Kinchart-Sociograms as a Method for Describing the Social Networks of Drug-Using Women

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INTRODUCTION

The overall increase in the rate of human immunodeficiency virus (HIV) infection among women in the United States has been attributed to increases in rates of infection in east coast, inner-city African-American and Latino communities where there are heavy concentrations of injection drug use and high levels of inner-city poverty (Landesman 1989; Chu et al. 1990). In New York City, almost 80 percent of pediatric cases of acquired immunodeficiency syndrome (AIDS) are children of mothers who use drugs or are the sexual partners of men who use drugs (New York City Department of Health 1990).

In an effort to bring an anthropological perspective to investigations of social and cultural influences on drug use, HIV infection, and HIV transmission, in 1987 the Centers for Disease Control funded a study to be conducted in a Methadone Maintenance Treatment Program (MMTP) located in the southwest Bronx, New York. The clinic is sited in an area with high rates of injection drug use, poverty, and HIV infection.

The MMTP serves 700 patients and includes the administration of methadone (a substitute drug for persons with histories of opiate addiction), counseling services, an HIV testing and counseling program, and primary health care. Participants of the study described in this chapter were drawn from a population of 300 women enrolled in the MMTP, most of them residents of the south and west Bronx.

The research was conducted by the author through The Women's Center, a peer support program operating in, but not administered by, the MMTP. The Women's Center was designed to provide drug-using women with a confidential place in which to discuss issues related to drug use, HIV infection, and other matters in a group setting. In addition to providing professionally facilitated weekly peer support groups, the program was conceived as a field station for the investigation of high-risk behaviors associated with drug use and sexual practices. The purpose of both the peer support program and the research was the reduction of the spread of HIV. Project staff members included a nurse-psychodramatist, a health psychologist, two anthropologists, and several peer leaders. Group

participants were fully informed of the research agenda. Risk reduction associated with drug use and HIV prevention education were prominent aspects of the weekly group meetings.

During an initial 6-month observation period, the author (a medical anthropologist) noted that the methadone program had many characteristics of a small community: Many patients were long-time associates, having been enrolled concurrently in various drug treatment facilities; some were related through blood and marriage; and many were coresidents. Those who continued to use illegal drugs were associated through drug use activities.

These observations led to the development of a methodology that would describe group participants' personal social networks, noting kin and nonkin relationships, drug use patterns, and places of residence to generate information relating these factors to HIV transmission (Pivnick 1994). The methodology was derived principally from the ethnographic method of recording kin-based relationships and depended heavily on anthropological concepts of kinship and residence. Recruitment of female clinic patients began with peer support group participants and proceeded outward into the general female methadone population through referrals from peer support group participants and drug counselors and other clinic staff members.

Ultimately, the methodology described in this chapter generated data in three independent studies: (1) a description of the drug use patterns and HIV status within the personal social networks of female methadone patients, including kin (consanguineal and affinal), sexual partners, household members, children's household members (if different from the subject's), friends, persons with knowledge of the subject's serostatus, and drug associates (Pivnick et al. 1994); (2) an investigation of the personal, social, and cultural influences on HIV-positive women's reproductive decisions (Pivnick et al. 1991); and (3) the methodology used in a National Institute on Drug Abuse (NIDA)-funded Perinatal-20 study of the effect of family case management on drug-using women's child custody arrangements and family relations.

ANTHROPOLOGICAL INQUIRY—KINSHIP AND RESIDENCE

Both a description of the places in which people eat, sleep, and congregate and the ways in which these same people perceive themselves to be related are fundamental to anthropological inquiry. When anthropologists initially studied small groups of people living in remote parts of the world, they noted that kinship relationships in these communities form the basis for all aspects of social relations, including marriage, residence, and subsistence

relationships. Working in these bounded communities, anthropologists recognized that knowledge of how people construct their relations with one another is essential to an understanding of how they organize themselves and how they perceive their particular universe. More recently, kinship terminologies have been constructed by some anthropologists as systems of shared meaning exclusive of biological derivatives (Schneider 1987); however, the more general notion recognizes kinship as "the network of relationships created by genealogical connections, and by social ties (e.g., those based on adoption) modeled on the 'natural' relations of genealogical parenthood" (Keesing 1975, p. 13).

