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CDUHR news

Center for Drug Use and HIV Research
in the Institute for AIDS Research at the National Development and Research Institutes, Inc.

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While continued attention is needed to reduce transmission of HIV among drug users and improve the quality of life among those living with HIV, efforts to identify other health problems and co-morbid conditions are needed.

Medical Conditions Related to High-Risk Drug Use

Much of the recent focus of research on medical conditions among drug users, especially heroin and cocaine users, has been on HIV. However, in addition to HIV, people who use drugs are at high risk for other infections and medical illnesses. Many factors contribute to these risks, including: the direct consequences of drug use (e.g., overdose, toxicity associated with the use of certain drugs); behaviors associated with drug use which increase the risk for many types of infections (e.g., hepatitis, sexually transmitted infections [STIs]); and lack of access to adequate medical care.[1] Since the advent of highly active antiretroviral therapy (HAART), there has been a decline in the rate of HIV disease progression to AIDS and death due to AIDS, for drug users (and others) with HIV.[2, 3] Despite these declines, mortality rates among drug users remain high, however the causes of death have shifted to increasing proportions due to non-AIDS related infections, liver complications or hepatitis C, cardiovascular disease, non-AIDS related cancers or drug-related causes (e.g., overdose).[4-6]

Jack A. DeHovitz, M.D., M.P.H.

CDUHR recently held its 13th Annual Mini-Conference with the theme: "STIs and Other Health Conditions of High-Risk Drug Users." The meeting featured two speakers: Andrew Osborne, M.S.Ed. (Director of the Training and Dissemination Core, CDUHR) presented on STIs, and Jack DeHovitz, M.D., M.P.H. (Director, HIV Center for Women and Children, SUNY Downstate Medical Center) presented on other non-HIV health conditions. Each presentation highlighted the most common conditions among drug users. The following is a summary of their presentations.

Andrew Osborne, M.S.Ed.

Hepatitis C Virus (HCV)

It is estimated that approximately 200 million individuals worldwide have been infected with HCV and approximately 4 million of these are in the U.S.. More than two-thirds are estimated to have chronic HCV infection.[7] HCV is a blood-borne virus and in developed countries, is largely transmitted through injection drug use (IDU). Sexual transmission is thought to be rare.[7] Among injectors, HCV prevalence is extremely high, up to 90% in large U.S. cities and acquisition often occurs within 1-2 years following initiation of drug injection.[1] The increasing concern regarding co-infection of HCV with HIV is evidenced by the recent special issue in the journal *AIDS* devoted to this topic.[8]

Sexually Transmitted Infections (STIs)

STIs are common among drug users as a result of increased sexual risk taking, multiple sex partners and the exchange of sex for money or drugs. The most frequently diagnosed STIs are: gonorrhea, chlamydia, syphilis, genital herpes simplex virus, human papilloma virus (HPV) and trichomoniasis. Gonorrhea and chlamydia are the most common bacterial STIs in the the U.S. In a study of IDUs, lifetime prevalence for gonorrhea or chlamydia was reported at 30% for men and 43% for women. Syphilis, a bacterial genital ulcer infection, has lifetime rates of infection among drug users ranging from 2-19%. Genital herpes *(Continued next page.)*

is the most common infectious agent of genital ulcers; most cases are caused by herpes simplex virus type 2 (HSV-2). The range of HSV-2 prevalence among drug users ranges from 44%-58%; 73% prevalence was found among women who exchange sex for drugs or money. HPV infections may cause genital warts and cervical cancer. HPV prevalence may be as high as 50% among sexually active adolescents and young women. Trichomoniasis is caused by a protozoan parasite and is highly prevalent among drug using women (22%-43%).[1]

Skin and Soft Tissue Infections

Skin and soft tissue infections are common among IDUs. The majority of bacterial infections are due to an individual's own commensal flora (bacteria found on the individual's skin and mucous membranes). Infections occur when commensal flora is introduced into the tissues or the bloodstream.[9] One study found that one-third of active IDUs had skin infections and among these, 65% had more than one abscess, 9% had cellulitis and 26% had both. Risk for abscesses are greater for intramuscular or subcutaneous ("skin-popping") injection compared to intravenous injection.[1] Bacterial transmission can occur through the sharing of drug paraphernalia and certain types of drugs and preparation are associated with the risk of infection by certain organisms.[9]

