

# **Trends in Adolescent Health in the United States--2008**

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Prepared for:

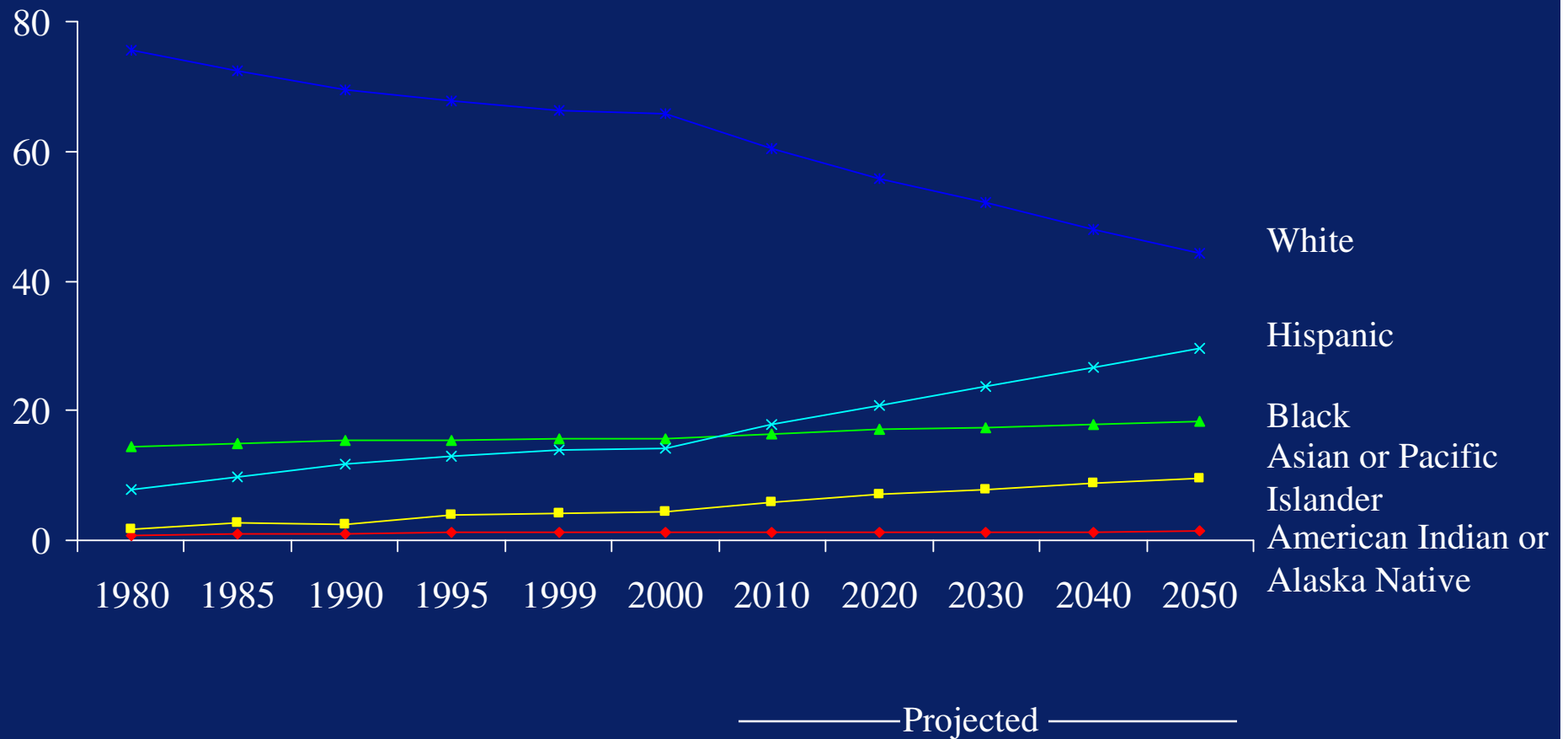
National Academy of Sciences

20-21 November 2008

# Demographic Trends

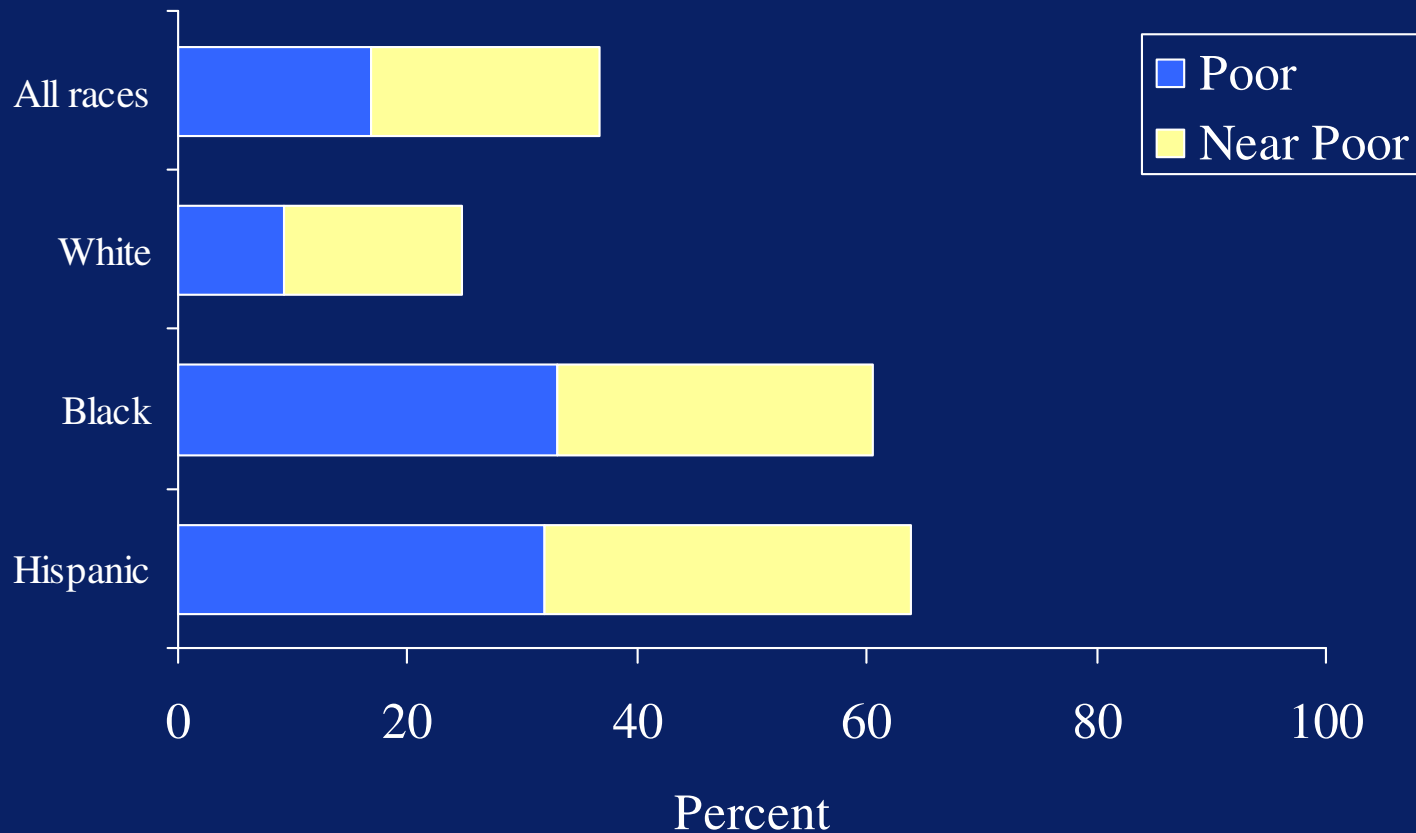
In the United States,  
youth 15-24 years of age represent  
13.9% of the population.

