Effects of an Intensive Street-Level Police Intervention on Syringe Exchange Program Use in Philadelphia, Pa

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Repeated measurements and mixed-effects models were used to analyze the effects of an intensive long-term street-level police intervention on syringe exchange program use. Utilization data for 9 months before and after the beginning of the intervention were analyzed. Use fell across all categories and time periods studied, with significant declines in use among total participants, male participants, and Black participants. Declines in use among Black and male participants were much more pronounced than decreases among White and female participants. (*Am J Public Health.* 2005;95:233–236. doi: 10.2105/AJPH.2003.031310)

Of the 1127 AIDS cases reported to the Philadelphia, Pa, Department of Health during 2001, approximately 39% were attributed to injection drug use, a higher percentage than for any other risk factor and 19% higher than the national average.[1,2] Syringe exchange programs have been associated with decreased incidence of blood-borne disease infection and risky syringe-related behaviors among injection drug users (IDUs).[3–6] A legal syringe exchange program has operated in Philadelphia since 1992.[7] For most of the population served by the syringe exchange program, it is the only accessible source for sterile syringes.

On May 1, 2002, Philadelphia launched an intensive long-term street-level policing initiative that deployed uniformed officers to occupy targeted city corners around the clock to disrupt open-air drug markets. The police department targeted these corners because of the amount and severity of drug violence present.[8] Many of these targeted corners were near syringe exchange program sites, and many clients likely passed by these corners while traveling to the syringe exchange program. The syringe exchange program did not change locations, times, or staffing patterns during the study period (C. Cook, MSS, MLSP, written communication, January 23, 2003).

The operation represents a change in police tactics from previous antidrug initiatives, by decreasing arrests in favor of "deterrence and dispersal" tactics to disrupt drug markets and by maintaining a persistent heavy police presence.[8] Narcotics arrests substantially decreased after the operation began, despite greatly increased police activity.[8] However, many instances of police harassment of syringe exchange program users have been reported by exchange staff since the operation began, and on at least 1 occasion, a syringe exchange program user was arrested for possessing syringes procured at the syringe exchange program. Plans are to continue this long-term operation as long as funding continues.

Research has long shown that IDUs are sensitive to police activity while making decisions about injection.[9–11] Concern about arrest or search may lead to failure to seek and carry sterile syringes, as well as more rapid and less hygienic injection, and may deter uptake of health and preventive services.[12–17] Differences in exposure to street-level drug policing may contribute to sharp differences in the rate of injection-related HIV in Black and White people in the United States.[18]

METHODS

Data were drawn from Philadelphia's syringe exchange program, which collects use and demographic information from all participants. Aggregate changes in syringe exchange program use were examined for periods of 3 weeks, 3 months, 6 months, and 9 months before and after the initiation of the police intervention, as measured by number of participants appearing, number of syringes dispensed, and number of Black and male participants appearing. For comparison, these procedures also were performed on prior year data for all periods studied.

We then used a mixed-effects model for each response.[19] This model used the 6-week mean response around each of the time points. Comparison of the 9-month periods before and after the initiation of the intervention required the use of linear and quadratic time effects and their interactions with the 2-level period factor. These models were summarized by considering contrasts between corresponding time points from the before and after periods. In these analyses, a P value of .05 or lower was considered significant.

RESULTS

Syringe exchange program use—as measured by aggregate totals—declined across all measurement categories and time periods studied following the policing intervention. During all periods measured, use by Black individuals declined at more than twice the rate of White individuals, and use by males declined at or near twice the rate of females. By contrast, utilization trends in the prior year periods were nearly stable (Table 1).

The mixed-effects model found significant ($P<.001$) declines in total visits, Black visits, and male visits at 3, 6, and 9 months postimplementation. Three-week comparisons were significant for number of visits by Black participants ($P=.003$) and by males ($P=.02$). Figure 1 shows the observed 6-week means around each time point for these categories.

DISCUSSION

By most accounts, the policing intervention successfully reduced the prevalence of open drug sales on the targeted corners.[20–22] Our findings suggested that this benefit came with a cost: the operation was significantly associated with a reduction in the use of Philadelphia's syringe exchange programs, especially among Black and male participants. Such a reduction in syringe exchange program use can be expected to lead to increased sharing and reusing of syringes, with an attendant increase in blood-borne infectious disease incidence among IDUs who formerly used syringe exchange programs.[23]

The operation relied on greatly increased police presence, rather than arrests, to disrupt settled patterns of drug sale and use. Decreas-

TABLE 1—Change in Philadelphia Syringe Exchange Program Use Measures Before and After Police Intervention