Cardiovascular Complications

Bacterial endocarditis is an infection of the heart valves or the lining of the heart. Injection drug users are at high risk of this complication. Mortality rates range from 7% to 37%, the rate depending on the valve that is infected.[1] Cocaine use is associated with chest pain which may be a result of myocardial ischemia (insufficient blood flow to the heart) or myocardial infarction (death of tissue in the heart). Users of cocaine have a 24-fold increase in risk of myocardial infarction in the hour immediately after use.[1, 10]

Respiratory Infections

Pneumonia is the most common reason for hospitalizations among drug users. The factors that contribute to susceptibility include: reduced gag reflex by the use alcohol and drugs, leading to aspiration of fluids into the lungs, impaired respiratory function due to smoking and weakened immunity due to poor nutrition. Some groups of drug users (e.g., IDUs and crack cocaine users) have been found to be at increased risk for tuberculosis, with prevalence rates as high as 15%-25% for latent tuberculosis (infection without disease or symptoms).[1]

Summary and Conclusions

Drugs users are at high risk for a variety of infections and medical conditions, only a sample of which were identified above. While continued attention is needed to reduce transmission of HIV among drug users, and improve survival rates and quality of life among those living with HIV, efforts to identify other health problems and co-morbid conditions are needed. In addition, many challenges are presented in the treatment and management of co-morbid medical conditions and drug use, including concerns regarding interactions of medications.[7] Interdisciplinary teams of clinicians, other service providers and researchers are needed to develop optimal treatment plans.

1. Gourevitch, M. N., & Arnsten, J. H. (2005). Medical complications of drug use. In J. H. Lowinson, P. Ruiz, R. B. Millman, & J. G. Langrod (Eds.), *Substance abuse: A comprehensive textbook* (4th ed., pp. 840-862). Philadelphia, PA: Lippincott Williams & Wilkins.
2. van Asten, L., Zangerle, R., Aguado, H., Bourfassa, F., Broers, B., Brettle, R.P., Robertson, J.R., McMenamin, J., Coutinho, R.A., & Prins, M. (2005). Do HIV disease progression and HAART response vary among injection drug users in Europe? *European Journal of Epidemiology, 20*, 795-804.
3. Nash, D., Katyal, M., & Shah, S. (2005). Trends in predictors of death due to HIV-related causes among persons living with AIDS in New York City: 1993-2001. *Journal of Urban Health, 82*, 584-600.
4. Kohli, R., Lo, Y., Howard, A.A., Buono, D., Floris-Moore, M., Klein, R.S., & Schoenbaum, E.E. (2005). Mortality in an urban cohort of HIV-infected and at-risk drug users in the era of highly active antiretroviral therapy. *Clinical Infectious Diseases, 41*, 864-872.
5. Copeland, L., Budd, J., Robertson, J.R., Elton, R.A. (2004). Changing patterns in causes of death in a cohort of injecting drug users, 1980-2001. *Archives of Internal Medicine, 164*, 1214-1220.
6. Smith, D.K., Gardner, L.I., Phelps, R., Hamburger, M.E., Carpenter, C., Klein, R.S., Rompalo, A., Schuman, P., & Holmberg, S. for the HIV Epidemiology Research Study Group (2003). Mortality rates and causes of death in a cohort of HIV-infected and uninfected women, 1993-1999. *Journal of Urban Health, 80*, 676-688.
7. Draper, J.C. & McCance-Katz, E.F. (2005). Medical illness and comorbidities in drug users: Implications for addiction pharmacology treatment. *Substance Use and Misuse, 40*, 1899-1921.
8. Special Issue: HIV/Hepatitis C Virus Coinfection: Basic, Behavioral and Clinical Research in Mental Health and Drug Abuse. AIDS, October 2005; Volume19, Supplement 3.
9. Gordon, R.J., & Lowy, F.D. (2005). Bacterial infections in drug users. *New England Journal of Medicine, 353*, 1945-1954.
10. DeHovitz, J.A. (2006, January). Health conditions Other Than HIV and STIs in Drug Users. Presented at the 13th Annual IAR/CDUHR Mini-Conference. New York, NY.

