

National Institute on Drug Abuse

Followup
Fieldwork:
AIDS
Outreach
and
IV Drug
Abuse

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

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Followup Fieldwork: AIDS Outreach and IV Drug Abuse

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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National Institute on Drug Abuse
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Foreword

Effective followup of drug abuse clients in the community is essential to any outcome study exploring changes in behavior consequent to an intervention. Understanding the efficacy of drug abuse treatment requires the location of a sufficient number of subjects such that we can conclude the study sample is reasonably representative of the treatment population. Studies of the efficacy of outreach/intervention strategies designed to reduce the risk-taking behaviors of drug users who are not in treatment similarly require location/followup rates sufficient to justify confidence in study findings. Both populations present challenges to research. Subjects are often transient, indeed many are homeless; they may be engaged in illegal acts and have little wish or reason to be "found" by representatives of public agencies or institutions; they may have reason to keep secret from friends and relatives their past histories and therefore be unwilling to reveal the names and whereabouts of persons who could be key informants for their location. To overcome obstacles in the conduct of evaluative research, it is imperative that investigators institute their followup strategy at the very beginning of study. Locator forms and tactics must be available at intake or they will likely be useless post-intervention.

This document is provided to aid the process of followup and increase the integrity of evaluation research. It presents issues in sampling for followup, initiatives for locating and administering followup measures, and strategies for overcoming resistances to followup. While particularly oriented to study with out-of-treatment populations, the guidance and suggestions should prove useful to all investigators engaged in the demanding and essential task of followup research.

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Chapter 1

Introduction

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Much is now known about techniques and problems of following up intravenous drug abusers, and we can begin with the state of the art. However, research with respondents who not only are IV drug users (IVDUs) but also have AIDS is relatively new, involving as it does an additional component. We do not as yet know all there is to know in this area, since special considerations relate to the interaction of IV use and AIDS. Consequently, slightly different approaches and techniques of following up this kind of respondent may be appropriate.

In this manual we are embarked on a new endeavor: to address the problem of following up respondents who have heretofore been used as subjects in AIDS research, and, more specifically, those who are or have been intravenous drug abusers, as well as their current and past sexual partners. This manual is part of the National AIDS Demonstration Research Project (NADR), a national outreach effort mounted by the National Institute on Drug Abuse, which has as its aim the implementation and evaluation of comprehensive community-based outreach intervention models to reduce the spread of AIDS among targeted IVDUs and their sexual partners. NADR was initiated in 21 sites in September 1987 and by 1989 was operational at 63 sites throughout the mainland United States, Hawaii, and Puerto Rico. The project is targeting two major populations: IVDUs not in treatment, and the sexual partners of IVDUs. The NADR Project is meeting the critical need for a coordinated network of research programs in high prevalence geographical areas to reach IVDUs (an estimated six out of seven IVDUs) and who are, therefore, less likely to be receiving AIDS prevention education. Through the NADR project, thousands of IVDUs and the sexual partners of IVDUs are being contacted and recruited to the programs using a variety of research sampling strategies (e.g., networking). Contacts are made by indigenous outreach workers, health care and social workers, drug treatment counselors, and other community agency personnel. Once recruited into the programs, participants are interviewed by trained staff using the AIDS Initial Assessment (AIA) questionnaire, a detailed survey of demographic characteristics, drug-use, needle-use, and sexual practices as well as AIDS knowledge and beliefs. A major purpose of the AIA is to describe and measure behaviors that place the target population at risk for HIV/AIDS; of particular importance are needle-use and sexual practices. After interview, most programs provide HIV test precounseling and offer participants an opportunity to

receive an HIV antibody test. Participants are then randomly assigned to a standard AIDS prevention or to an enhanced (more intensive) AIDS prevention program encompassing individual and group counseling, skills-building techniques (e.g., partner-negotiating and self-empowerment), culturally-appropriate AIDS education, and other interventions designed to encourage them to change behaviors that place them at risk for HIV infection. Behavior change over time and the efficacy of the interventions among different population subgroups is assessed through a detailed followup interview using the AIDS Followup Assessment questionnaire (AFA).

This volume is to be thought of as a living and evolving document; it represents the state of our current knowledge and understanding at a point in time. As work on this project and in this field continues, and as our experiences accrue, we will add to the document and thus keep it current. We expect to learn from each other across the various research sites and to pool our thinking via aggregate brainstorming. Although much of the material presented here is general in nature, contributions from current outreach efforts with respect to their experiences will provide concrete and specific illustrative cases. This group process should enable us to develop and refine methodologies in the shortest period of time. What we learn can be coalesced into systematic principles. The ultimate goal of this process is a finished document which will contribute to this as well as to future research of this nature. These methodological advances are required now, since the problem is upon us. Time is short and the need is great. Thus an inordinate degree of cooperation is demanded to achieve these goals within the span of this set of AIDS outreach projects with IVDUs and their sexual partners. The techniques most appropriate to this new area of research are not likely to become fully apparent until this large-scale, all-out effort is completed. We do not at this time know, for example, the effect of less than random sampling, or of significant loss of cases in followup, or what the true costs of a full-scale followup of all subjects might be. At a later time, after this effort has been completed, we may conclude that a less than full-scale effort is satisfactory. For example, it may turn out that gathering data on "easy" cases (those who can be located for followup without much difficulty) provides as much information as we need, and thus spares us the effort of going after "hard to find" cases.

The methodological problems involved in this new and unique area of research are compounded by a new set of issues: namely, that there has never before been so rapid an increase in the incidence of an illness which is in the apparent interest of the respondent to repress and conceal. A unique aspect of research with AIDS IVDUs, intrinsic to this double-barreled problem, lies in the fundamental conflict

between the scientific objectives and procedures of this research and the goals and responsibilities of civil, criminal and health care systems with respect to IVDUs and those with AIDS. The inherent contradiction lies in the fact that the primary goal of this or any research--information gathering--is impeded by the opposing actions of the following major societal institutions (which, in their involvement with AIDS and with IV use, are all largely oriented toward protection of the society):

Health Systems. These are concerned with addicts and with those infected with AIDS, to the ends of protecting both the society and the individual. Examples of activities undertaken by health systems are health "detective work" and quarantines.

Criminal Justice System. This is concerned with the illicit nature of IV use, and emphasizes intervention by means of enforcement.

Legislative Systems. As contrasted with the previous system, this involves civil laws. Relevant civil laws are those oriented toward protection of the society from AIDS as well as from activities associated with IV use, e.g., the requirement that physicians report to the appropriate community agency names of individuals found to have AIDS, or that treatment agencies report similarly to regular sexual partners of those with AIDS.

Unfortunately, protection of society is premised on having adequate information, and, because of this, those on both sides of the dilemma must constantly assess and modify their roles and procedures for the betterment of society.

The goals and functions of these three classes of institutions, in their operations relevant to IVDUs with AIDS, mitigate *against* the goal of *finding out*, since the latter (research) goal is impaired by the needs of health systems to control, by criminal justice intervention (enforcement) and by the threat of disclosure inherent in legislative policies. All these institutions, by the nature of their activities, impinge on the addicts in ways that may discourage them from talking freely and openly about themselves, particularly about their activities relating to AIDS and to IV drug use. The unfortunate consequence may be loss of the respondent, not only as research subject but also from treatment facilities. Again, it is hoped that current outreach efforts will contribute material about their specific experiences with respect to the conflict between needs for confidentiality and for obtaining information.

Some of the key questions and considerations in followup research are the following:

Giving assurances of confidentiality--What kinds of assurances can the respondent be given? It is necessary to: 1) look into community laws and health and police policies, 2) determine constraints/sanctions relevant to IV AIDS respondents in order to become familiar with the kinds of assurances the respondent is likely to need and that are likely to facilitate followup and 3) formulate strategies for followup personnel to use in a) giving assurances of confidentiality, i.e., promises to give protection, particularly from criminal prosecution, but also from the legal system, from prosecution by health systems, from discovery by family and friends and from adverse impact on treatment; also to protect the individual's right to receive treatment as well as his/her right to reject or refuse treatment, and b) most effectively communicating these assurances to the respondent. Issues of confidentiality are further discussed in Chapter 4 (**Locating Subjects by Traditional Techniques**), Chapter 5 (**Locating and Followup Via Social Networks**) and Chapter 6 (**Interviewing**).

Special considerations for ethnic groups--It may be necessary to devise different techniques appropriate to following up members of specific ethnic groups. This is relevant not only to IVDUs but also to their sexual partners. Problems of communication, both linguistic and conceptual, should be considered. Chapter 6 discusses some ethnic considerations during interviewing.

Additional issues are explored in the following content areas in subsequent chapters of this volume:

The Outreach Population--The importance of the target population, i.e., that segment of all IVDUs to which an outreach effort will be directed, is basic to the significance of the study and to the conclusions which can justifiably drawn from it. Relevant issues and procedures are discussed in **Chapter 2**.

Sampling--What we can learn from this project will be bounded to a large extent by sampling considerations. Sampling problems and procedures are discussed fully in **Chapter 3**.

Locating Subjects by Traditional Techniques--Before data can be collected, it is necessary to locate respondents. Considerations of locating are generally applicable both to locating during original recruitment (for outreach, i.e., the independent variable), and again during followup (for determining the efficacy of outreach, the dependent variables). This chapter discusses traditional techniques of locating such as: a) mail, b) telephone, c) knocking on doors, d) criss-cross directories and e) institutional sources, such as health care facilities (including hospital emergency rooms), social services and the criminal justice system (i.e., enforcement: jails and prisons, parole and probation records). These are discussed in **Chapter 4**.

Locating and Followup Via Social Networks--A successful system for locating respondents which is particularly applicable to IVDUs is the use of social networks. Procedures and considerations in using social networks are discussed in **Chapter 5**.

Interviewing--The experimental findings depend on the integrity of the collected data; this in turn depends on the quality of the interview. Considerations of interviewing are discussed in **Chapter 6**.

Chapter 2

The Outreach Population

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In the launching of a large-scale outreach effort, an important consideration is the nature of the target population: the characteristics of the respondents which the outreach effort seeks to locate and engage. A critical question to be asked is "How has this outreach population been defined--on what basis have its members been chosen for contact?" The particular dimensions along which the outreach population is characterized will determine how this population differs from other intravenous drug using populations: those, for example, in jail, in treatment programs, actively addicted and on the street, on police rosters or operating in given geographical locations or neighborhoods.

The universe of IVDUs varies along a number of dimensions which are associated with other behavioral variables; thus, in selecting the target population, we also, whether purposefully or inadvertently, include certain specific subpopulations and exclude others. The process of adopting procedures for locating members of that target population should involve a full awareness of intended selection variables, so as to insure that we do not lose, by omission, those respondents who are most important to us and so that unspecified variables of which we may be unaware do not inadvertently affect selection or followup outcomes. Many of these influential dimensions have already been investigated in studies of drug users; consequently, there is some body of knowledge by which we can be guided in our choice of the target population. The variables which we elect to include and/or omit in outreach efforts (in an attempt to include or exclude specific subpopulations) may have considerable impact not only on the ease or difficulty with which the respondents may be originally located and contacted but, further, on later problems that arise in subsequent followup, that is, with relocating these respondents. The clearer the definition and description of the target population, the more we can surmise about how to go about looking for respondents comprising that population.

The specific quality of each dimension along which the target population is characterized will exclude certain possibilities and permit others. Choices must be made on the basis of what seems most likely to achieve or test the paramount aims of the outreach effort. Selection and recruitment strategies should include a "best guess" with respect to probable ramifications of each choice. Certain strategies, for example, as we have discussed above, may provide a greater or lesser assurance of followup.

Several relevant dimensions may be considered for illustrative purposes. These dimensions may be classified into two major categories, variables which can be thought of as "internal" or organismic (borne by the respondent), and those which are "external" to the respondent. Examples of external variables are the ecological and demographic characteristics of the geographical area in which s/he lives. Internal or organismic variables include the respondent's race, gender, age, intelligence, addiction career, current addiction status, whether in jail or in treatment.

First, let us assume that a decision is made to recruit or pursue respondents currently enrolled in treatment programs. Within this domain (i.e., "in treatment") a range of other subfactors operate. These may include the following: whether clients' participation in the given treatment program(s) is typically voluntary or mandatory, the nature of the treatment requirements and rules (e.g., urine testing) of the program(s), the services offered (abstinence, methadone maintenance, individual counseling, group therapy, self-help, etc.) and those which are emphasized. Also, it must be kept in mind that not everyone on a program is necessarily "straight", i.e., s/he may be violating program rules by continuing illicit use of drugs. As a consequence, a prospective subject (IVDU) found "on the street" may turn out also to be in treatment, and vice versa.

Or consider an alternative choice: the strategy to direct outreach efforts toward active street addicts. Among these are various subtypes: e.g., those organized around groups such as copping areas or social networks (see Chapter 5 below), those who live at home, those who are basically "loners". The type of target group will determine how and where potential respondents can be approached. This may include copping areas, other hangouts, where they live, etc. Certainly, any of these conditions will have different effects on the outreach effort and on the potential respondents' receptivity and responsiveness to those efforts. Further, the problems of following up a representative street population may prove to be considerable, if not unsurmountable.

Again, we may consider a potential approach in which the outreach effort is targeted toward respondents contacted through the criminal justice system, e.g., via parole and probation, or those in jail or prison. This strategy may prove to have some clear advantages: This captive population is eminently accessible, unlikely to fail to keep appointments and, even better, virtually guaranteed to be available for followup without the necessity for further tracking. Moreover, potential respondents' motivation for participating may be enhanced by the novelty of the undertaking and the opportunity to lighten the monotony of inmates' daily routine. Conversely, use of a prison population may also have disadvantages. One negative aspect is the possibility that an outreach effort will be far less effective in modifying behavior of an incarcerated population than of a population at liberty and entirely free to engage in extensive sexual and drug-related activities over a potentially wide geographic area.

Another reasonable approach to selection of the outreach population is through a specific geographical area, along with its attendant social and demographic realities. Outreach efforts can be aimed at or focused on a given area or section of the city, or on a particular census tract or neighborhood. This specific location may be chosen in the belief that the target population comprises, at least in part, those who are residents of this location, or those who frequent it for particular reasons, for example, for "copping" or for ready access to sexual partners or fencing operations. This location--census tract, neighborhood, etc.--may now be described in terms of its demographics. Much is known, for instance, about the demographic characteristics of specific census tracts of many cities. For example, certain census tracts with high incidence or prevalence of narcotic addiction may be characterized by inherent instability or impermanence of residence; selection of respondents from these areas is therefore more likely to be associated with followup difficulties. On the other hand, certain municipalities are known to have relatively stable and unified neighborhoods. In these, networking and followup are often facilitated by the relative permanence of residence--if not of a given respondent being sought, then possibly of his family and/or other associates who may be able to help provide followup locating information.

Geographical areas can also define risk with respect to AIDS: that is, neighborhoods and census tracts are risk factors because they aggregate certain characteristics (for example, the presence of homosexual hangouts such as bath houses). Each may be described in detail with respect to its demographic composition: socio-economic variables (e.g., income, employment, educational level), racial and ethnic composition, age distribution, social pathology (e.g., prostitution, residential instability, marital and family instability, population

density, extent and types of crime, drug activities), housing, use of social services, educational resources, medical resources, cultural and recreational facilities, etc. Research findings exist with respect to the relationship between certain aspects of drug use and many of these demographic variables.

Undeniably, a major factor to be considered in determining and defining the target population is the likelihood of locating and subsequently following up given respondents. Clearly, this is absolutely basic to the outreach effort (i.e., no locating and relocating, no respondent, no outreach). However, other--possibly more important--considerations should be carefully weighed: namely; which target population(s) are in greatest need and in which target populations the outreach effort is most likely to have the greatest impact, with which one(s) it is likely to be most effective. These orientations may at times seem to be mutually contradictory or working at cross purposes. Those respondents who are easier to locate and follow up (e.g., those in treatment or prison) may be less involved in situations conducive to AIDS, while those who are prime candidates for outreach efforts because of their high potential for having, contracting and/or spreading AIDS (e.g., frequenters of shooting galleries or young, impulsive addicts with heavy habits) may be hardest to locate and/or follow up. Selection of the appropriate target population may thus first require reaching a decision about the relative importance to be assigned to each of these orientations.

The emphasis in the foregoing discussion may seem to imply that the target population is to consist solely of IVDUs, who are known to be at risk of contracting and/or spreading AIDS. But an integral part of the target population, and one which must be included, consists of the sexual partners of IVDUs. While one may assume that some of these will be easily located as a result of their association with IVDUs already contacted, it may be necessary or desirable to resort to other sources. These may include treatment centers, medical clinics, shelters (e.g., for battered women), areas frequented by prostitutes and groups in prostitution who service both the addict population and the nonaddict heterosexual population, as well as other addicts who are aware of the sexual relationships of specific individuals with given IVDUs.