	Total Visits	Black Visits	White Visits	Male Visits	Female Visits
Comparison period					
3 wks before vs 3 wks after					
Total change	−340	−196	−117	−286	−35
Mean change	−113	−65	−39	−95	−12
% Change	−23.60	−33.40	−16.41	−26.21	−11.59
3 mos before vs 3 mos after					
Total change	−896	−639	−305	−1071	−148
Mean change	−69	−49	−23	−82	−11
% Change	−14.30	−25.24	−9.67	−21.83	−10.86
6 mos before vs 6 mos after					
Total change	−1759	−1285	−557	−2292	−341
Mean change	−68	−49	−21	−88	−13
% Change	−13.73	−24.56	−8.74	−22.27	−11.61
9 mos before vs 9 mos after					
Total change	−3539	−2428	−1276	−3119	−559
Mean change	−91	−62	−33	−80	−14
% Change	−18.10	−30.10	−13.02	−21.09	−13.03
Previous year period					
3 wks before vs 3 wks after					
Total change	40	16	12	48	−6
Mean change	13	5	4	6	−2
% Change	2.87	2.75	1.70	4.70	1.06
3 mos before vs 3 mos after					
Total change	110	141	−33	99	23
Mean change	8	11	−3	7	2
% Change	1.92	6.20	−3.64	2.30	1.70
6 mos before vs 6 mos after					
Total change	474	−9	307	338	109
Mean change	18	0	12	10	4
% Change	4.00	−0.17	5.26	3.63	4.03
9 mos before vs 9 mos after					
Total change	1347	−346	586	677	164
Mean change	34	−9	16	17	4
% Change	7.39	−4.07	6.78	3.76	3.86

ing arrests as a tool for controlling drug abuse has been suggested as an important step in developing a public health approach to the drug problem.[24] However, our findings suggested that police practices other than arrests also can increase risks for IDUs.

The disproportionate decline in the number of Black individuals and males presenting to syringe exchange programs heightens concern that law enforcement practices contributed to inequalities in access to HIV prevention resources between Black and White individuals, perhaps by focusing deterrence efforts on Black males. This is especially worrisome because Black individuals are more likely than the general population both to be affected by law enforcement activity and to contract HIV.[1,25–29]

Data identifying the specific corners at which officers were posted were not available, which made it impossible to test for a spatial relation between operation sites and syringe exchange program use.

Efforts to reduce the health consequences of drug use need not conflict with the goals of reducing street crime and enhancing public order.[30–34] Integration of law enforcement and harm reduction activities has been effected elsewhere with positive results.[35–39] Any large-scale police operation has the potential to unsettle drug users and disrupt their uptake of services. However, negative effects could be reduced by better cooperation and coordination of efforts among public health, substance abuse, and police agencies.[40] For example, the launching of the Philadelphia operation could have been linked to an intensive outreach effort to enroll IDUs in drug treatment, and the police could have been instructed to avoid interference with syringe exchange program users or to refer IDUs to the syringe exchange program. Integrating policing and health planning also highlights important choices about the use of scarce government resources: the annual cost of the policing operation is 57 times the syringe exchange programs' yearly city funding allocation (C. Cook, MSS, MLSP, written communication, January 23, 2003).[41] ■

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Contributors

C. Davis designed the study, conducted research and wrote the original brief. S. Burris originated the concept for the study, originated and conceptualized ideas and contributed substantially to the brief. J. Becher conducted statistical analyses and contributed to the brief. K. Lynch conducted statistical analyses. D. Metzger oversaw the study, helped to conceptualize ideas, and reviewed drafts of the brief.

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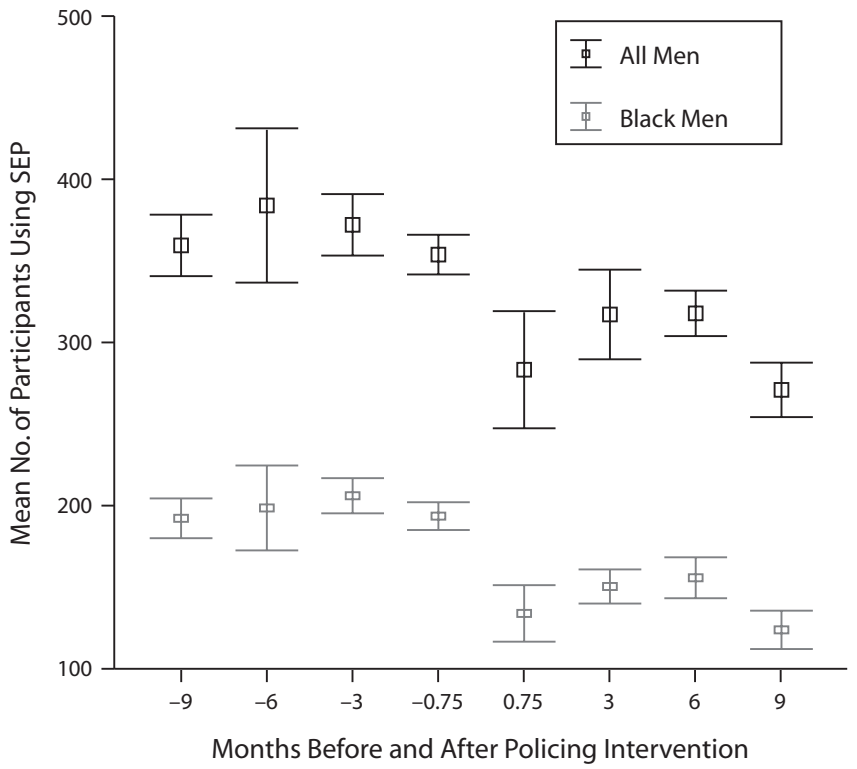

FIGURE 1—Syringe exchange program (SEP) use of selected groups: 6-week means around studied time points. Error bars show SE.

Note. The views expressed are those of the authors and do not imply endorsement by The Robert Wood Johnson Foundation or the Substance Abuse Policy Research Program.

Human Participant Protection

No protocol approval was needed for this study.

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