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PUBLIC POLICY OFFICE

1828 L Street, N.W., Suite 802

Washington, D.C. 20036

(202) 331-8600

FAX: (202) 331-8606

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*HIV Health and Human Services Planning Council
of New York City*

**Needle Exchange Programs:
An Analysis of Benefits and Costs**

Office of the Mayor
Office of AIDS Policy Coordination
June 1997

*Needle Exchange Programs (NEPs):
An Analysis of Benefits and Costs*

O/M APC, June 1997

*HIV Health and Human Services Planning Council
of New York City*

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**Needle Exchange Programs (NEPs):
An Analysis of Benefits and Costs**

Key Highlights and Recommendations

What are Needle Exchange Programs?

- A legal opportunity for injection drugs users (IDUs) to exchange a "dirty" needle for a clean needle.
- A place from which IDUs can access a range of supportive services that may lead them towards recovery from drug abuse.
- A national and global initiative to reduce the spread of HIV among IDUs, their sexual partners, and their children.
- A successful model of a public health intervention called harm reduction.

Reality of Injection Drug Use and HIV/AIDS in New York City (NYC)

- There are an estimated one quarter of a million IDUs in NYC.
- Approximately 30 to 40 percent of all IDUs in NYC are currently infected with HIV.
- There are 3,000 to 5,000 annual new HIV infections in NYC among IDUs.
- In 1995, nearly *half* of all new AIDS cases (4,300) in NYC were among IDUs.
- 68 percent of the cumulative AIDS cases among children under 12 (1,195) in NYC result from a mother who was infected through her own injection drug use, or through sexual contact with an IDU.

Effectiveness of NEPs in Reducing the Rate of HIV Infection among IDUs

- Six federally-funded studies all conclude that NEPs reduce the rate of HIV infection among IDUs.
- Independent studies conclude that NEPs reduce the rate of new infections among IDUs by as much as 67 percent.
- From the present until the year 2000, approximately 5,000 new infections could be prevented among IDUs in NYC with the expansion of existing NEPs and the creation of new NEPs.

Needle Exchange Programs in New York City

- The first legal NEP was established in July 1992 on the Lower East Side.
- There are now nine NEPs in NYC which serve over 45,000 IDUs.
- More than 5,000,000 needles have been exchanged to date by NEPs in NYC.
- 75 percent of all IDUs in NYC do not participate in NEPs due to a variety of barriers.
- Participants of NEPs in NYC exchange needles on average only 3.2 times per month - far less frequently than a rate which would ensure consistently clean injections.

Cost-Effectiveness of NEPs

- The average annual operating budget of a NEP is \$166,654. The average lifetime Medicaid cost of providing medical care for one HIV-infected IDU is \$109,000. *If a NEP prevents two infections per year, the NEP is cost-effective.*
- If there were 1,000 fewer annual new infections, NYC would save about \$27,250,000 annually on the City's share of Medicaid costs for HIV treatment and care.

Government Response

- A federal ban prohibits the use of federal dollars for the purchase or the exchange of needles at NEPs.
- Ryan White Title I (Title I) and Centers for Disease Control and Prevention (CDC) dollars *can* be used by NEPs for their supportive and ancillary services. This year, Title I will fund NEPs in NYC with \$448,127 and the CDC will distribute \$1,079,731 to NEPs in NYC.
- New York State (NYS) funds the direct exchange work of all nine NEPs in NYC with \$1,101,581.
- NYS will also spend \$1.4 million to purchase the needles which are exchanged through the NEPs in NYC.
- New York City does not fund the NEPs that operate in NYC with City tax levy dollars.
- Chicago, Los Angeles, Philadelphia and San Francisco are major cities which all fund NEP activities through a combination of City, County, and State dollars.

Challenges to NEPs

- To fulfill the unmet need for services and prevent future HIV transmissions.
- To continue to educate the police and local communities about the mission and effectiveness of NEPs.
- To explore ways to continue to meet the complex and changing needs of IDUs in New York City.

Recommended Actions for New York City by the Office of the Mayor Office of AIDS Policy Coordination

ACTION	RESULT
• Offer public support for NEPs	• Validate the work of NEPs • Encourage IDUs to exchange needles and potentially begin the path to recovery from drug abuse • Encourage increased private support for NEPs • Set leadership tone on NEPs for the entire country
• Undertake an advertising campaign focusing on NEPs targeting IDUs	• Bring new IDUs to NEPs • Educate the general public and potential IDUs about both the existence of NEPs, and the correlated issues of drug use and HIV/AIDS
• Create formal linkages between NEPs and relevant City services	• Help link IDUs with other services which will intervene earlier in the course of the HIV disease • Reduce the likelihood of further transmissions
• Develop a pro-active agenda and policies around NEP issues	• Continue to meet the emerging challenges of the AIDS epidemic in New York City
• Fund NEPs with unrestricted City tax levy dollars	• Prevent thousands of new infections • Expand reach of current NEPs • Create new NEPs in underserved communities • Realize additional health care savings

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**Needle Exchange Programs (NEPs):
An Analysis of Their Benefits and Costs**

I. SUMMARY

This report seeks to analyze the HIV-related service needs of the injection drug using population in New York City; assess the effectiveness of Needle Exchange Programs (NEPs) in reducing rates of HIV infection as borne out by scientific research; review the current operation of NEPs in New York City; explore governmental involvement in NEPs from a federal, state and city perspective; evaluate the cost effectiveness of NEPs; reflect on the socio-political and environmental challenges to NEP operations; consider opportunities for New York City government to become more involved in NEPs; and make recommendations for action.

II. WHY NEPs ARE BENEFICIAL

Needle exchange programs have been implemented throughout the world in an effort to reduce the spread of HIV/AIDS among injection drug users (IDUs), their sexual partners and their children. In numerous studies using data collected from hundreds of cities and communities, NEPs have been found effective in reducing the spread of HIV. Although NEPs provide an array of supportive services to IDUs (e.g., counseling, acupuncture, entitlements advocacy, referrals to treatment), their most unique function is to exchange, on a one-for-one basis, the used needle that the IDU brings to the NEP, for a clean needle for future injections. (For the purpose of this report, the term "needle" will be used synonymously with the term "syringe.")

In New York State, the return rate for needles distributed at NEPs is 87 percent.¹ The high return rate of needles as well as an increase among heroin addicts of smoking rather than injecting heroin indicate that addicts are aware of the relationship between "dirty" needles and HIV/AIDS. More importantly, it shows a willingness and desire within the IDU population to adopt preventive health behaviors.

Needle exchange programs operate within a broad public health philosophy known as *harm reduction*. The harm reduction approach acknowledges without judgment the complex nature of human behaviors, and addresses the difficulties involved in creating

¹ Statistic provided by Alma Candelas, Director of the AIDS Institute Special Populations Bureau for the New York State Department of Health. From the monthly reporting data submitted by the twelve NEPs in New York State to the AIDS Institute.

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and sustaining behavioral change in a non-punitive framework. Harm reduction programs seek to engage individuals on their own terms and then gradually help to move them along a spectrum of progressively healthier behaviors to the extent that they are ready and able. Harm reduction has become an accepted strategy in many public health arenas where "success" is not defined as a singular proscription. The harm reduction philosophy does not posit itself as the catalyst for unobtainable health outcomes, but instead, uses creative, effective interventions to assist individuals in achieving a self-defined level of behavioral modification.