The literature suggests that there are many demographic differences among addicts that could condition the risk of contracting or spreading AIDS. These factors should be taken into account when defining the target sample, developing intervention strategies and setting priorities with respect to risk. Some useful examples are the following.

Income level of a given geographical subdivision may be very indicative in light of the finding that addiction is most commonly found in low-income areas (Nurco and Farrell 1975). Similarly, demographic data with respect to stability of marital ties suggests the degree to which residents of given areas are likely to be promiscuous in their sexual behaviors (the correlation between narcotic arrests and percent of unmarried residents = .69; see Nurco, Shaffer, and Cisin 1984). This may be similarly related to their drug-taking practices (where, with whom and with how many, etc.). Both of these may affect the degree to which their mates and children are in danger of contracting AIDS.

Demographic data on specific communities are a valuable source of information on characteristics of the population of IVDUs and those known to have AIDS. We know from numerous study findings, for example, that differences exist between addicts of different racial or ethnic origin within and between cities (e.g., Nurco et al. 1986a, 1986b). Thus, we can make use of demographic data on the geographical areas in which there is a heavy concentration of these racial/ethnic groups; that is, once we have statistics on the relation between ethnic composition and IV use/AIDS, we want to know where these groups congregate. Other findings with respect to differences among addicts from different ethnic and racial backgrounds include the greater degree of maladjustment among white addicts than among black addicts (Nurco, Cisin, and Balter 1981a, 1981b, 1981c; Shaffer, Kinlock, and Nurco 1982; Shaffer et al. 1988).

Similarly, gender differences in behavior have also been found among addicts; female addicts engage in fewer and less violent criminal activities but appear to have more psychopathology than male addicts. Further, the existence of an interaction between gender and racial variables is manifested by the finding that white female addicts tend to be more deviant than black female addicts (Nurco, Wegner, and Stephenson 1982).

Addicts also show wide variation in measured intelligence level, irrespective of educational attainment. (Most addicts have not graduated from traditional high schools).

In addition, within the addict population as a whole, there are major subgroup differences with respect to drug career, life styles and types of crimes committed.

As previously indicated, we think it is very important to know who and what part of the AIDS problem is being addressed in the NIDA AIDS outreach studies. The following are recommendations with respect to defining a particular target population:

Each outreach team should search out or collect background data in its own city, data that can help describe the characteristics of the addict population: i.e., find out what that community's addict population looks like. In the process, key similarities and differences between subgroups of addicts should be noted. Hopefully, the study samples chosen can thus be located demographically within the larger context of the addict population of city or region.

For the purposes of defining/describing addict populations, one can seek out data from the following sources: hospital emergency rooms, medical examiners, DAWN data (where it exists), police rosters, jails and prisons, departments of parole and probation, recent entries into treatment facilities (methadone maintenance and other types), etc.

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Chapter 3

Recommendations For Followup Sampling

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Introduction

The purpose of this chapter is to provide investigators with a review and overview of basic sampling strategies and sample size determination techniques. Strengths and limitations of the various approaches are reviewed, and specific recommendations for followup data collection in the AIDS outreach projects are provided.

Since data are collected for several purposes and for analyzing many different variables, no one sample size calculation or sampling design may be optimal for all purposes. Studies may have their own local evaluation design, but all are participating in the national evaluation. The basic research design common to most of the AIDS outreach studies is a simple before-and-after design to monitor changes in seroprevalence and risk factors over time. We will present sampling designs for followup data collection for that basic design and some variations on that design. Each research team will have to apply these ideas to its own site depending on its research interests and local evaluation objectives. This chapter is designed for the AIDS outreach projects, including those which are already collecting followup interviews and those which have not yet begun to do so.

Why Sample?

We need to consider the implications of sample size for both the national level study and the local outreach studies. Looking at the studies from the perspective of the national evaluation, adequacy of size is certainly no problem. For example, if 50 sites draw samples of 1000 each, then the national data base will consist of 50,000 cases. This is at least ten times larger than the sample size typically drawn for most national public opinion surveys, and therefore more than sufficient for descriptive purposes. Additionally, it may not be necessary to reinterview all

baseline subjects to estimate changes in critical variables. An advantage of sampling would be to utilize resources to minimize sampling attrition. The ensuing trade-off is that of well behaved simple random error which is more likely when one draws smaller samples (with high completion rates) in comparison to poorly behaved systematic error which occurs in high sample attrition.

Nonprobability Sampling and Representativeness

Historically, because lists of the nontreatment universe of illicit drug users are nonexistent, most drug abuse researchers have had to rely on nonprobability samples of illicit drug users in their studies. Seemingly, this flies in the face of basic research conventions such as reliance on probability sampling. Probability sampling stresses the use of large, randomly selected samples assumed to be representative of the populations being studied and therefore less prone to sampling bias. However, the cumulative body of drug research demonstrates that when the characteristics of samples are clearly specified and the samples have been drawn and constituted in similar fashion, results have been fairly homogeneous. Hopefully, this homogeneity will prevail for the body of data that is currently being collected in AIDS outreach research projects, and permit us to draw some reliable and generalizable conclusions.

In most of the National Institute on Drug Abuse (NIDA) studies on the AIDS outreach demonstration projects, the target population consists of street intravenous drug users (IVDUs) not in treatment and not easily reached. Since, for descriptive purposes, a very large number of AIAs (baseline interviews, i.e., AIDS Initial Assessments) were needed within a very short time, convenience or purposive sampling (nonprobability sampling) rather than random assignment was employed at baseline. It was important to develop information quickly in this very high-risk population where AIDS was flourishing, and to get some early indication of whether rapid behavioral change was feasible. It is also important to remember that the prime purpose of these AIDS outreach research demonstration projects was to reach and influence high-risk groups of addicts who were not in treatment, and through them, their at-risk sexual partners. Still, there is an empirical question of whether or not the sampling methods introduced any significant bias. If the target population is approachable IVDUs, it may still be an adequate sample.

Having to rely on a sample of IVDUs that are accessible on the street raises questions about the resemblance of the sample studied to the universe of nontreatment IV-using populations. Sampling biases related to the times and places subjects were recruited and the exclusion of certain social classes of IVDUs or

occasional IVDUs are unavoidable. This does not negate the utility of the study, because nonprobability samples may still be valid for the subsection of the population studied. Since virtually the same studies are being carried out in different populations around the country, methodological weaknesses resulting from nonprobability sampling and potential regional variation may be somewhat mitigated by similarity of findings. Additionally, as we noted above, the bulk of previous drug research has yielded consistent findings about IVDUs. One should not conclude that, given the condition of nonrandomness at baseline, random selection at followup is futile. Careful followup by random selection can minimize rather than compound sampling errors.

It is clearly essential that we minimize bias in followup. Regardless of the sampling plan and the inevitable attrition of study respondents, the followup sample should generally mirror the baseline sample on key demographic variables such as sex, race, age and length of addiction. That is, the followup sample should be representative of those seen at baseline.

Another factor guiding the determination of sampling mode is that one must consider the particular research questions relevant to each study and make certain that the sampling is adequate to test those questions in the subpopulations chosen. A typical question would be whether the rate of a certain behavior, e.g., the use of bleach, has changed in the total population over six months or if those changes differ according to particular subgroup membership.

Sampling Options

The Baseline Universe

There are a number of reasonable approaches that one could take in sampling for followup. The most obvious and straightforward approach, if one has questions about the total population, is to follow up all individuals interviewed at baseline--both IVDUs and their sex partners. An optimal goal, consistent with rigorous research conventions, is that of 80% re-interviewed (Gould and Lukoff 1977).¹ The main advantage of this approach is one of increased odds of attaining a

¹Of course this is just one simple rule of thumb; there is no true (non-arbitrary) standard for attrition. One should attempt to attain the highest rates possible for the population being studied and the available resources. In addiction research, followup completion rates of 90% or more are not unknown (McAuliffe; Nurco et al.; O'Donnell; Robins; Vaillant).

sufficient number of cases to meet statistical power considerations. The disadvantages of this method lie in the costs of time and resources. Among the major considerations from which sampling decisions should flow are whether and to what extent the sample 1) avoids or reduces bias, 2) is adequate to meet the research questions of concern and 3) satisfies statistical power considerations. The size of the baseline sample, the nature of the initial sample and the adequacy of locator information obtained at baseline may also serve as guides in making followup decisions. For example, studies with a baseline N of approximately 1000 may opt for a smaller followup sample, something less than the baseline universe, and use valuable resources in pursuit of a high completion rate. Conversely, studies with smaller baseline Ns may choose to follow all of their subjects. Similarly, studies whose data base includes a high proportion of individuals potentially difficult to follow (such as the homeless) or a high number of respondents with inadequate locator data may be well advised to pursue a subsample of their baseline.

Simple Random Sampling

If an investigator is concerned with general questions about the whole population (e.g., changes in seroprevalence, percentage using condoms, frequency of needle sharing), then simple random sampling of the baseline sample for followup would be an appropriate approach. The investigator must then decide on the number of cases from the original sample to follow. As indicated, studies may choose to sample only a proportion of their original data base. If an investigator decided, for example, to follow up 20% of the baseline of 1000 cases, then a followup sample of 200 would be projected. Using a probability-based simple random sampling method and a 20% sampling frame, one can generate a random sample of the existing baseline data file by using a simple computer command. For example, SPSS's command "Sample" selects a random sample and allows for the specification of the percentage of the file to analyze. This subsample can then be saved with a "Save File" command, and the list of cases printed out for followup purposes or preliminary analysis of demographic characteristics. However, simply choosing an arbitrary percentage is a rather rough way to approximate the number of cases needed by a particular study. One must first consider the research questions, analyze the characteristics of the baseline sample and then analyze the characteristics of the subsample.

Preliminary analyses of the subsample characteristics could then provide a basis for decisions about whether this subsample is adequate to answer the study questions. For example, suppose the researcher had particular hypotheses regarding gender

and race differences in sexual risk behavior. A comparison of Tables 1 and 2 (below) makes it quite evident that a 20% sample with a 100% followup success rate would have insufficient whites and an inadequate number of females, particularly white females, on which to test the hypotheses. Furthermore, the distributions presented in Table 2 are hypothetical. Sample random selection processes could result in only one white female or *no* white females in the reduced sample. Further reduction of the sample by attrition of even 15% could render some of the individual investigator's hypotheses untestable. This illustration shows that simple random sampling, particularly one that represents a substantial reduction from the baseline sample, may be inadequate to test the researcher's questions. The investigator's ability to detect significant effects with a reduced sample must take into consideration the calculation of statistical power which will vary according to the type of analysis and the number of covariates planned. On the other hand, the pool of cases contributed to the data base of the national outreach study by all participating institutions could still provide an adequate data base at the national or aggregate level. However, this would require prior planning and a recognition that there are many limitations to this approach, including likely regional or other differences among samples. Clearly, having adequate Ns at the local level is preferable and far more defensible.

Table 1: Baseline Sample				
	White	Black	Hispanic	Total
Male	80	400	320	800
Female	20	100	80	200
Total	100	500	400	1000

Table 2: 20% Followup Sample				
	White	Black	Hispanic	Total
Male	16	80	64	160
Female	4	20	16	40
Total	20	100	80	200

Stratified Random Sampling

One solution to the problem just described is merely increasing the entire sample size. Another, more efficient, approach is stratification. Stratified random sampling involves separating the population into groups or strata such as by ethnicity or gender. The baseline proportions provide the guidelines for subsampling the followup. Another stratum of potential importance to some of the national study sites is that of community. In some cities where diverse areas of the city or even multiple communities were studied, these areas would provide the primary level of stratification, and gender a possible secondary level. When a stratified random sampling methodology is used in an initial sample selection, it helps to ensure that appropriate numbers of people are drawn from homogeneous subsets of a population and it is a means of decreasing sampling error (Babbie 1973).

Sampling on Key Variables

Up to this point, our discussion of key variables on which to stratify has focused mainly on such major demographic variables as gender and ethnicity. Demographic variables such as the latter, along with employment and marital status, are important descriptors of the population and are frequently used as independent variables in many analyses. Employment and marital status, as indicators of social support, also have the potential for being substantively important to this study regarding their association with such factors as frequency of sexual behavior and condom usage.

If a decision is made to subsample from the baseline of completed interviews, one could easily identify several other critical variables or subgroups that merited further study. Study designs which call for treatment and comparison groups will certainly consider these as major population groups to follow. Among the typical variables of importance for drug-using populations that are likely to be correlated with high-risk behaviors are drug of choice (heroin or cocaine), length of addiction career and shooting gallery use. Although some of the characteristics are very likely to overlap, one could identify specific comparison groups such as heroin users versus cocaine users, groups with short versus long addiction careers, shooting gallery users versus non-sharers, and then oversample within these subpopulations to ensure adequate sizes of comparison groups.

One could also sample on the dependent variables of high-risk needle use and/or unsafe sexual behavior. For example, it may be possible to develop an index of unsafe injection practices which includes a number of variables related to cleaning and sharing of "works" and frequency of injection. This index could be used to identify possibly three groups of people with high, moderate, and low risk injection scores which would provide the basis for sampling stratification. One major caveat about this approach is that it can introduce a systematic sampling bias, e.g., undersampling of members of one group relative to their presence in the population and oversampling of another group. To counter the sampling bias introduced by disproportionate sampling, such as in the example of sampling on the dependent variable, it is necessary to utilize a weighted analysis approach (Williams 1989).

Disproportionate Sampling and Weighting

In a followup sample where the population characteristics are already known, one might choose to sample disproportionately from certain groups of interest that are underrepresented at baseline. For example, if the baseline sample contained only 80 Hispanic women and if one had formulated a hypothesis about risk behavior in this group, then a greater proportion of Hispanic women would be randomly sampled from the initial group. Studies with experimental and control groups will also tend to have unequal numbers in these groups. Another important factor that must be considered in sampling is that for a number of cities two distinct target populations exist, i.e., IVUDs and their sex partners. Similarly, many cities found sex partners difficult to recruit into the study, and consequently their numbers are very low. These factors dictate the need for sampling from within both of these populations, and disproportionate sampling from the non-IV-using sex partner group would also be appropriate if one planned to analyze differences between the two groups or focus on each group separately.

Our discussion above on sample followup for other than the baseline universe indicated more than one instance where disproportionate sampling was needed to achieve sufficient cases for analysis. These instances will almost certainly vary from study to study. If certain strata or population groups are disproportionately sampled, then corrective weighting must be introduced. This corrective weighting is necessary in the analysis phase when subsamples are combined to correct for the unequal probabilities of selection, and must be used in the estimation of parameters for the entire population or for variables other than those used as a basis for stratification.

If we selected all 20 of the white females from Table 1 for the 20% sample presented in Table 2, then we would be combining groups with a 100% probability of selection for white females and only a 20% probability (20/100) for black females. Thus, each white female has a probability of selection that is five times as great as that of black females. Consequently, case weights equal to the reciprocal of the sampling fraction must be used in any combined analysis with the female population which reflects these disproportions (see Babbie 1973, pp.103-105, and Kish 1965, for a more detailed discussion of weighting). However, investigators should be prepared for the fact that weighting increases the complexity of the analysis and can prove to be troublesome when used with some software statistical programs. If there is no compelling substantive reason for disproportionate sampling, then proportionate stratified sampling (which is self-weighting) might be the sampling strategy of choice.

Sample Size and Power

Estimation of the number of subjects required for a study is an important part of hypothesis testing. Social science researchers are accustomed to minimizing Type I errors by setting alpha at low levels. This means researchers guard against accepting false facts, i.e., a research hypothesis that is not true, by choosing a conservative level of significance such as $\alpha = .05$ or $.01$ for rejecting the null hypothesis of no differences. Social scientists have less often considered the possibility of Type II errors (beta) in the design and analysis of their research when there is, in fact, a reciprocal relation between Type I and Type II errors. If you lower alpha from $.05$ to $.001$, for example, then the possibility of a Type I error is decreased and the possibility of a Type II error (beta) is increased. Thus, one would conclude that there is no effect when, in fact, one is present. In an AIDS outreach project, a Type II error would be to conclude the outreach was not effective, when in truth it is. The importance of guarding against making such errors should be obvious. Consequently, one will want to design one's study with sufficient sensitivity or power ($1 - \beta$) to be reasonably certain of demonstrating the effectiveness of one's program if it is effective.