# Ethnicity of United States Adolescents 1980-2050

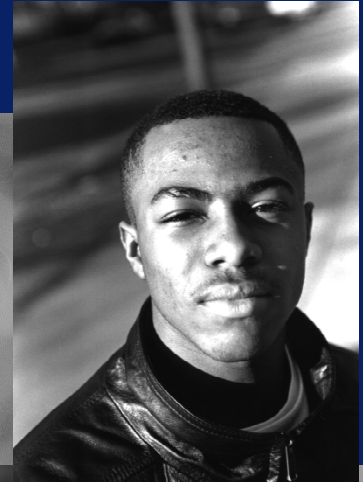
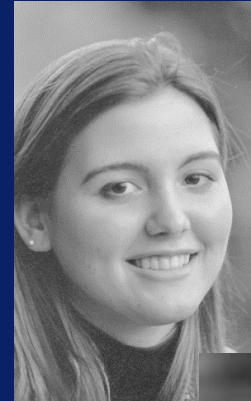


# Poverty by Race/Ethnicity Among Adolescents 10-17 Years of Age: United States, 2003

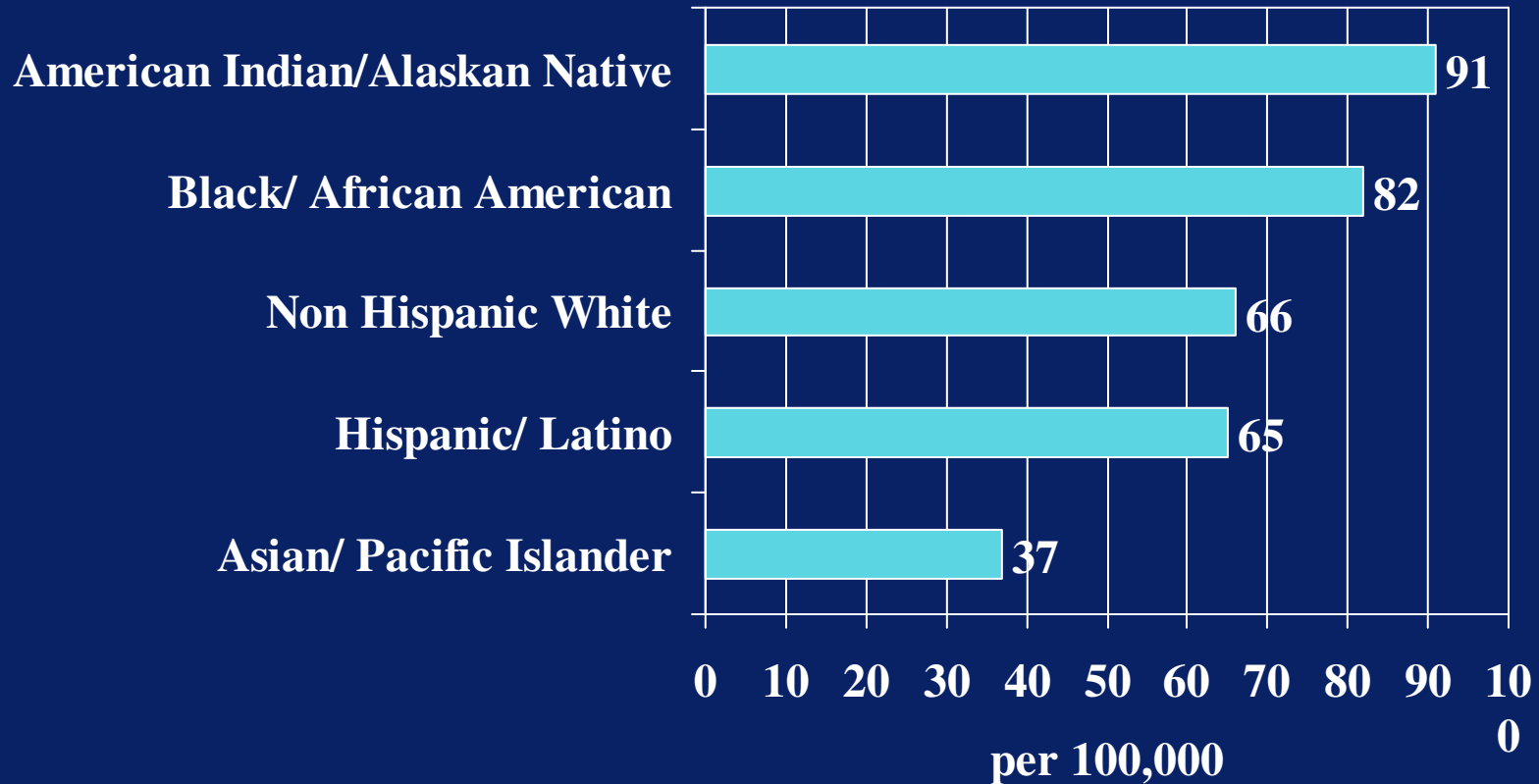
All adolescents



# Mortality in Adolescence



# Teen Death Rates (2002-3) (per 100,000 ages 15-19)



**Seventy-five percent of all deaths in the second decade are from injuries — vehicular injuries, homicide, suicide**

- u 47% at age 10
- u 81% at age 18

**While motor vehicle deaths are the primary cause of teen deaths, mortality fell 38% between 1988-1992 and the rates have never returned to pre-88 levels.**