It is understood that NEPs exist within a broad continuum of prevention, treatment and care services targeting the complex needs of people who are using injection drugs. In fact, NEPs are perceived to be a fairly "low threshold" intervention strategy near the beginning of this continuum. NEPs place relatively few demands on participants and enable them to gain a sense of mastery around safer needle use. (Teaching IDUs the most effective way to clean their syringes and making bleach kits available to them is another example of a low threshold model). It is critically important to offer a wide range of prevention, treatment and care options because there is a greater likelihood that drug addicts—regardless of their active, relapsing or recovery status—will engage in an intervention that is both manageable and acceptable to them. In light of the life and death stakes associated with HIV/AIDS, even the lowest threshold strategies serve a vital function.

Drug addiction and its correlates (e.g., poverty, sub-standard housing, high rates of pre-mature morbidity and mortality) are difficult cycles to break, and there are no easy answers or "magic bullets" which will cure all of these ills. For those who are not ready or who are unable to stop using injection drugs, the provision of clean needles and the opportunity to make use of supportive services is not merely a way to reduce the risk of exposure to HIV and other blood-borne infections, but perhaps represents the first step on the long and often arduous road to recovery.

Needle exchange programs are successful in helping their clients achieve healthier behaviors precisely because they have adapted themselves to meet as many of their clients' needs as possible. These needs are far more complicated than the provision of a clean needle. NEPs provide an array of services including supportive counseling, acupuncture, referrals to drug treatment programs, assistance with accessing public benefits, free food and clothing banks. The staff and volunteers at the NEPs have engendered trusting relationships with their clients which help to lay the foundation for improved health behaviors.

Clearly, the behavioral modification experienced by needle exchange participants can have a far reaching public health impact. It is not just the individual client whose own exposure to HIV has been reduced, but all of the other persons whom he/she may have

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potentially infected through sexual contact and/or through sharing an HIV-infected needle. NEPs successfully remove HIV-infected needles from circulation thereby reducing the number of potential new infections; they help those who are HIV-negative maintain their sero-status; and, they help prevent future HIV transmissions as a result of their educational efforts (e.g., distribution of safer sex information, condoms, dental dams, and bleach kits).

In July of 1992, the first State-authorized, private NEP began operating in New York City. Now, there are nine NEPs that have exchanged more than 6,354,366 needles through December 31, 1996.² Thousands of people who would have likely become infected without the NEPs remain HIV-negative, and potentially thousands more injection drug users were protected from exposure because HIV-positive users had an incentive not to share or discard their used needles. However, the need for NEP services in New York City is far greater than the current supply. This gap is reflected by the ever increasing rates of new infections among IDUs, their sexual partners and their children. Injection drug users and their collaterals will continue to become infected until they have access to effective interventions and receive the necessary support services.

III. MAGNITUDE OF THE PROBLEM: INJECTION DRUG USE AND HIV/AIDS IN NEW YORK CITY

Service Population

The highly correlated epidemics of drug addiction and HIV/AIDS present a significant challenge to the public health and service provider communities to find effective ways to engage substance users in HIV prevention efforts. Substance use decreases appropriate judgment around safer sex concerns; the desperate exchange of sex for drugs or drug money can place individuals—particularly women—in high risk situations; and most prominently, the sharing of injection drug equipment is a well-documented mode of HIV transmission.

In many ways, the AIDS epidemic among IDUs is a reflection of a society which has not begun to address its most pressing ills. Predominantly affecting people of color living in poverty, the AIDS crisis is another devastating blow that reveals the inequities of race and class in vivid terms. Coupled with the dearth of drug treatment opportunities, the struggle for day-to-day survival can easily undermine the effectiveness of traditional HIV prevention efforts.

² New York Syringe Exchange Four Years Later: Key Findings, Future Directions. Denise Paone, Don Des Jarlais, Qiuhu Shi, Jessica Clark. Beth Israel Medical Center. 1996.

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Substance users—active IDUs in particular—are a difficult population to reach and serve. There are few organized networks or community groups; there is a basic mistrust of institutional outreach efforts; preventive health care is often a low priority; IDUs frequently have a marginalized sense of self-worth; there is skepticism around official educational messages; there are reduced expectations for health and longevity; and drug use is often one of the few “pleasures” that an addict can identify in his/her life. To address the complex social, psychological and environmental factors linked to substance use and HIV/AIDS, it is necessary to offer a range of interventions that are targeted to the diverse needs of this population. NEPs are one critically important component along this continuum of care.

New York City HIV/AIDS Incidence Rates

The issue of needle exchange is located at the heart of the AIDS epidemic in New York City. Epidemiological statistics show there are 30,610 persons living with AIDS in the five boroughs, 50 percent of whom have a history of injection drug use.³ It is estimated that in New York City there are 190,000-240,000 IDUs, 30-40 percent of whom are thought to be infected with HIV.⁴ Under the current conditions in which IDUs have limited access to clean needles, it is anticipated that every year there will be 3,000 new infections among this population.⁵ There is also an exponential quality to the growth of HIV infections among IDUs. Not only does each new infection represent one more person living with the virus, but each IDU may have multiple sexual and/or syringe sharing contacts.

Beginning in 1990 and continuing to the present, injection drug use has become the leading risk factor for HIV infection among men with AIDS, surpassing men who have sex with men (MSM).⁶ Since 1981 (when AIDS statistics were first kept in New York City), 13,897 women have developed AIDS either through their own injection drug use or through sexual contact with a man who injected drugs. This means that almost 72 percent of cumulative AIDS cases among women in New York

³ New York City Department of Health, AIDS Surveillance Report, October-December 1996.

⁴ Interim HIV/AIDS Strategic Plan for the City of New York, Volume II, Analysis of Key Service Areas, Health Systems Agency of New York City, Inc. January 1995. From a memorandum written by Sue Simon.

⁵ Statistic provided by Dr. Don Des Jarlais from the Beth Israel Chemical Dependency Institute. Dr. Jarlais was purposefully being conservative in the number of new annual HIV infections that occur in New York City given the current ability of IDUs to access the existing NEPs. He acknowledged that the number could be as many as 5,000 annual new infections. In conversation, 5/1/97. Further evidence for a “higher” number is given in the *American Journal of Public Health*. For New York City, the researchers estimated 4,369 annual new infections (range from 1,748 to 6,553) given the current ability of IDUs to access the existing NEPs. May 1996. Vol. 86. No. 5.

⁶ All the following statistics in this paragraph are from the New York City Department of Health Fourth Quarter 1996 AIDS Surveillance Update.

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City (n=19,414) are associated with injection drug use. Among men, 30,720 cases of AIDS, or 42 percent of the cumulative AIDS caseload (n=72,839), are directly attributable to injection drug use. Finally, among pediatric AIDS cases, the cumulative number of babies with AIDS who were infected either through a drug-injecting mother or through a mother who was the sexual partner of an IDU is 1,195. This represents 68 percent of the total cumulative pediatric cases (n=1,748) in the five boroughs.

In terms of demographics, among the cumulative AIDS cases attributable to injection drug use in men, 45 percent are Black, 40 percent are Hispanic, and 15 percent are White. Among the cumulative AIDS cases associated with injection drug use in women, 51 percent are Black, 35 percent are Hispanic, and 13 percent are White.

The following chart provides a snapshot of New Yorkers who have recently developed AIDS in which injection drug use was their HIV risk factor.

