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Needle Exchange Programs

Multiple Problems … Unproven Results

EXECUTIVE SUMMARY

Injection drug use is one of the highest risk behaviors for acquiring HIV and other blood-borne diseases. Proponents of needle exchange programs (NEPs) claim that giving injection drug users (IDUs) access to free, unused needles and syringes will reduce HIV rates and other diseases such as hepatitis C without increasing or condoning drug abuse and addiction. Addicts would take advantage of "clean" needles and not share needles that have already been used, supporters say, thereby preventing the spread of infectious diseases from one addict to the next. However, published studies in regard to this hypothesis are inconclusive at best.

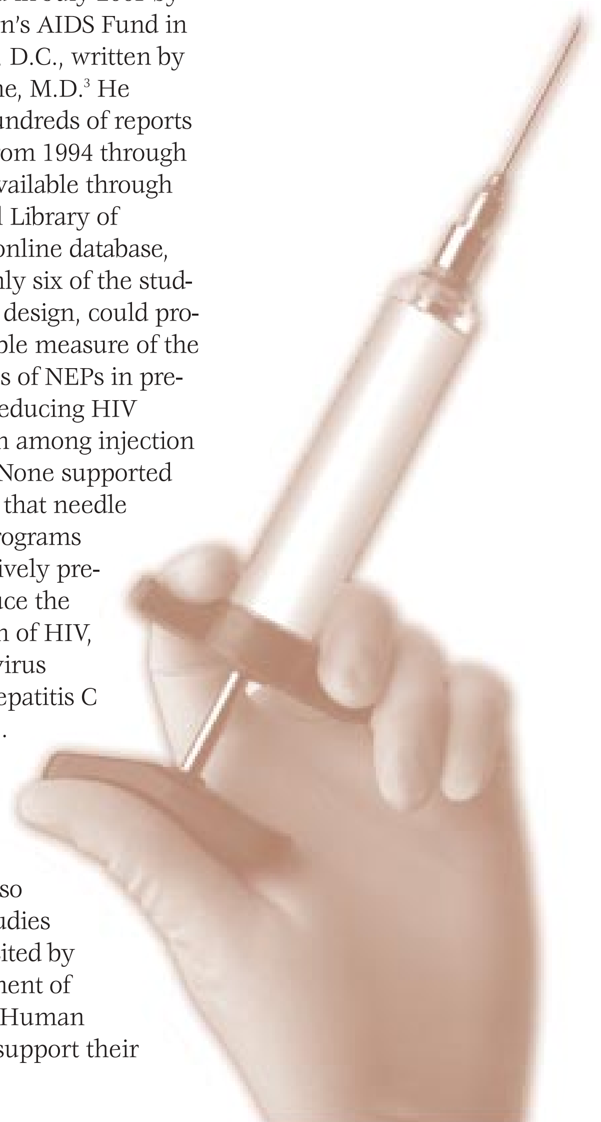
There is still not enough evidence to determine whether needle exchange programs actually work. In 2001, Scott Evertz, director of the Office of National AIDS Policy, was quoted saying that needle exchange "is saving lives and the evidence is conclusive."[1] When asked to support his statement, he back-pedaled in a written response to Family Research Council's vice-president of governmental affairs, Connie Mackey. "I was trying to explain that I have been collecting available scientific data on needle exchange and other programs in order to gain an understanding of their effectiveness," he wrote. "What I have learned is that much of the data is contradictory and inconclusive. One thing is for certain — needle exchange is not a panacea."[2]

Abstract: This report examines published studies of needle exchange programs, discusses the inherent problems associated with NEPs, and recommends a response to the problem of HIV transmission by injection drug users in New Jersey.

A Review of Needle Exchange Programs

One of the best nonpartisan, evidence-based reviews of needle exchange programs was released in July 2001 by The Children's AIDS Fund in Washington, D.C., written by Fred J. Payne, M.D.[3] He reviewed hundreds of reports published from 1994 through mid-2000, available through the National Library of Medicine's online database, Medline. Only six of the studies, by their design, could provide a credible measure of the effectiveness of NEPs in preventing or reducing HIV transmission among injection drug users. None supported the concept that needle exchange programs could effectively prevent or reduce the transmission of HIV, hepatitis B virus (HBV), or hepatitis C virus (HCV). In all but one, the opposite was true.