# Youth Violence

The United States has a higher firearm mortality rate among children and youth than the other 25 industrialized nations of the world combined.

# Victims of Violence

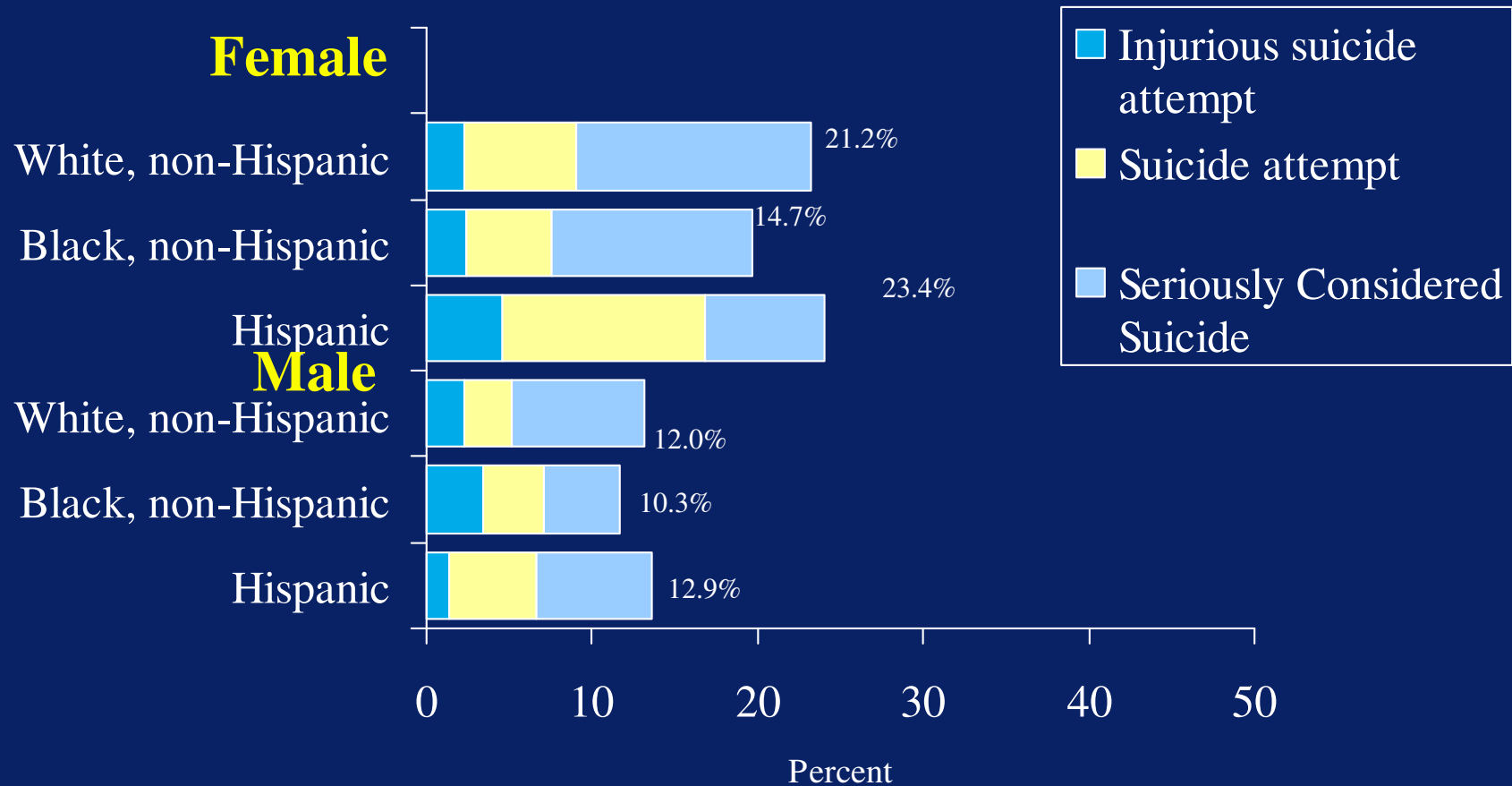
- u 3.4 million teens are victims annually.
- u This represents a 50% decline between 1993 and 2005.
- u Weapon carrying has declined by almost half.  
In 2005, 6.5% of students reported carrying a gun to school in the preceding 30 days, compared to 11.8% in 1993.
- u Trend unknown for students who have ever been physically forced to have sexual intercourse when they did not want to:  
In 2005, 4.2% of males and 10.8% of females, according to YRBS.

# Suicide

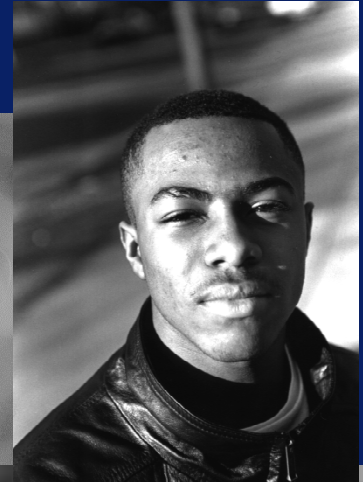
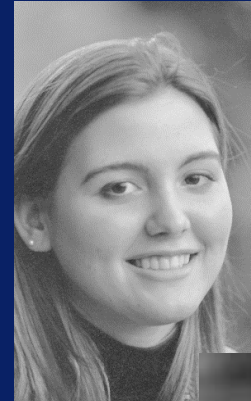
- u One third of all firearm deaths are self-inflicted;
- u According to the YRBS, in 2005, 16.9% of youth contemplated suicide and 13.0% said that they made a suicide plan (a decline of 3.5% since 2003).