New AIDS Cases in New York City Among IDUs⁷

	1995	1995	1996*	1996*	
	Male	Female	Male	Female	All
White	414	172	206	83	875
Black	1,369	661	780	367	3,177
Hispanic	1,269	404	690	202	2,565
Other	9	1	5	3	18
All IDU	3,061	1,238	1,681	655	6,635
Total AIDS Cases	7,018	2,557	3,382	1,298	14,255
All IDU as % of Total AIDS Cases	44%	48%	50%	50%	47%
* 1996 statistics are not yet completely reported and collected.					

IV. EFFECTIVENESS OF NEEDLE EXCHANGE PROGRAMS

Prevalence of NEPs in the United States and the World

There are over 100 legal NEPs that operate throughout the United States.⁸ These programs exist in 71 cities throughout 29 states,⁹ and offer a variety of services including

⁷ These statistics were prepared by Renee Quintyne at the New York City Department of Health Office of AIDS Surveillance. These statistics reflect only those Persons Living With AIDS (PWAs) who were infected through their own injection drug use. There are thousands more PWAs who became infected through sex with IDUs.

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entitlements counseling and referrals, instruction on condom/dental dam use, STD prevention education and testing, instruction on safer injection techniques, HIV counseling and testing, primary care and TB skin testing.¹⁰ Beyond the United States, there are thousands of NEPs in operation throughout the world. Great Britain, Holland, Switzerland, and Australia have some of the most effective and comprehensive programs. In Australia, for example, there are over 2,000 NEPs.¹¹ These programs are administered by public health officials and non-governmental organizations (NGOs) and are supported with public and private funding.

Reducing the Spread of HIV

Over the past ten years, throughout the United States and the world, there has been an enormous amount of research into the effectiveness of needle exchange in reducing the spread of HIV among IDUs, their sexual partners, and their children. Starting in 1991, the U.S. government has commissioned and funded six major studies of NEPs. Each of these studies has concluded that NEPs reduce the spread of HIV.¹² Furthermore, groups such as the Presidential Advisory Council on HIV and AIDS,¹³ the American Medical Association, and the New York Academy of Medicine have all publicly endorsed NEPs as an effective intervention in reducing the spread of HIV.¹⁴

It is difficult to quantify the precise percentage reduction in new HIV infections within a given IDU population that can be correlated to NEP services. There are three significant difficulties to creating this type of model. First, HIV status is not uniformly known (let alone formally reported) in many States; second, even though it is possible to assess changes in HIV prevalence rates in studies of IDUs in methadone programs, STD clinics, or by testing the blood in returned syringes, the data is likely to be inexact for reasons related to sampling errors; and third, IDUs are not a population that can be easily or accurately "tracked" over time due to the lack of stability in their lives and the consequent impediments to engaging in longitudinal studies regarding their HIV status.

⁸ Update: Syringe Exchange Programs in the United States, 1996. Paone, Des Jarlais, Clark, Shi. Beth Israel Chemical Dependency Institute. In this recent study, 101 NEPs were surveyed with an 86 percent return rate (n=87).

⁹ Ibid.

¹⁰ Ibid.

¹¹ Statistic provided by Allan Clear, Director of the Harm Reduction Coalition. In conversation, 5/5/97.

¹² The six reports are: National Commission on AIDS (NCOA) 1991; General Accounting Office (GAO) 1993; University of California at San Francisco (UCSF) 1993; Center for Disease Control and Prevention (CDC) 1993; National Academy of Sciences (NAS) 1995; Office of Technology Assessment (OTA) 1995.

¹³ Ronald Johnson is a member of the Presidential Advisory Council.

¹⁴ See Appendix II for a complete list of organizations which have endorsed NEPs as an effective tool in reducing the spread of HIV.

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Despite these obstacles, the findings of the six U.S. government-funded studies uniformly underscore the causal relationship between the use of NEPs by injection drug users and reduced HIV transmission rates. Additionally, there are three nationally-renowned experts on needle exchange and AIDS epidemiology who have derived scientifically-sound models for examining the impact of needle exchange on HIV transmission rates. While their findings all support the success of NEPs in reducing the spread of HIV, they posit differences in the rate of reduction. The reason for these differences results more from the varying quantitative estimates that each researcher makes about the IDU population than any other factor. It is also important to note that both Don Des Jarlais, Ph.D and Ernest Drucker, Ph.D stress they are using extremely conservative numbers in their studies. The findings of these researchers are described in the next section of this report.

1) Dr. Don Des Jarlais from the Beth Israel Hospital Chemical Dependency Institute estimates that in New York City, 5 percent of all IDUs who are HIV-negative who *do not* participate in NEPs become infected with HIV every year. However, only 1.5 percent of all IDUs who are HIV negative who *do* participate in NEPs become infected with HIV.¹⁵ In other words, Des Jarlais believes that if NEPs did not exist in New York City, 5,000 IDUs would be infected with HIV per year.¹⁶ With the current capability of NEPs to reach IDUs, he estimates that 3,000 new infections occur per year.¹⁷ Finally, if the total demand by IDUs for NEPs were to be met, Des Jarlais believes the number of new infections would be reduced to approximately 1,000 per year.¹⁸

"Des Jarlais Infection Reduction Model"

HIV Infection Rate Without Participation in NEP	HIV Infection Rate with Participation in NEP	# IDUs in NYC	% of IDUs who Participate in NEPs
5% (5 per 100 IDUs)	1.5% (1.5 per 100 IDUs)	190-240,000	20-25%

2) Dr. Ernest Drucker from Montefiore Hospital and Dr. Peter Lurie from the Center for AIDS Prevention Studies at the University of California at San Francisco have just completed a comprehensive cost-benefit analysis of needle exchange. They focused their study on the number of HIV infections that might have been prevented nationwide if a

¹⁵ New York Syringe Exchange Four Years Later: Key Findings, Future Directions. Denise Paone, Don Des Jarlais, Qiuhiu Shi, Jessica Clark. Beth Israel Medical Center. 1996.

¹⁶ Statistic provided by Dr. Don Des Jarlais. In conversation. 5/1/97.

¹⁷ Ibid. Also see Footnote #5.

¹⁸ These "final" 1,000 infections may still occur because IDUs may not always use clean needles and HIV transmission through sexual contact will still occur. Also, this 1,000 new infections number assumes that there has been no decriminalization of the New York State paraphernalia law.

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more comprehensive needle exchange policy were in place.¹⁹ In terms of New York City, they believe that if 15 percent of the IDU population were to have participated in NEPs from 1987-1995, 1,049 infections would not have occurred. This would have resulted in health care savings of \$58,366,360.²⁰ In the same time period, if 33 percent of IDUs were to have participated in NEPs, 2,308 infections could have been prevented at a savings of \$128,417,120.²¹ For the years from 1996-2000, Drucker and Lurie estimate that if 15 percent of the IDU population in New York City were to participate in NEPs, 1,184 new infections would be prevented at a health care savings of \$65,877,760.²² If 33 percent of the IDU population were to participate, they project that 2,605 new infections would be prevented at a health care savings of \$144,942,200.²³ (Costs associated with the provision of New York City NEP services are provided on Page 17.)