Payne also reviewed studies previously cited by the Department of Health and Human Services to support their



recommendation for federal funding of NEPs.

"In spite of the frequent assertion that implementing needle exchange on a national scale would be a life-saving measure in the current HIV epidemic, there is little hard evidence to support such a claim," Payne concluded. "To the contrary, the best of these studies indicate that NEPs fail to protect against HIV transmission. There appears to be some impact by the NEP on reducing risk behavior such as needle sharing among participants, but this is primarily based on self-reporting by individual IDUs."

Baltimore

Since 1994, the Baltimore City Needle Exchange Program has distributed 2.5 million syringes to some 10,000 addicts and spent $1.2 million to maintain the program.[4] It is the largest program of its kind operated by a state health department in the U.S. and has been granted an exemption from state drug laws.[5] But has Baltimore experienced a decline in IDU-associated infections since the NEP was established?

Liza Solomon, director of the Maryland AIDS Administration, stated in January 2001 that HIV cases in Baltimore are actually increasing at alarming rates — and mostly among IDUs. Of the 2,111 new HIV cases reported in Maryland in 1999, 59 percent were in Baltimore, she said, and the city is believed to have as many as 18,000 people infected with HIV. Nearly one-third of addicts enrolled in the city programs are infected with HIV and 90 percent have hepatitis C.

Furthermore, a report issued by the state health department found that the city is underreporting AIDS and HIV cases, and the numbers actually may be higher. A Johns Hopkins University School of Public Health study found that the rate of hepatitis C among those 30 years and younger were higher there than in New York, Chicago, New Orleans and Los Angeles and that IDUs in Baltimore have twice the infection rate of both HIV and hepatitis B than IDUs in the other cities.[6]

In spite of the growing numbers, Johns Hopkins University researchers claim that the rate of new infections decreased from 4.2 percent to 2.7 percent in the four years after the program started. But aside from the sample size being small (484), lead researcher David Vlahov cautioned that there were probably additional factors for the decline they perceived and that the NEP was not directly responsible for the drop.[7]

This data has never been published in a peer-reviewed scientific journal and statisticians have raised questions about the reliability and validity of the data. According to the Statistical Assessment Service, the conclusions of the study "ignore the fact that surrounding counties, with which Baltimore's 20 percent putative decline in new HIV infection is contrasted, have a dramatically lower level of HIV prevalence."[8] Also, the study "detected no relative decrease in HIV infection rates among its subjects" and "relied on addict self-reports."[9]

Connecticut

In early 2002, a *New Jersey Herald* article asserted that the number of IV drug users sharing needles had dropped dramatically as a result of a legal needle exchange in Connecticut.[10]

It is questionable whether this is true, because the NEPs relied on the testimony of addicts as to their "change" in habits and there is no published study to document the claim. More importantly, because of Connecticut's non-names-based HIV tracking system, it is not possible to determine whether or not the number of HIV cases has decreased — the purported goal of NEPs.

Adopted in January 1999, the tracking system is not providing enough information to track HIV transmission trends, according to the state health department's HIV/AIDS Surveillance Semiannual Update.[11] The Centers for Disease Control and Prevention (CDC) has concluded that tracking HIV by using names is more reliable, efficient and accurate than using unique identifier codes. A CDC study revealed several problems with unique identifier systems, including a high number of reports with incomplete codes (30-40 percent), low rates of completeness of reporting (25-50 percent complete) and the absence of behavioral risk data.[12]

Seattle

A study of NEPs in Seattle found no protective effect of needle/syringe exchange on the transmission of HBV or HCV among study participants. The highest incidence of infection with both viruses occurred among current users of the exchange. The authors stated that the goal of elimination or substantial

