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The Risk Avoidance Partnership: Training Active Drug Users as Peer Health Advocates

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Abstract

Efforts have expanded to create AIDS prevention programs for drug users that consider the social context and interpersonal relationships within which risky practices take place. The Risk Avoidance Partnership (RAP) project is designed to train active drug users as "Peer/Public Health Advocates" (PHAs) to bring a structured, peer-led intervention into the sites where they and their drug-using social networks use illicit drugs. The RAP Peer Health Advocacy training curriculum and peer-led intervention promote harm reduction among drug users and support drug-user organization to reduce infectious disease and other harm in the context of injection drug use, crack cocaine use, and sexual activity. Initial findings suggest that RAP PHAs perceive a significant positive role change in themselves while conducting health advocacy work, and willingly and successfully carry the peer-led intervention into locations of high-risk drug activity to deliver it to their peers even in the absence of project staff support.

Keywords

HIV/AIDS prevention; drug abusers; peer intervention; health advocacy; social network intervention

Introduction

Over the past twenty years, AIDS prevention efforts with street drug users have demonstrated the potential for significant health-related and socio-political change leading to personal and environmental reduction in HIV and other drug-use related risks. This work has also illustrated the tenacity of barriers to those changes and the limitations to many of the currently tested approaches to prevention among people at highest risk. Researchers increasingly recognize the

need for prevention programs with drug users that address the social context and interpersonal relationships within which risky practices take place (Needle, Coyle, Normand, Lambert, & Cesari, 1998; Singer & Weeks, 1996; Weeks et al., 2001). Some efforts to address this need have involved targeting drug users' social networks with prevention efforts (Broadhead et al., 1998; Latkin, 1998a; Latkin, Sherman, & Knowlton, 2003; Neaigus, 1998; Trautmann, 1995; Trotter, Bowen, & Potter, 1995; Valente, Foreman, Junge, & Vlahov, 1998). Others have built upon the potential of drug users to organize themselves politically and socially to address health and other community issues (Crofts & Herkt, 1995; Friedman, DesJarlais, & Ward, 1994; Friedman et al., 2004; Moore & Wenger, 1995; Roe, 2001). These efforts appear to extend the reach of prevention effects and begin to address factors that reduce the long-term effectiveness of individually-oriented approaches.

The Risk Avoidance Partnership study, or Project RAP, is one such project that builds on social relationships among those at risk to enhance and expand HIV prevention efforts. The project combines a social network diffusion model using peer leaders to disseminate intervention with a social organizing component to build a base for ongoing coordinated efforts of those peer leaders. RAP is designed to train active drug users as “Peer/Public Health Advocates” (PHAs) to bring a structured, peer-led intervention into the sites where they and their drug-using peers use illicit drugs. The RAP Peer Health Advocacy training curriculum, peer-led intervention, and Community Advocacy Groups advocate harm reduction among drug users (Rhodes & Hartnoll, 1996; Single, 1995; van Ameijden, 1992) and support ongoing drug-user organization for health promotion to reduce diseases and other harm in the context of injection drug use, crack cocaine use, and sexual activity. We report here on the theoretical framework and design of the PHA training program. We also describe key components of the RAP peer led-intervention PHAs were trained to provide and present process findings and immediate outcomes of the RAP training program on study participants. Among these findings are a more specific understanding of what trained PHAs provided to their peers and how they provided it, as well as the role of “empowerment” in motivating PHAs to conduct intervention and to change their own risk behaviors.

Peer and Network Intervention Models: Theoretical Framework

Social network interventions have been designed and tested to disseminate prevention messages and materials among interconnected drug users, often with the support of influential network members (Broadhead et al., 1998; Hays, Rebchook, & Kegeles, 2003; Kelly et al., 1992; Latkin, 1995, 1998a; Valente et al., 1998). Like many of these programs, RAP incorporates peer norms modification to enhance prevention through the influence of key opinion leaders (Kelly et al., 1992; Latkin et al., 2003). These include “centrally” located active drug users (i.e., individuals who are connected to many other drug users) and gatekeepers (i.e., controllers of drug-use sites), who are members of the target population trained to become advocates, educators, and interventionists among their peers. RAP also builds on drug user social organization to support diffusion of harm reduction practices (Neaigus, 1998; Rogers, 1995; van Ameijden, 1992). The RAP intervention is designed to reach the locations directly in which individuals inject heroin and cocaine or smoke crack, and to make use of the natural settings, social dynamics, and network relationships intrinsic to those locations for the promotion of prevention practices (Ouellet, Jimenez, Johnson, & Wiebel, 1991; Page, Smith, & Kane, 1991; Weeks et al., 2001).

The RAP study tests an approach to prevention dissemination based on diffusion theory (Granovetter, 1973; Rogers, 1995), Dynamic Social Impact Theory (DSIT) (Nowak, Szamrej, & Latane, 1990) and peer modeling (Latkin, 1995; Zapka, Stoddard, & McCusker, 1993) for dissemination through the population of Hartford drug users. Diffusion theory provides a framework for understanding the process by which “innovations” like harm reduction practices

are accepted, rejected, or transformed by drug users at the social-network level (Friedman et al., 1994; Rhodes & Hartnoll, 1996; Rogers, 1995). For example, diffusion in the 1980s and early 1990s of the “new” practice of bleaching used syringes to reduce the spread of HIV required some antecedent congruence of the practice with existing conditions and drug injection conventions (e.g., using water to unclog the syringe), dissemination and encouragement by trustworthy “change agents” (such as community-based outreach workers), and acceptance by key “opinion leaders” or influential peers before a notable portion of the population adopted the practice (Friedman et al., 1994; Rogers, 1995; Watters, 1987; Wiebel, 1993). In addition to standard prevention messages and materials, RAP incorporated intervention components not previously used locally, such as harm reduction slogans (Latkin, 1998b; Latkin & Knowlton, 2002; Latkin et al., 2003) and promotion of rubber tips for the ends of crack pipes; the latter may reduce oral transmission of communicable diseases facilitated by bleeding or ulcerated lips caused by scorching, or that are transmitted through saliva (Faruque et al., 1996; Porter & Bonilla, 1993). We anticipated that these novel intervention components would diffuse through drug-using networks as PHAs promoted harm reduction practices and attitudes among their peers.

DSIT postulates that strength and trustworthiness of the communicator, physical or social immediacy of the communication at the time and place of greatest relevance, and the number of people communicating and modeling the new message or practice influence the effectiveness of communication and hence a recipient's likelihood to change his or her attitudes or behavior in response to it (Latane, Liu, Nowak, Bonevento, & Zheng, 1995; Nowak et al., 1990). In RAP, strength and immediacy of communication were hypothesized to increase by recruiting PHAs who were central in drug using networks or controlled a drug-use site, and training them to conduct the intervention in locations where and when their peers were using drugs. The RAP training made extensive use of role modeling for dissemination and demonstration of prevention practices (Bandura, 1977; Rogers, 1995). Thus, trainees' identity as a “peer leader” and their effectiveness as a PHA were expected to develop through their work in harm reduction advocacy, modeling of safer practices, and training in persuasive communication techniques.

