The Interconnected Epidemics of Drug Dependency and AIDS

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THE INTERCONNECTED EPIDEMICS OF DRUG DEPENDENCY AND AIDS

Larry Gostin*

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Introduction

A half-century ago the humanist Edward M. Brecher reported a mid-winter epidemic of malaria in Chicago, New York City, St. Paul, and San Francisco. The epidemic occurred despite the absence of a single live mosquito, a common carrier of the disease. Drug-dependent people in these cities were sharing the needles and syringes they used to inject heroin. If the drug-dependent person were infected with malaria parasites, his or her needle-sharing partner ran the risk of acquiring the infection.\(^1\) The epip-\footnote{Brecher, The Case of the Missing Mosquitoes, Reader's Digest, Feb. 1941, at 56. Heroin dealers attempted to impede the needle-borne malaria epidemic by adding quinine to the heroin "bag" to kill the malaria parasites. Brecher, Needles and the Conscience of}
demic increased the next summer when mosquitoes bit malaria-infected drug users and transmitted the infection to the wider public.

Brecher’s report demonstrated, as early as 1940, that intravenous (IV) drug users could spread an infectious disease to their needle-sharing partners, and from the partner to other women, men, and children. Indeed, needle sharing has proven to be an effective secondary mode of transmission for a diverse range of blood-borne and sexually transmitted diseases such as bacterial endocarditis, syphilis, hepatitis, cellulitis, and soft-tissue infections.

Needle sharing among drug-dependent people is fueling the modern human immunodeficiency virus (HIV) epidemic in a pattern strikingly similar to its role in spreading other needle-borne infections. The transmission of HIV occurs when infected drug users self-administer heroin, cocaine, amphetamines or other

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drugs through an injection into a vein, under the skin or into a muscle ("skin popping"). The needle, syringe and possibly the "cooker" may contain small amounts of HIV-infected blood. To ensure that no trace of the drug remains in the syringe, the user often draws his blood into the syringe and reinjects it into his vein, a practice known as "booting." The "works" are then shared with another drug-dependent person who draws his own blood into the syringe, mixing it with the blood from his partner. Thus, the syringe and needle sharing results in a highly efficient method of transmitting an infection.  

The needle-borne HIV epidemic is a public health problem of broad dimensions. Intravenous drug users are the second largest risk group for HIV infection in the American population. Twenty-nine percent of all cases of AIDS reported to the U.S. Centers for Disease Control involve IV drug users. The serological prevalence of HIV in the IV drug use community is higher still. Epidemiological studies in major urban areas, particularly New York, Northern New Jersey, and Connecticut, demonstrate HIV seroprevalence rates of fifty percent or more. Moreover, HIV disease

\[9\] A cooker is a spoon or bottle cap used to dissolve the drug in water prior to injection.


\[11\] CENTERS FOR DISEASE CONTROL, HIV/AIDS SURVEILLANCE: U.S. CASES REPORTED THROUGH SEPTEMBER 1990, at 8 (1990) [hereinafter CENTERS FOR DISEASE CONTROL, SEPT. 1990]. Cumulative totals of reported AIDS cases show that 22% were IV drug users and 7% were IV drug users and had had homosexual contact. Indeed, a significant number of deaths of IV drug abusers may be attributable to HIV disease but are not reported as CDC-defined AIDS. These deaths may represent a spectrum of HIV-related disease that has not been identified through AIDS surveillance and has resulted in a large underestimation of the impact of AIDS on IV drug users, African Americans and Hispanics. Stoneburner, Des Jarlais, Benezra, Gorelkin, Sotheran, Friedman, Schultz, Marmor, Mildvan & Maslansky, A Larger Spectrum of Severe HIV-1-Related Disease in Intravenous Drug Users in New York City, 242 SCIENCE 916 (1988); see NATIONAL RESEARCH COUNCIL REPORT, supra note 7, at 234-37.

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in drug-dependent populations is an epidemic that strikes disproportionately the urban poor, African Americans and Hispanics. Ethnographic studies of this population describe it as "street drug abusers," the vast majority of whom is homeless, unemployed, or underemployed. Many also suffer from multiple physical dependencies on drugs and alcohol. These studies point to the vulnerability of the drug-dependent population and its frequent inability to meet its own health care needs.

HIV among IV drug users is also the single most important source for the spread of the infection to non-risk groups. It is likely that if heterosexual transmission of HIV becomes self-sustaining, IV drug users will be the source of infection. Nearly seventy-two percent of all heterosexual cases of AIDS reported in the United States involve persons who have had sexual contact with an IV drug user. The connection between pediatric AIDS and IV drug use is even more striking. Seventy-nine percent of all children born infected with HIV have a mother who either was an IV drug user or had sexual relations with an IV drug user.

is an international phenomenon with comparably high rates of AIDS and HIV infection among IV drug users in parts of Europe. Approximately 18% of reported cases of AIDS in Europe indicate IV drug use as a risk factor (3% of these cases also had homosexual contacts). The percentage of people with AIDS who are IV drug users is significantly higher in certain countries. For example, in Italy and Spain, IV drug users account for 65% and 59% of adult cases of AIDS, respectively. World Health Organization, Progress Report No. 4, 8, Global Programme on AIDS (1988); see Angrarano, Pastore, Monno, Santantonio, Luchena & Schiraldi, Rapid Spread of HTLV-III Infection Among Drug Addicts in Italy, 2 Lancet 1302 (1985).

Over 43% of all cases of AIDS reported to the CDC involve African Americans (28%) or Hispanics (nearly 16%). Centers for Disease Control, Sept. 1990, supra note 11, at 12; see also Des Jarlais & Friedman, HIV Infection Among Persons Who Inject Illicit Drugs: Problems and Prospects, 1 J. Acquired Immune Deficiency Syndrome 267, 269 (1988) (higher HIV seroprevalence among ethnic minority drug users). The risk factors are related to behavior, but not race. "To label a pigment as a risk factor is to promote . . . racist notions that have hampered HIV research, thwarted access to care, and tainted educational efforts about HIV." Dawson, HIV in Intravenous Drug Users, 322 New Eng. J. Med. 632 (1990).


National Research Council Report, supra note 7, at 2186.

Centers for Disease Control 1990, supra note 11, at 9. This figure excludes females born outside the United States in Pattern II countries, where heterosexual transmission patterns are more evident. In New York City almost 90% of the heterosexual transmission cases of AIDS involve sexual relations with an IV drug user. Des Jarlais & Friedman, The Psychology of Preventing AIDS Among Intravenous Drug Users, 43 Am. Psychologist 865 (1988).

Centers for Disease Control, Sept. 1990, supra note 11, at 9. This figure
Drug dependence and HIV are America’s two most pressing epidemics, interconnection by a cycle of urban poverty, physical dependence and a culture of sharing needles and syringes. Extant political strategies to curb these interconnected epidemics involve two traditional approaches. The first—law enforcement and interdiction—is designed to limit the supply of illicit drugs to the marketplace. This strategy is advanced by broad criminal sanctions against importing, selling, distributing, medically prescribing, or possessing illicit drugs or drug paraphernalia. The second strategy to combat the drug and HIV epidemics involves reducing the demand for illicit drugs. Education, counseling, and treatment (detoxification, maintenance, and rehabilitation) are all designed to reduce dependence on drugs, and are called demand-side policies. For those who cannot stop drug use, public health strategies seek to alter dangerous sharing behavior or to encourage the sterilization of works.

Supply-side and demand-side policies are often in conflict, and this conflict reduces the efficiency of the programs and thwarts the public health goals that underlie both types of policies. For example, counseling, education, and outreach programs designed to teach drug-dependent people safer ways to engage in unlawful behaviors appear to condone or even foster drug use. Drug users who follow public health advice and carry clean injection equipment or bleach to sterilize that equipment may provide law enforcement personnel with evidence of criminal behavior. Similarly, ex-addicts hired by public health departments to distribute drug-injection equipment in shooting galleries come close to aiding and abetting the commission of a crime. Finally, needle and syringe exchange programs require the distribution of equipment with the knowledge that it will be used to inject drugs. Such acts are specifically prohibited under present drug-paraphernalia statutes.

The conflict between supply-side and demand-side policies is also reflected in the relative funding that the federal government commits to law enforcement and public health. Less than two

excludes females born in Pattern II countries where heterosexual transmission patterns are more evident.


decades ago only 44.1% of the federal drug abuse budget went to activities related to interdiction, eradication and other law enforcement, with the remaining funds going to drug treatment, prevention, and education. By 1976 the proportion was still relatively even with 50.4% going to law enforcement. In the last decade, however, expenditures for law enforcement rose substantially to between 73% and 82% of the drug abuse budget. The increase in the enforcement budget reflects the current government philosophy that strong supply-side efforts that emphasize the criminal and immoral aspects of drug use will yield health benefits for the public.

The unifying theme of this Article is that government should pursue a consistent policy on drug use that explicitly prefers therapeutic and public health goals to law enforcement goals when these two are in conflict. Such a preference for therapeutic goals is needed because of the seriousness of the HIV epidemic and because the sweep of criminal prohibitions and government regulation often renders public health measures ineffective. A preference for public health over law enforcement is justified on both conceptual and empirical grounds. The raison d'être of the supply-side policies is to protect the health of the user and of the public. Thus the human tragedy of the drug and HIV epidemics is not simply that people are acting unlawfully or immorally, but that drug dependency is destructive to a person's health and to the health of the community. The goal of supply-side policies should be to protect the health and safety of the individual and the community, not simply to punish "immoral, self-gratifying" behavior. Thus, the measure of effectiveness of those policies should be whether they succeed in lowering rates of drug dependency and

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20 Brecher, Needles and the Conscience of a Nation, supra note 1, at 5–6; see infra notes 276–282 and accompanying text.

21 Some European countries have explicitly affirmed the importance of public health over law enforcement as a strategy for confronting the needle-borne HIV epidemic. See Fox, Day & Klein, The Power of Professionalism: Policies for AIDS in Britain, Sweden, and the United States, 118 Daedalus 93 (1989).

22 Supply-side policies appropriately criminalize the importation and sale of illicit drugs, but they go further to impose criminal sanctions on people who are physically dependent on drugs. To be sure, the Constitution prohibits the criminal law from penalizing a person for the status of drug dependency. Robinson v. California, 370 U.S. 660 (1962). But penalties for simple possession of drugs or even drug paraphernalia go as far as is constitutionally permissible to impose criminal sanctions on individuals as a direct result of their medical illness.

needle-borne transmission of infection. If supply-side policies fail this test, they defeat the very objective for which they were formulated and lose their validity.

The nation's law enforcement strategy to curb the drug dependency and HIV epidemics has not been successful. The rate of serious drug use and the needle-borne spread of HIV are both growing in ways that are profoundly detrimental to the health of the public. The United States has not attempted a comprehensive public health approach to confront the dual epidemics of drugs and HIV. Yet, as this Article will demonstrate, scientific studies show that public health policies will be effective in reducing the demand for drugs, the sharing of drug-injection equipment, and the overall risk of HIV infection. Consistent with these studies and with a focus on demand-side policies, this Article presents three strategies for controlling the spread of HIV in the drug-dependent population.

The first public health strategy is to prevent the sharing of drug-injection equipment. Sharing could be prevented through the creation or expansion of education, counseling, and outreach programs. Highly disparate HIV prevalence rates exist among IV drug populations in the United States and abroad. The risk of HIV transmission does not exist if drug-dependent people use and re-use their own needles and syringes. Accordingly, the first strategy for breaking the cycle of HIV infection among drug-dependent people is to prevent the sharing of works.

The second public health strategy is to ensure that drug-dependent people use sterile injection equipment. Drug-dependent people can obtain access to safe injection equipment by sterilizing it themselves, by purchasing it over the counter, or by receiving it without charge pursuant to a publicly sponsored program. Education and counseling designed to teach safer forms of behavior cannot be successful unless the drug-dependent person has access to sterile injection equipment. This Article will discuss strategies

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24 The decline in casual drug use is a notable achievement of efforts to reduce illicit drug use. NATIONAL INSTITUTE ON DRUG ABUSE, NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE: POPULATION ESTIMATES 1988 (1989). However, this reduction in casual drug use may reflect prevention and education efforts in schools and significant cultural changes rather than the effectiveness of current law enforcement techniques. Moreover, the decline in casual use is more than offset by a marked increase in drug dependency and regular use of highly addictive drugs such as cocaine. THE WHITE HOUSE, NATIONAL DRUG CONTROL STRATEGY 1 (1989).
aimed at making the use of sterile equipment a realistic option for drug users.

The third public health strategy is to provide medical treatment and rehabilitation so that the drug user is no longer dependent on drugs or can satisfy the craving through lawful use of a prescribed drug such as methadone. However, formidable obstacles stand in the way of universal access to drug treatment. These obstacles include inadequate resources for treatment facilities, the sometimes prohibitive cost of treatment for individuals, zoning laws, and methadone regulations. This Article will develop ideas for substantially increasing the role of the health care and criminal justice systems in the treatment of drug dependency.

None of these strategies, standing alone, will significantly impede the spread of HIV in the drug-dependent population. But the cumulative effect of education, counseling, and outreach to reduce sharing of works; of clean-needle programs to increase the use of sterile injection equipment; and of comprehensive medical treatment in specialized and mainstream health facilities to reduce dependence on drugs provides the best opportunity to impede the needle-borne HIV epidemic. The political justification for the sweeping changes in law, policy, and public funding needed to meet this health imperative is found in saving the lives and health dollars of the drug-dependent population, their sexual and needle-sharing partners, their children, and, ultimately, the general population. A public health policy not only would effect a fundamental reduction in the morbidity and mortality stemming from the HIV epidemic, but would also lessen the severity of future needle-borne epidemics, which, as history has already demonstrated, will occur.


The sharing of works is the most critical factor in the transmission of HIV in the IV drug use populations. Works are usually

shared out of practical necessity, but sometimes sharing of works occurs as part of the drug subculture, as a form of social bonding or camaraderie within the group. Drug-dependent persons share works with sexual partners, members of a friendship group or other users in a "shooting gallery." A shooting gallery is a place where a person can inject illicit drugs. Most galleries are located near a "copping" place where drugs can be purchased. Needles are sometimes obtained "free" with the drug purchase; others, kept by dealers for renting or lending to customers, are called "house works." After the house works are used, they are then returned and used again by another customer. Needles and syringes may be used repeatedly in this way until they become clogged with blood, too dull to use, or break. Most users in research studies report that they obtain their needles from street sellers and shooting galleries.

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As one commentator put it: "Although pre-AIDS sharing of injection equipment reflected positive social relationships among IV drug users in overcoming limited supplies of injection equipment, IV drug users must now come to understand that sharing unsterilized injection equipment can lead to a protracted and painful death." Des Jarlais & Friedman, supra note 16, at 869; see Conviser & Rutledge, The Need for Innovation to Halt AIDS Among Intravenous Drug Users and Their Sexual Partners, 3 AIDS & PUB. POL’Y. J. 43 (1988).

27 For economic reasons, shooting galleries are usually located in areas with a high concentration of IV drug users. Des Jarlais & Friedman, Transmission of HIV Among Intravenous Drug Users, in AIDS: ETIOLOGY, DIAGNOSIS, TREATMENT AND PREVENTION 385 (V.T. DeVita, S. Hellman & S.A. Rosenberg eds. 1988). Also, they are more frequently located in the Northeast Corridor of the United States than on the West Coast, although San Francisco hotels where drug users gather provide a similar setting. Feldman & Biernacki, supra note 14, at 32.

28 Des Jarlais & Friedman, supra note 27, at 385-95.

29 Des Jarlais & Friedman, supra note 16, at 867; Stryker, supra note 10, at 722.

30 Des Jarlais & Friedman, supra note 27, at 386.

31 Des Jarlais, Friedman, Sotheran & Stoneburner, supra note 26, at 164; see also Hopkins, Needle Sharing and Street Behavior in Response to AIDS in New York City, in NIDA MONOGRAPH No. 80, supra note 14, at 18, 24 (in one study, users said they used the same needle to inject drugs 1 (19%), 2-5 (36%), 6-21 (31%), more than 21 (11%) times).

32 The majority of shooters surveyed buys its needles from street sellers (45%) and shooting galleries (16%). Injection equipment is also obtained from doctors or pharmacies (20%) and diabetics (8%). Some sellers steal needles from hospital garbage bins or forge prescriptions. Hopkins, supra note 31, at 25. Some "former addicts report extensive use of 'hitters' (a person who find[s] a vessel for injection for a fee without regard for sterile technique)." D’Aquila & Williams, Epidemic Human Immunodeficiency Virus (HIV) Infection Among Intravenous Drug Users, 60 YALE J. BIOL. MED. 545, 553 (1987).
are particularly detrimental to the public health because they involve sharing needles beyond a small group of friends or sexual partners.

