

## About 1% of 8-Year-Olds Have Autism Disorders

BY HEIDI SPLETE

Approximately 1% of 8-year-old children in the United States meet criteria for an autism spectrum disorder, based on results of a nationwide study of 8-year-olds conducted in 2006.

"No single factor explains the change in prevalence," said Catherine Rice, Ph.D., of the National Center on Birth Defects and Developmental Disabilities. Dr. Rice presented the study results in a telebriefing.

The study included health and education records from 11 communities throughout the United States participating in the Autism and Developmental Disabilities Network (ADDM). The project was funded by the Centers for Disease Control and Prevention. Dr. Rice and her colleagues at the CDC focused on 8-year-olds because most children with autism spectrum disorder (ASD) have been identified by this age. A team of clinicians reviewed the records to confirm ASD diagnoses and identified 2,757 children who met criteria for ASD (MMWR 2009;58[SS-10]:1-24).

The prevalence of ASD among 8-year-olds increased by an average of 57% be-

tween 2002 and 2006, based on data from 10 reporting communities that participated in the study in both years. This increase might be attributable to improved diagnostic techniques, but "a true increase in the risk for children to develop ASD symptoms cannot be ruled out," the researchers said.

Increases in ASD occurred across sex, ethnicity, and cognitive function, but the most consistent pattern was the increase in ASD among boys, Dr. Rice said. Overall, the prevalence of ASD was 1 in 70 boys and 1 in 315 girls, which amounts to a four to five times higher prevalence in boys, compared with girls.

Dr. Rice advised all primary care physicians who suspect ASD in a child to refer the child for further diagnostic evaluation or intervention.

The researchers did not conduct in-person evaluations of each child, and the results were limited by variations in record keeping. The study was not designed to evaluate causes of ASD, but the findings suggest that more research is needed to determine how genetic and environmental factors interact to cause ASD spectrum symptoms, the researchers wrote. ■

## Teen Marijuana Use Up; Meth And Tobacco Use Decline

BY ALICIA AULT

WASHINGTON — The number of teenagers reporting marijuana use is up slightly over the last 2 years, along with the proportion of those reporting any illicit drug use, according to the biannual Monitoring the Future survey, which is conducted for the National Institute on Drug Abuse.

The survey is being conducted by the University of Michigan for NIDA and queries 8th, 10th, and 12th graders about drug, alcohol, and tobacco use and also about attitudes and behaviors. This year, 46,097 students from 389 public and private schools participated.

The increase in illicit drug use was largely accounted for by the rise in marijuana use because it is the most widely used drug, reportedly used by 33% of 12th graders, said Lloyd Johnston, Ph.D., the lead author of the survey and a research professor at the University of Michigan's Institute for Social Research, Ann Arbor. Alcohol is the most widely used substance; 66% of 12th graders said they'd used alcohol in the previous year.

Dr. Johnston, joined by NIDA director Nora Volkow and White House Office of National Drug Control Policy director, R. Gil Kerlikowske all said the report contained both good and bad news.

"We are containing the drug use problem among America's young people," said Mr. Kerlikowske, who joined the ONDCP after a 37-year career in law enforcement, most recently, as chief of police for Seattle. But, said Mr. Kerlikowske, "is con-

tainment really what we're after? I would argue that certainly, it is not."

He said that President Obama would issue his National Drug Control Strategy in February.

The number of high school seniors reporting methamphetamine use in the past year was 1.2%, the lowest since teens were first asked about the drug in 1999. Cigarette smoking also is at an all-time low among the 8th, 10th, and 12th graders surveyed. A total of 11% percent of high school seniors said they smoked daily, which is half the peak rate of 25% in 1997.

Seniors also reported declining use of hallucinogens—particularly LSD—and cocaine, and younger students said that it was harder to access cocaine, sedatives, heroin, and crystal methamphetamine. And they also had an increased perception that LSD, amphetamines, sedatives, heroin, and cocaine were dangerous.

Attitudes about harmfulness generally portend future use trends, said Mr. Kerlikowske. Marijuana rates stayed steady for most of the last 5 years but had a slight uptick each of the last 2 years. Meanwhile, over the same period, the number of eighth graders who reported that marijuana use was harmful fell from 76% to 70%. Fewer teenagers report personal disapproval of marijuana, also.