RAP also incorporated health promotional concepts of community organizating for health advocacy and group action to build a broader and more sustainable base for harm reduction (Brown, 1991; Robertson & Minkler, 1994). Health promotion emphasizes individual and community empowerment through active engagement in health action and advocacy as a strategy for enhancing community health (Brown, 1991; Minkler, 1989; Robertson & Minkler, 1994). These concepts guided the development of the Community Advocacy Group (CAG) of trained PHAs to build and carry out community-level action and responses to health risks and other harm in their communities. The following describes the PHA training, RAP peer-led intervention, and the CAG.

RAP Intervention Components

PHA Training Curriculum

We developed the RAP PHA training curriculum based on a similar model Latkin and colleagues used in Baltimore, Maryland to train active drug users as AIDS educators (Latkin, 1998a, 1998b; Latkin & Knowlton, 2002; Latkin et al., 2003). Our 10-session training program (Weeks et al., 2004) included five sessions conducted in-office for two hours each on consecutive days, Monday through Friday, utilizing both didactic and interactive methods to provide information and to model intervention activities. Training was generally conducted in English; however, bilingual staff provided Spanish interpretation as needed. This was followed by up to five additional staff-accompanied field sessions in the community scheduled over the next ten weeks at the convenience of the PHA and his or her staff partner. These staff/PHA partnered sessions were conducted in a variety of community locations chosen by the PHA,

including in some of the PHAs' drug-use sites, so they could practice effective communication and demonstration of prevention strategies in community situations where they could be expected to continue to apply them in the absence of project staff. The RAP training curriculum was designed to build a team of health advocates who could work independently, in partnership with staff, or jointly with each other for HIV, sexually transmitted infection (STI), hepatitis and other disease prevention and for general health advocacy for drug users, their networks, and their community. To compensate participants for their time and encourage participation in this research program, participants received $20 for each two-hour training session, both in-office and in the field. A summary of the content and design of each session is indicated in Table 1.

RAP Peer-led Intervention

The RAP intervention PHAs were trained to deliver included standard harm reduction approaches, such as condom promotion and distribution of bleach for sterilizing syringes. It also included locally novel components, such as RAP prevention slogans (e.g., “Be Aware, Don't Share, Carry a Spare,” “15 Seconds to Safety,” “*Juegalo seguro, planea adalante*” [Play it Safe, Plan Ahead]) and promotion of rubber tips for crack pipes to reinforce familiar prevention methods and increase harm reduction options. Inclusion of rubber tips in the intervention design came at the suggestion of crack using participants in the pilot, who felt the program focused too heavily on injection-related risks and was therefore not sufficiently relevant to crack users, whose primary HIV risks were tied to sexual transmission.

The RAP peer-led intervention was designed as a modular program, components of which could be combined in different ways to allow for a variety of interactions between PHAs and their contacts. The latter included members of PHAs' social networks, other drug users whom the PHAs did not know, and other members of the neighborhood and community. The RAP peer-led intervention modules were organized into three categories: 1) health and harm reduction education, including information on HIV, hepatitis, STI and TB transmission and prevention, and RAP slogans; 2) demonstration of prevention or harm reduction practices, such as proper syringe disinfection, male and female condom use, and the use of rubber tips for crack pipes; and 3) materials for risk prevention and harm reduction, including health kits containing bleach, water, and cookers for injectors, rubber tips for crack users, condoms, and dental dams (Weeks et al., 2004). To assist PHAs to remember the components of the RAP intervention, we developed the RAP Flip-book, a laminated, spiral-bound booklet used as an intervention “manual” in the field. The Flip-book, available in both English and Spanish, illustrated the RAP intervention modules and provided instructions on how to implement them. It used visual aids to assist PHAs and their contacts to understand and pass on consistent prevention messages. Thus, the primary goal of the Flip-book was to increase peer-led intervention fidelity across PHAs and over time.

RAP Community Advocacy Group (CAG) Activities

Monthly CAG meetings offered trained PHAs an ongoing opportunity to get together to plan and implement community advocacy action, share their experiences conducting harm reduction and health advocacy with other PHAs, and socialize in a safe environment. These meetings also provided a forum for PHAs to voice their concerns about community-wide health or other issues, and to organize responses to those concerns, including participating in other local or regional community meetings and activities related to HIV, hepatitis, STI, substance abuse, health insurance, housing, and various other community issues. We anticipated CAG meetings would help keep trained PHAs connected to the program and would enhance their ability to sustain their active implementation of the RAP intervention over time. These meetings were not designed to be part of the formal PHA training program; however, to encourage

participation and compensate them for transportation costs and advocacy work, attendees received $10 for every CAG meeting they attended.

RAP Intervention Evaluation Methods

Selection and Recruitment of Peer Health Advocates

We provided the RAP PHA training program to groups of active drug users in 28 cycles that generally included 3-6 trainees (range 1-7, mean 3.96) to allow the five project field staff the ability to partner with each PHA individually for the second half of the training program. Recruitment of all candidates was conducted through street outreach and direct invitation by project field staff. Eligibility requirements included being at least 18 years of age, having used either heroin or cocaine/crack in the prior thirty days, and not currently seeking drug treatment. These selection criteria were designed to increase the likelihood that trainees could provide intervention to other drug users in the context of active drug use. (However, RAP staff assisted anyone who wished to enter drug treatment, and those who did so during the training were offered the opportunity to continue peer health advocacy in “safer” places, like shelters and half-way houses, among others.) We also targeted recruitment to construct a purposive sample that reflected the ethnic and gender composition of active drug users in Hartford.

We used several criteria to select PHA candidates for the RAP training program. Two primary criteria included network centrality and being a drug-use site gatekeeper. Drug-user social network centrality is beneficial because of the potential for central individuals to reach a large number of drug users with the RAP intervention. Training a gatekeeper of a drug-use site in which others get high allows that person to incorporate health promotion and advocacy into the regular activities at his or her own site. We initially utilized findings from a prior network study in Hartford (Weeks, Clair, Borgatti, Radda, & Schensul, 2002; Weeks et al., 2001) to identify PHA candidates. Following this, we used continuous ethnographic and outreach field presence to identify additional PHA candidates whom staff and others in the community recognized as central, well connected, or a drug-use site gatekeeper. We sought candidates who were similar to their peers with regard to drug use, ethnicity, and neighborhood of residence.

Program Evaluation and Assessment Measures

The RAP intervention study was designed to test the degree to which the training program and peer-delivered intervention impacted the prevention, risk, and harm reduction attitudes and practices of trainees and their direct contacts, and to document how and to what degree the intervention diffused through the networks of drug users and drug-use sites in Hartford. We used an intensive process evaluation to assess immediate effects of program participation on PHAs and to document their responses to the training and to the process of conducting peer health advocacy in the community. This process evaluation was also designed to assess the impact of the RAP peer-led intervention on direct contacts to whom PHAs delivered intervention, and indirectly on other drug users in Hartford.

