

Adolescent Stress and Anxiety: A Psychosocial Overview



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What Stresses Teens Out?



PALO ALTO MEDICAL FOUNDATION SURVEY:

55% HOMEWORK/SCHOOL

15% PARENTS/FAMILY

9% SOCIAL LIFE

8% TIME

What Stresses Teens Out?



TEENS HEALTH ARTICLE:
32% SCHOOLWORK ISSUES
30% SOCIAL ISSUES
25% APPEARANCE ISSUES
10% NOTHING
3% EXTRACURRICULAR ISSUES

What Stresses Teens Out?



ASSOCIATED PRESS/MTV SURVEY (2007)
13-17 YRS: SCHOOL
18-24 YRS: JOBS AND FINANCIAL MATTERS

Content



- Risk Behaviors
- Reproductive Health
- Mental Health
- US Preventive Services Task Force recommendations
- Healthy People 2010 and 2020
- Cases/Patient Stories

Adolescent Health in the United States, 2007



- Report from the CDC National Center for Health Statistics
- Describes the health of the population 10-19 years of age
- Report is divided into sections on population characteristics, health status, violence and victimization, reproductive health, risk behaviors, health care access and utilization

Healthy People 2010



- A nationwide health promotion and disease prevention agenda that set specific health objectives for the year 2010
- Includes objectives related to adolescent health
 - Of the 467 objectives, 107 pertain to adolescents and young adults
 - 21 have been designated as critical
 - 2 targets were achieved
 - ✦ Reduce the proportion of adolescents who reported riding with a drinking driver
 - ✦ Reduce the proportion of adolescents involved in a physical fight

Youth Risk Behavior Surveillance, 2011



- Sample of students in grades 9-12
- Monitors 6 categories of priority health risk behaviors: unintentional injuries and violence, tobacco use, alcohol and other drug use, sexual behaviors, unhealthy dietary behaviors and physical inactivity.
- Also monitors the prevalence of obesity and asthma
- Summarizes results from 2011
- Follows trends in health risk behaviors during 1991-2011

Risk Behaviors



- **Contribute to Unintentional Injuries**
 - Rarely or never wore a bicycle helmet
 - Rarely or never wore a seat belt
 - Rode with a driver who had been drinking alcohol
 - Drove while drinking alcohol
 - Texted or emailed while driving

Rode with a Driver Who Had Been Drinking Alcohol



National Data (YRBS, 2011)

- 24.1 % had ridden one or more times
- Decreased since 2009
 - 28.3 % > 24.1% (2009 > 2011)
 - Baseline: 39.9% (1991)
 - HP 2010 goal: 30%
 - HP 2020 goal: 25.5%

Connecticut (YRBS, 2011)

- 25.2 %
- Decreased since 2009
 - 26.7 > 25.2%

Drove When Drinking Alcohol



National Data (YRBS, 2011)

- 8.2 % had driven one or more times
- Decreased since 2009
 - 9.7 % > 8.2% (2009 > 2011)
 - Baseline: 16.7% (1991)

Connecticut (YRBS, 2011)

- 6.9%
- Decreased since 2009
 - 8.7% > 6.9%

Drinking and Driving and Seatbelt Use



- Between 1970 and 2004, death rates for motor vehicle-related injuries for teenagers and young adults (ages 15-24) decreased by 81 %.
- In 2005, 1/5 of drivers aged 16-20 involved in fatal MVAs were intoxicated

Healthy People 2010 critical health objective: Reduce death and injuries caused by alcohol-related MVA (ages 15-24)

Baseline: 11.8 (1998) > 12.4 (2002) > no target documented

Counseling About Proper Use of Motor Vehicle Occupant Restraints and Avoidance of Alcohol Use While Driving



- USPSTF concludes that the current evidence is insufficient to assess whether counseling in primary care settings improves the rates of proper use of motor vehicle restraints (child safety seats, booster seats and lap/shoulder belts)
- USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine counseling of all patients in the primary care setting to reduce driving while under the influence of alcohol or riding with drivers who are alcohol impaired.
- Other recommendations: AAFP & ACOG

Texted or Emailed While Driving



National Data (YRBS, 2011)