A calculation of statistical power defined as $1 - \beta$ (the probability of rejecting the null hypothesis) is concerned with determining the sample size needed, for a selected alpha level, to reject a false null hypothesis (e.g., street outreach with IVDUs significantly increases the use of bleach) to give the research hypothesis a reasonable chance of being proven correct (Cohen and Cohen 1975; Kraemer and Thiemann 1988). Generally speaking, the greater the sample size, the greater the power. Power can also be increased by eliminating uncontrolled sources of

variance (e.g., by using stratification, covariance adjustments, etc.) and by increasing the size of treatment effects (e.g., making the difference between the experimental and control conditions as different as possible) (Keppel 1982).

As with most of the methodologies already discussed here, power analysis is meant to be done prior to the initiation of a study, in this case, the followup study. The investigator must decide first on his significance criterion, typically .05, and choose a one-tailed or two-tailed test (two-tailed tests require greater sample sizes). Secondly, the investigator chooses a level of power. Most investigators opt for a level of maximum power in the range of .70 to .90 (the higher the power, the lower the chances of a Type II error), with .80 being the conventional choice. Fleiss (1981) suggests using one rule of thumb which is based on the belief that a Type I error is four times as serious as a Type II error. Then power becomes $1 - \beta = 1 - 4\alpha$. If $\alpha = .05$, then $1 - \beta$ (power) = .80. However, some choose samples such that both α and β are equal to .05. There are also many elementary statistics texts which use sample size formulae with power = .50 (e.g., Blalock 1972).

The investigator must also choose *a priori* a particular parameter of interest, such as seroprevalence rates or high-risk drug behavior, and decide on an expected minimal value that would show significant differences between sample groups. The anticipated effect size may be based on preliminary research of the investigator's or a review of the literature on similar research. Sometimes the estimation of power is based on rather arbitrary assumptions or even pure guesswork, as one must do the calculations using estimates of the size of the expected treatment effect (e.g., a difference between a control mean and an experimental mean) and the size of the relevant standard error. A common approach is to assume the worst case situation, e.g., 50%, which produces the largest variance. This may lead to very conservative estimates which overestimate or provide an upper-bound of population needs. Having actual data, as we do for the baseline sample, will assist in making power calculations and deciding on an optimal sample size for the follow-up.

There are several complete treatments of statistical sample size determinations that can assist investigators (e.g., Cohen 1969; Cohen and Cohen 1977; Fleiss 1981; Kraemer and Thieman 1988). Power analysis of the data in Table 3 (below), using percentages as the parameter of interest, suggests that the sample of white females (N=20) shown in Table 1 would not be adequate for making comparisons with any other subgroup in Table 3. The results of this analysis are based on a formula for power that is presented in tabular form in Fleiss (1981). Use of this table (Fleiss 1981, Table A.3, p.268), which is included in an abbreviated form in

Appendix A of this chapter, requires specifying the expected proportions for two groups. Table 3 shows our hypothetical estimates that clean needles will always be used by 40% of black females but by only 25% of black males (a 15% difference). A sample of 120 in each of two groups (total sample of 240) is needed to provide adequate statistical power ($\beta = .80$; $\alpha = .05$) with proportions of 25% and 40% in two groups.

Table 3			
	Black Females	Black Males	Total N
Clean Needles	40%	25%	78
No Clean Needles	60%	75%	162
Total N	120	120	240

In order to achieve the equal groups indicated in the hypothetical distribution of Table 3, one would need to have sufficient numbers to stratify. One caveat about the usage of standard power tables discussed here is that they usually assume a research design with equal sample sizes in groups and two independent samples. Therefore, the computations of the sample size tables will not hold exactly when the groups are unequal. When sample sizes are unequal and very skewed, e.g., 70% in one group and 30% in another group, more subjects are required to achieve the same power (See Kraemer and Thiemann 1988, pp.70-73, for a more elaborate discussion of this issue). One conservative rule of thumb used by statisticians is that power determinations are really dependent on the smaller of the two groups. Thus, if one group has only 30 subjects, power determinations would hinge on this more limited sample size.

A practical illustration of power techniques is provided by an example which assumes a 10% difference in annual seroprevalence rates (proportions of 25% and 35%), selects an alpha level of .05 and chooses a power level of .80. Based on the tables in Fleiss (1981, Table A.3), it can be concluded that 348 cases are needed for each sample. The Fleiss table for standard differences between proportions also shows that if power were to be set at .50 rather than .80, 181 cases per condition would be required. However, univariate analysis of this type is useful for a simple

before-and-after analysis of the entire sample, but is conservative in estimating sample size related to power because it ignores the correlation between Time 1 and Time 2 values on specific variables.

Power calculations will differ according to the type of statistical analysis planned. In addition to the contingency table univariate approach illustrated in Table 3, investigators use power analysis in determining the sample size for regression analysis. Multiple and logistic regression represent efficient strategies for estimating the effect of experimental variables while adjusting for covariates. For example, in one study we plan to use logistic regression to estimate the effect of our outreach/counseling intervention on seroprevalence while adjusting for race and level of drug use, and plan to use regression analysis for estimating the number of episodes of needle sharing during the followup period. A formula for deriving sample size in testing the significance of a treatment effect (or any other covariate) in a multiple regression analysis is as follows (Cohen and Cohen 1975):

$$1) \quad n = \frac{L}{f^2} + k + 1,$$

where L is a constant found in a table and based on the desired power of the test and the significance level, and k is the number of independent variables, and

$$2) \quad f^2 = \frac{\text{variance explained by the treatment}}{\text{unexplained variance of the regression (1-R}^2\text{)}}$$

For this analysis we will assume an alpha of .05, a two-tailed test, and power equal to .80. We will use a conservative estimate of 5% for explained variance based on the results of previous research on the effects of interventions like ours, and an overall R² of .25. Calculation of the necessary sample is:

$$f^2 = \frac{.05}{.75} = .0667$$

$$n = \frac{7.85}{.0667} + 3 + 1$$

$$n = 122$$

Thus, given a power of .80 and alpha of .05, the sample size needed to detect an effect as small as .05 and an R^2 of .25 is 122 cases.

We note that the above analysis, with an estimated 5% of the variance explained by treatment, is more relevant to treatment studies where there has been random assignment of the subjects to experimental conditions that differ markedly in content. Many of the cities in the national study have a before-and-after research design, where all subjects receive an outreach intervention. In nonrandomized designs of the latter type without comparison groups, treatment effects are very difficult to demonstrate. Instead, investigators may want to consider the relative effects of other variables. This will most likely require a larger N than the sample size of 122 calculated above, due in part to potential problems of multicollinearity (that reduces the unique percent of the variance contributed by a variable to the equation) and the number of variables being examined (one degree of freedom is lost for each variable). The reader should also consult Cohen and Cohen (1975) for a complete discussion and the presentation of tables for L values at differing levels of alpha and power. In Appendix B (at the end of this chapter), we select some of the more commonly used values from Cohen and Cohen (1975, Table E.2) to assist in calculations of L and estimated sample size needs where k =the number of independent variables.

Conclusions

This chapter has attempted to provide investigators with guidelines and options for selecting a followup sampling design and a sample size sufficient to answer particular research needs. Although we noted certain limitations and problems with small sample sizes and representativeness of the baseline sample, these are not insurmountable. Previous drug abuse research shows that, in many respects, samples of street addicts of similar origin do not vary too much from one another. Few studies of drug addicts have the luxury of being able to use true probability samples drawn from a known universe. Studies that recruit directly from the street rather than from treatment programs are generally more representative of all IVDUs. To assess the representativeness of one's sample, the population characteristics of study respondents can be compared to those rates available from emergency rooms (i.e., DAWN data), drug treatment data, data on heroin deaths and police data on drug related arrests. In this way, it is possible to better define the target population and perhaps find support for the generalizability of the study's findings. Additionally, analysis of subsample data from the obtained sample can give an indication of the possible degree of variation across different addict

samples. Such comparisons within communities are in fact strongly recommended. It is particularly important to minimize bias in followup by ensuring that the followup sample is representative of those seen at baseline. Probability sampling at followup can also strengthen the validity of the data.

We noted that many of the decisions about followup sample size, analysis and power determination are implicit to the research design and therefore should have been made *prior* to the selection of the outreach population and the collection of data at baseline. For example, determining power after the fact may be a case of closing the stable door after the horse has left the barn. It may not be feasible to collect any more baseline data. Nevertheless, there is still some utility in determining power for the followup sample. For one thing, we can feel more certain about the adequacy of our followup schema. Secondly, a determination of power can support the belief that treatment effects are present so that successful strategies for intervention can continue.

Ultimately, the power of the local studies will be strengthened by the replications occurring around the country. Ideally, all programs should have the same minimal interval between baseline and first followup interviews, as well as the same criteria for when a case is considered lost to followup. The importance of these latter considerations should be understood by AIDS outreach research projects, the funding source and the agency that will be pooling the data.

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APPENDIX A*
Sample sizes per group, two-tailed test on proportions. P1 = .25

P2	Alpha	Power			
		.90	.80	.70	.50
.30	.01	2411	1902	1572	1098
	.05	1714	1291	1023	652
.35	.01	643	509	423	298
	.05	459	348	278	181
.40	.01	301	240	200	142
	.05	216	165	133	88
.45	.01	177	141	118	85
	.05	127	98	79	53
.50	.01	117	94	79	57
	.05	85	65	53	36
.55	.01	83	67	57	42
	.05	60	47	39	27

*Abbreviated from Fleiss, J.L. *Statistical Methods for Rates and Proportions*, 2nd ed. New York: John Wiley & Sons, 1981.

APPENDIX B*
Selected Values of L for alpha = .05

k	Power			
	.50	.70	.80	.90
1	3.84	6.17	7.85	10.51
2	4.96	7.70	9.64	12.65
3	5.76	8.79	10.90	14.17
4	6.42	9.68	11.94	15.41
5	6.99	10.45	12.83	16.47

*Abbreviated from Cohen, J. and Cohen, P. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 2nd ed. Hillsdale, N.J.: Lawrence Erlbaum & Associates, 1983.

Chapter 4

Locating Subjects By Traditional Techniques

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Special Considerations Involved In Locating and Recruiting For Followup Studies

Problems of locating are relevant and applicable both to recruitment of respondents for outreach and in followup of the same respondents (a necessary component of outreach research for purposes of determining its effects). The problem of locating respondents is important because a followup which does not locate almost all subjects within the chosen sample will potentially produce biased results.

Why Drug Abusers Are Hard To Locate

Unique issues are involved in locating drug users. They will be difficult to locate because many are more mobile and less often in contact with conventional social institutions, i.e., their families, than average followup subjects. These subjects also represent an extreme case for the following reasons: 1) most are young males, the most mobile group even among nondeviant populations; 2) they are usually very poor, which further increases their mobility; for example, they may be evicted for not paying rent, may move to evade creditors or they may be homeless; 3) they are less often registered in many of the sources that readily provide changes of address for most people, such as the U.S. Post Office, rosters of electric and gas companies, telephone books, voting records, drivers' licenses or alumni records; 4) they often have poor ability to sustain interpersonal relationships, which means that their former spouses or mates may no longer know where they are, or that relatives may not have heard from them for a long time; 5) they may try to hide from street enemies, police or other institutional authorities. Further, recovering drug abusers may be difficult to find at home even after home addresses are located, because those who have relapsed will be out "hustling" and "copping" or they may not want to be identified as drug abusers in their new situations. As explained in (3) above, most IVDUs are not reachable through more standard

techniques of locating study participants. However, as some IVDUs become more stable, "putting down roots", they may take on the basic patterns of nonusers. In those cases, use of resources such as Polk city directories, criss-cross directories or town lists might be helpful. An example of this might be the long-term follow up of a cohort of drug users initially identified via drug treatment programs. Years later, aside from identification through street contacts, phone calls, etc., such individuals might be tracked through the postal service or driver's license records. A discussion of successful techniques used in a long-term epidemiological followup is presented by Boice et al. (1978).

Significance of Entering Treatment

Although these reasons for unusual difficulties in locating drug-using subjects are generally applicable, they are not intended to imply that all drug addicts are alike. Of course they are not. Some IVDUs are a great deal easier to locate than others. Those who have gone into treatment will be easier to locate because their habits and interests will be better known and because their longer records will provide more clues for locating them. In addition, their latest address of record will be more recent. Further, those who did not do well may be back on the street or in a prison and may be found easily. At the same time, those who did well, whether as a result of treatment or spontaneously, are more likely to be living a conventional life, with all that this implies about less moving from one address to another, more contact with spouse and relatives, more community participation and consequent ease of location. Nevertheless, some successful clients may move away from the area or otherwise cut off ties with contact persons named on their locator form.

Sexual Partners of IVDUs

Female sexual partners appear to be easier to locate than their IV-drug-using partners. Initial experience with this population suggests that they are less mobile and somewhat more stable. They may have ties to community members who are also more stable and thus may be easier to locate through them. Followup may also be facilitated by assigning an outreach worker to a specific group of respondents, such as sexual partners, for recruitment and followup. They begin to remember names and/or faces of respondents and to associate those with people they see on the street.

Field Work

There are four main thrusts to locating subjects and securing their cooperation. One involves efforts mainly within the criminal justice system; a second, the system of "helping services" (health/social service); a third, the subculture of addiction (discussed in more detail in Chapter 5 below); and a fourth, primarily the "tried and true" techniques used in searching for populations when no special problems are present.

Systems Used to Locate Subjects

Criminal Justice

Oftentimes, researchers can use the criminal justice system to find hard-to-locate subjects. Field work may be started with the identifying information collected during the initial selection of the sample and then expanded with records in some communities from the State Police, with the addition of material submitted by other police jurisdictions throughout the state. After this step is completed, further progress may be made by working with the Prisons and Parole Board. (Before setting up procedures to work with a research organization, these agencies require that their needs for protection of data be met. After this is done, they can be extremely helpful.) Although many subjects being sought may not be currently known to these agencies, enough information may be obtained to help in locating some individuals. Once a subject is located in the criminal justice system, the last known agency can be contacted and one may proceed from there in trying to secure a current address. This may lead to local and state police agencies throughout the country and some departments of correction. When a sizeable number of subjects reside in a specific large municipality, it may be desirable to work out cooperative arrangements with the state and city Departments of Probation and Departments of Corrections. These relationships can prove most helpful in locating some subjects, particularly those with several aliases.

Incarceration/Death. In general, clients who are in prison or dead are easy to document. The vital statistics divisions in the state departments of health can be very helpful. By submitting names and dates of birth, it is possible to verify death certificates or obtain birth records, which in turn supply names of parents and places of birth. Such information also helps the outreach worker determine

whether or not s/he has found the correct subject within the death or prison records. The use of aliases, of course, always complicates the issue of which name is "real".

In conducting interviews with incarcerated persons, each institution's standard clearance procedure should generally be followed. The person in charge should be contacted, the study explained, and the individuals being sought should be identified. A subordinate can then be assigned to serve as liaison. This person makes all necessary arrangements: temporary release of the subject, admission of the interviewer to the institution and provision of a place for the interview to take place privately. Since cash is considered contraband in most correctional institutions, payment to subjects can be in the form of something like cartons of cigarettes or other equivalents of the usual cash payment. The fact of this payment and its nature and amount should be cleared in advance with the institution.

Helping Services (Health/Social Service)

A useful approach may also be developed with the help of the regulatory unit for drug control within state health departments. Some of these agencies send regular newsletters to all pharmacists in the state. (In the course of one study, the names of five older subjects not yet located were listed in one such newsletter, and pharmacists were asked to notify the state unit if they had filled prescriptions for those individuals. The individuals were in no way identified as drug abusers. This yielded positive results: three of the five were located.)

Several other rosters and agencies that can be used in efforts to locate subjects include Medicare, social and welfare agencies, mental hospitals and VA hospitals. The complete sample can be checked against the current and past rosters of all of these agencies within a given state. Many state agencies are very helpful in searching their records. When they identify an individual, they can search further in base files to secure addresses and next-of-kin information.

It is very useful to add data located through the "Helping Service" system to material found in the criminal justice system. For instance, in one study, a man was known to police in Tennessee, who were able to provide an address dating back well over a decade. It eventually made it possible to trace and locate him through social service and health agencies that had helped him at that time.

In addition, drug abuse programs can be visited for purposes of explaining a research project and talking with the staff members of these programs about the

problems of locating subjects. In these situations, one should follow the same procedures as when talking with subjects about unlocated respondents. When the personnel of a drug abuse program know one of the individuals on a list by last name or nickname, they can be asked to talk with that person or to give locators his name and address so that his/her identity can be verified. Here again, locators must always be careful not to divulge confidential information already in their possession.