We also conducted an outcome evaluation using pre/post assessment at intake and 6 months after intake with all PHA candidates and two network members (Contact Referrals) they brought into the study for these assessments. The outcome evaluation was designed to measure changes in attitudes, risk behaviors, and social network characteristics of both groups. In addition to the pre/post and process surveys of PHAs and their contacts, we used extensive ethnographic documentation and a cross-sectional survey of Hartford drug users to evaluate intervention outcomes. Data collection and analysis of the outcome and diffusion effects were ongoing at the time of this writing. We report here only on the process evaluation and short-term outcomes of the training program on PHAs.

The process evaluation included both qualitative and quantitative assessments to document implementation of the program and to measure the feasibility, acceptability, and effects of RAP on PHAs and others. Qualitative methods included ethnographic observation of the PHA training sessions, both in the offices and in the field. Additional qualitative measures included in-depth interviews with participants who received the training, their contacts, and selected other drug users. In-depth interviews with PHAs followed a semi-structured interview schedule regarding positive and negative experiences conducting the RAP intervention with their peers and in the community, personal changes after completing the PHA training, and facilitators and barriers to conducting intervention and implementing harm reduction practices in the community (Dickson-Gomez, Weeks, Martinez, & Convey, in press).

Quantitative measures used in the process evaluation included the Intake Assessment Survey, PHA training session and CAG meeting attendance records, a post-training Closing Interview, and PHA-completed Encounter Forms that tracked RAP peer intervention delivery. The Intake Assessment Instrument (repeated at 6 months as part of the outcome evaluation) measured demographic characteristics, drug use, sexual practices and HIV risk behaviors in the prior 30 days, attitudinal factors such as perceived HIV risk and a project-developed PHA Attitudinal Index (described below), prior exposure to non-RAP HIV prevention interventions, and adoption of prevention practices. It also measured participants' experiences receiving any kind of HIV prevention information, demonstration, and materials from other active drug users, as well as their own activities talking to or providing prevention materials to other drug users.

The PHA Attitudinal Index we developed for this study consisted of 15 closed-ended items measuring participants' attitudes regarding the concept of active drug users conducting peer health advocacy and harm reduction intervention in their communities. This index, used at Intake, post-intervention (Closing Interview), and 6-month surveys, included positive statements (e.g., “You can help drug users reduce their risk of HIV”; “You feel comfortable talking to friends about using condoms”) and negative statements (e.g., “There's not much drug users can do to stop the spread of AIDS in their community”; “Most people would not listen to you if you were to tell them not to share their works”). Response options were on a Likert scale of 1 (strongly disagree) to 4 (strongly agree). The Cronbach alpha of all items on this index was good at both Intake ($\forall$ =.74) and Closing ($\forall$ =.82) Interviews.

We measured short-term outcomes of the RAP PHA curriculum on trainees using a brief, post-intervention Closing Interview, which we conducted after PHAs completed Session 10 of the training program or three months after intake if they did not participate in all ten training sessions. This Closing Interview was designed to document PHAs' reactions to the program and their assessment of its immediate effects on their behavior and attitudes about harm reduction and prevention practices. The Closing Interview included open-ended questions regarding PHAs' responses to the training program, such as positive and negative experiences, other community advocacy activities they had engaged in, and what they expected to result from the program. It also included structured questions about conducting RAP intervention activities, PHAs' perceived influence on others to reduce drug-related and sexual HIV risk as a result of their PHA work, and the PHA Attitudinal Index used at intake.

As an additional process measure, we asked all PHAs to complete Encounter Forms designed to document each intervention they conducted, both when partnered with project staff and when working independently. Encounter Forms were designed as a half-page check-off sheet indicating the time and place of the RAP intervention encounter, the sex and ethnicity of the recipient and his or her relationship to the PHA or the number of people if in a group encounter, intervention components delivered to the contact(s) including types of education, prevention materials, or demonstration of safer practices, and whether or not project staff were present at the encounter. PHAs were asked to fill out one Encounter Form for each full intervention

engagement (defined as providing two or more intervention components), whether assisted by staff partners during training sessions or when they worked without a staff partner.

Data Analysis

Observational notes and transcribed in-depth interviews were analyzed using Atlas-ti software for text analysis. Contents of each text file (interview or observation) were coded for key themes developed deductively on the basis of our conceptual model. These included codes for social and environmental factors in the community, personal factors affecting PHA work, receptiveness to intervention, relationship and social networks, and PHA attitudes toward change, among others. Additional codes were derived inductively through the iterative process of observing patterns in responses and activities or interactions in observed situations, including codes to capture the effect of criminalization of drug use on access to housing and other social services, as well as staff influence on PHAs and role change among PHAs associated with intervention delivery. After completion of the coding, data were analyzed for repeated patterns and variations in responses to questions and observations. Open-ended questions on the Closing Interview were also assigned codes, and responses were categorized similarly to the broad classifications used in other text analyses (e.g., personal factors, peer responses, community factors, etc.).

All survey and other quantitative data were entered into SPSS 11.0, including coded responses to open-ended qualitative items on the Closing Interview. We computed frequencies and descriptive statistics for data used in the quantitative process evaluation, and we performed chi-square analyses to examine the relationship between project staff presence and intervention site and intervention target on Encounter Forms. Cronbach's alpha was computed for the PHA Attitudinal Index, and mean score differences at Intake and Closing Interview were examined using a paired samples t-test. Finally, we used the McNemar test to determine whether there was a difference between the proportion of those engaging in preventive behavior at intake compared to at the Closing Interview.

We report here on findings from the ethnographic observations of the field training sessions and responses on the Closing Interview regarding the immediate impacts of the training and intervention program on the PHAs themselves. All PHAs, contacts, and others directly interviewed as part of the study provided informed consent prior to all research and training activities. Consent forms and evaluation procedures received full review and approval by an Institutional Review Board. PHAs received $25 compensation for conducting each interview (including Intake, Closing, 6-month, and any in-depth interviews).

Findings of the Process Evaluation

Sample Characteristics and Program Participation Rates

A total of 176 candidates received the intake interview, of whom 130 (73.9%) initiated the training program. This sample of 130 trainees were primarily African Americans and Puerto Ricans, with a small number of non-Hispanic Whites; about one-third were women (Table 2). Their mean age was 39.8 years (SD 7.37). These participants reported significant risk behaviors for HIV and other transmissible diseases in the prior 30 days before intake into the study, including injected drug use, crack use, unprotected sex, and sex with multiple partners. Additionally, 49.2% reported being homeless at the time of intake into the project, 22.3% reported being HIV-positive, 43.1% had a history of STI, and 33.8% had been diagnosed with Hepatitis C. However, while most PHAs were at high risk associated with drug use, 90.8% also reported ever having enrolled in drug treatment, of whom 51.5% had enrolled within the prior six months. Notably, 28.5% had been in jail or prison during the same period.