- 32.8 %
- 1st year of data

Connecticut (YRBS, 2011)

- No data

Risk Behaviors



- **Contribute to Violence**
 - Carried a Weapon
 - Carried a Gun
 - Carried a Weapon on School Property
 - Threatened or Injured with a Weapon on School Property
 - In a Physical Fight
 - Injured in a Physical Fight
 - In a Physical Fight on School Property
 - Bullied on School Property
 - Electronically Bullied
 - Did Not Go to School Because of Safety Concerns
 - Had Property Stolen or Damaged on School Property
 - Dating Violence
 - Forced to Have Sexual Intercourse

Carried a Weapon on School Property



National Data (YRBS, 2011)

- 5.4 %
- No significant change since 2009
 - 5.6% > 5.4%
 - Baseline: 11.8 % (1993)
 - HP 2010 goal: 4.90%
 - HP 2020 goal: 4.6%

Connecticut (YRBS, 2011)

- 6.6 %
- Increased since 2009
 - 3.9 > 6.6 %

Threatened or Injured with a Weapon on School Property

National Data (YRBS, 2011)

- 7.4 %
- No significant change since 2009
 - 7.7% > 7.4%
 - Baseline: 7.3% (1993)
 - Increased to 9.2% (2003)

Connecticut (YRBS, 2011)

- 6.8%
- No significant change since 2009
 - 7.0 > 6.8 %

In a Physical Fight



National Data (YRBS, 2011)

- 32.8 %
- No significant change since 2009
 - 31.5% > 32.8%
 - Baseline: 42.5% (1991)
 - HP 2010 goal: reduce physical fighting among adolescents to 32%
 - HP 2020 goal: 28.4%

Connecticut (YRBS, 2011)

- 25.1%
- Decreased since 2009
 - 28.3 > 25.1 %

Injured in a Physical Fight



National Data (YRBS, 2011)

- 3.9 %
- No significant change since 2009
 - 3.8% > 3.9%
 - Baseline: 4.4% (1991)

Connecticut (YRBS, 2011)

- No 2011 data
- 3.6% in 2009

In a Physical Fight on School Property



National Data (YRBS, 2011)

- 12.0 %
- No significant change since 2009
 - 11.1% > 12.0%
 - Baseline: 16.2% (1993)

Connecticut (YRBS, 2011)

- 8.7%
- Decreased since 2009
 - 9.6 > 8.7 %

Bullied on School Property



National Data (YRBS, 2011)

- 20.1 %
- No significant change since 2009
 - 19.9% > 20.1%
 - HP 2020 goal: 17.9 %

Connecticut (YRBS, 2011)

- 21.6%
- No 2009 data

Electronically Bullied



National Data (YRBS, 2011)

- 16.2 %

Connecticut (YRBS, 2011)

- 16.3%

Did Not Go to School Because of Safety Concerns



National Data (YRBS, 2011)

- 5.9 %
- Increased since 2009
 - 5.0% > 5.9%
 - Baseline: 4.4% (1993)

Connecticut (YRBS, 2011)

- 5.3%
- Slight increase since 2009
 - 4.9% > 5.3%

Dating Violence



National Data (YRBS, 2011)

- 9.4%
- No significant change since 2009
 - 9.8% > 9.4%
 - Baseline: 8.8% (1999)

Connecticut (YRBS, 2011)

- 8.2%
- Decreased since 2009
 - 9.9% > 8.2%

Forced to Have Sexual Intercourse



National Data (YRBS, 2011)

- 8.0%
- No significant change since 2009
 - 7.4% > 8.0%
 - Baseline: 7.7% (2001)

Connecticut (YRBS, 2011)

- 7.3%
- No change since 2009
 - 7.4% > 7.3%

Screening for Family and Intimate Partner Violence



- USPSTF found insufficient evidence to recommend for or against routine screening of parents or guardians for the physical abuse or neglect of children, *of women for intimate partner violence*, or of older adults or their caregivers for elder abuse
- Other recommendations: AAP, AMA, ACOG, AAFP
- US Preventive Task Force Recommendation, March 2004

Case 1: Dating Violence



- 23 yo female...

