PROSTITUTION, IV DRUG USE, AND SEX-FOR-CRACK EXCHANGES AMONG SERIOUS DELINQUENTS: RISKS FOR HIV INFECTION*

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There is mounting evidence that HIV infection among adolescents is increasing, particularly among minorities and inner-city youths involved in certain high-risk activities, such as multiple sex partners and intravenous drug use. Interviews conducted "on the street" with 611 seriously delinquent male and female adolescents (ages 12–17) included questions about their involvement in prostitution, intravenous drug use, and sex-for-crack exchanges. Findings included high percentages of youths engaged in these HIV-risk activities and a consistent association between all of them and greater illicit drug use. This would suggest that these risk behaviors may be surprisingly prevalent among some inner-city adolescent groups. Special AIDS prevention/intervention targeting these groups is warranted and urgently needed. Drug treatment should be a central focus of such programs.

The risks of illegal drug use have been well documented. In addition to the potential for overdose (Chitwood 1985; Inciardi et al., 1978; Platt, 1986:85–87), the street-drug subcultures and black markets are distinguished by high rates of assault, robbery, and homicide as both users and dealers are the continuous victims of their peers and rivals (Agar, 1973; Goldstein, 1986; McBride, 1981). Perhaps most characteristic is the progressive risk of arrest,

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conviction, and incarceration as the result of both possession and sale of illegal substances on the one hand, and participation in income-generating crimes to support a drug habit on the other (Inciardi, 1979; Nurco et al., 1990).

Since the onset of the 1980s there has been the added risk of infection with the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) among injecting drug users. Although the nature and extent of AIDS-related risk behaviors have been well documented among adult populations of drug users (Galea, et al., 1988; Turner et al., 1989), little has been written about the HIV-risk behaviors of seriously delinquent youths.

**HIV AND AIDS**

Human immunodeficiency virus type-1 (HIV-1) is a sexual and blood-borne microorganism that infects and, in most persons, gradually destroys the body's immune system response. HIV infection can have myriad manifestations, ranging from subclinical abnormalities with no apparent symptoms, to only mildly debilitating indications, to a variety of life-threatening conditions caused by progressive destruction of the immune system, the brain, or both. AIDS is a severe manifestation of infection with HIV (Kaslow and Francis, 1989).

HIV is transmitted when virus particles or infected cells gain direct access to the bloodstream. This can occur during all forms of sexual intercourse that involve the transmission of body fluids and in oral/genital intercourse with an infected partner. The other major routes of transmission include the sharing of needles and other drug-taking paraphernalia among intravenous (IV) drug users, the passing of the virus to unborn or newborn children by infected mothers, and transfusions from an infected blood supply (National Academy of Sciences, 1986).

Given the modes of transmission, the high-risk groups for HIV and AIDS include homosexual and bisexual men, intravenous drug users, recipients of blood products, the sexual partners of those three groups, and children born to infected mothers. As of November 30, 1990, there were a total of 157,525 known AIDS cases in the United States (U.S. Centers for Disease Control, 1990). Some 154,791 AIDS cases involved adults and adolescents (ages 13 and above), and of those, 59% had been infected through male homosexual/bisexual contact, 22% through IV drug use, 7% through IV drug use and/or male homosexual/bisexual contact, 5% through heterosexual contact, 3% through the receipt of infected blood products, and the remaining 4% from undetermined exposure. Of the 2,734 reported pediatric AIDS cases (under age 13), 83% had been infected through a mother with/or at risk for HIV infection, 14% through the receipt of infected blood products, and 3% from undetermined exposure.
Although reported cases of AIDS among adolescents are rare (0.4 of total AIDS cases), there is growing evidence that the potential for HIV infection in this age group is increasing. Analyses of blood samples from more than 1 million teenagers (aged <20 years) applying for military service found HIV seropositivity prevalence rates of 0.34 per 1,000, or approximately 1 out of every 3,000 applicants (Burke et al., 1990). Analysis of this large data base indicated that HIV seropositivity rates were related to age, sex, race/ethnicity, and two characteristics of the subject’s home area: prevalence of active AIDS cases and population density. Nonwhite adolescents living in urban settings with a high incidence of active AIDS cases were especially prone to HIV infection. Several urban centers, including Miami, New York, Baltimore, and the District of Columbia, recorded cumulative prevalence rates exceeding 1 per 1,000 (Burke et al., 1990; Miami Herald, October 12, 1989:10A). Black youths appear to be at the highest risk for HIV infection because they account for 35% of all overt adolescent AIDS cases (Hopkins, 1987). Moreover, the military applicants study found that adolescent black females were four times more likely than adolescent white males to be HIV positive.

