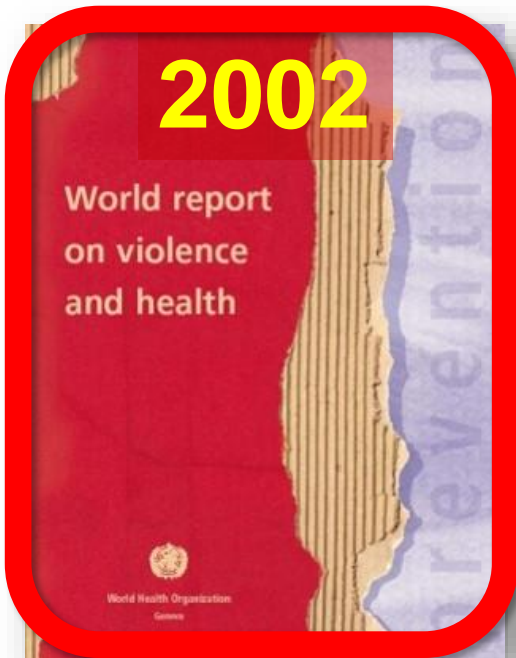




Hani Jahshan, MD
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www.jahshan.com

Impact of Abuse on Mental Health and Development in Children

11th International Conference of The Jordan Society of Family Medicine 5-8 October, 2016

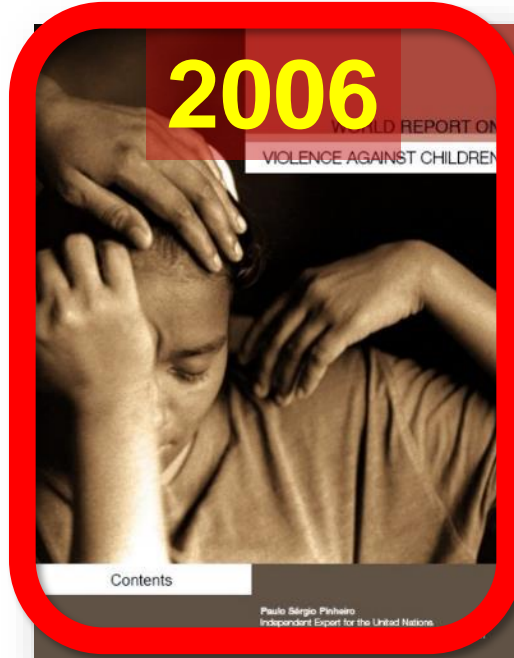


2002

World report
on violence
and health



2002



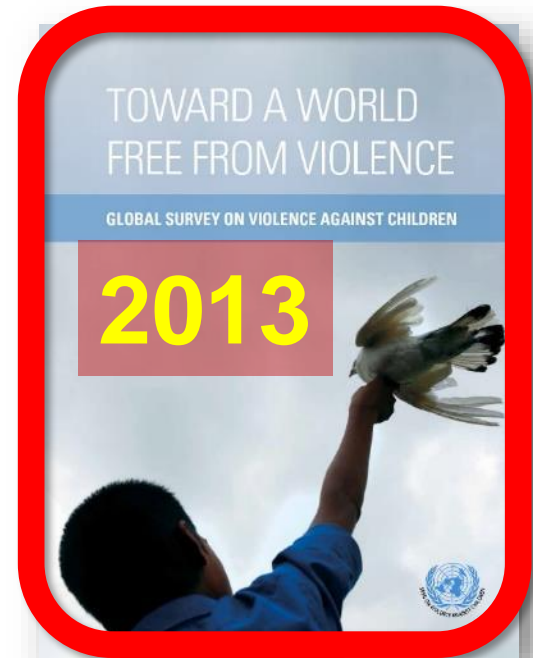
2006

WORLD REPORT ON
VIOLENCE AGAINST CHILDREN

Contents

Paulo Sérgio Pinheiro
Independent Expert for the United Nations

2006



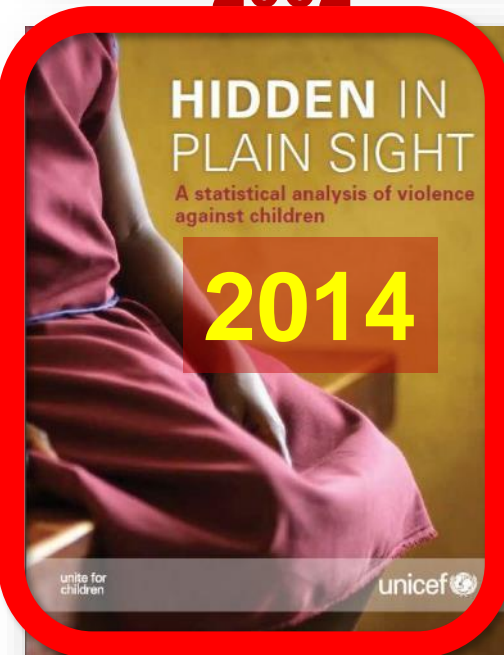
2013

TOWARD A WORLD
FREE FROM VIOLENCE

GLOBAL SURVEY ON VIOLENCE AGAINST CHILDREN



2013

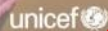


HIDDEN IN
PLAIN SIGHT

A statistical analysis of violence
against children

2014

unite for
children



2014



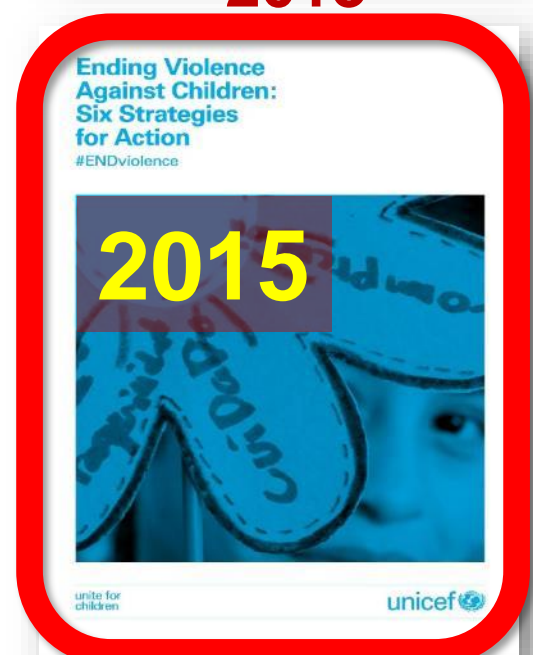
2014

GLOBAL
STATUS
REPORT ON
VIOLENCE
PREVENTION
2014



United Nations
Development Programme

2014



Ending Violence
Against Children:
Six Strategies
for Action

#ENDviolence

2015

unite for
children



2015

Why Now?

Why Now?

- Every five minutes, a child is killed by violence
- 400,000,000 abandoned children live on their own
- 26 million children aged 5-17 working in dangerous conditions, one million children forced work in mines
- 1.2 million children and babies are trafficked every year
- At any one time across the world, around 1.8 million are being abused through prostitution, child pornography and sex tourism.
- 5.7 million slave children in forced labor
- 300,000 children are soldiers under the age of 15.

Why now?

- The scale of violence is unacceptable in all countries
- Violence causes severe physical, cognitive, and economic damage



endviolence

global partnership to end violence against children

Definitions

Definition of Violence Against Children

WHO 2002

Violence: The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation.

Definition of Violence Against Children

UNSVAC 2006

Violence against Children: the intentional use of physical force or power, threatened or actual, against a child, by an individual or group, that either results in or has a high likelihood of resulting in actual or potential harm to the child's health, survival, development or dignity.

Definition of Violence Against Children

UNSVAC 2006

Psychological violence: Any form of insults (name-calling, ignoring, isolation, rejection, threats, emotional indifference and marginalization) that can be harmful to a child's psychological development and well-being. * Standard definitions are lacking.

Definition of Violence Against Children

UNSVAC 2006

Neglect: The failure of parents or carers to meet a child's physical and emotional needs when they have the means, knowledge and access to services to do so; or failure to protect her or him from exposure to danger.

Related Forms:

Abandonment

Dangerous, harmful or hazardous work

Deprivation

State neglect

Definition of Violence Against Children

UNSVAC 2006

Physical violence: Physical violence is the intentional use of physical force against a child that either results in or has a high likelihood of resulting in harm to the child's health, survival, development or dignity.

Related Forms:

Corporal Punishment (disciplining children)

Judicial use of Physical Punishment

Torture

Extra-judicial executions

Definition of Violence Against Children

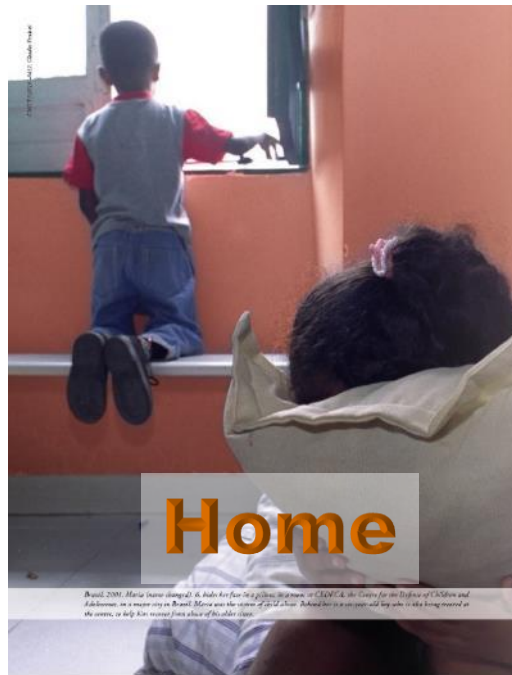
UNSVAC 2006

Sexual violence: is any sexual act, attempt to obtain a sexual act, or other act directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting.

Related Forms:

Sexual harassment, slavery
child pornography, early marriage,
child prostitution, virginity testing,
child trafficking, honor killing,
SV related to wars, female genital mutilation.

UNVAC 5 settings



Implications

Child Abuse











ACE



Adverse Childhood Experiences (ACE) Study:

1. A collaboration between (CDC) and Kaiser Permanente's Health Appraisal Clinic in San Diego, CA.
2. It is the largest ongoing examination of the correlation between **childhood maltreatment** and **health and well-being outcomes**.
3. Data are collected from more than 17,000 participants undergoing regular health screenings.
4. Findings show that certain experiences are risk factors or causes for various illnesses and poor health.
5. <http://www.cdc.gov/ace/index.htm>

Adverse Childhood Experiences

Abuse, by Category

- 1) Psychological (by parents)
- 2) Physical (by parents)
- 3) Sexual (anyone)

Neglect, by Category

- 4) Emotional
- 5) Physical

Household Dysfunction, by Category

- 6) Alcoholism or drug use in home
- 7) Loss of biological parent < age 18
- 8) Depression or mental illness in home
- 9) Mother treated violently
- 10) Imprisoned household

Abuse



Neglect



Household Dysfunction





LONGSCAN (Longitudinal Studies of Child Abuse and Neglect)

<http://www.iprc.unc.edu/longscan>

NSCAW (The National Survey of Child and Adolescent Well-Being)

<http://www.acf.hhs.gov/opre/research/project/national-survey-of-child-and-adolescent-well-being-nscaw>

Introduction

1. Child abuse and neglect affect Children, Adolescents, Adults and the Society
2. The **effects vary depending** on
 - Circumstances of the abuse or neglect
 - Personal characteristics of the child
 - The child's environment...
3. The **Consequences** are:
 - Physical, psychological, behavioral, social, or combinations.
 - Mild or severe
 - Disappear after a short period or last a lifetime
4. Not all children will experience long term consequences, but they have an **increased susceptibility**.