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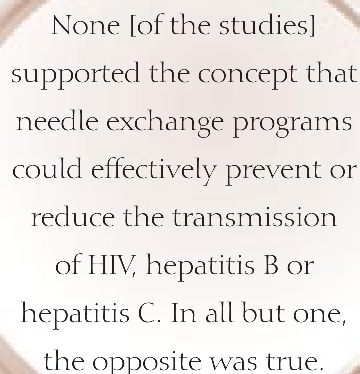
reduction in the risk behaviors that could transmit HIV among IDUs had not been achieved. Risk behaviors for HBV and HCV transmission were still practiced by a substantial portion of Seattle-area drug injectors.[13]



Hawaii

A *Honolulu Advertiser* article on Hawaii's needle exchange program noted a drop in HIV cases in the state. According to Don Des Jarlais, a New York consultant who conducts annual evaluations of Hawaii's NEPs, this is an indication that the program is working.[14]

But there is no proof that HIV incidence in Hawaii has decreased or that the state's NEP has helped reduce HIV transmission, counters Roland Foster, professional staff member of the U.S. House of Representatives Committee on Government Reform, Drug Reform Subcommittee. Hawaii only collects data on AIDS cases, not HIV cases, he noted in a letter to the *Advertiser's* editor. Further, because the state's needle exchange program has only existed for a decade and it can take 10 years or more for HIV to develop into AIDS, it is "impossible to tell what impact the needle exchange has had on HIV incidence."

He also notes that Des Jarlais found two years ago that both hepatitis B and C were "rampant" among IDUs there, despite the fact that NEPs aim to reduce these blood-borne infections. Foster writes that although Des Jarlais cites an increase in the number of needles exchanged as "proof that the program is working," one should not make such a correlation. "One could assume that such an increase may be the result of increased drug abuse, clearly not a good development."[15]

Vancouver

When the Vancouver NEP was established in the late 1980s, the estimated HIV prevalence was 1-2 percent among the city's population of 6,000-10,000 IDUs. Instead of the expected decrease in HIV rates, the opposite has occurred. A rapid increase in HIV infection among IDUs was documented in Vancouver beginning in 1994.

By 1997, one-quarter of the drug users in the downtown Eastside section were infected with HIV. With a cumulative transmission rate of nearly 19 percent, Vancouver earned the distinction of having the highest infection rate of any city in the developed world. The Vancouver Injecting Drug Use Study estimates that the current HIV prevalence (new cases) among Vancouver IDUs is between 3 and 5 percent.[16]

A study published in the journal *AIDS* in 1997 found that "frequent NEP attendance" was actually one of the "independent predictors of HIV-serostatus [blood tested positive for HIV] among IDUs." The study found that HIV-positive IDUs were more likely to have ever attended an NEP and to attend the NEP on a regular basis compared with HIV-negative IDUs. With only one exception, the NEP was the main source of syringes for all who became infected. In addition, HCV rates have also increased since the establishment of the NEP.[17]

Amsterdam

A study reported from Amsterdam involved studies of a cohort of 582 HIV-negative drug users in a harm reduction program that included high-dose methadone maintenance, needle exchange, counseling and HIV testing. The authors stated that in this setting, methadone use did not stop the spread of HIV. During 1996, 58 of the 582 drug injectors contracted HIV.[18]

Associated Problems

Sending the wrong message may encourage drug use.

As former New Jersey Attorney General Peter Verniero noted, "…legalizing — literally legitimizing — the possession, purchase and sale of drug paraphernalia [through NEPs] … would constitute an endorsement by the government of the insidious and false notion that injectable drug use can be done 'safely.'" How does this harmonize with the "Just Say No" anti-drug message taught in our schools?

While an association between needle exchange and encouraging drug use may be debated, there is no question that heroin use has significantly increased in Baltimore over the decade in which the NEP was established. Today, one in 10 residents — some 60,000 men and women — are addicted to heroin and the city has been designated as a "High Intensity Drug Trafficking Area" by the federal government.

Perpetuating Addiction vs. Encouraging Treatment

Needle exchange programs are not a useful route to treatment. They attract drug users and perpetuate their addiction by providing them with legal paraphernalia but do not require them to participate in treatment. Unfortunately, most IDUs will not volunteer, but must be coerced into treatment. Needle distribution programs either do not refer addicts to treatment, have no room to treat addicts, or addicts simply do not seek treatment.

