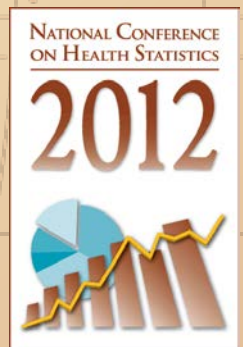


**2012 National Conference on
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**Trends in Psychotropic Medication Use
in the Noninstitutionalized Adolescent
Population:
An NHANES Analysis**

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Objective

To examine trends and prevalence of psychotropic medication use among the US adolescent population

Background

- Psychotropic medication use can play a valuable role in adolescent treatment
- Most of the current work on psychotropic medication is based on in-patient high-risk adolescent populations: Bi-polar, suicidal, disabled
- Limited work on psychotropic drug use among non-clinical adolescent populations using NHANES

Data Source

National Health and Nutrition Examination Survey (NHANES)

- Multipurpose Health Survey Conducted by the NCHS, CDC
- NHANES can be used to examine psychotropic drug use patterns and trends
- Survey designed to be representative of the US civilian noninstitutionalized population using a complex, multistage probability sample
- Informed consent forms were obtained, and protocol was IRB approved by NCHS, CDC

Psychotropic Medications

- Prescription drug data collection similar in all NHANES cycles
- Household interview question:
“Have you taken or used any medicines for which a doctors’ or dentist’s prescription is needed in the past 30 days?”
- Respondent who answered “Yes” – Further asked to report name, duration, and main reason for each product used
- Interviewer collected the exact product name-container.
 - If not available, respondent verbally reported information

Psychotropic Medication Classes

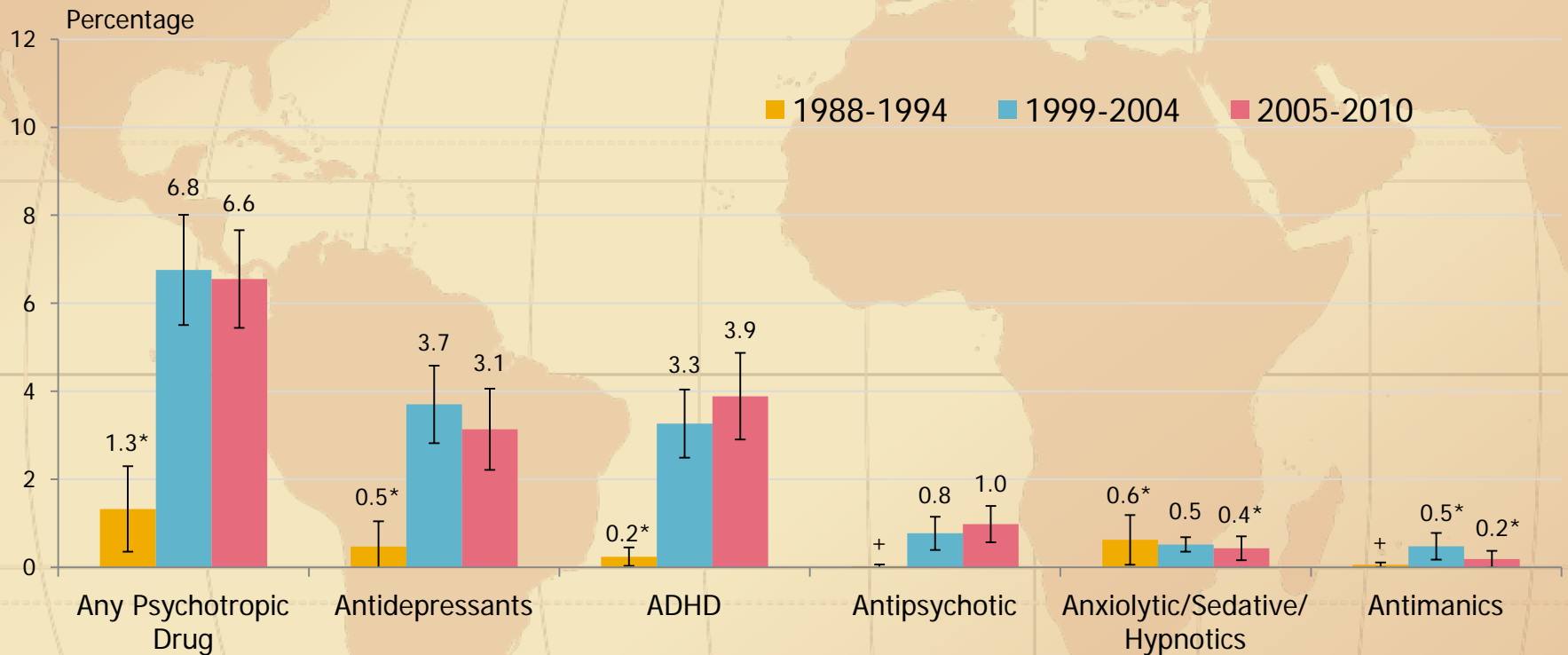
- Antidepressants
- Antipsychotics
- Anxiolytics/sedatives/hypnotics (**ASH**)
- Antimanics
- Attention Deficit Hyperactive Disorders (**ADHD**)