Tried and True Techniques (General Methods of Finding People)

Although the "usual" methods of locating subjects have been referred to as the fourth of four major procedures, they often comprise one of the first approaches employed. This approach includes use of the telephone company's directory listings plus the help of information operators to begin finding subjects, members of their families and occasionally their girlfriends. A further refinement of this technique is the criss-cross directory, which can be rented from the telephone company and which permits determination of whether there is a telephone in certain residences.

The next major source of help is the U.S. Post Office, through which letters can be sent to subjects either directly or in care of someone else. The postal system's "special delivery/return receipt requested" service is very useful, as are its records of changes of address. On some occasions, it can be extremely helpful to talk to the local postman assigned to a given area.

After leads emerge from one or more of these sources, it may be wise to make home visits to talk with friends, neighbors and occasionally landlords. The local bar may also prove to be a good resource. In addition, state Motor Vehicle Bureaus can prove quite helpful.

Relatives and Friends

Considerable assistance may be provided knowingly and/or unknowingly by friends and relatives of individuals being sought. Often, parents are quite cooperative in helping locate their son or daughter, but even in instances when they are not cooperative, they may sometimes give helpful hints about where to look. (In one case, a former wife of a subject refused to give any information about his location, although she admitted that she had recently heard from him. In the course of

reciting the troubles she had had with him, she revealed the reason she did not want locators to contact him: she feared that he would make further demands upon her that she was unwilling to meet. After staff explained their method of working through systems, such as departments of social services, the Veterans Administration and similar agencies, she said, "Well, he's in Virginia, and if you talk with the V.A., you'll find him." That piece of information proved to be all that was needed to locate the man in Virginia.)

Much the same is true when parents or relatives are even less specific. For instance, the uncle of one subject told staff that his nephew was enjoying success in North Carolina, and that he (the uncle) would contact him on their behalf so that they would not intrude into his new life. Although the uncle did not keep his promise to do so, knowing that the respondent was in North Carolina enabled staff to locate him easily through that state's Division of Motor Vehicles. Success was complete when he responded readily to a letter from the research organization and willingly gave an interview.

This problem of locating respondents is important because a followup effort which does not locate most subjects within the chosen samples may produce results with positive and/or negative bias. Those most often missing may be the less extreme cases: those clients whose behavior changed the least without coming to further public notice.

In addition to the locating methods described thus far, locators may also employ the technique of seeking aid from already-interviewed subjects. After a subject has completed his/her interview, s/he can be asked whether s/he would like to help find some of the unlocated respondents. A modest payment can be offered for a successful lead or contact. To ensure the confidentiality of the information already on hand, two procedures should be followed. One is to ask the subject to provide the names of other individuals who s/he knows had used narcotics at some time. Then these names are checked against the list of unlocated subjects.

The second procedure is to read the list aloud, giving either the last name or a nickname of persons still being sought. If the helper recognizes a name, s/he is asked to give a first name or an address or area of the city frequented by the unlocated person. If the information provided by the helper matches the information already available to the locators, then it can be assumed that the helper and the locators are in fact talking about the same person. In this way, no confidence is betrayed to the helper, and the burden is on him/her to convince the locators that s/he really knows the person being sought.

It should be explained to these helpers that the locator's object is to make actual contact with the missing respondents; therefore, they are to respond only to the names of persons whom they know well enough to find directly. Many subjects are quite cooperative and willing to help if they can.

The number of people whose assistance can be enlisted can be expanded by requesting information from known former addicts and pretest subjects, offering them the same financial incentive.

Collecting Data at Initial Assessment

The AIA (AIDS Initial Assessment)

The AIA questionnaire is the primary data collection instrument for obtaining baseline data on the lifestyle and behaviors of IVDUs and their sexual partners. It is divided into nine sections, on demographics, drug use, needle use, treatment, mobility, sex, health, AIDS and respondent's comments. Administration of the AIA requires about 45-60 minutes. A locator form is attached to the AIA to obtain useful information for followup.

Locator Form

At the baseline, it is necessary to ask what kind of data may be needed to locate clients at some later time. Preplanning for the collection of locator data can greatly reduce the difficulties of later followup. To assist in the locating effort, it is extremely helpful to collect some basic information routinely when the client is first contacted by the program. Such information should include items like the following: 1) address and telephone number, 2) best mailing address, 3) alternative telephone numbers, 4) aliases used, 5) date and place of birth, 6) mother's name and addresses and any other helpful data, 7) siblings' names and addresses and 8) names and addresses of friends. This is the basic information provided for in the LOCATOR FORM attached to the AIA. Having these data in the file will not only help later in using agency files in a locating effort, but will also help the outreach worker determine whether or not the correct person has been found before the interviewer proceeds with the interview. Additional information which is helpful in locating clients includes: 1) respondent's physical characteristics: height, weight, color (if Black, note general shade of skin), obvious ethnicity, hair color and texture, eye color, build, distinguishing marks such as tattoos or scars; 2) where the respondent hangs around, and with whom (The

latter of these two is different from the question "Who will always know where you are?"); 3) place of employment, if any, and 4) institutional contacts, such as parole officer, social worker or minister.

The outreach worker should be given a detailed physical description of the individual being sought. These materials and others should be used during followup for verifying that the person who is found is actually the one the locator is looking for, i.e., the one formerly interviewed, since some individuals may be willing to pass themselves off as someone else just to get the money paid to respondents (see Chapter 5). As part of the verification process, some of the identifying questions can be asked again during location for followup.

Updating locator information

It is necessary to update locating information each time that a given respondent is seen, so as to have the most recent information available.

Hard-To Find Subjects

Some subjects are especially difficult to locate because of special complications in their life situation or because of special fears about being sought. For example, a person who gives up drugs and turns instead to alcohol tends to become very mobile. Alcoholics generally move about a great deal in erratic patterns that are hard to trace. Elusive movements are characteristic of persons who are still using drugs illegally and therefore experience a constant fear of arrest. In order to provide detailed suggestions about methods for locating hard-to-find subjects, actual case studies are included at the end of this chapter. These cases illustrate techniques that are useful in handling special problems such as alcoholism, exceptional fear of arrest and unusual reluctance to cooperate.

"Street tracking". Talking with neighbors, friends and relatives is often a last but best resource. The locator should always identify him/herself immediately, together with presentation of a business card or I.D. badge, to prevent the distrustful question "Who are you?"

"We are trying to get in touch with _____" may be a better statement than "We are trying to *find* (or *locate*) so-and-so". "Do you know how I can get a message to him?" sometimes allows the locator to enter the communication system

subjects can be reached. Again, the person who may promise to convey the message has to be identified or able to be reached again by the staff member so that contact is not lost.

Subjects are often shielded or protected by neighbors, friends or parents. Occasionally, parents may even prevent any direct contact with the subject--"He's not interested." The locator has to insist in some way that s/he be able to speak with the subject him/herself, that there is more information that would interest the subject.

A detailed record of every attempt to contact a respondent should be maintained. This record will make it possible to do a number of things. An examination of the time of day contacts have been made may indicate that a change in contact time might be productive. At other times, a change in followup workers might be indicated. For example, if a male staff member consistently cannot enlist cooperation of a parent, perhaps a female could be successful. Similar problems and solutions could relate to the age and race/ethnicity of the respondent and followup worker.

Considerations of Cost

For the researcher, the matter of elusive or reluctant participants raises the question of when to stop the search and consider a respondent lost to followup. Of course, this question is related to considerations of cost-effectiveness. A response rate of at least 80 percent should be obtained in order to have meaningful results from a survey. Some refusals are inevitable and a completion rate much over 90 percent is probably an unrealistic goal. Finding and interviewing the first 60 percent of subjects will be relatively inexpensive; the next 15 to 20 percent will cost appreciably more. But moving from 80 percent completion to 90 percent may cost twice as much per case as did early interviews and every percentage point above 90 will cost perhaps three to five times what early interviews cost. A study with high recovery rates cannot be done inexpensively.

Getting The Client's Consent

The research staff member must obtain the client's permission to contact the pertinent sources in an attempt to locate him/her later in the project. It is helpful at the outset to ask the client to sign a consent form giving researchers permission to

approach institutional contacts like parole officers. It is necessary that a consent form be obtained on the very first appearance of the client in the program office.

Informed Consent or Coercion

Obtaining such a signed consent form presents both psychological and ethical problems. First, requesting the permission may cause the client to feel he is being pressured to cooperate. An attempt to obtain informed consent may imply that s/he must do what s/he is asked in order to be admitted into the program. It is important to make clear that receiving service is not in any way contingent upon participating in any followup and that the individual has the right to treatment as well as the right to reject or refuse treatment. Second, even though you may be successful in gaining authorization to make contact with those individuals, certain ethical risks and considerations will inevitably arise.

Confidentiality, Privacy and Protection of Reputation

The importance of confidentiality, privacy and the protection of the reputation of study subjects and their families cannot be too greatly emphasized. These matters should be addressed at every stage of the research process--when locating subjects, when making personal contact with them, when gaining informed consent and conducting the interview and, finally, when processing the interview data. Although there is a conflict between the need for information and the need to get information under strictures of confidentiality, experienced researchers have found that it is possible to fulfill their responsibilities with respect to observing confidentiality while still getting the data they need. The breaking of confidentiality will not only have ethical implications, but result in loss of confidence by the subject and his/her networks.

The primary rule of subject followup is that one should never conclude an inquiry at any agency or with any individual that leaves them in possession of more information about a subject than they already had when they were first contacted. In some instances, family or friends contacted in followup efforts may express interest in knowing how to get in touch with a subject. Instead of agreeing to reveal the subject's location, offer to deliver a message when the subject is located. This will build cooperation without violating confidentiality.

In order to fulfill this responsibility, two general operating principles should be followed throughout all stages of the research. First, subjects should never be identified to any person or agency as drug users unless this information is already known to be in their possession. Two corollaries of this are as follows: 1) never reveal the drug abuse or AIDS nature of the research to any person or agency that knows the subject but does not know about his/her drug use and, conversely, 2) never reveal the exact identity of a subject when the drug abuse or AIDS nature of the research is known by the person or agency. A second guiding principle is never to reveal to any person or agency the exact location of any subjects who have been located.

Conducting the Study Under Neutral Auspices

If possible, it is desirable to conduct the survey under the auspices of a broad umbrella agency, such as a health department, a social service organization or a university. The selection of the organization should depend on its reputation within the drug community. It should be well respected, having employees sensitive to drug users, or at least have a neutral status. This is not intended to hide the true nature of the research project from the subjects but rather to protect their reputations and privacy. Any possible risk of misleading subjects in this first contact can be removed in a clearly worded informed consent statement.

The Health Emphasis

There are at least three workable approaches to the task of creating plausible, yet non-threatening, auspices for the study. One is to work through the office of the medical director if the research organization has such a person. Emphasize that the study has *medical* backing and seeks data related to *health*. A second approach may be appropriate if the organization's medical director or another physician within the organization, or even outside it, has an active relationship with the local and/or state medical society. In such a situation, investigate the possibility of the society's sponsorship together with the physician's personal involvement. A third approach is to speak generally about "health survey" and to state that the study is part of an overall effort to acquire information about such factors as health needs. In specific situations, explaining the study on the basis of health may not be optimal. For example, if either the participant or his/her family will become alarmed about the participant's health or transmission of disease, it may be preferable to depersonalize the health emphasis, e.g., to present the intent of the

study in terms of assessing community awareness of public health issues. If a health emphasis is inappropriate for your project, you might consider referring to your study as a "social research" project, a "neighborhood study" or a study of "growing up experiences".

Neutrality of Letter to Subjects

If a letter is sent to subjects reminding them of their followup appointment, it should be worded very carefully to interest the respondent and to avoid scaring him/her off. In particular, the letter should not contain any references to drug use, drug abuse, AIDS, or research about drugs or AIDS. The text of the letter should state that it is time for their six-month followup appointment in the health or neighborhood study. The name of the study director, the source of supporting funds, promise of payment for cooperation and guarantee of confidentiality of information should be specified in the letter. It should be kept in mind that these letters may be read by other family members or acquaintances who may be unaware of the behavior of the study subject. If the stationery on which these letters are written carries a letterhead, it should be a neutral one which gives no indication of the purpose of the study.

Directions for In-House Staff

The office staff can take charge of handling telephone calls and searching agency records. As noted earlier, the initial letter sent to sample subjects will presumably ask them to call the research office to make an appointment or to obtain answers to any questions they may have. The office staff should always have a copy of this letter at hand for their own reference, plus written instructions about the procedure for making appointments and a list of questions that respondents are likely to ask. Answers to these questions need to be provided also. This information and advance preparation enable the office personnel to handle other telephone inquiries as well, especially those made by agencies and certain individuals whose assistance the study requests. It may be helpful to install a special telephone line for the duration of the study so that all calls related to the study can be received at one number. Then the staff will always be prepared to respond appropriately when the designated telephone rings.

Special Training for Office Staff

Every call from a study participant must be handled with great attention and sensitivity. Some callers will phone only once. A respondent will be lost if staff fail to be responsive or are unprepared to meet the needs of the caller. It is essential to obtain a phone number where the caller may be reached.

People who answer the phone must be prepared to answer the questions of respondents who will be calling in. Scripts must be prepared to guide them in answering telephone calls from study participants and these should be carefully designed. In particular, they should not contain any reference to drugs, drug use or abuse, AIDS, or study of drug users: there is no guarantee that the person on the phone is really the research subject even though s/he may claim to be. Secretaries, receptionists and research assistants would be instructed never to bring up the subject of drugs or AIDS and not to mention any of the information the study already possesses about the individuals in the sample. Rather, they should be instructed to repeat only what the letter has already communicated. They should also be instructed to say that they are not at liberty to divulge confidential sources of information, a principle the participants are sure to understand, inasmuch as this same protection would be extended to any information given by interview respondents. Finally, those who answer the telephone should always identify the office with neutral words such as "Social Research Center." Not until a sample respondent presents himself/herself at the study office or meets an interviewer in an off-site interview should the complete nature of the research project be revealed. The purpose of these procedures is not to deceive the participant but rather to protect him/her from unintentional exposure.

Sample Instruction for Staff

Below are examples of prepared scripts that were actually used in a recent survey. Note that they contain no references to drugs, drug use or abuse, AIDS, or study of drug users.

Caller:

WHAT QUESTIONS ARE YOU GOING TO ASK?

WHAT DO YOU WANT TO KNOW?

WHAT IS THE INTERVIEW ABOUT?

Response:

"In general, the kinds of things that we will be asking about are the changes in your life and how your health has been in the last six months. If there are any questions that you do not want to answer, you don't have to, or if you should decide you would like to stop the interview for some reason, you will, of course, be free to do that at any point. Naturally, we would like you to give us an interview that is as complete and accurate as possible."

Caller:

WHAT DO YOU WANT TO KNOW THAT FOR?

WHAT ARE YOU GOING TO DO WITH THE INFORMATION?

Response:

"The information we get from the interview should help us to understand the adjustments that people have to make in their lives when things change for them. We also want to see what effect this has on their health and well-being. Increasing what we know about these things may make it possible to help people through difficult changes in their lives."

Caller:

HOW LONG WILL THE INTERVIEW TAKE?

Response:

"Some run longer than others; however, it won't be more than an hour. We want to pay you for your time. We will pay you _____ dollars at the end of the interview."

Caller:

HOW MUCH ARE YOU GOING TO PAY?

Response:

"As we said in our letter, we will pay you for giving us an interview. You will be given _____ dollars in cash upon completion of the interview."

Caller:

WHO IS DOING THIS STUDY?

Response:

"The study is being conducted by _____. All the information that you give us in the interview will be used for research purposes only. Your name will not be attached to the interview, thus making it completely anonymous. Further, all the information we collect is kept strictly confidential: your privacy in this regard is protected by state and federal laws governing research studies."

Caller:

WHAT IS THIS STUDY ALL ABOUT?

Response:

"Basically, the study is concerned with the changes that occur in a person's life and the effect they have on his or her well-being. The entire interview will take ____ (amount of time). It just is not possible to explain the whole thing to you over the phone: when you come in our office you will be given any further information that you want."

Problems After Locating: Broken Appointments

Even if staff is successful in locating respondents and in getting them to agree to an interview, this will not guarantee that an interview will be obtained. Broken appointments are an especially common problem in such research. (In one survey of drug abusers, 41 persons out of the 286 living subjects who were eventually located broke at least one appointment.) Whenever this occurs, the interviewer should wait between 30 and 45 minutes, if possible. If the respondent still has not appeared or telephoned to explain his/her lateness, the interviewer should then make followup efforts. Thus, if the respondent does not show up, the interviewer or locator is able to contact him/her again. Generally, such a conversation would go as follows:

Followup Conversations

The call would be made, and you would identify yourself and ask to speak to the respondent. If the respondent is not there, a message may be left stating that you called and will call back again. (Care must be taken in the wording of the message that is left with a family member, friend or even an answering machine.) If the person answering the phone knows that the respondent has been in contact with you and had an appointment, s/he may volunteer some information about where the respondent is or when s/he may be home. If the information indicates the respondent may still intend to be interviewed (for example, "she forgot" or "he called and said he couldn't make it"), then you would respond in a positive way, stating that you will call back again and make another appointment that was more convenient, and that the respondent should not worry about having missed the appointment. ("We'll just set up another one at another time"). But if the person answering the telephone appears not to have any knowledge about you and does not recognize you when you give your name, then the only message to leave is "I will call back later."