Current education programs have successfully disseminated basic information about how AIDS is transmitted. However, a striking dissonance still exists between what IV drug users know and how they behave. Even though many addicts know that sharing is a high-risk behavior, they continue to share works because drug-dependent people going through withdrawal are concerned primarily with a rapid injection of heroin or cocaine. Possession of heroin itself may create a premature withdrawal and craving in a long-term addict through a form of classical conditioning. Withdrawal is extremely unpleasant, and thus an addict will not stop to plan or consider the health consequences when he


34 Becker & Joseph, * supra* note 25. See also Ginzburg, French, Jackson, Hartsock, MacDonald & Weiss, *Health Education and Knowledge Assessment of HTLV-III Diseases Among Intravenous Drug Users*, 13 HEALTH EDUC. Q. 373, 377 (1986) (although the study shows a high level of knowledge about AIDS, the survey was unable to determine what modifications in their behavior IV drug users make based on this knowledge). Studies show that a high proportion of addicts repeatedly use the same contaminated needle, and share needles with intimate partners, dealers and casual acquaintances. Black, Dolan, DeFord, Rubinstein, Penk, Rabinowitz & Skinner, *Sharing of Needles Among Users of Intravenous Drugs*, 314 NEW ENG. J. MED. 446 (1986) (those reporting sharing did so in 40% of all drug use episodes); Feldman & Biernacki, * supra* note 14, at 32 (sharing injection equipment was "common"); Hopkins, * supra* note 31 (53% of the sample report always or sometimes sharing injection equipment); Magura, Grossman, Lipton, Siddiqi, Shapiro, Marion & Amann, *Determinants of Needle Sharing Among Intravenous Drug Users*, 79 AM. J. PUB. HEALTH 459 (1989); Stimpson, Donohoe, Alldritt & Dolan, * supra* note 33 (36% of the sample report always or sometimes sharing injection equipment); Watters, *A Street-Based Outreach Model of AIDS Prevention for Intravenous Drug Users: Preliminary Evaluation*, in *CONTEMPORARY DRUG PROBLEMS* 411, 412 (1987) (over 90% of sample said that injection equipment is typically shared). Several studies also suggest that the sexual behavior of drug users is highly resistant to change. Des Jarlais & Friedman, * supra* note 16, at 866–67; Des Jarlais & Friedman, * supra* note 13, at 270 (five studies all found a higher percentage of intravenous drug users adopting risk-reduction activities relating to needle use than in sexual behavior).

35 Stimson, Donohoe, Alldritt, Dolan, * supra* note 33 (drug users in the sample reported that they shared injection equipment because of the scarcity of equipment (51%), need for a fix (50%) and/or peer influence (35%)); Becker & Joseph, * supra* note 25.

is in need of a fix. Research indicates that addicts will use whatever equipment is available when they are in withdrawal.\textsuperscript{37} Users, however, cannot rely on dealers and shooting gallery proprietors as a safe source of sterile equipment, since these dealers and proprietors sometimes repackage contaminated needles and syringes and sell them as new.\textsuperscript{38} Since sterile injection equipment is not readily available, education programs must teach drug users how to sterilize the needles and syringes by themselves.

Risk-reduction education must also be designed to overcome the ingrained behavior of needle sharing and to help form new patterns of behavior in the drug-dependent population. Although complete abstention from drug use is an admirable goal, for many it will never be achieved. If society truly desires to promote health and save lives among persons who continue to inject drugs, risk-reduction education is critically important.

\textbf{A. Can Education Work?}

Public and political opposition to risk-reduction programs are evident across the nation.\textsuperscript{39} Opponents often argue that these programs are unlikely to be effective because of the inherent characteristics of the IV drug-using population: physiological dependence, illiteracy and lack of formal education.\textsuperscript{40} Opponents of risk reduction also argue that drug users have a fundamental lack of concern about their health. Finally, opponents point to the difficulty of reaching a group engaged in a criminal enterprise that the dominant population regards with hostility.

\textsuperscript{37} D' Aquila & Williams, \textit{supra} note 32, at 553; Des Jarlais, Friedman & Hopkins, \textit{supra} note 36.


\textsuperscript{40} Many people stereotype drug users as incapable of change. It is suggested that they do not fear, and are not concerned with, the risks of contracting HIV because they already accept significant health risks by taking drugs in the first place. In short, they are viewed as having a fatalistic acceptance of the risk of death as part of their lifestyle. \textit{See, e.g.}, Beck, \textit{Changing Behavior is a Prescription Many Still Resist}, \textit{Chicago Tribune}, June 15, 1989, at 23, col. 1.
Arguments that risk-reduction programs cannot be effective ignore relevant data.\footnote{41} Studies show that an overwhelming majority of users know and understand the behavior that puts them at risk for HIV infection.\footnote{42} More significantly, drug-dependent persons have shown a willingness to change socially ingrained activities—evidenced by greater use of sterile injection equipment, fewer needle-sharing partners, and less IV drug use—when provided with education and counseling and given the means to change their behavior.\footnote{43} As a result of risk-reduction programs, drug users are demanding that dealers and proprietors of shooting galleries provide sterile injection equipment.\footnote{44} They have also sought out public health department programs, such as bleach and sterile needle distribution, and drug treatment.\footnote{45} Thus, risk-reduction education has successfully disseminated important information to drug users. An education program aimed at teaching drug users needle sterilization techniques and at breaking down sharing behavior should be similarly successful.


\footnote{42} See supra note 33.


\footnote{44} Des Jarlais, Friedman & Hopkins, supra note 35, at 758. Almost 82% of the needle sellers queried reported demand for sterile injection equipment increased since the AIDS epidemic, although only a small proportion of them attributed the increased demand directly to the AIDS epidemic. High street prices also reflect the increased demand for sterile equipment. A 25-cent needle and syringe could cost $2.00–5.00 on the illicit market. Des Jarlais & Friedman, supra note 41, at S66.

\footnote{45} Des Jarlais & Friedman, supra note 33, at 73; Des Jarlais & Friedman, supra note 41, at S65 ("It is now safe to conclude that some, probably most, intravenous users will change their behavior in order to reduce their chances of developing AIDS").
B. Current Education Policies

The Congress and many states have already mandated AIDS education. Yet the statutes that implement these mandates are quite general, often stating only that public health departments should provide "AIDS education." Many statutes concentrate their efforts on low-risk populations such as the general public, school or university students, or marriage applicants. Moreover, the ongoing tension between law enforcement and public health objectives has led to ambivalent policies and ineffective educational programs.

The Congress' ambivalence toward AIDS education is manifested in the federal Health Omnibus Programs Extension Act of 1988. The 1988 Act thwarts public health objectives by allowing morality-based law enforcement goals to distort its educational message. The Act prohibits, inter alia, obscene informational materials and educational programs designed directly to promote or encourage homosexual or heterosexual activity or intravenous substance abuse. Almost paradoxically, the Act goes on to say that this limitation should not be construed to restrict the ability of an education program to provide accurate information. The ambivalent approach of the federal Health Omnibus legislation has been adopted in at least seven states. These states require schools to stress abstinence from sex and substance abuse. The dominance of law enforcement over public health in educational programs is also found in the federal Anti-Drug Abuse Act of 1988. That Act

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47 See, e.g., 1987 Conn. Acts 389, §§ 19a-121c (Reg. Sess.) (directing the state department of health services "to establish a public information program for the distribution of materials . . . on AIDS"); ARK. STAT. ANN. § 20-15-902 (1988) (requiring the state department of education and health to conduct public education seminars, but not specifying the type of information to be provided, the frequency of the seminars or the source of funding for the seminars).

48 A few states, however, specifically direct public health departments to distribute graphic literature to higher risk groups including IV drug users. See Gostin, supra note 46.

49 For a discussion of the conflict between health education goals and current government policy, see Gostin, A Decade of a Maturing Epidemic: An Assessment and Directions for Future Public Policy, 16 AM. J. LAW & MED. 1 (1990).


51 See Gostin, supra note 46, at 1624.

52 See 42 U.S.C. § 300x-3(c) (1988).
prohibits most federal funding for programs providing drug users with clean needles.

Restrictions on education impede the ability of public health officials to disseminate effective AIDS prevention materials. It is difficult to instruct a person to inject a drug safely without tacitly encouraging drug use. Instructional programs also cannot be effective unless they provide the instruments for behavioral change, in this case clean needles. Efforts to stifle candid materials that discuss safer injection practices and provide the means to do so may take a toll in human lives. Of course, it can be argued that advertisements that advise drug users to "use clean needles" or show them how to sterilize their works conform with the law because they encourage precaution, not drug use. Still, in a conservative political climate federal administrators or law enforcers might chill the presentation of effective educational materials, particularly if the materials were accompanied by a vial of bleach or a sterile hypodermic needle.

Statutes that control the content of educational messages do so on moral, not public health or legal grounds. However, lawmakers should not be overly concerned with morality in this area. Instead, their overarching concern must be to secure changes in behavior that are conducive to the health of the drug-dependent population. Legislatures must understand that behaviors of a physically addicting or socially habitual nature are difficult to alter. Drug users require focused, graphic information about the safer use of drug paraphernalia, where it can be obtained, and the most effective methods for needle sterilization. Thus, the information must be explicit, understandable and directly relevant to the target audience.

C. Proposals for an Effective Education Program

Risk-reduction theory and research provide useful leads for developing effective education programs and policies. Two components of efficacious educational programs are promoting knowledge about how to behave more safely to avoid contracting HIV and altering social organizations and cultural rituals surrounding the sharing of drug-injection equipment. The critical variables are

Social learning theory suggests three components for successful health education:
the process of dissemination and the content of the educational messages.

1. Education in the Sterilization of Works

Existing public health education programs have broadly accomplished the goal of providing basic information to drug users about HIV transmission. Drug users demonstrate high knowledge of the fact that sharing of equipment can transmit HIV.54

Health education programs, however, have had much less success in providing clear, practical instruction on how to disinfect injection equipment. Rituals for cleaning injection equipment already exist among intravenous drug users, but often are ineffective.55 Many IV drug users "clean" their hypodermic needle and syringe by flushing them with tap water. Flushing with water may unplug the equipment and make it appear visibly clean, but it does not destroy the AIDS virus.56 Studies of needles and syringes discarded at shooting galleries show the presence of the virus in works that have no visible signs of blood.57

Educational programs should move beyond providing basic information about how HIV is transmitted and start including practical and simple instruction on the safest and most convenient methods for sterilizing injection equipment. Of the various methods of effective sterilization, most public health officials advocate


54 See supra note 33 and accompanying text.
55 D'Aquila & Williams, supra note 32, at 553–60 (in a study in San Francisco, practically all users cleaned their equipment prior to injection, yet fewer than 20% used methods that provide effective decontamination. Even those who effectively decontaminate their needles may undermine their efforts by not disinfecting the cooker).
57 Chitwood, McCoy, Inciardi, McBride, Comerford, Trapido, McCoy, Page, Griffin, Fletcher & Ashman, HIV Seropositivity of Needles from Shooting Galleries in South Florida, 80 AM. J. PUB. HEALTH 150, 152 (1990). (Needles were collected from shooting galleries and tested for the presence of HIV antibodies. When the needles appeared to contain blood residue, 20% were HIV-positive; where there was no visible blood residue, 5.1% were HIV-positive. These findings suggest that needles used in shooting galleries are vectors of transmission, and that although visual inspection of the needles may be useful, even "clean" needles may result in transmission of infection.)
the use of household bleach because it is both readily available and highly effective in decontaminating the equipment.\textsuperscript{58} Immersion of a hypodermic needle and syringe in a diluted bleach solution (10:1) will effectively decontaminate the works. Other methods are less convenient or effective. Boiling the "works" can kill the virus, but the fifteen minutes needed for this to be effective is too long for a drug user to wait when in withdrawal. A seventy-percent solution of isopropyl alcohol can also kill the virus, but this is a substance that drug users might be tempted to ingest, causing health risks of its own. Moreover, intravenous drug users may employ the lesser strengths of alcohol found in wine, beer or gin, in the mistaken belief that they are effective disinfectants.\textsuperscript{59}

2. Altering Social Organizations and Cultural Rituals

Some drug users report that even if they did have access to sterile equipment, they would still share works because others in their social group continue to do so.\textsuperscript{60} Sharing is associated with initiation into IV drug use and, thereafter, serves as a social bonding mechanism.\textsuperscript{61} In order to change an individual's sharing behavior, education, counseling and outreach must seek to change practices in the social organizations to which users belong. As indicated earlier, much of the necessary change in social organizations may result simply from effective educational programs.

Penetrating the insular culture of IV drug users to alter the social fabric of the group is particularly daunting. The most effective ways of altering the social organizations and cultural rituals of drug users involve understanding their language, culture and thinking; gaining their trust by providing services rather than punishment; and using the communication networks in their communities. Innovative programs use current and former addicts to provide AIDS education, bleach or alcohol for sterilization, and access to services and welfare benefits.

\textsuperscript{58} Many disinfectants will destroy the AIDS virus \textit{in vitro}. But public health officials recommend a disinfectant that is quick, inexpensive and safe. Newmeyer, \textit{Why Bleach? Development of a Strategy to Combat HIV Contagion Among San Francisco Intravenous Drug Users}, NIDA MONOGRAPH No. 80, supra note 14, at 151, 154.

\textsuperscript{59} Stryker, \textit{supra} note 10, at 722–23.

\textsuperscript{60} Des Jarlais & Friedman, \textit{supra} note 16; Des Jarlais & Friedman, \textit{supra} note 53.

\textsuperscript{61} \textit{See supra} note 26 and accompanying text.
Visible signs that public programs are motivated by a desire to protect the health and lives of drug-dependent people, rather than to stigmatize and punish them, may make it easier for an addict to look beyond his immediate social circle for support. Present policies that hold drug users criminally and morally accountable for their behavior drive them underground and reduce their exposure to alternate forms of behavior. Clear policies and practices unequivocally directed toward the health of the drug-dependent population are more likely to aid in reducing the subculture's influence on users' behavior.

D. Reaching Out to the Drug-Dependent Population: Increasing Access Points for Education and Counseling

Even if health education programs are properly designed, there are formidable problems in making them accessible to IV drug users. The clandestine character of the drug-dependent population is well known. Drug consumption activities, from the point of purchase to the actual injection, are secret and furtive. Drug-dependent people are exceedingly hard to reach. They understandably have little confidence that public officials will try to ease their discomfort, assuage their fears and alienation, or protect their health. Thus, drug users are unlikely to come forward voluntarily for care.

Moreover, unlike the gay community, which is also struggling with the HIV epidemic, IV drug users do not have organized support, self-help, or advocacy groups. Traditional educational approaches through television, radio and written materials are unlikely to reach the drug subculture since, generally, this population neither has access to nor interest in these sources of information.

The problem of reaching drug sub-cultures can be approached in three ways. First, support, self-help and advocacy groups for drug-dependent people might be formed, analogous to the groups that have been so successful in the gay community. Second, addicts can be reached through the use of former addicts who volunteer or who are paid by public health departments to interact with drug users in shooting galleries, hotels and "copping places."

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62 Feldman & Biernacki, supra note 14, at 28.
Former addicts are particularly important to successful outreach programs because they know where drugs are bought, sold and injected and are in the best position to gain the trust of users.

Third, educational programs must be located in places where users are likely to go. The two systems that have the most contact with the drug use community are the health care and criminal justice systems. A comprehensive health care structure that could be used to provide detailed education about practical methods for safer drug injection already exists. Educational programs could operate from numerous health care outlets around the country: physicians' offices, emergency rooms, group health clinics, health maintenance organizations, community hospitals, and clinics for the treatment of substance abuse and sexually transmitted diseases. Use of existing health care outlets for new educational initiatives would be inexpensive. Furthermore, integrating education into the health care system would ensure frequent exposure to education since drug users often have multiple medical needs that require interaction with the health care system.

Drug users also have frequent contact with the criminal justice system. Key points of contact are arrest, trial and post-sentencing procedures. Wide-ranging powers already exist to require testing, education, and treatment of criminal defendants. These powers could be exercised as a condition of bail, probation or other disposition. Requiring a drug user to attend testing, education and treatment programs as an alternative to incarceration would be more protective of the public health and safety than current non-mandatory measures. Without systematic attempts to alter their dependent behaviors, drug users are likely to continue their habits both in prison and after they leave. The potential for the spread of HIV in prison, particularly in meeting new sexual partners and establishing new friendship groups, poses a substantial threat to the public health. Using the connection with the criminal justice system to provide testing, counseling, education and treatment could be an effective way to alter a drug user's established patterns of substance abuse and sharing of injection equipment.

II. Strategies for Increasing the Supply of Sterile Injection Equipment

Sharing drug-injection equipment is not merely a learned response or a function of the unfathomable culture and routines of the drug world. Sharing is also the direct result of a limited supply
of needles and syringes, which can deny drug users any realistic opportunity to engage in safer behavior. This Part discusses how the limited needle supply represents a conscious policy choice and explores alternatives that would provide users with a readily available supply of sterile injection equipment.

Policy choices to make sterile injection equipment more available to IV drug users are fraught with political, jurisprudential and moral conflicts. The dominant society has a fundamental ideological objection to making injection equipment available to IV drug users. The majority argues that such policies detract from educational messages directed to the general public, to school children and to residents of urban areas to "say no" to drugs. They argue that legalizing possession of clean needles, and particularly distributing them, appears to condone and encourage drug use since it provides the means for injecting illicit and dangerous substances into the body.