Despite significant attrition of PHA candidates between the Intake Interview and initiation of the training program, participation and retention in the training program itself was unexpectedly high (Table 3). Eighty-six percent of candidates who initiated the PHA training program completed the first five in-office training sessions. Also, 80% completed at least two field sessions with a staff partner, which we designated as constituting the "full training" program because it included sufficient time in the field for PHAs to continue without staff present. Further, 50.8% of initiates completed all ten training sessions, despite the need for these active injection drug and crack users to commit to the training program for an extended period of nearly three months after the initial intensive training week. Attrition from the training program did not vary significantly by gender, ethnicity (except for low retention of non-Hispanic Whites), homeless status, HIV status, being an IDU or a crack user, or having been in drug treatment or in jail within the prior six months.

PHA affiliation to the RAP program was also suggested by their continued participation in and contact with the project, such as attendance at CAG meetings and other project sponsored activities, and their continued implementation of the RAP peer-led intervention. All PHAs who completed the first five sessions of the training were eligible to attend ongoing CAG meetings, although attendance was not part of the training curriculum. Nevertheless, 78.6% of eligible PHAs attended at least one CAG meeting (Table 3), and two-thirds of those attended three or more meetings during the course of the project.

Observations and In-depth Interviews of the PHA Field Training Sessions

Two ethnographers conducted observations during 25 in-office training sessions and 66 partnered training sessions in the community. These observations focused on describing activities during the training sessions, participants' responses and interactions during these activities, and issues that arose as participants received this training program and carried the RAP intervention into the field as PHAs. Observations in the field revealed that PHAs successfully conducted full engagements, providing education, materials, and, less often, demonstration of proper use of the harm reduction materials with peers in a variety of settings. Providing education and demonstrations was more easily accomplished with some of the more novel harm reduction items, such as crack health kits (containing rubber tips), female condoms, and dental dams, as indicated by this example of an encounter drawn from field session observation notes (all names used below are pseudonyms):

> Maria gave some women in the park some crack [health] kits and asked them if they knew what the rubber tips were for. Judy said that she had seen people using them, but she never knew what they were for. Maria explained that you can pass diseases if you share a pipe and your lips are cut or burned. She used a pen to demonstrate how to place the rubber tip on the end of the pipe and explained that you needed to remove it if you share your pipe with another. Judy said that she never knew you could catch diseases like that and joked that the tips were like "rubbers for my crack pipe."

Crack users PHAs encountered on the streets were often curious and asked questions about these new items. Injection drug users, on the other hand, were often familiar with the practice of cleaning syringes with bleach and therefore refused intervention demonstrations on proper needle cleaning. As one woman said to a PHA who was offering to demonstrate needle cleaning, "I've been out here for seventeen years. Believe me, I know." However, when PHAs were given the chance to demonstrate the proper way to clean syringes or prepare uncontaminated drug solutions, their audiences often realized that they could improve their safety measures, as in the following example:

> A group of six drug users gathered around while Carlotta first showed the needle cleaning, taking out a health kit and her needle. Carlotta explained that they should rinse their syringes with water three times, then with bleach three times, followed by

> water three times. Carlotta reminded people never to share cookers and to cook their dope [heroin] for fifteen seconds to kill any virus that might be in the cooker or water. One of the women said she'd never heard that you needed to cook your dope before and had not been doing that.

Responses that PHAs received from their drug using friends during staff-partnered training sessions were generally positive, especially since PHAs often provided more information than more traditional para-professional outreach workers sometimes do.

> Bertila took out a dental dam and explained to a Puerto Rican woman in her twenties that it was for men “eating out women, and you just put it over the part they're going to lick.” The woman said that Bertila was much better than other people she'd seen doing outreach because she took the time to explain how to use things while other people just hand them out. She said someone had given her a dental dam a few days ago but didn't tell her what it was for so she just threw it out. “And I like [having sex with] girls, but I thought they were just for cleaning hands or something!”

PHAs sometimes received negative reactions from persons they approached with harm reduction materials or demonstrations. As part of their five session in-office training, staff used role plays to help PHAs practice dealing with negative reactions from people with whom they spoke. Negative responses most frequently occurred if the contact was going through withdrawal sickness. PHAs generally did not try to educate drug users under these circumstances, but rather gave out prevention materials, such as bleach kits. In other cases, peers approached on the street claimed they did not need or want the materials the PHA was handing out because they were not sexually active or did not use drugs. In these cases PHAs were quick to point out that they did not assume they used drugs but perhaps they knew someone who could use the kits or condoms. If the person still remained unreceptive, PHAs thanked them for their time and went on their way.

PHAs were particularly successful in approaching friends and other people they knew who used drugs in places where they felt comfortable and were well known. Many of them were already somewhat recognized as leaders because of their status as “old timers,” i.e., veteran drug users. For example, while Carlotta was demonstrating prevention techniques to a group of active drug users, a Puerto Rican woman leaned over to tell the ethnographer that Carlotta was “the bomb” because even before she began the RAP project she was “like everyone's mother”; she always looked out for the younger drug users and told them when they were doing things wrong. After Carlotta moved from the predominately Puerto Rican south end of Hartford, where she had lived a number of years, to the predominately African American north end, she decided to try outreach in her new neighborhood. But she found it considerably more difficult because she could not recognize who was using drugs in her new neighborhood, whereas in her old neighborhood she was familiar with most people she met on the street and knew of their HIV risk behaviors. Like Carlotta, the majority of participants preferred to stay within their own neighborhoods and could easily recognize people with whom to conduct harm reduction outreach.

PHAs generally conducted outreach in the same sorts of places that para-professional outreach workers often work. These included outreach on the street or in locations where drug users concentrate, including parks, soup kitchens, and homeless shelters. However, PHAs were also encouraged to conduct outreach in the sites where they used drugs. These included both public drug use sites, such as abandoned buildings, alleyways, or secluded areas of parks where drugs are used, as well as private sites with gatekeepers, usually located in drug users' private residences (Dickson-Gomez et al., in press). Gatekeepers of such sites often allow entry only to a small network of their drug using peers, and charge a fee in money or drugs for the right to use drugs at the sites. These sites are also very transitory in nature; as gatekeepers become

evicted from their apartments, their network members find alternative drug use sites. It is therefore extremely difficult for para-professional outreach workers to gain access to or even know about these sites to provide site users with harm reduction materials and education. While PHAs also faced challenges in accessing private drug use sites, particularly if they were accompanied by an ethnographer who was unfamiliar at the site, many were able to conduct outreach in these locations based on their knowledge of these sites and their relationships with other site users.

A variety of personal factors sometimes made it difficult for PHAs to complete their training and make appointments, while other factors facilitated PHAs' participation. The greatest barrier for PHAs to complete their training was addiction. Active heroin users who are not on methadone often have difficulty keeping morning appointments because they need to get the money together to buy their “gate shot,” the first dose of heroin to get rid of withdrawal symptoms. Crack smokers who stayed up all night smoking crack also had difficulty making morning appointments. Staff accommodated these participants by making in-office training sessions late in the morning and scheduling partnered sessions at PHAs' convenience. Another significant barrier to training completion was arrest for drug-related or other charges, such as theft, trespassing or loitering. Finally, some participants appeared to feel uncomfortable doing PHA work on the streets because they felt that it announced their status as drug users. For example, Lenny dropped out after the first partnered session. A good friend commented to the ethnographer that, “he isn't the kind of junky who likes to hang out in the street.” He did, however, continue to demonstrate harm reduction practices to close friends who got high at his drug use site (which was his own apartment), a fact that the ethnographer became aware of inadvertently after conducting an unrelated interview with one of his site users. Participants who seemed particularly successful at PHA work included those whose drug use was more controlled and who had begun to make other positive changes in their lives, such as starting methadone maintenance or securing stable housing. For these participants, PHA work fit in with their efforts at personal growth and change.