Introduction

Factors Affecting the Consequences of Child Abuse and Neglect:

Individual outcomes vary widely and are affected by a combination of the following factors:

- 1) The **child's age** and **developmental status** when the abuse or neglect occurred
- 2) The **type of maltreatment** (physical abuse, neglect, sexual abuse...)
- 3) The **frequency**, **duration**, and **severity** of the maltreatment
- 4) The **relationship** between the child and the perpetrator

Child Resilience

- 1) Is a mixture of both risk and protective factors that cause a child's positive or negative reaction to adverse experiences.
- 2) Protective factors are :
 - positive attachment
 - self-esteem
 - Intelligence
 - emotion regulation
 - humor
 - independence.
- 3) It is not an inherent trait in children but results.

Introduction

The consequences are interrelated

Physical consequences, such as damage to a child's growing brain, can have psychological implications, such as cognitive delays or emotional difficulties.

Psychological problems manifest as physical illness.

1. **Depression** and anxiety make a person more likely to smoke, abuse alcohol or drugs, or overeat.
2. **High-risk behaviors**, in turn, can lead to long-term physical health problems, such as sexually transmitted diseases, cancer, and obesity.

Social Consequences

1. Public health: Increased **cost** of health-care, human services, and educational systems. CAN has **serious impact on society** as a whole.
2. Therefore, it is imperative for communities to provide a framework of **prevention strategies** and services.
3. Be prepared to offer **treatment and rehabilitation** when necessary.

Neurophysiology Neuroanatomy

Neurophysiology

1. Triggering of the complex neurochemical and hormonal systems involved in the stress response and in emotional regulation.
2. **Glucocorticoid, noradrenergic, and vasopressin-oxytocin systems** are activated.
3. Highly adaptive response allows for survival in a dangerous environment.
4. Chronic activation will result in permanent changes in brain chemistry, structure, and function.
5. Over time, maltreated children are at risk for the development of an exaggerated response to relatively minor stress.

Neurophysiology Neuroanatomy

Neuroanatomy

1. Persistent Alterations in Brain Structure and Function
2. Neuroimaging studies demonstrate that Neuroanatomy is significantly altered among individuals who have experienced childhood maltreatment and abuse related Posttraumatic Stress Disorder (PTSD):
 - **Reduced cerebral volume** (prefrontal white matter, right temporal lobe, and mid-section of the corpus callosum),
 - **Enlargement of the ventricular system**. significant neuronal loss, lost potential for child growth, development, and functioning.
 - **Alterations in the pituitary and hippocampus** that result in adverse effects on learning and memory.



Neurophysiology Neuroanatomy

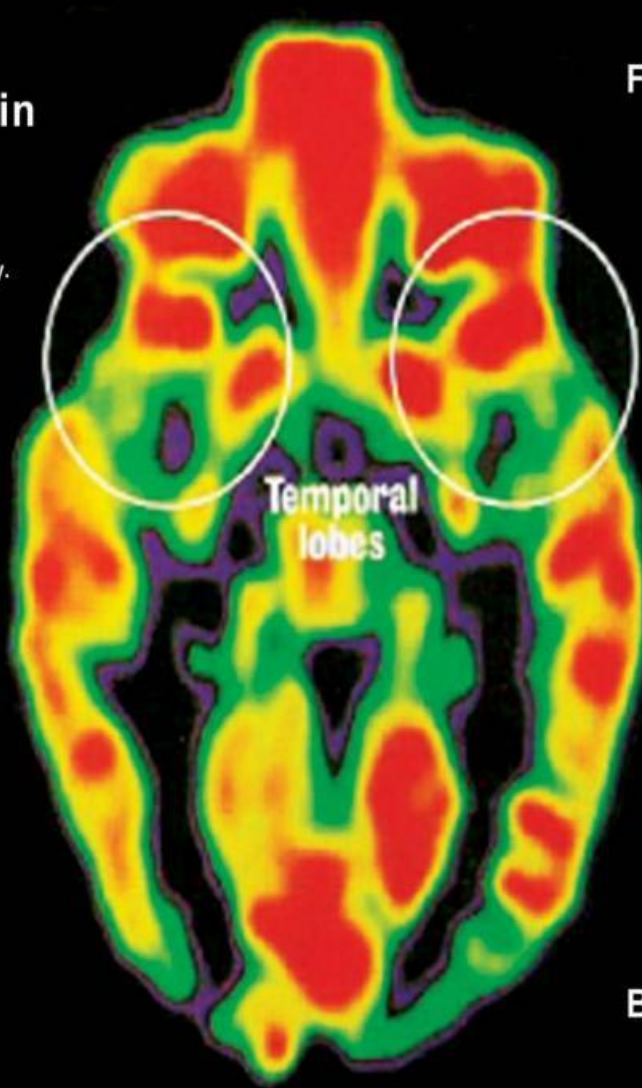
Hypothalamic Pituitary Adrenal axis (HPA)

1. Persistent activation of the (HPA) and the catecholamine stress system.

- Women with a history of childhood sexual abuse exhibit HPA-axis abnormalities comparable to that of adults with combat-related PTSD.
- Children with a history of sexual abuse show evidence of higher catecholamine functional activity, which manifests as physiological agitation.
- Characteristic changes in cerebral blood flow patterns, as well as characteristic alterations in regional activation of the brain.

Healthy Brain

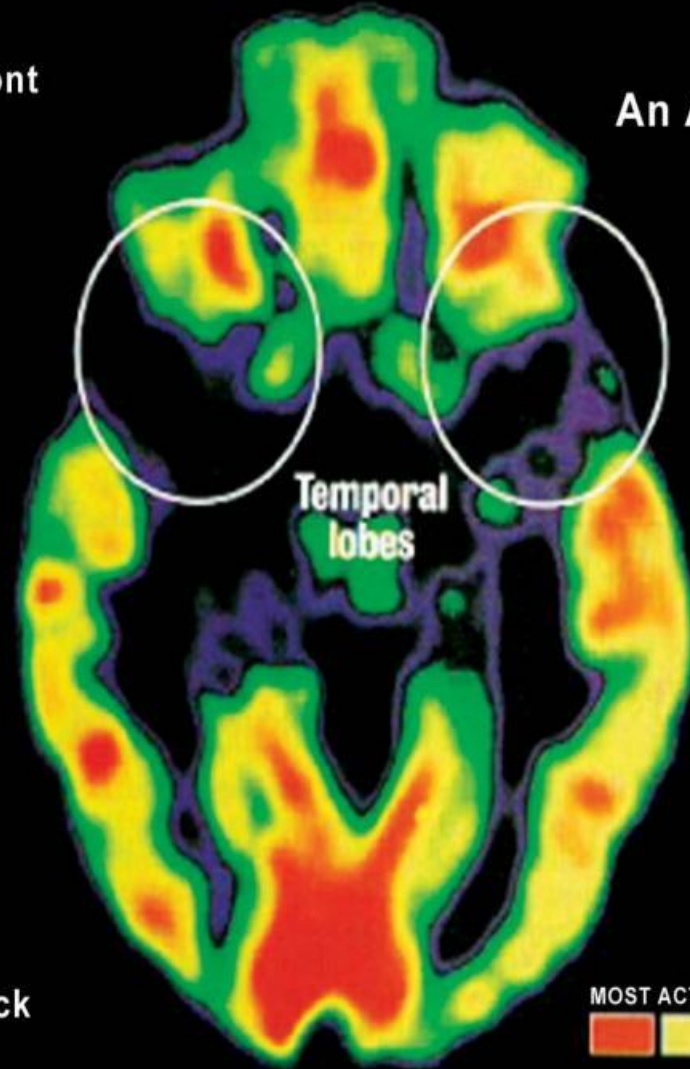
This PET scan of the brain of a normal child shows regions of high (red) and low (blue and black) activity. At birth, only primitive structures such as the brain stem (center) are fully functional; in regions like the temporal lobes (top), early childhood experiences wire the circuits.



Front

An Abused Brain

This PET scan of the brain of a Romanian Orphan, who was institutionalized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top), which regulate emotions and receive input from the senses, are nearly quiescent. Such children suffer emotional and cognitive problems.



Back



Positron emission tomography

Physical Health Consequences

Physical Health Consequences

1. Immediate physical effects can be **relatively minor** (bruises or cuts) or severe (broken bones, hemorrhage, or even death).
2. Usually the physical effects are **temporal**; but the pain and suffering are serious in abuse circumstances.
3. Child abuse and neglect can have a **multitude of long-term effects** on physical health.
4. NSCAW researchers found that, at some point during the 3 years following a maltreatment investigation: 28 percent of children had a chronic health condition.

Physical Health Consequences

Abusive head trauma

1. An inflicted injury to the head and its contents caused by shaking and blunt impact, is the most common cause of traumatic death for infants.
2. The injuries may not be immediately noticeable and may include bleeding in the eye or brain and damage to the spinal cord and neck.
3. Significant brain development takes place during infancy, and this important development is compromised in maltreated children.
4. One in every four victims of shaken baby syndrome dies, and nearly all victims experience serious health consequences (CDC, n.d.).

Physical Health Consequences

Impaired brain development

1. Important regions of the brain to fail to form or grow properly, resulting in impaired development.
2. These alterations in brain maturation have long-term consequences for **cognitive**, **language**, and **academic** abilities and are connected with **mental health disorders** (Tarullo, 2012).
3. Disrupted neurodevelopment cause children to **adopt a persistent fear** state as well as attributes that are normally helpful during threatening moments but counterproductive in the absence of threats, such as hypervigilance, anxiety, and behavior impulsivity (Perry, 2012).

Physical Health Consequences

Impaired brain development.

Child Welfare Information Gateway has produced two publications on the impact of maltreatment on brain development.