In Vancouver, for example, needles and illegal drugs are widely available and accessible but drug treatment is not, because even after a decade, programs have not been established. In fact, only 18 percent of NEP participants ever received methadone maintenance for their addiction, with even fewer reporting treatment.[19] A March 2002 *Associated Press* article noted that one-fourth of the 5,000 drug addicts in the Philadelphia needle exchange program receive referrals to drug treatment[20] (not to be confused with receiving actual treatment).

When the NEP moves in, drug networking, needles and associated crime follow.

NEPs serve as a link between drug addicts and dealers. In Vancouver, police shut down a sidewalk NEP when a volunteer worker at the NEP referred an undercover agent to a drug dealer.[21]

Needles discarded in neighborhoods and around

ment centers found a fourfold increase in admissions of young adult injection heroin users from suburban/rural areas of the state between 1992 and 1999.[29]

Harm Reduction and Addiction vs. Intervention and Rehabilitation?

The majority of the members of the New Jersey Governor's Council on AIDS believes that harm reduction through the implementation of NEPs should be the means of reducing the spread of HIV by IDUs in our state. Supporters claim that NEPs somehow help addicts maintain a healthy lifestyle while they continue their inevitable behavior, and that such programs require less public money than rehabilitation. For these reasons, they support a harm reduction strategy rather than intervention. This approach would make sense if the data were conclusive, but it is not.

Do NEPs help addicts maintain a healthier lifestyle?

A flyer from a Baltimore city-sponsored NEP states "this program is free" and "no identification is needed. All that is needed is a desire to live healthier."[30] Unfortunately, Baltimore's needle-using population is far from healthy, as noted above. How can we help addicts maintain a healthier lifestyle if we enable them to use drugs? An addict will eventually die from drug use whether or not he or she contracts HIV. Cities with long-standing NEPs continue to have the highest AIDS death rates.[31]

Our response to those who are trapped in addiction should not be to spend tax dollars to facilitate both continued drug use (probably resulting in a speedier death) and conditions that do nothing to discourage HIV transmission via sexual contact. We should not believe that by simply providing clean needles we can stem the spread of HIV, trusting a "junkie" to stop sharing needles and to have "safe" sex. When drug users run out

"Exchange programs alone are likely not sufficient to prevent HIV transmission among drug users."

of money for their habit, they often turn to prostitution — no matter how many clean needles are available.

Further, if better health is our goal for all of society, can we really believe that a state NEP policy that legalizes drug paraphernalia will not encourage drug use and thereby increase the number of people at risk for disease?

The studies reviewed above reveal that these suppositions are insupportable. Even if a study could prove that needle risk behaviors among participants could be reduced, would it be worth a corresponding increase in drug use and other diseases such as hepatitis B and C because of their sexual behaviors?

Are NEPs really a lower-cost solution?

While the expense per person to run an NEP may be less than a rehabilitation program at face value, all the money would be wasted and more if the program were to fail — and available data provides no solid evidence that they work.

A 1997 study concluded that after almost a decade in operation, NEPs in Vancouver needed an estimated 10 billion needles to cover the growing IDU problem in their city.[32] With addiction on the rise, would not our state's money be better spent on prevention and treatment, rather than supporting an apparently limitless growth in the need for needles?

Secondly, NEPs are not inexpensive and have little, if any, chance for success without the addition of many associated programs that cost more money. "Exchange programs alone are likely not sufficient to prevent HIV transmission among drug users. NEPs need to be complemented by appropriate and accessible health and social services as well as detoxification and drug treatment programs," noted Canada's Bureau of HIV/AIDS, STD and TB in a May 2001 *Health Canada* article.[33]

Lastly, a July 1998 study in the *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* investigated the cost of increasing access to sterile syringes for injecting drug users. The authors suggest that 100 percent coverage of just syringes for drug users would cost around $34,278 for each addict, while the per-addict cost for treatment of HIV would be greater, approximately $108,469. However, the study did not consider the collateral costs associated with NEPs, such as crime, drug use and welfare costs.[34]