Making Another Appointment

On the other hand, if the subject is present when you call, generally the following approach can be used:

"This is Mr./Ms. _____ from _____ Center. I have here on my list that we have an appointment today for an interview. Now, you probably forgot all about it, so I just thought I'd call to see if you were delayed or on your way, or maybe you forgot about it, and see if we could

re-make that appointment for another time when you think you can come in. Now, would tomorrow morning or Friday afternoon or Saturday morning be better times for you than today, or do you think we still have time for you to come down here?"

If transportation might be a problem, another tactic that can be used is to center the conversation around that factor. For example:

"I thought that you might be having a problem getting a ride here, so I thought I'd call and tell you that maybe you could take a cab, or someone could come out and pick you up. If you take a cab, you know, you just have them stop in front of the office and someone inside will come out and pay the cab fare for you, and we'll also pay for your cab fare back home."

The Understanding Approach

It is also a good idea to suggest plausible excuses to participants for not keeping their appointment. You might suggest that probably something had come up at the last minute which they had been unable to foresee when they made their appointment. Working overtime, unexpected company or illness in the family fall into this convenient category. The emphasis in this approach to "no-shows" is to accept whatever excuse the respondent wants to supply for not showing up, or to offer an excuse if one is not volunteered: never question whether or not s/he really intended to come in. Generally, your approach should be friendly and understanding. But if the person misses more than two appointments, you should take a different approach, for example, telling the respondent that you had to wait for him/her and that his/her not coming meant you had to spend money that you would much prefer to spend in other ways, such as the respondent's travel expenses, refreshment, convenience or comfort.

Changing the Interview Site

The purpose of the understanding approach described above is to allow you to complete the interview eventually. However, in a few cases, it may even be necessary to change the site of the proposed interview in order to secure the interview. In one case, this might mean going to a respondent's home after repeatedly missed appointments. In another case, it might mean arranging to go to a drug treatment program and waiting for him/her to show up for methadone. In a third case, it might mean picking him/her up after work and conducting an interview at that point. In still another case, it might mean meeting him/her in a

restaurant and conducting the interview there. In the event that the respondents indicate that they have had second thoughts about coming for an interview and prefer not to participate, you would shift your tactics. Instead of trying to make an appointment in the immediate future, you would talk with them about how important the study is and why their participation is needed, adding that you would like them to think about it and will call back in a few days. Generally, this appeal to reason allows you to keep the lines of communication open, and in some cases this maneuver allows you eventually to secure the interview. In other cases, however, the respondents may stubbornly stick to their guns and declare that they have decided they do not want to participate.

In order to promote better understanding of the process of locating and securing the cooperation of subjects chosen for interview when these subjects are deviant individuals, some case examples are offered below. They illustrate the kinds of problems one should think about when undertaking a survey that depends upon responses from members of a deviant population.

Fear of Arrest

Some respondents live in constant fear of arrest because of criminal activity (other than drug law violation). Their determined hiding from police can considerably complicate a study staff's efforts to locate them; moreover, their fugitive status heightens their suspicion of studies' "real" motives and increases their reluctance to be interviewed. These obstacles confronted staffs throughout the four locating efforts discussed below.

Case No. 1-Mr. C.

Information obtained from law enforcement and correctional agencies disclosed that Mr. C. was being sought by both the City Police and the State Department of Parole and Probation for offenses and charges falling within their respective jurisdictions. These difficulties had begun when Mr. C. was arrested for violation of narcotic laws in his city. At the time of his arrest, he was on parole after having served part of a ten-year sentence for a similar offense.

By obtaining bail shortly after his arrest, Mr. C. managed to be released before his parole officer discovered that he had been in custody. As a result, a warrant for his arrest, charging violation of parole, was issued, as well as a warrant involving

his failure to appear on the new charges of violation of narcotic laws. These warrants were still outstanding when the search for Mr. C. was begun.

Turning to local addicts for information, research staff learned that Mr. C. was living in New York, in Harlem, and was "dealing hard." (This meant not only that he was dealing hard drugs--heroin and cocaine--but also that he was hard at dealing.) If Mr. C. was indeed in New York, it seemed possible that Mr. R., the study staff's special contact there, could help find him. Accordingly, two staff members and a locator, accompanied by a trained interviewer, drove to New York City and attempted first to contact Mr. R. Finding that he was not at his home in Harlem, staff left a note telling him that they would call back, and then went alone to an area that they knew was both a major marketplace for heroin and a meeting place where local and out-of-state addicts congregated.

Within minutes, staff learned from addicts personally known to them that Mr. C. was living in New York. They were told that, only a few days earlier, Mr. C. had absconded with a large sum of money given to him by "some bad dudes" in a heroin transaction. No one had seen him since, and word was circulating through the neighborhood that he would be shot on sight if he had spent or otherwise misused the money entrusted to him. No one to whom staff spoke would admit to any knowledge about Mr. C.'s hiding place or his source for the drugs he needed for his ongoing habit. A prostitute in the crowd commented that, since Mr. C. had a "dealer's habit", he could not stay away from the scene too long.

Staff did not tell Mr C.'s acquaintances that they wanted to interview him, and felt that under the circumstances it was best to leave no message at all. Before leaving, however, they obtained an address for another study respondent who reportedly lived in the area. The address proved correct, and the subject was located and interviewed that evening in the hotel where staff were staying.

The next morning, staff were successful in contacting Mr. R., who knew all the circumstances of Mr. C.'s disappearance. He told them that he did not know where Mr. C. was hiding but promised to try to find out. Together, the locator and Mr. R. spent the next several hours hunting for information about Mr. C. but to no avail. Before parting from Mr. R. that night, staff asked him to call if he learned anything new--and around 2:00 a.m., Mr. R. telephoned.

Within the hour, staff and Mr. R. were inside a well known sleazy hotel in downtown Brooklyn catering to prostitutes, pimps, addicts and homosexuals. Mr. R. told the clerk that he wished to speak to the occupant of room 710--he was

unsure whether Mr. C. had registered under his own name, but he was certain that the room number was correct because "it came from a good source." He would not divulge this source, however.

The telephone was finally answered by Mr. C. himself. He would not allow staff or Mr. R. to go up to his room but he was willing to meet them in the lobby, and did. Later he explained that he had company in this room, and that his room was small.

Staff introduced themselves, explained the study and told Mr. C. that the research organization would appreciate having his participation in an interview, in return for the standard fee of \$15.00. The study's concern for confidentiality was stressed, and Mr. C. was assured that his whereabouts would never be divulged to anyone. Mr. C. was also informed that staff were aware of his legal difficulties in his city of residence, a gesture of honesty that seemed to reassure him. Apparently feeling that if staff intended to do him harm, they would have done so already, Mr. C. agreed to cooperate and give the interview later that morning. At his request, it took place in his hotel room at 10:00 a.m. and went without incident, except for the fact that his girlfriend refused to leave the room and permit the privacy that staff would have preferred.

So far as was known at that time, Mr. C. continued to be a fugitive from justice.

Case No. 2-Mr. A.

Information concerning the possible whereabouts of Mr. A. consisted of records from the City Police Department and the State Department of Corrections. At the time staff began searching for him, Mr. A. was on parole; he had been in prison because of a narcotics law violation. Before that, he had been arrested ten times and had been in jail on three occasions for extended periods of time. The Department of Corrections' records included a list of the names, addresses and relationships to Mr. A. of certain individuals who were allowed to visit him during his periods of incarceration.

Staff knew also that Mr. A. had been living in the city with his mother at the time of his last arrest and subsequent imprisonment. First, then, staff sent a letter to Mr. A. using the mother's address. There was no response, and the letter was not returned by the post office. Staff then went personally to the home twice in one

week, but no one answered their knocks at the door. However, neighbors informed them that Mr. A.'s mother worked during the day and could not be reached at home until 6:00 p.m. The neighbors denied having any knowledge about her son.

Eventually the city criss-cross directory enabled staff to reach Mr. A.'s mother by telephone. Staff told her who they were, gave her a brief and very general description of the study, and explained that they hoped to interview her son, paying him for his time and assistance. She replied that he no longer lived with her and that she had not seen him for a number of months. She stated further that she did not know where he was living but assured staff that she would contact them as soon as she heard from Mr. A.

Although staff felt that she really would communicate their message to Mr. A., they did not want to rely on this contact alone. Therefore, they tried to obtain a current address for Mr. A. from the State Department of Parole and Probation. Instead, they learned from the parole officer assigned to him that Mr. A. had not reported to him in many months; in fact, five months earlier, a warrant had been issued for his arrest, charging him with parole violations.

During the next several weeks, staff continued to seek, find and interview other respondents but Mr. A. remained unlocated. They questioned Mr. A.'s friends and acquaintances periodically and repeatedly checked state hospitals, city and county jails, drug abuse programs and the Department of Parole and Probation. However, no one had seen him or would admit to having had any contact with him.

Staff telephoned Mr. A.'s mother from time to time, especially before and during holidays but this, too, was unfruitful. Then, nine days before Mother's Day (a time staff knew was of major importance to many addicts), another telephone call to her was answered by Mr. A. himself. Capitalizing on the fact that the staff locator knew Mr. A. personally, the locator treated the conversation as partly personal and partly business. Mr. A. explained that he was living in a nearby city under an alias and that he had instructed his mother not to give information about his whereabouts to anyone, under any circumstances. He felt sure she was the only person who knew where he could be reached in that city, where he claimed to be living a very quiet life.

He had decided to spend the Sunday before Mother's Day with his parents, he said, because he feared that if he visited the following week, the police would have second-guessed him and would be waiting to arrest him for having violated parole.

He had not intended to answer the phone, of course; when it rang, he answered it unthinkingly and reflexively.

Mr. A. agreed to be interviewed as long as the meeting took place in his mother's home on the following day and as long as his whereabouts remained secret. Staff assured him that all information involving him directly or indirectly would be kept strictly confidential and Mr. A. seemed satisfied with this promise. An interviewer went to the home the next morning and Mr. A. kept his word to cooperate.

Case No. 3-Mr. P.

In looking for Mr. P., staff began with two addresses on the same block in a black neighborhood. Supposedly, Mr. P., a white man, was living with his parents in one of these two houses. This proved incorrect, however, and no one in the neighborhood had ever heard of the family name.

Since the local Catholic church had recently completed an extensive census, listing nonchurch members in the area as well as its own parishioners, staff checked these records but found nothing. Next, they consulted various city directories in the library and found addresses for a number of families named P. Although they checked on all of these, they did not find the Mr. P. who was the study subject.

They then checked an address that had been given by Mr. P.'s brother when he (the brother) was arrested during the previous year. His name and address were obtained from the city jail roster together with information from the police that the brothers frequently used each other's names as well as addresses. Since this address corresponded with one already in the study files on Mr. P. from several years past, staff checked it out promptly. It turned out to be the home of the brothers' mother. Although she claimed that she did not know where Mr. P. lived, she took the staff member's card and agreed to ask Mr. P. to telephone whenever she next saw him.

The very next day, Mr. P. called the locator and the two men arranged a preliminary meeting in a neighborhood bar. This occurred as scheduled and was very successful; good rapport developed quickly as staff explained the study and showed Mr. P. various documents testifying to the legitimacy and confidentiality of the study. Mr. P. agreed to be interviewed and made a definite appointment--but he did not keep it.

After the broken appointment, staff contacted him again, this time through Mr. P.'s sister, whose name and address he had given them. Staff wanted not only to try to make a second appointment for the interview but also to report success in their efforts to help find a job for Mr. P. at a facility that he had said he would like to work for.

By then, Mr. P. had found another job but apparently he felt even more trusting of staff, for they had kept their word on all promises made to him and he realized this. At last he gave them his own address and consented to be interviewed at home on a specific date. He was there at the appointed time and the interview was accomplished without further complications.

Case No. 4-Mr. D.

The address of Mr. D. to which staff first went proved to be incorrect but neighbors referred them to another house nearby. There, staff met a man whom they had not seen for many years but to whom a staff member had been helpful on a number of occasions in the past. As a youth, this man had had serious personal and social problems which a staff member had worked hard to solve over a period of several years. This meeting was as fortuitous as it was unexpected. Not only was the man still grateful to this staff member for his past help but he was also the brother-in-law of Mr. D.

Mr. D. was currently wanted by the police; he had skipped bail and was being actively pursued. Thus, even though the brother-in-law trusted staff and felt he owed them a favor, he refused to divulge Mr. D.'s whereabouts. (Later staff learned that Mr. D. was living with his mother only two hundred yards from the home of his brother-in-law.)

After staff explained the study and their reason for wanting to find Mr. D., the brother-in-law promised to try to help. Within four days, he arranged a telephone conversation between a staff member and Mr. D., and Mr. D. agreed to be interviewed.

On the day of the appointment, a staff member picked up Mr. D., drove him to the study office and the interview proceeded. Because Mr. D. was heavily medicated, however, the questioning could not be completed; therefore, he returned a second time some days later. By then, he was no longer in trouble with the law and

seemed cooperative but he wanted to be paid in full again for having made another trip to the office and giving what he seemed to consider a second interview. The study staff agreed to pay him and finally the interview was completed.

Current Use of Illegal Drugs

Since a study sample will inevitably include individuals known to have used narcotics intermittently or steadily over a considerable period of time, it is predictable that some of them are still abusing drugs. This illegal activity makes them hard to locate, not only because they themselves fear arrest for drug law violation but also because their peers in the drug culture protect and hide them effectively. This shielding mechanism was encountered repeatedly when locators in one study tried to find Mr. L. and Mr. B.

Case Nos. 5 and 6-Mr. L. and Mr. B.

At the beginning of the search for Mr. L., information about him was available from two sources: the city Police Department and the research organization administering the funds for this study. According to police records, Mr. L. had a history of heroin use and addiction, and used and sold marijuana. Although he had been arrested, tried and convicted for marijuana-related offenses, he was no longer in any legal difficulty and was living with his parents in the inner city. A list of nine friends and acquaintances of Mr. L. was also available through the police.

Because Mr. L. had participated in a previous study conducted by this research organization, it had records about him. Several different addresses were listed there, but checking them confirmed that he no longer lived at any of them--nor with his parents, as records indicated. He was not listed in the city telephone directory.

Staff began making quiet inquiries among persons who were *not* Mr. L.'s relatives, friends or employers. Aware that Mr. L. was known "in the life" as a dealer, they first contacted individuals who, for reasons of their own lifestyle, were in touch with sources of marijuana.

During his own past involvement with the drug world, a staff member had known Mr. L. and still knew the area of the city in which he was most likely to be found. For about a week, staff made repeated visits to that area's bars, gambling spots and

houses of prostitution, and eventually in a bar they encountered not Mr. L. but Mr. B. This was a doubly fortunate meeting: Mr. B. was not only a close friend of Mr. L. but also a study subject for whom staff planned to search later.

Staff knew that Mr. B. and Mr. L. had grown up together in the same section of the city. They had been arrested together on a number of occasions for shoplifting and together they had become involved in drugs. A staff member had personally known both Mr. B. and Mr. L. in the past.

As staff talked to Mr. B. about the study, it became clear that he was still very active in the addict subculture. Thus, it was not surprising that he was suspicious of staff's motives in offering \$15.00 to him and to Mr. L. if they would agree to be interviewed for the study. Nevertheless, Mr. B. decided to trust staff and telephoned Mr. L. While Mr. B. listened, staff talked with Mr. L. and explained the study, and Mr. L. agreed to be interviewed the next day. He kept his appointment and the interview occurred without incident.

One week later, Mr. B. also consented to be interviewed. Staff believe that Mr. B. decided to wait and see whether there would be any negative consequences to Mr. L. as a result of his having cooperated with them. When none materialized, it seemed safe to accept the money in return for the interview.

Undocumented Workers²

Undocumented worker clients are Spanish speaking migrants who are living and working in the United States illegally or on limited worker residence permits. Because of their illegal and marginal status, among other factors, followup experiences with these clients are quite similar. The case described below is a composite portrait of this undocumented worker population that B.J., the project outreach worker, specializes in following up. B.J. is a Caribbean-born Hispanic, which helps him in establishing rapport with this population, comprising recent emigrés from Mexico, Cuba, the Dominican Republic, Central America, Columbia and other Latin American countries.