"Drucker and Lurie Infection Prevention Model"

	# Preventable HIV Infections 1987-1995	# Preventable HIV Infections 1996-2000	Health Care Savings Lost 1987-1995	Health Care Savings Lost 1996-2000
15% IDU Participation	1,049	1,184	\$58,366,360	\$65,877,760
33% IDU Participation	2,308	2,605	\$128,417,120	\$144,942,200

3) Dr. Edward Kaplan from the Yale School of Management conducted what is viewed as the definitive longitudinal study regarding the effectiveness of the NEP in New Haven, Connecticut. With data collected throughout the early 1990's, Dr. Kaplan concluded that the New Haven NEP reduced the incidence rate of HIV infection by 33 percent among IDUs who participated in the NEP, in comparison to IDUs who did not participate in the NEP.²⁴ The methodology of the study, known as "Circulation Theory",²⁵ was based on testing returned needles for HIV infection and, over time, assessing if a reduction in

¹⁹ An Opportunity Lost: HIV Infections Associated with Lack of a National Needle-Exchange Programme in the USA. *The Lancet*. Vol 349. March 1, 1997. Dr. Ernest Drucker and Dr. Peter Lurie.

²⁰ *Ibid*. Roughly 25 percent of these health care costs would be born by New York City.

²¹ *Ibid*.

²² *Ibid*.

²³ *Ibid*.

²⁴ Probability Models of Needle Exchange. Edward H. Kaplan, Ph.D. *Operations Research* Vol. 43, No. 4, July-August 1995. Page 566.

²⁵ Circulation Theory is based on the premise that the longer a needle remains in circulation (i.e. has the opportunity to be shared among IDUs), the greater the chance the needle becomes infected with HIV and the greater the number of IDUs who might become infected by the needle. Therefore, the faster the needle is exchanged, the less likely it is to infect another IDU(s). Economic Analysis of Needle Exchange. Edward H. Kaplan, Ph.D. Yale School of Management and Yale School of Medicine. New Haven, CT. June 1995.

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infected needles occurred. The study assumes that IDUs who participate in a NEP will alter neither the frequency nor the sharing practices in which they inject drugs, regardless of their access to clean needles. If we extrapolate Kaplan's findings to New York City (using the Des Jarlais premise that 5 percent of all HIV negative IDUs who do not participate in NEPs become infected with HIV on an annual basis), 1,848 annual new infections could be prevented per year if all IDUs were to participate in NEPs.

"Kaplan Infection Reduction Model"²⁶

	Total	HIV+	HIV-	New Infections
IDUs in NEPs	40,000	12,000	28,000	420
IDUs not in NEPs	160,000	48,000	112,000	5,600

Kaplan would argue that if the current 160,000 IDUs who do not participate in NEPs were to participate in NEPs, then the current 5,600 new infections would be reduced by 33 percent (i.e. 1,848 fewer new infections).

V. NEEDLE EXCHANGE IN NEW YORK CITY

First Pilot Program

From October 1988 until February 1990, the New York City Department of Health was authorized by the Koch Administration to run a pilot NEP.²⁷ It was located at 125 Worth Street, the Health Department headquarters. This was the first legal NEP operating in the United States. The NEP was solely funded with \$200,000 in City tax levy dollars. Over its fifteen month existence, more than 250 clients were served. Mayor Dinkins closed the pilot program, and the City has never again funded NEPs with City tax levy funds.

Oversight and Regulation of Current NEPs

The first privately-run, State-authorized needle exchange was started on the Lower East Side of Manhattan in July 1992. Now, there are nine sanctioned needle exchange

²⁶ The "Kaplan Infection Model" extrapolates the following statistics: there are 200,000 IDUs in New York City, 30 percent of whom are HIV positive. The new infection rates are based on the Des Jarlais estimates for HIV negative IDUs who participate in NEPs (1.5 per 100) and HIV negative IDUs who do not participate in NEPs (5 per 100).

²⁷ The background for the New York City Pilot NEP was given by Charles Eaton of the New York City Department of Health. Mr. Eaton ran the Pilot NEP for the entirety of its existence. In conversation, 5/29/97. See also Pilot Needle Exchange Study in New York City: A Bridge to Treatment. New York City Department of Health. December 1989.

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programs (NEPs) operating in New York City with a possible tenth program to begin service delivery on Staten Island.²⁸ In addition to the New York City exchanges, there are three other NEPs in the State, which are located in Buffalo, Rochester, and Mt. Vernon. The twelve NEPs have all received waivers from the New York State Department of Health (NYS DOH) regarding the New York State paraphernalia law which normally prohibits an individual from possessing a hypodermic needle without a doctor's prescription documenting its "legitimate medical use."²⁹

To obtain a waiver, all existing and potential NEPs must go through a lengthy application process with the NYS DOH. The NEP must prove there is a clear need for the proposed services in a given community in addition to gaining community support. The NEP then submits an application to the NYS DOH which is reviewed, and, if found to meet the regulations, is submitted to the NYS Commissioner of Health. Once approved to operate, the waiver to the paraphernalia law allows the staff, volunteers, and clients of the NEP to handle and possess the needles. The NEP is authorized to issue an identity card to each client which allows that individual to possess a needle(s) for non-medical use.

Models of NEPs in New York City

The New York City NEPs use a variety of models and strategies in delivering their services. Along with the needle, all nine New York City NEPs provide bleach, water, cookers, cotton, alcohol wipes and condoms. A person can exchange up to ten needles per visit. For instance, the Lower East Side Needle Exchange operates a storefront in the East Village, sends out mobile needle exchange teams throughout the Lower East Side, and has established a satellite site in a nearby community. The Manhattan Plaza Foundation targets its services to transgender clients. The Foundation for Research into Sexually Transmitted Diseases (FROST'D) sends needle exchange teams into high drug use areas throughout the City. The Citiwide Harm Reduction Program sends its needle exchange staff and volunteers to single room occupancy hotels (SROs). Housing Works operates an exchange solely for Housing Works clients.

²⁸ Information provided by Alma Candelas. The Staten Island AIDS Task Force is currently in the process of evaluating the need for a NEP on Staten Island, as well as seeking community support. To date, there has not been a formal application to operate a NEP submitted to the AIDS Institute/New York State Department of Health. In conversation. 5/5/97.

²⁹ Information provided by Allan Clear. The two New York State statutes that comprise what is commonly referred to as the "Paraphernalia law" are: Section 220.45 of the New York State Penal Law and Title 10 section 80.135 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.

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Unmet Need

It is estimated that there are 200-250,000 IDUs³⁰ in New York State. (Injection drug use statistics are available only on a State-wide basis, but it is believed that New York City accounts for 90-95 percent of every total.)³¹ Collectively, the twelve NEPs across the State have registered 48,821 clients.³² Therefore, it would be fair to say that only 20-25 percent of all IDUs participate in NEPs.

The way in which clients utilize NEP services also indicates an unmet need, and patterns of participation must be more closely examined. In particular, the number of needles exchanged in a given month by a client is critical. It is estimated that among active IDUs, only 3.2 needles per IDU per month are distributed and exchanged.³³ As noted earlier in Kaplan's "Circulation Theory", the rate of reduction in HIV transmissions is correlated to the frequency with which needles are exchanged. An increase in the number of exchanges would likely result in a reduced incentive for IDUs to share because more clean needles would be in circulation. However, even if IDUs were to share needles, the frequency with which a potentially HIV-infected needle is removed from circulation and a clean needle is introduced back into circulation determines the risk of HIV transmission. Additionally, NEP clients would be well served by the intensified contact with NEP staff and volunteers.

Barriers to Service Provision

One of the essential barriers to making clean needles more readily available to IDUs in New York City is the scarcity of funding for NEPs. Currently, NEPs are supported by \$2,501,581 from New York State,³⁴ and \$1,527,858 in federal funds,³⁵ and whatever private and foundation dollars that can be amassed. Private fund raising remains difficult. Because of these budgetary constraints, existing NEPs are hard-pressed to meet their local demand and are also unable to maintain operations for as many hours per day and night as they perceive are needed.

