

AIDS and the Social Relations of Intravenous Drug Users

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THERE IS A COMMON CONCEPTION THAT THE HUMAN immunodeficiency virus (HIV) is transmitted through risky behavior, and thus that AIDS among intravenous (IV) drug users is an issue of behavior and behavior change. This view is an advance over naïve views of “risk groups,” but is not fully adequate. It needs to be supplemented by a social approach that sees risk as a pattern of interaction in which the virus is transmitted from an infected to an uninfected person. Such interaction typically occurs within the framework of, and indeed embodies, a social relationship. This is clearest, perhaps, in dyadic relationships, where a new infection can occur only if one, and only one, of two people is infected. In relationships at a more organizational level, the social interactions that occur in “shooting galleries” (locations where IV drug users rent space and, often, equipment to inject themselves) mean that IV drug users who may never even see one another enter into market relations with the gallery owner that put them at risk of viral transmission among customers. The social relationships in and among shooting galleries, in turn, can link otherwise dissociated circles of drug injectors and thus spread HIV across groups with no personal connections.

HIV risk, then, can be thought of as a social phenomenon that occurs at a number of different levels—the interpersonal, as when two or more friends share injection equipment, or as in romantic sex; local institutional, such as re-using contaminated syringes at a shooting gallery; or the macrosocial, as in the greater levels of risk from sex or IV drug use among black and Latino minorities in the United States or from male/female sex in East or Central Africa. (We use “Latino” to refer to persons residing in the United States who are either from, or have ancestors from, a Latin-American country in the Western Hemisphere.)

Risk initiation, maintenance, and reduction are also social phenomena. Initiation into intravenous use of drugs by heroin sniffers, for example, seems to be greater among those whose friends or relatives inject drugs (Des Jarlais, Casriel, et al. 1989). On a larger scale, a social structure in which institutionalized racism is a central element has led to a situation in which blacks and Latinos in the United States are more likely to inject drugs than whites, and thus to be at extra risk of HIV infection. Other social factors associated, perhaps causally, with initiation and maintenance of drug use—such as poverty, alienation, and boredom—are also deeply embedded in our social structure (although we do not yet fully understand the dynamics of how they lead to drug use, nor of how international differences in drug-use patterns are related to these causes).

Risk reduction occurs in specific social contexts as well. A number of studies indicate that deliberate risk reduction is more likely among IV drug users who report that their friends have taken steps to reduce their risks (Friedman, Des Jarlais, et al., 1987, for drug-related risks; Tross et al. 1989, and Abdul-Quader et al. 1989, for sexual risk reduction). As discussed below, particular aspects of racial and ethnic structures have also led to differences in deliberate risk reduction in the United States (Friedman, Sotheran, et al. 1987; Friedman, Sufian, and Des Jarlais 1990; Friedman, Quimby, et al. 1989).

Once we understand the extent to which risk and risk reduction are social as well as behavioral phenomena, it is clear that any examination of the effects of AIDS on IV drug use, and/or of its further effects upon the society as a whole, must include a consideration of IV drug use as a social phenomenon, and investigate how its linkages with other social phenomena will produce change as IV-related HIV disease spreads. In this article, we do this by looking first at preexisting social relations among drug injectors. Then, we turn to the social contexts of

IV drug using. Next, we look at how AIDS has affected the risk behaviors of drug injectors, and at how these behavioral changes vary in different social contexts (such as among users of different races, or between locations where different drugs predominate). We then look at how the epidemic may lead to future changes in drug using at the individual and small group levels: in the social organization of drug injection; in drug-abuse treatment and in hospital care for infected IV drug users; and in the interaction of the stigmas faced by drug users, racial minorities, and HIV-infected persons. Finally, we discuss some implications for needed change.

Social Relations of IV Drug Users

Accounting for the impact of AIDS on drug users would ideally entail an understanding of the nature of social relations among IV drug users prior to the AIDS epidemic. Unfortunately, since little is known about these relations, we briefly summarize an analysis of them written several years ago (Des Jarlais, Friedman, and Strug 1986).

IV drug users differ in their social relations. Although there is a distinct subculture of IV drug use with marked similarities across most American cities, a considerable number of persons inject themselves with drugs without joining this subculture. Those IV drug users who are in this subculture, however, share a major value commitment to "getting high." Their injection behaviors—regardless of whether they shoot-up with cocaine, heroin, speedball (a mixture of cocaine and heroin), or other drugs—are both illegal and deeply repulsive to most Americans. Thus, in important ways, the IV drug use subculture is defined by the reactions of those outside it. The criminal punishments and the social stigma attached to IV drug use lead to secrecy and to "lawless" interaction patterns among IV drug users that are shaped by their inability to have recourse to legal institutions in settling in-group disputes.