Methodology

- All analyses were weighted to the US civilian non-institutionalized population.
- Limited to the US adolescent population 12-17 years of age who completed household interview and prescription medication use.
- STATA 12.0 commands to account for the complex sample design
- Covariates
 - Sex: Male and Female
 - Race-Ethnicity: Non-Hispanic White , Non-Hispanic Black, and Mexican Americans
- Respondents may have multiple medications
- Univariate and bi-variate weighted prevalence analysis
- T-test comparison

NHANES Cycles			
	NHANES III (1988-1994)	1999-2004	2005-2010
n's	2,648	5,476	3,679

Prevalence of Any Psychotropic Drug and Selected Psychotropic Classes Use in the Past Month Among Adolescents 12-17 Years of Age in the US 1988-1994, 1999-2004, 2005-2010

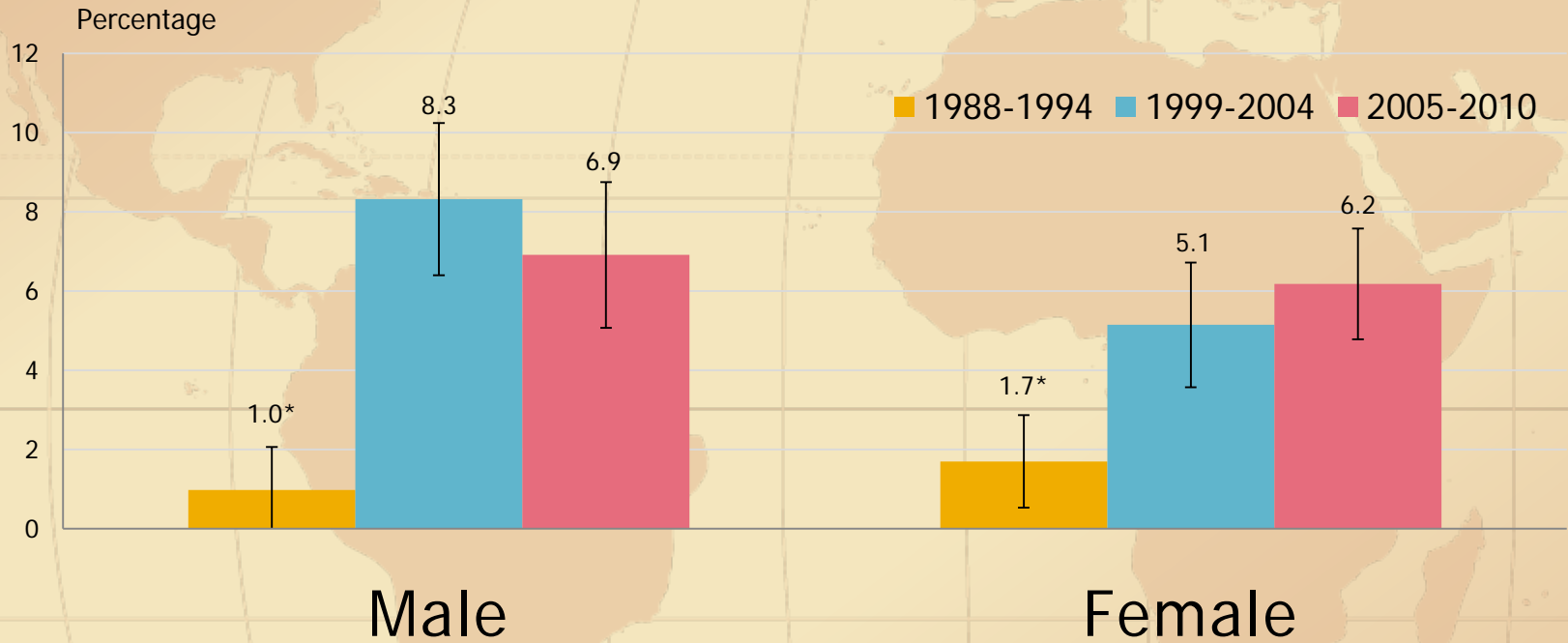


Source: CDC, NCHS National Health & Examination Nutrition Surveys

* Estimate does not meet standard for statistical reliability and precision (Relative Standard Error -RSE > 30%)

+ Estimate too low to report

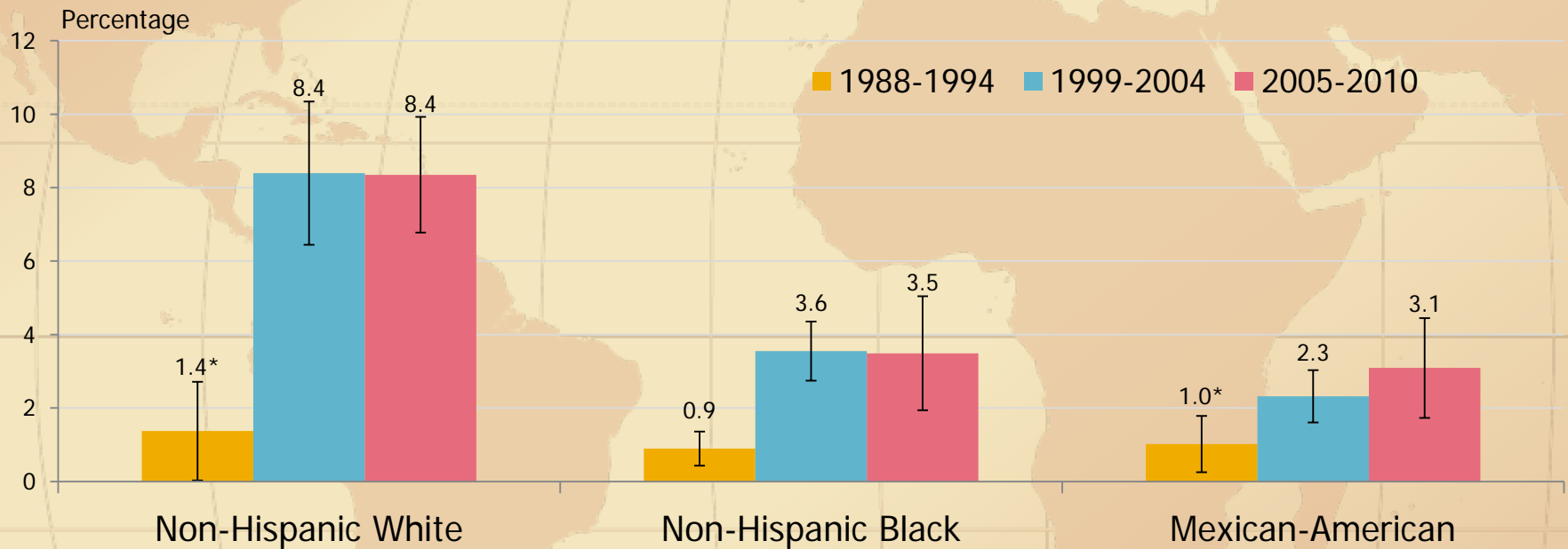
Prevalence of Any Psychotropic Classes Use in the Past Month Among Adolescents 12-17 Years of Age in the US by Sex 1988-1994, 1999-2004, 2005-2010