The charting of kinship and social relations that forms the basis of the methodology described in this chapter has its origin in classical anthropological studies of kinship (Morgan 1904; Evans-Pritchard 1940; Fortes 1945; Levi-Strauss 1969). In representing kin relations, anthropologists use a standard notation derived from the principles of reproduction in which biological parents are understood to be the genitors of their offspring or in which persons other than biological parents are classified in the social roles of biological parents. Using "ego" (the subject) as the first point of departure and stratifying by generation, anthropologists construct a model of a group member's kin relations from those in closest biological or social proximity, moving outward to include those more and more distantly related (collateral relatives), and including affines (those related through marriage). For anthropologists, an analysis of kinship terminology (descriptive titles and meanings relating individuals and groups), coupled with related social, economic, and political activities, aids in an account of the past, makes the present less ambiguous, and facilitates an understanding of basic behaviors and meanings expressed by members of the group.

The study of residence, including history and patterns, was the second point of departure for anthropologists. Residence, like kinship, was essential to an understanding of the small groups that anthropologists first studied. In these communities, the study of location or residence often intersected meaningfully with the study of kinship, and a consideration of these two ways of describing people's social interactions became the point of departure for ethnographic studies of the culture, social action, and social organization of a group of people.

The conceptualization of residence that most immediately influenced the development of the kinchart-sociogram methodology was predominantly that of Netting and colleagues (1984), who suggested that households (groups of persons who coreside) can be understood not only as the product of kin groups, marriage practices, and residence rules but also as units of residence that are influenced by broader economic, social, cultural, and

political forces. Through a consideration of various economic, social, and political influences on coresidential units, the notion of change is addressed. Thus, alterations in external circumstances are expected to produce changes in residential units. In addition, households (or coresidential units) are conceptualized as the product and the producers of cognitive models or collectively shared meanings related to their forms and content. The emphasis on broader influences affecting residence patterns provided an important perspective in the formulation of a research agenda that was to address the relationships among HIV infection, reproductive decisionmaking, and mother-child coresidence history.

The final contribution to the development of the charting process was that of family systems analysis in which the structure, strength, and character of ties between family members and others are notated in the form of "genograms," diagrams of family relationships and relations. This adaptation of genealogical notation in family therapy has been well documented and is a form of modeling and individual note taking used by many family therapists and family therapy theorists (Penn 1983).

This view of personal social networks, including kin relations and coresidential units viewed as localized groups influenced by broader societal forces, provided a framework for the analysis of drug use, sexual relations, reproductive decisions, and HIV infection that the research described in this chapter was to address.

THE KINCHART-SOCIOGRAM METHODOLOGY

The notation that results in a kinchart-sociogram (figure 1) is produced by a subject's responses to a progression of questions about family members, drug-using associates, and non-drug-using friends and neighbors (see appendix at the end of this chapter). A kinchart-sociogram is constructed by the investigator, who asks the subject a standard sequence of questions designed to elicit relational information in an orderly fashion about people, beginning with siblings, progressing through consanguineal and affinal relatives, and finally identifying drug-using associates and non-drug-using members of ego's personal social networks. The subject is encouraged to participate throughout the process, offering information, evaluating the chart construction, and providing changes and corrections when appropriate.

The construction of the chart is a method that elicits information in a more complete way than, for example, the construction of a list of kin or sexual partners who are uninformed by the subject of her HIV-positive serostatus.

Charting, as a method, renders persons and categories of persons reified as symbols on paper and encourages answers to questions regarding drug use behavior, sexual behavior, and HIV infection without personal identification. It is also a method that is of interest to subjects, thereby maximizing involvement in participation. During the period of data collection, study participants regularly requested copies of their charts.

In addition, the charting process has a therapeutic application. The process of chart construction is itself an intervention. Drug-using persons enrolled in a methadone maintenance program typically have siblings, cousins, and partners who use drugs. The chart organizes information about these people in a readily accessible form, making the numbers of drug-using family members and friends obvious to subjects. One woman, having identified four of six siblings as well as several cousins as drug users, remarked with astonishment about the number of drug users in her family, a fact that, until that moment, had not been apparent to her. Another subject identified her father as an alcoholic and three of her four sisters as heroin and crack users. On completion of the chart, noting the multigenerational character of substance abuse in her family, she expressed the fear that her two children would use drugs and follow the example of her father, herself, and her sisters.