Social relations among IV drug users are often mistrustful, and sometimes violent. Reasons for this lack of trust include the competition among drug users for scarce goods (drugs and the money with which to buy them), police informants in their midst, the transitory nature of informal relationships that mediate conflicts, and the application of "hustling" techniques and norms to other users as well as to

“straights.” The illegality of drug dealing and drug use means that users cannot seek police or other external assistance if their drugs are stolen.

The IV drug user subculture is characterized by diverse organizations and institutions. Most evident, perhaps, is the illegal market in which drugs and injection paraphernalia are distributed. In New York City, Miami, and other major centers of drug use, there are complex retailing organizations with specific jobs—such as lookouts, sellers, and persons who steer customers to sellers. Many youth gangs and organized crime syndicates also have been shown to have highly developed and differentiated structures.

Another widespread institution is the shooting gallery. The term embraces rooms in abandoned buildings, private apartments, abandoned vehicles, and shacks built in empty lots where drug injectors rent injection equipment, or simply rent permission to shoot up where they will be less vulnerable than on the streets. Data collected by the National AIDS Demonstration Research projects of the National Institute on Drug Abuse (table 1) show that shooting galleries exist in many cities, although the extent of shooting gallery use varies considerably.

TABLE 1
Use of Shooting Galleries by City

City*	Percentage of subjects reporting that the proportion of their injections that occur in shooting galleries is:	
	One-half	None
2	2 %	76 %
9	3	75
8	6	84
7	7	69
4	9	75
11	9	68
10	10	68
6	11	65
New York	16	48
3	29	41
12	55	15

* Under the terms on which the data are made available, only data which we had collected in New York City could be identified by city name.

Friendships exist among IV drug users in spite of generalized mistrust. Users often do favors for each other, including helping out when one gets sick. A common friendship pattern is that of "running buddies," two or more IV drug users cooperating to get money and drugs, and often shooting up together. They often share injection equipment, whether as a way of expressing their mutual friendship or as a necessity when they have only one set of injection equipment and need to take their drugs. They also protect each other against the dangers of street life.

Finally, there is considerable casual sexual interaction among IV drug users. To the extent that users' personal relationships center around their drug use, this is hardly unexpected. Many IV drug users, however, do have stable sexual relationships with persons who do not inject drugs.

The Social Situation of IV Drug Use

The use of illicit drugs, and intravenous drug use in particular, is embedded in wider relationships within the total society. In the United States, IV drug users tend disproportionately to be black or Latino. Nevertheless, members of subordinated racial and ethnic groups are not the only people who take up the use of illicit drugs—as is indicated by the cocaine snorting that has been occurring among many upper-middle-class whites, and by the fact that most IV drug users in cities like Tacoma, Washington, are white.

Drug *policies* and *patterns* are also embedded in the larger society. Courtwright (1982) has shown that American drug policies have been influenced by imperial ambitions in the early years of this century as well as by racial politics, and Henman, Lewis, and Malyon (1985) have argued that the extent to which the United States attempts to get Latin-American governments to enforce international conventions against drug production is affected by considerations of international politics and economics. Cocaine injection by IV drug users is related to race in some cities (Chaisson et al. 1989). Further, the expansion of cocaine use should be viewed as socially influenced by changes in perceived needs and opportunities in communities where cocaine injection or crack smoking have become widespread, as well as by changes in the social relations of production and distribution of coca leaves and their byproducts (Henman, Lewis, and Malyon 1985; Morales 1989).

Further, IV drug use changes over time, in response to broader changes in society, as demonstrated in a brief review of some changes in IV drug use in New York City. After a generation of being confined mainly to black ghettos and to bohemian circles (Courtwright 1982), there was a large influx of new IV drug users in the late 1960s. These were often drug experimenters from the counterculture of that period who came to use heroin and the needle. To some extent, they may have been influenced by the counterculture's high valuation of black culture (itself a product of the social movements and musical innovations that developed in black America), and of heroin use as a subculture within black communities. The number of IV drug users leveled out (with new injectors balancing those who quit or died), and the average age of users increased, during the 1970s.

The social variation in IV drug use patterns can also be viewed comparatively. IV drug use prior to AIDS differed among New York City, San Francisco, the American Southwest, and Rotterdam. In New York City, where many IV drug users did not live in the neighborhood where they bought or used drugs, a network of commercial establishments—shooting galleries—developed (Des Jarlais, Friedman, and Strug 1986). San Francisco also had shooting galleries, but they were less important than in New York City. They tended to be places where a restricted number of friends or acquaintances shoot up rather than commercial establishments open to a wide clientele (J. K. Watters, personal communication 1987). Among Mexican-American IV drug users in Texas and Arizona, shooting gallery use is rare. Needle-sharing is frequent among some of these IV drug users, but varies across different southwestern cities and, additionally, within each city according to the social dynamics of the users and their immediate circles of acquaintances (Mata and Jorquez 1988). In Rotterdam, drugs were of higher purity, and many addicts smoked their heroin instead of injecting it. Shooting galleries as such did not exist in Rotterdam, although drug dealers often sold their wares out of apartments and let drug-injecting clients shoot up on the premises. IV drug users in the Netherlands spontaneously formed political associations (*junkiebonden*) to further their interests in being treated decently (de Jong 1986; van de Wijn-gaart 1984). American IV drug users, in contrast, remained apolitical, divided, and without representation, except that provided by drug treatment professionals.