Further, some 20.1% of persons with AIDS were in the age 20-29 range (U.S. Centers for Disease Control, 1990). The often long incubation period between HIV infection and the appearance of AIDS suggests that many young adults with AIDS were infected while adolescents.

Transmission of HIV among adolescents parallels that of adults—primary routes are IV drug use and related behaviors and unprotected sexual activities with infected and multiple sex partners. National studies of teens report that 70% have had at least one heterosexual experience by age 19 (National Center for Health Statistics, 1991; Shafer, 1988), 17% of males and 6% of females have had at least one homosexual experience (Remafedi, 1987; Shafer, 1988), and almost 20% of high school seniors used illegal—although rarely IV—drugs during the past 30 days (Alcoholism and Drug Abuse Week, February 14, 1990:1-2; New York Times, February 14, 1990:A16; Substance Abuse Report, March 1, 1990:1-3).

The introduction of crack-cocaine among adolescent drug users, particularly in the inner cities, may be a contributing factor in the transmission of HIV infection. The drug use survey reports cited above indicate that crack use is concentrated among noncollege-bound youths and is more prevalent among those high school seniors living in urban areas. The use of crack is often associated with higher levels of sexual activity, most notably through sex-for-drugs exchanges (Forney and Holloway, 1990; Inciardi, 1989). Further, it has been reported that 51% of black adolescent crack users who combine crack use with sexual activity have histories of sexually transmitted diseases, as opposed to 32% of those who do not combine these behaviors
(Fullilove et al., 1990). And finally, the link between drug use and prostitution is well known (Earls and David, 1989; Goldstein, 1979; James, 1976; Silbert and Pines, 1982), and the relationship of IV drug use and multiple sex partners to HIV transmission has been documented among adults (Castro et al., 1988; Selik et al., 1988), although not as yet among adolescents.

Within this context, the purpose of this paper is to examine the prevalence of three HIV-risk behaviors—prostitution, IV drug use, and sex-for-crack exchanges—in a sample of seriously delinquent adolescents. The relationship of these risk behaviors to each other and to additional kinds of drug use is also analyzed.

METHODS AND SAMPLE

The data for this study are from a larger project concerning drug use and crime among active, hard-core juvenile offenders, a population about which surprisingly little was known. Thus, the original focus of the research was neither HIV-risk behaviors nor crack use per se, but rather, the relationship between drug use and crime among some 600 “seriously delinquent” Miami youths. *Serious delinquency* was defined as having committed, during the 12 months prior to interview, a minimum of 10 “index” offenses or 100 lesser crimes. (Index offenses, in the Federal Bureau of Investigation’s Uniform Crime Reports, include homicide, forcible rape, robbery, aggravated assault, burglary, larceny/theft, motor vehicle theft, and arson.) On-the-street interviews were conducted with 611 male and female adolescents between December 1985 and November 1987. Informal follow-up interviews with about 50 respondents were conducted by the senior author through June 1990.

The data collection procedures are described in detail in other reports (Inciardi, 1986, 1989; Inciardi and Pottieger, 1991). Briefly, subjects were located through standard multiple-starting-point “snowball sampling” techniques in neighborhoods with high rates of drug use and crime. Interviewers were highly experienced in talking to drug/crime offenders, familiar with and well known in the target areas, and intensively trained in administering the study’s interview schedule. Extensive data on drug use and criminal behavior were collected during an interview lasting 30 to 40 minutes, and respondents were paid $10 for their time. Legal protection for subjects was assured by anonymity and a Grant of Confidentiality from the National Institute on Drug Abuse, which guaranteed that project employees could not be compelled by any court or law enforcement agency to reveal information sources or questionnaire data.