During the course of the training and in subsequent interviews, we asked participants why they initiated and stayed in the program. In most cases, their initial interest was the payment for participation and other monetary and non-monetary incentives, such as baseball caps and t-shirts with the project name, received after completing a specific number of training sessions. However, as several explained, the content and method of the training program and the benefits they perceived for themselves and their community kept them involved. Positive reactions they got from others in the community gave them a great deal of personal satisfaction, as indicated by comments like the following:

Rosario So I like it 'cause I get to go out, talk to people. And I feel like somebody. And I like it because I get to talk to…the guys that are out there, or the girls, and they say, “Rosario, what I do now?” And if I know, I'll tell them. I tell you, when we put that backpack on [provided to all PHAs by the project for carrying prevention materials and the Flip-book], we feel like we are doing a special job. And it's good.

Bill Like during the training classes, I was like, wow, you know. I don't know how I am going to approach people. You know, how they going to look at me, especially people I get high with, and know that I get high. But it was nothing like that, though. It was just the utmost respect [while doing PHA work], and whenever they call me and say, “Hey, can I get some more [health kits]?” it was a good feeling for me.

PHAs also indicated that their participation provided them with alternatives to getting high. Many PHAs with a strong interest in cutting down or abstaining from drugs saw participation in RAP as a way of reinforcing this commitment.

Felicia Okay, when they first told me about the PHA program, I was interested in it because I was calling the methadone clinic, starting their treatment. So now I was beginning to start getting off the drugs, so I wanted to learn more about myself. So that's my motivation. To get me clean, to learn more about me and to help other people.

Tonio It was something new, and you feel good, 'cause you are doing something positive. And you are focusing on something other than the streets, or on getting high and just copping [obtaining] drugs.

Esperanza I'm down to [using drugs] once a month. I don't have to do once a week like I used to or once a day. And I'm having a hard time with it still, but I've come a long way…. I want help and I need help and…this, since I got in this program, the PHA, I love it because it taught me to stay clean.

Many drug treatment programs advise recovering drug users to avoid “people, places, and things” that might trigger relapse. For many inner city drug users who live in neighborhoods plagued by drug use, however, the admonishment to avoid relapse-triggering locales may be difficult, if not impossible, in their daily lives. Harm reduction advocacy, therefore, provided PHAs with an alternative means of engaging and interacting with drug using family, friends and neighbors. For many PHAs, being involved in RAP work allowed them to construct a new identity other than the irresponsible drug addict, as Robert describes:

Robert As far as this program, it's brought me to the forefront, 'cause being involved in this and doing outreach work, it's given me some sense of responsibility. You know when you out there in addiction, it's easy to say, “Oh I'm gonna do this, I'm gonna do that” and then push it to the side. But then when people ask you things and they reaching out and I say things, I try to make it mean something…. I have issues with friends and loved ones that I haven't been responsible. But this program has given me that sense of responsibility and making me look at things and making you look at yourself. So in that aspect, it's a good program.

Like Robert, PHAs overwhelmingly reported that they were motivated to participate in the RAP training in order to do something positive for their community and to make positive changes in their own lives. Several indicated that they hoped these changes would be long-lasting and result ultimately in job opportunities on a more steady or even permanent basis. Several reported that they viewed their project staff partners, some of whom are former drug users clean for a number of years, as examples of people who were able to use their experience to gain employment doing street outreach or community research. This offered a sense of possibility that they, too, could grow through this experience to improve their future opportunities, as indicated by Maria's comments in the following field observation:

> Maria talked to a Puerto Rican woman in her twenties, showing her the rubber tip in the crack kits. The woman asked her if she did drugs and Maria shrugged and said yeah. The woman asked her if this was her job and she said, “No, I don't gain anything,” and then added, “Well, I do gain something because I'm helping out the community and this might be a stepping stone for me.” She pointed to me [the ethnographer] and said, “She's my boss and maybe I could be standing doing what she's doing later on.”

PHA Encounter Forms

To provide additional documentation to assess where and to whom PHAs provided intervention, we analyzed the Encounter Forms PHAs completed while conducting peer intervention in the community. Because PHAs received no incentives to complete these forms, we anticipated that relatively few participants would be willing to fill out the forms except with

the assistance of staff during partnered training sessions, and that completed forms returned to the project staff would represent a relatively small portion of RAP intervention that trainees provided. Despite these limitations, we received an unexpected number of these forms documenting full intervention encounters. At the time of this writing, we had received 1,393 Encounter Forms from 50 PHAs (44.6% of the112 who were eligible to complete them). We have no mechanism to assess what portion of RAP intervention delivery these forms represented. Nevertheless, this notable response rate suggests the potential value of these forms for indicating what PHAs did in the way of peer intervention provision.

Over half (54.9%) of the encounters documented on the Encounter Forms were conducted on the street; the rest were conducted in other open spaces (parks, vacant lots, cemeteries, 10.5%), abandoned buildings (2.6%), participants' own homes (3.8%) or someone else's home (4.4%), or in other locations (23.8%). Few encounters reported on PHA Encounter Forms were with family members or sex partners (2.7%); but many were with friends (30.5%) and associates or acquaintances (34.8%). And while many of these forms were completed in the presence of project staff during partnered sessions, 40.6% were completed in the absence of any project staff person. According to their reports on the Encounter Forms, PHAs were significantly more likely to deliver intervention in their own or someone else's homes or in abandoned buildings when project staff were not present (Π^2 [10, n=1,332] = 100.85, p<.001). Likewise, they were significantly more likely to deliver it to sex partners and family members in the absence of staff (Π^2 [10, n=1,135] = 29.03, p=.001).

The most commonly distributed materials indicated on these forms included bleach kits (34.0%), crack kits (47.7%), and condoms (64.4%). PHAs recorded demonstrating bleach use in 15.4% of encounters, crack-pipe rubber tip use in 32.7% of encounters, and condom use in 22.8% of encounters. Regarding educational components of the intervention, PHAs used RAP slogans with 23.6% of contacts, shared information about HIV with 29.8%, and shared information about hepatitis and other STIs with 28.9% of contacts. In sum, Encounter Form data indicated that PHAs delivered all components of the RAP intervention primarily to risk network members in a variety of community settings, including places not generally open to outreach workers.