These examples reflect significant social and cultural differences be-

tween the two countries. In the historically more homogeneous Netherlands, racial and ethnic divisions have not been profound, and differences have been readily accommodated. While the invocation of “the American way of life” is often used to exclude or otherwise control, “the Dutch way” expresses a national commitment to tolerating difference. In the decades-old social welfare system of the Netherlands, everybody, including drug users, receives income maintenance payments if they need them. The lesser degree of repression and the easier access to money has meant that Dutch users have been able to take leadership roles in forming organizations with political goals.

Thus, analyses of how AIDS may affect IV drug-using subcultures and, through time, the wider society, need to consider the entire social environment of drug users. It is also necessary, however, to understand the reactions to HIV that have already occurred in the drug scene.

Effects of AIDS on Behaviors of IV Drug Users

Since little research has been done on the effects of the AIDS epidemic on social relations of IV drug users, description of the social impact of AIDS has to rely heavily on data about knowledge and behaviors. Some of these behavioral changes were unanticipated. It was originally expected that IV drug users would be slow to hear about AIDS, slow to learn about how it was transmitted, and unlikely to make any changes in how they used drugs as a result of what they did know. In 1984 and 1985, the first empirical studies on these questions found that almost all IV drug users recruited in methadone clinics or in New York City jails had heard of AIDS and knew that it could be transmitted by IV drug use and/or by sharing needles. Indeed, a majority had reduced the extent to which they shared needles, increased the extent to which they made sure their needles were clean, or instituted other changes in their drug using to protect themselves (although they might not have maintained these changes, and in many instances these changes were not enough to eliminate the risk of viral transmission). Few, however, had changed their sexual behavior to reduce their risk of AIDS (Friedman, Des Jarlais, et al. 1987; Selwyn et al. 1987). Methadone patients, of course, are only a subset of drug users—i.e., those who have entered

treatment for one reason or another. Studies of street-recruited IV drug users in 1986 and after also found widespread knowledge about AIDS and risk-reduction efforts (Kleinman et al. 1990; Abdul-Quader et al. 1989), as well as similar HIV seroprevalence to that found in New York City methadone studies (Friedman, Sufian, and Des Jarlais 1990).

Many public health authorities use an education-focused model of AIDS risk reduction. Regardless of what they believe that IV drug users know, they assume that the major task is one of health education. Thus, if users were to learn about AIDS, they would either enter drug treatment to "go clean" or change their specific drug use behaviors so as to reduce risk. This model assumes that knowledge leads to risk reduction. To some extent, this has proven true, as the 1984 and 1985 studies indicate; and it has been shown that little protective risk reduction has occurred among those street IV drug users without "salient" knowledge about how HIV is transmitted (Kleinman et al. 1990). Since the great majority of IV drug users in New York City, however, have known the fundamental facts about AIDS for at least five years without totally stopping drug injection or totally maintaining risk reduction precautions, knowledge alone need not lead to risk elimination.

Once it was understood that most IV drug users knew about AIDS transmission, it was speculated that IV cocaine users might stop shooting up and turn instead to smoking crack to reduce their risk of HIV infection. This, however, has not yet occurred on any large scale (Des Jarlais and Friedman 1988). Some IV drug users have become wedded to the needle, in the sense that needle use has become a part of the high and has been sufficiently reinforced as such that noninjected drug use is less enjoyable. Others may feel that they must already be infected with HIV, and thus see no reason to change to crack. Further, many IV drug users avoid crack because they see and dislike what it does to people. They feel that they can control their drug use more successfully, and live more satisfying lives, by shooting cocaine rather than smoking crack.

It should also be noted that neither the "war on drugs" nor the fear of AIDS has ended the initiation of new persons into IV drug use. In a study of heroin sniffers from 1986 to 1988, for example, 20 out of 83 subjects went on to become IV drug users within 8 months (Des Jarlais, Casriel, et al. 1989).

Thus, the AIDS epidemic has not been met with a decline in IV drug use, as some expected, nor have IV drug users been unresponsive

to it. Instead, they have attempted a degree of risk reduction while continuing to shoot up. There is some reason to think that this response pattern has slowed the spread of HIV, since seroprevalence levels among IV drug users have leveled off among those entering drug abuse treatment in Manhattan (although considerable numbers of new infections continue to occur) and among IV drug users in Stockholm, Innsbruck, and Amsterdam (Des Jarlais, Friedman, et al. 1989; Olin and Kall 1988; Bottinger et al. 1988; Fuchs et al. 1988; van Haastrecht, van den Hoek, and Coutinho 1989).