Supporting Brain Development in Traumatized Children and Youth:

<https://www.childwelfare.gov/pubPDFs/braindevtrauma.pdf>

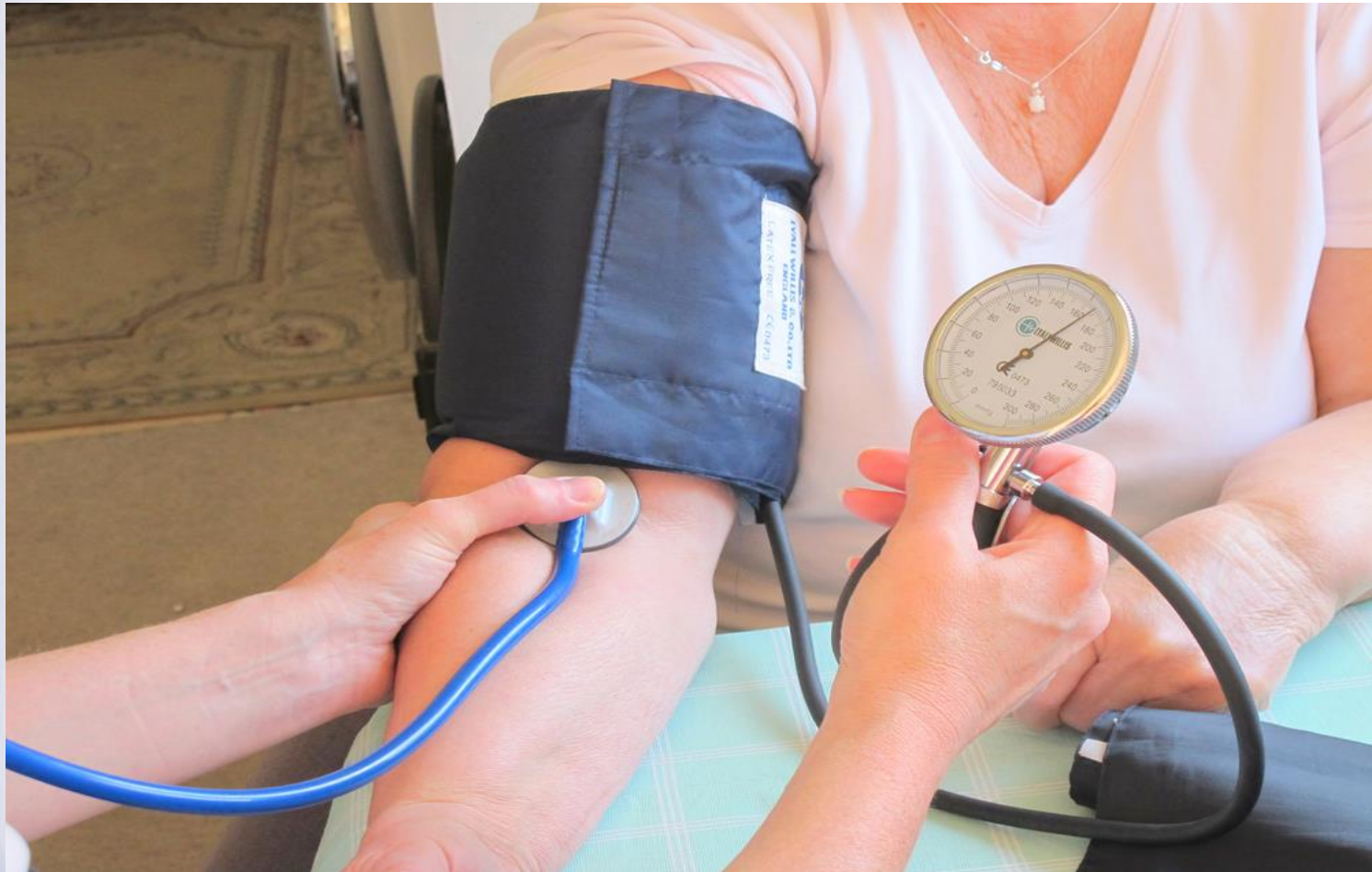
Understanding the Effects of Maltreatment on Brain Development:

https://www.childwelfare.gov/pubPDFs/brain_development.pdf

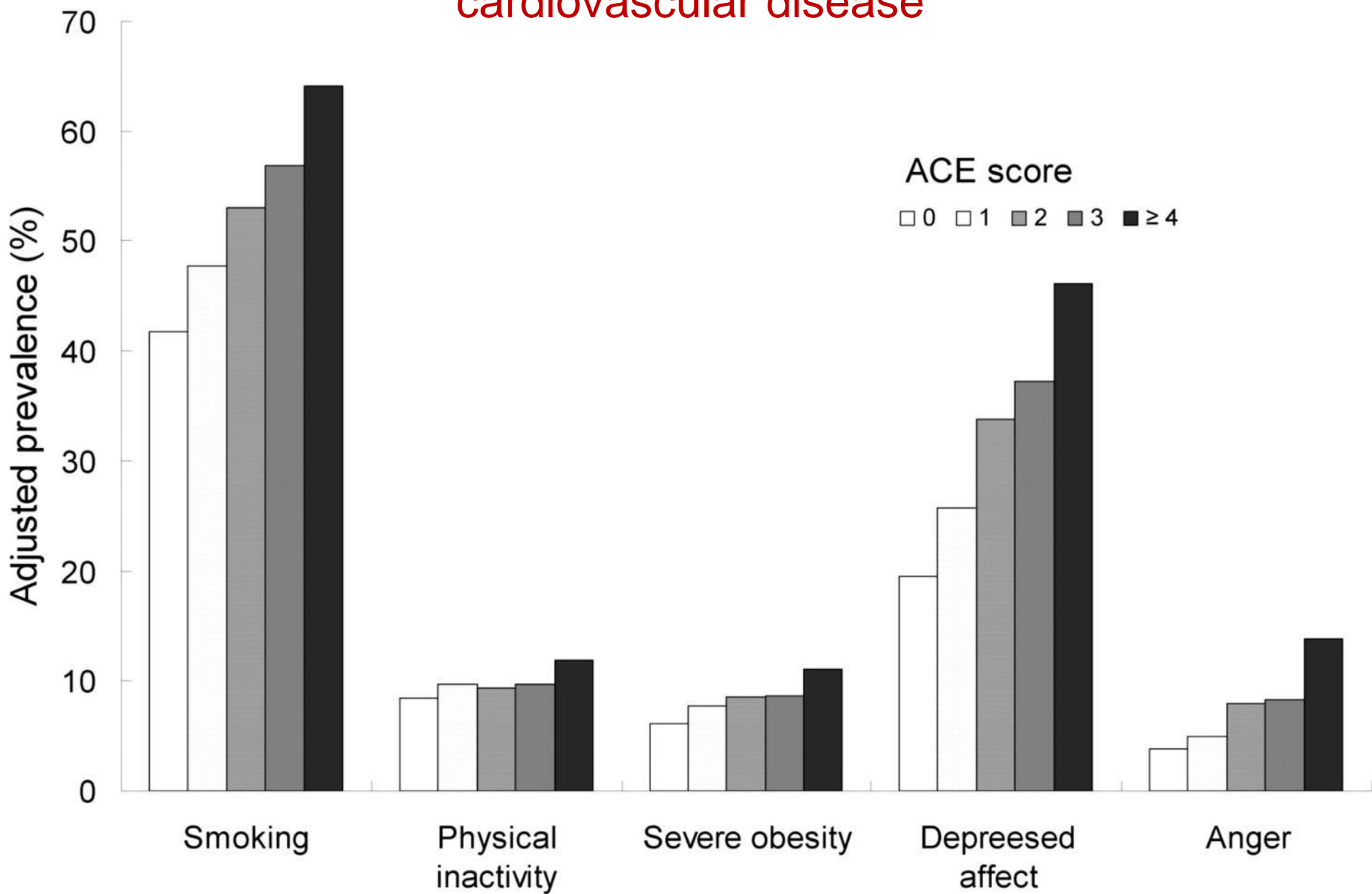
Physical Health Consequences

Poor Physical Health.

1. Adults who experienced abuse or neglect during childhood are more likely to suffer from **cardiovascular disease**, **lung and liver disease**, **hypertension**, **diabetes**, **asthma**, and obesity (Felitti & Anda, 2009).



cardiovascular disease



Physical Health Consequences

Poor Physical Health.

1. Adults who experienced abuse or neglect during childhood are more likely to suffer from cardiovascular disease, lung and liver disease, hypertension, diabetes, asthma, and obesity (Felitti & Anda, 2009).
2. One study showed that children who experienced neglect were at increased risk for **diabetes** and **poorer lung functioning**, Physical abuse was shown to increase the risk for diabetes and malnutrition (Widom, Czaja, Bentley, & Johnson, 2012).
3. Child maltreatment has been shown to **increase adolescent obesity**. A longitudinal study found that children who experienced neglect had body mass indexes that grew at significantly faster rates compared to children who had not experienced neglect (Shin & Miller, 2012).

Psychological Consequences

Psychological Consequences

Immediate emotional effects of abuse and neglect:

- 1) Isolation, fear, and an inability to trust
- 2) This will translate into lifelong psychological consequences, including
 - low self-esteem
 - Depression
 - relationship difficulties.
- 3) Researchers have identified links between child abuse and neglect and the following:
 - Difficulties during infancy
 - Poor mental and emotional health
 - Cognitive difficulties
 - Social difficulties.

Psychological Consequences

Difficulties during infancy.

1. Of children entering child protection services in 2010, 16 percent were younger than 1 year. Primary caregiver change negatively affects their attachments (ACF/OPRE, 2012a).
2. Nearly half of abused infants in child protection services exhibit some form of **cognitive delay** and **have lower IQ scores**, **language difficulties**, and **neonatal challenges** compared to children who have not been abused or neglected (ZERO TO THREE, 2011).

Psychological Consequences

Poor mental and emotional health.

1. Experiencing childhood trauma and adversity, such as physical or sexual abuse, is a risk factor for:
 - **Borderline personality disorder**
 - **Depression**
 - **Anxiety,**
 - **Other psychiatric disorders.**
2. ACE data found that roughly 54 percent of cases of **depression** and 58 percent of **suicide** attempts in women were connected to adverse childhood experiences (Felitti & Anda, 2009).
3. Child maltreatment also negatively impacts the development of **emotion regulation**, which often persists into adolescence or adulthood (Messman-Morre, Walsh, & DiLillo, 2010).