The National Center on Addiction and Substance Abuse (CASA) reports that illegal drug use is taking a significant bite out of state budgets — meaning our tax dollars are already being used. Thirteen percent of the average state budget goes toward picking up the residue of the abuse of alcohol and illicit drugs, while less than 1 percent goes for treatment and prevention.[35] In British Columbia, for example, in 1997 the estimated direct costs related to injection drug use and HIV/AIDS were $96 million annually.[36]

Rehabilitation is the only proven way to stop the spread of HIV among IDUs. When the addiction stops the associated high-risk behaviors end. Our overriding goal as a society should be to provide real life-saving intervention by helping individuals overcome their addiction and thereby eliminate the root cause of the highest percentage of new HIV cases in New Jersey.

Treatment Programs That Work

Research supports the effectiveness of drug treatment programs. "Effective drug treatment offers the better long-term policy for both drug control and AIDS prevention," says Barry McCaffrey, former director of the Office of National Drug Control Policy. He points to the National Institute on Drug Abuse Treatment Outcome Study: Participants in outpatient methadone treatment reduced heroin use by 70 percent and illegal activity by 57 percent and increased their full-time work by 24 percent.[37] He refers to another study which found that treatment for poor inner-city

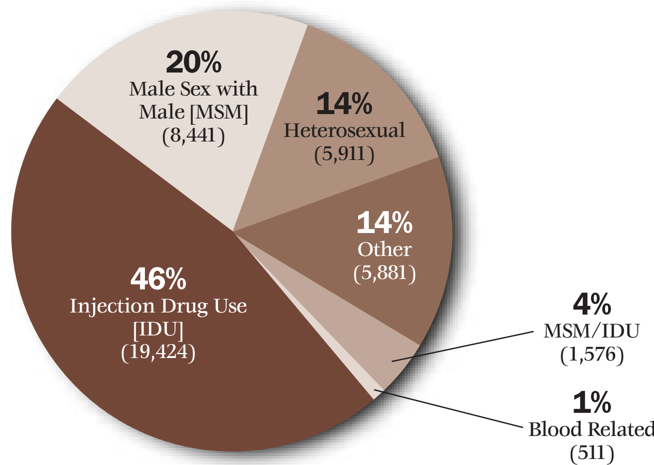
businesses are a real problem, and residents are sickened. "This town is going downhill," said business owner Dan Hansen as he moved out, fed up with having to clean up discarded needles, condoms and other garbage. "When I bring my kids down here, I don't let them out of the car because I don't want them touching needles," added a mother.[22]

Proponents of NEPs have claimed that they do not have an effect on crime rates. Yet in Baltimore, the number of homicides is increasing with "most killings having a drug dimension." A *Baltimore Sun* article declares "no long-term decline in homicides is possible until the link between drugs and killings is broken."[23]

Needle and Equipment Sharing Continues

Can addicts be trusted to improve their habits when their behavior, by definition, is controlled by their addiction and not by reason? Even when given unlimited access to clean needles, IDUs continue to share HIV-contaminated needles and equipment, as evidenced in numerous studies. Needle sharing among IDUs in Vancouver is still normative and quite widespread. According to data from the Vancouver Injecting Drug Use Study published in 1997, 76 percent of HIV-positive IDUs admitted to borrowing used needles, as did 67 percent of HIV-negative IDUs. In addition, researchers have found that consistent use of bleach among IDUs borrowing used needles was low and sharing of other injection paraphernalia was common.[24]

Cumulative Adult/Adolescent AIDS Cases in New Jersey by Mode of Transmission (as of 9/30/01)



Sexual Transmission of HIV Among IDUs

The level of unprotected sexual intercourse is high among IDUs.[25] The results of a major study in San Francisco, reported in the May 5, 2001 issue of *The Lancet,* showed that sexual behaviors are the main risk factors for IDUs.

The strongest predictor of HIV-1 seroconversion (from HIV negative to positive) for men is sex with other men, whereas among women, the strongest predictor was trading sex for money. Men who had sex with men were 8.8 times as likely to seroconvert as heterosexual men. Women who reported having traded sex for money in the past year were 5.1 times as likely to seroconvert, and women who reported having a steady partner were less likely to seroconvert than other women.[26]

Why Hasn't the Federal Government Funded NEPs?