Racial/Ethnic Differences in Risk Reduction and Knowledge

The effects of the epidemic on the knowledge and behavior of IV drug users has been shaped by social constructs such as race/ethnicity. Blacks, whites and Latinos have differed in their AIDS-related knowledge and risk reduction (Friedman, Sotheran, et al. 1987). One approach to understanding this difference, an "inequality model," holds that inequalities in education, employment, and other institutions make minorities less able to understand the risks their behaviors expose them to or otherwise deprive them of the resources they need to reduce their risks successfully (New York City Commission on Human Rights 1986; Nickens 1986). A "communal survival" model, on the other hand, holds that racism and its effects have forced minorities to develop survival networks, skills, and other resources. Thus, according to this model, minority IV drug users may be more likely to engage in protective behaviors and deliberate risk reduction than white IV drug users.

Our studies in New York City found a number of significant relations between race, behavior, and knowledge. Some were consistent with the community survival model and others were consistent with the racial inequality model. For example, as predicted by the inequality model, white IV drug users have lower drug injection frequencies than do blacks or Latinos in a 1984 treatment sample. Whites use shooting galleries a smaller percentage of the time than do Latinos, both in the 1984 sample and in a sample of street IV drug users recruited from the Lower East Side of Manhattan in 1987 (Friedman, Sufian, and Des Jarlais 1990). In New York City, white IV drug users also appear to be

more likely to have technical knowledge about AIDS and drug use than do blacks or Latinos. A 1986 methadone-treatment sample showed whites were more likely to have heard that bleach, hydrogen peroxide, alcohol, or boiling water could kill HIV and thus could be used to decontaminate syringes; and similarly, of those who knew of any of these four techniques, whites were most likely to have heard about bleach (which had recently begun to be discussed in public health circles as a decontaminate). This finding indicates that white IV drug users may have greater contact with formal channels of information dissemination than do minority IV drug users (Friedman, Sotheran, et al. 1987).

On the other hand, the community-survival model is more consistent with other findings. In our 1986 methadone-treatment sample we found that 18 percent of whites, but only 6 percent of blacks and Latinos, reuse syringes that they have previously let others use. Subjects were also asked whether they had done anything to reduce their risks of getting AIDS, and if so, what they had done. Blacks were significantly more likely to report that they had reduced sharing works with other IV drug users; 48 percent had done so compared with 26 percent of whites and 23 percent of Latinos (Friedman, Sotheran, et al. 1987).

This pattern of results indicates that the inequality and community-survival models need not be thought of as mutually exclusive. To some extent, what may be happening is that the levels of risk were greater among minorities prior to AIDS becoming a recognized threat. Once AIDS became known, however, it appears that blacks (but not Latinos) have been more likely to attempt deliberate risk reduction. Although data are not available to explain why Latinos have been less likely to reduce their risks, we would speculate that it might be due to any or all of the following: the language barrier; traditional cultural differences; or sociocultural differences derived from the specific histories of the racial/ethnic groups. In any case, it seems that the social dynamics of race have important impacts on risk.

Social Relations and/or Pharmacology?: Cocaine and HIV

Cocaine injection has increased markedly since the early 1970s; in New York City, its widespread use preceded the discovery of AIDS in 1981.

In a 1987 sample of street-recruited IV drug users, 84 percent of those who had injected at all in 1979 and 1980 reported they had been injecting cocaine. (Most IV drug users shoot up both heroin and cocaine. Of 211 IV drug users in this sample, 157 reported injecting both drugs during the period from 1983 to 1986.)

Cocaine injection has been associated more strongly than has heroin injection with HIV seropositivity in San Francisco, and with both seropositivity and seroconversion in New York City (Chaisson et al. 1989; Friedman, Rosenblum, et al. 1989a; Des Jarlais, Sotheran, et al. 1988). Attempts to understand this phenomenon have found that the pharmacological differences between heroin and cocaine are associated with differences in *behavior*. Heroin tends to be relaxing, and its effects last for several hours. Cocaine injection, on the other hand, produces a rapid stimulation that begins to wear off in fifteen minutes. Ethnographic observation in several locations where drugs are injected indicates that cocaine injection involves more high-risk behavior and less consistent risk reduction than heroin injection (Friedman, Sterk, et al. 1989). Whereas heroin is injected every few hours, cocaine is often injected four or five times per hour during "binges." Cocaine injectors typically begin a binge with their own syringe; since they will be injecting so frequently, they want to be sure to have a syringe available when they need it. On the other hand, after an hour or two of frequent injection, needles dull, become clogged, or break; users can become confused about whose "works" belong to whom; or the suspiciousness produced by prolonged cocaine use can lead to interpersonal tensions that produce carelessness. As a result, syringes get shared rapidly in a short period of time. Furthermore, whereas heroin injectors are typically able to follow the guidelines for using bleach to decontaminate their equipment (Newmeyer 1988; Levy 1988; Keddie et al. 1988), cocaine injectors find that the nervousness, interpersonal tensions, and sense of urgency produced by cocaine-injecting binges creates anxiety for the drug that sometimes makes them unwilling to delay injection long enough to use bleach.