² We wish to thank the staff, particularly Dr. Mark D. Williams, Jay Johnson, and Dr. Joseph A. Kotarba (University of Houston), of the Affiliated Systems Corporation of Houston, for contributing the following illustrative case.

Case No. 7-Mr. O.

Mr. O. is a short, thin Mexican in his early thirties, who has been injecting drugs since he was 19. Originally from the South Central area of Mexico, he speaks mostly Spanish, but understands considerably more English than he reveals, especially to strangers and "Anglos". Eight months ago, Mr. O. came into the United States illegally, looking for work, a better life and to escape the poverty of his native country. He has since become one of the nameless and faceless undocumented workers frequently seen lining up in the early morning on various street corners in Hispanic neighborhoods of large cities in the Southwestern United States. Since Mr. O. arrived in this city from Mexico, he hangs out on the corner of a strip shopping center commonly known as "El Charo" (a name taken from a nearby Hispanic dance hall) by the undocumented workers who hang out there waiting for jobs. Early in the morning, 30 to 40 men, all undocumented workers, congregate in small groups at El Charo. The "bosses", Hispanics or "Anglos", will drive up in their pickup trucks looking for cheap day laborers, who they know can be found at this spot. Most laborers try to get there as early in the morning as possible so as to be first to greet the bosses as soon as they drive up; the first few men to jump into the back of the truck will have a job for the day.

El Charo is also known back in Mr. O.'s Mexico as a place to go if you are looking for drugs or if you want to make money selling drugs. Mr. O. hangs out there with other Mexicans and Central Americans until the bosses arrive. As the morning wears on, if few bosses appear and the chances of getting work grow slim, Mr. O. starts using drugs and drinking beer with the others on the corner. As morning turns into hot afternoon, he straggles off with the remaining laborers to somebody's apartment or an open air ice house to drink beer or shoot drugs. Ice houses are better than the tiny, low quality apartments many undocumented workers rent for exorbitant rates, since most are without air conditioning and stifling in the 95-degree heat.

From Mr. O.'s point of view, B.J. is a weird man who regularly drives to El Charo in a large car, says he is looking for people who have injected drugs, is always handing out "prophylactics" (condoms) and tiny bottles of "cloro" (bleach) and always wants to talk about "SIDA" (AIDS). The outreach worker tends to come to El Charo right after most of the bosses have come and gone but before most of the men are high and intoxicated or have left the area. As soon as B.J.'s large car drives up, those still hanging around El Charo mob all sides of the car as if somebody famous were arriving. Usually, B.J. must wait until the men back away from the car before he steps out and starts talking to them about AIDS. The

outreach worker tells the crowd that if those who inject drugs will come with him, he will pay them ten dollars for their time. Mr. O. has never been sure exactly what B.J.'s job is but he does know that the outreach worker pays money if you have injected drugs and you drive away with him to a place that is a little like medical clinics he had been to in Mexico.

While at El Charo, B.J. looks for men whom he recognizes as having gone with him to the clinic on previous occasions. In Mr. O.'s case, the outreach worker never recognized him as having previously gone with him. However, at one time when B.J. was addressing the men in Spanish, "Who has been with me before?", Mr. O. raised his hand. B.J. asked Mr. O. his name and birth date and about the time he had been there, and Mr. O. told him.

From his point of view, Mr. O. was taking a chance the first time he agreed to be interviewed. Mr. O. thought that anything this official and funded by the government had to be part of a secret police intelligence gathering operation. This is how he heard it was in some countries. Once, when B.J. appeared, another man, who seemed to know what he was talking about, told the crowd that whoever left with the outreach worker would lose any chance of getting citizenship. Mr. O. has heard rumors that the United States government was collecting information and cross-referencing it with other information to deny new citizens social services, revoke green card worker permits and deport "undesirables". Since this is not Mr. O.'s country, he is suspicious and not sure what to believe. Anything could be a setup or a trap, as he has heard has happened to others like him. However, Mr. O. had been injecting drugs, needed the money and was curious. He had never before seen anyone like this outreach worker. Mr. O. could not understand how his health could be immediately endangered by injecting drugs. He went to the clinic the first time out of curiosity but did not give his real name and now he could not remember the name that he gave. However, he had given his correct birth date. Instead of the address where he was really staying, he gave the clinic the address of a friend's apartment. He also gave the clinic two telephone numbers: one was to the friend's apartment where he claimed to be living, from which, however, his friend and the others who rented the apartment were evicted soon after Mr. O. first visited the clinic; the other telephone number was of a friend's place in Mexico. Mr. O. knew that he could easily be found hanging around El Charo, so he was unconcerned about reporting inaccurate information. If someone wanted to find him, his friends knew where he could be found. The outreach worker left El Charo (to check on Mr. O.'s information) but returned the next day around eleven o'clock. B.J. spotted Mr. O. standing in a group of other undocumented workers who had not found work that day, called out to him and told him that he could

make ten easy dollars if he came with him. Mr. O. was running out of money, so he was happy to make the ten dollars. He got into the back seat of B.J.'s car behind two other men from El Charo who had been interviewed at the clinic six months before. They had not been around for almost six months because they had been at a distant work site. Recently, they had surfaced at the shopping center together, like inseparable twins. Right after they climbed into the car, another man, who was obviously drunk, tried to get into the car behind Mr. O., though there was already only enough room for Mr. O. and the two other men. The outreach worker told the drunk that he could not come because he was not scheduled to be seen and was obviously drunk; "I take you, they're not going to do you." As the outreach worker sat down in the driver's seat, the drunk took a half can of beer and threw the beer into B.J.'s face. Mr. O. was silent. The driver just sat there as men from the shopping center congregated around his car. The congregating men as well as the men sitting next to Mr. O. started yelling at the outreach worker in Spanish and broken English. They were goading the outreach worker to "kick the man's ass". It would hardly have been a fair fight since the drunk was Mr. O.'s height and build and the outreach worker was six feet tall and looked like a body builder. But Mr. O. knew that the outreach worker had to save some kind of face in front of the other men. Amid encouragement to beat the man up, B.J. opened the door, stepped out of the car and asked, "Why did you do that?" The drunk silently stood his ground and said, "I didn't even get you wet." The outreach worker said, "Look, you're drunk, you ain't coming, you're starting to piss me off, walk away." The worker got back in the car, started it and left the area with Mr. O. and the two other men. Mr. O. understood why the outreach worker had to be firm in the face of the drunk's belligerence. Among the men who hang out at El Charo, incidents of violence are the norm rather than the exception, especially as the day wears on to afternoon and drugs and alcohol flow freely.

At the clinic, B.J. asked Mr. O. some questions in Spanish and wrote some things. The last time Mr. O. was at this place, the people asked him a lot of questions; Mr. O. could not understand why what he had to tell these people would be important. Now he vaguely remembers what he said to them and what they said to him but still does not comprehend why it was important. What Mr. O. knew was that they paid him ten dollars for this information. He now sat waiting silently on a couch in a large room. He was told that someone would ask him some more questions as soon as his turn came. The first time Mr. O. had come to this clinic, he had to wait, along with six or seven other men, for almost six hours until his turn came. The word had traveled among the men at El Charo that if you go to the clinic, you will wait for five or six hours for just ten dollars. Sometimes, when the outreach worker comes, a man in the crowd will warn the others that if they go

with the outreach worker, they will be there all day for only ten dollars. When this happens, the crowd of men will disperse from around the outreach worker until he is talking with only one of them. Some of the El Charo men who have been through the project will respond to the outreach worker's request to be reinterviewed with "Mañana, mañana." Some will just sit there drinking and say, "I have something better to do." Although Mr. O. does not understand what the total picture is about, he knows he does not like the clinic. The structure, the assembly line-like process and especially the intolerable wait are foreign to him. A typical day for Mr. O. involves nothing to do or some menial task and all day in which to do it. Since he cannot leave the clinic without losing his place, Mr. O. must sit there for what seems like forever. This is almost like a jail sentence. When Mr. O. first came through, it was not so bad because he did not know what to expect. Now, knowing what goes on in this place, the money this time seems hardly worth his wait.

Lingering Fears From the Past

Some individuals in a sample of IVDUs may have stopped all drug use and ended all deviant behavior permanently. Despite having no current reason to fear arrest, some of these nevertheless feel much anxiety because of their past and are emotionally threatened simply by having their past recalled to them. Many have kept their record of deviancy secret from family, friends and work associates, and they want this information to remain secret. Three respondents who exhibited these attitudes are described below.

Case No. 8-Mr. J.

The search for Mr. J. began in a way remarkably similar to the experience in locating Mr. D. When staff went to the address they had for Mr. J., no one answered their knock; they then inquired next door. There they met a man who had sent all of his children to a camp a staff member had helped run years before. Out of old acquaintance, then, this person told the staff member how and when to find Mr. J. at home.

With this information, staff were able to make an appointment by telephone to call on Mr. J. at his home for the purpose of explaining the study. This meeting took place and although Mr. J. indicated that he would cooperate, he had many excuses for not making a definite appointment soon. Not only was he very busy, he said, but his father was seriously ill and this was a great concern to him.

Staff left with the understanding that "later" Mr. J. would give the interview; meanwhile, they were to make subsequent contacts with him through a sister. He gave them her telephone number but not her address and they did not learn until much later that the homes of Mr. J. and his sister were back-to-back.

There ensued a period of nearly seven months during which several staff members called the sister, only to receive various evasions from Mr. J., always communicated through her. Several arrangements to meet one of the staff members (a locator) never materialized and when Mr. J.'s father died, more delay and postponement resulted.

After making and breaking a definite appointment for an interview, Mr. J. eventually made a second appointment and kept it. Throughout the effort to obtain this man's cooperation, he displayed persistent suspicion that was difficult to overcome. It seemed to be based entirely on feelings rather than facts but because Mr. J. never made these feelings explicit, staff were unable to deal with them. They could only wait until Mr. J.'s attitude changed, as, finally, it did.

Case No. 9-Mr. R.

When Mr. R. did not respond to staff's initial letter, they felt there was a good possibility that the letter might never have reached him because it had been sent to an address that was many years old. Nevertheless, they checked this same address in the criss-cross telephone directory and called the number listed for it. There was no answer to several such calls but eventually they reached Mrs. R. at the listed number. She explained that Mr. R. was in the plumbing business and could be reached at home only in the evening.

When staff called that same evening, Mr. R. had nothing to say except "Yes." "Yes", he would grant an interview. "Yes", the next day would be fine. "Yes", he would go to the study office. However, he did not keep this appointment nor subsequent ones which he agreed to. Eventually, he made and broke five appointments. Each time an interviewer was waiting for him at the study office but only once did Mr. R. telephone to cancel.

At this point, staff concluded that if the interview was to take place, it would have to be in Mr. R.'s home. They made a personal contact to try to arrange a home appointment. Ultimately, they managed to do so but only after several weeks of effort. Mr. R. declared from the outset that he was genuinely interested in the study and was willing to help--but plumbing "emergencies" kept him very busy.

(This was the reason he gave for breaking a Sunday morning appointment.) Finally, on another Sunday, he was at home as promised and the interviewer who called on him there obtained a successful interview.

As in the preceding case of Mr. J., Mr. R. seemed to have reservations at the feeling level that he articulated in resistant behavior rather than in words.

Case No. 10-Mr. M.

Very little initial information about Mr. M. was available when staff began looking for him. Since he had never been in a correctional institution in the state, the State Department of Corrections had no record of the standard physical, personal, sociological and demographic information that had been so helpful in the eventual location of other subjects. Once, Mr. M. had been detained for investigation for possible narcotic violations. While in custody, he admitted drug use; although there were fresh needle marks on his arms, no charges were filed against him because it is not unlawful to be an addict. Mr. M. was released and had not been picked up by the police anywhere since that time.

The only address available to staff had been given by Mr. M. ten years earlier (the time of the detention described above). It indicated a neighborhood that was currently being razed for urban renewal. However, the building was still occupied and the criss-cross telephone directory provided a telephone number that was still in service. When staff called this number, they were told that Mr. M. did live there and had an unlisted telephone number. Eventually they spoke with Mr. M. on a neighbor's phone and learned that Mr. M. was Mr. M. *Senior*, the father of the subject. According to him, Mr. M. *Junior* did not live there. He would not give his son's address but promised to tell him to contact staff. Staff did not give the father any information about the nature of their business with his son.

After two weeks without any response, staff telephoned the father again but without success. Local addicts denied any knowledge of Mr. M. and various other attempts by staff to find this man were fruitless. No one except the father seemed to know him. Telephone calls to the father by several staff members also achieved nothing.

Finally, staff visited Mr. M. Sr. at his home and explained some aspects of the study to him and his wife. She seemed far more opposed than the father to revealing her son's whereabouts. Assuring them that staff meant no harm to Mr. M., staff stressed the potential importance of his contribution. After much thought, the parents provided Mr. M.'s correct address. They declared that their son had

never done anything wrong but was a victim of circumstance who had been in the wrong place at the wrong time during his first and only arrest ten years earlier. They stated further that he was employed and had a family, and that they did not want to "rock the boat." Staff repeated their assurances that no harm would result from the interview and that their son would be paid for his time and help.

Because Mr. M. worked during the week, staff visited him at his home on the next weekend. He agreed to participate in the study and that same day he was interviewed successfully in the study office.

Use of Data From Multiple Systems

In numerous instances, certain subjects are known to health as well as law enforcement agencies together with governmental offices such as voter registration, public records, etc. Although one system or the other might have had no contact with these men for long periods of time, often it is possible to piece together data obtained from several systems in a way that leads to eventual location of missing persons. Two successful applications of this method are described below.

Case No. 11-Mr. K.

Since there was no trace of Mr. K. in the state after his arrest by state authorities quite a few years earlier, the study staff checked police records to see if there was information about his activity in other states. These records showed that, prior to incarceration in his home state, Mr. K. had served a short sentence in a Tennessee jail. After contacting that jail and then being referred to the local sheriff's office, staff obtained a Tennessee home address for Mr. K.; however, no telephone number could be found in any listing or directory of the area.

Staff then approached appropriate agencies and asked for help, beginning with the local public assistance program. Mr. K. was not on their rolls but a staff member of the program was kind enough to arrange a check of records of the local health department. There, information was found about the death of Mr. K. several months earlier. As a veteran, he had been treated (for alcoholism) at a local VA hospital, so records existed there also. Mr. K.'s death certificate was on file in the vital records division of the state health department, which provided a copy for the study at staff's request.

Case No. 12-Mr. N.

In the early 1950's, Mr. N. was arrested in his city for violation of state drug laws but he was never incarcerated. After the arrest, he dropped from sight. His police records showed arrests only during a period more than a decade before--none during the most recent decade. Staff's only lead to Mr. N. seemed to be the notation of his birthplace on his city arrest record.

When staff called the vital statistics office of the health department in Mr. N.'s home state, Mr. N.'s certificate was checked for his parents' names and address(es) as well as his father's occupation at the time of Mr. N.'s birth. Telephone calls to the home town produced nothing until staff checked the local office of voter records. There they learned that Mr. N.'s father had died and that there was no record of his mother; however, the family name was familiar to the clerk who suggested some possibilities in neighboring counties.

After calling the voter registration office in two of these counties, staff met with success on the third try. The local clerk referred them to Mr. N.'s aunt (whose surname was different from that of Mr. N. but since it was a small town, the clerk knew her personally.) Staff contacted the aunt, who supplied an out-of-state address for Mr. N., and they promptly wrote to him at this address.

A followup telephone call led to an appointment for an interview and an interviewer was dispatched to Mr. N., over 2,000 miles from the city where the study was being done. (Staff also interviewed several other subjects during this trip.) Now a highly respected member of a university faculty, Mr. N. was an unusually successful respondent whose concern for confidentiality was shared by the entire study staff.

Complicating Factors: Alcoholism and Mobility

Very often, narcotic addicts become alcoholic as well. When this happens, they tend to move from place to place unusually often, staying in one location only a short while before their alcoholism precipitates behavior that forces them to move on once more. Because of their unstable lifestyle and erratic behavior, they leave few traces behind; thus, they are difficult to locate. The following account of Mr. W. illustrates one study's experience in finding a highly mobile respondent who had developed serious alcoholism.

Case No. 13-Mr. W.

Although Mr. W. had been arrested in the state quite a long time before and had served a short sentence, his jail record was so old that it was inaccessible; therefore, staff turned to police records and learned that he had been arrested in another state after his incarceration in his home state. A check of the other state's police records revealed that the charge against Mr. W. (molesting a minor) had not been pressed and so he was released. Neither state nor local police had any information about him after his release. Two of his former employers and several individuals at the boarding house where he had lived were contacted but they also knew nothing about Mr. W.'s current whereabouts.

