
ALAN I. LESHNER, PHD

Preface

The National Institute on Drug Abuse (NIDA), in collaboration with the Office of AIDS Research of the National Institutes of Health, invited national and international researchers to the “Research Synthesis Symposium on the Prevention of HIV in Drug Abusers” in Flagstaff, Arizona, August 3–5, 1997. The purpose of the Symposium was to review the findings from more than a decade of research on the effectiveness of community-based interventions designed to reduce risk behaviors and to prevent the spread of human immunodeficiency virus (HIV) infection in drug-using populations. This Special Issue of *Public Health Reports* provides a comprehensive review of the origins, evolution, and current status of the HIV prevention science knowledge base that was derived, in large part, from NIDA’s HIV research and intervention programs. In the mid-1980s, NIDA-funded drug abuse and HIV researchers responded to the challenges of the changing dynamics of drug abuse and the spread of HIV and other infectious diseases. They developed, implemented, and evaluated the effectiveness of a range of interventions, including community-based outreach risk reduction, drug treatment, and needle exchange programs. In this Special Issue, the researchers report that these interventions have been effective in reaching at-risk populations and enabling them to change their risk behaviors, thus reducing their risk of acquiring or transmitting HIV infection. NIDA’s prevention research has provided important empirical data that demonstrate that HIV transmission in drug-using populations is preventable. Despite such advances, new HIV infections and other blood-borne diseases continue to spread in both the United States and around the world.

The 1997 Research Synthesis Symposium was also intended to (1) translate science-based findings into prevention principles that can be applied in “real world” interventions to prevent drug abuse and HIV/AIDS (acquired immunodeficiency syndrome) and (2) integrate HIV prevention research and “real world” practice into new research and development of next-generation interventions for responding to the challenges of these dynamic and co-occurring epidemics. Researchers report in this volume that each major intervention strategy—community-based outreach, drug

Dr. Alan I. Leshner is the Director of the National Institute on Drug Abuse, National Institutes of Health.

treatment, and needle exchange programs—represents a component of a comprehensive HIV prevention program that helps at-risk populations increase their protective behaviors and reduce their risks for HIV infection. The collective findings reported in this Special Issue suggest that a range of HIV intervention strategies and supporting policy should be introduced early to control the epidemic's spread, and that, to enhance their beneficial effects, the complex barriers that make it difficult for at-risk populations to adopt and practice safer behaviors have to be reduced or eliminated. Interventions have to be introduced in a variety of settings to reach at-risk and drug-using populations and provide them with the means for changing their drug-use, needle practices, and sexual behaviors simultaneously. The empirical data reported in this issue consistently demonstrate that, among those participating in interventions, decreases in the prevalence of risk behaviors and increases in protective behaviors are linked to declines in incident HIV infections. However, based on reports to the Centers for Disease Control and Prevention (CDC) by 25 states with integrated HIV and AIDS surveillance data, the recent national declines in AIDS incidence and deaths have not been paralleled by comparable declines in the number of newly diagnosed HIV cases.¹ Largely because of the substantial improvements in treatment and care of persons infected with HIV, AIDS surveillance data alone are no longer accurate for assessing the extent of the epidemic or for predicting its future course. These surveillance data present a major challenge for continuing our prevention research efforts and rapidly developing the next generation of drug abuse and HIV/AIDS prevention interventions.

In this volume, it is reported that, while each major prevention strategy has proved effective in reaching at-risk populations and enabling drug-using populations to change their behaviors, no single strategy is sufficient by itself to prevent the further spread of HIV. The HIV prevention principles emerging from the Research Synthesis Symposium included the need to (1) initiate HIV prevention interventions early in the epidemic; (2) implement multiple interventions and intervention strategies at multiple levels (legal, institutional, community, network, individual); (3) implement interventions in multiple settings (streets, storefronts, and shooting galleries; health-related settings such as clinics and pharmacies; mobile and stationary needle exchange programs; drug treatment centers); (4) target multiple risk behaviors (drug use, needle risk, sexual behaviors); (5) provide access to multiple means for behavior change (risk reduction information; risk reduction supplies, including bleach and related injection

hygiene materials; male and female condoms; HIV antibody testing with pre- and posttest counseling); (6) recognize that populations at risk for HIV are in various stages of readiness to engage in an intervention and create opportunities for repeated exposures; and (7) be assured that risk reduction is an appropriate, realistic outcome of HIV interventions.

