

Special Health Disparities Issue

This issue of *NewsScan* offers a look at NIDA-supported, published research and studies in progress that will bring scientists closer to the goal of effective prevention and treatment for everyone at risk of drug abuse.

Serious health and social problems related to drug abuse and addiction affect minority populations at far higher rates than whites. African-Americans accounted for 50 percent of total diagnosed AIDS cases in 2003. African-Americans account for 50 percent of HIV-infected injecting drug users and Hispanics account for 23 percent; yet each of these groups represents an estimated 12 percent of the U.S. population. Minority drug abusers also have disproportionately higher rates of other illnesses associated with injection drug abuse, such as hepatitis B, hepatitis C, and tuberculosis.

NIDA has developed a Health Disparities Initiative that will help uncover the reasons behind these occurrences. It will support projects designed to strengthen the institutional infrastructure for conducting drug abuse research within minority populations and provide the scientific foundation for improved prevention and treatment for racial and ethnic groups at highest risk for drug abuse and addiction and its consequences. It also will disseminate information about these health disparities to the research community, minority populations, and the public.

The Initiative also will continue support of NIDA's Intramural Research Program's Minority Recruitment and Training Program, which provides training opportunities for students from presently underrepresented groups who are interested in the scientific basis of drug abuse. It also supports the Diversity Supplements (formerly the Research Supplements for Underrepresented Minorities), which are administrative supplements to funded research sponsored by the National Institutes of Health (NIH), intended to help increase the numbers of underrepresented minority scientists in biomedical and behavioral research.

Below are the results of several recent NIDA-supported studies that address various aspects of health disparities in drug abuse and addiction.

Gang Membership, Length of Incarceration Related to Injection Drug Abuse Among Jailed Puerto Rican Drug Injectors

Results of a study examining drug abuse practices that influence HIV risk behaviors among incarcerated Puerto Rican drug injectors show that gang affiliations and the length of incarceration significantly increased the odds of injection drug abuse. The study also indicates that some drug abuse characteristics and practices during incarceration differed between the two populations of drug injectors jailed in Puerto Rico and New York City.

Imprisoned Puerto Rican drug injectors who were affiliated with gangs while incarcerated in New York were more than three times as likely as prisoners without gang affiliations to abuse injected drugs during their sentences; in Puerto Rico, gang membership raised the likelihood of abusing injected drugs by seven times. Among prisoners in both locations, the length of the last period of time spent in jail was related to injection drug abuse, with longer incarcerations related to a higher likelihood of drug injection.

NEWS UPDATE

New York participants reported more noninjection drug abuse during incarceration, while prisoners in Puerto Rico were more likely to report injecting drugs during incarceration. Among those who injected drugs while incarcerated, about 75 percent of the Puerto Rico sample and about 50 percent of the New York sample reported sharing injection-related equipment. The scientists say that these differences in drug use may result from differences in the ease of access to drugs and injecting equipment in prison settings. They also may be affected by inmates' experiences with drugs outside of prison.

- **WHAT IT MEANS:** The relationship seen between length of incarceration, gang affiliation, and increased drug abuse during incarceration may provide intervention opportunities that include recruiting and training peer gang leaders in ways to reduce drug abuse and its accompanying negative consequences. The high rates of sharing injection equipment highlight the need to increase efforts to reduce transmission of potentially fatal pathogens among prisoners. More research is needed to better understand the role of gangs in influencing inmate HIV risk behavior.

Dr. Jonny Andia, at the National Center for HIV/STD & TB Prevention at the U.S. Centers for Disease Control and Prevention, and his colleagues published their NIDA-supported findings in the September 2005 issue of *The Prison Journal*.

Abuse of Cocaine, Heroin, and Other Drugs Is a Key Factor in Hispanic Teen Suicide

Recently published survey results provide insight into why some young Hispanic males think about, attempt, and commit suicide, while also identifying social and psychological factors that appear to be protective.