However, one fact furnished by the police enabled staff to locate Mr. W. eventually: they learned through these contacts that he had become an alcoholic. Upon learning this, they identified several treatment facilities for alcoholics within a fifty-mile radius of Mr. W.'s last known location. The second one at which they inquired had indeed treated Mr. W. and had records that included the names and addresses of some relatives--but all were bogus. The personnel at the treatment facility reported that, several months before, Mr. W. had been released from their care and admitted to a halfway house elsewhere in the state--from which he had been expelled (for drinking) on the same day he was admitted.

Staff then contacted the welfare department in the county in which the halfway house was located. Personnel there reported that Mr. W. had applied for assistance from the county while he was hospitalized at a state hospital in northern New York. From this hospital, the study staff obtained an address for Mr. W. but checking it produced only the fact that Mr. W. had moved on once more. Several additional addresses were found and checked out but no useful information emerged until the trail led to a VA hospital in New York. Mr. W. had been a patient there but left against medical advice (apparently because he was accused of stealing money from another patient, something that had occurred more than once before in his past).

According to records at the VA hospital, Mr. W. had presented himself at one time in the recent past to the alcoholic unit of the Salvation Army. From this source came information that Mr. W. had previously been a patient in still another state hospital in New York, so staff checked there. They found that he had been readmitted and was at that moment still hospitalized there. A telephone call to his physician resulted in arrangements for an interview, which was obtained promptly by an interviewer who traveled from the study city to the hospital and had a successful meeting with Mr. W.

Urban Renewal

In many inner-city areas, urban renewal and redevelopment projects not only change the physical character of the neighborhoods but also place clients at risk of losing their homes, making them more difficult to locate, especially when they are unable to find substitute low-income housing.

Case No. 14-Ms. M.

Ms. M. was a 24-year-old Black female who was recruited as she was sitting with a group of men, women and children in front of a two-story apartment building in which she was living. The locator spoke to her, asked her some questions about her activities in the neighborhood and drew her away from the group long enough to ask her about her drug and sexual activities and partners. Concluding that she was eligible for the project, the locator offered to take Ms. M. to the Assessment Center but since Ms. M. was "selling" (drugs), she wanted to delay accompanying the locator. The locator returned in two hours and took Ms. M. in for her initial assessment.

When it was time for Ms. M.'s six-month followup, the locator returned to the site where she had originally met Ms. M. and which had also been given as her frequent hangout location. In the interim, that building had been vacated and abandoned; it was now described by neighbors as a "house of horrors" in which drug dealing, "copping", sexual activity and criminal activities went on. Ms. M. was not there but after she was described to a group at the building, a Jamaican man admitted knowing about her. By means of broken English, translators and gestures, the locator learned that Ms. M. had been this man's girlfriend; they had argued and, as he said, he "sent her back home". Her mother, whose address was on the locator form, had not seen her for months but agreed to take the locator's card for Ms. M. in case she did see her. All other routine locating attempts were made by telephone, mail, post office boxes and jail lists. The locator, who remembered Ms. M.'s mentioning that her daughter's father worked as a crossing guard at a local school, went to the school, found him and, after his shift was over, approached and asked about Ms. M.'s whereabouts. However, he was averse to helping the locator because he did not allow Ms. M. to visit the child.

Because all these typical routes had led to dead ends, the locator reasoned that, her home having been turned into a "house of horrors", Ms. M. might be in need of a place to sleep; consequently, the locator would pass by the homeless shelters each

week to inquire about Ms. M. (as well as about others on her list of "lost recruits"). On her fifth attempt to find her there, she finally located Ms. M., who agreed to the followup interview.

Ethnic Stereotyping

*Case No. 15-Mrs. A.*³

Her locator form described Mrs. A. as a 50-year-old Alaskan-American. The only locating information given on the form was her sister's address and phone number. Basic procedures to locate Mrs. A. for her six-month followup visit yielded no results. She did not respond to a letter sent to the only address she provided, i.e., her sister's home. Outreach workers made several attempts to reach Mrs. A. by phone at different times of day; each time, the phone was answered by her sister's husband who apparently did not like Mrs. A. He was generally unhelpful and evidently did not forward any of their messages for Mrs. A. to get in touch with them. Outreach workers then checked the local phone books to determine whether Mrs. A. might have any additional relatives in town; her unusual last name helped to narrow down the search. Although there were two additional listings in the phone book for that same name, one of these was an "unlisted" number, i.e., unavailable, and the people at the second did not know Mrs. A.

On the three house visits that outreach workers then made to her sister's home at different times of day, no one ever answered the door but on each visit they left a message in a sealed envelope for Mrs. A., requesting her to call the outreach workers. (Outreach workers prepare messages in sealed envelopes in advance for people whose address they intend to visit on a given day; letters are then sorted according to neighborhood.) There was no response to those messages.

At this point in followup, three standard procedures remain, involving other investigation procedures. First, if the outreach workers have any indication that the individual might be homeless, they begin an operation of searching the various shelters and food banks in the area. (Since there was no indication that Mrs. A. was homeless, this procedure was not pursued.) Second, outreach workers list names of people who are difficult to locate and determine whether they are

³ We wish to thank the staff, particularly Dr. Robert G. Carlson (Wright State University) and Dr. Harvey A. Siegal, of the Dayton-Columbus AIDS Outreach and Intervention Project, for contributing this illustrative case and the following one (Cases No. 15 and No. 16).

incarcerated in either the state penitentiary system or the county/workhouse system. (Checking for Mrs. A. at both of these locations yielded no results.) Finally, for those individuals who still have not been found, the post office will be checked for forwarding addresses. To maximize their time, outreach workers usually wait until they have a list of 15 to 25 names before checking them at the post office. The first search for a forwarding address for Mrs. A. yielded nothing but her name was kept on the list. A second check at the post office one week later again was unsuccessful; two weeks later, on the third attempt, the post office provided a forwarding address for Mrs. A.

When the locators went to that address, the door was answered by a light-skinned African-American woman, whose appearance was not what the outreach workers had expected. Because the locator form had indicated the woman's ethnicity as "Alaskan", the workers thought they were at the wrong address. Nonetheless, the outreach workers explained that they were with a health study and were looking for Mrs. A. When the woman simply smiled at them and said nothing, one of the workers finally asked, "Do you talk to Mrs. A.?", to which the woman responded, "Well, I am Mrs. A." Outreach workers were surprised, since they had been expecting to find a woman who had Asian features (because of the ethnic label of Alaskan). Mrs. A. invited the outreach workers in and they were successful in setting up an appointment for her to begin her six-month followup the next day.

From IV Drug Use To Crack

Case No. 16-Mrs. G.

Mrs. G. was described as a 26-year-old white woman who qualified as an intravenous drug user. Outreach workers knew her well but had not seen her in a long while. She did not respond to the initial letter sent out. She had given only one phone number and address on the locator form. That phone number had been disconnected and there was no new number; further, she was no longer living at the address given and the people living at that address did not know who Mrs. G. was. A search of the phone book for possible family members yielded no results. A male friend of hers who had come to the project with her had moved and the outreach workers could not find him.

Outreach workers received a tip from a woman who said she knew Mrs. G. and that she was living in a certain neighborhood but the woman did not know exactly where. Then, by chance, the Site Director saw Mrs. G. working as a waitress in a

restaurant; she did not know that the outreach workers were looking for her. When the Site Director told the outreach workers about this, they went to the restaurant for lunch on several occasions to look for Mrs. G. but unfortunately they never saw her. On the third attempt, they asked the restaurant cashier whether she knew Mrs. G.; the cashier said that, although Mrs. G. was employed there, she had simply not shown up for work and had apparently quit her job. At this point the outreach workers had just gotten the lead about Mrs. G.'s living in a certain neighborhood; they cruised around in the area, stopping at one location that looked like the place their lead had described but it turned out to be a dead end. On their way back to the car, they asked a passing postman whether he knew where Mrs. G. lived and, sure enough, he rattled off an address not far from where they were, which they then visited. When Mrs. G.'s boyfriend answered the door, they left a message with him to give to her but she did not respond. When they visited the address a second time, no one was home and they left a message again but again there was no response. A week later they met a man who the outreach workers believed had known Mrs. G. and they asked him about her. He went into some detail about the fact that Mrs. G. was no longer injecting narcotics but had switched to smoking crack, so heavily that he thought she probably just did not have time to come in to the Project. The time for Mrs. G.'s six-month followup passed without her appearance at the Project for followup. When it is time for her 12-month followup, outreach workers will try to locate her and convince her to come in again. Although this has not yet been true for Mrs. G., there have been occasions when an individual has refused to come in at six months but, for some reason, after being re-contacted at 12 months, has agreed to come back into the Project.

Obtaining Cooperation

Some subjects who are exceedingly hard to locate present an additional problem after they are finally found: they are reluctant to cooperate with the study. As one staff learned, the fear, hostility, resistance or simple indifference of some individuals can be very difficult to overcome.

The following case shows how an interview arranged through unusual effort was nearly thwarted by intervening circumstances.

Case No. 17-Mr. S.

The only address available for Mr. S., as given on his city police record, was that of his father. When staff were unable to reach the father by telephone, they went to the home and learned from a neighbor that the senior Mr. S. had died a few

months before. The son had come for the funeral, the neighbor reported, but she did not know where he lived. However, she did know that a lawyer was handling the estate and she was able to give staff the lawyer's name. Through the lawyer, staff learned that Mr. S. lived in California and also that he had become a serious alcoholic.

By letter and then by phone, the study contacted Mr. S. in California and he agreed to be interviewed by a colleague, a professor at a university near Mr. S.'s home. At the appointed time, the interviewer went to Mr. S.'s residence, found him there alone (and drinking) and began the interview. After about an hour of conversation, however, the interview had to be terminated: Mr. S. had become so drunk that he lost consciousness.

Several days later, the interviewer returned to the house to make another personal contact with Mr. S. This time he met Mrs. S., a woman born and raised in the Orient, who was very suspicious of staff and their motives. She felt that they were involved in a conspiracy to swindle Mr. S. out of his inheritance and she urged her husband not to cooperate further with the interviewer or the study.

Mr. S. did not feel this way, however. He was actually very sympathetic with the study's purpose and wished to make good his original promise to help. Staff contacted him again without his wife's knowledge and he made another private appointment with the interviewer, kept it, and completed the interview satisfactorily.

Clients With Sufficient Funds

Some clients may not be difficult to locate but, because they have sufficient funds, the incentive of payment cannot be used in persuading them to come in for followup interviews.

Case No. 18-Ms. D.

Ms. D. is a black female dealer who has plenty of money. Therefore, she is not inclined, nor can she be persuaded, to come in for her followup just for payment; other incentives must be offered to obtain her cooperation. However, when her business is slow or when the police are hanging around, she is anxious to be off the streets for a couple of hours and the locator must take advantage of these opportune times to encourage her to come in for the followup interview.

Locator Persistence

The following case illustrates locator persistence in continuing to ask questions about the whereabouts of clients in the neighborhood and in following up leads.

Case No. 19-Ms. J.

Ms. J. was recruited with a group of other prostitutes who had congregated outside a store. The locator overheard their conversation about partying the night before, introduced herself and recruited them into the project. When Ms. J.'s six-month followup was due, the locator could not remember what she looked like (even though a physical description was given on the locator form) nor could she remember the area in which Ms. J. had been recruited. Telephone calls were made to all contacts provided on the locator form and letters were sent to her at her own and her mother's address, with no success. The locator went to the addresses given but Ms. J. did not live at the address she gave nor did they know of her at the other addresses given. The locator went to neighbors' houses in the general vicinity on the outside chance that a slight error had been made in recording the address. The "hangout" location was also checked several times by the locator, to no avail.

The postmaster in this neighborhood periodically checked to see if certain clients maintained a post office box to receive welfare or social security checks. When Ms. J.'s name was given, it was determined that she did not maintain a box. Since the check-cashing shops also maintain boxes, this avenue was explored but with the same negative result. Since prostitutes are periodically arrested, the locator decided to check the list of recent arrestees to see if Ms. J. could be located in the jail but Ms. J. was not on this list. Because of the locator's difficulty in locating Ms. J., she always asked other groups of women, prostitutes in particular, if they knew Ms. J., when she brought them back in for followup. This avenue netted a woman who knew Ms. J. and provided the locator with her address but when it was checked out, Ms. J. was not at that address and no one knew where she was. A new list of arrestees was published and this time Ms. J.'s name was located on the list. The locator went to the jail but Ms. J. refused to see her, apparently because she did not remember having had contact with her before (almost a year earlier). A month later, the locator was at the jail locating another client, saw Ms. J. coming out of the kitchen and reminded her that her followup was due. Ms. J. remembered the locator and agreed to the interview.

A further interesting aspect of this case is the fact that Ms. J. told the locator that she was sick with swollen glands, diarrhea and nausea. She refused to tell the jail physician of her illness, believing that if the jail officials knew she was HIV positive she would be ostracized and isolated with other AIDS patients. Since Ms. J. had no family who could help her, the locator agreed to send the AIDS agency worker to see her, to get help for her and to maintain confidentiality of her HIV status.

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Chapter 5

Locating and Followup Via Social Networks

A Social Network Approach to Following Up Street-Level Intravenous Drug Users

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This chapter, in its concentration on networking techniques, will be particularly useful to those focusing on social networks, although its contents have some general applicability. Periodic followup of IVDUs is an integral part of both intervention strategy and research design. As previously mentioned, longitudinal panel studies and sequential intervention programs typically experience difficulties in maintaining contact with their original participants. When the population being studied or targeted for intervention consists of active street-level IVDUs, these difficulties become formidable. In the following, we will discuss barriers to successful followup of IVDUs and strategies to overcome these barriers. A description of intervention techniques which emphasize social networks and ethnographic methods can contribute to our repertoire of followup techniques.

The projects which are part of the National Institute on Drug Abuse (NIDA) AIDS Demonstration Research Program have as their aim the implementation and evaluation of comprehensive community-based outreach intervention models to reduce the spread of AIDS among targeted IVDUs and their sexual partners. Employment of a multi-method strategy, combining the basic principles of medical epidemiology with those of community ethnography (Wiebel 1988), is described.

At a project's onset, it may be decided to focus on social networks. Targeting a social network makes it possible not only to educate network members about AIDS and encourage risk reduction, but also to: 1) offer ongoing intervention services in the community settings where target populations congregate, 2) refine intervention strategies appropriate to different varieties and types of drug-using groups and 3) establish community-based field stations which serve as convenient bases of operations for providing intervention services and monitoring research subjects.

Equally important, a network approach provides the opportunity to change peer group norms rather than simply hoping to change the behavior of isolated individuals.

The network approach also benefits research efforts by placing within a social context the behavior of the individuals being studied. Further, social networks furnish researchers with multiple sources of data that often can be cross-checked, thereby enhancing validity. Finally, some of the labor intensive problems associated with following up a research cohort are eased by a network approach, as will be discussed below. At this point, it is important to state one caveat: the advantages of the more intensive model are opposed by the disadvantage of lack of comprehensibility and generalizability.

In the absence of a reliable and efficient sampling frame for IVDUs and the significant biases inherent in sampling from agencies and institutions such as drug treatment programs and hospital emergency rooms (Crider 1985; Lampinen et al. 1988), a project can focus on selecting a purposive, stratified network sample to represent the known range of varieties and types of major IVDU networks in a given municipality.

During an early stage of a given project, neighborhoods with high rates of drug abuse should be targeted in several of a city's major geographical areas. These areas should provide a desired diversity in community demographic profiles as well as in IVDU social network characteristics, including patterns of drug use, age, race and gender of target group members. A store-front field station should be set up in each of the geographical areas and these staffed by outreach workers, interviewers and an ethnographer.

Within each of the city areas, if possible, several social networks should be identified and sampled. A network is conceptualized most basically as a group of IVDUs who know each other and interact on a regular basis. A network can be further refined in terms of core group membership, extended networks and social structure. For example, a white IVDU social network was selected for inclusion in one project not only because the members were white but also because they lived in close proximity to one another, formed social and economic partnerships that included drug-using activities, in varying degrees excluded nonwhites, and had both group and self identities of which ethnicity was a cornerstone.

In the beginning, outreach workers, ideally accompanied by an ethnographer, go to designated congregation areas frequented by targeted networks in order to carry out AIDS education, encourage and reinforce behavior changes, and recruit study participants. The speed and depth of penetration into IVDU networks can be greatly enhanced by use of indigenous outreach workers. It is likely that most of these team members are ex-IVDUs and that all live or have lived, worked or hung out in the neighborhoods to which they are assigned. Their past ties provide contacts and credibility, both of which are critical to a project's efforts and not easily established, given the covert nature and illicit activities associated with this population.