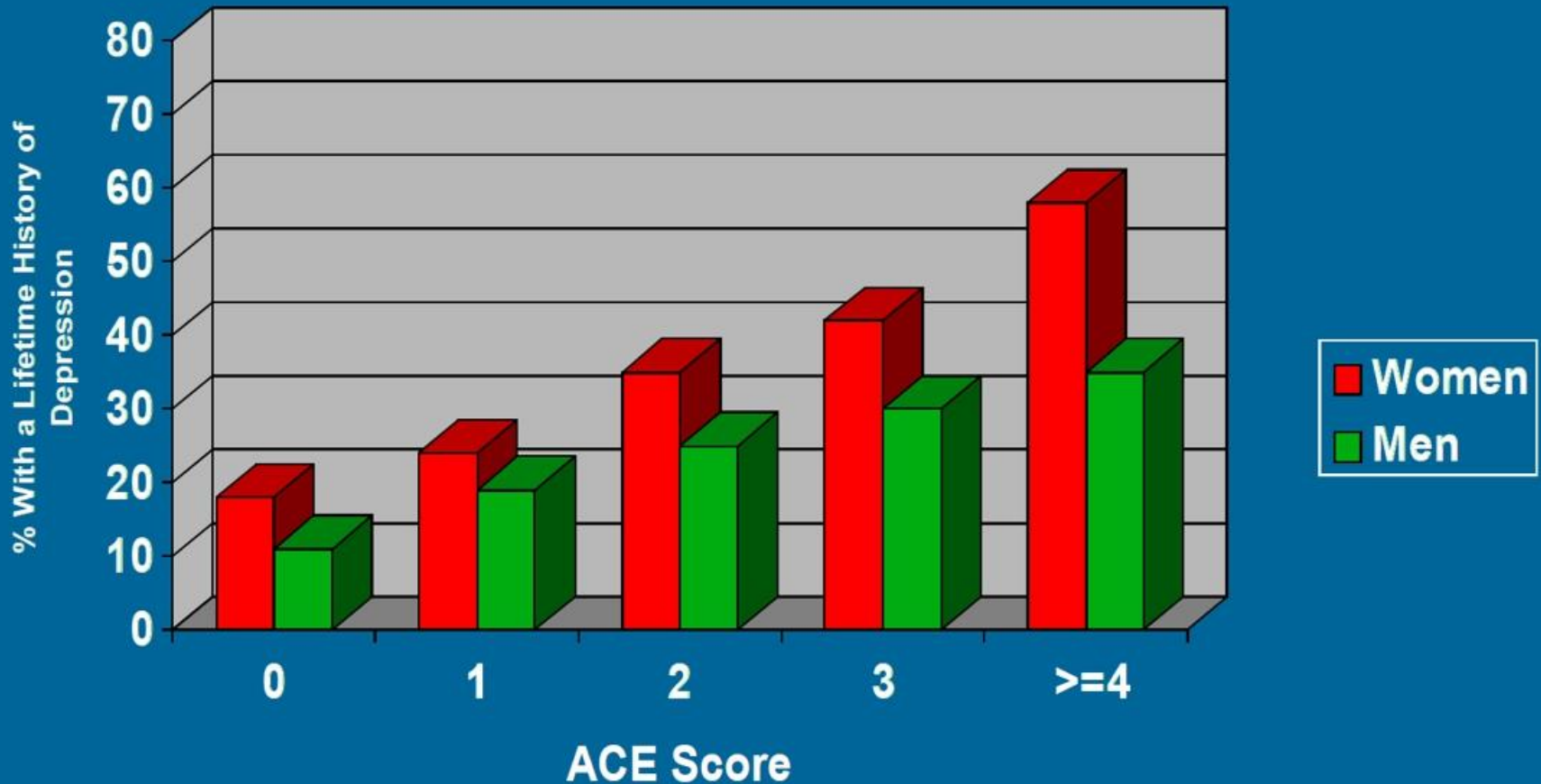




Depression
Most say depression is a disease.
Many say depression is genetic.
Some say it is due to a chemical imbalance.

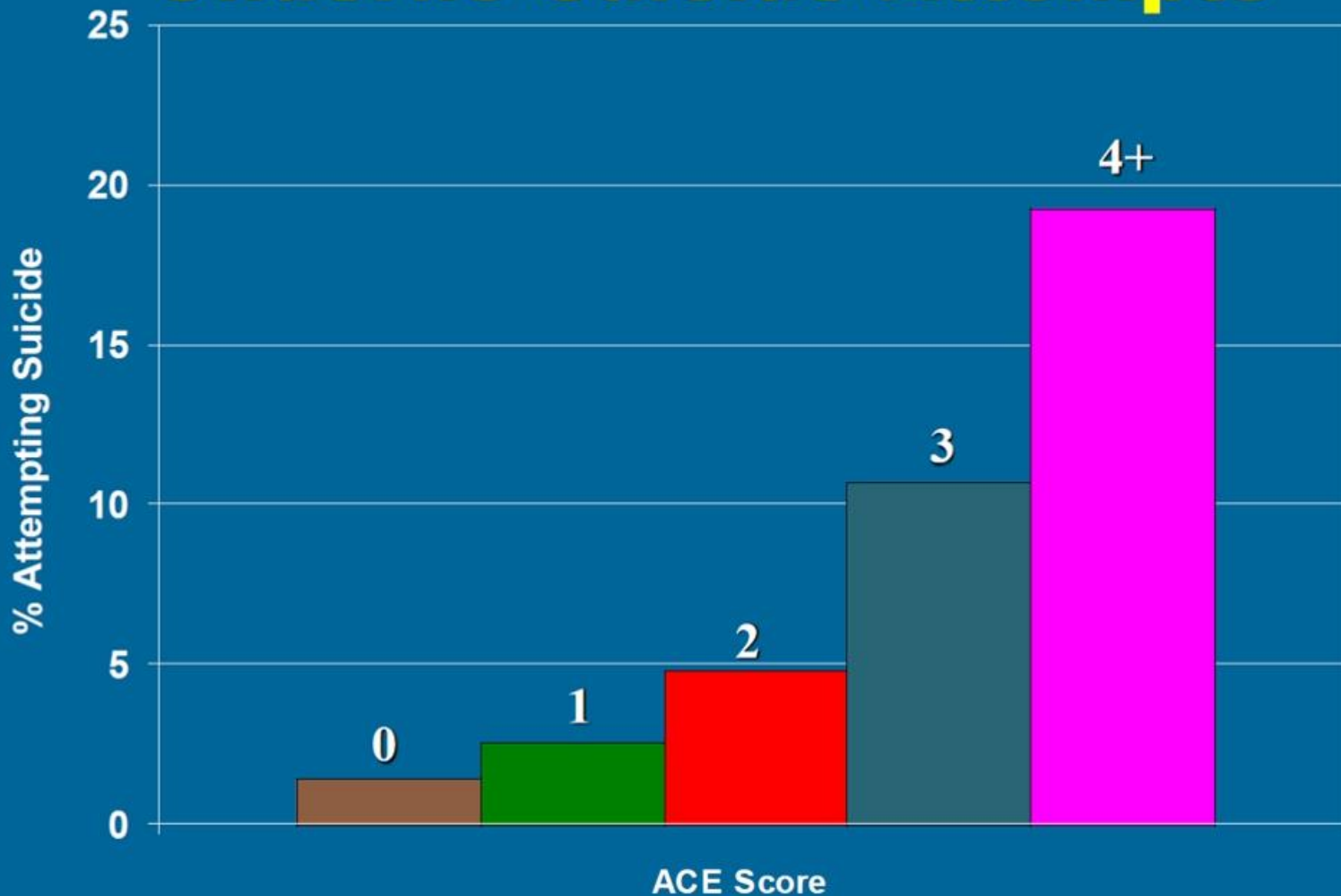
Poor Mental and Emotional Health

Childhood Experiences Underlie Chronic Depression



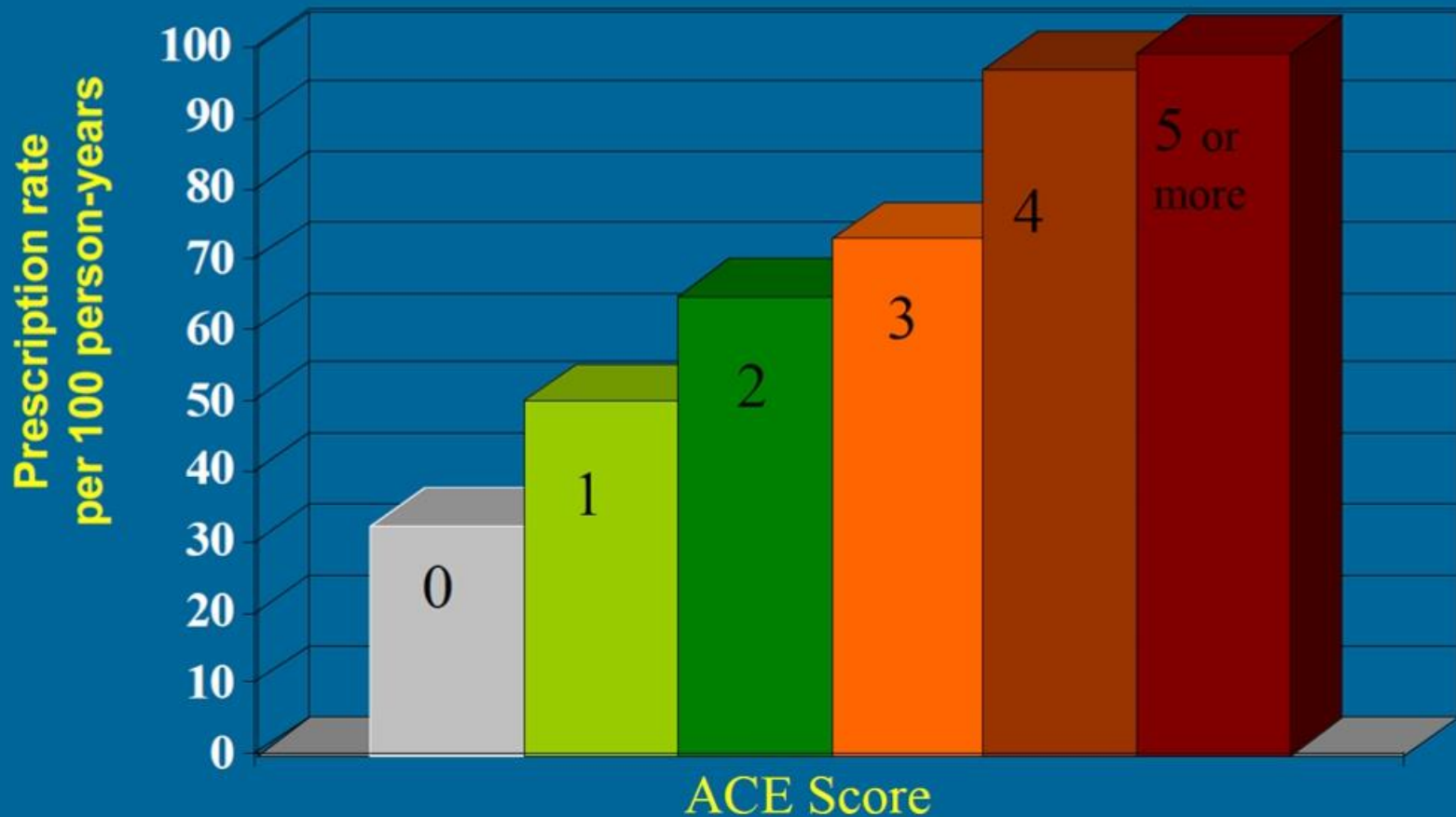


Childhood Experiences Underlie Suicide Attempts



ACE Score and Rates of Antidepressant Prescriptions

approximately 50 years later



Psychological Consequences

Cognitive difficulties

1. NSCAW researchers found that children with substantiated reports of maltreatment were at risk for **severe developmental and cognitive problems, including grade repetition** (ACF/OPRE, 2012b).

