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NEEDLE EXCHANGE PROGRAMS:
SENDING THE RIGHT MESSAGE

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The Problem

Few images of drug use are more potent than that of the needle--the needle in the shaky hand of a junkie searching the tracks on his arm or leg for a vein still able to receive one more injection; the needle hanging from the arm of an addict unconscious or dead from an overdose; the contaminated needle passing its deadly load of HIV or hepatitis to the next user and, through him, to his wife or lover and their unborn child. Small wonder, then, that a prominent and persistent goal of U.S. drug policy, from the federal to the local level, has been to deny drug users easy access to needles and to punish them whenever they are found with one.

The illegal drugs that users most commonly inject are heroin, cocaine, and methamphetamines, although each of these can be taken by other means, such as snorting, smoking, or ingesting orally. Obviously, using these drugs, particularly in the corrupted state in which they typically reach the retail market, is risky business. This inherent risk is substantially increased when users share needles contaminated by blood-borne diseases, most notably HIV/AIDS and hepatitis A, B, and C. The actual result is stunning. Informed estimates of the number of injecting drug users (IDUs) range from a quite conservative 1 million to a more common figure of approximately 1.4 million. By mid-2000, according to the Center for Disease Control and Prevention (CDC), 36 percent (270,721) of AIDS cases in the United States had occurred among IDUs, their sexual partners, and their offspring.¹ Even more striking, persons in this three-part category account for approximately half of all new HIV infections in the U.S., meaning that their share of AIDS cases will also rise. Hepatitis C, the most dangerous variant of that disease, is also rampant among IDUs in this country; surveys consistently find that between half and 80 percent of injectors contract the virus within the first year of needle use and that it is found in the blood of even higher proportions (70-90%) of all adult IDUs.

It is possible to regard such statistics as a matter of just deserts, or at least as a regrettable effect of an avoidable cause. People should know that if they use dangerous drugs in the company of dangerous people, bad things are likely to happen. Their sexual partners, though perhaps not drug users themselves, should confine themselves to more wholesome companions. It is troubling, of course, to learn that 57 percent of children born with AIDS in the U.S. are the

offspring of IDUs or their sexual partners, but hardly news that the sins of fathers and mothers are frequently visited upon their progeny.

Even those who subscribe to such views, however, should pause in the face of the enormous economic costs of treating people infected with HIV or already suffering from AIDS. According to a 2001 CDC report, the “lifetime, discounted, direct medical cost of treating a person infected with HIV is estimated to be \$96,000.” The same CDC report notes that estimates of the cost of treating a child infected with HIV from birth range from a low of \$161,000 to a high of \$408,000. These figures, incidentally, do not include the cost of widely used multidrug therapies, which typically run to approximately \$10,000 per patient per year.² Another commonly cited estimate is \$195,000.³ Total annual costs of treatment are typically estimated to run between \$20,000 and \$24,000. Precise estimates are difficult to determine and subject to change. Lowered cost of drugs may reduce the annual cost of treatment, but increased success of drugs will mean longer periods of treatment. A 2005 CDC report estimates that the current lifetime treatment cost for a person with HIV is \$155,000, for an annualized cost--a cost that increases by this much each year--of more than \$6 billion. At current rates, approximately 40,000 people are infected with HIV each year. Treating just those who have been infected in the past five years for the rest of their lives will cost an estimated \$31 billion. The CDC estimates that only 1,300 cases would need to be averted annually to make a full-scale program of syringe exchange and disposal for IDUs economically effective.⁴

Many people infected with HIV/AIDS receive little or no medical treatment, but of those who do, a high proportion of the cost is borne by Medicaid or similar taxpayer-funded programs. Thus, whether driven by compassion, fiscal prudence, or self-defense, rational public policy will seek to reduce the incidence of HIV/AIDS, hepatitis, and other blood-borne diseases that are spread by the behavior of IDUs. Fortunately, the means to such a reduction are well known and thoroughly proven

International Programs

Recognizing that HIV and hepatitis were both spreading at alarming rates among IDUs, public health officials in both the Netherlands and Australia began experimenting in the mid-1980's with programs to supply addicts with clean needles in exchange for their used ones. In addition, the participants were assured that they would run no risk of arrest or harassment by police in the course of making these exchanges. While opposed by some on the grounds that it seemed to be condoning drug use, needle exchange programs (NEPs) quickly proved to be an effective means of reducing the incidence of blood-borne diseases in both countries and have been widely recognized as a valid part of good public health policy and practice in many other parts of the world. In such programs, addicts receive a clean needle for every used one they turn in, thus limiting careless or dangerous disposal of needles. In some locales, syringes can also be easily obtained from pharmacies or even from vending machines. These are not only more convenient, but encourage the use of clean needles by IDUs who may be reluctant to signal their addiction by going to an NEP.