Dr. Thomas Locke of the University of California-Los Angeles and Dr. Michael Newcomb of the University of Southern California recruited 349 Hispanic males from communities in Los Angeles County whose average age was 19. An analysis of the participants' responses to questionnaires revealed several risk factors for suicidality and three significant protective factors.

Emotional abuse was the strongest predictor for suicidality, followed by the individual's abuse of cocaine, heroin, and other drugs, sexual abuse, and having a mother with alcohol-related problems. Factors considered protective against the idea and action of suicide were confidence in one's own problem-solving abilities, feeling connected to and valued by one's parents, and being law-abiding.

- **WHAT IT MEANS:** Hispanic youth are at great risk for attempting suicide and are at increased risk for nonfatal suicidal behavior. Adverse and abusive childhood experiences are early familial risk factors that contribute to suicidality and drug use in this population. Treatment and prevention efforts aimed at young Hispanic males should screen for suicidal thoughts and behaviors, particularly among those who abuse drugs like cocaine and heroin. Screening by healthcare providers also is suggested when a young Hispanic male reports maternal alcohol-related problems.

The study, which was partly supported by NIDA, was published in the August 2005 issue of the *Hispanic Journal of Behavioral Sciences*.

Designing Effective Drug Abuse and HIV Preventive Interventions for Hispanic Adolescent Subgroups

Hispanic adolescents between the ages of 13 and 19 are five times more likely to contract HIV than their non-Hispanic peers. Health-compromising behaviors such as increased drug use and unprotected sex have placed Hispanic adolescents at significant risk for drug abuse and HIV/AIDS.

Although Hispanic adolescents as a group appear to be at increased risk for drug abuse and risky sexual behavior, increasing evidence suggests that they may experience varying levels of risk and protective factors based on their nativity and heritage. For example, data from the Monitoring the Future survey suggest that Cuban youth have significantly higher rates of drug abuse than do Mexican-American or Puerto Rican youth. Additional evidence suggests that U.S.-born Hispanic adolescents experience higher rates of drug abuse, risky sexual behavior, and HIV contraction than foreign-born Hispanics.

Several risk and protective factors have been found to influence health behaviors in Hispanic adolescents. Factors such as parent–adolescent communication about drugs and sex, monitoring of peer relationships by parents, and differences in parent–adolescent acculturation (the adoption of American values, beliefs, and intentions) are believed to vary by nativity and heritage. Subgrouping Hispanic adolescents based on risk and protective factors may serve as the first step in designing well-tailored, flexible interventions for Hispanic adolescents.

- **WHAT IT MEANS:** This study suggests that subgrouping Hispanic adolescents by factors influenced by nativity and heritage may result in more effective drug abuse- and HIV-preventive interventions.

Dr. Hilda Pantin and colleagues from the University of Miami published this review in the June 2005 issue of *Journal of Urban Health: Bulletin of the New York Academy of Medicine*.

HIV Risk Behaviors Differ Among Homeless Drug Injectors in Puerto Rico

New study findings suggest drug abuse and HIV prevention and treatment programs should tailor interventions to match the residential status of drug abusers.

Dr. Juan Reyes and colleagues from the Center for Addiction Studies at the Universidad Central del Caribe examined the relationship between homelessness and HIV risk behaviors among 577 injection drug users (IDUs) in Puerto Rico. The study participants were assigned to one of three groups based on their residential status—housed, transitional housed (living with friends, family or others but considering themselves homeless), and on-the-street homeless (living on the street or in a shelter). Drug-use patterns and HIV risk behaviors were self-reported by questionnaire.

The scientists found that on-the-street homeless IDUs were more likely to practice injection-related HIV risk behaviors such as sharing needles and rinse water, while transitionally housed IDUs were more likely to practice sexual risk behaviors such as exchanging sex for money or drugs. Sex workers have been found to be at very high risk of depression. Consequently, transitionally housed IDUs were more likely to report symptoms of severe depression. Housed IDUs were significantly more likely to use heroin alone than transitionally housed and on-the-street homeless who were more likely to inject “speedballs,” a mixture of heroin and cocaine. Among IDUs, injection of heroin alone (in contrast to injection of speedballs) is generally considered an indicator of a more stable lifestyle and reduced risk of HIV transmission.