It is a mistake to see these cocaine-related risks exclusively in terms of behavioral pharmacology, however. Needle-sharing and bleach use in locations where IV drug users shoot up are affected by interpersonal stresses and strains that are related to cocaine's pharmacology but are also products of preexisting relationships among the injectors and of the secrecy and shortage of syringes produced by legal proscription

(Friedman, Sterk, et al. 1989). Crack use, which has been linked to the heterosexual spread of HIV (Chiasson et al. 1989), often occurs in "crack spots" which can be viewed as ongoing parties that are frequented by wide friendship networks who come to have a good time smoking crack and having sex. The risk of HIV entry into the group is related both to the social processes whereby sex is exchanged for drugs in "missions" to the outside and also to the extent to which IV drug users and crack users intermingle socially in a given community (Williams et al. 1988).

Possible Futures

Drawing on our current knowledge to suggest possibilities for the future involves considerable speculation; yet it is a useful way to shape further research.

Individual and Small-group Changes within the Drug Scene

As the epidemic continues, more individuals may quit their drug use. This often involves creating ex-user reference groups, as in therapeutic communities and Narcotics Anonymous. Many persons who quit IV drug use do so with help from drug-abuse treatment agencies. In the United States, there is a wide shortage of such treatment, but there is also pressure to provide treatment on demand (Turner, Miller, and Moses 1989; Hemphill 1989).

Several factors may affect the rate at which individuals leave drug use, including changes in the amount and effectiveness of drug-abuse treatment. The AIDS epidemic itself may encourage drug users to quit using drugs if fear of AIDS and the lingering misery that HIV infection causes for the sick become strong enough. The very presence of so many long-term sick IV drug users might reduce the appeal of the drug scene for many. Data from one study, however, indicate that fear of AIDS is *not* as yet a factor that affects the expectations of heroin sniffers as to whether they will go on to become injectors, nor were related variables significant predictors of which sniffers did inject during a follow-up period (Des Jarlais, Casriel, et al. 1989).

Attempts at risk reduction are likely to continue, and probably to

increase. Although some of these will be initiated by individuals, others will probably involve small group pressures as the mechanism through which an emerging culture of risk reduction affects individual risk. As discussed above, studies in New York City have shown that IV drug users are more likely to try to reduce their drug-related risks if they perceive their friends have done so, and less likely if they think their friends will condemn them (Friedman, Des Jarlais, et al. 1987; Magura et al. 1989).

Interventions by public health agencies may encourage drug-related risk reduction. Two major examples so far have been the distribution of bleach (and instructions in how to use it) by community outreach workers in the United States and syringe exchange programs in Europe and elsewhere. Reports by Watters (1987), Feldman et al. (1989), and Moss and Chaisson (1988) suggest that a large percentage of IV drug users in San Francisco have begun to clean their works regularly with bleach as a result of community outreach. Similar programs have been working in a large number of cities, including New York City, and report wide use of bleach. Indeed, in many shooting galleries, the owners now make sure that bleach is always available, and ethnographers report that it is widely used by customers. Wayne Wiebel (personal communication 1989) reports that some galleries are forcing customers to use bleach even if they do not want to use it. On the other hand, while many New York City shooting galleries and friendship networks do use bleach, some others have refused to do so. This suggests the possibility that some sections of the IV drug user population and its associated institutions may reject risk reduction. Syringe exchanges have been set up and evaluated in the Netherlands, England, Scotland, Australia, Austria, Sweden, and Tacoma, Washington, and seem to be effective both in reducing needle-sharing and in increasing trust between users and treatment personnel (Buning et al. 1988; van den Hoek et al. 1987; Alldritt et al. 1988; Wolk et al. 1988; Fuchs et al. 1988; Ljungberg et al. 1988; Hagan et al. 1989; Des Jarlais, Hagan, et al. 1989).