2. (NSCAW II),
 - a. more than 10 percent of school-aged children and youth showed some risk of cognitive problems or low academic achievement
 - b. 43 percent had emotional or behavioral problems
 - c. 13 percent had both (ACF/OPRE, 2011).

Psychological Consequences

Social difficulties

1. Children who experience neglect are more likely to develop **antisocial traits** as they grow up.
2. Parental neglect is associated with: (Perry, 2012).
 - **borderline personality disorders,**
 - **attachment issues or affectionate behaviors with unknown/little-known people**
 - **inappropriate modeling of adult behavior,**
 - **aggression**

Behavioral Consequences

Behavioral Consequences

1. Not all victims of child abuse and neglect will experience behavioral consequences. However, behavioral problems appear to be more likely among this group.
2. NSCAW, more than half of youth reported for maltreatment are at risk for an **emotional or behavioral problem** (ACF/OPRE, 2012b). Child abuse and neglect appear to make the following more likely:
 - **Difficulties during adolescence.**
 - **Juvenile delinquency and adult criminality**
 - **Alcohol and other drug abuse**
 - **Abusive behavior**

Behavioral Consequences

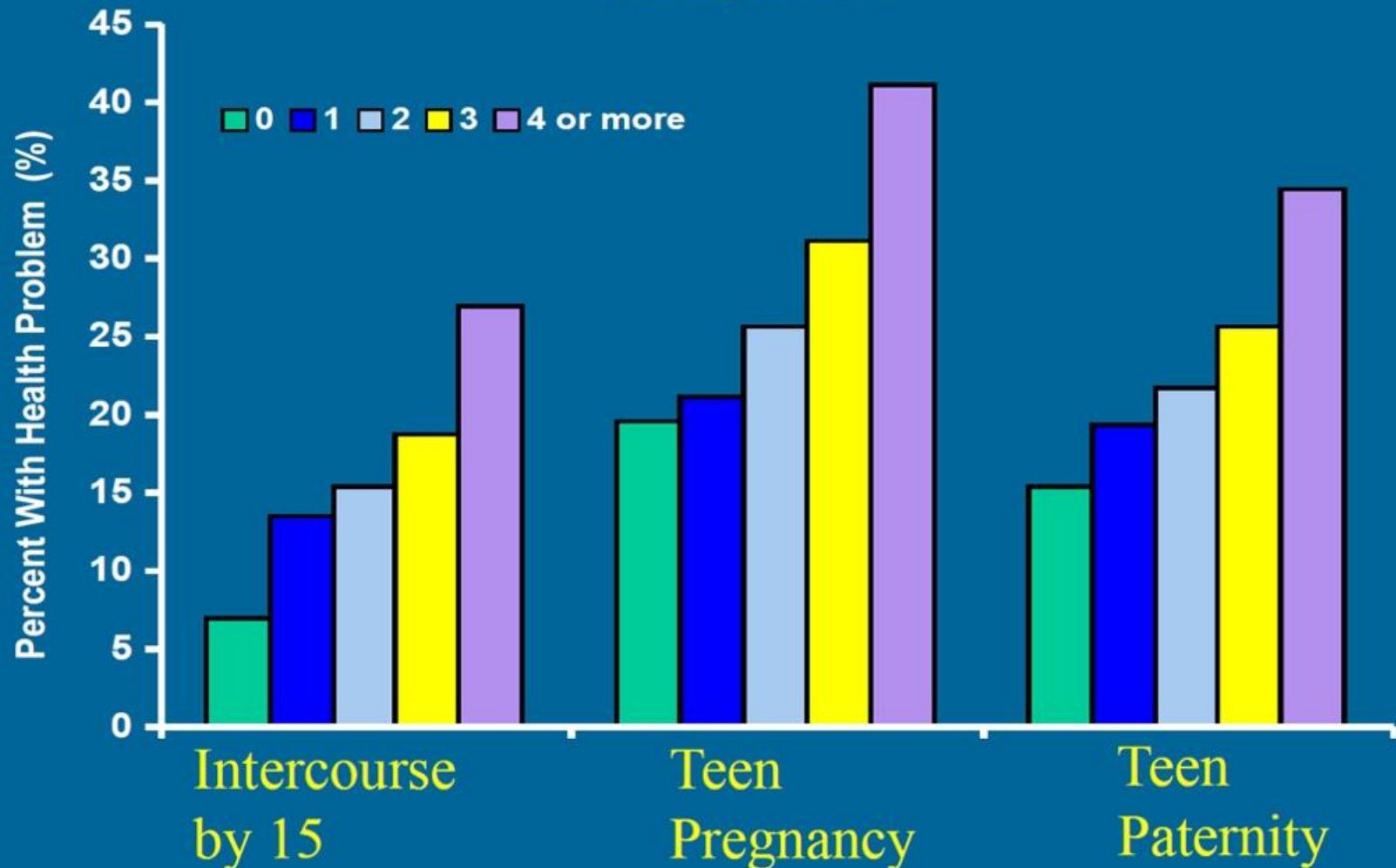
Difficulties during adolescence.

1. NSCAW: more than half of youth with reports of maltreatment are at risk of **grade repetition**, **substance abuse**, **delinquency**, **truancy**, or **pregnancy** (ACF/ OPRE, 2012b).
2. Abused or neglected children are more likely to engage in **sexual risk-taking**, thereby increasing their chances of contracting a **sexually transmitted disease**.
3. Victims of child sexual abuse also are at a **higher risk for rape** in adulthood, and the rate of risk increases according to the severity of the child sexual abuse experience(s) (Felitti & Anda, 2009; Messman-Morre, Walsh, & DiLillo, 2010)



ACE Score and Teen Sexual Behaviors

Looking for love





Childhood Experiences Underlie Later Being Raped



Behavioral Consequences

Juvenile delinquency and adult criminality

1. Several studies have documented the correlation between child abuse and future juvenile delinquency.
2. Children who have experienced abuse are **nine times more likely to become involved in criminal activities** (Gold, Wolan Sullivan, & Lewis, 2011).

Conclusions: Abusive parenting impacts delinquency directly and indirectly through the effects of shame that is converted. Abusive parenting leads to the conversion of shame to blaming others, which in turn leads to violent delinquent behavior



Behavioral Consequences

Alcohol and other drug abuse

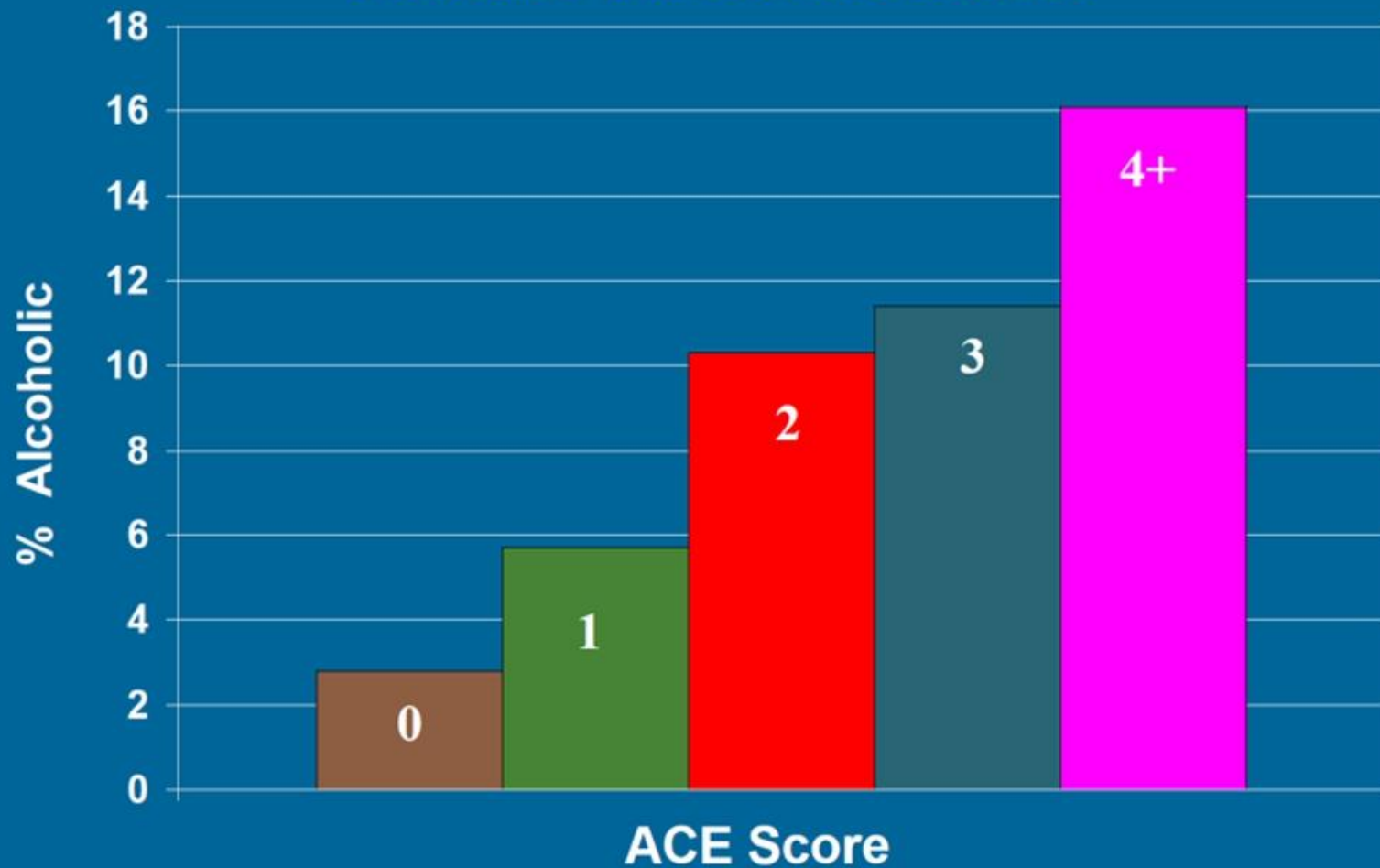
1. Research consistently reflects an increased likelihood that children who have experienced abuse or neglect **will smoke cigarettes, abuse alcohol, or take illicit drugs** during their lifetime.
2. In fact, male children with an ACE Score of 6 or more (having six or more adverse childhood experiences) had an **increased likelihood—of more than 4,000 percent—to use intravenous drugs** later in life (Felitti & Anda, 2009).