In October 2002, Major Brian Watters, Chairman of the Australian National Council on Drugs--Australia's "Drug Czar"--and Chris Puplick, Chairman of the Australian National Council of AIDS and Hepatitis Related Diseases, co-issued a report assessing the ten-year "Return on Investment in Needle Exchange and Syringe Programs" in that country. The report estimated that NEPs had resulted in the avoidance of 25,000 cases of HIV and 21,000 cases of hepatitis C over the decade of the 1990's. The financial return was equally impressive. An investment of more than \$130 million (Australian) in such programs would result in a savings of somewhere between \$2.4 and \$7.7 billion. (At the time, the Australian dollar was valued at approximately \$0.55 U.S., for converted figures of approximately \$71.8 million and \$1.3 to \$4.1 billion.)

Going beyond Australia, researchers for the report examined data from 103 cities worldwide, amounting to an aggregate of 778 years of experience with NEPs. Their findings: cities with NEPs experienced an average annual decrease in HIV cases of 18.6 percent; cities without such programs had an average 8.1 percent increase. The contrast between Australia and the United States is particularly striking. Alex Wodak, M.D., a participant in the April 2002 Baker Institute

conference, “Moving Beyond the War on Drugs,” has been a key figure in persuading the Australian government to support NEPs and other methods of making clean needles available to users. According to Dr. Wodak, “In the year 2000, there were 14.7 new AIDS cases for every 100,000 Americans compared to just 1.1 new AIDS case for every 100,000 Australians. The proportion of new AIDS cases attributed directly or indirectly to injecting drug use in the United States is estimated as between one third to one half--compared to just 5% in Australia.”⁵ Even more dramatically, in Southern Australia, where 55 NEPs served about 1.2 million drug users, no new HIV infections were reported for three consecutive years.⁶

Awareness of such experience and research findings has led authorities in numerous European countries and cities to follow suit. Hundreds of NEPs operate in Great Britain, Germany, Spain, and other parts of Europe, and vending machines dispense clean needles in dozens of European cities. The Canadian government also began funding NEPs in 1989, as part of a comprehensive effort to reduce HIV infection. More recently, NEPs have been launched in various Asian and Latin American countries, as well as in several countries in the developing world.

The American Experience

By 1990, IDUs aware of the risks of their behavior, AIDS activists, and public health officials had begun NEPs in several cities in the United States--Tacoma and Seattle, Washington; Portland, Oregon; San Francisco, California; New York City; and the best known and most carefully studied; New Haven, Connecticut.

The New Haven program, aided by strong support from the Mayor’s Task Force on AIDS, given legal status by the Connecticut legislature, and operated by the New Haven Department of Health beginning in November 1990, overcame an anticipated reluctance of addicts to come to a government-sponsored program by taking the program to them in a roving van donated by Yale University. To check the effect of needle exchange on disease prevention, needles were numbered and addicts were given fictitious names. Every used needle turned in was replaced by a clean one. In the early stages of the program, while users were still skeptical of official assurances that they need not fear arrest or other trouble with police when coming to the van,

only about two of every ten needles distributed were returned. Slightly over two-thirds of these (almost 68 percent) tested positive for the AIDS virus. After the program had been in operation for two years, seven of every ten needles distributed were being returned and only 44 percent were HIV-positive. Researchers familiar with the program conservatively estimated that the HIV transmission rate had dropped by a minimum 33 percent in the first two years of the program's operation, with a similar reduction in hepatitis B infection. Like most NEPs, the New Haven program did more than simply distribute new syringes. Addicts were given instructions about safe injection practices, offered drug treatment if they wanted it, and provided with minimal health care such as flu shots and checkups. At the time of the 1993 assessment, almost 20 percent of participants in the program had begun drug treatment and hundreds of others, including many users who were not injectors, had come to the program for referral to an appropriate treatment facility.⁷