Closing Interviews

PHAs who completed training Session 5, and therefore had provided RAP intervention in the field at least once, were eligible for a Closing Interview. A total of 99 PHAs (88% of those eligible) completed the Closing Interview. They were 55.6% African American, 42.4% Puerto Rican, 3.0% non-Hispanic Whites, 38.4% female, and their mean age was 40.19 years (range 22-63, SD 7.22). Also, 46.5% were homeless, 24.2% had HIV, 64.6% had been crack users at intake, and 40.4% had been injectors at intake. Thus, the post-intervention Closing Interview sample was comparable in general demographic and risk characteristics to the full sample of PHAs who received the Intake Interview and initiated the training program.

Data from the Closing Interviews indicated that PHAs discussed a wide array of prevention topics with a significant number of contacts during their participation in the program (Table 4). This included information about prevention practices, use of project slogans, other non-HIV related health concerns such as hepatitis and other STIs, and other issues affecting their community. We also asked participants to assess whether they believed their intervention with peers was influential in reducing their peers' risky behavior or increasing prevention practices. We assessed this by asking how many people the PHA knew had changed specific risky practices and how many of those were people the PHA had spoken to about that change (Table 5). Nearly ninety percent of participants reported they knew someone who began to use rubber tips on their crack pipes as a harm reduction method. This may in part be an artifact of the large number of crack users in the project and the novelty of rubber tips. Of the people they knew

who had adopted the practice, they had spoken to nearly all (93.5%) about it, suggesting the likelihood of significant PHA influence on their peers regarding this practice. Though a smaller percentage of PHAs reported having talked to peers about increasing condom use, bleaching syringes, entering drug treatment or a detox program, or use of the Hartford Needle Exchange Program, their perceived influence on peers remained high in terms of the percentage of those who reduced harm or risk relative to those to whom PHAs had spoken. PHAs had the least influence on peers to enter drug treatment, which was likely hampered by PHAs' own active drug use as well as their own and their peers' personal and environmental barriers to entering treatment.

In open-ended questions on the Closing Interview, PHAs reported positive and negative experiences conducting the intervention with their peers and in their communities (Table 6). These reports confirmed findings from the ethnographic observations of training sessions in the field. They indicated a wide variety of positive experiences, including feeling good about having helped others and contributing something positive to the community. Many also indicated positive experiences related to their own improved health and well being, including increasing their knowledge about risk and prevention and recognizing the potential of this work to assist them to reduce their own drug use. Further, many indicated increased respect by their peers and other community members, as well as an improvement in their perception of self. Fewer PHAs indicated having had negative experiences, though the difficulties they encountered included resistance from people they attempted to engage in conversation either because those contacts were not interested or because they were focused on more immediate concerns. Many also indicated personal barriers to conducting the intervention, such as limitations created by homelessness (frequently including stolen backpacks at shelters), and the frequent distractions caused by their addiction. A few participants also indicated they had problems with police while engaged in peer health advocacy. This is not surprising given that the work is conducted by active drug users with other users, often in high drug-use and drug-sales areas, despite the fact that PHA training included modeling methods to minimize conflicts with police while conducting intervention.

PHAs also reported on the Closing Interviews that they had engaged in several other activities in their communities related to advocacy for health and harm reduction in addition to conducting the RAP intervention (Table 6). These included independent community action, such as volunteering time in homeless shelters and soup kitchens, and working with youth and pastors in their neighborhoods. Some also participated in project-organized activities, such as assembling health kits and presenting their experiences at public forums, though these were limited in number and open only to staff-selected trainees. When asked their expectations of long-term project outcomes, most PHAs in the training program reported expecting a positive impact, such as overall increased awareness of risk and prevention among drug users and others in their communities, decreased infectious disease overall, and saved lives. Many also believed that participation in the project would have positive long-term outcomes for themselves, such as potential future jobs (modeling project staff), increased respect by their peers, and reduction or cessation of their drug use. A small number were concerned that the end of the project would mark the end of effects on the community, a long-term outcome they have witnessed in other programs that are supported for a limited time period. However, some hoped a positive outcome would be continuation of the project.

Findings from the comparison of the trainee responses on the PHA Attitudinal Index on the Intake and Closing Interviews indicated significant improvement in participants' attitudes toward the concept and practice of conducting PHA work. The mean score at intake was 2.85 (SD=.24), and at post-training was 3.03 (SD=.28). A paired samples t-test revealed that this increase in scores from Intake to Closing Interviews was significant ($t=-5.77$, $p<.001$).

A final indication of the immediate impact of the training program on participants was PHAs' response to a series of questions regarding preventive measures they took in the prior 30 days to reduce their risk of exposure to HIV, STI, hepatitis and other infectious diseases, comparing intake reports with those on the Closing Interview (Table 7). We found significant reported increases in PHAs' use of condoms, reductions in number of sex partners, increases in cooking of drug solutions by injectors and use of rubber tips by crack users, and reduction in drug use overall. While other harm reducing syringe-use practices also increased, these increases were not significant between Intake and the 3-month follow-up Closing Interview. Not surprisingly, at the Closing Interview, we found a significant increase in the number of PHAs who reported having spoken to other drug users in the prior 30 days about HIV prevention or other health issues and harm reduction.

An important indicator of the intervention's efficacy in reducing risk and harm among participants is their entry into drug treatment. Though relapse is common among those addicted to drugs like heroin, crack, and other addictive licit and illicit substances, entering a detoxification or treatment program either to decrease one's level of addiction or for the purpose of stopping altogether is a significant step toward cessation and sobriety. On the Closing Interview, 21.3% of PHAs (n=20) reported having entered a drug treatment program during the two months prior to the interview, indicating significant interest in reducing or eliminating their drug use. This was further supported in the ethnographic interviews conducted subsequent to training. In formal and informal ethnographic interviews, 44 PHAs (33.8%) reported that they entered drug treatment at some point after the training (in a number of cases, soon after initiating the training), partly as a result of their participation in RAP. They stated that this change was related to an amplified perception of their own risk after observing and encouraging other drug users to take precautions. One PHA, who entered methadone treatment in order to cease illicit drug use altogether, described a critical moment for him. While talking to a small group of men using drugs in an abandoned building about reducing their risk, he saw himself sitting there with them, as if from the outside looking in. He suddenly realized that he wanted to stay on the outside and not to be sitting where they were ever again. This resolve has sustained his sobriety for more than a year.

Discussion

Our experiences implementing the RAP PHA curriculum indicated that this training program is effective in several ways. First, it was sufficiently comprehensive to prepare untrained active drug users to become educators and health advocates for HIV, hepatitis, and STI prevention among their peers and in their communities. Second, the training content was acceptable to active drug users in duration, rules, and expectations, as well as in its goals, objectives, and activities. This was indicated by the relatively high retention rate of those who initiated the training program at least through two staff-partnered sessions in the field. Likewise, participants perceived it to be interesting and worthwhile enough to keep them active through the full in-office program, the partnered field sessions, and beyond. Trainees accepted and responded positively to the theme of advocacy for drug users' health and well being, and readily adopted the role and identity of Peer/Public Health Advocate by engaging in health promotion among their peers and in the community. Evidence of this is in the generally high rate of PHA work conducted outside of the formal training program, though such activity carried no monetary compensation.