Adverse Childhood Experiences vs. Smoking as an Adult



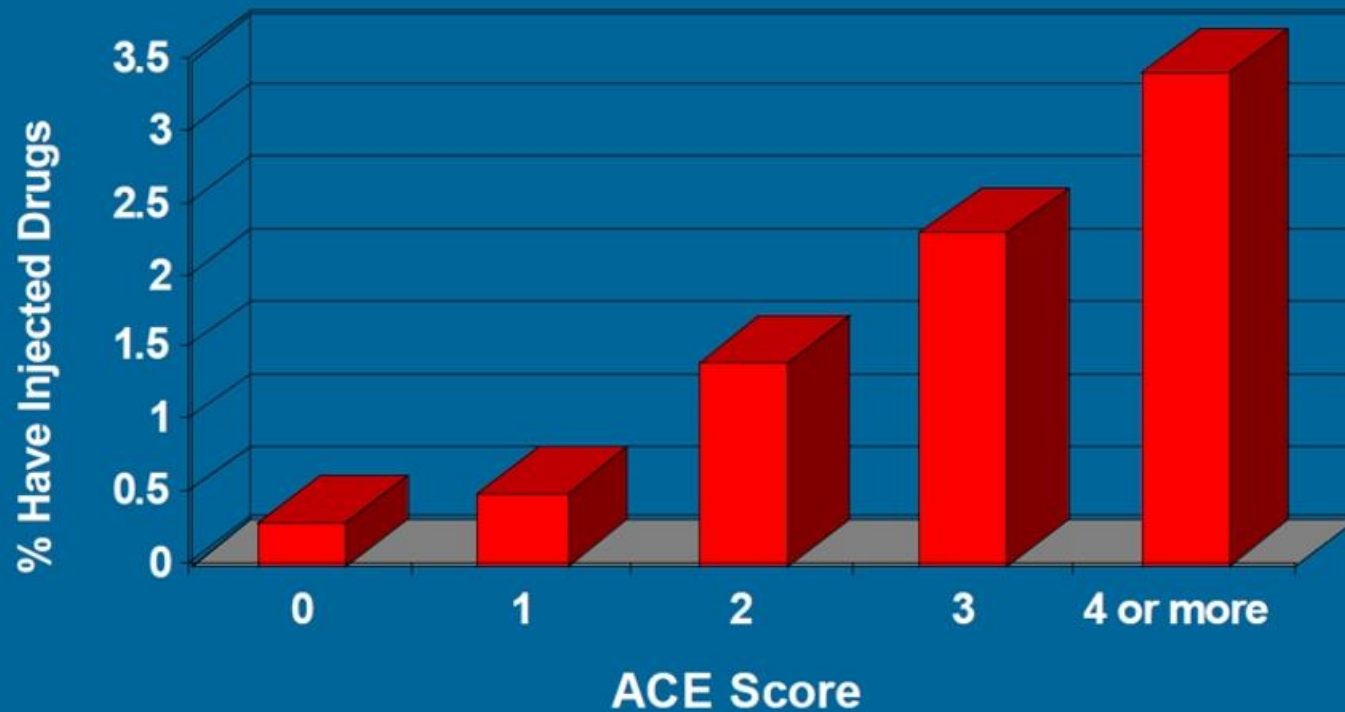


Childhood Experiences vs. Adult Alcoholism





ACE Score vs Injection Drug Use



$p < 0.001$

Behavioral Consequences

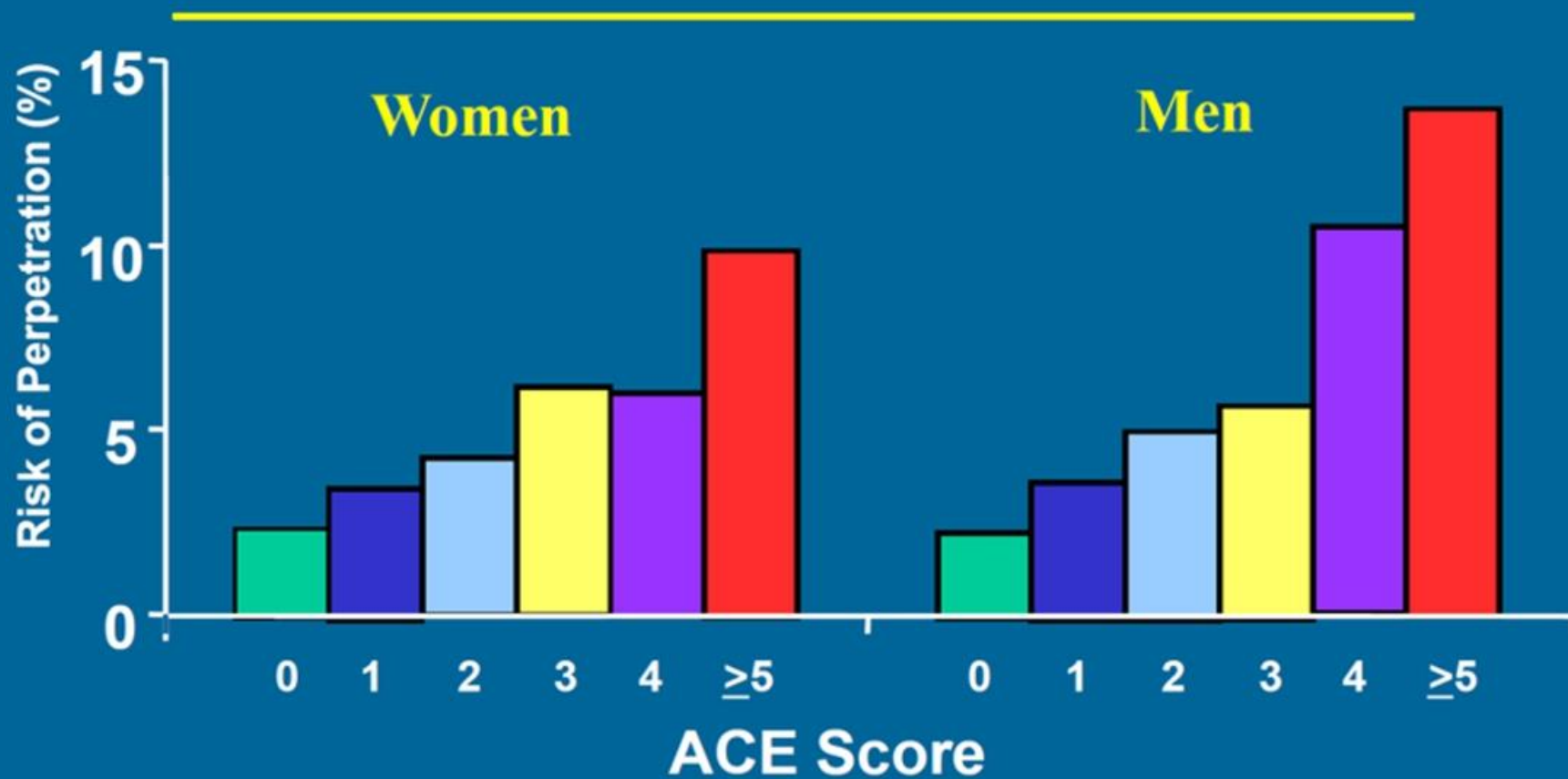
Abusive behavior

1. Abusive parents often have experienced abuse during their own childhoods.
2. Longitudinal Study of Adolescent Health showed:
 - Girls who experienced childhood physical abuse were 1–7 percent more likely to become perpetrators of youth violence and 8–10 percent more likely to be perpetrators of interpersonal violence (IPV).
 - Boys who experienced childhood sexual violence were 3–12 percent more likely to commit youth violence and 1–17 percent more likely to commit IPV (Xiangming & Corso, 2007).