Once all associated persons (such as kin, friends, drug associates, lovers, casual sexual partners, neighbors, work friends) have been identified and their sexes, ages, and places of residence noted, various attributes are assigned to these members of ego's personal social network, or "personal community," a term borrowed from Wellman and Berkowitz (1988, p. 28). Like identifying members of the personal community, seeking the attributes of the identified persons is done in an orderly fashion. Each major attribute (drug use, friend, household member, sexual partner, member of children's household, intimate friend, and knowledge of ego's serostatus) is represented graphically (see figure 1 for key). (The Women's Center kinchart-sociogram used colors rather than the various lines and symbols used in figure 1.)

The first application of this method was an investigation of the social networks of drug-using female methadone patients; the second was a study of HIV-positive drug-using women's reproductive decisions. The specific attributes of persons identified by subjects included the drug or drugs used, friendship, emotional intimacy, household membership, children's household membership, sexual partner, casual sexual partners, cause and year of death, serostatus, knowledge of ego's serostatus, and designations further defining nonkin as neighbors, childhood friends, and work-related associates. Subjects were asked to identify only those relatives known to them, with the exception of the grandparents and

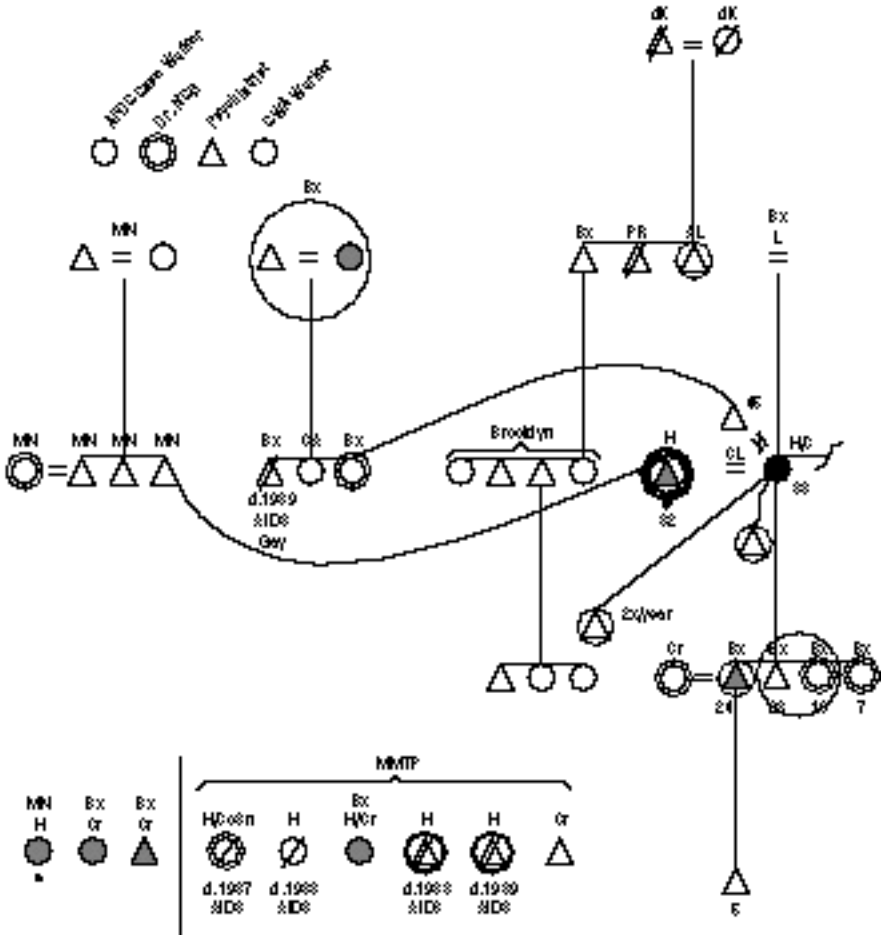
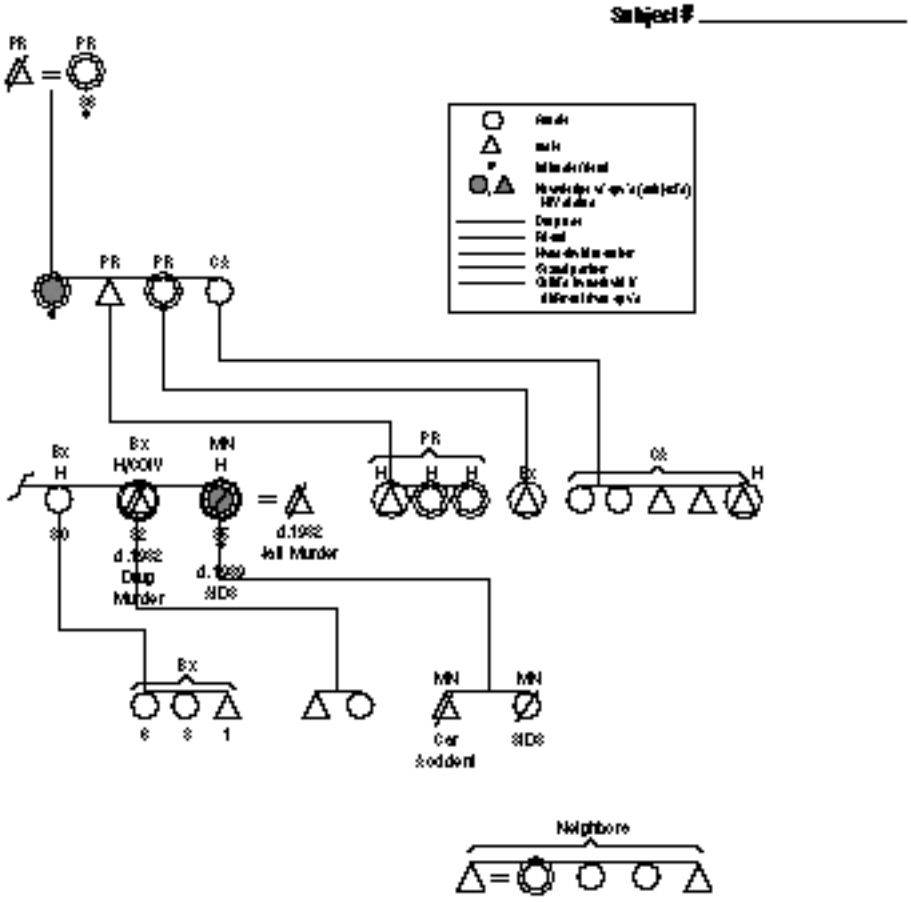