We would like to acknowledge Jack A. DeHovitz, M.D., M.P.H. for his contributions in reviewing this article.

Addressing Racial/Ethnic and Gender Disparities in HIV/AIDS Clinical Trials

CDUHR Site Principal Investigator: Marya Viorst Gwadz, Ph.D., Co-Investigator, Noelle R. Leonard, Ph.D. (PI: Donna Mildvan, M.D., BIMC)
Funding Agency: NIAID

The disproportionately low enrollment in ACTs by minorities and women may raise questions about the applicability of research findings to the populations most affected by the disease.

Background and Objectives

AIDS clinical trials (ACTs) are research studies in which new medications and treatment regimens for HIV/AIDS and their complications are tested for their safety and effectiveness in humans. As such, ACTs are essential in the process of developing effective treatments for HIV/AIDS. Furthermore, through enrollment in ACTs, individuals living with HIV/AIDS can gain access to promising new therapies, and a level of medical care and support services that may not be otherwise available to them.[1] In the U.S., African-Americans and Latinos comprise over 60% of males and 80% of females living with HIV/AIDS, however, they account for less than one-third of ACTs' participants.[2] The disproportionately low enrollment of minorities and women may raise questions about the applicability of research findings to the populations most affected by the disease. It is vital that the factors underlying their under-representation in ACTs be identified, and that effective intervention strategies be developed to increase their enrollment.

Marya Viorst Gwadz, Ph.D., and Noelle R. Leonard, Ph.D. Other Project staff not pictured: Gricel Arredondo, M.A., Intervention Coordinator; Charles Cleland, Ph.D., Statistician; Rebecca de Guzman, Ethnographer; Anthony Diggs, Research Assistant; Mindy Finkelstein, ABD, Project Coordinator; Maya Tharaken, M.S.W., Senior Research Assistant; Amanda Ritchie, M.A.A., Ethnographer

This project was a collaboration among CDUHR investigators, the AIDS Clinical Trials Unit at Beth Israel Medical Center (BIMC-ACTU; Donna Mildvan, M.D., Director) and Housing Works, the largest provider of care for minority homeless individuals living with HIV/AIDS (Keith Cylar, late President and Co-Founder and Aman Nakagawa, Research Director). The aim of the study was to increase the number of minorities and women who presented themselves for screening at the BIMC-ACTU.[3]

To accomplish this aim, the project:

- Examined barriers to and facilitators of participation in ACT screening among women and minorities.
- Developed and evaluated the efficacy of a two-session culturally-appropriate group intervention to improve rates of screening for ACTs.
- Assessed participants' experiences with the screening process; rates of eligibility; biomedical and psychosocial factors contributing to ineligibility; and rates of trial participation.

Participants and Methods

A total of 594 participants were recruited through two AIDS service organizations. The average age for participants was 45 years; 61% were male; 55% were African-American, 33% Latino, 4% White and 8% bi-racial/ethnic or other.

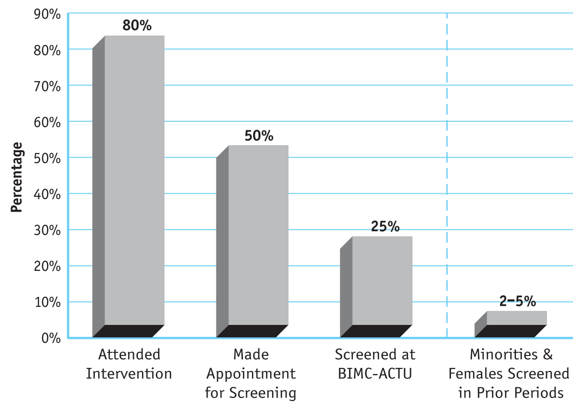
Participants took part in a baseline interview, two group intervention sessions, individual health education contacts, and a follow-up interview two months after the intervention. Intervention sessions focused on knowledge of ACTs and the screening process, historical and cultural reasons for low levels of participation in medical research among minorities and women, increasing motivation and readiness for screening for ACTs, and involving social network members and medical providers in ACT decisions.