By design, 100 subjects (16%) were females (49% black, 51% white) and 100 were Hispanic males. An even number of females and Hispanics were 14–15 years old and 16–17 years old. The remaining 411 youths were black (209) or white (202) males and ranged in age from 12 to 17 years. Altogether,
41% of the total 611 were white, 42% were black, and 16% were Hispanic. The mean age of the sample was 15.0 years. Of those aged 16–17 (n = 256), 63% of the males and 86% of the females had dropped out of school after completing a mean of 9.6 grades. The 71% of the sample still in school—a younger group—had completed a mean of 8.1 grades. Almost 90% of the 611 youths had been expelled or suspended from school at least once; 82% had been expelled or suspended for drug use; 47%, for drug sales; and 26%, for other forms of crime.

All respondents were current drug users (any use during the 90 days prior to interview) and almost all (98%) were using at least three different drug types. Use on 18 or more of the prior 90 days was reported most commonly for marijuana (100% of the sample), crack (84%), cocaine powder (75%), and alcohol (70%). A total of 91% of these youths were using some form of cocaine (crack, powder, coca paste, or a combination) on a regular basis (three or more times a week), and 64% used some form of cocaine on all of the prior 90 days. Drug use had begun early in their lives, generally with alcohol, at a mean age of 7.6 years, followed by marijuana (mean 10.4 years), cocaine powder (12.3), and crack (13.6). The majority (56%) had tried heroin, but current heroin use more than once a week was uncommon (9%). More than weekly depressant use was much likelier to involve alcohol (75%) or prescription depressants (44%). Although 32% of the respondents were currently using "speed" (amphetamines or related stimulants), more than once-weekly use was uncommon (less than 5%), and only 8% used speed intravenously.

All of the youths interviewed were seriously involved in profit-making crimes; drug-business activities were especially common. Some 97% of the males and 89% of the females had some type of involvement in the drug business in the prior 12 months; these activities usually involved dealing, but also included manufacturing and smuggling. In all, during the 12 months prior to interview, these 611 juveniles committed a mean of 421 drug-business offenses, 179 petty property crimes, 30 major felonies (robbery, assault, burglary, motor vehicle theft), and 72 prostitution/procuring acts, for a mean total of 702 offenses per subject.

RESULTS

The data on prostitution, IV drug use, and sex-for-crack exchanges suggested that a significant proportion of the 611 Miami youths were engaging in behaviors that put them at risk for HIV infection and AIDS.

PROSTITUTION

Male as well as female respondents were asked how many acts of prostitution they had committed during the 12-months prior to interview. Of the 511
males, only 20 (5%) reported even one such act, and the median for this
group was only 6.5 acts (mean = 26). However, this prostitution entailed
male homosexual contact, the HIV-risk behavior that accounts for the great
majority of known AIDS cases. All 20 male prostitutes—or at least the 15
with more than one or two prostitution offenses (range = 5–200)—were con-
sequently running a significant risk of HIV infection. Further, 8 of those 20
male prostitutes were current intravenous drug users and another 6 had tried
IV drug use in the past.

Not surprisingly, female prostitution was considerably more common: of
the 100 seriously delinquent girls interviewed, 87 reported a median of 200
acts of prostitution (mean = 431). This greater range of prostitution involve-
ment among female respondents suggested that more detailed analysis might
be useful with this group. Thus, female prostitution over the prior 12 months
was examined as a four-category variable based on major breaks in the prosti-
tution frequency distributions: none (13% of female respondents), 3–75 acts
(13%), 100–325 acts (53%), and 420 or more (21%). Table 1 displays major
drug involvement variables for the female respondents by these categories.
More prostitution was associated with both significantly earlier drug use
experiences and significantly greater current drug use levels. The sizes of the
drug/prostitution correlations (.19 to .48) indicate relationships of only low-
to-moderate strength—but their consistency is striking both across drug types
and in terms of past/present drug involvement.