Public Law 102-394 gives the federal government the authority to fund needle exchanges if these programs are proven to slow the spread of the AIDS virus and do not lead to more drug use. Apparently, Congress has continued to deny funding because the criteria necessary to satisfy the law have not been met.

New Jersey should take its cue from the federal government. With current budgetary constraints, the state of New Jersey does not have the money to invest in such a high-risk proposition. If the state does decide to address the problem of IDUs spreading HIV, it should invest in a program whose outcome will truly benefit the user, families and society in the long run.

Addressing New Jersey's Problem

The Hard Facts

New Jersey ranks first among all states in the proportion of AIDS cases related to drug abuse among adults and adolescents. As of Sept. 30, 2001, injection drug use remained the dominant mode of HIV transmission, causing 46 percent of AIDS cases, followed by homosexual contact (20 percent) and heterosexual contact, which was responsible for 14 percent of all cases.

Near the end of 2001, 42,659 AIDS cases had been reported in New Jersey. The 1,972 new cases reported in 2001 represented a 15 percent increase from the previous year. AIDS acquired through drug injection or by male IDUs who had sex with males accounted for 21,001 or 56 percent of all AIDS cases. Cumulative HIV cases through Sept. 30, 2001 numbered 16,248 and the 1,262 cases reported in that year represented an 8 percent increase. As of 2000, over 26,535 New Jerseyans had died from AIDS.[27]

Although the number of men infected by injection drug use has steadily declined since peaking in 1993, the number of men infected through heterosexual sex has increased somewhat overall.[28] Injection drug use also appears to be increasing among young adults from suburban and rural areas of the state. A recent study of New Jersey addiction treat-

NEEDLE EXCHANGES: THE TIPPING POINT TO MORE CRIME?

In his book, *The Tipping Point,* Malcolm Gladwell examines the root cause for the dramatic drop in criminal activity in New York City in the late 1980s and '90s. "The impetus to engage in a certain kind of behavior is not coming from a certain kind of person but from a feature of the environment." He points out that when minor, seemingly insignificant "quality-of-life" crimes were addressed and prosecuted, the more serious crime rates also declined.

When applied to the problem of drug abuse, this paradigm casts doubt on the wisdom of implementing needle exchange programs. In general, the basic activities that support a drug user's habit are illegal. If addicts are helped to use drugs "safely," will they use drugs less and thereby commit fewer crimes — or will they use drugs more and commit more crimes to procure more drugs? Data from communities that have instituted needle exchange programs show an increase in criminal activity to support drug users' habits.

populations resulted in a 50 percent drop in illicit drug use, a 78 percent decline in drug selling and 64 percent fewer drug arrests. Exchange of sex for money or drugs dropped 56 percent, homelessness by 43 percent and receipt of welfare income by 11 percent.[38]

In Chicago, homeless IDUs were recruited for an outreach/education-based study in 1996. Participants' seroconversion rates fell 71 percent after four years of outreach and education alone, without the provision of needles. During the study, injection risks (needle-sharing, etc.) declined from 100 percent to 14 percent and sexual risks, such as having multiple partners, fell from 71 percent to 45 percent.

Recommendations

As the empirical data on needle exchanges grows, the positive outcomes suggested by proponents appear to shrink. Not only do HIV infection rates continue to increase, but the general public is placed at greater risk and the death toll among intravenous drug users rises.

The risky behaviors of IDUs harm many innocent victims: children born with AIDS, people who were infected by contaminated blood, care providers who are accidentally exposed, and those who contract diseases spread by sexual contact with HIV-positive people who do not inform partners of their infection. A compassionate response would help these innocent victims, as well as the addicts trapped in drug addiction.

As with welfare reform (which has been successful), our goal should be to move people from dependence to self-reliance. Shouldn't the state be striving to move the drug user into rehabilitation and end addiction? Our overriding public policy goal should be to get the addict drug-free.