Preliminary Findings

Participant screening at the BIMC-ACTU—Most of the participants (over 80%) attended the intervention, 50% made an appointment for screening, and 25% were screened. This was a substantial increase over typical base rates, where an estimated 2–5% of minority and female persons living with HIV/AIDS would be screened for ACTs in a comparable prior time period.

Knowledge and attitudes towards ACTs[4]—Prior to the intervention, less than half of the participants were aware of ACTs and less than 25% had considered participating.[5] However, participants answered only half of the knowledge questions on ACTs correctly.[5] A large majority (87%) were somewhat or very willing to participate in ACTs; women were less willing than men to participate if the *(Continued next page.)*

Participation in the Intervention and Screening



ACT involved testing of new medications or new combinations of medications. Sixty percent reported some level of distrust of AIDS scientists.

Barriers to participation in ACTs[4]—Among men, high distrust of AIDS scientists was associated with lower willingness for screening; among women, bi-racial/ethnic background and better physical health were associated with lower willingness to be screened.[5]

Facilitators to participation in ACTs[4]—Most participants (61%) reported that they would be willing to be screened if a friend recommended it, 81% if it was a friend living with HIV/AIDS. Less than 40% thought that their friends or partners would support screening for an ACT.[5] Most participants (88%) reported willingness to be screened if their medical provider encouraged it. Over 80% indicated that they would be willing to participate in an ACT if the study helped "cure AIDS" or "lower the number of HIV infections in the community".[5] Among men, greater understanding of ACTs and the receipt of free care as part of a trial were associated with willingness to participate. Among women, altruistic reasons, receiving free care, and higher levels of drug and alcohol use were associated with willingness.[5]

Experiences with the screening process—Participants were interviewed after screening visits. They reported almost unanimously that screening was a positive experience since it was an opportunity to review their medical histories and obtain information. However, most participants were not eligible for ACTs. Reactions to ineligibility ranged from relief to moderate disappointment. Many expressed intentions to join future trials. Participants often did not complete the screening process (e.g., they attended one meeting but did not return for medical testing). Findings indicated that rates of screening completion can be improved by providing more intensive intervention, support, and contact through the screening process.

Implications and Recommendations

Despite long-standing under-representation in medical research, minorities and women living with HIV/AIDS expressed substantial willingness to participate in ACTs. The current study identified individual, social, and organizational barriers that impede presenting for, and completing, ACT screening. A lower proportion of participants in this study were eligible for ACTs compared to rates typically found among those who are White and males. Additional analyses are underway to determine biomedical and other factors that contribute to low eligibility rates. Findings will be disseminated to inform future ACTs to increase eligibility rates.

1. Department of Health and Human Services (2005). What is an HIV/AIDS clinical trial? Available at: http://www.aidsinfo.nih.gov/other/whatisct.pdf
2. National Institute of Allergy and Infectious Diseases (2005). HIV infection in minority populations. Available at: http://www.niaid.nih.gov/factsheets/Minor.htm
3. The current project did not necessarily attempt to increase actual enrollment into ACTs. Each ACT has its own protocol (i.e., plan for how an ACT is to be conducted, including eligibility criteria for participation). Many who were screened at the BIMC-ACTU were not eligible to join an ACT for a variety of reasons.
4. Results are based on participants recruited in the first year of the study, a total of 286 individuals. Demographically, they were not different from participants from the entire study.
5. Gwadz, M.V., Leonard, N.R., Nakagawa, A., Cylar, K., Finkelstein, M., Herzog, N., Tharaken, M., & Mildvan, D. (in press). Gender differences in attitudes toward AIDS clinical trials among urban HIV-infected individuals from racial and ethnic minority backgrounds. *AIDS Care.*

For additional information on this study, contact Marya Viorst Gwadz, Ph.D., CDUHR Site Principal Investigator – e-mail: gwadz@ndri.org

Computer-Assisted HIV Prevention for Young Drug Users

Principal Investigator: Lisa A. Marsch, Ph.D.
Funding Agency: NIDA

Background and Objectives

Since 1999, the percentage of youth (those under age 25) living with AIDS has increased 37%.[1] Furthermore, youth account for almost half of new reportable cases of sexually transmitted infections (STIs) diagnosed each year.[2] Adolescents and young adults who use drugs are at greater risk for these infections. Few intervention programs have been specifically tailored for youth. Those that have been