Even more striking are the very low mean initiation ages and very high
current drug use percentages among the girls engaged in the most prostitu-
tion. Their initial alcohol and marijuana involvement took place at mean
ages of 8 to 10, and by age 12—when the girls with no prostitution offenses
were trying marijuana—they were trying cocaine and heroin. By the time of
interview, then, the norm for drug use among the frequent prostitutes (100+)
was regular alcohol, daily marijuana, daily cocaine (most often crack), pills at
least once or twice a week, and some use of heroin. Heroin use, moreover,
included intravenous use for 42% of these 74 prostitutes. The female prostit-
tutes thus exhibited the same high degree of association between prostitution
and IV drug use seen for the male prostitutes. In fact, only those female
adolescents currently engaged in prostitution had ever injected drugs.

Prior studies suggest that the causal linkages between drug use and prosti-
tution are multiple. Most notably: (1) drug use can make prostitution psy-
chologically easier; (2) highly deviant drug use (such as cocaine or heroin)
can give a woman a street reputation as a prostitute whether she is one or not;
(3) prostitution and use of highly deviant drugs tend to be equally rare or
prevalent in any given geographic area, so that the girl who grows up seeing
heroin and cocaine everywhere will find prostitution to be equally common-
place; and (4) financing drug use through prostitution is often easier, more
lucrative, and more reliable for women than is drug dealing, which remains a
primarily male province and has become increasingly violent in recent years (Earls and David, 1989; Goldstein, 1979, 1985; Inciardi 1986:156–169; James, 1976; Silbert and Pines, 1982).

The multiplicity of these theoretical linkages, reflected in the consistency of the empirical linkages shown in Table 1, suggests that female delinquents engaged in particularly early and heavy drug use are highly likely to become engaged in prostitution. This in turn suggests that such drug involvement may itself be an HIV-risk behavior, albeit indirectly, since it has such a strong relationship to prostitution and thus multiple sex partners in a locale with typically high rates of IV drug use and a strong chance of personal IV drug use experience by the prostitute herself. These risks are compounded for cocaine-using prostitutes by the strong addictiveness of cocaine and the extreme tendency of cocaine addicts to neglect food, sleep, and other essential requirements for good general health, thus increasing susceptibility to all types of infections, including HIV/AIDS.

INTRAVENOUS DRUG USE

During the 90 days prior to interview, 23% of this primarily cocaine/marijuana/alcohol-involved sample had used heroin or speed intravenously. Most IV drug use was only occasional: median number of days used (during the past 90 days) was 2 for injecting speed (49 youths) and 5 for IV heroin use (129 youths, of whom 35 also injected speed). Other indicators, however, suggest the potential for a larger problem. Most directly, a full 40% of the 611 adolescents had at some time at least experimented with IV use of heroin (34%) or speed (25%). Thus, over half of those who ever tried IV use of these drugs (58% of 245) were still engaged in at least occasional IV drug use. A few of this very young group had even progressed to addictive frequency levels: 24 youths (4% of the 611) had used IV heroin every day in the prior 90 days.

An additional indicator of potential IV drug use problems in this sample stems from the fact that most heroin addicts progress to daily IV use only after an initial period of using heroin by other routes of administration, most commonly snorting or “skin popping” (subcutaneous rather than intravenous injection). Of the 611 adolescents interviewed, 49% had experimented with such use and 31% had engaged in it during the 90 days prior to interview. Altogether, then, 56% of all respondents had at least tried heroin in some form.

In some groups, moreover, current IV drug use was surprisingly prevalent—notably females (47% of the 49 black females and 29% of the 51 white females—38% of the total 100) and black males (36% of the 209 respondents). Among white males, in contrast, current IV drug use was relatively
Table 1. Drug Involvement by Prostitution Level Among 100 Seriously Delinquent Females