Ten years after the official launching of the New Haven program--some distribution of clean needles by AIDS activists and others concerned with health risks to IDUs had been going on since 1986--over 130 NEPs were operating in the United States, some legally, some not. Some, in fact, were begun as explicit acts of civil disobedience of laws prohibiting such behavior. Some were funded by state or city governments, some by private foundations and individuals, and some by a combination of sources. Some did little more than exchange needles; others provided various ancillary services and made significant efforts to link addicts to treatment programs.

Distribution: Pharmacy, Prescription, and Vending Machines

During the 1990s, the U.S. government funded several studies of NEPs, including an extensive literature review of almost 2,000 U.S. and foreign research reports. Key governmental and professional bodies, including the National Academy of Science, the Centers for Disease Control, the American Medical Association, the Institute of Medicine, the National Institutes of Health, the American Public Health Association, the American Bar Association, and the AIDS Advisory Commissions of President Clinton and the senior President Bush, have conducted studies and issued reports on the topic of access to clean needles. Without exception, these

studies and organizations have endorsed access to clean needles as an effective measure for reducing the incidence of blood-borne diseases and increasing access to treatment for drug users. In addition, they have persuasively documented the important finding that access to sterile needles neither encourages people to start injecting drugs nor increases drug use by those who are already users. To the contrary, NEPs typically facilitate linkages to various forms of treatment, where such treatment is available. Moreover, since IDUs present used needles in exchange for clean ones, millions of potentially contaminated needles are taken out of circulation. In 1999, NEPs in the United States exchanged an estimated 19 million syringes-- instead of being passed around, left on sidewalks or in parks or public restrooms, where they could injure or infect children and others who might come in contact with them accidentally. Reduction in the number of contaminated needles also reduces risks for police and health workers who may receive needle-stick injuries in their contact with addicts.

Advocates for NEPs typically support making it possible for users to obtain clean needles from physicians, from pharmacies, with or without a prescription, from the police, or even from vending machines (with provision for discarding used needles safely) such as those found in many locales in Europe and Australia, including the restrooms in the Australian national parliament building. These outlets can serve addicts in rural, small-town, and suburban areas that might be unable or unwilling to support NEPs and can, as noted above, reach some users who may wish to avoid being labeled as drug addicts. That such measures can extend the benefits offered by NEPs seems clear. For example, one study found that diabetic IDUs who were able to obtain syringes legally at pharmacies had HIV infection rates of only 9.8 percent, compared to 24.3 percent for non-diabetic injectors, even when their history and pattern of drug use were similar.⁸

Conclusions and Recommendations

These findings are well known and have been accepted by key U.S. government officials charged with oversight of the nation's health.

Dr. Harold Varmus, then Director of the National Institutes of Health, declared in 1998 that, “An exhaustive review of the science in this area indicates that NEPs can be an effective component in the global effort to end the epidemic of HIV disease. Recent findings have strengthened the scientific evidence that NEPs do not encourage the use of illegal drugs.”⁹

Donna Shalala, Secretary of Health and Human Services during the Clinton Administration, sounded a similar note: “A meticulous scientific review has now proven that NEPs can reduce the transmission of HIV and save lives without losing ground in the battle against illegal drugs. It offers communities that decide to pursue NEPs yet another weapon in their fight against AIDS.”¹⁰

And, in 2000, Dr. David Satcher, then Surgeon General of the United States, wrote that,

“[W]ell designed and implemented syringe exchange programs have demonstrated efficacy in engaging populations at severe risk for HIV and reducing the further spread of HIV among injection drug users, their sexual partners and children ... after reviewing the research to date, the senior scientists of the department and I have unanimously agreed that there is conclusive scientific evidence that syringe exchange programs, as part of a comprehensive strategy, are an effective public health intervention that reduces the transmission of HIV and does not encourage the use of illegal drugs.”

Given this near unanimity among relevant professionals, it is peculiar that policy makers from the White House to City Hall have shown such resistance to the notion of providing IDUs with easier access to clean needles, for their own sake and that of the larger society.

