not sharing injection equipment, using condoms) are grouped together. For other topics, outreach workers lead small groups consisting of individuals assigned to their caseload.

Another planned activity that has been used consists of a panel discussion involving staff members with former drug use experience and clients who have been successful in reducing one or more HIV risks. Discussion topics include the role of social support in modifying HIV risk behaviors, dealing with backsliding, techniques for quitting drugs, and techniques to maintain sobriety. This activity typically captures the full attention of participants, who ask many questions, especially about getting off drugs. On every occasion, participants have commended panel members for achieving personal risk reduction goals, expressing particular support for individuals who have discontinued drug use.

Informal interaction among participants and staff is an important component of the risk reduction socials. In addition to socializing with clients when they first arrive, staff members converse with them during the meal and between activities. At these times, outreach workers and counselors guide the conversation to ascertain clients' progress in reducing personal HIV risks and to provide support for their risk reduction efforts.

Participants have commented that they were surprised to find the social events both enjoyable and useful; they had anticipated that, like other "education classes," the socials would be boring and irrelevant. They have also remarked that the role model panels and small-group discussions helped them to reduce their HIV risks and, for some, strengthened their resolve to quit drugs. Another sentiment expressed by participants is that they have enjoyed becoming better acquainted with staff members and have been pleased by the support, respect, and caring demonstrated during the events. In addition, outreach and counseling staff have noted that interacting with clients in a different setting has resulted in increased respect for drug users and greater confidence in the ability of such individuals to change their own behavior.

Between November 1992 and August 1995, 345 of the 510 active clients in the intervention program (68%) attended at least one social event. Sixty-six percent of attendees were male, and 34% were female. Sixty-six percent of these clients attended more than one event. Follow-up data indicate significant differences between clients attending one or more social and those attending none. Individuals who attended a social were more likely than nonattendees to report that the program helped them get off drugs (68% vs 51%; $P = .003$). They were also more likely to report having talked to family members or friends about staying safe from AIDS (81% vs 66%; $P = .003$). In addition, participants were more likely to have asked an outreach worker for assistance regarding a personal problem (59% vs 35%; $P = .0001$). Finally, clients who attended socials more frequently reported being acquainted with other program participants (84% vs 67%; $P = .0005$).

The initial cost of implementing reduction social events as part of an existing program is estimated to be $250, which covers the cost of purchasing a public address system, a radio, a coffee urn, a thermos, and serving bowls and platters. In addition, approximately 40 hours of staff time are required for initial development of invitations, activity schedules, the icebreaker activities, the risk reduction exercises, and arranging for rental of facilities.

The total nonstaff cost of each social event is approximately $485 (space rental, $75; incentives, $170; bleach and condom kits, $50; disposable utensils, plates, and cups, $20; and food, $170). Program staff routinely solicit donations from local vendors to help defray expenses. For example, the Long Beach Department of Parks and Recreation has reduced the price of renting facilities. It has also been possible to obtain personal hygiene items and other items from a local food bank; these materials have been virtually free. With these discounts and donations, it has been possible to reduce the cost of each social to approximately $300 (space rental, $50; incentives, $35; bleach and condom kits, $50; disposable utensils, plates, and cups, $10; and food, $155).

For each social, an average of 20 hours is required for planning, facility setup, cleanup, and transporting clients. Approximately 5 hours are dedicated to event planning, which includes revising the invitation, planning the agenda, conducting the icebreaker and the risk reduction exercise, and ordering food. (In the present program, the intervention coordinator is responsible for these functions.) For clients who are unable to provide their own transportation, approximately 9 staff hours are required for outreach workers to pick up clients and return them to their homes. Preparation and cleanup require 6 staff hours. In the present program, an average of seven staff members (four outreach workers, two counselors, and a receptionist) attend each 2-hour social event. An additional 2 hours are required for direct observation and monitoring of each event by supervisory staff. If staff members deliver invitations to clients in person, additional time is required.

Planned social events appear to be an effective vehicle for providing social support for HIV risk reduction among drug users; they are fairly easy to implement and relatively cost effective. These events provide drug-using individuals with social reinforcement for their efforts to modify high-risk behaviors. Their popularity makes this intervention mechanism especially valuable, because it is often quite difficult to maintain the participation of active drug users in programs of this type. In addition, periodic social events serve to strengthen interpersonal relationships between clients and staff. It is anticipated that final outcome data will further characterize the specific role of the socials in HIV risk intervention. □

Michele Wood, MS
Fen Rhodes, PhD

The authors are with the Center for Behavioral Research and Services, California State University, Long Beach.

Requests for reprints should be sent to Michele Wood, MS, California State University, Long Beach, Psychology Department, Center for Behavioral Research and Services, Long Beach, CA 90840-0901.

Acknowledgments

This project was funded by a grant from the Community Research Branch of the National Institute on Drug Abuse (DA-07474).

Further information regarding this project, including samples of skits and risk reduction activities, may be obtained from Michele M. Wood.

An Intervention with High-Risk Mothers Who Abuse Alcohol and Drugs: The Seattle Advocacy Model

Maternal drug and alcohol abuse puts children at risk, both prenatally (through possible teratogenic effects) and postnatally (through a compromised home environment). National figures based on maternal hospital discharge diagnoses indicate that approximately 375 000 neonates (11%) are prenatally exposed to

illicit drugs. In 1991, the year this project began, an estimated 3% to 15% of the 19 800 women giving birth annually in the Seattle/King County area (population 1 613 600) abused drugs and/or alcohol during pregnancy.