Minority communities and church groups in poor inner city areas are particularly vehement in their opposition to clean-needle programs. Understanding the depth of feeling and the reasoning behind such opposition is critical to future policy development in this area. The intensity of feeling is manifested in characterizations of the drug epidemic and of the distribution of needles or even bleach as genocidal campaigns. The social disintegration, economic drain, morbidity and mortality associated with the drug epidemic in poor African-American and Hispanic communities


65 See Kolata, Black Group Assails Giving Bleach to Addicts, N.Y. Times, June 17, 1990, at 20, col. 1 (the Black Leadership Commission on AIDS called bleach "a Trojan horse for the African American community in that it is superficially attractive but contains a grave element of risk"). The reaction of community leaders to New York City's needle-exchange program is illustrative of the hostility shown. See Marriott, Needle Exchange Angers Many Minorities, N.Y. Times, Nov. 7, 1988, at 1, col. 2 (Hilton B. Clark described needle exchange as a genocidal campaign); Council Calls for End to Free-Needles Plan, N.Y. Times, Dec. 7, 1988, at 10, col. 1 (the New York City Council voted 31-0 to dismantle the program). The New York City needle-exchange program is described more fully in infra notes 144-160. There are some African American and Hispanic leaders who have continually supported needle-exchange programs such as the Association for Drug Abuse Prevention and Treatment (ADAPT). Marriott, supra.
cannot be underestimated. Community leaders argue that clean-needle programs may increase the number of injections by current users and entice new recruits into intravenous drug use while having only a negligible effect on the spread of HIV infection. Even if there are no data demonstrating these harmful effects of clean-needle programs, there is revulsion at the thought that poor, minority communities will bear the risk of experimentation.67

Public health officials who disregard minority objections to clean-needle programs not only reaffirm the perceptions of indifference to and disrespect for minority views, but also fail to serve the health of the community. Cooperation through shared human resources is necessary for successful public health programs in the inner city. Health officials will undermine public confidence if they thrust a program on a community that resents it, fears it and has its reasoned arguments discounted. A clean-needle program forced upon an untrusting community will almost certainly fail.

This Article’s purpose is not to force clean-needle programs upon minority communities. Rather, it presents data showing that clean-needle programs, in combination with an array of health care, prevention and educational services, would stem the epidemics of drug use and HIV infection that have overwhelmed minority communities. The policy analysis may be framed in this question: if we were to start with no prohibitions on the sale and distribution of drug paraphernalia—and with no political symbolism attached to such distribution—would we adopt policies strictly limiting the supply of sterile injection equipment? To answer this question it is necessary first to explain paraphernalia laws; second, to examine their objectives and whether these objectives are met; and third, to consider what policy alternatives exist.

A. Present Statutory Limitations on the Sale, Distribution or Possession of Syringes and Needles

As early as 1921 the United States Supreme Court recognized the states’ authority to exercise their police power to regulate the manufacture, sale, prescription and use of dangerous drugs.68 The

67 Rev. Reginald Williams of the Addicts Rehabilitation Center in East Harlem asked of the New York needle-exchange program: “Why must we again be the guinea pigs in this genocidal mentality?” Marriott, supra note 66.

68 See Minnesota ex rel. Whipple v. Martinson, 256 U.S. 41 (1921).
court subsequently made clear that the "range of valid choice which a State might make in this area is undoubtedly a wide one . . . ." Pursuant to these broad powers, states have long maintained a policy of limiting the supply of equipment needed for the injection of illegal drugs.

Although a state cannot constitutionally penalize a person's drug-dependent status, it clearly has constitutional authority to control the instruments of drug use, even in the case of a person who has no control over her habit. Broadly speaking, there are two categories of legislation that directly affect the supply of sterile drug-injection equipment: drug-paraphernalia laws and needle-prescription laws.

1. Drug-Paraphernalia Laws

Drug-paraphernalia laws are in effect in virtually every state in the nation. These statutes ban the manufacture, sale, distri-
bution or possession of a wide range of devices if it is known that they may be used to introduce illicit substances into the body. Drug-paraphernalia laws, therefore, require criminal intent to supply or use the equipment for an unlawful purpose.\textsuperscript{73} Selling or

\textsuperscript{73} The Model Drug Paraphernalia Act makes the following behaviors into criminal offenses under the \textit{Uniform Controlled Substances Act}, 9 U.L.A. Part II (1988): to use or intend to use paraphernalia for the introduction of drugs into the human body; to deliver or possess with intent to deliver drug paraphernalia, knowing or reasonably knowing that it will be used to introduce drugs into the human body; to deliver paraphernalia to a minor with intent; and to advertise paraphernalia where a person knows, or should know, that the purpose is to promote the sale of objects designed for introduction of drugs into the human body. \textit{Model Drug Paraphernalia Act}, art. 2 (Drug Enforcement Administration 1979). The Model Act, then, has a wide scope, but requires knowledge or intent to use the equipment for ingestion or injection of illicit drugs.

Most modern drug-paraphernalia laws, like the Model Act, define the prohibited activity in terms of objects "intended" for unlawful uses, "marketed" for unlawful uses or in some other way introduce the element of intent. The requirement of intent does not refer to that of the ultimate user of the paraphernalia but to the intent of the accused. Village of

\textsuperscript{73} Drug Dependency and AIDS 135


distributing hypodermic needles and syringes where there is no knowledge that they will be used to inject illicit drugs are not offenses under these statutes. Thus, a pharmacist who sells hypodermic syringes and needles over the counter, believing they will be used by a diabetic to inject insulin, commits no offense under drug-paraphernalia laws.

The development of drug-paraphernalia laws can be traced back to the 1950s. The early statutes specifically prohibited the distribution or possession of equipment used for administering illicit drugs, including hypodermic syringes, needles and bottle cap cookers. Some of the more broadly worded statutes rendered it unlawful merely to possess the "instruments of a crime." Such statutes are no longer in force in most states because of their vagueness and overbreadth. The laws failed because they appeared to proscribe items that clearly had legitimate as well as illegitimate purposes and did not require subjective knowledge or intent to use the items for the injection of illicit substances.

Hoffman Estates v. The Flipside, Hoffman Estates, Inc., 455 U.S. 489, reh'g denied, 456 U.S. 950 (1982). Where statutes require that an actor know or reasonably should know that an item will be employed to use drugs, courts have found them to be constitutional. See, e.g., Stoianoff v. Montana, 695 F.2d 1214 (9th Cir. 1983); Casbah, Inc. v. Thone, Governor of Nebraska, 651 F.2d 551 (8th Cir. 1981), cert. denied, 455 U.S. 1005, reh'g denied, 456 U.S. 590 (1982). Moreover, courts have specifically read a scienter requirement into the MAIL ORDER DRUG PARAPHERNALIA CONTROL ACT, 21 U.S.C. § 857 (1986), the MODEL DRUG PARAPHERNALIA ACT (Drug Enforcement Administration 1979) and similar laws. See Garner v. White, 726 F.2d 1274, 1279 (8th Cir. 1984); Nova Records v. Sendak, 706 F.2d 782, 787 (7th Cir. 1983); General Stores v. Bingaman, 695 F.2d 502, 504 (10th Cir. 1982); Levas v. Antioch, 684 F.2d 446, 450 (7th Cir. 1982); Tobacco Accessories and Novelty Craftsmen Merchants Ass'n of La. v. Treen, 681 F.2d 378, 383–85 (5th Cir. 1982); United States v. Main Street Distributing, Inc., 700 F. Supp. 655 (E.D.N.Y. 1988).

Drug-paraphernalia statutes arose from a concern that criminal proscriptions of the possession and sale of narcotics were insufficient in the fight against drugs. It was believed that the unrestricted sale of the instruments of narcotic use actually encouraged and glamorized its use. See Mid-Atlantic Accessories Trade Ass'n v. Maryland, 500 F. Supp. 834, 841 (D. Md. 1980). Accordingly, many states and municipalities enacted laws to prohibit or control the sale of equipment that could be used to ingest, inhale or inject illicit substances. See Levas v. Antioch, 684 F.2d 446 (7th Cir. 1982). Outlets used to sell drug paraphernalia in the 1970s were often referred to as "head shops," and early attempts to proscribe them became known as "head shop laws." See Annotation, Validity, Under Federal Constitution, of So-Called "Head Shop" Ordinances or Statutes, Prohibiting Manufacture and Sale of Drug Use Related Paraphernalia, 69 A.L.R. Fed. 15 (1984); Annotation, Prosecutions Based Upon Alleged Illegal Possession of Instruments to be Used in Violation of Narcotics Laws, 92 A.L.R.3d 47 (1979).


76 Although the courts often reached inconsistent results, some courts had constitutional difficulties with broadly worded statutes that did not contain an intent requirement. See, e.g., Bambu Sales v. Gibson, 474 F. Supp. 1297 (D.N.J. 1979); Record Museum v. Lawrence Township, 481 F. Supp. 768 (D.N.J. 1979). For reviews of early drug-parapher-
The modern drug-paraphernalia laws that have replaced these older versions establish a requirement of subjective intent. However, the modern statutes still regulate a broad range of behavior: they comprehensively proscribe the manufacture, delivery, possession or advertisement of drug paraphernalia. In addition, the term "drug paraphernalia" is widely defined to include any equipment, product or material of any kind that is primarily intended for use in introducing controlled substances into the human body.

The modern trend toward comprehensive drug-paraphernalia laws began with the formulation of a Model Act by the Drug Enforcement Administration of the Department of Justice in 1979. At least forty-seven states and the District of Columbia have enacted the Model Act or similar legislation. The United States Supreme Court's decision in Village of Hoffman Estates v. Flipside, Hoffman Estates, Inc. also advanced this trend. The Court upheld the constitutionality of broadly worded local laws not based on the Model Act. Many courts have followed Flipside and have upheld statutes with broad definitions of drug paraphernalia.
In 1986 the federal government expanded paraphernalia prohibitions by enacting an umbrella statute designed to reach any activity involving paraphernalia crossing interstate lines.\textsuperscript{84} Although the Mail Order Drug Paraphernalia Control Act of 1986\textsuperscript{85} was originally designed to prohibit use of the postal service to send drug-injection equipment,\textsuperscript{86} the plain language of the statute extends to "any offer for sale and transportation in interstate or foreign commerce," of drug paraphernalia.\textsuperscript{87} The Act also contains a broad definition of drug paraphernalia,\textsuperscript{88} and it has survived constitutional scrutiny.\textsuperscript{89}

The importance of the federal statute is its extension of federal jurisdiction to an area traditionally reserved to the states.\textsuperscript{90} Both federal and state statutes allow a wide margin of discretion in enforcement and prosecution. A state could make a deliberate choice to repeal or not to enforce a drug-paraphernalia law based upon the public health imperatives of the HIV epidemic. However, even if a state were to make one of these choices, federal authorities conceivably could take a different view and rigorously enforce the Mail Order Act. The Act thus creates a need to harmonize objectives, not only between law enforcement and public health authorities but also between federal and state agencies.

\begin{itemize}
\item \textsuperscript{84} The exercise of police powers to protect the public health is traditionally within the domain of the states and not the federal government. See Jacobson v. Massachusetts, 197 U.S. 11 (1905); Gostin, \textit{The Future of Public Health Law}, 12 AM. J.L. & MED. 461 (1987). However, Congress enacted the Mail Order Drug Paraphernalia Control Act in 1986 under its constitutional authority to regulate interstate commerce. Depending on how liberally the Act is construed and how actively it is enforced, the Act has the "potential for dramatically inserting the Federal Government into the regulation and control of drug paraphernalia, including hypodermic needles and syringes." Pascal, \textit{supra} note 72, at 122.
\item \textsuperscript{87} 21 U.S.C. § 857(a) (1988).
\item \textsuperscript{89} United States v. Main Street Distributing, Inc., 700 F. Supp. 655 (E.D.N.Y. 1988). The court upheld the statute because it implied a scienter requirement. In particular, the legislative history suggests that the intent of the accused is essential. See Mail Order Drug Paraphernalia Control Act: Hearings on H.R. 1625 Before the Subcomm. on Crime of the House Comm. on the Judiciary, 99th Cong., 2d Sess. 19–21 (1986). The court, following Village of Hoffman Estates v. Flipside, Hoffman Estates, Inc., 455 U.S. 489, \textit{reh'g denied}, 456 U.S. 950 (1982), also found that the statute was not unconstitutionally vague.
\item \textsuperscript{90} Pascal, \textit{supra} note 72, at 122.
\end{itemize}
Drug-paraphernalia laws, including the federal Mail Order Act and comprehensive enactments at the state level, erect formidable obstacles for IV drug users attempting to comply with public health advice to use sterile injection equipment. Even if the user can buy a sterile hypodermic syringe over the counter, he still can be prosecuted under these statutes if the syringe is found in his possession. In order to escape prosecution the user must demonstrate that she has a valid medical purpose for possessing the equipment.91 Drug-paraphernalia laws, therefore, not only significantly limit the supply of sterile equipment on the street, but also provide a marked disincentive for users to have sterile equipment in their possession when they frequent a “copping place.” Since this is precisely the time users most need to have a sterile hypodermic in their possession, drug-paraphernalia laws constitute a significant barrier to effective public health practices.

2. Needle-Prescription Laws

Drug-paraphernalia laws do not prohibit or regulate the sale of hypodermics if the seller has no reason to believe that the equipment will be used for injection of illicit drugs. Accordingly, over-the-counter sales of hypodermic syringes and needles are permitted in most jurisdictions. Pharmacists are not obliged to question the buyer’s intention in purchasing the equipment, and wide variations in sales practices exist. Some pharmacists will sell to any buyer, while others will not sell to a buyer who shows visible signs of intravenous drug use or who is unable to present a plausible medical justification for his request to purchase the equipment.92

91 A diabetic, for example, could demonstrate that she needed the syringe for the injection of insulin.
92 The scant literature on this issue suggests that there is wide variability in the practices and attitudes of pharmacists in relation to AIDS and drug abuse. In jurisdictions where over-the-counter sales of hypodermic syringes and needles are permitted, only a proportion of pharmacists do in fact sell to customers they believe to be drug-dependent. Goldberg, AIDS and Intravenous Drug Use, 294 BRIT. MED. J. 906 (1987) (“Only 16% of the pharmacies [studied in Glasgow, Scotland] were prepared to sell needles and syringes in areas considered to have large populations of Intravenous drug users, and indeed many of these areas had no retail source of needles and syringes whatsoever. Of those prepared to sell, most did so reluctantly, and usually only diabetic syringes (often unacceptable to drug users because of the size of the barrel and needle) were available”); Glanz, Byrne & Jackson, Role of Community Pharmacies in Prevention of AIDS Among Injecting Drug Misusers: Findings of a Survey in England and Wales, 299 BRIT. MED. J. 1076 (1989)
Eleven states and the District of Columbia significantly restrict over-the-counter sales of hypodermic needles and syringes. These jurisdictions' "needle-prescription" laws, dating back to the New York Boylan-Town Act of 1914, prohibit the sale, distribution or possession of hypodermic syringes or needles without a valid medical prescription. Needle-prescription laws are more onerous than drug-paraphernalia laws because they do not require criminal intent.

Under needle-prescription laws, physicians may write prescriptions for hypodermic syringes and needles for patients under their care only if there is a legitimate medical purpose for them to do so. A wholesale druggist or surgical supplier must keep careful records of the sale of syringes and needles. Persons charged with illegal possession of a hypodermic syringe or needle have the burden of proving that they have sufficient authority or license to possess them.

The "legitimate medical purposes" doctrine strengthens the regulatory effect of needle-prescription laws. The doctrine is intended to hold a prescription invalid unless it is issued in good faith for a therapeutic purpose. Many physicians have had their (measures willingness of pharmacists to sell injecting equipment to known or suspected drug users, and their attitudes toward exchanging syringes, keeping a "sharps" box (an impervious container in which used needles can be discarded) for use by drug abusers and offering face-to-face advice and leaflets; proposes promoting the participation of pharmacists in preventing needle sharing as a viable policy, while recognizing that attitudinal problems would have to be overcome).


95 See, e.g., LA. REV. STAT. ANN. § 40 (West 1977); MASS. GEN. LAWS ANN. ch. 94C, § 27 (West 1990); N.Y. PENAL LAW § 220.45 (Consol. 1989).

96 Needle-prescription laws, which are regulatory and do not impose criminal liability on the buyer, have been upheld by courts, despite the lack of an intent requirement. See People v. Bellfield, 33 Misc. 2d 712, 230 N.Y.S.2d 79 (1961), aff'd, 11 N.Y.2d 947, 183 N.E.2d 230 (1962). But see State v. Birdsell, 235 La. 396, 104 So. 2d 148 (1958).