# Suicidal Ideation Among Students in Grades 9-12 by Sex, Race/Ethnicity, 2003

(2005 does not disaggregate sex and race)



# Morbidity in Adolescence



# Trends in Adolescent Substance Abuse 2001-2005 (8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders combined)

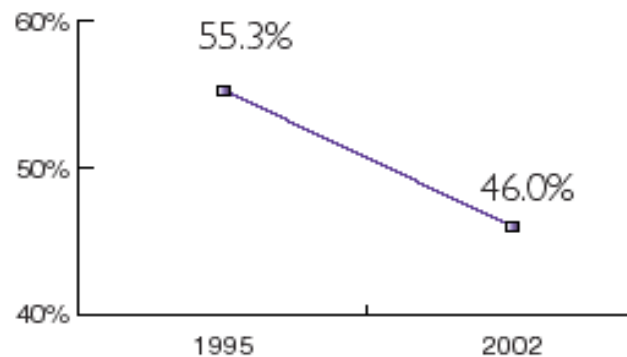
- \_ 19% decline in illicit substance use in past month (15.8% vs. 19.4%)
- \_ ETOH use down
- \_ Smoking at lowest point since MTF started.  
Daily smoking among 12<sup>th</sup> graders 14%  
(24% in 1997)
- \_ Prescription drug use high (oxycontin increased from 4% in 2002 to 5.5% in 2005 and vicodin at about 9.5%)

# Sexual Intercourse

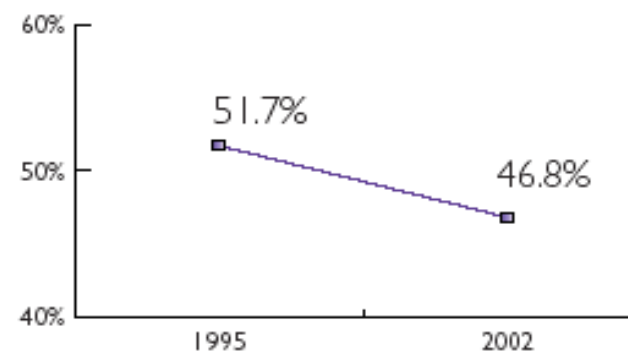
Until 2007 there has been a decline in the percent of teens reporting having had sexual intercourse. For the past 2 years that trend appears to have reversed.

Decline in Teen Sexual Experience,  
(aged 15-19), 1995-2002

Boys:



Girls:



Source: National Campaign analysis of the 2002 National Survey of Family Growth

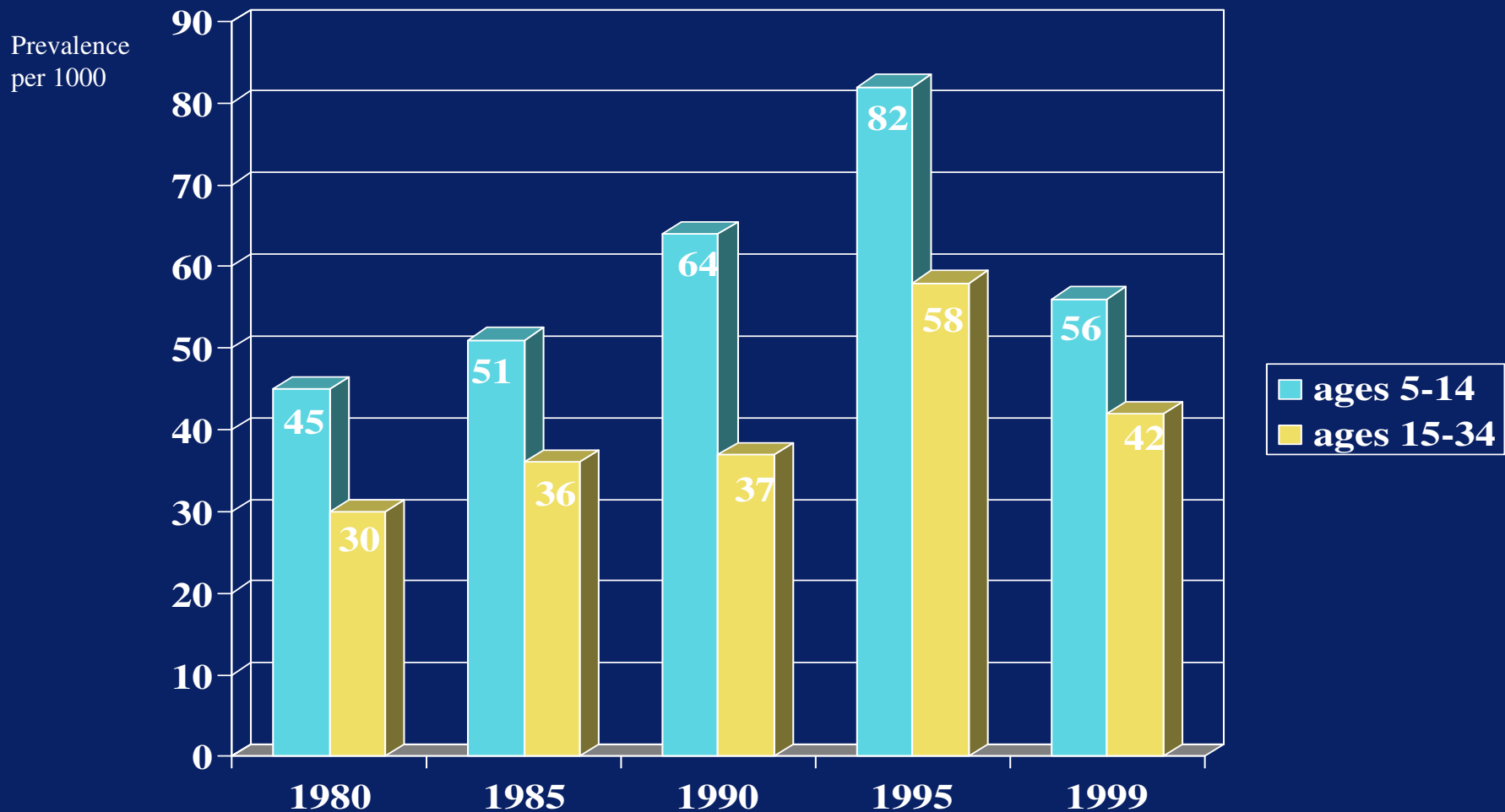
# Youth account for nearly half of all STIs