³⁰ Interim HIV/AIDS Strategic Plan for the City of New York, Volume II, Analysis of Key Service Areas, Health Systems Agency of New York City, Inc. January 1995. From a memorandum written by Sue Simon. It should be noted that though there are 200-250,000 IDUs in New York State, at any given time, there may be only 75-100,000 IDUs who are actively injecting drugs.

³¹ Alma Candelas states that 90-95 percent of all injection drug use activity occurs in New York City.

³² AIDS Institute at the New York State Department of Health. As of December, 1996.

³³ New York Syringe Exchange Four Years Later: Key Findings, Future Directions. Denise Paone, Don Des Jarlais, Qiuhu Shi, Jessica Clark. Beth Israel Medical Center. 1996.

³⁴ Information on the State funding, administered by the AIDS Institute, was provided by Alma Candelas. In conversation. 6/2/97.

³⁵ Information on the Federal funding, administered in part by the AIDS Institute and in part by the New York City Department of Health, was provided by Alma Candelas and Charles Eaton respectively. In conversations. 6/2/97 and 5/29/97.

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Additionally, there are a number of communities in which significant drug activity occurs but which are not directly served by any of the existing exchanges. A recent study underscores the importance of a NEP operating within ten minutes walking distance of where an addict lives and shoots up. It has been shown that IDUs are significantly less likely to use an exchange that is inconveniently located.³⁶ Other barriers to access include the fear of stigmatization that substance users experience in regard to acknowledging their drug use, fear of police harassment, community opposition, and the lack of knowledge about the existence of NEPs and the important services they can provide.

VI. GOVERNMENT FUNDING AND PUBLIC POLICY RESPONSES

Overview

In the United States there has never been a comprehensive, national needle exchange policy.³⁷ Different states and municipalities have chosen to respond to the growth in HIV infection among IDUs with various intervention and prevention methods. These methods may or may not include the use of NEPs. There have also been varying degrees of public funding made available to the NEPs in different locations.

Federal

In 1988, a federal ban was instituted by the Department of Labor and Health and Human Services (Labor/HHS) prohibiting the use of federal funding for the purchase or exchange of needles in NEPs.³⁸ Both the President and the Surgeon General have the authority to lift the ban. Over the years, a variety of health care and advocacy groups have lobbied the government to reverse this policy. One of the current efforts is being spearheaded by the Presidential Advisory Council on HIV and AIDS.³⁹ They have issued a

³⁶ Ibid.

³⁷ Although there is no national needle exchange policy, there is close to a "national" policy in terms of paraphernalia laws restricting the purchase of needles at pharmacies. 47 states have paraphernalia laws restricting to some degree the sale of needles for non-medical purposes through pharmacies. Of note is Connecticut which in 1992 passed a law that allows a person over eighteen years of age to purchase up to ten needles at a time from a pharmacy without a prescription from a doctor. Prevention of HIV/AIDS and Other Blood-Borne Diseases Among Injection Drug Users. Lawrence O. Gostin, JD; Zita Lazzarini JD, MPH; T. Stephens Jones, MD, MPH; Kathleen Flaherty, JD. *Journal of the American Medical Association*. January 1, 1997. Vol 277, No. 1.

³⁸ There are actually three separate bans on the use of federal funds for the purchase or exchange of needles at NEPs. The Labor/HHS ban is the ban to which discussions about "lifting the federal ban on needle exchange" usually refer. The other two bans are encompassed in regulations of the Ryan White Care Act (reauthorized in 1996) and the Substance Abuse and Mental Health Services Administration. Federal Prohibitions (summary) provided by the American Foundation for AIDS Research.

³⁹ Ronald Johnson is a member of the Presidential Advisory Council.

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report that strongly urges the Secretary of Health and Human Services, Donna Shalala, to make a recommendation to the President to lift the ban.

Federal funds from Title I of the Ryan White CARE Act (initiated in 1991) *can* be used to fund the supportive and ancillary services of NEPs, such as their harm reduction and recovery readiness components. Starting in 1994, the New York State AIDS Institute has awarded contracts totaling \$448,127 per year in Title I funds to four NEPs in New York City through a competitive request for proposals (RFP) process.⁴⁰ The Title I funds are used by the NEPs to provide substance users with the means to reduce their drug use and to facilitate their access to health care.

Beginning in 1993, the other federal funding source for NEPs is the Centers for Disease Control and Prevention (CDC). In total, \$1,079,731 in CDC HIV prevention funds can be anticipated for the support of New York City NEPs in the current year. These CDC funds are administered partly by the AIDS Institute of the New York State Department of Health (NYS DOH) and partly by the New York City Department of Health (NYC DOH) through their individual cooperative agreements with the CDC. These funds are used for the provision of services such as outreach, HIV prevention and education, peer education and training, and referrals.

During 1996-97, the AIDS Institute will distribute \$551,731 of the CDC funds to five New York City NEPs through a "single source" funding process.⁴¹ During 1996-97, NYC DOH will administer \$528,000 in CDC contracts to NEPs in New York City.⁴² The \$528,000 in funding includes a \$75,000 capacity-building grant to one NEP;⁴³ grants of \$150,000 to three NEPs for HIV prevention, education, and outreach; and a fifth grant of \$3,000 to one NEP to provide counseling to IDUs on nutritious meal preparation.⁴⁴

A situation relevant to New York City NEP financing is currently unfolding. Congress has allocated *supplemental* funds to the CDC's expected level of HIV

⁴⁰ Information provided by Alma Candelas. In conversation. 6/2/97.

⁴¹ Ibid.

⁴² Information provided by Charles Eaton. In conversation. 5/29/97.

⁴³ Ibid. The \$75,000 grant was not part of an ongoing funding process but rather the extraordinary use of CDC HIV Prevention dollars by the NYC DOH to help one NEP strengthen its administrative infrastructure.

⁴⁴ Ibid. Due to a slow, competitive RFP process administered by the NYC DOH for the CDC HIV prevention funding, the three grants of \$150,000 and the one grant of \$3,000 began only in January 1997.

⁴⁵ These five contracts awarded by the NYC DOH represent the first time that NEPs were allowed by the NYC DOH to submit applications for the competitive RFP administered by the NYC DOH with its share of CDC HIV prevention funding.

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prevention funding.⁴⁶ These additional funds will be distributed to both New York City and to New York State. The formula for distribution is based upon the incidence of AIDS cases; consequently, New York City will receive more supplemental money than the State.⁴⁷

The Executive Committee of the Prevention Planning Group (the leadership component of the 45-member community-based advisory group which is appointed and overseen by the NYC DOH) has the legal authority to advise upon the use of CDC HIV prevention funds. They have recently recommended that NYC DOH allocate \$375,000 of its supplemental CDC funds to the NYS DOH to enhance the State-funded harm reduction initiative. Although it is likely that the \$375,000 will be made available, the final sign-offs from the NYC DOH, NYS DOH, and CDC are not yet in place.

The intention of this intergovernmental shift in funds is to provide New York City's NEPs with the opportunity to receive enhanced contracts that would enable them to strengthen the supportive services which they provide to clients, as well as to better develop the general administration and infrastructure of their programs. Because this is supplemental funding, NEPs in New York City can not expect these dollars on a yearly basis. Again, due to the ban on the use of federal funds, this money can not be used for the direct purchase or distribution of needles.