The New Jersey Family Policy Council calls on the Governor's Advisory Council on AIDS to reconsider its ardent support for NEPs in light of the information summarized in this report. Our citizens deserve to see their tax dollars supporting programs that are proven to work and that address the root problem — not programs that are highly controversial and whose outcomes, after many years, are at best questionable.

By Len Deo, President, New Jersey Family Policy Council, and member of the Governor's Advisory Council on AIDS (GACA)

ENDNOTES

[1] Peter LaBarbara, "AIDS Czar Backs Needle Exchange, Evertz's pronouncements violate Bush beliefs, federal policy," *WorldNetDaily.com,* Nov. 2, 2001.

[2] Scott Evertz, Director, White House Office of National AIDS Policy, letter to Connie Mackey, Vice-President of Governmental Affairs, Family Research Council, Washington, D.C., Nov. 19, 2001.

[3] Fred J. Payne, M.D., "An Evidence-Based Review of Needle Exchange Programs," *HIV-AIDS Perspectives,* The Children's AIDS Fund, July 2001.

[4] "Metro in Brief," *The Washington Post,* August 6, 1999.

[5] Daniel Levine, "This is No Way to Fight A Drug War," *Readers Digest,* February 2000.

[6] Roland Foster, *Results of the Nation's Largest Needle Exchange: Is Baltimore an Effective Paradigm for HIV Prevention Among Injection Drug Users?* Report prepared for the U.S House Committee on Government Reform, Drug Reform Subcommittee, 2002.

[7] Levine, "This is No Way to Fight a Drug War."

[8] Foster, *Results of the Nation's Largest Needle Exchange.*

[9] Foster, *Results of the Nation's Largest Needle Exchange.*

[10] Steve Audubato, Ph.D., "Needle Exchange: Matter of life, death," *New Jersey Herald,* Feb. 17, 2002.

[11] Associated Press, *Hartford Courant,* as cited in Kaiser Daily HIV/AIDS Report, Sept. 22, 1999.

[12] Roland Foster, *HIV Surveillance: Names vs. Codes,* U.S. House Committee on Government Reform.

[13] H. Hagan, J.P. McGough, H. Thiede, et al., "Syringe exchange and risk of infection with hepatitis B and C viruses," *American Journal of Epidemiology,* 1999, 149:203-218. Cited by Payne, "An Evidence-Based Review of Needle Exchange Programs."

[14] Curtis Lum, "Needle exchange program praised," *Honolulu Advertiser,* Feb. 15, 2002 *(http://the.honoluluadvertiser.com).*

[15] Roland Foster, "No Proven Correlation Between Hawaii's Needle Exchange Program and Possible Drop in HIV Infection," (letter to the editor), *Honolulu Advertiser,* Feb. 25, 2002, summarized in *Health Policy as It Happens, Daily HIV/AIDS Report* on *kaisernetwork.org,* posted Feb. 26, 2002 ("Opinion: No Proven Correlation Between Hawaii's Needle-Exchange Program and Possible Drop in HIV Infection, Letter to Editor States").

[16] Foster, *The Vancouver Needle Exchange Experience,* pp. 1-2.

[17] Stephanie A Strathdee, David M. Patrick, Sue Currie, Peter G.A. Cornelisse, Michael L. Rekart, Julio S.G. Montaner, Martin T. Schechter and Michael V. O'Shaughnessy, "Needle Exchange is Not Enough: Lessons From Vancouver Injecting Drug Use Study," *AIDS,* 1997.

[18] M.W. Langendam, G.H. van Brussel, R.A. Coutinho, E.J. van Ameijden, "Methadone maintenance treatment modalities in relation to incidence of HIV: Results of the Amsterdam cohort study," *AIDS,* 1999, 13:1711-1716, as cited by Payne, "An Evidence-Based Review of Needle Exchange Programs."

[19] Strathdee, *et al.,* "Needle Exchange Is Not Enough," F63, F61.

[20] "Drug Policy Reformers Optimistic for Change Under McGreevey," *Associated Press,* Trenton, NJ, March 17, 2002.