FIGURE 1. *Example of a kinchart-sociogram*

great-grandparents whose places of birth were elicited even if the individuals had not been known to the subject.

In both the study of social networks and the study of reproductive decisions of HIV-infected women, the partially completed chart was accompanied by an investigator-administered, open-ended, structured questionnaire (see appendix). Throughout the interview, the subject was asked to refer to the chart to add people or to amend information about already-identified persons. Sensitive questions about constituents' (individuals represented



KEY: **AFDC**=Aid to Families With Dependent Children; **AIDS**=acquired immunodeficiency syndrome; **AL**=alcohol; **Bx**=Bronx; **CA**=California; **CL**=common law marriage; **Cr**=crack; **CWA**=Child Welfare Administration; **d.**=died; **dK**=does not know; **Dr. NCB**=physician at North Central Bronx Hospital; **H**=heroin; **H/C**=heroin and cocaine; **H/COIV**=injected heroin and cocaine; **H/COS**=heroin and intranasally ingested cocaine; **L**=legal marriage; **MMTP**=Methadone Maintenance Treatment Program **MN**=Manhattan; **PR**=Puerto Rico; **SIDS**=sudden infant death syndrome

by symbols on figure 1) HIV infection or AIDS diagnosis were asked during the structured interview rather than during the initial chart construction because the probability of positive response increased with the trust developed during the interview and because some attributes were better asked about in contexts other than the chart construction.

At the conclusion of the interview, subjects were asked to review the kinchart-sociogram for accuracy.

EXAMPLES OF DATA ELICITED THROUGH THE KINCHART-SOCIOGRAM METHOD

Prevalence of Reported HIV, AIDS, and Violent Deaths

One product of the use of the kinchart-sociogram method is the data derived from the initial study of personal social networks describing the numbers of persons whom subjects identified as having died by violent means or from AIDS-related illnesses as well as those described as being HIV infected.

In the initial charting and interview process, 126 female methadone patients participated. During the interview, with the kinchart-sociogram as a reference, subjects were asked to identify persons they knew who had been diagnosed with or had died of AIDS and those who were HIV infected. In the course of constructing the kinchart-sociograms, subjects volunteered information about relatives, sexual partners, friends, and drug associates who had died by violent means, including accidental death by fire, drowning, electrocution, or motor vehicle accident; murder by shooting, stabbing, battering, or being pushed into or from a subway train; drug-related deaths (overdose); and suicide.