Ethnographic data documenting participants' various experiences conducting peer health advocacy in the community suggest that the RAP peer-led intervention is feasible for active drug users to implement and appropriate for them and their contacts within the neighborhoods, hang-out places and drug-use sites where they live and spend their time. Additionally, the participant-driven modification to the intervention to promote rubber tips for crack pipes gave

crack-using participants (representing nearly two-thirds of trainees) a sense of ownership of the intervention and made the program more relevant to them. Further, rubber tips provided PHAs an entree into a discussion of harm reduction with crack users that included sexual risk reduction, condom use, and other health promotion.

Initially, PHA activities during partnered community sessions were not particularly different from traditional street outreach conducted in numerous prevention and service programs. However, many interchanges between PHAs and contacts included significantly more intensive interaction than standard outreach contacts. These interactions included harm reduction demonstrations and extended persuasive conversations on risk and harm reduction. Also, some were conducted in locations generally off limits to non-drug-using street outreach workers. In many cases, dialogue between PHAs and their contacts reflected the fact that PHAs are insiders and therefore more respected and believed (Nowak et al., 1990; Rogers, 1995). As PHAs gained more experience during the community partnered sessions, their interactions with friends and strangers likewise evolved to include more assertive, persuasive, and confident communications and more effective modeling of the intervention components and use of the intervention tools, like the Flip-book, slogans, and other harm reduction materials. Thus, despite its similarity to street outreach that has been ongoing in Hartford by community-based service and research programs over the past fifteen years, provision of the RAP peer-led intervention by trained PHAs appears to have the potential to evolve into a broader agenda for harm reduction and to penetrate harder to reach places with ongoing and consistent prevention messages, modeling, materials, and support for their use in a more sustained way. Assessment of this intervention's efficacy, however, must await a fuller outcome analyses.

Findings from the field observations, in-depth interviews, and Closing Interviews indicated a significant transformation in many project participants, both in their self-assessment and in their peers' assessment of them. While very few PHAs who entered detoxification and longer term treatment programs during the course of their PHA training were able to stop using illicit drugs completely, many took seriously their responsibility as Peer Health Advocates to promote harm reduction practices among active drug users. They modeled protective behaviors, distributed prevention materials, and countered skepticism about their motives and actions with responses encouraging adoption of healthier and safer activities. Positive feedback from other drug using friends and acquaintances and from family members reinforced PHAs' continued health advocacy work. Many reported to project staff that they hoped their work as Peer Health Advocates could some day become a steady, paying job similar to that of project field staff. Of greatest significance to participants was the sense of self-worth derived from making a positive contribution to their communities despite their ongoing struggles with addiction and poverty.

Several recommendations can be derived from our field experience with this intensive training and intervention program with active drug users. First, it is necessary to recognize the potential contribution active drug users can make to the promotion and implementation of public health efforts among their peers and in their broader communities. In some cases, they may be more effective and reach more hidden locations and at-risk populations than other community health workers or community researchers. Programs that build on this potential should increase and expand. Second, in implementing such programs, it is important to attend to the continually changing environment of risk and imminent harm participants face in their daily lives and while engaged in health and harm reduction efforts or other activities. Needed are available options to reduce that risk, such as varied locales in which to conduct prevention efforts, as well as support to leave the street drug-using life altogether without having to curtail their health advocacy and prevention activities. Finally, as PHAs in our program increased their willingness and efforts to engage in active public health work, and as their self-image and sense of self-worth in conducting this activity concurrently improved, their interest in making this into real

employment also increased. Finding positive paid opportunities to continue the "job" of peer and public health work may reduce reliance on illegal sources of income and may offer many an entree into more mainstream employment opportunities that take advantage of their interest in and capacity to engage in public health education and advocacy, as well as motivation to stop drug use and maintain sobriety.

The RAP model of intervention utilizes the lessons learned from several prior studies designed to work with drug-user social networks, peer leaders, and natural settings to extend HIV prevention to hidden drug users (Broadhead et al., 1998; Friedman et al., 1994; Latkin, 1995; Page et al., 1991; Weeks et al., 2001). These endeavors must continue and build on successful efforts to create a cadre of active, motivated, and effective advocates to promote health in their communities. Opportunities are needed for these advocates to organize themselves to bring about environmental, social group-level, and personal changes from within their impoverished communities that are so deeply affected by the AIDS epidemic and the negative effects of illicit drug addiction. Innovative prevention programs that build on the capacity of those at risk to influence their peers and thereby increase their own resolve to engage in prevention efforts must continue to emerge in order to halt the spread of HIV.

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Table 1

RAP Peer Leader Training Curriculum: Session Content and Location

Session number	Session Content	Session Type/ Location
1	Introduction to project, staff, each other, concepts of the program (e.g., advocacy, harm reduction); community concerns; risks and solutions role play	Group session, ICR offices
2	Basic HIV/STI/TB risk and prevention information; persuasive communication techniques and role play; demonstrate use of harm reduction materials (e.g., condoms, health kits, slogans); homework	Group session, ICR offices
3	Review PHA intervention; basic hepatitis risk/transmission information; model harm reduction with materials/information; practice contact documentation; role play “full intervention engagements”; identify public advocacy activity	Group session, ICR offices
4	Role play difficult situations; staff/PHA partners develop action plan for first street/site activity; review/role play expected scenarios; hand out all materials for PHAs to use (backpacks, Flip-book, health kits, etc.)	Group session, ICR offices
5	Staff/PHA partners implement RAP harm reduction/health advocacy intervention in community sites; return to offices for feedback/sharing and “First Phase of Training” certificates	Partner session in community; regroup in ICR offices
6 - 10	Staff/PHA partners conduct RAP harm reduction/health advocacy in drug-use sites or gathering places; document contacts; “Full Training” certificates provided at closing interview following completion of Session 10 or 3 months after intake for those completing Session 7 or more	Partner sessions in community
CAG*	*[This is not part of the official RAP PHA Training Curriculum]* Monthly meetings to plan, organize, and implement activities and projects to advocate for and promote drug users' health and well-being at the community level, or to review RAP training information; open to all PHAs	ICR offices

* Community Advocacy Groups

Table 2

Demographic and Risk Characteristics of Participants Who Initiated the RAP Peer Health Advocacy (PHA) Training Program (n=130)

	N	(%)
Sex: Female	47	(36.2)
Ethnicity:		
African American	68	(52.3)
Puerto Rican/Other Hispanic (n=3)	54	(41.5)
Non-Hispanic White	8	(6.2)
Mean age (range 21-63, SD 7.37)	39.8	
Education: high school diploma/GED obtained	59	(45.4)
Unemployed	104	(80.0)
Homeless	64	(49.2)
Drug risk in prior 30 days:		
Injected drugs	53	(40.8)
Smoked crack	87	(66.9)
Drug treatment in prior 6 months	67	(51.5)
Sexual risk in prior 30 days (sexually active = 97):		
Any unprotected sex	48	(49.5)[a]
Multiple sex partners	42	(43.3)[a]
History of STI/Hepatitis/HIV (self-reported):		
Ever had an STI not including HIV	56	(43.1)
Ever diagnosed with Hepatitis C	44	(33.8)
Has HIV/AIDS (self-reported)	29	(22.3)
In jail/prison in last 6 months	37	(28.5)

[a]Percentage is based on the number of sexually active participants.

