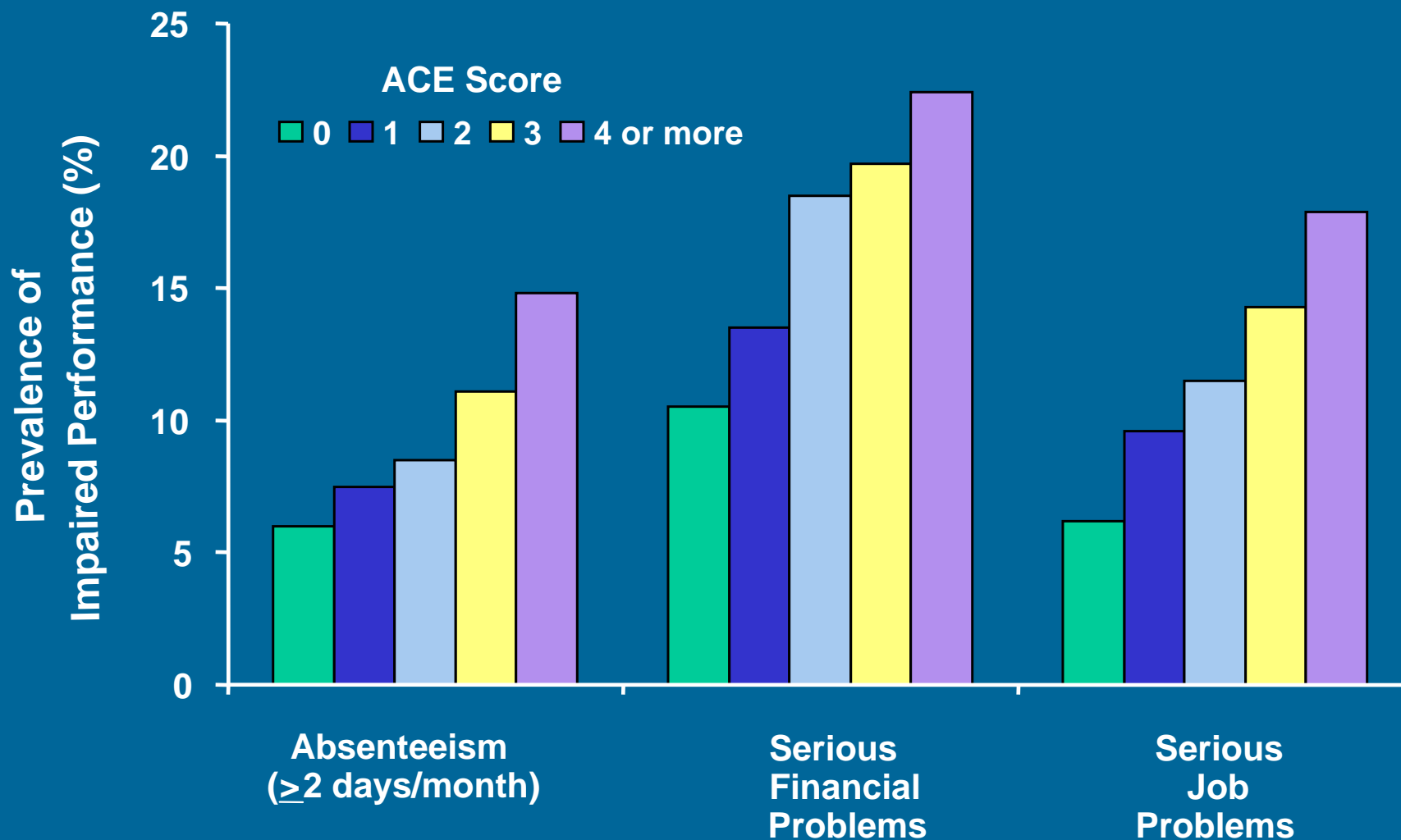


ACE Score and the Risk of Perpetrating Domestic Violence



Social functioning

ACE Score and Indicators of Impaired Worker Performance



Adverse Childhood Experiences
determine the likelihood of the
ten most common causes of
death in the United States.

Top 10 Risk Factors: smoking, severe obesity, physical inactivity, depression, suicide attempt, alcoholism, illicit drug use, injected drug use, 50+ sexual partners, h/o STD.

**Many chronic diseases
of adults are determined
decades earlier, in childhood.**

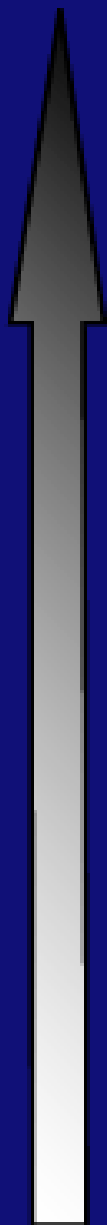
Not by disease, but by life experiences.