25 Module Topics

- HIV and AIDS
- Sexually Transmitted Infections (STIs)
- Hepatitis
- Sexual transmission of HIV and STIs
- Selecting and correctly using condoms
- The Female Condom
- Birth Control Use and HIV and STIs
- Drug Use, HIV and hepatitis
- Alcohol use and risk for HIV, STIs and hepatitis
- Getting tested for HIV, STIs and hepatitis
- Finding more HIV, STI and hepatitis information
- Media influences on drug use and sexual activity
- Negotiating safer sex
- Decision-making skills
- Identifying and managing triggers for risky sexual activity
- Identifying and managing triggers for risky drug use
- Increasing self-confidence in decision-making
- Taking responsibility for choices
- Living with Hep C: Coping skills
- Living with Hep C: Managing treatment & promoting health
- Living with HIV: Coping skills and managing stigma
- Living with HIV: Communication skills for disclosing status
- Living with HIV: Managing treatment and medications
- Living with HIV: Drug use and immune system
- Living with HIV: Daily routines to promote health

developed are often too narrow in regard to topics, of insufficient duration, considered boring or threatening in their presentation, do not address skills development, and are not structured to readily adapt to the changing patterns of drug use and sexual behavior seen in this age group. Computer-based interventions can address these challenges and provide a time- and cost-effective method to deliver them.

This project developed and evaluated an interactive, computer-assisted HIV, STI and other disease prevention program for young substance abusers. It expanded on prior work indicating that computer-delivered HIV education may be effective with injection drug users.[3] The program was developed with input from youth and was customizable based on individual profiles of risk. The program consists of 25 modules. Based on the individual's risk profile, the relevant modules and their order of completion are provided to the participant. The program is self-directed and employs a variety of informational technologies that have been shown to be effective in teaching skills and information. These multimedia technologies include video-based simulations, graphics, animation, and fluency-based, computer-assisted instruction (a learning technology that involves testing, providing immediate feedback, and requiring participants to demonstrate mastery of the information and skills being learned).[3]

Participants and Methods

In Phase I of this study, thirty-one adolescents in substance abuse treatment systematically reviewed all program modules. Their infection/disease prevention knowledge regarding HIV, hepatitis and STIs was assessed before and after completing program modules. The average age of participants was 16.5 years; half were male; 65% were in treatment for alcohol, marijuana or poly-substance abuse, and 35% were in treatment for heroin/opioid dependence.

The next phase of the study (Phase II) evaluated the effectiveness of the program in a randomized, controlled trial. Participants were aged 13–18, in outpatient substance abuse treatment. They were randomly assigned to one of two interventions: a standard intervention, where HIV/disease prevention training was delivered by an expert in a small group, or an enhanced intervention which included the standard intervention plus the customizable, interactive computer-delivered training. Findings are based on 47 adolescents who have thus far been randomly

Honoria Guarino, Ph.D., Research Associate; Lisa A. Marsch, Ph.D., Principal Investigator; Alethea Desrosiers, M.A., Senior Research Assistant

assigned. Over two-thirds were African-American, and over two-thirds were male.

Preliminary Findings

Feedback on the program—Participants in both phases of the study rated the program positively. Participants in Phase I, when prompted: "How easy to use/understand was the program you completed?" (0=very difficult, 100=very easy), rated it around 90; "How does this program compare to other counseling or education you have had on this topic?" (0=much worse, 100=much better), received a rating around 80.[4] In Phase II, ratings of the standard and enhanced interventions were compared. Those in the enhanced intervention rated HIV/AIDS education as more "interesting" and "useful" than those in the standard intervention.[4]

HIV/disease prevention knowledge—In Phase I, initial prevention knowledge in HIV/AIDS, hepatitis and STIs was low. Participants answered less than 70% correctly on knowledge tests of HIV/AIDS prevention, less than 60% on hepatitis prevention and less than 50% on STIs prevention. After using the computerized program, knowledge scores improved to over 90% accuracy in each category.[4] In Phase II, before the intervention, participants in both conditions scored less than 50% correctly on HIV/disease prevention knowledge. After the intervention, both groups improved, however, accuracy was significantly higher in the enhanced condition. When asked whether "Drug treatment can really help drug users avoid getting HIV" (on a scale from 1 to 4, where 1 = strongly disagree, 4 = strongly agree), both groups generally agreed (average = 3.2) with the statement pre-intervention. However, after the intervention, the standard intervention group was less likely to endorse the statement (2.5), while those in the enhanced group (3.5) were more likely to endorse it.[4]