The presence of HIV infection in this population can be described in the context of these subjects' households. Of the 119 households, 54 (45.4 percent) were reported to have at least one member, possibly including the subject, who was HIV infected. Among these 54 households, 33.2 percent of the total membership (67 of 202 individuals) were HIV infected. A total of 43 households had 1 HIV-infected member; 9 households had 2 HIV-infected members; and 2 households had 3 HIV-infected members.

Of the 71 minor children who lived in 27 (50 percent) of the 54 households with HIV-positive members, 5 (7 percent) were reported to be diagnosed with AIDS.

Of the 715 total siblings (all subjects plus their siblings), 69 (9.7 percent) were reported to be HIV infected.

The 126 subjects reported 55 HIV infections, 63 AIDS deaths, and 44 deaths by violent means from among 4,928 known relatives and lovers. These HIV infections, AIDS deaths, and violent deaths were reported from among siblings, husbands, lovers, children, nieces, nephews, aunts, uncles, siblings-in-law, cousins, ex-husbands, ex-siblings-in-law, and stepparents

(individuals of all ages). These aggregated numbers of HIV infections, AIDS deaths, and AIDS diagnoses did not include identifications of deaths and infections among friends, neighbors, or drug-using associates. The 63 AIDS deaths represent 1.3 percent of the 4,928 constituents.

When these experiences with HIV infection are examined from the perspective of each woman, the impact of AIDS becomes more tangible: From among the 126 women, 47 reported having experienced AIDS deaths among family members—35 experienced 1 death, 10 experienced 2 deaths, 1 experienced 4 deaths, and 1 experienced 5 deaths.

Furthermore, when AIDS experience was stratified by generation, it was clearly demonstrated that, at this point in the epidemic, the most profound losses experienced by this low-income, urban community were suffered by members of the subjects' generation, persons between ages 20 and 45. From among the 126 women, 58 AIDS deaths were reported from among siblings, husbands, lovers, siblings-in-law, cousins, ex-husbands, and ex-siblings-in-law (those of the women's generation).

The comparison of AIDS deaths and violent deaths from among extended family members is another means derived from the chart data by which to understand the impact of the AIDS epidemic. Of the 126 women, 34 experienced the violent deaths of 44 family members; 12 women experienced the death of at least 1 sibling, and 3 women experienced the death of at least a husband. Of the 34 women who lost members of their personal communities through violent deaths, 14 also had been affected by 1 or more AIDS deaths.

The number of deaths by violent means (44), which constituted 0.9 percent of the total number of 4,928 constituents, was exceeded by the number of reported AIDS deaths (63); the AIDS deaths represented 1.3 percent of the total number of relatives. The number of persons reported to be HIV infected (55 or 1.1 percent) exceeded the number of persons reported to have died by violent means (44 or 0.9 percent).

Preliminarily, without adjusting for age or for the period of time the AIDS epidemic has been experienced by members of this community, if the numbers of reported HIV infections (55) and reported AIDS deaths (63) are considered together as a gross representation of the effect of the HIV epidemic, it is clear that AIDS already has had a far greater impact on this group of low-income, ghetto-dwelling women than even that of the high number of losses to date experienced by deaths from violent means (44).

Prevalence of Reported Drug Use Within Subjects' Social Networks

In the study of social networks, the kinchart-sociogram methodology elicited information about subjects' drug use and the drug use patterns of subjects' sexual partners, coresidents, and family members. Influential social aspects of drug use were described through categories of analysis that included the drug use patterns of subjects and their coresiding sexual partners, participants' children's and coresidents' drug use, and histories of drug use in subjects' families of origin.

The extent to which drug use and HIV and AIDS permeate the social relations of women in this methadone clinic in the Bronx is apparent from the data. Although all the subjects were enrolled in treatment for illegal drug use, 72 percent continued to use illegal drugs (mostly cocaine) at least monthly, and more than 35 percent did so daily. Of the 63 women who resided with a sexual partner, 36 reported regular use of illegal drugs. Although only a minority of the partners (fewer than 25 percent) used crack or other forms of cocaine, statistically significant positive associations were found between women's crack use and that of their partners as well as between women's use of other forms of cocaine and that of their partners. This pattern differed from that of heroin users, among whom no statistically significant association was found between women's current use of heroin and that of their coresiding sexual partners.