98 Authority to possess hypodermics can also be granted under most of these laws by the Commissioner for Health. See, e.g., N.Y. PUB. HEALTH LAW § 3381(2) (McKinney
licenses revoked or have been convicted for improperly prescribing drugs or drug paraphernalia. 99 A physician may write a prescription for a patient under her immediate charge for the administration of certain controlled substances. If the prescription is not to treat or to cure a patient but to satisfy the craving of an addict, the physician has overstepped the boundaries of the statute. 100 Thus, a physician may not prescribe narcotics or paraphernalia to an addict solely because he is an addict. 101

However, the constitutional boundaries of lawful prescription are not clearly delineated. In some early cases the Supreme Court held that prescribing an illicit drug for the purpose of relieving conditions incident to addiction is not unlawful in every situation. 102 Nevertheless, physicians who departed from the usual course of medical practice were subject to the same penalties as street pushers. 103

There is no customary medical practice for prescribing drug-injection equipment. Faced with the exigencies of the HIV epidemic, a physician might want to prescribe a hypodermic in order to prevent her patient from contracting or transmitting HIV. While providing paraphernalia in this situation would not comport with prevailing medical practice, the overwhelming consensus among public health officials is that IV drug users should have access to sterile equipment in order to further legitimate public health goals. 104


102 See, e.g., Boyd v. United States, 271 U.S. 104 (1926) (the mere fact that a physician prescribes a dose of a narcotic that exceeds that required for a single dosage does not make it unlawful); Linder v. United States, 268 U.S. 5, 18 (1925) (addicts are "diseased and proper subjects for . . . treatment"; the determination of what constitutes treatment of an addict is primarily a concern of the physician).
103 Jin Fuey Moy, 254 U.S. at 193-94; Webb, 249 U.S. at 99-100.
B. The Public Health Impact of Limiting the Supply of Sterile Injection Equipment

Denying IV drug users sterile injection equipment has been seriously detrimental to the public health. Nevertheless, needle-borne transmission of infectious disease was barely discussed during formulation of the Model Drug Paraphernalia Act in 1979 or during decades of judicial review of drug-paraphernalia legislation. Perhaps most remarkably, the federal Mail Order Drug Paraphernalia Control Act of 1986 was enacted at the pinnacle of our current HIV epidemic.

Numerous indicators suggest that these laws have contributed significantly to needle sharing. The demand for sterile injection equipment vastly outstrips its supply. The great majority of persons selling injection equipment reports that the illicit market is thriving. The over-the-counter cost of a hypodermic syringe and needle can be as low as 25 to 50 cents. Yet, the cost on the black market is about $3.00 and sometimes as high as $10.00 for "blue" syringes. While this price appears low relative to the cost of drugs, the extremely high number of injections, particularly among cocaine users, means that numerous hypodermics are required over time. Although some users will pay the additional cost of new injection equipment, they still must rely on the integrity of dealers. Unscrupulous dealers "repackage" the equipment after

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105 For the legislative history and purpose of Pub. L. No. 99-570, see 1086 U.S. CODE CONG. & ADMIN. NEWS 5393.
106 See supra notes 72-83.
108 Since distribution of sterile injection equipment is unlawful, systematic research documenting the public health impact of drug-paraphernalia and needle-prescription laws does not exist.
110 "Blue” is the street name for the highest-quality injection equipment.
111 Des Jarlais, Friedman & Hopkins, supra note 36, at 758; Morgan, supra note 109; see also Des Jarlais & Friedman, supra note 16, at 866; Hopkins, supra note 31, at 26.
rinsing it out with water. And some users will save the cost of new equipment by borrowing house works or sharing with friends. Restricting the supply of sterile injection equipment thus increases the incidence of unsafe sharing practices and unnecessarily aggravates the HIV epidemic.

C. Proposals for Statutory Reform Consistent with Public Health Objectives

Drug-paraphernalia laws have two ostensible objectives, neither of which they achieve. The first is to discourage illegal drug use. However, no data support the proposition that access to sterile injection equipment causes people to begin, continue, or increase IV drug use. The percentage of IV drug users in the United States has been relatively stable for many years, both before and after the introduction of drug-paraphernalia statutes. Further, there are no reports among the research literature that suggest that people use, or fail to use, drugs based upon the availability of equipment. Economic incentives ensure that drug dealers will provide some form or quality of injection equipment to drug users. A diminished supply only means that users must rent or share, instead of possessing their own sterile equipment.

The second objective of drug-paraphernalia laws is to give law enforcement officers an additional ground upon which to arrest drug users. If the police cannot charge a person for possession of illicit drugs, they can still sustain a charge of possession of drug paraphernalia. However, this is probably the most pernicious aspect of paraphernalia laws. To avoid potential prosecution, IV drug users have learned not to carry with them any of their equipment. Therefore, they are forced to use the often contaminated equipment that they can rent or share at a shooting gallery or

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112 See infra notes 121–128 and accompanying text.
114 AMA, Reducing Transmission of HIV, supra note 109 at 143; Connors & Galea, Anthropological Investigations of the Meaning and Practices of Needle Use and Sharing Among Intravenous Drug Users (IVDU), presented at the Fourth Int'l Conf. on AIDS, Stockholm (June 1988).
hotel. Drug users have even been arrested for carrying vials of bleach. This is based upon the questionable legal theory that household bleach used to sterilize injection equipment can be classified as drug paraphernalia under the broad definition of paraphernalia in modern statutes. Ironically, under this theory, drug users attempting to engage in safer behavior would be the ones most likely to be punished.

1. Narrow the Focus of Drug-Paraphernalia Laws

Drug-paraphernalia laws, if they are to be consistent with public health objectives, should focus their prohibitions only on the sale, rental, or distribution of drug-injection equipment, excluding possession. These prohibitions would affect a drug dealer or proprietor of a shooting gallery, but not a health care professional, pharmacist, or druggist. The law would regulate the sale of hypodermic syringes and needles in much the same way as existing law—ensuring that they are sold only in appropriate places (e.g., pharmacies and not candy stores) by trained and experienced professionals, and in a safe, sterile condition. However, there would be no pretense that the authorized seller did not know what the equipment was going to be used for. More important, the drug-dependent person would not be chilled from buying, possessing, or using the sterile injection equipment by the threat of criminal sanctions. Any sale or distribution of equipment by an unauthorized person, however, would continue to be subject to criminal penalties.

These legal modifications are justified on two grounds. First, the new law would focus its proscriptions precisely where the

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115 See Stryker, supra note 10, at 729 ("a vial of bleach would certainly tip off a policeman who came across it while frisking a suspect, even in the absence of any drugs or injection equipment").

116 Solutions to this problem include exercising prosecutorial discretion or simply not enforcing drug-paraphernalia laws. Prosecutorial discretion was proposed by Pascal, supra note 72, at 125-27. However, Stryker, supra note 10, points out that drug-paraphernalia laws exist at federal, state, and local levels. "A consistent message must emanate from the entire hierarchy of law enforcement officials, from the prosecutor to the cop on the beat; the public health and criminal justice systems must operate in harmony." Id. at 729. In the United Kingdom, chief constables and local police have announced a policy of nonenforcement of drug laws. See Lohr, There's No Preaching, Just the Clean Needles, N.Y. Times, Feb. 29, 1988, at 4, col. 1; Robertson, Bucknell, Welshy, Roberts, Inglis, Peutherer & Brettle, supra note 12; Lezak & Leonard, The Prosecutor's Discretion: Out of the Closet, Not Out of Control, 63 OR. L. REV. 247 (1984).
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danger to health and well-being occurs—illicit drug dealers and shooting gallery or hotel proprietors. Illicit sellers of hypodermics are unreliable and not subject to effective quality control or regulation. The probability that they will provide used or shared equipment justifies the criminal proscription. Second, just as society does not allow dealers to profit from the sale of drugs, so too should it refuse to allow them to profit from trade in drug paraphernalia. Drug-paraphernalia laws applied to illicit sellers would provide an appropriate alternative vehicle for arrest or charge. If the police can demonstrate an intent to sell drug paraphernalia outside of a regulated pharmacy or other authorized place, that should provide sufficient justification for prosecution, even if the dealer is not in possession of heroin or cocaine.

A new law that focuses on illicit sale of hypodermics, but not on authorized sale and purchase, would have the benefit of allowing drug users to possess sterile equipment, thus encouraging safer injection practices. It would also quickly end the thriving black market for the sale of hypodermic syringes and needles, which poses a significant danger to the health of the public.  

2. Repeal Needle-Prescription Laws

Along with modification of drug-paraphernalia laws, some states would also need to repeal needle-prescription laws to allow pharmacists and other authorized retailers to sell hypodermics over the counter, without a medical prescription. This repeal would be less controversial than needle distribution programs because the state would not be directly involved in the distribution of drug-injection equipment. Moreover, repeal of these laws would have no revenue impact for state legislatures. It would simply remove the state as an affirmative obstacle to providing IV drug users with the sterile equipment necessary to protect their health.

Repeal of needle-prescription legislation is already supported by respected public health and bar associations. More important,
thirty-nine states and several European nations already permit over-the-counter sales of hypodermic syringes and needles.\textsuperscript{120} Experience in these jurisdictions shows that they are better able to control the needle-borne spread of HIV, and that allowing over-the-counter sales does not result in greater drug use.\textsuperscript{121}

Proposals to repeal needle-prescription laws would affect only twelve jurisdictions. However, these are predominately areas of high drug use and seroprevalence that have had great difficulty controlling the needle-borne spread of HIV. These jurisdictions include the tri-state area of New York, New Jersey, and Connecticut, which has some three-quarters of all nationally reported cases of AIDS in IV drug users; other high prevalence states such as California; and medium prevalence states such as Illinois, Massachusetts, and Pennsylvania.\textsuperscript{122}

Comparing states with needle-prescription laws and others selected for their comparable urban populations yields two conclusions.\textsuperscript{123} First, the estimated percentage of HIV-infected IV drug users is markedly higher in states that ban over-the-counter needle sales.\textsuperscript{124} Data from other countries that allow nonprescription sales also show relatively lower serological prevalence in the IV drug community.\textsuperscript{125} Second, the overall rate of IV drug use in states that allow over-the-counter sales is also considerably lower.\textsuperscript{126}

Broad correlative data can only supplement the reports of drug users and researchers that sharing occurs, in part, because of the inaccessibility of sterile equipment.\textsuperscript{127} Although the repeal of needle-prescription laws alone may not significantly alter seroprevalence or drug use, the potential for some change in behavior

\textsuperscript{120} See supra note 93 and accompanying text; infra note 167.
\textsuperscript{121} See infra note 174 and accompanying text.
\textsuperscript{122} See Committee on Law and Reform Report, supra note 119.
\textsuperscript{123} It should be noted that comparisons of jurisdictions with and without needle-prescription laws have no strict scientific validity because there may be many reasons for differential rates of infection and drug use.
\textsuperscript{124} See Committee on Law and Reform Report, supra note 119.
\textsuperscript{125} The U.S. and European data is collected by the Committee on Law and Reform of the New York County Lawyers Association, in Committee on Law and Reform Report, supra note 119, at 3–4.
\textsuperscript{126} See Committee on Law and Reform Report, supra note 119.
\textsuperscript{127} See supra notes 109–111 and accompanying text.
is high. The likelihood that repeal would have an adverse effect on the frequency of drug use is remote. Repeal of needle-prescription statutes need not mean that the state must abandon any attempt to regulate the sale of hypodermic needles and syringes. State legislators concerned with the sensitivity of local communities can require that sales take place only in certain locations, such as pharmacies, and that the equipment is not placed on display in view of customers. At the least, policy makers owe drug-dependent people the opportunity and means for protecting themselves and others from the needle-borne spread of HIV.\textsuperscript{128}

\textit{D. Affirmative Measures: State-Sponsored Efforts to Increase the Supply of Sterile Injection Equipment}

The most frequently mentioned advantage of repealing needle-prescription statutes is also the proposal's most notable deficiency. Relying on private sales, as opposed to public distribution, is politically easy because the state can claim that it plays no direct role in supplying a disfavored population with the tools to abuse drugs. However, if the state is not a player in needle distribution, it loses a valuable opportunity to provide services to a hard to reach population.

The best way to reach underserved populations is to offer them benefits and services. Offering sterile syringes and needles breaks down barriers of distrust by demonstrating the state's humane commitment to the health and well-being of drug-dependent people. Needle distribution programs can also provide critically important points of access for education, test-linked counseling,\textsuperscript{129} distribution of bleach and condoms, and medical services including

\textsuperscript{128} Another alternative would be to loosen the legal regulations on prescriptions for sterile needles. Physicians could prescribe a sterile needle expressly for the purpose of preventing transmission of disease through dirty equipment. Such prescriptions could be filled at specially licensed pharmacies or distribution centers, where HIV education programs could occur. Clearly, there are practical problems with this approach. Physicians who generally do not practice in the drug-dependency area would be faced with hard choices, and physicians and pharmacists might feel uncomfortable with such a legal responsibility. Such discomfiture, however, could be addressed through separately licensing these practitioners or pharmacies. Additionally, state licensure boards could mandate continuing education programs that would address the scope of the practitioners' duties and constraints in this area.

\textsuperscript{129} "Test-linked counseling" refers to HIV-related counseling provided before and after the administration of an HIV antibody test.
primary care and treatment for drug dependency or sexually transmitted diseases.

Needle distribution programs can take many forms, ranging from established government distribution centers to on-the-street distribution by ex-addicts or even at vending machines. Most versions of needle distribution are called "needle exchange" because drug-dependent persons can exchange used needles for sterile ones. In this way the state keeps control over the number of needles in circulation.

1. Experience with Needle Exchange and Bleach Distribution in the United States

Needle-exchange programs in the United States are politically charged and their establishment, even on an experimental basis, has been seriously delayed. The overarching message of law enforcement and community leaders is that drug use is profoundly detrimental to a person's health and to the social fabric of local neighborhoods. Most drug opponents actively denounce such programs, fearing that clean-needle programs will lead to an increase in drug use because of the mixed message a community with needle exchange receives. While Boston leaders debated whether to adopt a needle-exchange program, Cardinal Bernard F. Law, Catholic Archbishop of Boston, said, "The answer to drugs must be an unequivocal no. It is difficult to say that convincingly while passing out clean needles." Law enforcement and community leaders recognize the conflict between legal and moral dictates and public

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Footnotes:

130 A needle-exchange program in Tacoma, Washington was begun by a former drug counselor, David Purchase, in violation of state law, but with the support of the chief of police. Subsequently, the city voted to pay Mr. Purchase a salary and to institute the program formally. See Gross, Needle Exchange for Addicts Wins Foothold Against AIDS in Tacoma, N.Y. Times, Jan. 23, 1989, at A8, col. 4; see also SAN FRANCISCO AIDS FOUNDATION, NEEDLE EXCHANGE PROGRAMS 9-11 (1989). In other instances the authorities have not been so understanding. Jon C. Parker, a student at the Yale School of Public Health and an ex-addict, broke state needle-prescription laws by distributing injection equipment to addicts in Massachusetts and Connecticut. He was arrested in Boston, but the Judge subsequently dismissed the charges without explanation. Lambert, AIDS Battler Gives Needles Illicitly to Addicts, N.Y. Times, Nov. 20, 1989, at A1, col. 1.

131 Bostonians Split on Mayor's Idea of Needle Swap, N.Y. Times, Mar. 24, 1988, at A16, col. 1; see also Primm, Needle Exchange Programs Do Not Solve the Problem of HIV Transmission, AIDS PATIENT CARE, Aug. 1989, at 18, 20 ("[s]upplying addicts with needles and syringes gives the wrong message and muddies the whole effort of stopping people from using drugs").
health objectives but consistently press for punitive measures to deal with the drug problem.

Needle-exchange programs cannot proceed without the cooperation of the very groups that traditionally oppose them—law enforcers and community leaders. The conflict between public health and criminal justice is well illustrated by the dilemmas inherent in needle exchange: public health officials in some of the highest seroprevalence cities cannot establish exchange programs without first obtaining authorization from the state under needle-prescription laws; the police must agree not to arrest and the district attorney not to prosecute people using drug paraphernalia distributed under the needle-exchange program; and community leaders must agree to the location of needle distribution centers, which, if they are to be effective, need to be situated in poor urban areas.132

Forging political and social consensus around needle exchange in the United States has been exceedingly difficult. The history of needle exchange133 is a story of political conflict and legal obstacles that have delayed or stopped the establishment of effective exchange programs. In 1988 New York City Health Commissioner Stephen Joseph expressed his frustration with the political and legal delays: “We have lost so much time, and an enormous number of lives.”134

Needle-exchange programs that were strongly supported by city public health departments were successfully blocked in Bos-

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132 Cooperation is made more difficult by interagency conflict over needle-exchange programs. Such conflict occurred on the federal level in 1989 when the U.S. Secretary for Health and Human Services (HHS), Dr. Louis Sullivan, encouraged communities to establish needle exchange, even though the Justice Department and the Director of National Drug Control Policy opposed such policies. See Incoming HHS Chief Backs Needle Exchange, Boston Globe, Mar. 9, 1989, at 1, col. 2. After pressure from the White House, the HHS Secretary quickly withdrew his support. Kosterlitz, A Doctor in the Pulpit, 22 NAT’L JOURNAL 2466 (1990). Moreover, the Anti-Drug Abuse Act of 1988, 42 U.S.C. § 300x-3(c)(2)(a) (1988), specifically prohibits most federal funding of programs that distribute needles. Rep. Charles B. Rangel, Chair of the House Narcotics Committee, has said that the justification for barring federal support for programs to distribute needles to IV drug users is that free needles do little but prolong drug addiction. Rangel, Needle Exchanges Hurt the Fight Against Drugs, USA Today, Apr. 28, 1989, at 10A, col. 4.

133 Needle-exchange programs were proposed as early as 1986, when the Institute of Medicine stated that “[i]t is time to begin experimenting with public policies to encourage the use of sterile needles and syringes by removing legal and administrative barriers to their possession and use.” INSTITUTE OF MEDICINE, NATIONAL ACADEMY OF SCIENCES, CONFRONTING AIDS: DIRECTIONS FOR PUBLIC HEALTH, HEALTH CARE, AND RESEARCH 110 (1986).

ton, San Francisco, Los Angeles and Chicago. The nation's first needle-exchange program, in New York City, experienced significant problems in formation and operation. The Portland, Oregon needle-exchange program also initially experienced problems. The program was less controversial than others because it was run by a non-profit social services agency administering a grant from the American Foundation for AIDS Research. In addition, the state already allowed over-the-counter sales of hypodermic syringes and needles. Nonetheless, implementation of the program was delayed because of the difficulty in obtaining insurance and because of legal challenges to the program. In responding to political pressures, Portland's mayor stressed that the program did not actually involve the city itself in the distribution of injection equipment.