<table>
<thead>
<tr>
<th>Drug</th>
<th>Prostitution Past 12 months</th>
<th>None</th>
<th>3–75</th>
<th>100–325</th>
<th>420+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Rho*(N = 13)</td>
<td>(N = 13)</td>
<td>(N = 53)</td>
<td>(N = 21)</td>
<td></td>
</tr>
<tr>
<td>Age First Used</td>
<td>Mean</td>
<td>- .27</td>
<td>(11.2)</td>
<td>(9.1)</td>
<td>(7.6)</td>
</tr>
<tr>
<td>Current:</td>
<td>Daily Use</td>
<td>+ .27</td>
<td>15.4%</td>
<td>23.1%</td>
<td>30.2%</td>
</tr>
<tr>
<td>3/week</td>
<td></td>
<td>+ .28</td>
<td>15.4%</td>
<td>53.8%</td>
<td>58.5%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>Age First Used (Mean)</td>
<td>- .37</td>
<td>(12.2)</td>
<td>(11.2)</td>
<td>(10.8)</td>
</tr>
<tr>
<td>Current:</td>
<td>Daily Use</td>
<td>+ .28</td>
<td>46.2%</td>
<td>69.2%</td>
<td>66.0%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Age First Used (Mean)</td>
<td>- .33</td>
<td>(14.2)</td>
<td>(13.0)</td>
<td>(12.7)</td>
</tr>
<tr>
<td>Ever Used</td>
<td></td>
<td>ns</td>
<td>92.3%</td>
<td>100.0%</td>
<td>98.1%</td>
</tr>
<tr>
<td>Current:</td>
<td>Daily Use</td>
<td>+ .39</td>
<td>38.5%</td>
<td>53.8%</td>
<td>77.4%</td>
</tr>
<tr>
<td>Daily Crack</td>
<td>+ .30</td>
<td>23.1%</td>
<td>23.1%</td>
<td>49.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Using Crack 2+ Years</td>
<td>+ .48</td>
<td>0.0%</td>
<td>0.0%</td>
<td>43.4%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Depressant Pills</td>
<td>Age First Used (Mean)</td>
<td>-.19</td>
<td>(13.9)</td>
<td>(13.7)</td>
<td>(13.0)</td>
</tr>
<tr>
<td>Ever Used</td>
<td></td>
<td>+ .26</td>
<td>61.5%</td>
<td>76.9%</td>
<td>86.8%</td>
</tr>
<tr>
<td>Current:</td>
<td>1–2/Week Use</td>
<td>+ .43</td>
<td>23.1%</td>
<td>15.4%</td>
<td>60.4%</td>
</tr>
<tr>
<td>Heroin</td>
<td>Age First Used (Mean)</td>
<td>ns</td>
<td>(13.5)</td>
<td>(13.0)</td>
<td>(13.1)</td>
</tr>
<tr>
<td>Ever Used</td>
<td>+ .39</td>
<td>15.4%</td>
<td>38.5%</td>
<td>62.3%</td>
<td>81.0%</td>
</tr>
<tr>
<td>Current:</td>
<td>Daily Use</td>
<td>+ .21</td>
<td>0.0%</td>
<td>7.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Any</td>
<td></td>
<td>+ .25</td>
<td>15.4%</td>
<td>30.8%</td>
<td>52.8%</td>
</tr>
<tr>
<td>Ever Use IV Heroin</td>
<td>+ .35</td>
<td>0.0%</td>
<td>38.5%</td>
<td>49.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Ever IV Heroin 3/Week</td>
<td>+ .29</td>
<td>0.0%</td>
<td>30.8%</td>
<td>28.3%</td>
<td>52.4%</td>
</tr>
</tbody>
</table>

* Spearman (rank-order) correlation coefficient between current prostitution level and drug variable—either (1) age (full range, although only the mean age is reported above) or (2) yes/no drug usage variable (coded 1 = yes, 0 = no; only "% yes" is reported above). All correlations reported are significant at \( p < .05 \); where rho is at least \( \pm .30 \), \( p < .001 \); "ns" denotes rho is not reported because it is not significant at \( p < .05 \). \( N = 100 \) for all correlations except the ages for the three drugs that fewer than 100% of respondents ever used (cocaine \( n = 98 \); pills \( n = 84 \); heroin \( n = 57 \)). "Current" drug use is use in the past 90 days.

uncommon (6% of 202). Altogether, 69% of the IV users were black, 20% were white, and 12% were Hispanic.
Among black youths, current IV use of heroin or speed was likelier among older subjects. Over half (56%) of the black male respondents aged 16–17 (n = 82) were IV drug users, compared with 31% of their counterparts aged 14–15 (n = 67) and 13% of the black males aged 12–13 (n = 60). Among black females, 54% of those aged 16–17 (n = 24) and 40% of those aged 14–15 (n = 25) were IV drug users. Among whites and Hispanics, age-group differences were in the range of 2 to 5%.