Drug use was common in the households with minor children. Of the 142 children who resided with their mothers, 92 (64.8 percent) lived with mothers who reported regular use of illegal drugs; 117 (82.4 percent) of the children lived with at least one parent who used drugs; and 123 (86.6 percent) lived in households where at least one adult household member was a drug user.

Within subjects' families of origin, almost one-third of the subjects' siblings were drug users. Among the 240 known parents, 17 (7.1 percent) were reported to have abused alcohol, and 19 (7.9 percent) were reported to have histories of using illegal drugs. One parent was reported to have abused alcohol and illegal drugs.

Only 13 (10.3 percent) of the 126 subjects reported that their mothers had histories of substance abuse. Seven (5.6 percent) of the mothers were identified as heroin users, four (3.2 percent) as alcoholics, two (1.6 percent) as cocaine users, and one as a marijuana user.

Of the 114 women who knew their fathers, 21 (18.4 percent) reported that their fathers had histories of substance abuse. Thirteen (11.4 percent)

fathers were identified as alcoholics, seven (6.1 percent) as heroin users, two (1.8 percent) as cocaine users, and one as a marijuana user. Two fathers were reported to have abused multiple substances.

Use of illegal drugs was widespread among subjects' siblings: 126 women in the study reported a total of 589 siblings (mean=4.7; range 0 to 20). Of the 119 women who had siblings, 84 (70.6 percent) reported that at least one of their siblings had a history of illegal drug use.

Of the 589 siblings, 180 (30.6 percent) were reported to have histories of abusing drugs other than alcohol. Of these 180 drug-using siblings, 153 (85 percent) were reported to have used heroin or some form of cocaine. Of the 126 women in the study, 8 (6.3 percent) reported having 1 sibling who abused only alcohol.

Considering the subjects and their siblings together, among these families, almost half the subjects' generation were drug users. The relatively low numbers of parental drug users (less than 8 percent) compared with the high numbers of drug-using siblings (50 percent) suggests a marked increase in drug use between generations.

The social character of drug use is further evident in the numbers of households in which one or more member is a drug user and the numbers of children living in these households. A child's residence with a drug-using adult may not necessarily lead to the child's drug use and does not necessarily imply deficient parenting, but the widespread presence of drug-using adults in households with minor children supports a perception of drug use and related behavior as normative (Bauman and Dougherty 1983; Deren 1986).

NIDA's Perinatal-20 Treatment Research Demonstration Program

The kinchart-sociogram methodology recently was amended for use in a NIDA-funded study of postpartum drug-using mothers enrolled in the Family Services Project (FSP), a program intended to improve the health outcomes of offspring born with positive urine toxicologies and their siblings. For this study, additional categories of constituency were included in the standard progression of questions designed to elicit the members of ego's personal social networks. The added categories included health care providers, mental health providers, public assistance workers, and treatment program personnel. The inclusion of additional categories was intended as a means of evaluating the family case management intervention. It was hypothesized that once maternal drug use has been addressed and treated, the membership of ego's personal

social networks would change to include fewer drug users in ego's household and among ego's friends. Non-drug-using persons (in this case, support group members, family therapists, and other program staff) and health care providers were expected to appear on the chart on readministration. The chart also identified the residences of ego's children born prior to the index child, whose birth brought the family into the research treatment, and was expected to document the reunification of egos and those children who previously resided apart from their mothers. The study protocol specified the readministration of the chart every 6 months for 2 years, beginning at enrollment, which was prior to participation in the program. These data will be forthcoming on the readministration of the charts at 6-month intervals.

In addition to eliciting data about the social networks of 8 subjects enrolled in the FSP, kinchart-sociograms have been administered to 2 comparison groups: 30 women participating in Narcotics Anonymous (NA), the well-known but little-studied self-help program for drug users, and 61 women enrolled in the MMTP where this methodology was first developed. Preliminary data from these three study groups describe drug use of subjects' families of origin and drug use of subjects' coresidents.