ACE Score and the Risk of *Perpetrating* Domestic Violence



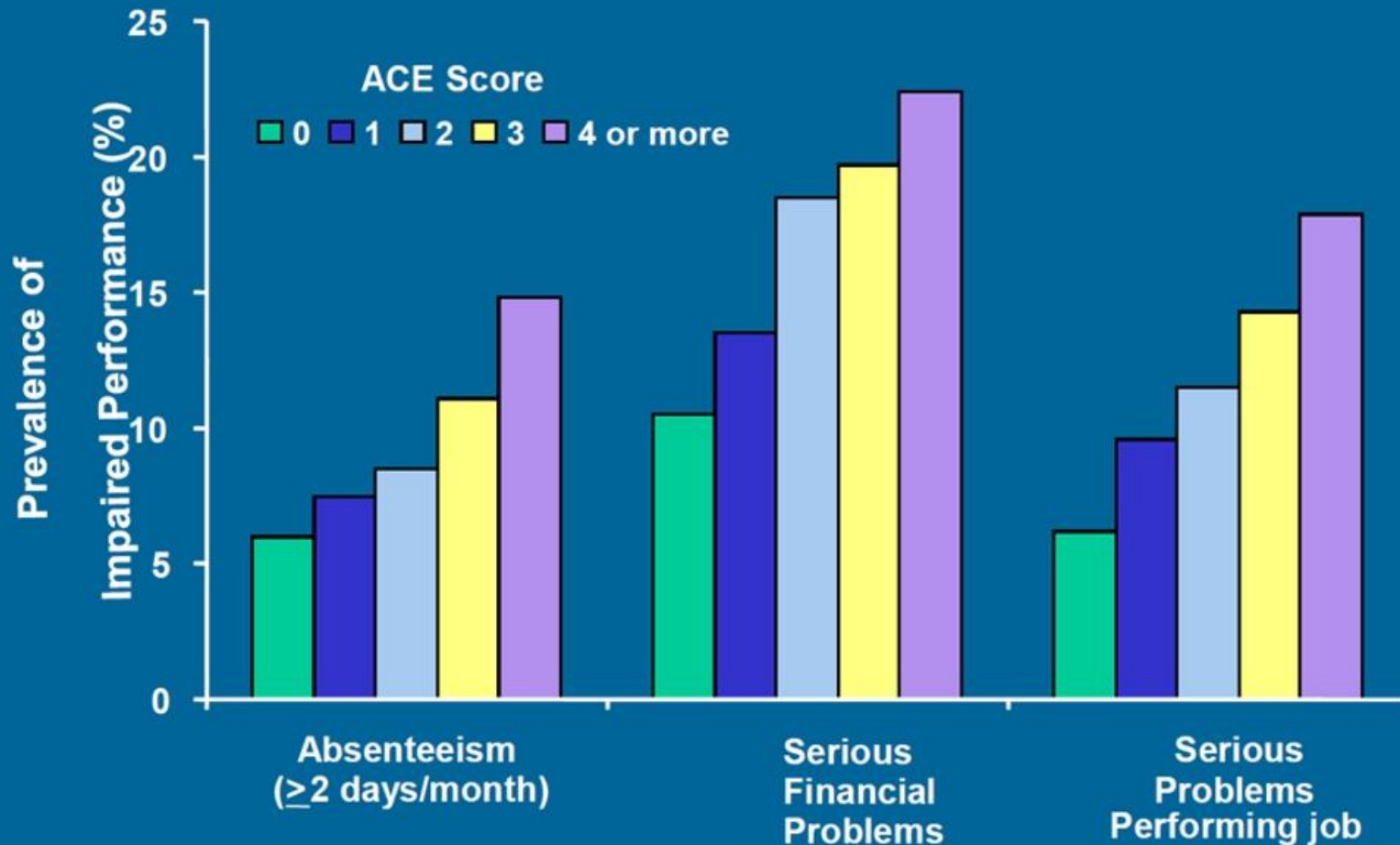
Societal Consequences

Societal Consequences

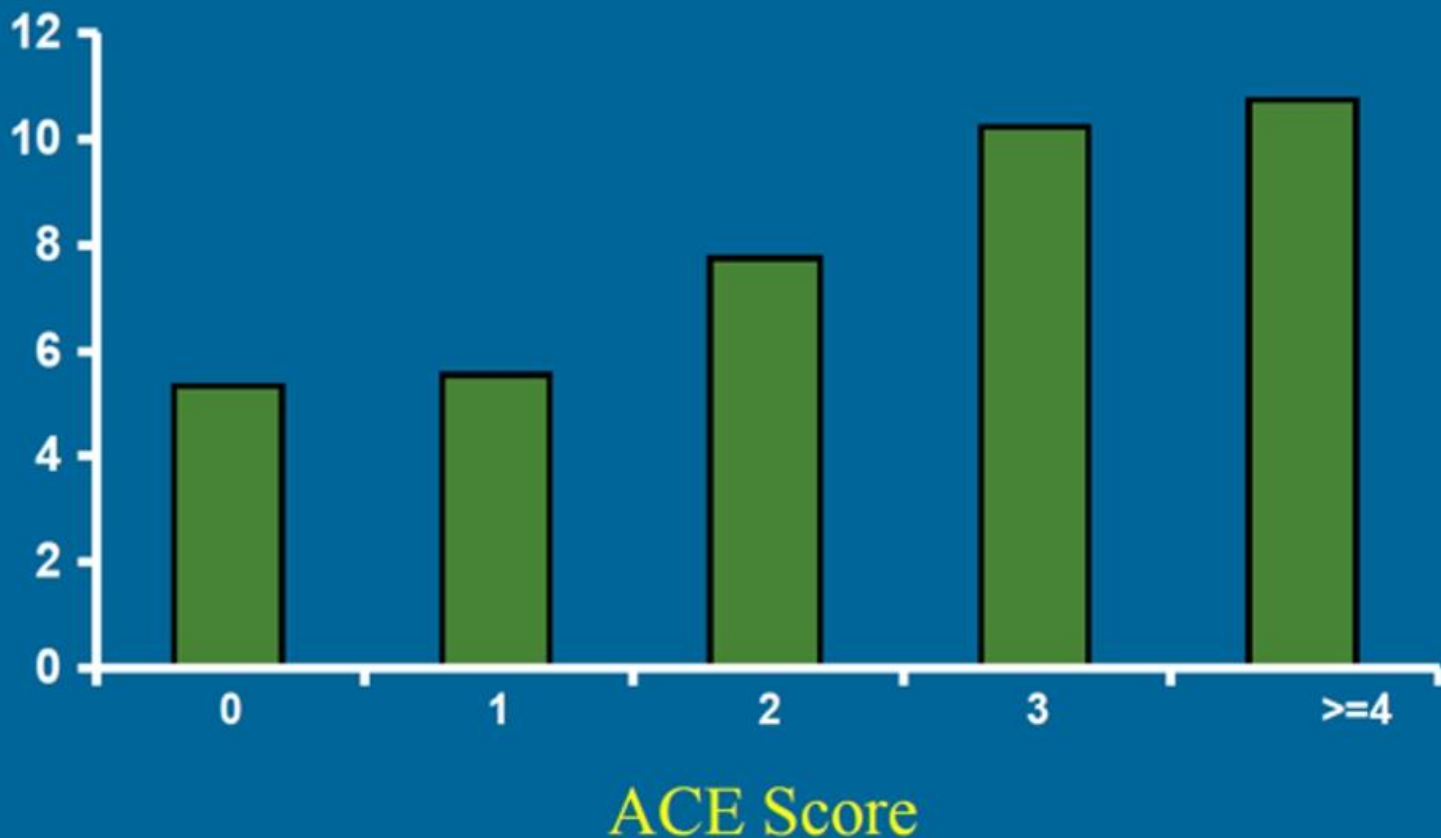
Direct costs.

1. The lifetime cost of child maltreatment and related fatalities in 1 year totals **\$124 billion**, according to a study funded by the CDC.
2. Child maltreatment is more costly on an annual basis than the two leading health concerns, **stroke** and **type 2 diabetes** (Xiangming, Brown, Florence, & Mercy, 2012).
3. Programs that **prevent maltreatment** have shown to be cost effective. The U.S. Triple P System Trial, funded by the CDC, has a benefit/cost ratio of **\$47** in benefits to society for every **\$1** in program costs (Mercy, Saul, Turner, & McCarthy, 2011).

ACE Score and Indicators of Impaired Worker Performance



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



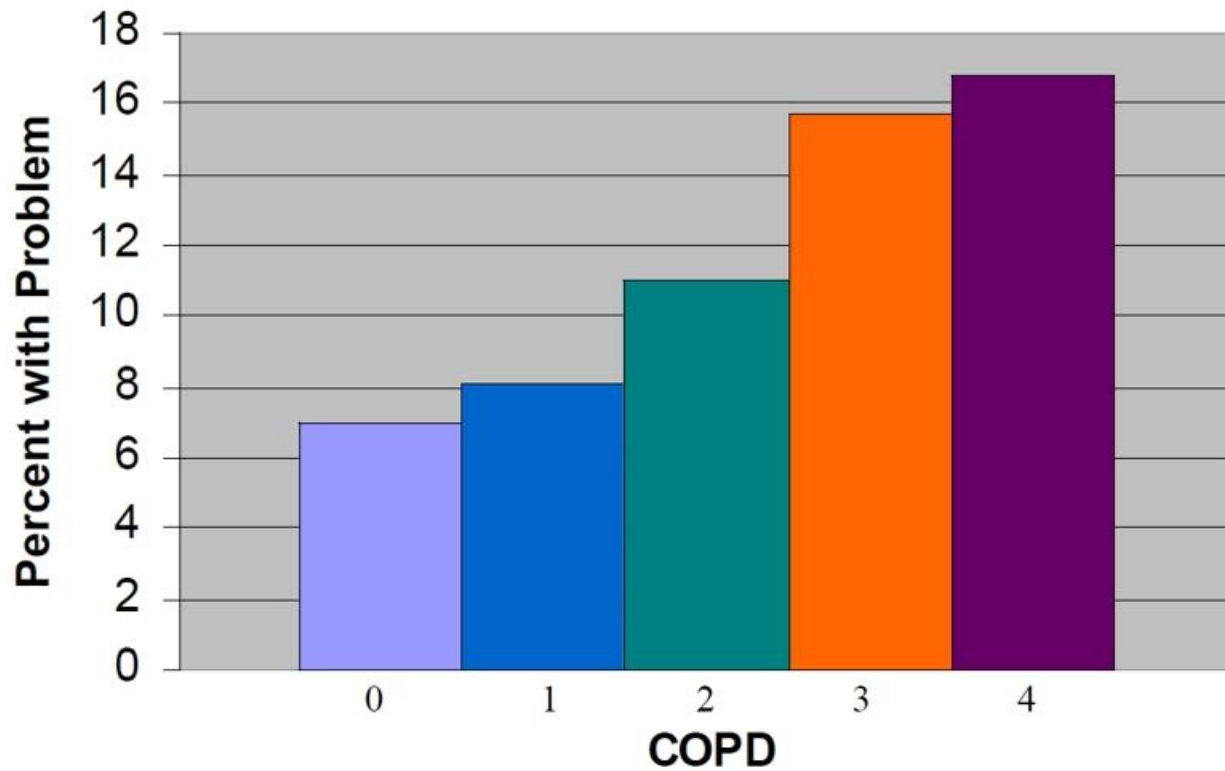
ACEs Increase Likelihood of Heart Disease*

- 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



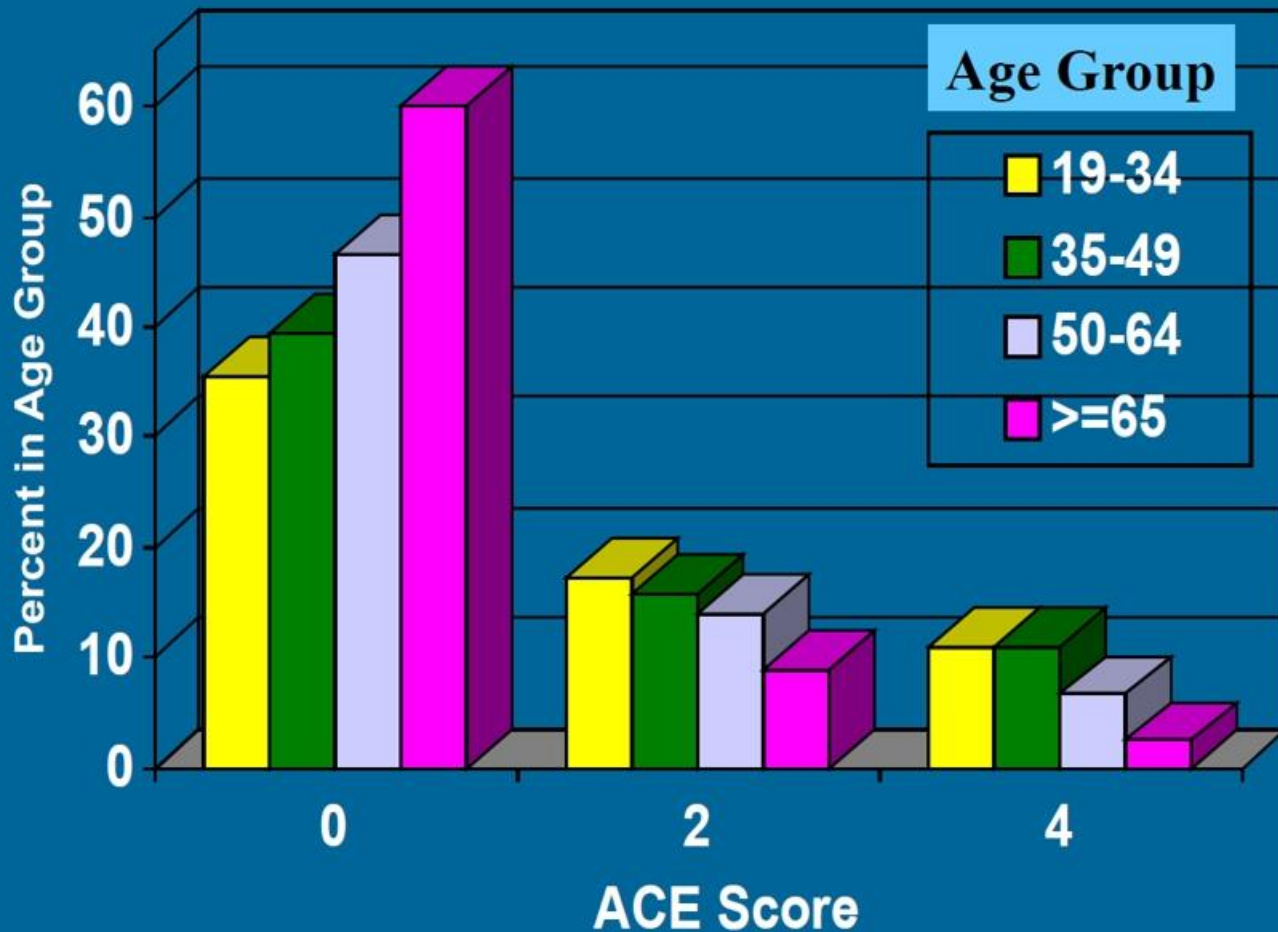
*After correction for age, race, education, and conventional risk factors like smoking and diabetes. *Circulation*, Sept 2004.