Needle-exchange programs have also been established in Tacoma, Washington; Boulder, Colorado; and Hawaii.

135 Bostonians Split on Mayor's Idea of Needle Swap, supra note 131; Legalize Syringe Sales, Say Activists, Boston Globe, Mar. 20, 1989, at 19, col. 5.
137 Zonana, N.Y. Begins Giving Needles to Addicts in AIDS Battle, L.A. Times, Nov. 8, 1988, at 1, col. 5.
139 Merz, First Needle-Exchange Program Approved: Other Cities Await Results, 259 J.A.M.A. 1289 (1988).
142 Boulder County began a publicly funded needle-exchange program on Feb. 14, 1989. The program is modeled after the Tacoma program, discussed supra note 128. Health Department outreach workers visit homes and gathering places of IV drug users. SAN FRANCISCO AIDS FOUNDATION, supra note 130, at 13.
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In New York City the HIV seroprevalence is estimated to be between fifty and sixty percent among the 200,000 IV drug users. Proposals for a needle-exchange program in New York City were put forth in 1985 and 1987 by successive city health commissioners. Establishing a needle-exchange program in New York City required permission by the state because the needle-prescription law could be waived only by authority of the public health commissioner. The state governor and public health department initially opposed the proposals ostensibly because they were scientifically unsound. However, on August 11, 1988 the state granted a waiver under the statute for the demonstration project. Even after announcement of the waiver, some local police officers, who had opposed the program, expressed the view that the state had no authority to waive the statutory requirement and vowed to uphold the statute anyway.

The New York project included an evaluation component and a counseling requirement. Participants received a free sterile needle only during drug counseling sessions and could exchange the needle at another session. Monitoring included an analysis of residues on the needles turned in for the presence of more than one blood type. Participants' entry into treatment was also monitored.

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147 The several hundred drug users included in the demonstration project were considered an insufficient sample. N.Y. State Rejects Plan to Give Drug Users Needles, N.Y. Times, Mar. 17, 1987, § 1, at 38, col. 1. Yet, when the program was finally approved it still had a study design consisting of needle distribution to only 200 persons. N.Y. Begins Giving Needles to Addicts in AIDS Battle, L.A. Times, Nov. 8, 1988, § 1, at 1, col. 5; New York to Begin Free-Needle Plan For Drug Addicts, N.Y. Times, Aug. 12, 1988, at A1, col. 4. There were also strong protests from minority groups in the city. See Marriott, supra note 66.
148 Merz, supra note 139, at 1289.
New York City’s needle-exchange program did not actually begin until November 1988. The public health department could not gain local agreement for four proposed sites accessible to IV drug users. The mayor acquiesced to neighborhood groups, declaring any site unsuitable if it was within 1000 feet of a school or day care center. The program was, therefore, located in one site only, the city Health Department itself. The Department is located in the heart of the financial district, “confined to a former X-ray clinic hardly larger than a one-car garage” and situated adjacent to a city jail, the courts and central Police Headquarters.\footnote{N.Y. Times, Jan. 30, 1989, at A1, col. 3.}

Two hundred and fifty persons were recruited and evaluated in the New York City needle-exchange pilot program through December 1, 1989.\footnote{Id. at 10.} Fifty-one percent of the program population was already infected with HIV.\footnote{Id. at 18.} The city health commissioner strongly recommended the continuation and expansion of the program based upon the results of the pilot study.\footnote{Id. at 14.} Even given the methodological concerns in performing a rigorous scientific evaluation of needle-exchange programs,\footnote{Id. at 11-12.} the New York City pilot program was highly successful.

First, the pilot program was effective in providing a bridge to treatment. Seventy-eight percent of its clients accepted a referral to treatment, including methadone maintenance and detoxification.\footnote{Id. at 10.} Second, the program effectively utilized the increase in personal contact between illicit drug users and health care workers to provide an array of services. Program workers were successful in identifying individuals in need of a variety of health and social services including housing, primary health care, treatment for sexually transmitted diseases and physical problems associated with chronic drug use.\footnote{Id. at 14.} These two results reinforce the notion that increasing health care contact points will improve treatment services for drug users, their sexual partners and their children.
Another success of the syringe exchange program was reducing the incidence of sharing. Upon enrollment, 82% of the clients reported sharing needles in their lifetime, with 62% reporting sharing within the past thirty days. Only 5% of those clients who revisited the exchange program reported sharing since their last visit.\(^{157}\) In other syringe programs, self-reported sharing behaviors declined over time, with continued program participation.\(^{158}\)

The final success of the needle-exchange program was the safe disposal of a large amount of potentially contaminated injection equipment. Sixty percent of the 110 enrollees who returned for a second visit returned their needles.\(^{159}\) A syringe exchange program permits disposal of dirty needles, rather than risking the use of discarded, contaminated injection equipment by addicts not participating in the program.

No definitive empirical data exist to support or detract from the claim that needle-exchange programs encourage illicit drug injection. Instead, the experience in New York and elsewhere suggests that needle exchange can provide a bridge to treatment, taking drug users off the streets and out of the drug demand cycle.

The experimental program in New York City was aborted by the new mayor early in 1990 after only two years of operation.\(^{160}\) The program was terminated because it had too few enrollees. The program's lack of enrollees is not surprising, however, considering its inaccessibility to most of the city's drug users.

### b. Bleach-Distribution Programs

Another way for the state to increase the supply of sterile injection equipment is to distribute disinfectants to the drug-de-

\(^{157}\) Id. at 12–13. Self-reporting of sharing behaviors may be more reliable than blood-type analysis of residue on the needles. Many syringes are returned clean enough that it is impossible to detect any blood residue; moreover, many clients will have the same blood type as those with whom they shared, thus blood-type detection will not reveal such instances of sharing. For these reasons, an objective monitoring of returned syringes based on blood types is "a crude measure at best." \(^{157}\) Id.

\(^{158}\) Id. at 13.

\(^{159}\) Id. at 12.

\(^{160}\) Dinkins to End Needle Plan for Drug Users, N.Y. Times, Feb. 14, 1990, at B1, col. 5. A few months later the newly appointed Commissioner for Health in New York City eliminated a city financed program that taught drug users how to avoid exposure to HIV when injecting drugs. For example, the program instructed addicts in how to disinfect their needles with bleach. Health Chief is Criticized on AIDS Shift, N.Y. Times, May 10, 1990, at B1, col. 5. The Commissioner, Dr. Woodrow A. Myers, Jr., is also opposed to legalizing the sale of needles without a prescription. Id.
Drug-dependent population. Innovative programs that distribute vials of bleach to encourage sterilization of works are already under way in New York, New Jersey and San Francisco. Drug-dependent persons are instructed to rinse their works with household bleach and then twice with water so that traces of the bleach are not injected.

The importance of actually distributing vials of bleach is illustrated by experiences with bleach programs in Baltimore. The public health departments there distributed detailed information about AIDS, including directions on how to sterilize needles and syringes through boiling or the use of alcohol and bleach. Residents of neighborhoods that participated in these outreach programs had significantly greater knowledge of what constitutes dangerous behavior than those in neighborhoods that did not participate. Yet, no significant differences were measured in the number of injections, sterilization, or sharing practices in the "knowledgeable" neighborhoods.

The importance of providing an array of "means" to comply with public health advice is reinforced by ethnographic studies of behavior while in withdrawal. Withdrawal has been shown to be a critical factor retarding safer injection practices. The severe physical discomfort and the craving for relief drives users to resort to any readily available needle and syringe for injecting the drug. Asking a drug-dependent person to prolong withdrawal in order to obtain uncontaminated injection equipment virtually guarantees failure in risk-reduction efforts. The design of public health programs must ensure that IV drug users have immediate, unimpeded access to sterile equipment prior to the time of injection. Distributing vials of bleach, coupled with education about their proper use, will achieve just that goal.

2. The Experience with Needle Exchange Abroad

Needle-exchange programs in other parts of the world have not usually encountered the same political and public obstacles

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161 Des Jarlais & Friedman, supra note 16, at 865–70.
165 See supra notes 35–37 and accompanying text.
they face in the United States.\textsuperscript{166} Many countries have been able effectively to harmonize the objectives of law enforcement and public health and have gained broad consensus for needle-exchange programs.\textsuperscript{167} The World Health Organization has formed a global working group to support needle-exchange and distribution programs. Outlets for sterile injection equipment have been established in a number of countries in Western Europe\textsuperscript{168} as well as in Canada\textsuperscript{169} and Australia.\textsuperscript{170} Government sponsored research in Australia,\textsuperscript{171} Great Britain\textsuperscript{172} and the Netherlands\textsuperscript{173} concluded that the distribution projects were successful and made recommendations for their continuation. Preliminary results indicate that the availability of sterile injection equipment has not increased drug use. More significantly, these results also show some decline in HIV seroprevalence rates.\textsuperscript{174} The programs also tend to attract individuals with no prior contact with drug treatment programs.


\textsuperscript{167} See Fox, Day & Klein, supra note 21.

\textsuperscript{168} See, e.g., infra notes 172, 173.


\textsuperscript{173} Buning, van Brussel & van Santen, Amsterdam's Drug Policy and Its Implications for Controlling Needle Sharing, in NIDA MONOGRAPH NO. 80, supra note 14, at 59 (1988).

\textsuperscript{174} See Raymond, supra note 140, at 2621; Joseph & Des Jarlais, supra note 145, at 3–4. Since 1984 a steadily increasing number of drug stores in Geneva has sold sterile injection equipment. Robert, Deglon, Wintsch, Martin, Perrin, Bourquin, Garbriel & Hirschel, Behavioral Changes in Intravenous Drug Users in Geneva: Rise and Fall of HIV Infection, 1980–1989, 4 AIDS 657 (1990). A study of behavioral change in IV drug users showed that HIV seroprevalence among IV drug users increased rapidly from 1981 to 1983 (from 6% to 38%) before the program was put in place. Since that time, needle sharing has decreased dramatically, and the seroprevalence rate among IV drug users has actually diminished. \textit{Id.}
a. The Netherlands

Amsterdam has approximately 3000 IV drug users. As of March 1988, only 4.7% of the cumulative total of reported AIDS cases in Amsterdam involved individuals whose only risk factor was drug use. The needle-and-syringe-exchange program in Amsterdam began in the summer of 1984 through an initiative of the “junkiebond,” a league of drug users. The primary health concern at the time was needle-borne transmission of hepatitis B. The Municipal Health Service brought injection equipment to the junkiebond, and collected the used needles for disposal; approximately 1200 syringes and needles were exchanged weekly. The number of needles distributed increased to 720,000 in 1988. There are eleven distribution centers, consisting of drug organizations, treatment centers and methadone buses. Condoms and leaflets on safer sex can also be obtained at needle-distribution centers. An estimated 38% of all needles and syringes used by drug injectors are obtained from exchange programs, and most of the rest are bought in medical shops, pharmacies and other outlets.

Many of the “harm reduction” objectives of the exchange program have been met. First, the safe disposal of injection equipment has increased over time: 70% of needles were returned in 1986, 86% in 1987, and 95% by September 1988. Second, borrowing and lending injection equipment among current users decreased sharply over time: 56% reported such activity after the first visit, 26% after the second visit, and 16% after the third visit. Third, there was a sharp increase in the proportion of IV

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175 See Des Jarlais, supra note 171, at 104.
179 Hartgers, Buning, van Santen, Verster & Coutinho, supra note 178, at 572.
180 SAN FRANCISCO AIDS FOUNDATION, Needle Exchange in the United States and Abroad, in NEEDLE EXCHANGE PROGRAMS 22 (1989); Hartgers, Buning, van Santen, Verster & Coutinho, supra note 178, at 571.
drug users making exclusive use of the exchange program to obtain sterile injection equipment: from 13% after the first intake period to 66.7% after the fourth intake period.\textsuperscript{182} The number of IV drug users followed in longitudinal studies is too low to examine accurately the HIV seroconversion rates. However, the percentage of IV drug users among reported AIDS cases in Amsterdam is much lower than the corresponding percentage in the United States, which has failed to adopt many large-scale needle-exchange programs.\textsuperscript{183} Finally, researchers, unable to find any evidence that non-IV drug users in the study groups started intravenous use as a consequence of the availability of sterile equipment, concluded “that the Amsterdam AIDS prevention campaign did not increase the intravenous use of drugs . . . .”\textsuperscript{184}

\textit{b. United Kingdom}

The percentage of AIDS cases attributable to IV drug use in the United Kingdom (16%)\textsuperscript{185} is somewhat lower than that in the United States (29%).\textsuperscript{186} In the U.K., as in the United States, there is substantial evidence that needle sharing has been common among IV drug users.\textsuperscript{187} In response to this problem, the British government established fifteen pilot needle exchanges in April 1987.\textsuperscript{188}

The report on the pilot needle-exchange programs indicated they had reached clients who had not previously been in contact with drug treatment services.\textsuperscript{189} A primary goal, then, was to offer

\textsuperscript{182} \textit{Id.} at 1356–57.

\textsuperscript{183} Compare the 4.7\% of cumulative AIDS cases in Amsterdam, \textit{The Amsterdam Municipal Health Service}, \textit{supra} note 176, at 1, with the 19\% in the United States through September 1990, \textit{Centers for Disease Control}, \textit{Sept.} 1990, \textit{supra} note 11, at 15.

\textsuperscript{184} \textit{Van den Hoek, van Haastrecht & Coutinho, supra} note 181, at 1357; see also \textit{Ginzburg, Needle Exchange Programs: A Medical or a Policy Dilemma?}, 79 \textit{Am. J. Pub. Health} 1350 (1989); Hartgers, Buning, van Santen, Verster & Coutinho, \textit{supra} note 178.


\textsuperscript{186} \textit{Centers for Disease Control, Sept.} 1990, \textit{supra} note 11, at 15.

\textsuperscript{187} See, e.g., \textit{Mulleady & Green, Syringe Sharing Among London Drug Abusers, 2 Lancet} 1425 (1983); \textit{Robertson, Bucknell, Welsby, Roberts, Inglis, Peutherer & Brettle, supra} note 12.


\textsuperscript{189} See \textit{Stimson, Aldritt, Dolan & Donoghoe, supra} note 188, at 1718 (noting that 31\% of the clients at the pilot needle-exchange programs had received no previous drug treatment).
treatment, counseling and education services. Clients of needle-exchange programs reported less frequent needle sharing than other IV drug users, but this may be attributed to self-selection. The greatest problem with the pilot programs was the high attrition rate, with 61% staying for a second visit and only 17% for a tenth visit.\textsuperscript{190} To attract more clients and keep them, the Liverpool exchange scheme is not routinely offering counseling and treatment referral.\textsuperscript{191} The English experience suggests that there may be a trade-off between attracting and keeping clients and providing a full range of health and social services.\textsuperscript{192}

c. Australia

Although the HIV incidence rate in Australia is among the highest in the world, there has been a low seroprevalence rate among IV drug users.\textsuperscript{193} Only 4.6\% of the cumulative total of AIDS cases in Australia involve individuals whose only high-risk behavior is IV drug use.\textsuperscript{194}

A syringe exchange program was established in New South Wales (NSW), Australia in December 1986. The NSW government amended existing legislation that had prohibited the sale and possession of drug-injection equipment. The exchange program is


\textsuperscript{191} Lehr, supra note 116.

\textsuperscript{192} In an effort to increase attendance and compliance, one exchange facility in London has an “open access” policy. The facility eschews rigorous eligibility requirements and detailed interviewing about commitment to abstinence oriented treatment. Hart, Woodward & Carvell, Needle-Exchange in Central London: Operating Philosophy and Communication Strategies, 1 AIDS CARE 125, 129–30 (1989).


\textsuperscript{194} Wodak & Whyte, AIDS and Intravenous Drug Users in Australia, 2 AIDS LAW & POLICY J. 47 (1989). This compares with 19\% in the United States, CENTERS FOR DISEASE CONTROL, SEPT. 1990, supra note 11, at 15, and 64\% in Italy. WORLD HEALTH ORGANIZATION COLLABORATING CENTRE ON AIDS, Q. REP. NO. 20, AIDS SURVEILLANCE IN EUROPE (Dec. 31, 1988).
carried out by a network of pharmacies throughout the state. Pharmacists actively participate in the program and display favorable attitudes toward it.

Those who have studied the NSW exchange program have recommended its continuation, and have concluded that it was successful in meeting its goals of removing contaminated syringes from circulation, referring people into treatment, and reducing needle sharing.