Changes in sexual risk behaviors and relationships are also likely. Abdul-Quader et al. (1989) and Tross et al. (1989) found that sexual risk reduction, like drug risk reduction, is shaped by peer pressure. Some studies have indicated that antibody testing (with counseling), and perhaps even outreach by ex-addicts carrying messages supportive of sexual risk reduction, lead to the reduction of sexual frequency and to the increase in condom use by knowing seropositive IV drug users

(Casadonte et al. 1988; Sufian et al. 1989). Although these changes are sometimes dramatic, it is unclear whether they are sufficient to stop or even slow the spread of HIV. Most studies use too short a follow-up time frame to give confidence that the changes will be maintained. Also, we lack data on what happens to seropositive IV drug users whose relationships break up due to fear of viral transmission or to the strain of knowing that one's partner faces a future of sickness and death brought on by stigmatized behavior. Do these users remain celibate? If they form new relationships, do they inform their new partners about their IV drug use or their seropositivity?

Widespread abandonment of IV drug users by their noninjecting sex partners is a distinct possibility in the future. Some respected physicians in the field have been advising women to avoid relationships with IV drug users (Sheldon Landesman, personal communication 1989). If this becomes widespread, it could have several effects: the lives of IV drug users and of their partners can be disrupted by the ending of relationships; and the number of single-parent families in some urban areas might increase. In the past, many women have had few real alternatives and have thus not abandoned their IV drug-using partners—but AIDS may increase the frequency of such break-ups (Sterk et al. 1989). A third response would be for IV drug users to increase their duplicity in hiding their drug use. This would make it harder for noninjectors to know their true level of risk and to protect themselves against sexual transmission of HIV.

Possible Organization Changes in Drug Subcultures

Scattered evidence exists that a split may be developing between shooting galleries in which risk reduction is taken seriously (and thus bleach use or the use of a new syringe for every injection is enforced) and those which are more congenial to users who do not want to take precautions. Similar differentiation might occur in cities where drug dealers' houses or semi-open parties perform the same functions. If such splits become widespread, they are likely to be accompanied by a complex system of justification and fear that may lead to rigid social barriers between the two groups. Public health interventions might be quite successful among the risk reducers, but new approaches may need to be devised if groups do develop who resist risk reduction.

The AIDS epidemic may also lead to an increase in the collective self-organization of former or current drug users. For several years, ex-users and public health professionals in the Association for Drug Abuse Prevention and Treatment (ADAPT) have been active in providing educational AIDS outreach to IV drug users in New York City, in helping users get access to necessary services, and in advocating for the needs of users during the epidemic. Recently, a group of methadone patients, parents, and friends have organized the National Association of Methadone Advocates (NAMA) to work toward reducing the public stigma directed at methadone patients in treatment for opiate addiction. NAMA places high priority on increasing the availability of methadone treatment to reduce drug injection (and thus the risk of HIV transmission) and to facilitate educating methadone patients about both HIV prevention and treatments available for those already infected.

Neither ADAPT nor NAMA, however, is an association of current drug users like the organized *junkiebonden* in the Netherlands, which have provided a voice for users and serve as a pressure group within the user subculture in behalf of safer injection (de Jong 1986; Friedman, de Jong, and Des Jarlais 1986; van de Wijngaart 1984). In the United States, the organization of active drug users is most likely to occur through public-health-oriented organizing projects by nonuser groups. Attempts at such organizing are underway in several cities, and are most advanced in New York City. Here, we have been working with ADAPT to organize IV drug users in the Williamsburg section of Brooklyn. The drug users in this neighborhood are primarily Latino, but a significant number of blacks and whites also shoot up and/or live there. More than fifty meetings of a group of IV drug-using prostitutes have been held, but it is as yet unclear whether this group will become self-sustaining or will lead to wider activity. Sustained efforts to organize male IV drug users started later, but have also begun to show promise.

To the extent that IV drug users do organize, we would expect them to be drawn into the AIDS-related politics of their cities and states, and indeed, of national and even of cross-national bodies. This has already happened with ADAPT and the *junkiebonden*. Although relations between these organizations and the gay AIDS organizations have been problematic, an alliance between gays and IV drug users could help reduce the stigma and political isolation faced by active drug users almost everywhere. Gay organizations generally understand this logic, but are not sure that this would benefit gays rather than increase the

stigmatization they face. The *junkiebonden*, situated in a country which has a less repressive approach to IV drug users (and to homosexuals as well) than most, have been accepted as official interest groups by the Dutch government, and have formed working relations with some gay, religious, and political organizations.

Changes in the Health System

Alongside these changes in the IV drug-user subculture, changes are likely to occur in medical institutions that deal with IV drug users.