Case 2: Forced to Have Sexual Intercourse



- 19 yo female...
- 20 yo female...

Mental Health



- **Mental Health Status**
 - Felt Sad or Hopeless
 - Seriously Considering Attempting Suicide
 - Made a Suicide Plan
 - Attempted Suicide Plan
 - Suicide Attempt Treated by a Doctor or Nurse

Felt Sad or Hopeless



National Data (YRBS, 2011)

- 28.5%
- Increased since 2009
 - 26.1 % > 28.5%
 - Baseline: 28.3% (1999)
 - HP 2010 goal: 17 % (4-17yrs)

Connecticut (YRBS, 2011)

- 24.4%
- No change since 2009
 - 25.0% > 24.4%

Seriously Considered Attempting Suicide



National Data (YRBS, 2011)

- 15.8%
- Increased since 2009
 - 13.8 % > 15.8%
 - Baseline: 29.0% (1991)

Connecticut (YRBS, 2011)

- 14.6%
- No change since 2009
 - 14.1% > 14.6%

Made a Suicide Plan



National Data (YRBS, 2011)

- 12.8%
- Increased since 2009
 - 10.9 % > 12.8%
 - Baseline: 18.6% (1991)

Connecticut (YRBS, 2011)

- No 2011 data
- 11.0% in 2009

Attempted Suicide



National Data (YRBS, 2011)

- 7.8%
- Increased since 2009
 - 6.3 % > 7.8%
 - Baseline: 7.3% (1991)

Connecticut (YRBS, 2011)

- 6.7%
- Decreased since 2009
 - 7.4% > 6.7%

Suicide Attempt Treated by a Doctor or Nurse



National Data (YRBS, 2011)

- 2.4%
- No significant change since 2009
 - 1.9 % > 2.4%
 - Baseline: 1.7% (1991)
 - HP goal 2010: 1.0%

Connecticut (YRBS, 2011)

- No 2011 data
- 2.7% in 2009

Screening and Treatment for Major Depressive Disorder in Children and Adolescents



- USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder when systems are in place to ensure accurate diagnosis, psychotherapy and follow up.
 - Grade: B recommendation
- USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening of children (7-11 years of age)
- US Task Force Recommendation, March 2009

Screening for Suicide Risk



- USPSTF concludes that the evidence is insufficient to recommend for or against routine screening by primary care clinicians to detect suicide risk in the general population
- Other recommendations: AAP, AACAP, GAPS
- US Preventive Task Force Recommendation, May 2004

Case 3: Depression



- 23 yo female...

Case 4: Suicide Attempt



- 17 yo female...

Risk Behaviors



- **Tobacco Use**
 - Ever Smoked Cigarettes
 - Ever Smoked Cigarettes Daily
 - Smoked a Whole Cigarette Before Age 13 Years
 - Current Cigarette Use
 - Current Frequent Cigarette Use
 - Smoked More Than 10 Cigarettes per Day
 - Smoked Cigarettes on School Property
 - Bought Cigarettes in a Store or Gas Station
 - Tried to Quit Smoking Cigarettes
 - Current Smokeless Tobacco Use
 - Used Smokeless Tobacco on School Property
 - Current Cigar Use
 - Current Tobacco Use

Current Cigarette Use



National Data (YRBS, 2011)

- 18.1%
- Decreased since 2009
 - 19.5 % > 18.1%
 - Baseline: 27.5% (1991)
 - HP 2020 goal: 16%

Connecticut (YRBS, 2011)

- 15.9%
- Decreased since 2009
 - 17.8% > 15.9%

Current Frequent Cigarette Use



National Data (YRBS, 2011)

- 6.4%
- Decreased since 2009
 - 7.3 % > 6.4%
 - Baseline: 12.7% (1991)
 - Increased to 16.8% in 1999

Connecticut (YRBS, 2011)