Table 3

PHA Participation in RAP Training Program and CAG Meetings

	N	(%)
Initiated training program	130	(73.9)[a]
Attended office training (Sessions 1-5)	112	(86.2)[b]
Attended 2 or more partnered field sessions (“full training”)	104	(80.0)[b]
Attended 10 training sessions (all possible sessions)	66	(50.8)[b]
CAG meetings attended:[c]		
Any meetings:	88	(78.6)[d]
1 or 2 meetings only	29	(33.0)[e]
3-5 meetings only	32	(36.4)[e]
6+ meetings	27	(30.2)[e]

[a] Percentage is based on number of participants who were recruited as PHAs (n = 176).

[b] Percentage is based on number of participants who initiated the training program (n = 130).

[c] Mean number of CAG meetings attended by all trained PHAs (i.e., those who attended 5 or more PHA training sessions) was 3.97 meetings (median = 3.0, SD = 4.58, range 0-21).

[d] Percentage is based on number of PHAs eligible to participate in CAG meetings (n = 112).

[e] Percentage is based on number of participants who attended *at least one* CAG meeting (n = 88).

Table 4

RAP Peer Health Advocates' Closing Interview Reported Prevention Conversation Topics and Median Number of Contacts (N = 99 PHAs)

Prevention Topics	% of PHAs Discussed Topic	Median # of Contacts [a]
HIV and AIDS	79.2	10.0
Safer sex and using condoms	77.1	15.0
Using rubber tips on crack pipes	71.9	20.0
Not sharing syringes, cookers, water or crack pipes	71.9	12.0
Drug treatment	71.9	7.0
Cleaning syringes with bleach	69.8	8.0
"Be aware, don't share, carry a spare"[b]	68.8	10.0
Purchasing drugs	67.7	19.0
Reducing the spread of HIV in your community	60.4	10.0
"Give a dam" (dental dam use)[b]	59.4	15.0
"Play it safe, Plan Ahead"[b]	65.6	12.0
Sexually transmitted diseases	66.7	10.0
Getting HIV/AIDS from sharing injection works	62.5	10.0
Hepatitis	59.4	12.5
"15 seconds to safety"[b]	58.3	11.0
Cooking drug solutions to decontaminate them	38.5	10.0
Other health issues	38.5	10.0
AIDS treatment	24.0	4.0
Any other health or community issues	9.4	14.0

[a] Median numbers are based on those who reported talking to anyone about the topic. Medians were used here because a small number of PHAs talked to a very large number of contacts, which skewed the means.

[b] Project RAP prevention slogan.

Table 5

RAP Peer Health Advocates' Perceived Influence on Peers' Preventive Behavior Change Reported on Closing Interview (N=99 PHAs)

A. Do you know anyone who has … since you began PHA work? [Percentage of PHAs responding "yes"]

B. How many people have … since you began PHA work? [Range, median, mode][a]

C. How many of these people did you talk to about … ? [Range, median, mode][a]

D. Percentage of those known to have changed that PHA influenced [Calculated as C/B]

Risk/Harm Reduction Practices:	**A**	**B**	**C**	**D**
… begun using rubber tips on crack pipes	88.5	1-99 median=7 mode=5	1-99 median=6 mode=5	93.5
… started using or increased use of condoms	75.0	1-99 median=10 mode=10	1-99 median=8.5 mode=2	96.3
… increased use of bleach to sterilize syringes	66.7	1-99 median=5 mode=2	0-99 median=5 mode=2	93.7
… entered into drug treatment or detoxification	65.6	1-40 median=3 mode=1	0-40 median=2.5 mode=1	85.2
… started using or increased use of the Needle Exchange Program	42.7	1-30 median=5 mode=2, 5	1-30 median=5 mode=2	93.9

[a]Median and mode scores were used here because a small number of PHAs who talked to a very large number of contacts skewed the means. The structure of the form permitted a maximum of 99 to be entered, thereby limiting the total number of people any PHA could report having spoken to about a given topic.

Table 6

RAP PHAs' Experiences Conducting Peer Health Advocacy Work in the Community, Reported on Closing Interview (N=99 PHAs)[a]

	% of PHAs mentioned item(s)[b]
Positive experiences conducting PHA work:	
Helping others/Contributing to the community	64.6
Improved own health/knowledge	37.5
Others' perception of PHA improved	24.0
PHA's self-perception improved	19.8
Negative experiences conducting PHA work:	
None	46.9
Negative responses from others (peers, family)	37.5
Negative personal conditions (homelessness, addiction, harassment)	9.4
Negative community response (police)	5.2
Other health advocacy activities engaged in:	
Independent advocacy/action in community	24.0
Project-organized advocacy/action in community	9.4
Expected outcome(s) of doing peer and community heath advocacy:	
Increased awareness and health/social benefits to the community	75.0
Benefits to PHA (job/self-improvement, drug cessation, improved peer perception/respect)	18.8
Nothing (it will be forgotten, people only do it for the money)	7.3
Benefits to project (e.g., continuation)	6.3

[a] Response categories for each question include multiple response items that were similar.

[b] Participants were allowed to mention up to two different responses to each question. For this reason, percentages by question can total more than 100.

Table 7

Reported Protective Measures PHAs Took to Prevent Self and Others from HIV Infection in Prior 30 Days: Paired Intake to Closing Interviews (N=99)

Prevention practices:	**Intake %**	**Post-test %**	**p (Π^2) (pre/post)**[a]
Used condoms[b]	35.6	66.7	**.000**
Reduced syringe sharing[c]	26.3	30.8	.774
Reduced number of sex partners[b]	31.5	58.7	**.000**
More selective about injection partners[c]	15.8	12.8	1.00
Cleaned syringes with bleach[c]	47.4	53.8	.065
Cooked drug solutions to disinfect[c]	44.7	59.0	**.007**
Stopped sharing syringes[c]	21.1	33.3	.092
Stopped sharing cookers/drug solutions[c]	15.8	33.3	**.035**
Stopped using needles/syringes altogether[c]	0	0	na
Started using rubber tips on crack pipes[d]	23.0	54.8	**.000**
Cut down on drug use	31.5	65.9	**.000**
Talked to other drug users about HIV prevention	20.9	88.3	**.000**
Talked to other drug users about other health issues or harm reduction	18.7	83.3	**.000**
Other prevention practices	0	13.8	**.001**

[a] Used McNemar test to determine whether the proportion of those who indicated they were engaging in preventive behavior at intake was equal to the proportion of those who indicated they were engaging in preventive behavior at closing.

[b] Includes only those who were sexually active at intake (n = 75).

[c] Includes only those who were drug injectors at intake (n = 39).

[d] Includes only those who were crack users at intake (n = 62).