After HIV/AIDS attained crisis status in the mid-1980s and under the terms of a 1988 amendment sponsored by Senator Jesse Helms, Congress responded by forbidding use of federal funds for NEPs. Thus reflecting the view expressed by Bush Drug Czar Robert Martinez that

providing needles to IDUs “undercuts the credibility of society’s message that drug use is illegal and morally wrong.”¹¹

In 1997, Congress maintained its stance, enacting Public Law 105-78, which prohibits federal funding of “any program of distributing sterile needles or syringes for the hypodermic injection of any illegal drug.” This echoed earlier bills, but contained the qualification that, if the Secretary of Health and Human Services were to determine that NEPs were effective in preventing the spread of AIDS and did not encourage illicit drug use, the ban could be lifted. Less than six months later, Secretary Shalala and NIH director Varmus issued their statements, carefully worded to speak directly to this provision. Not wishing to appear vulnerable on a sensitive moral issue, however, the Clinton administration chose not to lift the ban. Subsequently, congressional supporters of hard-line drug policies have repeatedly declared their determination never to “spend a dime on needles for drug addicts.”

Although they save far more money than they cost, NEPs do cost money--for staff, facilities, utilities, and, of course, for needles and other items dispensed to clients. Lack of federal money and reliance on volunteer staffers makes their existence precarious. In addition, some states prohibit distribution or sale of needles without a prescription and most have paraphernalia laws that make possession of items that can be used to take drugs--needles, pipes, bongs, cookers--a criminal offense. This makes it difficult to persuade addicts to participate in a program sure to be known to police and making NEP staff members and volunteers subject to arrest as well, for knowingly abetting illegal drug use.

Of approximately 120 NEPs currently operating in the U.S., as many as half operate on shaky legal grounds and thousands of IDUs have no access to such programs. As a notable example, Houston--the fourth largest city in the nation, with nearly 20,000 known AIDS cases--has no needle exchange program. A Dallas program, run by four volunteers operating from a pickup truck and working mainly in African-American neighborhoods, reportedly distributes about 250,000 needles a year. Limited as it is, this effort surely plays some role in an AIDs rate 57 percent lower than that of Houston’s.¹²

Despite overwhelming scientific and economic evidence, NEPs are consistently rejected by politicians and platforms of both major parties. Some, of course, are either unaware of the evidence or find it hard to accept. Others, though persuaded by the evidence, fear that seeming to be “soft on drugs” might cost them re-election, particularly if they believe their constituents belong to the 40 percent who remain unconvinced. The tide seems to be turning. As the experience of other countries--and, gradually, more states and cities in the United States--confirms that NEPs and other methods of making sterile syringes available to IDUs save lives and money without increasing drug abuse, lawmakers are beginning to consider changes in policy. In 2004, California Governor Arnold Schwarzenegger signed SB 1159, adding California to the growing list of states that allow pharmacy sales of up to ten sterile syringes without a prescription.¹³ And in the spring of 2005, the Texas Legislature is considering a bill that will permit the operation of NEPs.

Though some sincerely question the scientific evidence supporting various forms of needle exchange, the major opposing argument continues to be, “It sends the wrong message.” Before we accept that rationale, we need to think about the message we currently send: “We know a way to dramatically cut your chances of contracting a deadly disease, then spreading it to others, including your unborn children. It would also dramatically cut the amount of money society is going to have to spend on you and those you infect. But because we believe what you are doing is illegal, immoral, and sinful, we are not going to do what we know works. You are social lepers and, as upright, moral, sincerely religious people, we prefer that you and others in your social orbit die.”

No responsible person wants to encourage drug abuse. No fiscally prudent person wants to waste money simply to satisfy a sense of righteous indignation. No compassionate person wants to consign people unnecessarily to death or a living hell. Fortunately, providing IDUs with access to sterile syringes allows us to be responsible, prudent, and compassionate--admirable criteria for good public policy.

Endnotes:

¹ <http://www.cdc.gov/hiv/pubs/facts/idu.htm>

² <http://www.cdc.gov/ncidod/emergplan/box02.htm> For other estimates, see www.aidschicago.org/pdf/prevention_value.pdf

³ See, for example, <http://www.dogwoodcenter.org/cost/10dollars.html>. This figure, or something quite close to it, is cited elsewhere.