New York State

The State currently provides the twelve NEPs that have received NYS DOH waivers from the paraphernalia law with \$1.5 million⁴⁸ to run their programs. Administered by the AIDS Institute, the State began directly funding the exchange of needles at NEPs with \$500,000 in State dollars in 1993. In 1994, the amount increased to \$1 million. From 1995 to the present, the amount of direct State funding has remained constant at \$1.5 million. During 1996-1997, the nine NEPs in New York City collectively received \$1,101,581 of the \$1.5 million.

The State also has an annual contract with the American Foundation for AIDS Research (AmFAR) under which AmFAR (with State dollars) buys the needles, warehouses them, and then distributes them to the NEPs per their individual levels of demand. During 1996-1997, the nine NEPs in New York City should receive (in terms of needles and supplies) approximately \$1.4 million of the \$1.6 million in AmFAR funding.

⁴⁶ The background to the potential use of the supplemental CDC HIV prevention funding was provided by Charles Eaton. In conversation. 6/2/97.

⁴⁷ New York State includes all localities except for New York City.

⁴⁸ The background to the State funding sources was provided by Alma Candelas. Included in the \$1.5 million are \$125,000 for the evaluation of the twelve NEPs. In conversation. 6/2/97.

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A current issue of significance to those interested in needle exchange is the debate around New York State Assembly Bill 1424. This bill seeks to decriminalize the possession of needles across the State.⁴⁹ Under this legislation, pharmacies would be able to sell needles to persons over 18 years of age without a prescription from a doctor. The bill has already passed out of both the Assembly Health Committee (chaired by Richard Gottfried, D-Manhattan, the sponsor of the bill) and the Codes Ways and Means Committee. Political analysts believe the bill is likely to be passed because of strong support from the Democratic Assembly. Governor Pataki has also said that given the opportunity, he would sign the bill into law. In the event of unexpected opposition, politicians may seek to "tie" this bill to the broader budget bill to ensure its passage.

Many needle exchange experts and health officials believe that the reversal of the paraphernalia law would significantly help reduce the spread of HIV among IDUs, their sexual partners, and their children. In effect, IDUs would have the ability to access clean needles twenty-four hours per day, from a multitude of flexible pick-up sites. NEPs and pharmacy-based sites would complement each other in providing increased access to clean needles.

New York City

In New York City, there has been a five year tradition of needle exchange practice, but there has never been an official City "policy" in regard to NEPs (unless acceptance of the State's waiver to the paraphernalia law is interpreted as policy). Since the closure of the 1990 pilot program, the City has never supported the NEPs with tax levy dollars, although there is no law or regulation that prohibits the City from using these funds.

Other Cities (Chicago, Los Angeles, Philadelphia, San Francisco)

In Chicago,⁵⁰ there is currently a single NEP which provides services in fifteen different sites. This NEP has cumulatively served 13,000 out of Chicago's estimated IDU population of 60,000. The NEP began operations in May 1992 with a grant from AmFAR, and in November 1992, Mayor Richard Daley (D) funded the NEP with City tax levy dollars. The NEP receives \$260,200 annually from the City of Chicago. All but \$40,000 of these funds can be used for the direct purchase and distribution of needles. The State and County support the NEP with an additional \$30,000 and \$38,000 respectively. These funds can be used solely for the administrative activities of the NEP.

⁴⁹ There is a similar bill in the New York State Senate, S4347. There is growing bi-partisan support for both the Assembly and the Senate bills.

⁵⁰ The background regarding NEPs in Chicago was provided by Dan Bigg, Director of the Chicago Recovery Alliance. In conversation. 5/21/97.

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Through research conducted at the Chicago NEP, the HIV seroprevalence rate among IDUs who use the NEP was found to be 16 percent--substantially lower than the rate among IDUs in New York City. The Director of the Chicago NEP stressed the importance of maintaining a good working relationship between the NEP, the Department of Health, and the Mayor. He also noted that the State of Illinois has a paraphernalia law which closely resembles the paraphernalia law in New York. Similarly, there is pending State legislation which would decriminalize the sale and possession of needles.

In the City of Los Angeles,⁵¹ there are three NEPs which operate in the San Fernando Valley, Hollywood, and South Central Los Angeles. Annually, they serve 10,000 out of the estimated 150,000 IDU population. NEPs were first mentioned during the mayoral election of 1992 when (then) candidate Richard Riordan (R) issued a promise to implement NEPs in Los Angeles. In 1994, working closely with public health officials, Mayor Riordan declared a health "state of emergency" under which the initial NEP was started. The state of emergency was enacted out of the fear that the HIV seroprevalence rate among Los Angeles' IDU population would, without public health intervention, equal or surpass that of New York City. The state of emergency is still in effect, and every two weeks the policy declaration must be reauthorized by the Los Angeles City Council for the NEPs to continue to operate.

The City of Los Angeles funds the administrative work of the NEPs with \$125,000 in City tax levy dollars. Neither the State of California nor the County of Los Angeles provide funding for the NEPs. The NEPs rely on support from various private sources including AmFAR, and such celebrities as Magic Johnson, Elton John, and the Red Hot Chili Peppers who have helped fund the purchase and distribution of needles.

A major success of the Los Angeles NEPs is evidenced by a survey conducted among IDUs in Los Angeles jails. It shows an 8 to 12 percent decrease in the sharing of needles in the past three years. The HIV seroprevalence rate among IDUs in Los Angeles is estimated at 20 percent, which is substantially lower than the rate among IDUs in New York City. The State of California has a paraphernalia law similar to the one which exists in New York.

In Philadelphia,⁵² there are 2,852 cumulative AIDS cases among IDUs which accounts for 33 percent of all AIDS cases there. From 1994 to 1996, 43 percent of the new AIDS cases were diagnosed among IDUs. There is one NEP which serves the IDU population of Philadelphia and it receives limited public funding. A recent survey conducted at a drug treatment facility showed that one-third of the respondents were

⁵¹ The background regarding NEPs in Los Angeles was provided by Ferd Eggan, AIDS Coordinator, City of Los Angeles. In conversations. 5/9/97 and 5/21/97.

⁵² The background regarding NEPs in Philadelphia was provided by Michael Maurer, Ph.D, Co-Chairperson of the Philadelphia EMA HIV Commission. In conversation and documents. 5/21/97.

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unaware that the NEP existed, while two-thirds of the respondents stated that they had shared needles.

In San Francisco,⁵³ there are an estimated 16,000 IDUs. Currently, there is one sanctioned NEP which serves clients at twelve separate sites throughout the City. From 1988-1993, however, services were provided through an illegal NEP. The City of San Francisco recognized the public health necessity of its existence, and more or less turned a blind eye to its operations with only sporadic police interventions over the years. Because of growing community support for the NEP and strong public health data that reflected the efficacy of needle exchange, then Mayor Frank Jordan (R) declared a health state of emergency in 1993 (similar to the one in Los Angeles), which has enabled the NEP to operate legally under bi-monthly reauthorization.

The City of San Francisco supports the NEP with \$334,000 in annual City tax levy funds which are used to purchase and distribute needles, as well as to cover the general administrative needs of the NEP. Similar to many other NEPs, there is also a strong reliance on volunteers and private fundraising. The San Francisco Department of Health continues to supply the NEP with bleach, cotton balls, alcohol wipes and condoms. NEP statistics in San Francisco are gathered by the number of client contacts, so it is impossible to ascertain the number of individual clients being served. (In 1996, there were 50,000 client contacts.) The HIV seroprevalence rate among IDUs in San Francisco is lower than the rate among IDUs in New York City.