Source: CDC, NCHS National Health & Examination Nutrition Surveys

* Estimate does not meet standard for statistical reliability and precision (Relative Standard Error -RSE > 30%)

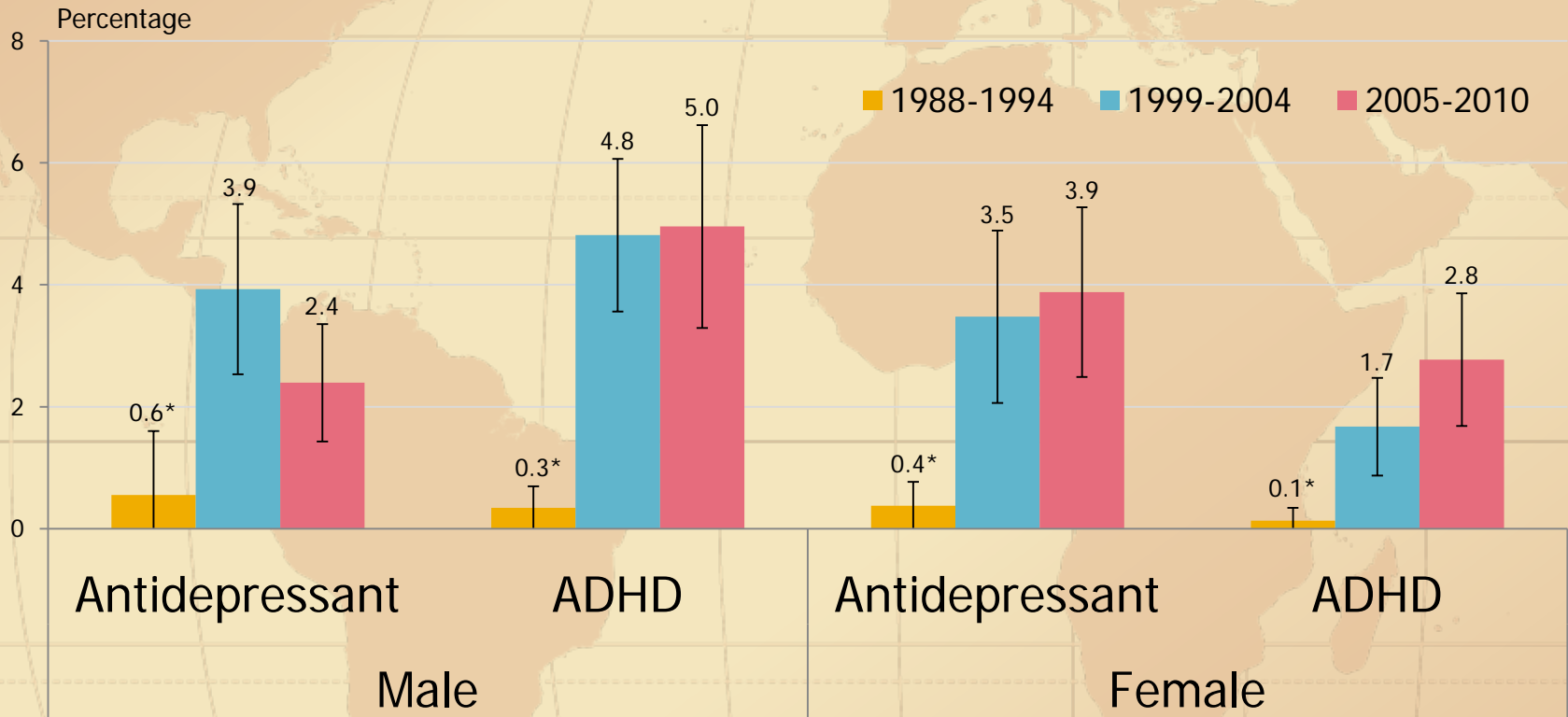
Prevalence of Any Psychotropic Classes Use In the Past Month Among Adolescents 12-17 Years of Age in the US by Race-Ethnicity 1988-1994, 1999-2004, 2005-2010