- 5.4%
- Decreased since 2009
 - 6.2% > 5.4%

Counseling to Prevent Tobacco Use and Tobacco Caused Disease



- USPSTF strongly recommends that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products
 - Rating: A recommendation
- USPSTF strongly recommends that clinicians screen all pregnant women for tobacco use and provide augmented pregnancy-tailored counseling to those who smoke.
 - Rating: A Recommendation
- USPSTF concludes that the *evidence is insufficient to recommend for or against routine screening for tobacco use or interventions to prevent and treat tobacco use and dependence among children or adolescents.*
- Other recommendations: AAFP, AAP
- US Preventive Task Force Recommendation, November 2003 (updated April 2009 for adults and pregnant women)

Risk Behaviors



- **Alcohol Use**
 - Ever Drank Alcohol
 - Drank Alcohol Before Age 13 Years
 - Current Alcohol Use
 - Binge Drinking
 - Drank Alcohol on School Property
 - Someone Gave Alcohol to Them

Drank Alcohol Before Age 13 Years



National Data (YRBS, 2011)

- 20.5%
- No significant change since 2009
 - 21.1% > 20.5%
 - Baseline: 32.7% (1991)

Connecticut (YRBS, 2011)

- 15.6%
- Decreased since 2009
 - 17.6% > 15.6%

Current Alcohol Use



National Data (YRBS, 2011)

- 38.7%
- Decreased since 2009
 - 41.8 % > 38.7%
 - Baseline: 50.8% (1991)

Connecticut (YRBS, 2011)

- 41.5%
- Decreased since 2009
 - 43.5% > 41.5%

Binge Drinking



National Data (YRBS, 2011)

- 21.9%
- Decreased since 2009
 - 24.2 % > 21.9%
 - Baseline: 31.3% (1991)
 - HP 2010 goal: 21% (12-17 year olds)
 - HP 2020 goal: 8.5%

Connecticut (YRBS, 2011)

- 22.3%
- Decreased since 2009
 - 24.2% > 22.3%

Drank Alcohol on School Property



National Data (YRBS, 2011)

- 5.1%
- Slight increase since 2009
 - 4.5% > 5.1%
 - Baseline: 5.2% (1993)

Connecticut (YRBS, 2011)

- 4.6%
- Decreased since 2009
 - 5.0% > 4.6%

Someone Gave Alcohol to Them



National Data (YRBS, 2011)

- 40%
- Decreased since 2009
 - 42.2 % > 40%
 - Baseline: 41.7% (2007)

Connecticut (YRBS, 2011)

- 34.1%
- No 2009 data

Screening and Behavioral Counseling Interventions in Primary Care to Reduce Alcohol Misuse



- USPSTF recommends screening and behavioral counseling interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings.
 - Rating: B recommendation
- USPSTF concludes that the *evidence is insufficient to recommend for or against screening and behavioral counseling interventions to prevent or reduce alcohol misuse by adolescents in primary care settings.*
- Other recommendations: AAP, GAPS
- US Preventive Task Force Recommendation, April 2004

Case 5: Alcohol Use



- 17 yo male...

Risk Behaviors



- **Drug Use**
 - Ever Used Marijuana
 - Tried Marijuana Before 13 Years
 - Current Marijuana Use
 - Used Marijuana on School Property
 - Ever Used Cocaine
 - Current Cocaine Use
 - Ever Used Inhalants
 - Ever Used Ecstasy
 - Ever Used Heroin
 - Ever Used Methamphetamines
 - Ever Used Hallucinogenic Drugs
 - Ever Took Steroids Without a Doctor's Prescription
 - Ever Took Prescription Drugs Without a Doctor's Prescription
 - Ever Injected Any Illegal Drug
 - Offered, Sold, or Given an Illegal Drug on School Property

Ever Used Marijuana



National Data (YRBS, 2011)

- 39.9%
- Increased since 2009
 - 36.8 % > 39.9%
 - Baseline: 31.3% (1991)

Connecticut (YRBS, 2011)

- 39.6%
- Increased since 2009
 - 37.6% > 39.6%

Tried Marijuana Before Age 13 Years



National Data (YRBS, 2011)

- 8.1%
- Slight increase since 2009
 - 7.5% > 8.1%
 - Baseline: 7.4% (1991)
 - Increased to 11.3% (1999)

Connecticut (YRBS, 2011)

- 6.3%
- Increased since 2009
 - 5.8% > 6.3%

Current Marijuana Use



National Data (YRBS, 2011)