VII. FINANCIAL ANALYSIS

Cost-Effectiveness of NEPs

The annual average budget of a NEP in New York State is \$166,654.⁵⁴ The estimated average medical costs incurred for each Medicaid-eligible person who is infected with HIV from the time of first illness until death is \$109,000.⁵⁵ In other words, if a NEP prevents just two persons per year from becoming infected, the NEP is cost effective.

⁵³ The background regarding NEPs in San Francisco was provided by Delia Garcia, Needle Exchange Program Manager for the City of San Francisco Department of Health. In conversations, 5/20/97 and 5/21/97.

⁵⁴ Statistic provided by Alma Candelas.

⁵⁵ Statistics provided by Vince Marrone from the Drug Policy Foundation. These statistics were compiled from AIDS in New York State 1994: NYS Department of Health. Editorial note: in light of the recent advances in and costs of new treatments, the figure of \$109,000 must be considered very conservative. Real, current costs could be twice or three times as high.

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NEPs Are Linked to Reduced Health Care Costs

Fifty percent of all people with AIDS in New York City—approximately 15,000 individuals—are on Medicaid and thousands more participate in the New York State AIDS Drug Assistance Program (ADAP) and/or the ADAP Plus Program. These programs provide a supplement or complete deferment of the costs of medication and primary care. In terms of the AIDS-related health care costs incurred by PWAs on Medicaid, New York City will cover as much as 25 percent of the Medicaid bill.⁵⁶ No analysis exists regarding the costs of providing health care to the thousands of New Yorkers who are HIV-positive, since statistics are reported for AIDS cases, only.

If the current rate of new AIDS cases related to injection drug use were decreased throughout New York State by 20 percent (1,200 fewer cases), the State and municipalities would save over \$50,000,000 on Medicaid annually.⁵⁷ If the rate of new AIDS cases were reduced by 50 percent (3,000 fewer cases), the annual health care savings would be \$122,625,000. Additional savings would result from reduced disability claims and retained job productivity. This equation does not take into consideration the cost savings from the reduced demand for other supportive services and mental health care by PWAs. It also does not account for the potential costs saved in relation to the reduced demand for services from the care partners and family members of PWAs. But most importantly, it is impossible to put a price tag on all of the human costs and loss of life associated with HIV/AIDS.

Existing Funding Sources

As previously mentioned, there is a federal ban on the use of federal funds for the actual purchase or exchange of needles. The AIDS Institute oversees \$448,127 in federal Title I funds for harm reduction and recovery readiness services for New York City NEPs. The CDC contributes an additional \$1,079,731 to support similar initiatives. The State currently supports NYC NEPs with an allocation of \$1,101,581, in addition to the \$1.4 million which is administered through AmFAR. New York City currently provides no direct financial support for the NEPs. Scarce private contributions from individuals and foundations are a source of funding upon which the NEPs rely, as well as volunteer labor and the donation of other goods and services.

⁵⁶ Information provided by John Englert, New York City Office of Management and Budget, Medicaid Department. For hospital care, clinic care, and medicines, New York City pays 25 percent, New York State pays 25 percent, and the Federal government pays 50 percent. For some other health care services, New York City pays 10 percent and New York State pays 40 percent. In conversation, 4/28/97.

⁵⁷ Statistics provided by Vince Marrone from the Drug Policy Foundation. These statistics were compiled from AIDS in New York State 1994: NYS Department of Health.

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Use of Additional Funding

The following formula,⁵⁸ with the resulting health care savings,⁵⁹ is one estimate of how providing additional funding to NEPs would reduce the number of annual HIV infections in New York City among the IDU population. These numbers represent the best efforts of needle exchange experts to estimate reductions in the rate of HIV transmission and the commensurate health care savings. Additionally, if increased funds were to be made available to the nine NEPs that currently operate in New York City, the marginal costs of exchanging additional needles would fall as the NEPs expanded their activities due to economies of scale.⁶⁰ This means that the NEPs could facilitate more exchanges at a reduced average cost.

**Reductions in HIV Infections and Health Care Costs
with Additional Funding for NEPs**

Current Annual New Infections among IDUs in NYC	Additional Funding for NEPs	New Annual Infections in NYC (with Additional Funding)	NYC Health Savings (\$)
3,000	\$2,500,000 - 3,000,000	1,000	\$54,500,000

VIII. CHALLENGES TO NEEDLE EXCHANGE PROGRAMS

Overview

For NEPs to attain maximum effectiveness, there are a variety of challenges that must be met which go beyond the level of available funding. These challenges are both internal to the exchanges themselves and from the broader communities in which they operate.

Community Response

The community response to the operation of a NEP within its borders has been mixed, as with any siting decision in New York City that involves the poor, the disadvantaged, drug users and/or people with HIV/AIDS. For example, Community Board 3 has voiced objections to the Lower East Side Needle Exchange Program because they believe that their neighborhood already supports its share of health and human service

⁵⁸ This formula was provided by Dr. Don Des Jarlais. In conversation. 4/30/97.

⁵⁹ The Annual Health Care Savings to NYC are based on the average cost of \$109,000 per Medicaid patient with HIV/AIDS as cited in AIDS in New York State 1994; NYS Department of Health.

⁶⁰ Particularly, if the supplemental CDC prevention dollars have already strengthened the infrastructure of the NEPs.

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programs. Seemingly, there is a belief among some community residents that NEPs attract an influx of IDUs from outside of the neighborhood, a theory which has not been supported by service utilization patterns. Proponents of needle exchange stress the need to continually educate and work with the surrounding community regarding the activities of the local NEPs.⁶¹ NEP staff and volunteers have undertaken a variety of efforts to improve communication and to enhance community trust.

Fear of Discarded Needles

Another concern which has been raised is that NEPs will greatly increase the number of needles in circulation, thereby creating a heightened public health risk for exposure through accidental needle sticks. This has not proven to be the case. Within the structure of NEPs, needles have gained a value that compel IDUs to hold onto their used syringes until they have the opportunity to visit the exchange. This value accounts for the 87 percent return rate.⁶² The Department of Sanitation has not noticed any increase in the number of needles which they encounter on their routes since the NEPs have been in operation.⁶³ Similarly, the Parks Department has not reported any significant increase in the number of needles being discarded in public areas.⁶⁴

An interesting tactic for collecting used needles has been initiated in Baltimore by the City Health Commissioner, Peter Beilenson. Four specially-painted mail boxes have been set up in areas (with community approval and input) where there is high drug use. IDUs deposit their used needles into the boxes which are then emptied twice a month by the Department of Health. In the seven months since the boxes were erected, over 4,000 needles (12 percent of which were infected with HIV) have been collected. The boxes are far enough away from local NEPs that individuals who deposit their needles are probably not clients of the NEPs and may have otherwise discarded their used needles in the garbage or on the street.

Police Education

Though efforts have been made by the AIDS Institute and members of the needle exchange community to provide ongoing education to the New York City Police Department about the legal rights of NEPs and their clients to possess needles, there are still incidents of police harassment. This harassment appears to be sporadic rather than systemic in nature.⁶⁵

⁶¹ Ibid. As well as in conversation with Alma Candelas.

⁶² New York Syringe Exchange Four Years Later: Key Findings, Future Directions. Denise Paone, Don Des Jarlais, Qiuhu Shi, Jessica Clark. Beth Israel Medical Center. 1996.

⁶³ New York City Department of Sanitation. In conversation. 4/25/97.

⁶⁴ New York City Parks Department. In conversation. 5/5/97.