- **WHAT IT MEANS:** Understanding the factors related to HIV risk behavior among homeless drug abusers is important in explaining why drug abusers continue to engage in HIV risk behaviors. These study findings suggest that homelessness is a risk factor for HIV among IDUs, and that HIV risk behaviors vary according to the residential status of homeless IDUs. These differences may serve as viable intervention points to prevent and reduce drug abuse and HIV risk behaviors among IDUs.

The scientists published this paper in the June 2005 issue of the *Journal of Urban Health: Bulletin of the New York Academy of Medicine*.

Bridging Cultural Divides Can Help Achieve Field Research Goals

Scientists conducting research with American Indian populations should understand that gaining the trust of the community can help them achieve research objectives. Modifying field research methods and tools to respond to cultural sensitivities can make the findings more applicable to the minority culture, which ultimately may reduce inequalities in healthcare—such as access to practitioners, services, and treatments—as these findings are more rapidly transferred into clinical practice.

Dr. Arlene Stiffman and her colleagues at Washington University and Arizona State University recruited American Indian youth (205 on reservations and 196 from urban areas) to participate in the AIM-HI (American Indian Multisector Help Inquiry) project, designed to research the service needs and service use of American Indian adolescents. Required survey information addressed sensitive topics, such as physical and sexual abuse, HIV-risk behaviors, gay and lesbian activities, drug abuse, and mental health issues.

The researchers modified their survey to allow for cultural differences by asking such questions as whether tobacco and hallucinogens were used only for traditional ceremonies. The Services Assessment for Children and Adolescents (which assesses the frequency, duration, type, and cost of mental health and social services associated with the child's behavior, substance abuse, and delinquency) was altered to include service providers who represented the audience, such as healers, elders, and traditional medicine people. The compromises made in the study design did not adversely affect data collection, the scientists say.

- **WHAT IT MEANS:** Cultural divides can be bridged by learning the perspectives and priorities of others. While there are no easy answers to balancing cultural and research perspectives, finding creative and respectful compromises can help researchers reach their goals while supporting community-based organizations that want to provide services to their constituents but are sensitive about certain issues.

This NIDA-supported study was published in the June 2005 issue of the *Journal of Urban Health: Bulletin of the New York Academy of Medicine*.

Highly Active Antiretroviral Therapy Is an Effective Form of Treatment for Minority Injection Drug Users with Late-Stage HIV

Minority injection drug users (IDUs) with late-stage human immunodeficiency virus (HIV) frequently face health challenges such as limited access to life-saving treatment and increased risk of death due to drug abuse. Recent study results suggest that highly active antiretroviral therapy (HAART)—a combination of drug therapies designed to slow HIV replication in the body—improves overall survival in minority injection drug abusers with late-stage HIV.

Dr. David Vlahov and researchers from New York Academy of Medicine and the Johns Hopkins Bloomberg School of Public Health recruited 665 HIV-positive, minority injection drug abusers, and followed them for 14 years. The study participants were monitored over the course of two clinical periods—pre-HAART era (1988–1996) and the HAART era (1996–2002). The treatment group received HAART, while patients from the pre-HAART group received the standard clinical treatment for their era—antiretroviral therapy and/or medications to control opportunistic infections (caused by organisms that do not normally cause disease in humans, but can do so in people with damaged immune systems).

Scientists observed fewer deaths among HAART-era patients. Moreover, study participants from this group had higher CD4 levels—a measure of the body's ability to fight infection—and suffered from fewer HIV-related problems such as anemia, sepsis, and pneumonia.

- **WHAT IT MEANS:** Although lack or delayed access to treatment is a major issue among minority injection drug abusers, findings from this study suggest that HAART is an effective form of treatment for minority injection drug abusers with late-stage HIV. Further research is necessary to identify additional factors that may influence survival in minority drug abusers with late-stage HIV.