⁴ "HIV Prevention Strategic Plan Through 2005," CDC <http://www.cdc.gov/hiv/partners/PSP/AppendixC-1.htm>

⁵ "Needle schemes stop thousands of HIV Cases," Sydney Morning Herald, Oct. 23, 2002.

25,000 New HIV Cases Prevented via Australia's Needle Program
<http://www.jointogether.org/sa/news/summaries/reader/0,1854,554927,00.html>

"Australian Drug Czar Strongly Backs Investment in Needle Exchange Programs" Drug Policy Alliance Press Release, OCTOBER 25, 2002. See also <http://www.drugwarfacts.org/internat.htm#australia>.

⁶ <http://www.cbc.ca/news/background/drugs/needleexchange.html>

⁷ Kaplan, E.H.; Khoshnood, K.; Heimer, R., "A Decline in HIV-Infected Needles Returned to New Haven's Needle Exchange Program: Client Shift or Needle Exchange?" *American Journal of Public Health*; Vol. 84, No. 12, Dec. 1994.

E. H. Kaplan, "Probability models of needle exchange," *Operations Research*. 1995; 43:558-569.

Dan Baum, *Smoke and Mirrors – the War on Drugs and the Politics of Failure*, (Boston: Little Brown, 1997), pp. 315f.

Eva Bertram, Morris Blachman, Kenneth Sharpe, and Peter Andreas, *Drug War Politics--The Price of Denial*. Berkeley: University of California Press, 1996, 168ff.

Barry S. Brown, "HIV/AIDS and Drug Abuse Treatment Services," NIDA Literature Review, September, 1998, [Ph.D. University of North Carolina at Wilmington]

"Deregulation of Hypodermic Needles and Syringes as a Public Health Measure: A Report on Emerging Policy and Law in the United States," Prepared by the AIDS Coordinating Committee of the American Bar Association. 2000.

Citing Edward H. Kaplan and Robert Heimer, "HIV Incidence among New Haven needle exchange participants: updated estimates from syringe tracking and testing data. 10 7. *Acquired Immune Deficiency Syndrome Human Retrovirology*, 1995 Oct 1;10(2): 175-6.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7552482 Cited on p. 7, n. 23. of ABA document (above).

Sandra D. Lane, R.N., Ph.D., M.P.H., Assistant Professor, Department of Anthropology, Case Western Reserve University. *Cleveland, Ohio, and the Needle Exchange Program Evaluation Project** Edited by: Jeff Stryker, Center for AIDS Prevention Studies University of California-San Francisco; Mark Smith, M.D., M.B.A. Sandra D. Lane, R.N., Ph.D., M.P.H., Assistant Professor, Department of Anthropology, Case Western Reserve University; Mark Smith, M.D., M.B.A., "Needle Exchange: A Brief History," <http://www.aegis.com/law/journals/1993/hkfne009.html>
A Publication from The Kaiser Forums; Sponsored by The Henry J. Kaiser Family Foundation.

⁸ K. E. Nelson, D. Vlahov, S. Cohn, A. Lindsay, J.C. Anthony, "Human immunodeficiency virus infection in diabetic intravenous drug users. *Journal of the American Medical Association* 1991; 266:2259-2261.

Further, after a 1992 Connecticut law allowed sale and possession of up to ten syringes, "needle sharing among IDUs dropped 40% and needle stick injury to police decreased by 66%." <http://www.drugpolicy.org/law/syringeaccess/>

Bluthenthal, Ricky N., Kral, Alex H., Erringer, Elizabeth A., and Edlin, Brian R., "Drug paraphernalia laws and injection-related infectious disease risk among drug injectors", *Journal of Drug Issues*, 1999;29(1):1-16.

D. Vlahov, "Deregulation of the sale and possession of syringes for HIV prevention among injection drug users," *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology*.1995; 10:71. B. Weinstein, T. S. Jones, L. A. Valleroy, W. J. Kassler, "Impact of increased legal access to needles and syringes on practices of injecting-drug users and police officers-Connecticut, 1992-1993." *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology*.1995; 10:82-96.