⁶⁵ Information provided by Alma Candelas and Allan Clear. In conversations. 5/19/97 and 3/17/97.

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Fear of Increase in Substance Use Among IDUs

One of the concerns that people often raise regarding NEPs is their impact on the incidence of drug use. The six major US government-funded studies on needle exchange have all concluded that NEPs do not increase drug use.⁶⁶ Conversely, NEPs do provide an important linkage to drug treatment programs. Although the demand for drug treatment services (e.g., residential, outpatient, methadone maintenance) far exceeds the number of available treatment slots, NEPs have developed trusting relationships with their clients over time that enable them to make a number of successful referrals.⁶⁷ The fact that NEPs offer valuable assistance to their clients seeking treatment is evidence that NEPs are much more than just a place to obtain a clean needle. NEPs help their clients move along the continuum of harm reduction according to the readiness of each individual to incorporate varying levels of reduced risk and behavioral change into his/her life.

Lockable Needles

A current issue of concern among needle exchange advocates is the introduction of lockable needles. There are six different "models" of lockable needles which are now in circulation. The intent of the lockable needle was that an individual would only inject once with the lockable needle and then throw it away. However, the result is that IDUs simply become frustrated with the lockable needles and may resort to increased sharing behaviors. Currently, NEPs in New York City do not distribute lockable needles. However, there is the fear that future State regulations may mandate their use at NEPs.

Perceived "Politics" of Needle Exchange

Historically, needle exchange has been seen as a politically divisive issue. There have been constituents and community groups that have both endorsed and opposed the existence of NEPs, and there are "costs" associated with either position. In discussing the "politics" of needle exchange, it is necessary to consider the difference between perception and reality. Essentially, the feared political "fall-out" regarding needle exchange is much worse than what has ever actually occurred. A health official from New Haven, Connecticut⁶⁸ and the Mayor of Mt. Vernon, NY⁶⁹ both emphasized strongly that NEPs are a political non-issue. New York State has funded needle exchange since 1992, and NEPs have operated successfully in New York City since July of that year. Thus, any changes that are made in City policy regarding NEPs are unlikely to cause significant or

⁶⁶ The six reports are: National Commission on AIDS (NCOA) 1991; General Accounting Office (GAO) 1993; University of California at San Francisco (UCSF) 1993; Center for Disease Control and Prevention (CDC) 1993; National Academy of Sciences (NAS) 1995; Office of Technology Assessment (OTA) 1995.

⁶⁷ Information provided by Allan Clear and Drew Kramer, Director of the Harm Reduction Care Network of New York. In conversations, 3/17/97 and 5/19/97.

⁶⁸ Dominique Maldonado. In conversation, 3/24/97.

⁶⁹ Mayor Ernest Davis. In conversation, 3/10/97.

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long-lasting political problems. And finally, a nationwide survey of more than 1,500 people conducted by the Kaiser Foundation in December 1995 showed that 66 percent of respondents favored providing clean needles to IDUs.⁷⁰

IX. OPTIONS FOR CONSIDERATION BY THE CITY

Overview

The City could choose to leave the current NEP situation unaltered. There are also many ways in which the City could become further involved in NEPs. These options can be viewed individually or as complements to one another.

Offer Public Support for NEPs

While NEPs have been operating in the City since 1992, there has been no official recognition and support voiced on their behalf. To publicly acknowledge the effectiveness of NEPs and the contribution they make to reducing HIV seroprevalence rates would potentially improve community relations and private fund-raising opportunities, while reducing stigmatization and other barriers to care.

Undertake an Advertising Campaign

The City could fund a public health advertising campaign targeting IDUs that promotes a range of risk reduction activities including NEPs. Among the many precedents for such an action are the NYC Department of Health's "Decision" and "Rubber Up for Safety" campaigns.

Establish Linkages and Referral Relationships Between City Services and NEPs

At City-run anonymous HIV testing and counseling programs and other HIV service sites, the City could initiate a formalized linkage and referral relationship with local NEPs. When counseling clients who have a history of injection drug use, information could be shared about the services available through the NEPs, regardless of an individual's sero-status.

Create Pro-Active City Policy Around NEPs

The City could develop clear policy guidelines and a pro-active agenda around needle exchange issues.

⁷⁰ The Kaiser Survey on American and AIDS/HIV. March, 26, 1996.

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Appendix I

Statistics on Needle Exchange Programs in New York State¹

1. Annual New York State funding of 12 NEPs ²	\$1,375,000 - Direct service \$ <u>125,000</u> - Program evaluation \$1,500,000
2. New York State FY 1996-97 grant to AmFAR ¹	\$1,600,000 - Warehouse, distribute needles to NEPs
3. Current total client enrollment ⁴	48,821
4. New clients in December 1996 ⁵	685
5. Cumulative needles distributed 1992 - 1996 ⁶	6,713,172
6. Cumulative needles collected 1992 - 1996 ⁷	5,700,224
7. Return rate ⁸	87%
8. Percentage decrease of IDUs who share needles once they are enrolled in NEPs ⁹	62 percent
9. Percentage decrease in HIV infection rate among IDUs in New York State due to NEPs ¹⁰	50 - 75 percent

¹ All of the statistics cited in Appendix I were provided by Alma Candelas of the AIDS Institute of the New York State Department of Health. The sources of the individual statistics are cited individually. Alma Candelas reports that 90-95% of the value of each statistic is applicable to New York City where the vast majority of NEPs are located.

² AIDS Institute of the New York State Department of Health.

³ Ibid.

^a From the monthly reporting data submitted by the twelve NEPs to the AIDS Institute of the New York State Department of Health.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ From research conducted by Dr. Don Des Jarlais of the Beth Israel Chemical Dependency Institute using data provided by the AIDS Institute of the New York State Department of Health on the twelve NEPs from 1992-1995.

¹⁰ From HIV Incidence Among Injecting Drug Users in New York City Syringe Exchange Programmes. Don C Des Jarlais, Michael Marmor, Denise Paone, Stephen Titus, Qiuhu Shi, Theresa Perlis, Benny Jose, Samuel R Friedman. *Lancet*. Vol. 348. October 17, 1996.

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10. Mean annual budget of one NEP ¹¹	\$166,654
11. Mean lifetime cost of treating one PWA ¹²	\$109,000
12. Cost effectiveness of one NEP	If two persons do not become infected, the NEP is cost effective.
13. Total number of IDUs in New York State ¹³	200,000 - 250,000
14. Total number of IDUs enrolled in NEPs ¹⁴	48,821
15. Percentage of IDUs who are infected with HIV ¹⁵	35 - 50 percent
16. Cumulative number of PWAs through September 1996 ¹⁶	103,598
17. Percentage of live PWAs who are IDUs ¹⁷	46 percent
18. Cumulative number of child (under 12 years old) PWAs ¹⁸	1,830
19. Percentage of child PWAs whose mothers became infected through injection drug use or who had sexual contacts with an IDU ¹⁹	69 percent

¹¹ Internal document of the AIDS Institute of the New York State Department of Health.

¹² AIDS In New York State 1994: NYS Department of Health

¹³ Commonly quoted estimate of the AIDS Institute of the New York State Department of Health.

¹⁴ From the monthly reporting data submitted by the twelve NEPs to the AIDS Institute of the New York State Department of Health.

¹⁵ An estimate based on the annual, blinded seroprevalence surveys conducted in Methadone Maintenance Programs by the AIDS Institute of the New York State Department of Health.

¹⁶ New York State Department of Health Quarterly AIDS Surveillance Report, Summer 1996.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.