Substance Abuse Among Subjects' Parents

Among the FSP subjects, 50 percent of the fathers (four of eight persons) and 12.5 percent of the mothers (one of eight persons) were reported to use alcohol. Among NA subjects, 50 percent of the fathers (15 of 30) and 36.7 percent of the mothers (11 of 30) were reported to use alcohol. Among the MMTP subjects, 49.2 percent of the fathers (30 of 61) and 34.4 percent of the mothers (21 of 61) were reported to use alcohol.

None of the fathers and mothers of the FSP subjects were reported to use illegal drugs. Among NA subjects' fathers, 26.7 percent (eight) were reported to use one or more illegal drugs; 23.3 percent (seven) of the NA subjects' mothers were reported to use one or more illegal drugs. Among MMTP subjects, 9.8 percent (six) of the fathers and 14.8 percent (nine) of the mothers were reported to use one or more illegal drugs.

One possible explanation for the different trend in percentages of reported parental drug use between FSP subjects (who reported no use of illegal drugs by any parent) and NA and MMTP subjects may be issues of child custody. Many FSP mothers do not have custody of their children; many of these children are in the custody of the subjects' mothers. The FSP mothers may not volunteer histories of parental drug use because of fears of custodial consequences.

Reported Substance Abuse Among Subjects

Three (37.5 percent) of the eight FSP subjects reported using illegal drugs. Of the 61 MMTP subjects, 30 (49.2 percent) reported currently using 1 or more illegal drugs. None of the NA subjects reported using illegal drugs.

Reported Substance Abuse Among Subjects' Siblings

Among the siblings of seven FSP subjects, two (28.6 percent) were reported to have histories of alcohol abuse. Among the siblings of 30 NA subjects, 16 (53.3 percent) were reported to have histories of alcohol abuse. Among the siblings of 56 MMTP subjects, 28 (50 percent) were reported to have histories of alcohol abuse.

Of the seven FSP subjects with siblings, six (85.7 percent) reported at least one sibling with a history of using illegal drugs. Of the 30 NA subjects with siblings, 24 (80 percent) reported at least 1 sibling with a history of illegal drug use. Among the 56 MMTP subjects with siblings, 37 (66.1 percent) reported histories of drug use among these siblings.

The 99 subjects reported 181 sisters and 143 brothers. Sixty-nine (38.1 percent) of the 181 sisters were reported to have a history of illegal drug use, 47 (26 percent) were reported to have a history of alcohol abuse, and 91 (50.3 percent) were reported to have a history of substance abuse (alcohol and illegal drugs).

The 99 subjects reported that 69 (48.2 percent) of their 143 brothers had a history of illegal drug use, 43 (30.1 percent) had a history of alcohol abuse, and 81 (56.6 percent) had a history of substance abuse (alcohol and illegal drugs).

Of the total 423 subjects and siblings, 166 (39.2 percent) were reported to have histories of using illegal drugs.

Illegal Drug Use Among Subjects and Subjects' Household Members

Two (25 percent) of the eight FSP subjects reported at least one drug-using coresident. None of the 30 NA subjects reported a drug-using coresident. Of the 61 MMTP subjects, 22 (36.1 percent) reported residing with at least 1 drug-using coresident.

These preliminary data support the findings reported in the study of social networks among female methadone patients in which the social nature of drug use was documented (Pivnick et al. 1994). The association

of subjects' abstinence with households in which there were no drug users suggests the importance of residential environment and social relations in the treatment of drug abuse.

CONCLUSION

The kinchart-sociogram method elicits detailed information about the personal communities of subjects, including information vital to assessing social support for HIV illness, the frequency of drug use among family members and friends, and sexual contact patterns relevant to HIV transmission risk. Personal communities are also the framework through which people share knowledge about AIDS risk and prevention, especially in AIDS-endemic areas such as the Bronx. Moreover, these communities represent natural systems of personal support during illness, for child care and custody, and for housing.

Kinchart-sociograms represent networks of a subject's relationships and interactions with other persons. The object is to define these networks in terms of concrete social relations located in specific sites. In this analysis, relations are described between ego and individual persons among ego's kin group, network of friends, sexual partners, drug associates, and household members and are characterized by ego's needs, behaviors, and exchanges of tangible goods and support. Ego is central. The chart is a map of ego's interpersonal relations, represented by self-reported dyads.