3. Evaluation of Needle-Exchange Programs: Meeting Valid Public Health Objectives

Preliminary data show that needle exchange, in conjunction with other strategies, could be an effective public health policy to slow the drug and HIV epidemics. Perhaps the most promising aspect of the various studies is the indication of the potential value of needle exchange as a bridge to drug treatment and to a wide array of other health and social services. Although drug users often have pressing health and welfare needs, they are exceedingly difficult to reach. Offering a benefit to drug users facilitates positive contact with them. Using needle exchange as a way to offer drug users HIV testing, counseling, sex education, treatment referrals,


196 Id.


199 Admittedly, the data collected from needle-exchange programs in the United States and abroad are decidedly insufficient because of small sample size and methodological concerns. See supra notes 151–154 and accompanying text. Comparative research is also difficult to evaluate, since data from one country are not necessarily transferable to another culture. Still, the urgency associated with drug use and the needle-borne transmission of infectious disease suggests that programs that show some promise of being effective ought to be more carefully evaluated.

200 See supra notes 155–156 and accompanying text.
housing and social support is well worth the moderate cost of exchange programs.\textsuperscript{201}

However, exchange programs that thrust services on clients have difficulty attracting and keeping clients.\textsuperscript{202} Programs that “don’t preach” and only distribute needles have lower client attrition.\textsuperscript{203} To be sure, it is difficult to attract and keep illicit drug users within any traditional public health program. Nonetheless, it makes little sense to give up a major benefit of the program in order to attract clients. Instead, exchange programs should be designed and advertized with the user in mind: they should operate out of convenient and non-threatening locations; the staff should be attuned to the drug culture; the services should be offered in a non-coercive rather than compulsory manner; the programs should be confidential; and non-discrimination on the basis of HIV infection should be the norm.\textsuperscript{204}

An explicit goal of exchange programs is reducing the incidence of needle sharing. Data show that the longer the user attends exchange programs the more likely he is to report significant reductions in sharing behavior.\textsuperscript{205} Moreover, the longer the client attends the more likely it is that the exchange program will be his exclusive source of injection equipment.\textsuperscript{206} The incidence of needle-borne transmission will be reduced if users alter their usual sharing behavior and rely upon public health programs instead of dealers and shooting gallery proprietors for their works. Evidence of reduced sharing suggests that drug users are aware of AIDS risks, concerned about their health and willing to alter their behavior to avoid needle-borne infections.\textsuperscript{207}

\textsuperscript{201} The cost for operating the New York City Pilot Program for 10 months was $178,370. The pilot program served 294 persons, with a further 61 in a comparison group. N.Y. DEP’T HEALTH, A BRIDGE TO TREATMENT, supra note 144, at 10. This compares with a cost of between $25,000 and $60,000 per case for treating a person with AIDS, and approximately $3,000 per patient per year for drug treatment. See INSTITUTE OF MEDICINE, supra note 133, at 12; Fox & Thomas, The Cost of AIDS: Exaggeration, Entitlement, and Economics, in AIDS AND THE HEALTH CARE SYSTEM 197 (L. Gostin ed. 1990).

\textsuperscript{202} See supra notes 191–192 and accompanying text.

\textsuperscript{203} Lohr, supra note 116.


\textsuperscript{205} See supra notes 157–158 and accompanying text.

\textsuperscript{206} See supra note 182 and accompanying text.

\textsuperscript{207} See supra notes 43–45 and accompanying text.
It is extraordinarily difficult to demonstrate that reduced HIV seroprevalence rates are due to the establishment of needle-exchange programs. So many factors affect the rate of HIV transmission that the effect of one cannot be scientifically measured. Nevertheless, widespread sharing in cities with tight restrictions on needle supply has been linked to the disproportionately high prevalence of HIV in those cities.\textsuperscript{208} HIV seroprevalence rates are lower in cities that make sterile injection equipment more readily available, such as Amsterdam.\textsuperscript{209} While these figures establish no definite causal link between limits on sterile injection equipment and the HIV seroprevalence rate, they do indicate that supply limitations are not decreasing seroprevalence rates and that readily accessible supplies are not resulting in a feared increase in HIV infection.\textsuperscript{210}

An important advantage exchange programs have over programs that simply distribute injection equipment is that they reduce the supply of contaminated needles in circulation. More established programs such as the one in Amsterdam have experienced excellent rates of one-for-one exchanges.\textsuperscript{211}

Needle-exchange programs do not cause the various harms feared by their opponents.\textsuperscript{212} Government sponsored researchers in the United States and abroad have concluded that there is no measurable increase in drug use associated with needle exchange.\textsuperscript{213} Drug users who participate in exchange programs have demonstrated either the same or lower rates of drug injection as other drug users over the same time periods.\textsuperscript{214} Longitudinal studies of programs such as the Amsterdam exchange could detect no increase in drug injection over time.\textsuperscript{215} Indeed, one study showed no increase in the rate of drug injection in clients at a methadone clinic that operated adjacent to the needle-exchange program.\textsuperscript{216}

\textsuperscript{208} For example, New York has both needle-prescription and drug-paraphernalia laws and a seroprevalence rate among IV drug users of from 50 to 60%. See supra note 144 and accompanying text.

\textsuperscript{209} See The Amsterdam Municipal Health Service, supra note 176.

\textsuperscript{210} See generally Des Jarlais, AIDS Prevention Programs for Intravenous Drug Users: Diversity and Evolution, 1 Int'l Rev. of Psychiatry 101, 102 (1989).

\textsuperscript{211} See supra notes 180-182 and accompanying text.


\textsuperscript{213} See supra note 174 and accompanying text.

\textsuperscript{214} See Joseph & Des Jarlais, supra note 145.

\textsuperscript{215} See supra note 184 and accompanying text.

\textsuperscript{216} See Wodak, Needle Exchange Succeeding in Australia, supra note 170.
A person who has not injected drugs would be unlikely to do so simply because of the operation of a government sponsored exchange program. At most programs, a person cannot obtain equipment unless he has demonstrated that he is an intravenous drug user and has a used needle to exchange. In any event, new recruits into drug use can readily obtain injection equipment from the dealer. Moreover, if exchange programs succeed in referring clients for treatment who have not previously been accessible to the public health community, their net impact is favorable to anti-drug efforts.

The concern that needle-exchange programs appear to sanction an unlawful and unhealthy activity, particularly in vulnerable minority areas already ravaged by the drug epidemic, could be addressed through the dissemination of culturally appropriate anti-drug messages at exchange centers. These messages should stress that exchange programs are designed to help drug users reduce their dependence through counseling and treatment. A more difficult problem with needle-exchange programs is that they may be thrust on local communities without consultation and without a comprehensive strategy for combating drug abuse. Needle-exchange programs would be more palatable to those communities as part of a comprehensive and well-funded package of services—education, drug treatment and health care—designed to interrupt the cycle of poverty, drug use and AIDS.

III. Providing Treatment to Confront the Dual Epidemics of Drug Dependency and AIDS

A thirty-four-year-old crack addict from the South Bronx decided he wanted to get well. After being turned away from numerous treatment clinics and hospitals, he gave up on the health care and drug treatment systems, and sought treatment through the criminal justice system. He smashed windows in two police stations and displayed a hypodermic syringe and a crack vial in a third, only to find himself back on the streets. His efforts to be

217 "None of the exchanges has reported a person who had not previously injected coming to a syringe exchange." Joseph & Des Jarlais, supra note 145, at 4.
218 Lambert, Fight in War of Drugs and AIDS, N.Y. Times, Dec. 23, 1988, at B1 (city ed.); see also N.Y. Times, Jan. 10, 1990, at A1, col. 5 (crack addict moved in with his sister because of the absence of treatment. He spent four months indoors, afraid to face the temptation of the streets).
arrested were unavailing. This user’s experience in New York City reflects conditions in two-thirds of America’s large urban areas, where there are waiting lists of up to six months or more for drug treatment programs.219

Delays in providing treatment for IV drug users cost human lives and scarce health care dollars. Drug dependency contributes substantially to the spread of AIDS. A drug user who is turned away from treatment will in all probability continue the dangerous cycle of drug dependency, needle sharing, crime and prison. Imprisonment does not address the problem: when the user is released from prison, the cycle will probably repeat itself.220 The result is an ever increasing spiral of drug use, violence and HIV infection. Moreover, society may have lost any opportunity to recruit the user into treatment.

The lifestyles of drug-dependent people often drive them to seek immediate relief from the physical and psychological effects of drugs. A user cannot be relied upon to reappear for a treatment slot that becomes available at some future time. For this reason, the goal of public health must be treatment on demand.221

Provision of treatment services does not generate the same political conflicts as other strategies for confronting drug dependency and AIDS. Public health and law enforcement agencies can reach a consensus on drug treatment because it aims to reduce or eliminate the injection of illicit drugs. The public health goal of treatment, therefore, is consistent with prevailing moral values and criminal proscriptions.

Despite the profound public health benefits of drug treatment, and the agreement among the criminal justice and health care systems, existing treatment services are inadequate. The government and the public apparently undervalue rehabilitation as a policy option because of the belief that “treatment does not work.”222

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219 The Institute of Medicine heard “dramatic testimony about users willing to sign up for treatment such as methadone maintenance, only to be told of waiting periods of months.” INSTITUTE OF MEDICINE, supra note 133, at 108–09; see CONFRONTING AIDS, supra note 144, at 84–85; REPORT OF THE PRESIDENTIAL COMMISSION, supra note 18, at 96.


221 See, e.g., REPORT OF THE PRESIDENTIAL COMMISSION, supra note 18, at 94–104.

222 Criticism and calls for rejection of correctional treatment programs peaked in 1974 with the publication of a review of 231 treatment evaluation studies between 1945 and 1967. This review concluded that treatment does not significantly reduce drug use or recidivism, and asked, “Does nothing work?” Martinson, What works?—Questions and Answers About
This insupportable perception is based upon outdated and inaccurate scientific studies, the poor performance of treatment programs that did not possess an adequate number of experienced personnel, and the absence of sufficient funding and commitment to make the programs work. Moreover, asking the question "Does treatment work?" is an overly simplistic approach to analyzing the benefits of treatment because many variables affect the process and ultimate outcomes of treatment. A more appropriate question is whether treatment can work, if properly conceived, funded and administered.

A. Can Treatment Work?

1. Treatment Evaluation Studies: Achieving Enduring Reductions in Drug Use and Criminality

One explanation for the low level of funding and community support for drug treatment is the common view that drug dependency is a chronic, relapsing illness that is resistant to treatment. Yet, a great deal of evaluative research demonstrates the efficacy of treatment in reducing drug use, needle sharing and criminality, and in increasing employment and social adjustment. Further, the longer the treatment process, the more likely that it will be


222 Even Martinson renounced his position that "nothing works" based upon more recent evaluations of 555 treatment programs: "Contrary to my previous position, some treatment programs do have an appreciable effect on recidivism. Some programs are indeed beneficial. New evidence from our study leads me to reject my original conclusion. I have hesitated up to now, but the evidence in our survey is simply too overwhelming to ignore." Martinson, New Findings, New Views: A Note of Caution Regarding Sentencing Reform, 7 HOFSTRA L. REV. 252-54 (1979).

224 Jerome Jaffe writes: "They will continue to ask, 'Does treatment work?' They may be annoyed when they are told that the question can no longer be put in such simple terms." Jaffe, Evaluating Drug Abuse Treatment: A Comment on the State of the Art, in NATIONAL INSTITUTE ON DRUG ABUSE, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, NIDA MONOGRAPH No. 51, DRUG ABUSE TREATMENT EVALUATION: STRATEGIES, PROGRESS, AND PROSPECTS 20 (1984 & reprint 1986, 1988) [hereinafter NIDA MONOGRAPH No. 51].

225 See TREATMENT OPTIONS, supra note 222, at 2-5 ("[d]rug experts and criminal justice practitioners almost universally agree that reducing the demand for drugs through prevention and treatment holds the greatest hope for controlling drug abuse. Because prevention is not a viable option for an already addicted offender, treatment is the only vehicle for breaking the cycle of addiction and crime for such an individual.").
effective in ameliorating the profound physical, psychological and social problems of drug-dependency.

Two major evaluative research projects have led social scientists to the nearly unanimous conclusion that treatment works: the Treatment Outcome Prospective Study ("TOPS")226 and the National Treatment System Based on the Drug Abuse Reporting Program ("DARP").227 The TOPS project was a longitudinal study of 11,750 people admitted to thirty-seven treatment programs in ten cities from 1979 to 1981. The treatment modalities studied were methadone maintenance, residential therapeutic treatment (therapeutic community treatment) and out-patient detoxification treatment. The participants were tracked for five years.

The TOPS study showed that each of the treatment modalities was effective in causing significant and enduring declines in drug use. Overall fewer than 20% of the participants in any modality were regular users of the drugs studied three to five years after entering treatment. These effects were evident for non-opioid228 as well as opioid229 drugs. Even under the most rigorous outcome standard, abstinence from cocaine, the treatment was successful. Abstinence rates in the year after treatment ranged from between 40 to 47% among the three treatment modalities.230 The Drug Abuse Report Program, conducted before TOPS, involved almost 44,000 admissions to treatment. Similar abstinence and improvement rates were found in the DARP study.231

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227 The primary source for the DARP study is found in The Effectiveness of Drug Abuse Treatment: Evaluation of Treatment Outcomes for 1971–1972 DARP Admission Cohort (S. Sells & D. Simpson eds. 1976) [hereinafter DARP]. One important caveat, however, is that neither TOPS nor DARP were controlled trials. Controlled trials to evaluate drug treatment outcomes are badly needed.

228 "Three to five years after treatment, the percentage of regular cocaine users was 6–16% in any of the modalities." Abstinence rates in the year after treatment were 40% (methadone), 42% (out-patient/drug-free), and 47% (residential). The TOPS Study, supra note 226, at 108–09.

229 Regular heroin use also declined among participants studied three to five years after treatment: methadone (63.5% to 17.5%); residential (31.9% to 11.8%), and outpatient/drug-free (from 8.6% to 4.6%). Id. at 102–03. The TOPS study did not find the same levels of reduction in regular marijuana use. Id. at 117.

230 "Reductions in prevalence [of heroin use] were most dramatic for clients in outpatient methadone and residential programs." Id. at 103. Otherwise, few significant differences were detected based upon the modality of treatment, and no clear understanding emerged about why treatment is effective. Id. at 102–21.

231 See generally Simpson, National Treatment System Evaluation Based on the Drug Abuse Reporting Program (DARP) Followup Research, in NIDA MONOGRAPH No. 51, supra note 224, at 29.
Numerous smaller studies have repeatedly re-affirmed the findings of TOPS and DARP: treatment is effective in reducing drug use; treatment’s effectiveness increases with duration; and treatment achieves results that endure over time. The research literature has focused upon treatment for opioid use because it was the drug of choice. However, non-opioid drugs, particularly injectable and crack cocaine have emerged as the most frequently used drugs in the late 1980s and the early part of this decade. Treatment and program evaluation of cocaine use has been less rigorous than for opioid drugs. Nevertheless, some studies have reported similar levels of treatment efficacy for cocaine abuse.

In addition to reducing drug use, treatment reduces crime. The association between drug use and crime is inescapable. Many drug-dependent people commit their crimes as a means of obtaining money to purchase their drugs. Jails, courts and prosecutors in major urban areas are overloaded with drug-dependent offenders. However, because of case overload, most offenders receive little or no prison time and no treatment. Social scientists almost universally report that reducing demand for drugs through prevention and treatment reduces the level of drug-related criminal activity. Both the TOPS and DARP studies concluded that treatment produces a dramatic decrease in criminal behavior.

TOPS, DARP and the host of smaller studies point to the conclusion that treatment can work. Convincing policymakers and

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233 See NATIONAL INSTITUTE ON DRUG ABUSE, supra note 24, at 29-39; N.Y. Times, May 11, 1990, at A18, col. 5 (Senate Judiciary Report estimates nearly 2.2 million Americans use cocaine each week).

234 See, e.g., Simpson, Joe, Lehman & Sells, Addiction Careers: Etiology, Treatment, and 12-year Follow-up Outcomes, 16 J. DRUG ISSUES 107 (1986) (38% of opioid users used cocaine before treatment, 18-22% used it one to six years after treatment, but 39% used it in the 12th year after treatment, possibly because of the increased popularity of the drug).


237 TOPS found that three to five years after leaving treatment, the proportion of clients involved in predatory crimes was one-third to one-half of the pre-treatment level. The TOPS Study, supra note 226, at 128.

238 See Simpson, supra note 231, at 31-33.
the general public of this fact is the next important step towards ensuring that treatment programs receive the attention and funding they deserve.

2. Methadone Maintenance Programs

Methadone hydrochloride maintenance is a prime modality of the drug treatment system. Methadone hydrochloride given to heroin addicts at clinically appropriate daily doses blocks the effects of the drug so that withdrawal cravings are reduced or eliminated.

Methadone maintenance has been exhaustively studied and has been demonstrated to be safe and effective. Intravenous drug abusers achieve immediate and substantial reductions in heroin use while on methadone maintenance. Studies have shown that a significant percentage of drug users abstain from illicit opiate use while in treatment. Positive effects are strengthened the longer the person remains in the maintenance program.

Methadone treatment has features that make it particularly effective in impeding the needle-borne spread of HIV. It has the

239 Naltrexone and buprenorphine are two other drugs that are used for the treatment of opioid addiction. Naltrexone is a long-acting competitive antagonist at opioid receptors that blocks the responses produced by intravenous use of heroin. See Gonzalez & Brogden, Naltrexone: A Review of its Pharmacodynamic and Pharmacokinetic Properties and Therapeutic Efficacy in the Management of Opioid Dependence, 35 DRUGS 192 (1988). Buprenorphine has also been shown to control opioid use. See Goodwin, Buprenorphine May Be Therapeutic Alternative for Opiate Addiction, 263 J. A.M.A. 2725 (1990); Kosten & Kleber, Buprenorphine Detoxification from Opioid Dependence: A Pilot Study, 42 LIFE SCIENCE 635 (1988). As to the benefits of buprenorphine for non-opioid addiction, see infra note 253.