A Public Health Paradox

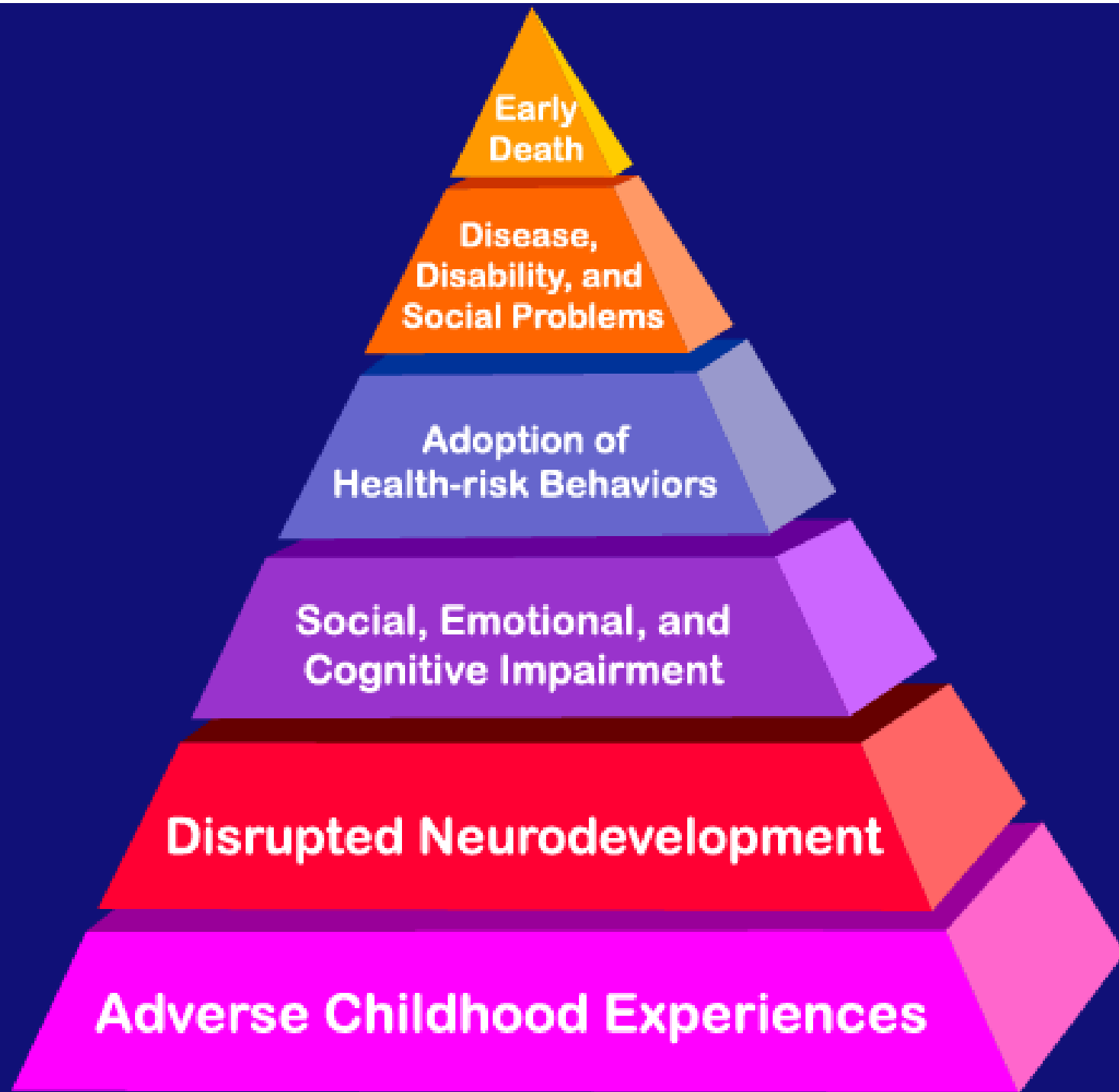
Many public health *problems* often are attempted *solutions* to unrecognized childhood experiences.

We protect ourselves by describing them as dysfunctional behavior.

Death



Conception



**Early
Death**

**Disease,
Disability, and
Social Problems**

**Adoption of
Health-risk Behaviors**

**Social, Emotional, and
Cognitive Impairment**

Disrupted Neurodevelopment

Adverse Childhood Experiences

How Can We Use This?

- Routinely seek a history of adverse childhood experiences from all patients, 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.

Unconventional Medical Questions of Demonstrated Value

- **Have you lived in a war zone?**
- **Have you ever been a combat soldier?**
- ***Who* in your family has committed suicide?**
- ***Who* in your family has been murdered?**
- ***Who* in your family has had a nervous breakdown?**
- **Were you molested as a child?**
- **Have you ever been held prisoner?**
- **Have you been tortured?**
- **Have you ever been raped?**

Interventions

Translating Research into Practice

a beginning



1.2 million comprehensive patient evaluations since 1975

Further Information

www.AceStudy.org

Medline/PubMed, Google (Anda or Felitti as author)

VJFMDSOCA@mac.com

www.HumaneExposures.com (3 Important Books)

info@CavalcadeProductions.com (Documentary DVDs)

<http://xnet.kp.org/PermanenteJournal/winter02/deardoc.pdf>