u	Human papillomavirus	4.6 million
u	Trichomoniasis	1.9 million
u	Chlamydia	1.5 million
u	Genital herpes	640,000
u	Gonorrhea	431,000
u	HIV	15,000
u	Syphilis	8,200

# Prevalence of Obesity

- \_ In 2005 31.9% of children and youth were at or above the 85<sup>th</sup> centile for BMI; there has been relatively little change since 1999 but a 3 fold increase since 1991.
- \_ Black youth increased from 4% in NHANES I to 19% in 2005
- \_ Mexican American youth increased from 6% to 17% over the same time period;

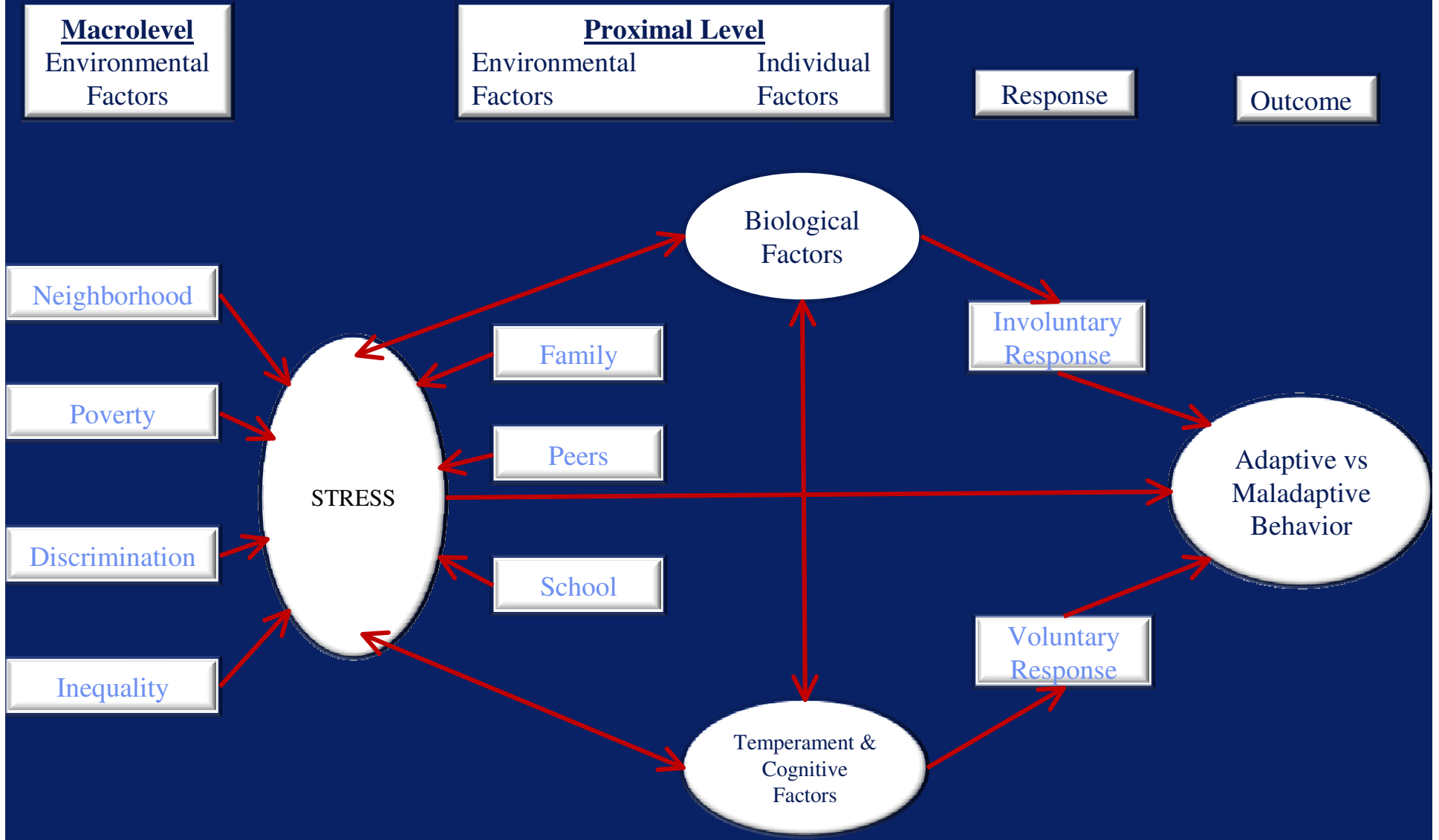
# Prevalence of Self-Reported Asthma (1980-1995) or an Episode of Asthma or Asthma Attack (1999?)