240 Clinical success in rehabilitation of heroin addicts with maintenance treatment requires stability of the blood level in a pharmacologically effective range, optimally, 150 to 600 ng/mL. The molecular biological explanation for the effects of methadone are uncertain, but effects have been consistently demonstrated by empirical research. See Dole, Implications of Methadone Maintenance for Theories of Narcotic Addiction, 260 J. A.M.A. 3025 (1988).

241 The safety of methadone when administered by competent health care professionals in clinically indicated doses is beyond doubt. See Cooper, Methadone Treatment and Acquired Immunodeficiency Syndrome, 262 J. AM. MED. A. 1664 (1989); Kreek, Health Consequences Associated with the Use of Methadone, in NIDA MONOGRAPH NO. ADM 83-1281, supra note 232, at 456.

242 See Cooper, supra note 241; see also The TOPS Study, supra note 226, at 5.


244 See Simpson, supra note 231, at 33.

highest client retention rate of all of the treatment modalities.\textsuperscript{246} Client retention is important because length of treatment is one of the best predictors of successful outcome.\textsuperscript{247} Methadone treatment also lowers risk behavior for HIV transmission by significantly reducing the number of injections and the sharing of injection equipment. Although reductions in injections and sharing are evident across the range of treatment modalities, methadone maintenance has the most pronounced effect.\textsuperscript{248} HIV seropositivity of addicts enrolled in methadone maintenance is also consistently lower than that of addicts not in treatment.\textsuperscript{249}

Despite the overwhelming evidence of methadone's ability to combat the dual epidemics of AIDS and drugs, such programs remain highly controversial. The concerns of opponents of methadone expansion are not well articulated, but can be grouped into three categories: methadone merely substitutes one long-term addiction for another;\textsuperscript{250} methadone clients suffer from prejudice and are viewed as dangerous and anti-social;\textsuperscript{251} and methadone treatment is itself immoral because of society's expressed preference for a drug-free lifestyle.\textsuperscript{252}

These essentially ideological objections to methadone maintenance are hardly powerful given the practical effectiveness of the drug. We may be bewildered by the chemical reasons why the body seems to adapt so well to the long-term narcotic effects of methadone,\textsuperscript{253} and we may prefer, both morally and socially, a


\textsuperscript{247} Within the first three months of treatment, only 14% of new methadone patients drop out, while 40–50% drop out in other modalities. Id.

\textsuperscript{248} See Ball, Lange, Myers & Friedman, Reducing the Risk of AIDS Through Methadone Maintenance Treatment, 29 J. Health & Soc. Behav. 214 (1988).

\textsuperscript{249} See Cooper, supra note 241, at 1665.

\textsuperscript{250} D'Amico, Methadone Treatment and Acquired Immunodeficiency Syndrome, 263 J. A.M.A. 658 (1990); see Kirn, Methadone Maintenance Treatment Remains Controversial Even After 23 Years of Experience, 260 J. A.M.A. 2970 (1988).


\textsuperscript{252} Rosenthal, Methadone Clone: A Bad Quick Fix, N.Y. Times, July 1, 1989, at 23, col. 2. See Cooper, supra note 241, at 1665.

\textsuperscript{253} Perhaps the major drawback to methadone is that it is effective only in blocking opioids. Cocaine is now surpassing heroin as the drug of choice and is fanning the flames of the HIV epidemic. There are no FDA-approved chemical treatments for cocaine dependence. There is, however, experimental evidence that buprenorphine suppresses the craving for cocaine. Because buprenorphine is already recognized as safe and effective pharmacotherapy for heroin dependence, buprenorphine treatment may also one day be used to attenuate dual abuse of cocaine and heroin. Mello, Mendelson, Bree & Lukas, Buprenorphine Suppresses Cocaine Self-Administration by Rhesus Monkeys, 245 Science 859 (1989). Buprenorphine is a pain reliever that, "like methadone, induces a generalized feeling of
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person who is drug-free. Yet, few public health interventions have been demonstrated to be as effective and safe as methadone. Substantial expansion of methadone maintenance would be a potent tool for reducing drug abuse, crime and HIV transmission.

3. Compulsory Versus Voluntary Treatment

Drug treatment professionals understandably have been reluctant to recommend compulsory interventions when there are long waiting lists for persons actively seeking treatment. Compulsory intervention also contravenes the intuition that drug-dependent people must be self-motivated in order to benefit from treatment. This intuition, however, simply is not borne out by the relevant data. In fact, there appears to be little difference in the efficacy of treatment between those who volunteer for it and those who are coerced into it.

Compulsory treatment for drug abuse can be accomplished through civil commitment or through the criminal justice system.

contentment rather than heroin's precipitate rush and euphoria. It is at least as effective as methadone in easing physical withdrawal and reducing cravings, and it is significantly more potent in blocking heroin's high if the addict tries to shoot up again. Unlike methadone, buprenorphine is relatively non addictive and carries almost no risk of overdose." Purvis, Can Drugs Cure Drug Addiction?, TIME, Dec. 11, 1989, at 104; see also Kosten & Kleber, Buprenorphine Detoxification from Opioid Dependence: A Pilot Study, 42 Life Sciences 635 (1988).

254 A panel of drug abuse treatment professionals met under the auspices of the National Institute on Drug Abuse in January 1987 to examine the demand-reduction potential of mandatory treatment. Leukefeld & Tims, An Introduction to Compulsory Treatment for Drug Abuse: Clinical Practice and Research, in National Institute on Drug Abuse, U.S. Department of Health and Human Services, NIDA Monograph No. 86, Compulsory Treatment: Research and Clinical Practice 1-2 (1988) [hereinafter NIDA Monograph No. 86]. The strong consensus of the meeting was to reject compulsion as a primary strategy. (The author was a member of the NIDA steering group and is reporting his conclusions on the outcome of the meeting).

255 Coercion also runs contrary to the humanistic traditions of psychiatry. See Schottenfeld, Involuntary Treatment of Substance Abuse Disorders—Impediments to Success, 52 Psychiatry 164 (1989).

256 See Anglin, Brecht & Maddahian, Pre-treatment Characteristics and Treatment Performance of Legally Coerced versus Voluntary Methadone Maintenance Admissions, 27 Criminology 537 (1989); Leukefeld & Tims, Compulsory Treatment: A Review of Findings, in NIDA Monograph No. 86, supra note 254, at 236; see also Anglin, The Efficacy of Civil Commitment in Treating Narcotic Addiction, in NIDA Monograph No. 86, supra note 254, at 31-32; Maddux, Clinical Experience with Civil Commitment, in NIDA Monograph No. 86, supra note 254, at 35.
Civil commitment as a form of compulsory treatment has been legally possible in the last twenty-five years. The first state programs included the California Civil Addict Program and the New York Narcotic Addiction Control Commission; currently twenty-five states have civil commitment statutes in effect. The Federal Narcotic Addict Rehabilitation Act ("NARA") also authorizes compulsory admission for drug treatment. Studies of the effectiveness of civil commitment in the decade from 1965 to 1975, when it was actively used, demonstrate that it was at least as effective as voluntary treatment. Despite the continuing statutory authority for civil commitment, however, relatively few drug-dependent individuals have been civilly detained and treated since the mid-1970s.

Mandatory treatment through the criminal justice system is also authorized under numerous statutes that provide for treatment as a condition of release on bail, probation and parole. While treatment under many of these schemes is technically voluntary, failure to agree to and carry out the treatment program can result in incarceration. Under this scheme the drug-dependent person clearly has a vested interest in opting for treatment.

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256 See supra note 256 and accompanying text.
261 Many jurisdictions direct eligible drug-dependent individuals from the criminal justice to the treatment system. Under federal law, for example, this can take place as a condition of bail, or in lieu of a trial or sentence. 18 U.S.C. § 4251f (1984). Unfortunately, this statute has been repealed, effective November 1, 1992. Comprehensive Crime Control Act of 1984, Pub. L. No. 98-473, § 218, 98 Stat. 2027.
Extensive research has been undertaken concerning the success of mandatory treatment in the criminal justice system. The criminal justice system is nearly twice as likely as any other source to refer young users into treatment. Both the TOPS and DARP studies show benefits to individuals under mandatory treatment equal to, or greater than, voluntary treatment.

The major model for treatment in the criminal justice system is the Treatment Alternatives to Street Crime ("TASC") program. The goals of TASC are to identify drug users who come into contact with the criminal justice system, to refer them to clinically appropriate treatment, to monitor their progress, and to return violators to the criminal justice system. TASC employs creative strategies including deferred prosecution, community sentencing, diversion to the civil treatment system, and pretrial intervention to help funnel drug users into treatment. TASC also utilizes traditional strategies such as probation and parole supervision for probable and proven crimes.

More than forty evaluations of TASC have concluded that it has intervened effectively to reduce drug abuse and criminal activity and that it has identified previously unrecognized drug-dependent persons. Indeed, researchers have concluded that criminal justice treatment clients do as well or better than clients in other drug abuse treatment programs. Successes of compulsory treatment include significantly reduced drug use and criminal activity, and increased employment and social coping skills.
ilarly successful outcomes are evident for correctional institution-based treatment\textsuperscript{274} and aftercare for probationers and parolees.\textsuperscript{275}

Compulsory treatment’s proven effectiveness may persuade even groups that are morally opposed to drug use to choose treatment over punitive measures. A mandatory treatment program could make a user’s otherwise useless time in the criminal justice system highly productive. Since a clear nexus exists between treatment duration and treatment success, extended treatment in the criminal justice system would significantly increase the probability of a positive outcome. Despite the limits it places on personal autonomy, compulsory treatment promises a brighter future for drug-dependent persons than currently practiced punitive measures.

\textbf{B. Present Treatment Programs: The Gulf Between Treatment Needs and Service Availability}

Politicians\textsuperscript{276} and public opinion polls\textsuperscript{277} alike place drug abuse and the needle-borne spread of HIV infection among the country’s most pressing social problems. Total federal funds budgeted for drug programs increased from $1.5 billion in Fiscal Year 1980 to $5.669 billion in Fiscal Year 1989. For Fiscal Year 1991 the Ad-


\textsuperscript{275} J. Baglin, The Impact of the Federal Drug Aftercare Program 5-6 (Federal Judicial Center, 1986). One major study concludes that “criminal and drug use behavior, as well as social functioning, were significantly improved during treatment for the three groups [high, moderate and low legal coercion groups] and remained improved following treatment. Further, the level of improvement was not related to legal coercion . . . . Clearly, the beneficial impact of treatment of the measured behaviors did not differ for addicts with legally coerced versus voluntary treatment entry.” Anglin, Brecht & Maddahian, Pretreatment Characteristics and Treatment Performance of Legally Coerced versus Voluntary Methadone Maintenance Admissions, 27 Criminology 537, 553-54 (1989).

\textsuperscript{276} See, e.g., Report of the White House Conference for a Drug Free America (June 1988) (“Our forces are out manned, out gunned and out spent . . . . Our losses include children born addicted, and other children recruited to crime before their teens”); The White House, National Drug Control Strategy 1 (1989) (“most Americans remain firmly convinced that drugs present the gravest present threat to our national well being—with good reason. Because a wealth of other, up-to-date evidence suggests that our drug problem is getting worse, not better”).

\textsuperscript{277} Gallup Poll Shows Nation’s Attitudes On Health Are Contradictory, BCBSA Says, 17 Pension Rep. (BNA) No. 29, at 1252 (July 16, 1990) (Drug abuse was considered the “most important problem facing this country today” by 40% of respondents; the next highest concerns were poverty and homelessness (9%) and the budget deficit (5%)).
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administration proposed a total of just over $10.6 billion. The rise in funding, the National Drug Control Strategy, and the tough public talk about a "drug war" reflect the federal government's social priorities. But noticeably absent from the spending, planning, and rhetoric is a comprehensive strategy for treatment and prevention. Surprisingly, no exact government figures are kept on the percentage of federal funds that go to treatment and prevention as opposed to law enforcement, eradication and interdiction. But by any account, the percentage is low. Two decades ago more than 50% of the total drug abuse budget went to treatment and prevention; it was reduced to between 18 and 27% during the Reagan years in the 1980s and is approximately 29% for Fiscal Year 1991.

Commission and press reports have repeatedly drawn attention to the inability to meet treatment needs across the nation. States estimate that less than 12% of the more than 12 million drug-dependent people needing treatment are actually receiving treatment services. As of September 25, 1989, 66,766 persons in

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278 NATIONAL ASS'N STATE ALCOHOL AND DRUG ABUSE DIRECTORS, TREATMENT WORKS: A REVIEW OF 15 YEARS OF RESEARCH FINDINGS ON ALCOHOL AND OTHER DRUG ABUSE TREATMENT OPTIONS 3 (1990) [hereinafter TREATMENT WORKS].
280 See THE WHITE HOUSE, NATIONAL DRUG CONTROL STRATEGY (1989).
281 See Letter from President Bush to the Speaker of the House and President of the Senate, Sept. 5, 1989, in THE WHITE HOUSE, NATIONAL DRUG CONTROL STRATEGY ("Americans' fight against epidemic illegal drug use cannot be won on any single front alone; it must be waged everywhere—at every level of Federal, State, and local government and by every citizen in every community across the country").
282 See Brecher, Needles and the Conscience of a Nation, supra note 1, at 5-6; THE WHITE HOUSE, NATIONAL DRUG CONTROL STRATEGY: BUDGET SUMMARY (1990) (demand reduction represents 29% of the proposed $10.6 billion FY1991 budget). Compare the current expenditures with those proposed in MAJORITY STAFFS OF THE SENATE JUDICIARY COMMITTEE AND THE INTERNATIONAL NARCOTICS CONTROL CAUCUS, FIGHTING DRUG ABUSE: A NATIONAL STRATEGY (1990) (38% of the $14.6 billion proposed total for Fiscal Year 1991 is recommended to be earmarked for demand reduction services). Senator Daniel Partick Moynihan argues that the Anti-Drug Abuse Act of 1988 envisions a 50-50 split on treatment and law enforcement, but the budget provides only 26% for treatment. Pear, Drug Policy Debate Turns to Feud Between Moynihan and Bennett, N.Y. Times, June 18, 1990, at A20, col. 4.
284 TREATMENT WORKS, supra note 278, at app. I (41 states and Washington, D.C. reported that a total of 1,407,519 persons per year are currently receiving treatment for alcohol or drug dependency. These jurisdictions estimate that an additional 10,596,419 persons need treatment).
forty-four states responding to a national survey were on treatment waiting lists; one half of these people had been waiting for at least thirty days, and in many major urban states and the District of Columbia, between 90 and 100% of persons on the lists had waited at least thirty days. In some areas addicts can wait for six months to a year for treatment. Waiting lists, moreover, may be grossly understated because many programs are so full they do not add people to their lists. Addicts on waiting lists exhibit increased involvement in crime and less interest in entering treatment. The absence of adequate treatment services is also evident in correctional facilities. Studies indicate that the vast majority of inmates who are seriously drug-dependent are not in treatment.

The relatively low percentage of expenditure on demand reduction, and the long waiting lists for treatment, are symbolic of society's perception of drug-dependent people as morally blameworthy rather than ill and of the low value given to treatment relative to punishment. As an expert on drug treatment programs has written, "[t]he ultimate measure of the value of policies and programs is not the sum of their effects minus their shortcomings, flaws, and abuses, but rather what alternative policies and programs might be developed, which, when weighed in some balance that is sensitive to symbols as well as costs, would be better than that which now exists." Expenditures on demand reduction to bridge the gulf between services and current needs would not only be a symbol of humanity toward a historically reviled and vulner-
able population but would also be a cost-effective way to reduce drug abuse and crime.

C. The Cost-Effectiveness of Drug Treatment

In times of economic downturn, it is argued that federal and state governments cannot afford the cost of treatment expansion. Federal and state policy makers legitimately may inquire whether scarce resources should be refocused on reducing demand, rather than supply. The questions addressed here are what results policy makers can reasonably expect from treatment programs and the cost of programs set on reducing the incidence of drug use and HIV infection.

The Presidential Commission on the HIV Epidemic observed that treatment on demand can save money as well as lives. At a purely economic level, the Commission reported, the annual cost of keeping a person in prison is $14,500, but as little as $3,000 is needed for drug treatment. The cost of treatment compares favorably with the $50,000 or more lifetime cost of treating a person with AIDS.

Comprehensive cost/benefit analyses conducted by the TOPS and Tabbush studies conclude that state level funding of drug abuse programs is economically justified. The studies focused on reduced arrest, prosecution, and incarceration costs; reduced loss due to property theft; reduced social costs due to an improved labor market; and reduced medical treatment costs. The TOPS study concluded that there was an 11-30% decline in these indirect costs as a consequence of drug abuse treatment. The Tabbush study found a benefit-cost ratio of 1:11.54—for every dollar spent for effective drug treatment, $11.54 of social costs is saved.