As indicated in Table 2, IV drug users were more involved than other respondents in use of a wide variety of drugs. Differences were particularly striking for the most readily addictive drugs: heroin, cocaine, prescription depressants, and stimulants ("speed").

Table 2. Other Drug Use in the Past 90 Days by Gender and IV Drug Use Among 611 Serious Delinquents

<table>
<thead>
<tr>
<th></th>
<th>Male IV (N = 105)</th>
<th>Male Non-IV (N = 406)</th>
<th>Female IV (N = 38)</th>
<th>Female Non-IV (N = 62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol 3+ Times/Week</td>
<td>54.3%</td>
<td>43.1%</td>
<td>65.8%</td>
<td>48.4%</td>
</tr>
<tr>
<td>Marijuana Daily</td>
<td>93.3</td>
<td>82.0</td>
<td>76.3</td>
<td>66.1</td>
</tr>
<tr>
<td>Hallucinogens, Inhalants (Any)</td>
<td>22.9</td>
<td>24.9</td>
<td>7.9</td>
<td>11.3</td>
</tr>
<tr>
<td>Speed (Any)</td>
<td>58.1</td>
<td>23.2</td>
<td>57.9</td>
<td>30.6</td>
</tr>
<tr>
<td>Rx-type Depressants 3/Week</td>
<td>39.0</td>
<td>16.7</td>
<td>44.7</td>
<td>17.7</td>
</tr>
<tr>
<td>Heroin 2+ Times/Week</td>
<td>18.1</td>
<td>1.5</td>
<td>44.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Cocaine Powder Daily</td>
<td>26.7</td>
<td>8.6</td>
<td>39.5</td>
<td>14.5</td>
</tr>
<tr>
<td>Crack Daily</td>
<td>54.3</td>
<td>34.2</td>
<td>44.7</td>
<td>46.8</td>
</tr>
<tr>
<td>Any/All Cocaine Daily</td>
<td>85.7</td>
<td>56.4</td>
<td>81.6</td>
<td>67.7</td>
</tr>
</tbody>
</table>

Prostitution was also more common among the IV drug users. All 38 female IV drug users had engaged in prostitution during the prior 12 months, 89% of them doing so on 100 or more occasions; of the 62 females not involved in IV use, 21% did no prostitution during that time and considerably fewer (65%) engaged in it 100 or more times. Among males, only 3% of non-IV users did any prostitution, compared with 8% of the IV users.

SEX-FOR-CRACK EXCHANGES

A supplementary data collection instrument focusing exclusively on crack cocaine was developed after preliminary analysis of the first interviews showed a high prevalence of crack use. A specific question on sex-for-crack exchanges was included as one in a series of items on how crack was obtained...
during the 12 months prior to interview. The three response categories on the interview schedule were no/never, 1–5 times, and 6 or more times.

As in the case of prostitution, male involvement was minimal: sex-for-crack exchanges were reported by only 6 (3%) of the 216 males who were asked the supplemental crack questions, all at the “1–5 times” level. Further analysis of this behavior therefore was confined to information received from the 38 female respondents to the crack supplement (the 38 who happened to be interviewed last, out of the total 100).

The mean age of the 38 girls was 15.5 years; 63% were black and 37% were white. Of the 11 respondents who had not exchanged sex for crack within the past 12 months, 8 (73%) were not crack users and 7 (64%) did some other form of prostitution within that time frame. Another 11 females (29% of the sample) reported one to five occasions of getting crack in exchange for sexual favors, and the remaining 16 (42%) reported six or more such exchanges. Neither age nor race was significantly different across the three categories.