Source: CDC, NCHS National Health & Examination Nutrition Surveys

* Estimate does not meet standard for statistical reliability and precision (Relative Standard Error -RSE > 30%)

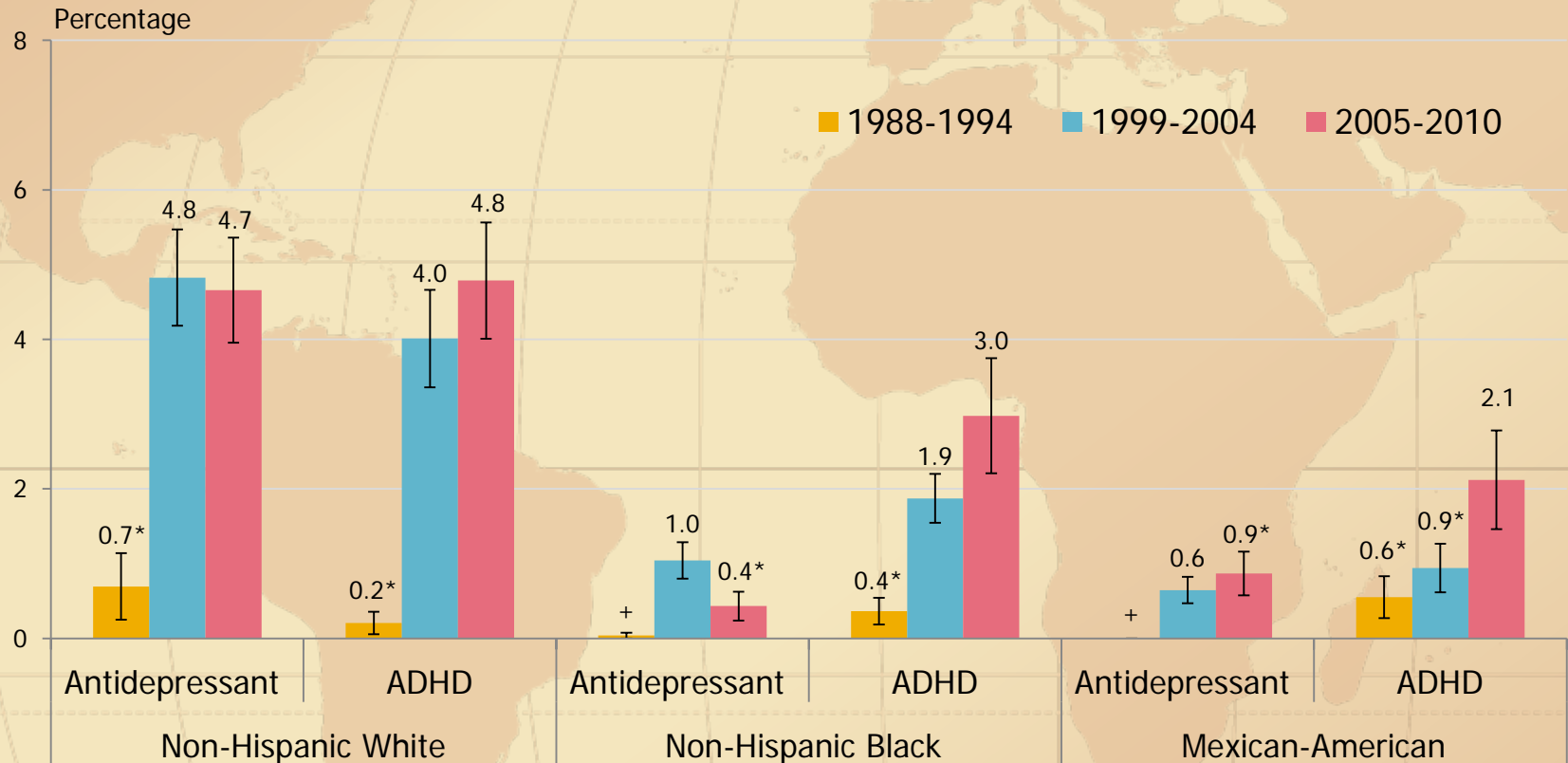
Prevalence of Selected Psychotropic Classes Use In the Past Month Among Adolescents 12-17 Years of Age in the US by Sex 1988-1994, 1999-2004, 2005-2010