Intentions to engage in "safe" behavior—In Phase II, pre-interventions, both groups had similar scores on their intentions to engage in *(Continued next page.)*

safer behavior. After the interventions those in the enhanced condition scored significantly higher.[4]

Implications and Recommendations

The computer-based interactive HIV/disease prevention program was positively rated by youth, and promoted significant increases in HIV/disease prevention knowledge, more positive attitudes about the role of drug treatment in prevention and greater intentions to engage in safe behavior. The preliminary findings in this study indicate that applying information technologies to prevention science may help address concerns around the delivery of such programs. Additional recruitment of participants and analyses are underway to examine effectiveness of the program in diverse populations of youth.

1. Centers for Disease Control and Prevention (2005). HIV/AIDS among youth. Fact Sheet. Available at: http://www.cdc.gov/hiv/pubs/facts.htm

2. Centers for Disease Control and Prevention (2005). Trends in reportable sexually transmitted diseases in the United States. National surveillance data for chlamydia, gonorrhea and syphilis. Available at: http://www.cdc.gov/std

3. Marsch, L.A. & Bickel, W.K. (2004). Efficacy of computer-based HIV/AIDS education for injection drug users. *American Journal of Health Behavior, 28*, 316-327.

4. Marsch, L.A., Bickel, W.K., Guarino, H., & Desrosiers, A. (2005, June). Computer-delivered HIV and other disease prevention for substance-abusing youth. Presented at the College on Problems of Drug Dependence Annual Meeting, Orlando, Florida.

For additional information on this study, contact Lisa A. Marsch, Ph.D., Principal Investigator – E-mail: marsch@ndri.org

NEW CDUHR PROJECTS

In this section of the newsletter, information regarding newly funded research projects are described. Three new projects have been funded since August 2005.

PI: Holly Hagan, Ph.D.
Project Director: Travis Wendel, J.D.
Project Staff (not pictured): Alix Conde, Libertad Guerra, Noel Trejo and Aundrea Woodall

National HIV Behavioral Surveillance Among High Risk Heterosexuals: New York City (CDC through the NYCDOHMH)

Principal Investigator: Holly Hagan, Ph.D.

The Centers for Disease Control and Prevention (CDC) has funded 26 U.S cities to implement a behavioral surveillance system for three groups at highest risk for HIV: men who have sex with men (MSM), injection drug users (IDUs) and high-risk heterosexuals (HRH). The surveillance system is tracking changes in HIV-related risk behavior over time, with each of the high-risk groups surveyed in alternating 12-month cycles. This project is the New York City high-risk heterosexuals component of the national study. The study will be recruiting heterosexual men and women living in high HIV risk neighborhoods. A sub-study with the sexual partners of African-American and Hispanic women will also be conducted. A formative research phase will take place to identify high risk neighborhoods and develop specific sampling locations. Recruitment and data collection, in the latter part of the study, will include a risk behavior interview and HIV testing.

PI: Marjorie F. Goldstein, Ph.D., Project Staff: Elizabeth Eckhardt, Ph.D., Patrice Joyner, M.S.W., Roberta Berry, M.F.A (not pictured)

The Science of Addiction for Deaf High School Students (NIDA)

Principal Investigator:
Marjorie F. Goldstein, Ph.D.

Different strategies are needed for deaf students to become fully scientifically literate. Deaf persons primarily organize information visually and often prefer to receive information through multiple visual channels (e.g., diagram, text and sign language). Three segments from the NIDA curriculum *The Brain: Understanding Neurobiology through the Study of Addiction* were selected for adaptation and translation into American Sign Language (ASL) for deaf high school students. The selected segments were: “Brain Anatomy”, “A Case Study on Brain Function”, and “A Case Study of Addiction”. Each section was digitized and programmed into a CD-ROM for feedback from deaf high school and college students, and teachers of science to deaf students. This feedback will be used to plan the adaptation and translation of the full NIDA curriculum.