The *drug abuse treatment system* will continue to change under the impact of the epidemic. In New York City, treatment centers initially reacted by denying the existence of an emergency and by trying to conduct business as usual. This was followed by a year or two of panic about the risk of HIV transmission to staff and clients and about the possibility that efforts to prevent HIV transmission or to treat users with AIDS would destroy their ability to treat drug abuse. Since around 1986, however, treatment agencies and clinics have begun to cope with the need to encourage AIDS risk reduction and to help the infected cope with their physical, psychological, and social problems (Des Jarlais 1990). Treatment programs have established: AIDS coordinators to oversee and advise efforts at staff and client education; support groups for seropositive users, and sometimes for staff to help prevent burn-out; and closer relations with hospital infectious disease departments and other groups that provide medical care during periods of serious illness with opportunistic infections. Many clinics also distribute condoms and perhaps even bleach bottles to clients. Bleach distribution has required treatment centers to recognize (and discuss with clients) the fact that many IV drug users leave treatment and return to drug use, and thus to discuss how the dangers of AIDS can be reduced during such a relapse.

In the future, clinical care of IV drug users may well use a "harm-reduction" approach, which integrates efforts to help users quit using drugs with instruction in how they can minimize the damage they do to themselves and others if they should use drugs. Harm reduction would include education about how to avoid abscesses and collapsed veins, and might include having treatment centers exchange sterile syringes for used ones.

It is possible, indeed likely, that a turn to harm-reduction strategies

will be accompanied by increasing differentiation within the treatment system in which some clinics become "low-threshold" sites. Such low-threshold clinics would do a lot of harm-reduction work, some drug-abuse counseling, and, in many cases, provide methadone as a medicine for heroin addiction. An emphasis might well be on patient retention as a gateway to more structured programs aimed at ending drug use altogether. Other treatment clinics might focus more on the traditional goal of helping drug users to quit using drugs and provide less attention to harm reduction. This mixture of traditional and harm-reduction programs seems to work well in the Netherlands.

AIDS may also force drug abuse treatment centers to provide medical prophylaxis of HIV-infected clients. Examples would include providing aerosol pentamidine to prevent pneumocystis carinii pneumonia and AZT to retard disease progression among seropositive clients. Direct treatment at drug abuse clinics of those with active disease may also increase.

Massive expansion of the drug abuse treatment system has been proposed by many authorities as a way to reduce the number of persons at risk for intravenous HIV infection (Presidential Commission on the Human Immunodeficiency Virus Epidemic 1988; Turner, Miller, and Moses 1989). To date, little expansion has occurred. The total capacity of the treatment system in New York City has increased only by a few thousand—and there are an estimated 100,000 uninfected IV drug users in the city as well as tens of thousands of other users of cocaine who are at risk of becoming infected either by becoming IV users or through sexual transmission associated with crack use (Chiasson et al. 1989; Williams et al. 1988).

The *hospital system* has already been affected by the epidemic in New York City. AIDS and other HIV-related infections such as bacterial pneumonias, endocarditis, and tuberculosis (Stoneburner et al. 1988) will greatly increase the number of IV drug users in hospitals. Many of these users may be difficult for hospital staff to deal with, and they will often lack private provision for medical insurance. In New York City and other areas, these patients are often homeless, and thus have nowhere to go when they are ready to leave the hospital. Unless other forms of residential care are provided, the hospital is faced with the choice of discharging patients to homelessness or maintaining them as inpatients. In some cases, homeless AIDS patients leave hospitals against medical advice to try to live in their weakened condition on the streets or in public shelters (Joseph and Roman-Nay 1990).

This combination of lack of hospital facilities, overstretched hospital staffs, economic problems in reimbursement of costs of medical care, and the incompatibility between hospital routines and drug users' values, creates the potential for cruel events. In some cases, heroin users have not been prescribed methadone for their opiate addiction and have found the resulting withdrawal symptoms and/or the contempt with which hospital staff seem to treat them so unpleasant that they have signed themselves out against medical advice. More dramatically, if hospital shortages become so acute as to overwhelm their capacity to care for the ill, it seems possible that IV drug users may be abandoned to cope with their diseases with only minimal outpatient assistance or with none at all. Times of massive epidemic can lead to triage in which some patients get treatment and others do not, and drug users are extremely vulnerable to being the ones who are left out. One function of current and ex-users organizations (like the *junkiebonden*, the Williamsburg project, NAMA, or ADAPT) may be to work against such a triage both through political pressure and through suggesting alternative modes of service delivery. NAMA, for example, has advocated that one hospital-associated methadone program establish a "buddy project" in which methadone patients with AIDS would be paired with a seronegative methadone patient.

AIDS, Racism, and Minorities

Blacks and Latinos have been particularly likely to get AIDS (Selik, Castro, and Pappaioanou 1988) and to become infected with HIV (Des Jarlais and Friedman 1990; Hahn et al. 1989). The disproportionate minority representation is particularly marked for AIDS due to IV drug use transmission, heterosexual transmission, and perinatal transmission, but AIDS is also more likely to occur among minority than white bisexual men (Selik, Castro, and Pappaioanou 1988). The stigmatization of blacks and Latinos is already widespread and intense, and interacts with institutionalized discrimination to create enormous personal and social difficulties. These are likely to increase as the public becomes more aware of the disproportionate number of minorities who are infected with HIV.