Working with mothers who have a long established pattern of substance abuse presents a challenge for professionals. These women, at high risk for delivering children with medical, developmental, and behavioral problems, may be the least likely to receive preventive care from the very health and social service agencies designed to help them. Many factors, including family history of neglect and abuse, chaotic lifestyle, alienation, and poor social skills, contribute to a chronic substance abuser's inability to take responsibility for herself and her children and make effective use of services. No single clinic or agency is equipped to assist a woman in handling the multiple and serious problems related to her substance abuse.

Our work with this high-risk population over many years of university-based research on the effects of prenatal alcohol and cocaine exposure led us to develop a paraprofessional advocacy model for community-based intervention. Funding was obtained from the Center for Substance Abuse Prevention, US Public Health Service, to conduct the 5-year Seattle Advocacy *Birth to 3* demonstration and research project (total funding of $739 500 for the demonstration component). This university-affiliated project collaborates with existing community resources through cross-referral of clients, reciprocal training programs, and mutual efforts to resolve service barriers experienced by this difficult-to-reach clientele.

The primary goal of the project in the community is to foster an understanding of how to work effectively with women who are uninvolved and disaffected but whose problems have serious social and economic impacts. For the women, the primary aim of the intervention is to assist in obtaining drug and alcohol treatment, staying in recovery, and addressing the complex problems that have arisen as a result of dysfunctional lives (e.g., lack of housing, domestic violence, child custody, legal issues). For the children, the aim is to ensure a safe home environment and regular health care.

By project design, paraprofessional advocates each work with a caseload of no more than 15 clients and their families from the birth of the target child until the child is 3 years old. The five *Birth to 3* advocates have experience in working with high-risk populations through their own life circumstances and past work in social service agencies. A college degree is not necessary. Advocates are provided training on drug and alcohol treatment issues, community resources, health and family planning, child development, and parenting skills.

The role of the advocate is to assist clients in identifying their own personal goals and the steps necessary to attain them; connect women with appropriate services, agencies, and professionals in the local area; and keep the women on track with guidance, support, and a watchful eye. Together, advocate and client reevaluate goals every 4 months. The intervention is based on the concept of providing advocacy over a long enough period of time to allow for the process of realistic and gradual change to occur in these women's lives. Three years may not be long enough.

Because many chronic substance abusers never obtain prenatal care, clients were enrolled postpartum through hospital recruitment immediately after delivery and by community referral based on the following criteria: heavy drug and/or alcohol abuse during pregnancy, inadequate prenatal care, and little or no connection with community resources.

The 65 women enrolled had a long history of polydrug use. Most had family histories of parental substance abuse, and most were physically, emotionally, and/or sexually abused as children. Many had been in foster care. Most had been in prison more than once as adults, and half were homeless or in transient housing at enrollment. The main source of income for these women was public assistance. More than half of the women had delivered 3 or more children, for a total of 198 children, with two thirds of the children previously delivered no longer in the mother's care.

Important strategies used to help clients attain their goals over the 3 years include:

- establish trust and bonding with the advocate through frequent contact and home visits
- establish a strong communication network and coordinated approach among professionals serving the client (e.g., public health nurses, social service workers, child protective services)
- use written contracts to define explicit client responsibilities and time lines
- teach basic life skills in concrete logical steps, and role model social and parenting behavior
- establish close communication with clients' partners, extended family, and neighbors
- provide transportation and child care for clients' important appointments
- provide strong administrative supervision of advocates and regular interactive staff meetings.

After the first 2 years of participation in the project, 80% of the clients had been involved in some form of alcohol or drug treatment (52% inpatient, 49% outpatient, and 68% some other type of program such as Alcoholics Anonymous or Narcotics Anonymous), and 48% had been abstinent from alcohol and drugs for 6 months or more during the first 2 years (by self-report, verified by advocates). There had been an increase in the regular use of birth control, from 5% prior to enrollment to 61% regular use at 12 months, with 33% of these using Norplant, consistent Depo Provera shots, or tubal ligation. By two years, 93% of the infants were receiving well-child care, and 89% had received 4 or more sets of immunizations.

At $3800 per year per client, the Seattle Advocacy Model addresses prevention of important social problems presented by high-risk mothers. Economic costs to the public can be reduced when women in the childbearing years recover from substance abuse, are able to care for their children themselves, or limit the number of children they bear. Paraprofessional advocates improve clinic or agency effectiveness by managing myriad client complications that otherwise hinder or defeat a service provider's work. Advocates provide extensive practical assistance to clients, but, perhaps more importantly, they offer ongoing emotional support crucial to women attempting fundamental change in their lives. This intensive "relationship" aspect, so key to the intervention, cannot be duplicated by service providers with specific roles, crowded caseloads, and little time. □

Therese M. Grant, PhC
Cara C. Ernst, MA
Ann P. Streissguth, PhD

The authors are with the Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle.

Requests for reprints should be sent to Ann P. Streissguth, PhD, Department of Psychiatry and Behavioral Sciences, Fetal Alcohol & Drug Unit, Box 359112, University of Washington, Seattle, WA 98195.