ACE Score vs. COPD





Effect of ACEs on Death Rate

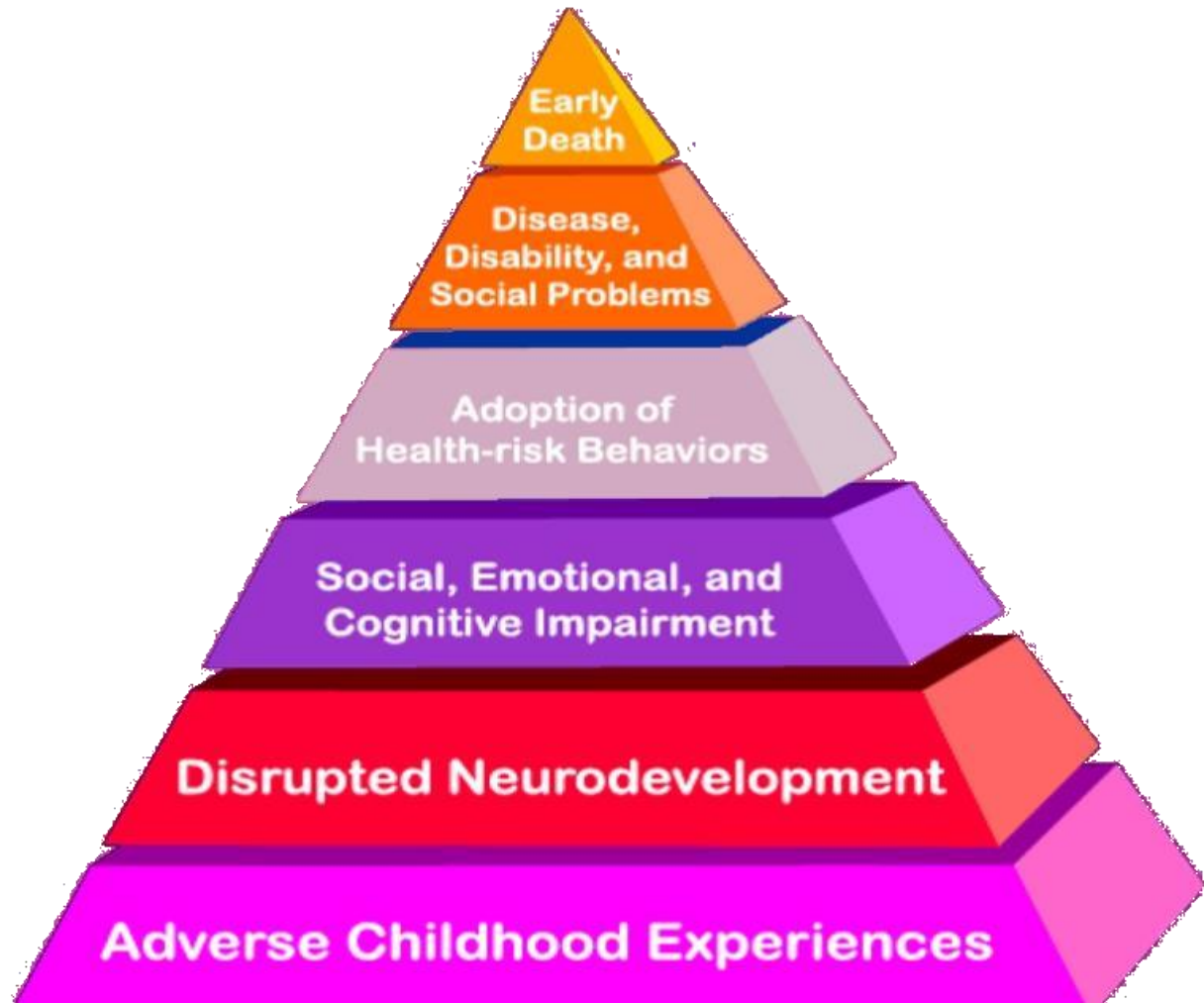
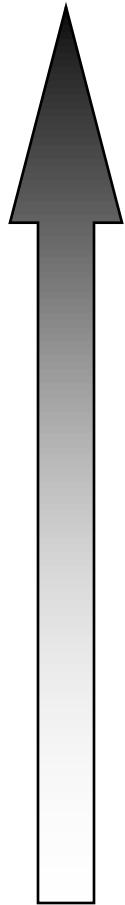


Societal Consequences

Indirect costs.

1. Long-term economic consequences to society. costs associated with increased use of our health-care system, juvenile and adult criminal activity, mental illness, substance abuse, and domestic violence.
2. Prevent Child Abuse America estimates that child abuse and neglect prevention strategies can save taxpayers \$104 billion each year.
3. One study found that all eight categories of adverse childhood experiences were associated with an increased likelihood of employment problems, financial problems, and absenteeism (Anda et al., 2004). The authors assert that these long-term costs—to the workforce and to society—are preventable.

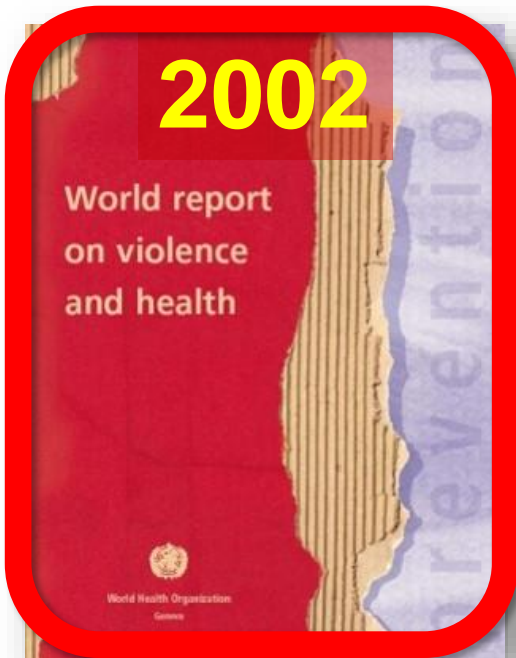
Death



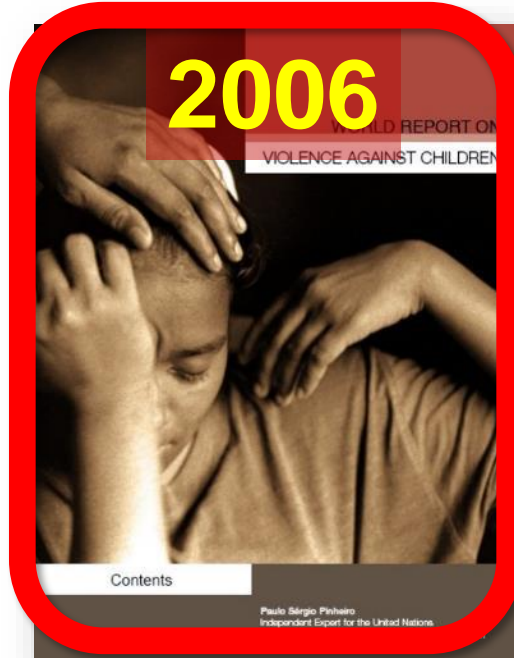
Conception

Mechanism by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the lifespan

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.



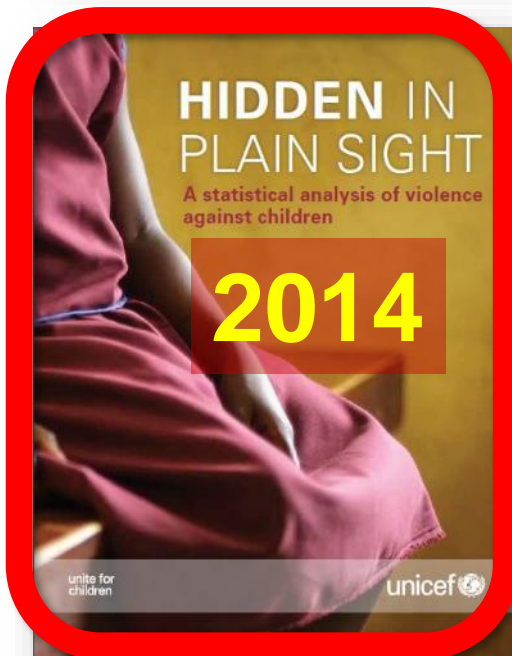
2002



2006



2013



2014



2014



2015

- Strategy 1 Supporting parents, caregivers and families**
Educating families, caregivers and parents on their child's early development increases the likelihood that they will use positive disciplining methods. This reduces the risk of violence within the home.
- Strategy 2 Helping children and adolescents manage risks and challenges**
Giving children and adolescents the skills to cope and manage risks and challenges without the use of violence and to seek appropriate support when violence does occur is crucial for reducing violence in schools and communities
- Strategy 3 Changing attitudes and social norms that encourage violence and discrimination**
Changing the attitudes and social norms that hide violence in plain sight is the surest way to prevent violence from occurring in the first place
- Strategy 4 Promoting and providing support services for children**
Encouraging children to seek quality professional support and report incidents of violence helps them to better cope with and resolve experiences of violence.
- Strategy 5 Implementing laws and policies that protect children**
Implementing and enforcing laws and policies that protect children sends a strong message to society that violence is unacceptable and will be punished.
- Strategy 6 Carrying out data collection and research**
Knowing about violence – where it occurs, in what forms, and which age groups and communities of children are most affected – is essential to planning and designing intervention strategies, and setting numerical and time-bound targets to monitor progress and end violence.