For minority communities, the issue is more complex than it might seem at first. Drug use, and opposition to it, already divides residents of minority neighborhoods. Many blacks and Latinos have been extremely active in trying to rid their neighborhoods of pushers and

users; these same activists, however, have also often prevented drug abuse treatment facilities from being established. On the other hand, some have shown care and compassion.

Efforts to mount vigorous campaigns to reduce HIV transmission in minority communities have been, and will continue to be, made more difficult by shame and conflict over the presence of drug use in the community, and by the problems many minority churches have in discussing issues of safer sex or safer injection (Quimby and Friedman 1989; Friedman, Sotheran, et al. 1987). The outcome of tensions between the need for vigorous risk-reduction efforts and aid for the sick, and the dislike of drug users and shame around drug use and homosexuality, cannot be predicted. It is likely that neighborhoods and communities will differ in how they respond, and in what controversies develop.

One encouraging possibility for innovation should be mentioned. Gay men have been able to use the AIDS epidemic to develop increased cohesiveness and to strengthen their capacity to act both politically and in terms of providing assistance to each other. Similar increased cohesiveness and capability could be built through AIDS efforts in some minority communities, particularly if churches, drug-user organizations, and other neighborhood groups can find ways to work together to develop popular participation in risk-reduction campaigns (Quimby and Friedman 1989).

Final Remarks

Before concluding this discussion, we should consider the limits of what is known regarding research on drug users. The subject has itself been stigmatized and underfunded, and this constrains what we know and creates wide bounds of uncertainty about many of our claims. Nonetheless, research into drug users and AIDS has made what may be major contributions to scientific methodologies. The work of Feldman, Biernacki, et al. (1989) in San Francisco and Wiebel's in Chicago (Wiebel and Altman 1988; Wiebel et al. 1989) are outstanding examples of ethnographic research in this field. They have developed detailed understandings of the culture of risk behavior, and used their analyses to create new modes of outreach. They and their coworkers have also worked out ethnographically guided ways to sample hard-to-locate

populations (Watters and Biernacki 1989). Drug researchers have also pioneered ways to track IV drug users successfully in longitudinal studies, thus narrowing our dependence on limited cross-sectional data. These contributions show the value of ethnographic and other field-research techniques in social and epidemiologic investigation, and may well establish these previously derogated techniques as legitimate tools of science.

At the beginning of this article, it was pointed out that drug policy, public health policy, and changes in drug use are heavily influenced by larger social structures and trends. The American public policy response to the AIDS epidemic among IV drug users and to the spread of HIV heterosexually and perinatally is a case in point. In spite of considerable rhetoric about stopping drug use by interdicting drug imports and by arresting dealers and users, the supply and purity of cocaine reaching the streets have greatly increased, and prices for a given amount and purity fallen, during the "war on drugs." Efforts to reduce drug use by urine testing, encouraging employers to fire users, and other "zero-tolerance" tactics have not led to any decrease in the extent of drug use as measured in household surveys conducted by the New York State Division of Substance Abuse Services (Frank et al. 1990). Casual drug use may have declined somewhat during this period according to the National Institute on Drug Abuse National Household Survey, but the number of persons reporting intense cocaine use increased; furthermore, the number of hospital emergency room mentions of IV cocaine use also increased (National Institute on Drug Abuse 1989). There has been much talk about increasing the availability of drug-abuse treatment, but little has actually been done. One policy initiative may have had a large-scale impact. This is the program of hiring ex-addict health educators to distribute bleach and condoms and to tell IV drug users and their sexual partners about AIDS and how to avoid it. Here, too, however, policy has been contradictory: the distribution of bleach by federal projects has been challenged by some political officials, and, indeed, the entire project may be disorganized by bureaucratic disputes over which agency should conduct it. Furthermore, syringe exchange programs, such as those that have been an important part of the Dutch and British responses to the epidemic, have been opposed by federal and many local authorities.

In sum, then, it can be argued that there has been little effective federal response to IV drug-related AIDS. Research is sorely needed about why the social and political systems of the United States have

been so unable to respond in a timely and effective manner. In contrast, IV drug users have themselves reacted to the epidemic by reducing their risks. In most cases, they have not reduced their risk to zero, but may well have done so enough to slow the spread of HIV. The nature of addiction, however, makes it extremely difficult for IV drug users always to follow risk-reduction guidelines.

Finally, if it is true that despair, shame, and alienation are major sources of drug use, then policy to end AIDS may have to target their social sources. This logic would indicate that, in countries where there are appropriate associations with IV drug use, government policy should seek to reduce racism, increase employment in good jobs that can be filled by the poor, and reduce the social sources of alienation.

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