Expanding Computer-Based Drug Abuse Prevention (NIDA)

Principal Investigator: Lisa A. Marsch, Ph.D.

Recent evidence indicates that the prevalence of substance abuse is significant among children and adolescents, and initiation of drug use is occurring at early ages. These findings suggest the need for appropriate prevention interventions for children at an early age and continuation throughout middle school and later years. An earlier phase of this study demonstrated the scientific and technical feasibility of a prototype of an interactive, computer-based drug abuse prevention program for elementary school-aged children. The current grant funds the completion of the computer-based program, as well as a multi-site, school-based evaluation to determine the effectiveness of the program in increasing knowledge of substance abuse, preventing initiation of substance use and enhancing protective factors against substance abuse.

Andia, J. F., Deren, S., Robles, R. R., Kang, S.-Y., Colon, H. M., Oliver-Velez. D., & Finlinson, A. (2005). Factors associated with injection and noninjection drug use during incarceration among Puerto Rican drug injectors in New York and Puerto Rico. *Prison Journal, 85* (3), 329-342.

Belenko, S. R., Shedlin, M., & Chaple, M. (2005). HIV risk behaviors, knowledge, and prevention service experiences among African American and other offenders. *Journal of Health Care for the Poor and Underserved, 16* (4, Supplement B), 108-129.

Carey, J., Perlman, D. C., Friedmann, P., Kaplan, W. M., Nugent, A., Deutscher, M., Masson, C. L., & Des Jarlais, D. C. (2005). Knowledge of hepatitis among active drug injectors at a syringe exchange program. *Journal of Substance Abuse Treatment, 29* (1), 47-53.

Cooper, H., Moore, L., Gruskin, S., & Krieger, N. (2005). The impact of a police drug crackdown on drug injectors' ability to practice harm reduction: A qualitative study. *Social Science and Medicine, 61* (3), 673-684.

Cooper, H. L. F., Wypij, D., & Krieger, N. (2005). Police drug crackdowns and hospitalisation rates for illicit-injection-related infections in New York City. *International Journal of Drug Policy, 16* (3), 150-160.

Davis, R. C., Mateu-Gelabert, P., & Miller, J. (2005). Can effective policing also be respectful? Two examples in the South Bronx. *Police Quarterly, 8* (2), 229-247.

Decena, C. U., & Shedlin, M. G. (2005). Defining new communities: A challenge for immigrant health. *Papeles De Poblacion, 44*, 203-219. Available at: http://www.redalyc.org (Click on Demografía).

Deren, S., Shedlin, M., Decena, C. U., & Mino, M. (2005). Research challenges to the study of HIV/AIDS among migrant and immigrant Hispanic populations in the United States. *Journal of Urban Health, 82* (2, Supplement 3), iii13-iii-25.

Des Jarlais, D. C., Hagan, H., & Friedman, S. R. (2005). Drug abuse and the spread of infection: HIV and AIDS as an example. In Z. Sloboda (Ed.), *Epidemiology of drug abuse* (pp. 193-208). New York: Springer.

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Des Jarlais, D. C., Perlis, T., Arasteh, K., Torian, L. V., Hagan, H., Beatrice, S., Smith, L., Wethers, J., Milliken, J., Mildvan, D., Yancovitz, S., & Friedman, S. R. (2005). Reductions in hepatitis C virus and HIV infections among injecting drug users in New York City, 1990-2001. *AIDS, 19* (Supplement 3), S20-S25.

Des Jarlais, D. C., Stuber, J., Tracy, M., Tross, S., & Galea, S. (2005). Social factors associated with AIDS and SARS. *Emerging Infectious Diseases, 11* (11), 1767-1769.

Flom, P. L. (2005). LATEX for academics and researchers who (think they) don't need it. *PracTEX Journal, 4*. Available at: http://tug.org

Friedman, S. R., Lieb, S., Tempalski, B., Cooper, H., Keem, M., Friedman, R., & Flom, P. L. (2005). HIV among injection drug users in large US metropolitan areas, 1998. *Journal of Urban Health, 82* (3), 434-445.