[21] "Police Thwart Attempts to Help Addicts: Closing a Sidewalk Needle Exchange Shakes Coalition of Civic Agencies," *Vancouver Sun,* June 5, 2002, p. B1. Police did undercover surveillance of two volunteers from the Vancouver Area Network of Drug Users, which runs a nighttime needle exchange under the auspices of the Vancouver Coastal Health Authority.

[22] "Neighbors Needled by Addicts," *Times Colonist* (Victoria), July 19, 2002, p. A1.

[23] "Spike in Killings Must Be Contained; Joint Action Needed: Overwhelmed City Police Cannot Stop Surge of Drug-Connected Street Slayings," *Baltimore Sun,* March 4, 2001.

[24] Strathdee, *et al.,* "Needle Exchange Is Not Enough," F59.

[25] "Risk Behaviors Among Injection Drug Users in Canada," *Health Canada,* May 2001 *(www.hc-sc.gc.ca/).*

[26] Alex H. Kral, Ricky N. Bluthenthal, Jennifer Lorvick, Lauren Gee, Peter Bacchetti, Brian R. Eldin, "Sexual Transmission of HIV-1 among injection drug users in San Francisco, USA: Risk Factor Analysis," *The Lancet,* 357(9266) (May 5, 2001):1397-1401.

[27] "New Jersey HIV/AIDS Cases Reported as of June 30, 2001," *New Jersey HIV/AIDS Quarterly Newsletter,* New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control, Figures 1 and 2.

[28] *New Jersey HIV/AIDS Quarterly Newsletter,* New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control, Sept. 30, 2001.

[29] "Trends in Injection Drug Use Among Persons Entering Addiction Treatment – New Jersey, 1992-1999," *Morbidity and Mortality Weekly Report,* 2001, 50:378-381, CDC. Cited in *New Jersey Index of Leading Cultural Indicators,* Vol. 3, 2001-2002, New Jersey Family Policy Council, Parsippany, NJ, 2002.

[30] Sandra S. Bennet, "Harm Reduction and Needle Exchange Programs in the USA," *The Lancet,* 351 (June 13, 1998):1819. Cited in *Update: Needle Giveaway Debate,* Bob McGinnis, Family Research Council, Washington, D.C., 1999.

[31] *HIV/AIDS Surveillance Report,* U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, Vol. 10, No. 1 (June 1998), pp. 3-4.

[32] Strathdee, *et al.,* "Needle Exchange is Not Enough," F59. Cited by Foster, *The Vancouver Needle Exchange Experience.*

[33] "Risk Behaviors Among Injection Drug Users in Canada," Bureau of HIV/AIDS, STD and TB, *Update Series,* appearing in *Health Canada,* May 2001 (http://www.hc-sc.gc.ca/).

[34] David R. Holtgrave, *et al,* "Cost and Cost-Effectiveness of Increasing Access to Sterile Syringes and Needles as an HIV Prevention Intervention in the United States," *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology,* 18, Suppl. 1 (July 1998): S133.

[35] Martha Kleder, "Burden of Substance Abuse Falling on the States," *Citizenlink,* Washington D.C., Feb. 8, 2001.

[36] Donald McPherson, Drug Policy Coordinator, City of Vancouver, May 30, 2002, as cited by Foster, *The Vancouver Needle Exchange Experience.*

[37] Letter from Barry R. McCaffrey, Director, Office of National Drug Control Policy, to Alan Leshner, Director, National Institute on Drug Abuse, Dec. 4, 1997.

[38] McCaffrey letter to Leshner.

ABOUT US:

Organized in 1995, the New Jersey Family Policy Council is a nonpartisan, nonprofit research and education organization. Our goal is to serve as a voice for families and traditional family values in the public policy arena. We are supported solely by private contributions which are tax deductible as provided by law. Our mailing address is P.O. Box 6011, Parsippany, NJ 07054. Phone: (973) 263-5258. Fax: (973) 263-3772. ***Family Findings*** is a publication of the New Jersey Family Policy Council and is intended to communicate research findings and perspectives on public policy issues that affect the family. Nothing written here should be construed as an attempt to aid or hinder the passage of any bill before Congress or the New Jersey General Assembly. Printed September 2002.