"Needle sharing among IDUs." Syringe Access Brief, Drug Policy Alliance, Updated March 2001 by Julie Ruiz-Sierra.
http://www.drugpolicy.org/docUploads/syringe_access_brief.pdf.

The following organizations have issued official reports or statements in favor of most or all the above-described measures of providing IDUs with greater access to clean needles. Not every report or statement touches on each point noted here, but, to the best of our knowledge, none opposes any of these measures.

American Medical Association

Des Jarlais, DC Freidman SR, Sotheran JL, Wenston J, Marmor M, Yancovitz SR, Frenk B, Beatrice S, Mildvan D. Continuing and Change within an HIV epidemic: Injecting drugs users in NYC, 1984 through 1992. *JAMA* 1994; 271:121-127. NB: This is not the official report itself, but is a key statement regarding these issues.

Centers for Disease Control and Prevention,
"HIV Prevention Strategic Plan Through 2005," CDC
<http://www.cdc.gov/hiv/partners/PSP/AppendixC-1.htm>

American Pharmaceutical Association

"Preventing Blood-Borne Infections Through Pharmacy Syringe Sales and Safe Community Syringe Disposal," *Journal of the American Pharmaceutical Association*, November-December 2002, 42:6, supplement 2. Research supported by the CDC.

U. S. Department of Health and Human Services.

Surgeon General David Satcher's Report: "Evidence-based findings for the efficacy of syringe exchange programs. U.S. Department of Health and Human Services, March 2000.

National Institutes of Health (NIH)

National Institutes of Health Consensus Panel, Interventions to Prevent HIV Risk Behaviors (Kensington, MD: NIH Consensus Program Information Center, February 1997). Interventions to Prevent HIV Risk Behaviors. 1997 February 11-13;15(2):1-41. "NIH Consensus Panel Strongly Recommends Policy Changes to Implement AIDS Prevention Strategies," Feb. 13, 1997.

<http://www.nih.gov/news/pr/feb97/nihod13b.htm> □

National Institute on Drug Abuse (NIDA)

Barry S. Brown, "HIV/AIDS and Drug Abuse Treatment Services Literature Review," NIDA, September, 1998.

<http://www.drugabuse.gov/about/organization/DESPR/HSR/datre/BrownHIV.html>

National Academy of Science

*President George H. W. Bush's and President Clinton's AIDS Advisory Commissions
American Bar Association*

Deregulation of Hypodermic Needles and Syringes as a Public Health Measure: A Report on Emerging Policy and Law in the United States. AIDS Coordinating Committee of the American Bar Association, 2000.

Association of State and Territorial Health Officials

National Alliance of State and Territorial AIDS Directors

National Association of State Alcohol and Drug Abuse Directors

American College of Preventive Medicine

American Society of Addiction Medicine

National Association of Social Workers

American Psychiatric Association

National Association of Boards of Pharmacy

U.S. General Accounting Office

Office of Technology Assessment of the U.S. Congress

U. S. Conference of Mayors

"Needle Exchange: Moving beyond the Controversy," Washington D.C.: U.S. Conference of Mayors; 1997.

Texas Sheriffs' Association

World Health Organization

University of California, Institute for Health Policy Studies

Peter Lurie and A. Reingold. "The Public Health Impact of Needle Exchange Programs in the United States and Abroad," Berkeley, CA: University of California School of Public Health, and SF, CA: University of California, Institute for Health Policy Studies, 1993.

⁹ "Research Shows Needle Exchange Programs Reduce HIV Infections Without Increasing Drug Use," Health and Human Services Press Release, April 20, 1998.
<http://www.hhs.gov/news/press/1998pres/980420a.html>

¹⁰ Ibid.

¹¹ Eva Bertram, Morris Blachman, Kenneth Sharpe, and Peter Andreas, *Drug War Politics--The Price of Denial*. Berkeley: University of California Press, 1996,p. 171.

¹² John Suval, "Needling the Mayor," Houston Press, April 25, 2002.
<http://www.houstonpress.com/issues/2002-04-25/news/news2.html>

¹³ http://www.drugpolicy.org/news/12_14_04casyringe.cfm