As reported in Table 3, sex-for-crack exchanges were significantly correlated with more school expulsions and suspensions; earlier use of many different drug types; earlier involvement in a variety of crime types; greater current use of cocaine powder, heroin, prescription depressants, and (especially) crack; and greater current involvement in not only prostitution and drug sales but also crimes against property and persons.

**DISCUSSION**

The data reported here came from a larger study of the role of drug use in serious delinquency. Thus, the 611 respondents (aged 12–17) were much more involved in criminal behavior than urban adolescents generally. Interviews with this special sample included questions about three behaviors associated with the transmission of HIV/AIDS: prostitution, IV drug use, and sex-for-crack exchanges. Although multiple sex partners and IV drug use have been documented as correlates of HIV transmission among adults (Castro et al., 1988; Selik et al., 1988), their association with adolescent HIV transmission has yet to be established.

Results indicated strikingly high levels of involvement in HIV-risk behaviors in some subgroups: (1) of the 100 females (aged 14–17), 87% engaged in prostitution during the prior year and 38% used drugs intravenously in the prior 90 days; (2) over half of the male and female black respondents aged 16–17 were IV drug users, as were 31 to 40% of their counterparts aged 14–15; (3) 56% of all youths interviewed had at least tried heroin and 40% had tried IV use of heroin or speed; and (4) of the 30 female crack users responding to a supplemental interview about crack, 90% sometimes exchanged sexual services for crack and 53% did so frequently (six or more
times in the prior year). Further, the analysis indicated a tendency for these various HIV-risk behaviors to be associated with each other and with increased drug involvement of all types.

The volatile combination of multiple sex partners with IV drug use among the girls, plus the extent of IV drug use among the black respondents, may help explain the higher prevalence rate of HIV infection among inner-city juveniles. It is unlikely that these adolescents used condoms since other studies on this population subgroup report that condom use is minimal (McCoy et al., 1989; Snyder and Myers, 1989).

Other data from the overall project suggest that these young criminal offenders have received very little help from community agencies. Only 13% of this extremely drug involved group had ever been in treatment for substance abuse. The high expulsion/suspension rates for these adolescents suggest that their schools responded to student drug-related behaviors only with punitive measures; the high dropout rates suggest even less success by schools with serious delinquents than with inner-city adolescents generally. The justice system seems to be equally unhelpful. A full 90% of the juveniles had been arrested at least once, and 84% had been arrested during the 12 months prior to interview. A mean of 702 offenses per youth in the prior 12 months, however, implies that intervention attempts resulting from those arrests were either not undertaken or obviously unsuccessful.

It is disconcerting that such a substantial number of these drug-using adolescents are potential AIDS victims. That they cannot be frightened off the street by information about their risk for eventual HIV infection is suggested by their cocaine use and street crimes, which put them at risk now, daily, for death by overdose or assault. The possibility that adolescents may be HIV-infected for years before becoming symptomatic for AIDS increases the potential for contagion.

Education aimed at adolescents about the risks for HIV infection can be only part of the solution, since knowledge alone does not necessarily alter high-risk behaviors (Turner et al., 1989). Conventional AIDS education efforts, moreover, do not seem likely to succeed among adolescents whose lives are so extremely unconventional. Rather, it would appear that strenuous outreach prevention/intervention programs are needed to work with street populations of adolescents, including prostitutes, other seriously drug- and crime-involved youths, and runaways—the latter as youths who are particularly likely to join the ranks of young street criminals. Culturally specific programs sensitive to the problems of this special population are needed to break into the interrelated complex of their HIV-risk behaviors. Our data suggest that drug treatment, especially treatment for cocaine dependence, must be a central component of these efforts. Unfortunately, however, drug treatment for adolescents and treatment of cocaine dependence are the two
Table 3. Spearman Correlation Coefficients (Rho) with Sex-for-Crack in the Past 12 Months Among 38 Seriously Delinquent Females