- 23.1%
- Increased since 2009
 - 20.8% > 23.1%
 - Baseline: 14.7% (1991)
 - Increased to 26.7% (1999)

Connecticut (YRBS, 2011)

- 24.1%
- Increased since 2009
 - 24.1% > 21.8%

Used Marijuana on School Property



National Data (YRBS, 2011)

- 5.9%
- Increased since 2009
 - 4.6% > 5.9%
 - Baseline: 8.8% (1995)
 - Decreased to 4.5% (2005)

Connecticut (YRBS, 2011)

- 5.2%
- Decreased since 2009
 - 6.2% > 5.2%

Ever Used Cocaine



National Data (YRBS, 2011)

- 6.8%
- No significant change since 2009
 - 6.4% > 6.8%
 - Baseline: 5.9% (1991)
 - Increased to 9.5% (1999)

Connecticut (YRBS, 2011)

- 5.0%
- No significant change since 2009
 - 5.4% > 5.0%

Ever Used Inhalants



National Data (YRBS, 2011)

- 11.4%
- No significant change since 2009
 - 11.7% > 11.4%
 - Baseline: 20.5% (1995)

Connecticut (YRBS, 2011)

- 9.0%
- Decreased since 2009
 - 10.6% > 9.0%

Ever Used Ecstasy



National Data (YRBS, 2011)

- 8.2%
- Increased since 2009
 - 6.7% > 8.2%
 - Baseline: 11.1% (2001)
 - Decreased to 5.8% (2007)

Connecticut (YRBS, 2011)

- 6.3%
- Increased since 2009
 - 5.0% > 6.3%

Ever Used Heroin



National Data (YRBS, 2011)

- 2.9%
- No significant change since 2009
 - 2.5% > 2.9%
 - Baseline: 2.4% (1999)

Connecticut (YRBS, 2011)

- 2.9%
- No significant change since 2009
 - 2.9% > 3.2%

Ever Used Methamphetamines



National Data (YRBS, 2011)

- 3.8%
- No significant change since 2009
 - 4.1% > 3.8%
 - Baseline: 9.1% (1999)

Connecticut (YRBS, 2011)

- 3.2%
- No significant change since 2009
 - 3.3% > 3.2%

Offered, Sold, or Given an Illegal Drug on School Property



National Data (YRBS, 2011)

- 25.6%
- Increased since 2009
 - 22.7% > 25.6%
 - Baseline: 24.0% (1993)
 - Increased to 32.1% (1995)
 - HP 2020 goal: 20.4%

Connecticut (YRBS, 2011)

- 27.8%
- Decreased since 2009
 - 28.9% > 27.8%

Screening for Illicit Drug Use



- USPSTF concludes that the current *evidence is insufficient to assess the balance of benefits and harms of screening adolescents, adults and pregnant women for illicit drug use.*
- Other recommendations: AAP, GAPS, ACOG
- US Preventive Task Force Recommendation, January 2008

Risk Behaviors



- **Sexual Behaviors that Contribute to Unintended Pregnancy and Sexually Transmitted Diseases**
 - Ever Had Sexual Intercourse
 - Had First Sexual Intercourse Before Age 13 Years
 - Had Sexual Intercourse with Four or More Persons During Their Life
 - Currently Sexually Active
 - Condom Use
 - Birth Control Pill Use
 - Depo Provera, Nuvaring, Implanon or Any IUD Use
 - Did Not Use Any Method to Prevent Pregnancy
 - Drank Alcohol or Used Drugs Before Last Sexual Intercourse
 - Were Taught in School About AIDS or HIV infection
 - Tested for HIV

Ever Had Sexual Intercourse



National Data (YRBS, 2011)

- 47.4%
- Increased since 2009
 - 46.0% > 47.4%
 - Baseline: 54.1% (1991)
 - Decreased to 45.6% (2001)
 - HP 2010 goal: Increase the proportion of those who have never had sex to 56% (abstinence goal)

Connecticut (YRBS, 2011)

- 42.7%
- Increased since 2009
 - 40.5% > 42.7%

Had First Sexual Intercourse Before Age 13 Years



National Data (YRBS, 2011)