The study appears in the June 2005 issue of the *American Journal of Epidemiology*.

Depression and Therapy Side Effects May Influence Antiretroviral Adherence in Adolescents with Late-Stage HIV

Nonadherence to antiretroviral therapy may be one of the greatest public health challenges associated with the management of HIV/AIDS. A recent study, supported in part by NIDA, suggests that depression and the inability to tolerate the adverse effects of antiretroviral therapy may influence adherence rates in adolescents with late-stage HIV.

Dr. Debra Murphy, from the University of California at Los Angeles, worked with colleagues in the Adolescent Medicine HIV/AIDS Research Network and examined adherence to highly active antiretroviral therapy (HAART) and the factors associated with adherence in 234 adolescents with HIV, nearly three-fourths of whom were African-American. The team of scientists conducted face-to-face interviews and implemented self-reporting measures to assess adherence to therapy, mental health and coping, substance abuse, and quality of life.

The researchers observed that adolescents in the late stages of HIV were less likely to adhere to antiretroviral therapy when compared with adolescents in the earlier stage of the disease. Additional research findings suggest that among other factors, depression and disease progression may contribute to low adherence by impairing an individual's desire to take medications as directed.

- **WHAT IT MEANS:** These study findings underscore the need for improved interventions to help adolescents with HIV adhere to antiretroviral therapy. Future research should target strategies to help adolescents overcome challenges to therapy adherence and provide additional support, such as screening and treatment for depression, in adolescents with advanced HIV.

This study was published in the August 2005 issue of *Archives of Pediatrics and Adolescent Medicine*.

Additional Examples from NIDA's Ongoing Research into Health Disparities and Drug Abuse

In addition to recently published studies, NIDA's research into the relationship between health disparities and drug abuse is an ongoing effort. A sampling of current projects includes:

- **Race/Ethnicity and the Process of Smoking Cessation**—Smoking is the leading cause of preventable death and disability in the United States, and minorities bear a disproportionate burden of smoking's health consequences, with higher incidences and death rates for many forms of cancer than white smokers. Mortality from stroke is twice as high in African-Americans compared with whites, and cigarette smoking plays a significant role in increasing the risk of stroke in American blacks. However, the search for effective methods to reduce tobacco use among minorities is hampered by the small number of studies addressing smoking cessation and relapse in these groups. In light of these disparities, Dr. David Wetter of the University of Texas M.D. Anderson Cancer Center is examining racial and ethnic differences in the mechanisms underlying smoking cessation among African-American, white, and Hispanic smokers.
- **Substance Use Among Children of Hispanic School Dropouts**—School dropout rates and drug abuse contribute to the health disparities that exist between different U.S. populations, and they particularly affect disadvantaged, minority adolescents. According to 2003 data, 24 percent of Hispanic youth had dropped out of high school, compared with 12 percent of blacks, and 6 percent of whites. Dropping out of school and substance abuse both contribute to negative health, economic, and social outcomes. However, a question arises as to whether there may be factors related to school failure and substance abuse that parents transmit in some way to their children. Dr. Patricia Aloise-Young of Colorado State University is making use of NIDA support to identify characteristics that might place children of Mexican-American high school dropouts at risk for school failure and drug abuse. Two aims of the study are: to study the relationships between parental educational factors, parental involvement in the child's schooling, and the child's early use of cigarettes, alcohol, and inhalants; and the relationship between parental drug abuse, parenting practices, and the child's substance abuse.
- **Preventing Drug Use in Rural African-Americans**—Previous research has shown that many young rural blacks live with a number of stressors that increase their likelihood of succumbing to drug abuse as they enter adulthood. Dr. Gene Brody of the University of Georgia will follow 700 high school seniors and their families as they participate in a multicomponent, drug abuse prevention program. The program is modeled after Dr. Brody's Strong African-American Families program, which examines what families and communities can do to help children succeed.