Source: National Health Interview Survey

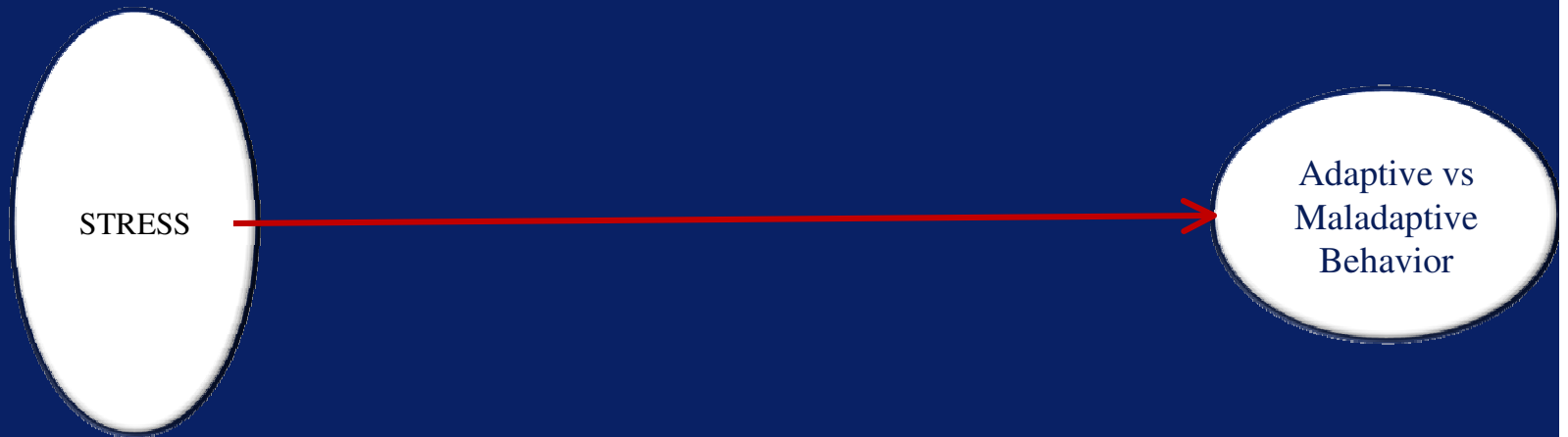
Note change in definition between 1995 and 1999

# A Model of Risk and Protection in Adolescence



# A Model of Risk and Protection in Adolescence

Outcome



# A Model of Risk and Protection in Adolescence

**Macrolevel**  
Environmental  
Factors

Outcome

Neighborhood

Poverty

Discrimination

Inequality

STRESS

Adaptive vs  
Maladaptive  
Behavior

# *Neighborhood Factors: Poverty*

- \_ Lower grades
- \_ Lower educational attainment
- \_ More school drop out
- \_ More delinquency
- \_ More precocious sexual activity/child bearing

# How does Poverty Impact Health Outcomes of Youth?

- \_ Less social and financial capital
- \_ More social disorganization
- \_ Less collective efficiency
- \_ More discrimination
- \_ More inequality

# A Model of Risk and Protection in Adolescence

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Environmental  
Factors

Proximal Level  
Environmental  
Factors

Outcome

Neighborhood

Poverty

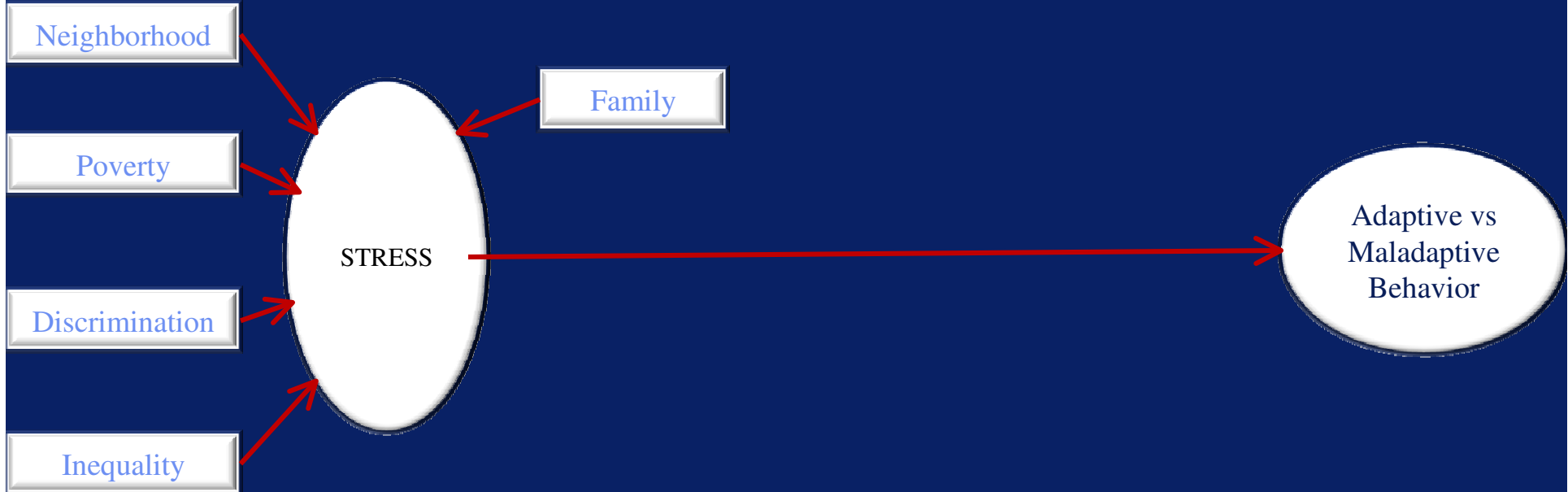
Discrimination

Inequality

Family

STRESS

Adaptive vs  
Maladaptive  
Behavior



# Family Factors

Globally family has consistently been shown to be the most protective factor against risky health behaviors in the lives of young people

# Elements of Positive Parenting

- \_ Behavioral Monitoring
- \_ Closeness and Connectedness
- \_ Emotional Responsiveness
- \_ Knowing child's friends, their friends' parents, their teachers
- \_ Setting high behavioral and educational expectations

# A Model of Risk and Protection in Adolescence

Macrolevel  
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School

STRESS

Adaptive vs  
Maladaptive  
Behavior

# School Factors

Young people who are attached to school appear to be less involved in every risk behavior.