However, the identification of an individual's personal social relationships does not necessarily imply interactions between constituent members as in traditional social network analysis. Interaction with ego is the only requirement for inclusion. Nevertheless, it is not assumed that these dyads, comprising ego and another person, are the only level of analysis possible; in reality, relationships exist among members of ego's personal social networks such as kin, persons related through drug use (e.g., persons enrolled in the same drug treatment program and needle-sharing partners), persons who are HIV positive who see the same doctor, and persons who live close to one another. A second level of analysis is therefore implied, that of the members of ego's personal community who interact with each other and whose interactions affect ego's behavior and other relations. Although implementation of the kinchart-sociogram method does not address this second level of social network analysis, the opportunity to recast the methodology to include relations between network members is readily apparent.

The kinchart-sociogram method permits a graphic and quantifiable description of complex social realities. As an intervention, it is of marked

interest to subjects and, by requiring the subject's active participation in the process of inquiry, encourages the subject's development of awareness about the nature of AIDS risk and the extent of drug use in sexual and residential relations. Furthermore, by repeating the charting at regular intervals, the method permits prospective study of changes in social networks associated with changes in drug use patterns and, in the case of HIV infection, disease progression.

An account of the numbers of HIV-infected adult household members generated by the methodology provides a perspective on the numbers of children at risk of losing one or both parents and potentially becoming dependent on an already overtaxed foster care system. The identification of drug use and specific drugs used among household members is a useful means of describing drug use patterns and residence patterns among drug users.

Finally, the kinchart-sociogram method elicits data that demonstrate the social nature of drug use and its expression in influential social contexts such as families, sexual relations, and households. In turn, the description of these social contexts suggests the development of treatment modalities that include sexual partners, children, and household members.

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APPENDIX. Questionnaire used with the kinchart-sociogram

Note: If death of any person is reported, record year and cause of death.

Protocol for the Construction of the Kinchart-Sociogram

How old are you?

How many brothers and sisters do you have?

What are their ages?

Where do they live?

Are your parents living?

Where do they live?

Do you know your mother's brothers and sisters?

Where do they live?

Do you know your father's brothers and sisters?

Where do they live?

Do you know your mother's mother and father?

Where do they live?

Do you know your father's mother and father?

Where do they live?

Do you or did you know your mother's and father's grandparents?

Where do or did they live?

Do you know the children of your mother's and father's sisters and brothers (your cousins)?

Where do these people live?

Do you have children?

How many children do you have?

What are their sexes and ages?

Where and with whom do they live?

Do you know your brothers' and sisters' children?

What are their ages and sexes?

Are you married?

Is your marriage common law or legal?

How old is your partner?

Do you know the brothers and sisters of your current partner?

Where do they live?

Do you know your current partner's parents?

Where do they live?

Have you been married before (number of husbands)?

Were these marriages common law or legal?

Do you know the sisters and brothers of your former husbands?

Where do they live?

Do you know the parents of your former husbands?

Where do they live?

Is your current husband the father of your children?

Who are the fathers of your children?

Do you know the brothers and sisters of your children's father or fathers?

Where do they live?

Do you know the parents of your children's father(s)?

Where do they live?

Are there any other relatives you know that I haven't asked about?

Have you had a lover or lovers during the past five years other than your spouse?

Is this lover(s) still your lover?

Do you know your lover's family?

Do you have friends who don't use drugs?
(Prompt if necessary: neighbors, old school friends, old family friends, work friends.)

Where do these friends live?

Do you have any friends (and/or associates) who do use drugs?

Do you have any friends (and/or associates) who are in the Methadone Maintenance Treatment Program?
(Construct methadone patients separately on the chart.)

Which drugs do they use?

Where do these friends (and/or associates) live?

Are any of these people your neighbors?

Do any other people on the chart use drugs?
(Prompt: siblings, parents, in-laws, etc.)

Which drugs do they use?

Are any of the following, people you care about: social workers, welfare case workers, Child Welfare Administration case workers, doctors, nurses, midwives, social workers, therapists, or other health care people?

Where do you see these people?

Are any priests, ministers, rabbis, or spiritual advisers important to you?

Where do you see these people?

Which people on the chart do you consider your friends (including all categories of persons)?

Whom do you consider your closest friends?

Whom do you live with?

(Questions asked during the administration of questionnaire)

Do you have casual sexual partners?

How frequent are these sexual encounters?

Do you know your HIV status?

Which people on the chart know you are HIV positive?

Do you know anyone who is HIV infected?

Do you know anyone who has died of AIDS?

When did they die?

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