<table>
<thead>
<tr>
<th>Drug Use</th>
<th>Range</th>
<th>Rho</th>
<th>(P)</th>
<th>(N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number (6 = 6+)</td>
<td>0-6</td>
<td>+.58</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>For Drug Use (4 = 4+)</td>
<td>0-4</td>
<td>+.49</td>
<td>.001</td>
<td>38</td>
</tr>
<tr>
<td>For Dealing (3 = 3+)</td>
<td>0-3</td>
<td>+.36</td>
<td>.014</td>
<td>38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age at First Use of</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>3-14</td>
<td>-.61</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>Marijuana</td>
<td>7-15</td>
<td>-.63</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>Cocaine Powder</td>
<td>8-15</td>
<td>-.58</td>
<td>.0001</td>
<td>36</td>
</tr>
<tr>
<td>Rx-type Depressant</td>
<td>10-16</td>
<td>-.38</td>
<td>.014</td>
<td>34</td>
</tr>
<tr>
<td>Crack</td>
<td>9-16</td>
<td>-.27</td>
<td>.07</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age at First</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana Sale</td>
<td>7-15</td>
<td>-.58</td>
<td>.0001</td>
<td>35</td>
</tr>
<tr>
<td>Regular Theft</td>
<td>8-16</td>
<td>-.51</td>
<td>.001</td>
<td>35</td>
</tr>
<tr>
<td>Regular Drug Sale</td>
<td>9-16</td>
<td>-.50</td>
<td>.001</td>
<td>34</td>
</tr>
<tr>
<td>Prostitution</td>
<td>7-16</td>
<td>-.34</td>
<td>.024</td>
<td>34</td>
</tr>
<tr>
<td>Regular Prostitution</td>
<td>8-16</td>
<td>-.16</td>
<td>.20</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug Use Past 90 Days (1 = None)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crack (5 = Daily)</td>
<td>1-5</td>
<td>+.84</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>Rx-type Depressant (4 = 3+/Week)</td>
<td>1-4</td>
<td>+.39</td>
<td>.008</td>
<td>38</td>
</tr>
<tr>
<td>Heroin (5 = Daily IV)</td>
<td>1-5</td>
<td>+.33</td>
<td>.02</td>
<td>38</td>
</tr>
<tr>
<td>Cocaine Powder (5 = Daily)</td>
<td>1-5</td>
<td>-.28</td>
<td>.04</td>
<td>38</td>
</tr>
<tr>
<td>Marijuana (5 = Daily)</td>
<td>1-5</td>
<td>+.15</td>
<td>.18</td>
<td>38</td>
</tr>
<tr>
<td>Alcohol (5 = Daily)</td>
<td>1-5</td>
<td>+.11</td>
<td>.25</td>
<td>38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crime Past 12 Months (1 = None)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crack Business (4 = Deal &amp; More)(^a)</td>
<td>1-4</td>
<td>+.84</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>Petty Property Crime (5 = 350+)</td>
<td>1-5</td>
<td>+.67</td>
<td>.0001</td>
<td>38</td>
</tr>
<tr>
<td>Prostitution/Procuring (6 = 350+)</td>
<td>1-6</td>
<td>+.51</td>
<td>.001</td>
<td>38</td>
</tr>
<tr>
<td>Major Felonies (4 = 50+)</td>
<td>1-4</td>
<td>+.45</td>
<td>.002</td>
<td>38</td>
</tr>
<tr>
<td>Drug Business (6 = 500+)</td>
<td>1-6</td>
<td>+.40</td>
<td>.007</td>
<td>38</td>
</tr>
</tbody>
</table>

\(^a\) Sex-for-crack coding: 0 = none, 1 = 1-5, 2 = 6+.
\(^b\) "Crack business" refers to type of involvement rather than, as for the other crime variables, number of offenses: 1 = none, 2 = minor (e.g., lookout or sell only to friends), 3 = dealer, 4 = dealer also involved in manufacture or smuggling. This variable is analyzed in detail elsewhere (Inciardi and Pottieger, 1991).
most problematically underdeveloped aspects of the American drug treatment enterprise. Further, to date, few AIDS outreach programs have been initiated with adolescent delinquents, a result, perhaps, of their general inaccessibility, their reputation for being violence-prone, and/or the unwillingness of many researchers and clinicians to deal with the special federal regulations involving the use of minors as research subjects.

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U.S. Centers for Disease Control

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