# Behavioral Consequences of School Engagement

- \_ Less disruptive and violent behavior
- \_ Less weapon carrying
- \_ Less drug use
- \_ Less tobacco use
- \_ Less heavy drinking
- \_ Less emotional distress
- \_ Less suicide attempts
- \_ Later age first sex

Blum & Libbey, 2004

# Four Principles of Engaging Schools

- \_ High academic standards
- \_ Personalized learning
- \_ Relevance
- \_ Flexible

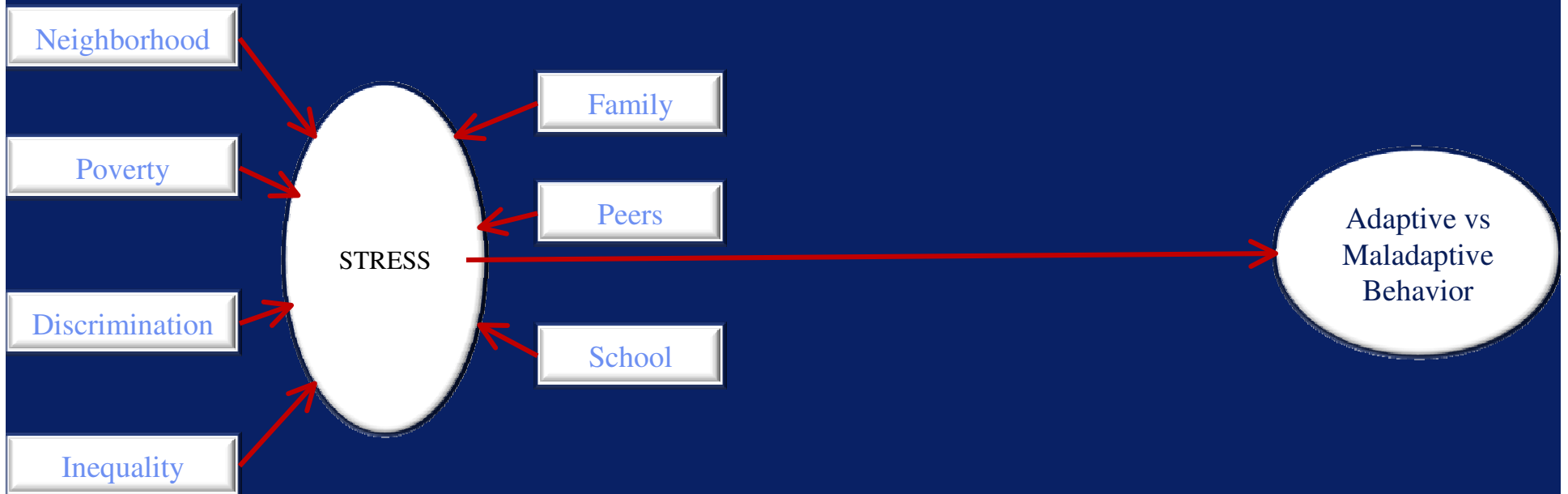
National Research Council, 2002

# A Model of Risk and Protection in Adolescence

Macrolevel  
Environmental  
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Proximal Level  
Environmental  
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Outcome



# Close Prosocial Peer Relationships are associated with:

- \_ Decreased stress
- \_ Less tobacco use, later age first sex (more religious peers)
- \_ Less depression
- \_ Less drug use
- \_ Better academic performance

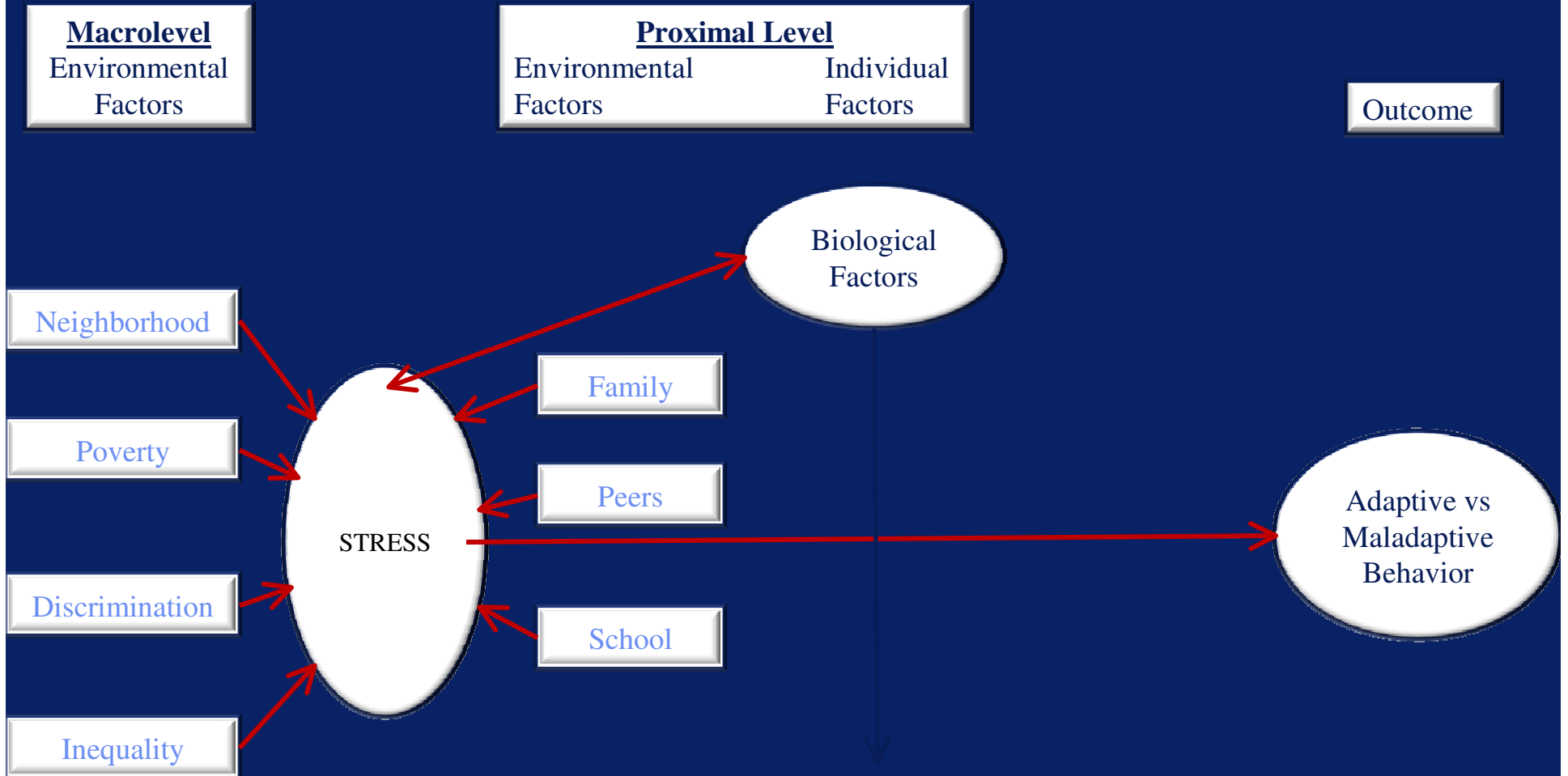
Youth are more likely to conform behaviorally to the views of peers than parents.