Rates of prescription drug use reported by survey participants had not risen but are still at peak levels, Dr. Johnston said. A total of 10% of seniors reported Vicodin use in the last 12 months, and 6% reported using amphetamines and tranquilizers. ■

## CBT Helpful in Comorbid ADHD/Substance Use

VITALS

**Major finding:** Significant improvement in ADHD symptoms and a sharp reduction in substance use were observed, regardless of whether adolescents received OROS-MPH (Concerta) or placebo.

**Source of data:** In a randomized controlled trial, 303 adolescents with ADHD and at least one substance use disorder, received either the active (titrated) drug or placebo along with weekly, individual CBT using a standardized manual targeting drug abuse. An intent to treat analysis was conducted to determine the results.

**Disclosures:** The 11-center trial was sponsored by the National Institute of Drug Abuse. The lead investigator reported no conflicts of interest.

sulting in a high baseline level of psychopathology among participants.

Despite this severity, almost 75% of adolescents completed the trial.

In the medication arm, 80% of 151 patients were compliant with doses, which were successfully titrated to 72 mg/daily in 96% and sustained at that dose in 86%.

Participants received either the active (titrated) drug or placebo along with weekly, individual CBT using a standardized manual target-

ing drug abuse.

In an intent-to-treat analysis, symptoms of ADHD declined 46% in the medication group and 45% in the placebo group.

Parents reported symptom reductions of 26% and 30% in adolescents receiving active medication or placebo on a DSM-IV symptom checklist at 8 weeks, and 24% and 30.9% reductions at 16 weeks.

Past 28-day substance use reports declined by 6.1 days (43%) in the medication arm and 4.9 days (33%) in the placebo arm—a statistically insignificant between-group difference.

Slightly more negative drug screens—3.8 compared with 2.8—were found in adolescents assigned to receive active medication, and this group also showed greater improvements in problem-solving skills and focused-coping skills that had been addressed in CBT, Dr. Riggs reported.

Subjects deemed by investigators to be "medication responders" had twice as many negative drug screens as non-responders or those receiving placebo.

Titration of OROS-MPH was "stunningly safe and well-tolerated" in the trial, with 11 serious adverse events, 7 of which occurred in the placebo group. The only event seen more frequently in the medication arm was limb injury, an event not considered to be related to the medication.

The results were inconsistent with trials pitting psychostimulants against placebo in non-substance-abusing youth. However, they were consistent with three controlled psychostimulant trials in the non-substance-abusing adolescents when concurrent CBT was included for subjects in both the medication and placebo arms.

As in this trial, significant reductions were seen in ADHD in both groups, but with no significant advantage to medication over placebo.

Trials of psychostimulants show that 20%-50% of adolescents continue to have functionally impairing symptoms despite medication.

Dr. Riggs reported no relevant financial conflicts of interest. ■

BY BETSY BATES

LOS ANGELES — Psychostimulant treatment failed to outperform placebo in treating adolescents with comorbid attention-deficit/hyperactivity disorder and substance use disorders when structured cognitive-behavioral therapy was integrated into a randomized, placebo-controlled trial.

However, highly significant improvement in ADHD symptoms and a sharp reduction in substance use were observed, regardless of whether adolescents received OROS-MPH (Concerta) or placebo in the 16-week trial, reported Dr. Paula Riggs at the annual meeting of the American Academy of Addiction Psychiatry.

Rather than being seen as a negative trial, the study appears to speak to the usefulness of structured, individualized weekly CBT, said Dr. Riggs, primary investigator of the 11-center trial sponsored by the National Institute of Drug Abuse and professor of psychiatry at the University of Colorado, Denver.

The trial enrolled 303 adolescents aged 13-18 who met DSM-IV criteria for ADHD and for at least one substance use disorder (other than nicotine dependence, and excluding current opiate dependence or methamphetamine abuse or dependence).

The average age of participants was 16.5 years. About 80% were male and 20% female. Whites constituted 64% of the medication arm and 55% of the placebo arm. Roughly a fourth of the subjects in each group were African American; 15% were Hispanic.

About one-third of subjects had ADHD-inattentive type; 67% had ADHD-combined type; and less than 2%, ADHD-hyperactive type.

Cannabis and alcohol use/dependence were the most commonly represented substance use disorders, although use and/or abuse of hallucinogens, opioids, cocaine, and amphetamines also were reported.

Adolescents with major depression, anxiety disorders, and/or conduct disorder were included in the trial, re-