- 6.2%
- No significant change since 2009
 - 5.9% > 6.2%
 - Baseline: 10.2% (1991)
 - Decreased to 6.2% (2005)

Connecticut (YRBS, 2011)

- 4.9%
- No significant change since 2009
 - 4.6% > 4.9%

Had Sexual Intercourse with Four or More Persons During Their Life



National Data (YRBS, 2011)

- 15.3%
- Increased since 2009
 - 13.8% > 15.3%
 - Baseline: 18.7% (1991)
 - Decreased to 14.2% (2001)

Connecticut (YRBS, 2011)

- 10.6%
- No significant change since 2009
 - 10.5% > 10.6%

Currently Sexually Active



National Data (YRBS, 2011)

- 33.7%
- No significant change since 2009
 - 34.2% > 33.7%
 - Baseline: 37.5% (1991)

Connecticut (YRBS, 2011)

- 30.5%
- No significant change since 2009
 - 29.6% > 30.5%

Condom Use



National Data (YRBS, 2011)

- 60.2%
- Slight decrease since 2009
 - 61.1% > 60.2%
 - Baseline: 46.2% (1991)
 - Increased to 63% (2003)

Connecticut (YRBS, 2011)

- 60.5%
- No significant change since 2009
 - 59.4% > 60.5%

Drank Alcohol or Used Drugs Before Last Sexual Intercourse



National Data (YRBS, 2011)

- 22.1%
- No significant change since 2009
 - 21.6% > 22.1%
 - Baseline: 21.6% (1991)
 - Increased to 25.6% (2001)

Connecticut (YRBS, 2011)

- 18.8%
- Decreased since 2009
 - 24.8% > 18.8%

Did Not Use Any Method to Prevent Pregnancy



National Data (YRBS, 2011)

- 12.9%
- Slight increase since 2009
 - 11.9% > 12.9%
 - Baseline: 16.5% (1991)

Connecticut (YRBS, 2011)

- 12.1%
- Increased since 2009
 - 9.3% > 12.1%

Behavioral Counseling to Prevent Sexually Transmitted Infections



- USPSTF recommends high intensity behavioral counseling to prevent sexually transmitted infections (STIs) for sexually active adolescents and for adults at increased risk for STIs.
 - Rating: B recommendation
- USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of behavioral counseling to prevent STIs in non-sexually active adolescents and in adults not at increased risk for STIs.
- Other recommendations: AAFP, AAP, ACOG, AMA

US Preventive Task Force Recommendation, October 2008

Screening for Chlamydial Infection



- USPSTF recommends screening for chlamydial infection for all sexually active non pregnant young women aged 24 and younger and for older non pregnant women who are at increased risk.
 - Rating: A recommendation
- USPSTF recommends screening for chlamydial infection for all pregnant women aged 24 and younger and for older pregnant women who are at increased risk.
 - Rating: B recommendation
- USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydial infection for *men*.
- Other recommendations: CDC

US Preventive Task Force Recommendation, June 2007

Screening for HIV



- USPSTF strongly recommends that clinicians screen for HIV in all adolescents and adults at increased risk for HIV infection.
 - Rating: A recommendation
- USPSTF makes no recommendation for or against routine screening for HIV in adolescents and adults who are not at increased risk for HIV infection.
 - Rating: C recommendation
- USPSTF recommends that clinicians screen all pregnant women for HIV.
 - Rating: A recommendation
- Other recommendations: CDC

US Preventive Task Force Recommendation, April 2007

Screening for Genital Herpes



- USPSTF recommends against routine serological screening for HSV in asymptomatic pregnant women at any time during pregnancy to prevent neonatal HSV infection.
 - Rating: D recommendation
- USPSTF recommends against routine serological screening for HSV in asymptomatic adolescents and adults.
 - Rating: D recommendation

US Preventive Task Force Recommendation, March 2005

Case 6: Sexually Transmitted Infection



- 16 yo female...

Final Thoughts



- Include psychosocial evaluations in all preventive visits. Add where appropriate to acute visits.
- Develop support network: clinicians, psychiatry and substance abuse counselors.



THANK YOU!!