Hagan, H., Thiede, H., & Des Jarlais, D. C. (2005). HIV/hepatitis C virus co-infection in drug users: Risk behavior and prevention. *AIDS, 19* (Supplement 3), S199-S207.

Hammett, T. M., Bartlett, N. A., Chen, Y., Ngu, D., Cuong, D. D., Phuong, N. M., Tho, N. H., Van, L. K., Liu, W., Donghua, M., Shaomi, X., Chen, H., Quyen, H. N., Broadhead, R. S., & Des Jarlais, D. C. (2005). Law enforcement influences on HIV prevention for injection drug users: Observations from a cross-border project in China and Vietnam. *International Journal of Drug Policy, 16* (4), 235-245.

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The NDRI Training Institute

The NDRI Training Institute (A. Osborne, Director) provides training for the New York State Department of Health AIDS Institute and conducts courses by special request. Following are courses available from January–June 2006, offered at no cost. All courses are held at the NDRI main offices unless otherwise noted.

Date		Course
1/18	◆	Building Bridges to Cultural Competency (One day)
1/24–1/26		Reducing the Risk and Harm of HIV (Three days)
1/31, 3/28[a], 4/18	◆	Overview of HIV Infection and AIDS (3 hours)
1/31		HIV Disclosure (3 hours)
2/7–2/10, 6/5–6/8	◆	Community HIV/AIDS Educator Training (Four days)
2/14[b]	◆	Introduction to Case Management (One day)
2/23–2/24	◆	Mental Health Services (Two days)
3/1[a]	◆	Enhancing the Partnership Between Client and Case Manager (One day)
3/14[c], 4/18		HIV/AIDS Confidentiality Law (3 hours)
3/14[c]		HIV & STDs (3 hours)
3/16–3/17		Serving Families: From Assessment to Service Plans (1½ days)
3/21		HIV Testing in NYS 2005 Guidance (3 hours)
3/22		HIV Testing Skills Practice Session (One day)
3/28a		What's New in HIV/AIDS? (3 hours)
3/30	◆	Domestic Violence in Lesbian, Gay, Transgender and Bisexual Communities (One day)
3/30[c]	◆	Basic Information About Domestic Violence (One day)
4/3–4/4		Integrating Viral Hepatitis into Your Work (One day)
4/11[d]	◆	Addressing Prevention with HIV Positive Clients (One day)
5/2[b]		Addressing Prevention in HIV Case Management (One day)
5/9–5/11		Skills Practice and Implementation of Stage-Based Behavioral Counseling (Three days)
5/23–5/25		Offering Rapid HIV Testing in CBOs Serving High Risk Communities (Three days)

a Samaritan Village, Queens
b Bronx AIDS Services
c Woodhull Hospital, Brooklyn
d Lincoln Hospital, Bronx

◆ Training courses are provided under NYS OASAS Education and Provider Certificate Number 0305 and are acceptable for CASAC credits.

*For a complete listing of courses, the curriculum of Special Request courses, CDUHR-sponsored Training Institute courses, and information on the courses listed above, call the Training Institute at (212) 845-4550. This information is also available on our website at **www.training.ndri.org** where you may register for these courses.*

The Center for Drug Use and HIV Research is funded by the National Institute on Drug Abuse (Grant # P30 DA11041) to provide an infrastructure to support the HIV/AIDS-related research projects at NDRI. It is the first center for the socio-behavioral study of drug use and HIV in the United States and is dedicated to increasing our understanding of the drug use-HIV epidemic.

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Addressing Health Disparities in HIV/AIDS Clinical Trials (NIAID)
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Applying Web Technology to Buprenorphine Treatment (NIDA)
PI: Lisa A. Marsch, Ph.D.

Community Vulnerability and Response to IDU-Related HIV (NIDA)
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Couples HIV Intervention Randomized Controlled Trial (NIDA)
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Increasing HCV Knowledge and Service Use in Drug Treatment Programs (NIDA)
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An Intervention for Migrant Puerto Rican Drug Users (NIDA)
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Interventions for HIV-Positive Mothers with Drinking Problems (NIAAA)
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National Study of Syringe Exchange Programs (NIDA)
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