- **The Transition to Nicotine Dependence in Adolescence**—This investigation focuses on the comorbidity between smoking, nicotine dependence, and psychiatric disorders among white, African-American, and Hispanic adolescents. It seeks to examine the elements that contribute to the progression from experimental smoking to daily dependence and the underlying risk factors and protective characteristics. Led by Dr. Denise Kandel of Columbia University, the study is following 1,039 students (grades 6–10) over a 2-year period, and includes data obtained from the adolescents and their mothers.
- **Asian Teens, Substance Dependence, and Conduct Disorder**—As part of his investigation into the genetics of addiction, Dr. Joseph Sakai at the University of Colorado is analyzing the relationship between conduct disorder (disruptive behavior in children and adolescents marked by repetitive and persistent violation of the rights of others or of age-appropriate social norms or rules) and substance dependence; individuals with conduct disorder are at high risk for at least one co-occurring substance use disorder. The researchers will explore whether certain DNA variations found commonly in Asian-American teens may influence this association.
- **Adolescent Marijuana Use in Native Americans**—The U.S. Indian Health Service has cited substance abuse as one of the most urgent health problems facing Native Americans. Survey data suggest that drug abuse among American Indian youth is generally higher than any other ethnic group, particularly for marijuana. The overall objective of the research conducted by Dr. Cindy Ehlers at Scripps Research Institute is to enhance understanding of the neurobehavioral risk factors for, and consequences of, marijuana abuse in Native Americans who reside on reservations in southwest California. The ultimate goal is to identify risk factors for marijuana dependence, which will help guide the development of prevention and intervention programs.

“These and numerous other NIDA studies are critical to eliminating health disparities and advancing our understanding of racial and ethnic differences as they relate to drug abuse and addiction,” says NIDA Director Dr. Nora D. Volkow. “These efforts are crucial components of integrated research approaches to close the health gap among racial, ethnic, and underserved Americans.”

FUNDING NEWS

Enhancing Practice Improvement in Community-Based Care for Prevention and Treatment of Drug Abuse or Co-Occurring Drug Abuse and Mental Disorders (RFA #06-001)

The National Institute on Drug Abuse (NIDA), with support from the National Institute of Mental Health (NIMH) and the Substance Abuse and Mental Health Services Administration (SAMHSA), announces its plans to commit approximately \$1.9 million in FY 2006 to fund 8–12 new grants for community-based providers, in response to the request for applications (RFA), Enhancing Practice Improvement in Community-Based Care for Prevention and Treatment of Drug Abuse or Co-Occurring Drug Abuse and Mental Disorders (RFA #06-001).

This RFA will use the National Institutes of Health (NIH) research project grant (R01) award mechanism. Awards will be for up to 3 years, with direct costs not to exceed \$150,000 per year. A link to the RFA can be found at: <http://grants.nih.gov/grants/guide/rfa-files/RFA-DA-06-001.html>.

For the purposes of this RFA, an eligible community-based provider is an organization, agency, or association/coalition of organizations/agencies that deliver(s) services to prevent or treat substance abuse disorders or co-occurring substance abuse and mental disorders in a nonacademic setting. Any community-based provider with the skills, knowledge, and resources necessary to carry out the proposed research is invited to apply.

Applications are due by December 19, 2005. Letters of intent are requested by November 18, 2005. The earliest anticipated start date for grants is December 2006.

NOTES

For more information about any item in this *NewsScan*:

- Reporters, call Michelle Person at 301-443-6245.
- Congressional staffers, call Geoffrey Laredo at 301-594-6852.

The National Institute on Drug Abuse (NIDA) is a component of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports most of the world's research on the health aspects of drug abuse and addiction. The Institute carries out a large variety of programs to ensure the rapid dissemination of research information and its implementation in policy and practice. Fact sheets on the health effects of drugs of abuse and other topics are available in English and Spanish. These fact sheets and further information on NIDA research and other activities can be found on the NIDA home page at <http://www.drugabuse.gov>.

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