# Rank-Order Factors associated with Popularity

1. Cool clothes
2. Attractive
3. Funny
4. Good in sports
5. Outgoing
6. Self-confident
7. Tough
8. Not attentive in school

Bishop, 2004

# A Model of Resilience in Adolescence



Brain development occurs within the contexts of the environment in which the young person lives.

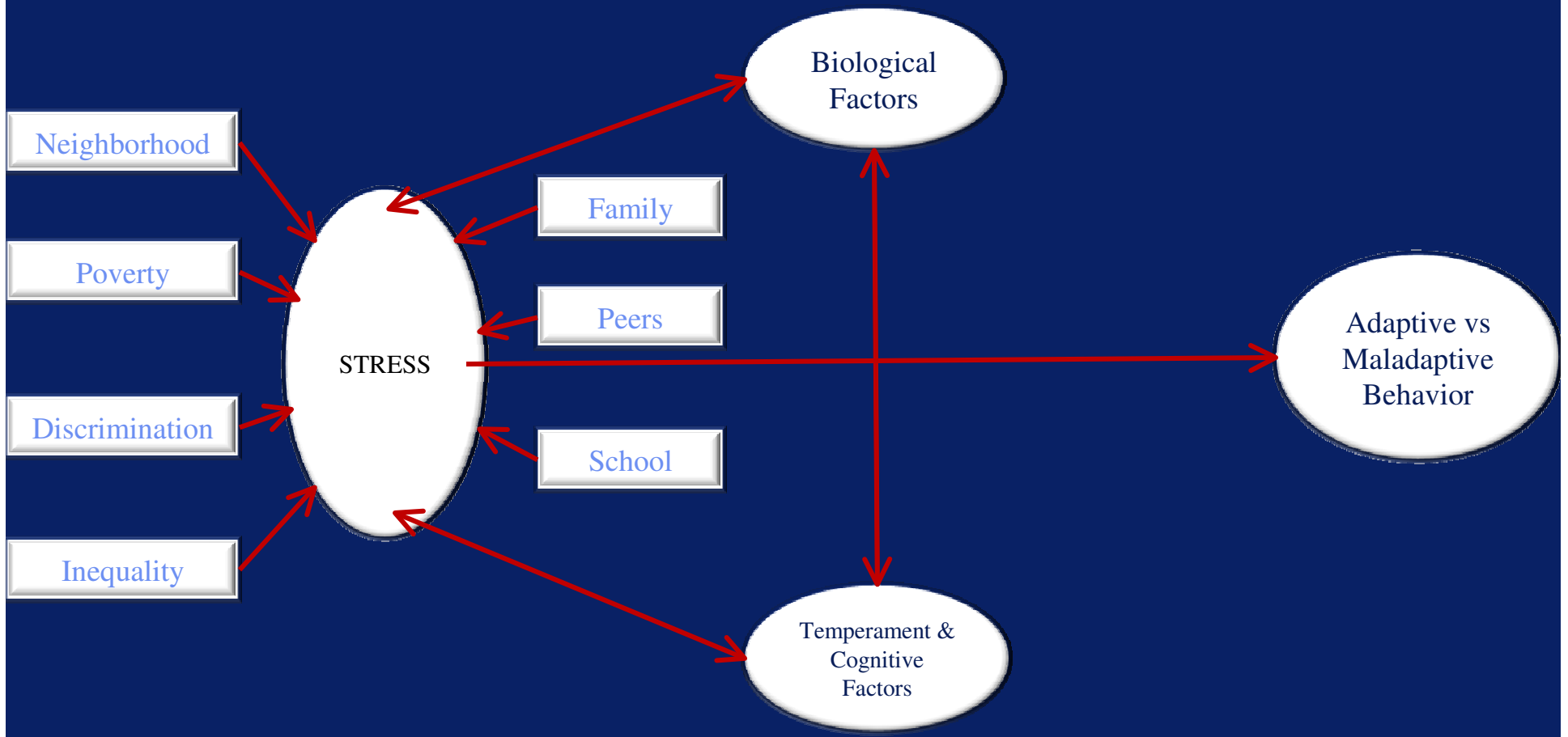
*Toxic environments* impede normal brain development.

# A Model of Risk and Protection in Adolescence

**Macrolevel**  
Environmental  
Factors

**Proximal Level**  
Environmental Factors      Individual Factors

Outcome



# Temperament

Relatively stable, early appearing, biologically rooted individual differences in behavioral traits.

Rothbart and Bates, 1998

# Temperamental factors Associated with Resilience

- \_ Easy temperament
- \_ Emotional reactivity
- \_ Sociability
- \_ Self-regulation
- \_ Attention/focus

# Traits Associated with Resilience

- \_ Sound cognitive, attention, and problem-solving skills
- \_ Effective emotional and behavioral regulation
- \_ Positive self-perceptions of efficacy and worth
- \_ Hopefulness
- \_ Religious faith and affiliations
- \_ Aptitudes and characteristics valued by society (e.g., talent, attractiveness)

# Traits Associated with Resilience (continued)

- \_ Pro-social friends
- \_ Socioeconomic advantage
- \_ Effective school, school bonding
- \_ Effective community
- \_ One or more effective parents
- \_ Connections to other competent caring adults

# Thriving in the Face of Adversity

- \_ Flexible coping strategies;
- \_ Internal locus of control;
- \_ Intelligence;
- \_ A sense of humor;
- \_ Social responsiveness

Yates and Masten, 2004

# A Model of Risk and Protection in Adolescence