Shriver and colleagues (this volume)² provide guidance to bridge the gap between science and practice and to plan for application of the research and scientific principles that have proved effective in reducing HIV infection in the drug-using population. For the research results to be useful, researchers and practitioners must be sensitive to the needs of the community as well as to the reliability and generalizability of the research findings for implementation in the community, often with minimum or scarce resources. Effective intervention models must be widely communicated in an understandable, concise, and practical manner to a broad community audience, such as community planning groups and organizations and drug abuse and HIV prevention practitioners. In essence, the goal of drug abuse and HIV prevention research should be to create a partnership between researchers and community prevention programs and to facilitate understanding of the research process and results at all levels.

NIDA has planned the publication of this Special Issue of *Public Health Reports* to coincide with the 12th World AIDS Conference in Geneva, Switzerland. Scientists from around the world will report their progress, share scientific knowledge, and develop strategies for the continuing struggle against HIV and AIDS. In the United States, approximately one-half of the 41,000 new HIV infections each year are occurring among injecting drug users (IDUs), with the epidemic clearly being driven by infections in IDUs, sexual partners of IDUs, and their offspring (Holmberg, p. 649).³ Worldwide, 129 countries and territories now report injecting drug use, with 108 countries reporting HIV or AIDS in the drug-using population (Ball et al., this volume).⁴ As we enter the third decade of the AIDS epidemic, explosive epidemics are occurring in both developed and developing countries; additional cumulative data indicate that HIV epidemics have stabilized, subsided, or that new HIV infections can be contained at very low levels (Strathdee et al.,⁵ Des Jarlais and Friedman, this volume⁶). The twin epidemics of HIV/AIDS and drug abuse have significant public health consequences worldwide, and it is primarily through international collaboration in drug abuse surveillance, prevention, and treatment of drug abuse and drug abuse-related consequences that we can successfully

address these complex issues. Although the Research Synthesis Symposium has increased our understanding of HIV infection prevention in drug-using populations and represents a critical step in fostering the creation of a global network of scientists cooperating to find solutions to the epidemics of HIV/AIDS and drug abuse, we nevertheless must move more quickly in developing mechanisms to exchange the vital information necessary for effective HIV prevention programs.

At the Research Synthesis Symposium, participants discussed the feasibility of establishing a global research network on HIV prevention. Since that time, NIDA, in collaboration with the World Health Organization/Programme on Substance Abuse and the Joint United Nations Programme on HIV/AIDS (UNAIDS), has organized a meeting to be held prior to the 12th World AIDS Conference. The meeting will host leading prevention researchers from more than 21 countries to begin planning for the development of a network structure to expand, coordinate, and exchange information about

public health prevention research on drug abuse and HIV/AIDS. NIDA remains committed to continuing, supporting, and expanding prevention research, and to disseminating widely the most recent findings on effective intervention strategies to prevent the further spread of HIV/AIDS. We at NIDA look forward to continued opportunities for research cooperation with domestic and international researchers.

HIV transmission in drug-using populations is preventable. The challenge for prevention researchers is to anticipate the changing dynamics of the co-occurring and interrelated epidemics of drug abuse and HIV/AIDS and to respond rapidly and effectively to prevent increasing drug use and further spread of HIV. Early in the epidemic, behavioral interventions were the only means available to prevent HIV infection. Community-based outreach, needle exchange programs, and drug treatment as HIV prevention remain, in the absence of an AIDS vaccine and no cure, the most cost-effective and reliable strategies for averting new HIV infections.

References

1. Centers for Disease Control and Prevention (US). Diagnosis and reporting of HIV and AIDS in States with integrated HIV and AIDS surveillance—United States, January 1994–June 1997. *MMWR Morb Mortal Wkly Rep* 1998;47:309–14.
2. Shriver M, de Burger R, Brown C, Simpson HL, Meyerson B. Bridging the gap between science and practice: insight to researchers from practitioners. *Public Health Rep* 1998;113 Suppl 1:189–93.
3. Holmberg SD. The estimated prevalence and incidence of HIV in 96 large US metropolitan areas. *Am J Public Health* 1996;86:642–54.
4. Ball A, Rana S, Dehne KL. HIV prevention among injecting drug users: responses in developing and transitional countries. *Public Health Rep* 1998;113 Suppl 1:170–81.
5. Strathdee SA, van Ameijden E, Mesquita F, Wodak A, Rana S, Vlahov D. Can HIV epidemics among injection drug users be prevented? *AIDS*. In press 1998.
6. Des Jarlais D, Friedman S. Fifteen years of research on preventing HIV infection among injecting drug users: what we have learned, what we have not learned, what we have done, what we have not done. *Public Health Rep* 1998;113 Suppl 1:182–8. ■