Source: CDC, NCHS National Health & Examination Nutrition Surveys

- Estimate does not meet standard for statistical reliability and precision (Relative Standard Error -RSE > 30%)
- + Estimate too low to report

Prevalence of Selected Psychotropic Classes Use In the Past Month Among Adolescents 12-17 Years of Age in the US by Race-Ethnicity 1988-1994, 1999-2004, 2005-2010



Source: CDC, NCHS National Health & Examination Nutrition Surveys

* Estimate does not meet standard for statistical reliability and precision (Relative Standard Error -RSE > 30%)

+ Estimate too low to report

Main Findings I- Trends 1988-2010

Overall

- Since 1988-1994 observe an estimated five-fold difference in 'Any Psychotropic Classes Use'
 - Antidepressant- more than 6x difference
 - ADHD - more than 19x difference

Sex

Boys

Any Psychotropic Medication	7 times as high
Antidepressant	4 times as high
ADHD	16 times as high

Girls

Any Psychotropic Medication	3 times as high
Antidepressant	9 times as high
ADHD	28 times as high

Race-Ethnicity- Too unreliable to report (small n's)

Main Findings II- Current 2005-2010

Overall

Any Psychotropic Medication	6.6%
Antidepressant	3.1%
ADHD	3.9%

Sex

Boys

Any Psychotropic Medication	6.9%
Antidepressant	2.4%
ADHD	5.0%

Girls

Any Psychotropic Medication	6.2%
Antidepressant	3.9%
ADHD	2.8%

Main Findings II- Current 2005-2010

Race-Ethnicity

NH-White

Any Psychotropic Medication	8.4%
Antidepressant	4.7%
ADHD	4.8%

NH-Black

Any Psychotropic Medication	3.5%
Antidepressant	0.4%
ADHD	3.0%

Mexican-American

Any Psychotropic Medication	3.1%
Antidepressant	0.9%
ADHD	2.1%

Conclusions

- 5 times as high in Any psychotropic use is driven by Antidepressants (6 times as high), and ADHD (19 times as high) prescription
- Observed higher prevalence of use for all race-ethnicities and both sexes
- Current (2005-2010)
 - Prevalence of Any psychotropic medication use (6.6%)
 - Boys- ADHD (5.0%) Antidepressant (2.4%)
 - Girls- Antidepressant (3.9%) ADHD (2.8%)

Strengths

- National representative sample of non-institutionalized population
- Oversampling minorities (Black, Mexican-Americans)
- Data collected by trained interviewers using in-person household interview protocol with verification of reported medication

Limitations

- Unreliable estimates (1988-1994)
- Conservative estimate
 - Does not cover some groups who are at higher risk of psychotropic medication use such as correctional facilities, and institutionalized population
- Respondents may choose not to disclose the use of psychotropic medication
- Only covered psychotropic medication- did not take into account non-prescription medications and herbal remedies with psychotropic qualities
- Prevalence of drug class, regardless of what the drug may have been taken for

Implications for future research

- Data support the importance of continued tracking for psychotropic medication use for noninstitutionalized adolescent populations
- NHANES is useful for monitoring current psychotropic medication use in adolescent populations
- More detailed studies to determine the cause of such trends and to better understand reasons for differences in current psychotropic medication use