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291 Estimates for drug treatment costs for IV drug users in 1987 were $3,000 (outpatient methadone maintenance), $2,300 (outpatient drug-free) and $14,600 (non-hospital residential drug-free). TREATMENT WORKS, supra note 278, at 25.


293 See supra note 226.


295 Id. at 94.
D. Expanding Access to Demand Reduction Services

If policy makers concur that prevention and treatment—properly designed, funded and executed—is beneficial to the individual and is cost effective, the remaining question is how best to reach the drug user to reduce demand. The fundamental problem with existing treatment services is that they are often far removed from the silent world of the illicit drug user. Virtually all treatment services are delivered through traditional drug treatment facilities that are separated from the mainstream health care system.

Drug treatment occurs, if at all, when a drug user himself seeks out services, has the persistence to wait his turn on the list, and voluntarily remains in treatment for the duration necessary to obtain results. This system is, at best, haphazard and idiosyncratic and, at worst, designed to perpetuate the revolving door between drug use, needle sharing, and brief stays in detoxification or in prison. Indeed, all the evidence points to (1) large numbers of unrecognized cases of serious drug dependence;\(^{296}\) (2) cases that do come forward and are placed on lists where the individual progressively loses interest in treatment;\(^{297}\) (3) short periods of detoxification with few individuals logging sufficiently long stays in treatment to make a difference;\(^{298}\) and (4) repeated contacts with emergency medical services and with the criminal justice system.\(^{299}\) This pattern suggests that the current segregated treatment system is neither capable of recruiting large numbers of drug users nor of keeping them in treatment.

The lesson for policy makers from the social science research is therefore relatively simple. The most effective strategy to reduce the dual epidemics of drugs and AIDS is to identify as many unrecognized cases as possible and to give them the opportunity to enter and remain in treatment for durations that maximize the chance of a positive outcome.

Two distinct foci for enhancing the capacity to identify and treat drug-dependent persons are the health care and criminal

\(^{296}\) See infra notes 301, 318–322 and accompanying text.

\(^{297}\) See Brown, supra note 288, at 261 (51.7% of all persons on a waiting list become less interested in entering treatment).

\(^{298}\) Sheffet, Quinones, Lavenhar, Doyle & Prager, An Evaluation of Detoxification as an Initial Step in the Treatment of Heroin, 133 AM. J. PSYCHIATRY 337 (1976) (only 9.6% of patients admitted to a detoxification unit sought long-term treatment).

\(^{299}\) See infra notes 300–322 and accompanying text.
justice systems. Large numbers of otherwise unrecognized and untreated drug users come into contact with both systems. It simply makes no sense to have a seriously dependent person pass through an emergency room, hospital, courtroom, or prison and fail to identify her as a person who needs treatment. Even if the person is properly identified, there presently is insufficient capacity in these settings to provide treatment or even to make a referral. The settings are not designed or funded to provide treatment, and the training and experience of staff is inadequate to provide expert care for seriously drug-dependent persons. However, both the health care and criminal justice systems could remedy these problems.

1. The Health Care System

Seriously drug-dependent people are likely to have multiple health problems, not only because of the physical and psychological effects of their dependency, but because they are likely to be poor, malnourished, even homeless. As a result of their multiple health problems, drug-dependent persons are likely to come into contact with the health care system in traditional venues such as hospitals, emergency rooms, community health and mental health centers, family physician offices, health maintenance organizations and the like.

The number of drug related hospital admissions increased by 121% between 1985 and 1988. Included in this figure is a twenty-eight-fold increase in hospital admissions involving smoked cocaine (crack). Unidentified drug users, many already HIV-positive, pass through the health care system. Blinded studies of sentinel hospitals throughout the United States suggest that as many as 80,000 cases of HIV infection pass undetected through American hospitals each year. In large urban areas up to 50%

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301 See Kelen, DiGiovanna & Bisson, Human Immunodeficiency Virus Infections in Emergency Department Patients, 262 J. AM. MED. A. 518 (1989) (of 2544 consecutive emergency department patients at Johns Hopkins Hospital, 152 (6%) were HIV-positive and 95 (63%) were not previously known to be infected); Soderstrom, Furth, Glasser, Dunning, Groseclose & Cowley, HIV Infection Rates in a Trauma Center Treating Predominately Rural Blunt Trauma Victims, 29 J. TRAUMA 1526 (1989) (1.7% of patients at the Statewide Trauma Center in Baltimore were HIV-positive); Gordin, Givert, Hawley & Willoghby, Prevalence of the Human Immunodeficiency Virus and Hepatitis B Virus in Unselected Hospital Admissions: Implications for Mandatory Testing and Universal Pre-
or more of these cases of HIV infection are likely to be among unrecognized and untreated IV drug users. Studies of medical centers and emergency rooms indicate that a substantial number of patients have recently used an illicit drug, and many may be seriously dependent. Testing of all patients for recent drug use would be easy enough to implement, but in the present political and legal climate such testing would raise serious privacy concerns. These concerns would not be as serious if a drug user did not have to fear criminal prosecution.

Even if seriously drug-dependent people were identified in traditional health care settings, they would be unlikely to receive the expert care needed to ameliorate their long-term dependencies. Traditional medicine is ill-prepared, at the most fundamental levels, to provide effective drug abuse treatment. Research shows that medical school training in the area of drug abuse is quite poor. Although it is improving, the number of qualified instructors, specific courses, time spent in the curriculum and contact with drug-dependent clients generally is low. The rest of medical education, from internship through residency, rarely exposes students to addicts and the problems of drug dependency. Even primary

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cautions, 161 J. INFECTIOUS DISEASES 14 (1990). In the CDC sentinel hospital study the HIV prevalence rate ranged from 0.1 to 7.6%. Counseling and Testing for HIV Infection in Acute Care Hospitals, CDC Strategic Planning Meeting (April 5–6, 1990); St. Louis, Rauch, Peterson, Anderson & Domdero, Seroprevalence Rates of Human Immunodeficiency Virus Infection at Sentinel Hospitals in the United States, 323 N. ENG. J. MED. 213 (1990).

302 See supra note 12 and accompanying text.

303 See Lindenbaum, Carroll, Daskal & Kapusnick, Patterns of Alcohol and Drug Abuse in an Urban Trauma Center: The Increasing Role of Cocaine Abuse, 29 J. TRAUMA 1654 (1989) (74% tested positive for illicit or prescription drugs in their blood, including cocaine (54.4%), cannabinoids (37.2%), barbiturates (7.1%), amphetamines (4.7%) and opiates (9%)); Marzuk, Tardiff, Leon, Stajic, Morgan & Mann, Prevalence of Recent Cocaine Use Among Motor Vehicle Fatalities in New York City, 263 J. A.M.A. 250 (1990) (18.2% of both drivers and passengers tested positive for cocaine use); Bailey, Cocaine Detection During Toxicology Screening of a University Medical Center Patient Population, 25 J. CLINICAL TOXICOLOGY 71 (1987) (10% tested positive for cocaine).

304 Bigby, Substance Abuse Education During Internal Medicine Training, 74 J. GEN. INTERNAL MED. 74 (1989); Confusione, Jaffe & Rosen, Drug Abuse Training as Part of a Family Medicine Clerkship, 57 J. MED. EDUC. 409 (1982); Fassler, Views of Medical Students and Residents on Education in Alcohol and Drug Abuse, 60 J. MED. EDUC. 562 (1985); Glass, Substance Abuse and Professional Education: A Tops-down or Bottoms-up Approach, 83 BRIT. J. ADDICTION 999 (1988); Helwick, Substance Abuse Education in Medical School: Past, Present, and Future, 60 J. MED. EDUC. 707 (1985); see also Pokorny & Solomon, A Follow-up Survey of Drug Abuse and Alcoholism Teaching in Medical Schools, 58 J. MED. EDUC. 316 (1983).

305 Coylehan, Zettler-Segal, Block, McClelland & Schulberg, Recognition of Alcoholism and Substance Abuse in Primary Care Patients, 147 ARCH. INTERN. MED. 349 (1987);
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The beliefs of physicians are confirmed by studies showing pitifully low levels of accuracy in identifying and diagnosing substance abuse. Even when substance abuse is recognized, it is the health care problem most likely to be referred outside the primary care physician's practice. Physicians have had little reason to study substance abuse since addicts are either shipped off to prison or never identified. It is likely that if public health objectives prevailed, medicine would quickly respond with better education and more active practice.

Current medical school students may possess the same kinds of biases against substance abusers as the general population. Their perception of the "skid row individual with a poor social and medical prognosis" only grows deeper during medical education. Medical training to dispel these myths and improve treatment skills has been wholly inadequate. Even if attitudes toward drug-dependent persons in the general population do not change, medical schools would do well to change the tenor in the classroom.

The inadequate medical education, and the poor attitudes toward drug users among physicians, are not the only problems in providing drug treatment services in the mainstream health care


Kennedy, Chemical Dependency: A Treatable Disease, 81 OHIO ST. MED. J. 77 (1985) (71% of physicians felt either incompetent or ambivalent about treating alcoholism); Fassler, Views of Medical Students and Residents on Education in Alcohol and Drug Abuse, 60 J. MED. EDUC. 562 (1985) (28% felt incompetent to treat alcoholism).

Lewis & Gordon, Alcoholism and the General Hospital: The Roger Williams Intervention Program, 59 BULL. N.Y. ACAD. MED. 181 (1983) (although substance abuse is evident in 20-50% of general hospital admissions, it is diagnosed in fewer than 5% of admissions).

See generally Gottlieb, Mullen & McAlister, Patients' Substance Abuse and the Primary Care Physician: Patterns of Practice, 12 ADDICTIVE BEHAV. 23 (1987).

Lewis, Niven, Czechowicz & Trumble, A Review of Medical Education in Alcohol and Other Drug Abuse, 257 J. A.M.A. 2945 (1987).

Committee on Adolescence, American Academy of Pediatrics, The Role of the Pediatrician in Substance Abuse Counseling, 72 PEDIATRICS 251 (1983); Health and Public Policy Committee, American College of Physicians, Chemical Dependence, 102 ANNALS INTERN. MED. 405 (1985). Model programs are under way to try to correct the problems in medical education. See Lewis, Niven, Czechowicz, & Trumble, supra note 309, at 2947 (discussing NIAAA and NIDA conferences and model programs for physician training in substance abuse).
Physicians in most mainstream health care settings cannot legally prescribe methadone—the FDA approved chemical treatment for opiate abuse. Prescribing methadone has, from its discovery and approval, been highly regulated. There are strict conditions for the use of methadone by which all health care providers must abide. In particular, a provider cannot prescribe methadone unless she is specifically approved for the purpose, and approval is not granted unless there is compliance with detailed regulations concerning staff-patient ratios, counseling, and paperwork. The objective of the regulations is to ensure in-depth psychological and medical care and counseling so that methadone maintenance centers are not mere "watering holes" to continue addiction. However, the regulations have had the effects of (1) stifling the growth of methadone maintenance programs because of the inordinate costs in complying with the regulations; and (2) discouraging ordinary health care providers from offering drug abuse treatment at all. Consider the typical case where a seriously dependent person is in an emergency room or is an inpatient in a city hospital. The provider can treat all of the physical conditions associated with drug use, but is unable to prescribe anything related to the primary diagnosis of drug dependency. The provider's only realistic option is to place the patient on a waiting list for a separate drug treatment slot, with all of the known limitations of a waiting list placement.

The Department of Health and Human Services has already issued proposed rules to try to ease the regulatory burden on methadone maintenance programs in response to the HIV epidemic. The proposed rules authorize minimum service maintenance therapy to patients awaiting comprehensive maintenance treatment, and require counseling on the avoidance of HIV transmission. Professionals providing minimum service maintenance treatment are required to provide a medical examination and ser-

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312 See supra notes 239–253 and accompanying text.


314 See supra notes 218–220 and accompanying text.

vices, but not rehabilitative services and routine urine screening. These are regarded as interim measures only until the client can be transferred to a comprehensive program.316

Thus, although both drug-dependent people and physicians believe that drug treatment services should be more fully integrated into the health care system, and although the health care system has the unique capacity to identify and care for patients, there remain systematic problems in utilizing the mainstream health care system for these purposes. Integration of drug treatment into primary care, hospitals, community health and mental health centers, health maintenance organizations and other providers will require a sizable influx of resources for training, facilities, and staff. It will also require fundamental reform of federal regulations to allow physicians to prescribe methadone and future chemical treatments much in the same way that they can currently prescribe in other areas of medicine.

2. Criminal Justice System

Drug abuse is placing an extraordinary strain on law enforcement, courts, and prisons.317 Considerable evidence exists showing the close relationship between drug use and crime. The Drug Use Forecasting (DUF) program of the National Institute of Justice monitors drug use among recently arrested persons in selected cities. DUF staff obtain voluntary, anonymous urine specimens from a sample of male arrestees from twenty-two cities. The prevalence of recent cocaine use (at least 50%) among arrestees is striking. This figure is, moreover, an underestimate since DUF significantly limits the participation in its studies of persons who are arrested on charges of possession or sale of drugs.318 The finding that at least 20% of drug injectors in this study reported sharing needles indicates that there is a continuing risk for the

316 Id. at 8973-74.
318 Centers for Disease Control, Urine Testing for Drug Use Among Male Arrestees—United States 1989, 38 Morbidity & Mortality Weekly Rep. 780 (1989). Urine tests were positive for cocaine most commonly in New York (76%), Philadelphia (74%), and the District of Columbia (65%), and least likely in the smaller cities of Indianapolis (26%) and San Antonio (24%). See also National Institute of Justice, DUF: Drug Use Forecasting (1989) (the incidence of cocaine use tripled in two years).
spread of HIV and other blood-borne infections.\textsuperscript{319} Between 75 and 83\% of persons incarcerated reported they had used drugs in the past, and between one-third and two-fifths reported they were under the influence of an illegal drug at the time of the offense.\textsuperscript{320}

Many prisoners even take drugs after they are incarcerated and often share injection equipment with other prisoners.\textsuperscript{321} One rural prison system reported that 26.9\% of the inmate samples tested positive for illicit drugs. While the prison system was able to lower this rate to 9.2\% with routine drug screening and punishments, it indicates that drug use among incarcerated inmates can be substantial.\textsuperscript{322}

Despite the large number of drug-dependent persons coming into contact with the criminal justice system, there are few comprehensive treatment programs. One national survey found that only four percent of state prison inmates received any treatment, and almost half the nation's state prisons were not served by any identifiable drug abuse treatment program.\textsuperscript{323} For many in the criminal justice system, routine urine testing is the only "treatment" provided.\textsuperscript{324} The criminal justice system, particularly in corrections, often presents ideological, economic and practical reasons for not providing treatment for more people. This resistance to establishing effective drug treatment programs reflects once again the tension between the preventive and punitive goals of criminal justice and rehabilitation. Even if this conflict could be resolved, it is argued that severe prison overcrowding and the strain on resources make the provision of effective treatment very difficult.

The ideological aversion to rehabilitation is not a serious argument against sufficient and adequate treatment in the corrections

\textsuperscript{319} Centers for Disease Control, \textit{supra} note 318, at 783. The incidence of opiate use was considerably less than cocaine use. In 9 out of 14 cities less than 10\% of arrestees tested positive for opiates. \textit{See also} \textbf{National Institute of Justice, supra} note 318.


\textsuperscript{322} \textit{Vigdal & Stadler, Controlling Inmate Drug Use Cut Consumption by Reducing Demand, Corrections Today}, June 1990, at 96. This study took place in the Wisconsin prison system. The number of inmates using drugs in urban prison systems is likely to be higher.


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system. Rather, it is a mere abstraction fueled by the government's policy of holding users accountable or punishing them. To be sure, there are budgetary and practical constraints on treatment expansion in prisons. However, financial analyses continually show that treatment is highly cost effective.\footnote{See supra notes 293-295 and accompanying text.} Planners should carefully consider the future savings associated with effective treatment when attempting to work within present budgetary constraints.

Systematic and, if necessary, compulsory treatment of persons in the criminal justice system is fully consistent with the research presented earlier.\footnote{See supra notes 254-275 and accompanying text.} Criminal justice system settings (such as diversion, probation, prison and parole) provide optimal opportunities for treatment: large numbers of drug users come into contact with these programs; they are captive participants who otherwise have unproductive time; they are already subject to state control because of their offenses so that the same level of constitutional concerns raised by civil commitment or health system testing are not presented; and they may remain under control for considerable periods, thereby providing the best opportunity for successful treatment outcomes.

The National Treatment Alternative to Street Crimes (TASC) program has already shown that a demand reduction model works better, is more humane, and costs less than the model of punishment and retribution that has dominated government thinking for the last decade and more. Furthermore, making a real commitment to treatment might help ease present constitutional and civil rights concerns that limit the justice system's attempts to identify drug users.

Conclusion

The lesson learned more than a half-century ago in the midwinter epidemic of malaria, and now in the cocaine-ravaged inner cities of America, is that drug use and the needle-borne spread of infection are primarily public health problems. Seriously drug-dependent people are neither uncaring about the affects of drug use and AIDS on themselves or their partners, nor are they unable to change their behaviors if given the education, means, and ser-
VICES to do so. They are more ill, than bad, human beings, and
mostly unable to escape from their physical dependencies by ad-
monitions to "just say no" or draconian criminal penalties. Social
science research has provided a clear agenda for confronting the
dual epidemics of drug dependence and AIDS, if the national will
and resources are devoted to achieving this end.