Hiring Outreach Workers

Outreach workers are the key to successful AIDS street outreach and research, including the ability to follow up. The following qualifications are suggested: Outreach workers should be ex-IVDUs because, as such, they will have relatively quick access to target neighborhoods and they possess the knowledge and credibility needed to ground AIDS intervention in the realities of this high-risk population. Ideally, outreach workers should have some familiarity with the neighborhoods they serve but the right ex-IVDU, through hard work and behavior worthy of respect, can operate effectively in an unfamiliar neighborhood. If it is impossible to hire ex-IVDUs, then hire people indigenous to the neighborhood, preferably ones who have experience as members of neighborhood community service agencies.

Indigenous outreach workers need to be role models; thus, it is imperative to find ex-IVDUs who have shown strength and resolve in conquering their addictions. The ability to detoxify from methadone is a good indicator of such strength and resolve. Although recovered addicts may be very good at outreach work, we must be very much aware of potential dangers in this kind of worker and be prepared to supervise them to avoid weaknesses spilling out into their work. Outreach workers are put at considerable risk of relapse. Their jobs place them into contact with active IVDUs, dealers, shooting galleries and probably old associates. Further, in dealing with people who are poor, engaged in illegal activities and at high risk for contracting HIV infection, outreach workers will be subjected to many urgent requests for help. Often, they will be able to do little. This sort of pressure and frustration encourages relapse and/or burn out. Obviously, relapse seriously impairs or ends an outreach worker's ability to perform, which includes followup

work. Moreover, relapse marks a major setback for the recovering person. While each individual is different, we suggest that, as a rule of thumb, outreach workers should have been abstinent from drugs other than methadone for at least two years.

The loss of an outreach worker, whether from relapse, illness, death or a change in jobs, seriously impairs the ability to follow up study participants. To protect against this possibility, outreach workers should regularly work in one another's network. This team approach has an added bonus of protecting against relapse and burnout.

Outreach workers often become a fountain of information which should be harvested and recorded.

The penetrations and recruitment efforts made by outreach workers can be guided by the ethnographers, who, at the same time, can begin qualitative investigations of the group's life.

From the beginning, IVDUs and their sexual partners can be recruited directly through these personal contacts developed on the street by the outreach workers and ethnographers and through "snowball" sampling of core and extended networks. Potential limitations of snowball sampling can be circumvented by use of multiple snowballs; thus, none of the field sites' samples should be composed wholly of a single snowball nor of the contacts of a single outreach worker. Rather, once particular IVDU networks are targeted, multiple sources of entry are to be sought with an ultimate goal of recruiting all or most of the network's members, especially those at its core or--in the case of extended networks such as the sexual partners of core group members--obtaining a reasonably representative sample.

To be included as a research subject, a target group member must either be an active IVDU not in treatment or the sexual partner of an IVDU. To ascertain status as an IVDU, potential study participants should be inspected for needle "tracks". Additionally, confirmation via secondary sources cultivated through ethnographic methods is often obtained. Similarly, ethnographic contacts are used to validate claims of sexual partnership and network membership. Each subject should be paid (typically about ten dollars) for the interview and an additional similar sum for agreeing to blood sampling.

Following completion of the AIDS Initial Assessment (AIA) interview, subjects should be reevaluated in terms of sampling criteria and the unqualified removed from the panel. (For example, in one project, out of 508 AIAs done in one area,

17 subjects were disqualified as not actually being an IVDU or sexual partner, for being in treatment or for having interviewed more than once.

The process of reinterviewing panel members requires contacting all of those originally interviewed who are still alive and have not been disqualified since the initial interview. Additionally, periodic individualized risk assessments should be done on as many network members as possible; this also requires a followup contact.

Problems in Following Up Street-Level IVDUs

The attempt to contact intravenous drug users for followup interviews and blood sampling or to maintain intervention activities is beset with problems. The following are examples of typical followup difficulties encountered by one project. The search for N., a middle-aged black male, took an outreach worker to three apartments, one hotel and multiple street contacts in one area of the city, a grandmother, two apartments and a housing project in another area, and finally back to several contacts in the first area. N's penchant for stealing from or seriously harming those around him significantly complicated obtaining the accurate information needed to contact him. Among the street informants who knew him were those who wanted to find him so as to even the score and those trying to protect him from avengers. Another participant, A., entered a witness protection program several months after her initial interview. K. lost her apartment to a fire. And in the case of L., the letter soliciting his followup participation was forwarded to him but he did not open it for fear that it conveyed news of a positive HIV test result. Though not all subjects in this study presented similar difficulties, of the subjects in one major area located for a second interview, only 25% were at the primary address they had given at the time of the initial interview.

These problems in following up IVDUs relate to the lack of stability in their lives, certain features of street culture and issues related to AIDS. The majority of street-level IVDUs are poor and unemployed, and for them subsistence is a daily struggle. Pressured by the requirements of survival and the costs of drug use, many IVDUs engage in illegal means of securing an income. Under such conditions, situation and circumstance play major roles in charting the course of their daily routines.

A typical day of "rippin' and runnin'" involves an illegal hustle to obtain money. Examples of hustles include drug dealing, panhandling, shoplifting, burglary, robbery and prostitution, all of which may bring unwanted attention from police or a victim. Once money is obtained, IVDUs continue to risk arrest when they buy drugs, acquire injection equipment and use drugs. For many IVDUs, just being on the street is to risk arrest, because a simple shakedown by police may reveal warrants or parole or probation violations for which they can be jailed. And since IVDUs often victimize one another, it is not only the police of whom they must be wary.

The caution that IVDUs must exercise in their daily activities leads many to adopt a low profile, disguise their identity and keep most associates at arm's length. It is very common to hear an IVDU state that "I don't like people to know my business". IVDUs who are being pressured or sought by police or street associates may change their current residences, copping areas and hangouts. (For example, a participant in one project does all he can to avoid both police warrants and the loan sharks who hunt him. Another study participant is hiding in another state after having arranged his own fake murder to foil would-be killers.)

For the IVDU, jail and prison are very real possibilities. In one project, one area field station alone has at least 14 participants who are currently incarcerated. Interviewing study participants in jail poses many problems and obtaining blood samples may be impossible.

Many IVDUs maintain quasi-homeless living arrangements that alternate among alleys, parks, abandoned buildings, cars, public shelters, friends' or relatives' residences and transient hotels. Preliminary data from one project indicate that approximately 24% of the sampled IVDUs consider themselves homeless (Wiebel et al. 1989). Even those IVDUs who are able to maintain apartments are likely to be forced to move because of unanticipated events such as changes in their typically marginal finances, house fires, eviction for drug-related behaviors, rent increases, breakups of relationships or gentrification.

Experiences in attempting to follow up research subjects demonstrate this residential transience. In one project, of one field station's sample members thus far reinterviewed, about 75% gave a primary address different from the one listed on their original interview. Samples in two other areas of the city covered by this project contained similar discrepancies. While some of this can be attributed to

respondents deliberately giving misleading locating information on the original interview, ethnographic data revealed that the great majority of change represented actual relocation.

Although the telephone is an almost certain means of contacting *middle-class* individuals, a street-level IVDU with a telephone is an exception. And when IVDUs are able to provide the telephone number of a friend, relative or associate, callers inquiring about the IVDU are typically met with suspicion.

The rigors of street life and drug use take their toll on the health of IVDUs. As in abrupt encounters with the criminal justice system, IVDUs often enter the health care system because of an unexpected crisis. Whether as the result of an adverse drug reaction, an acute medical condition or reaching a level of illness so grave or painful that it can no longer be ignored or self-treated, it is not unusual for IVDUs to be hospitalized suddenly. Consequently, knowledge about the whereabouts of a hospitalized IVDU, even among family, friends and associates, may be very limited.

The need of IVDUs to keep a low profile and their general distrust of "officials" lead to further locating obstacles. It is common in street culture to have a nickname or alias and even IVDUs with long-term associations often do not know one another's real names. While street names can be very useful for finding study participants, they have limitations, not the least of which is duplication. (e.g., In Chicago, a common street name is "Capone".) Some study participants will be reluctant or refuse to provide their correct legal names, street names or address when first interviewed. Even the respondent who willingly gives this information may neglect to mention that his/her name does not appear on the mailbox or buzzer of his/her residence--a real problem when, as is common, the building's apartments are not assigned numbers.

When IVDUs are not at the residence they listed, it is necessary to turn to their associates and relatives for help in locating them. However, as mentioned in the previous chapter, these people may be reluctant to assist in finding them because they know that the IVDU is often in some sort of trouble. Others have severed relations with the IVDU and want nothing to do with him/her.

Some IVDUs become difficult to locate for more positive reasons: they decide to leave the life. As described in Chapter 4, in choosing to "chill out", IVDUs often separate themselves from those friends, associates and areas that were a part of their life on the street. This separation may include entering treatment programs,

forming new friendship networks or moving out of the neighborhood or even the state. (For example, two brothers in one study left the study city for Wyoming and another participant left for West Virginia with a preacher who was intent on reforming him.)

The fact that followup attempts seek individuals who are both IVDUs and participants in an AIDS study further complicates efforts to locate them because great caution must be exercised in explaining to others the reason for the search. Some relatives and associates do not know that the study participant is an IVDU, while those who are "in the know" may misunderstand outreach workers' interest and take it as a sign that the IVDU has AIDS. In sum, poverty, the nature of street life for IVDUs and the particular problems of studying AIDS all operate to make followup interviewing a very difficult task indeed.

Successful Followup: Gathering Locator Information

For each subject in this kind of study, locator information should be gathered at the time of the initial interview, as we describe in Chapter 4. Respondents are asked for their full name and any street names, nicknames or aliases they may use. Street names are particularly important because, as noted above, it is not uncommon for even "running partners" to be unfamiliar with one another's legal names. (For example, in one project network of over 130 members, apparently no one knew Willie Smith, yet there was probably no member unfamiliar with "Norris".) Female study participants are asked for their maiden names because they sometimes change back to them after leaving a relationship or turn to them for an alias. The interviewer should bear in mind the possibility of multiple aliases.

Respondents are then asked for the address at which they can best be reached. Since this address is not necessarily the one at which they reside, information about the unit's owner or renter is requested. Experience has taught us to ask for the name on the unit's mailbox, regardless of who owns or rents the unit. In buildings that rent to poor people, it is very common for names of previous tenants to be on a mailbox or bell. And when the unit has only a floor number rather than an apartment number, knowing what name to look for on the mailbox or buzzer can make the difference between success and failure.

Although phone numbers are requested, it is the exception for a street-level IVDU to have a private phone. Thus, when a phone number is asked for and one is provided, interviewers should also request information about the person who

maintains that service. Because of the transient nature of life as an IVDU, respondents are asked for other addresses that may be useful for finding them. The manner in which this question is posed makes a difference in the response rate. If respondents are simply asked for additional addresses, the majority will provide none. It is far more fruitful to ask "If you (or the person you are staying with) were to move, what would be the best way to find you?" The most reliable of such addresses are those of relatives, especially a mother. Asking directly for a mother's address and phone number often yields this information. It also is important to determine the best mailing address because mail is frequently stolen from the unsecured boxes commonly found in the apartment buildings, hotels and housing projects that are often home to IVDUs.

Since areas where participants congregate are more stable than housing arrangements, respondents are asked "Where do you hang out?" It is often possible to trace people through contacts at favorite street corners, prostitution strolls, bars, "greasy spoon" restaurants and even laundromats. For the sake of efficiency and discretion, it is useful to know who on the street might know the respondent's whereabouts. As is true of the question about addresses, the manner in which this question is asked affects the likelihood of response. Rather than asking "Are there (one or more) friends who usually know how to reach you if you should move or leave the program?", it is probably more productive to drop the term "friend"--many IVDUs claim to have no friends--and assume rather that someone will be able to provide such information. Thus, ask "Who on the street would be good to ask if we are having a hard time finding you for the next interview?"

Besides locator information, respondents are asked for data that will allow for double checking their true identity: mother's maiden name and social security number. Given the possibility of an individual trying to pass himself off as a subject in order to collect subject fees or information, subjects in for a followup interview who are not clearly known to interviewers are checked against these identifiers. Further, subjects who originally give false names and then forget these names can be identified through these identifiers. People who are reluctant to give such information are almost always willing to provide at least the last four digits of their social security number and this is usually sufficient for future identity matching. For the same reasons that these identifiers are requested, a brief physical description is noted. In one case, the only way a subject could be matched to his study I.D. number was through a tattoo that had been noted on his locator form.

In designing a locator form, the temptation is to ask for all possible information. This strategy is probably a mistake. Most street-level IVDUs are able to provide little in the way of locator information, and this leads interviewers to assume that almost no information will be given beyond a primary address. Consequently, interviewers may begin not asking for even those addresses, phone numbers and contacts that may be available. To maximize useful information that can be obtained, respondents should be asked those questions that are likely to be answered.

After all this is said, it is crucial to understand that gathering good locator information is not only a prerequisite to successful followup. Depending on how the researcher or interventionist is perceived by the IVDUs being sampled, the veracity of locator information will vary considerably. And even when an IVDU provides the most complete and truthful information possible, the instability of IVDU street life makes it likely that, in six months, many or all of his/her addresses and phone numbers will be obsolete and therefore useless. What then?

Successful Followup: Beyond the Locator

Three features of a project of this type facilitate successful followup: social networks, indigenous outreach workers and ethnography. The focus of a social network strategy is the understanding of existing patterns of social arrangements and interactions that function to link individual IVDUs into loosely formed social units. As IVDUs go about acquiring money and drugs, using drugs and tending to the routines of everyday life, they make acquaintances and form associations. Through these interactions, networks form.

Social network members can be divided into two categories: core members and marginal or extended network members. The difference between these categories is the extent and frequency of participation in everyday network activity. Core members of IVDU networks are generally unemployed. This enables them to establish and maintain a consistent presence and involvement in network activity. Core members come to possess considerable knowledge on a range of network activities, including the specific roles, activities and movements of other members. As a result, core members are a key source of information about other network members as well as being easily accessible themselves to someone who understands the network.

Networks typically also have marginal members whose participation is irregular or limited. For example, J. and B. are very low-profile heroin addicts. They prefer to live and use drugs well away from the area where they purchase these drugs and where J. occasionally engages in prostitution. On the other hand, they appear regularly and often enough so that messages can be delivered to them by drug dealers who are core group members. Thus, while marginal network members tend not to be good sources of information about others in their network, they usually can be contacted through core members.

By focusing on a social network, the researcher or behavior interventionist has the opportunity to utilize a considerable amount of information about individual linkages within the group. Such knowledge is highly useful both in making sense of HIV-related behaviors and in locating network members. However, most social networks are bounded and members act in ways that exclude outsiders. In a criminally deviant network, this resistance to penetration by outsiders is particularly strong. Thus, while IVDU network members--particularly those in the core--may know quite a lot about one another, information is guarded. How does the researcher or interventionist gain access to such information, especially when operating under the time pressures necessitated by the AIDS epidemic?

Access to the wealth of information held by network members comes only after the researcher's or interventionist's credibility has been established. Project ethnographers can establish the sort of credibility necessary to gain access to a significant amount of information but this is not something that can be accomplished overnight. However, credibility can come rather quickly through the use of indigenous outreach workers, as described above. For example, in one project's first days, the ethnographer for one area set off with an outreach worker who at one time had used drugs and engaged in illegal hustles all over the city. After less than two hours on the street, the outreach worker found an old running-partner who was probably the best known member of a major drug-copping area. Within two days, the researchers' credibility was such that network members were lining up next to the researchers' cars, waiting for an interview--this despite the facts that the researchers were new on the scene and that the ethnographer was a white man in a largely black neighborhood. By the time these subjects were due for a followup interview, network members were willing to provide the sort of information that enabled researchers to find N. (on the run), A. (witness protection program) and K. (apartment lost to fire). Further, by followup time, the outreach workers had expanded their original contacts to include a great many more network members and associates.

Followup can be further facilitated by the research and supervision carried out by project ethnographers. Whether overseeing intervention activities or doing qualitative research, ethnographers are oriented toward taking into account the world view of those being studied and targeted for intervention. This approach enhances the ability to follow up sample members in the following four ways: First, since understanding of IVDU social networks is still preliminary, outreach workers need considerable guidance in their recruitment of sample members. If one wishes to reap the benefits that examination of social networks can provide in terms of knowledge of human behavior, intervention efficacy and maintaining a viable longitudinal panel study, it is critical to recruit a true network and not simply random IVDU's. The difficulty of this endeavor should not be underestimated, especially when the researcher or interventionist is new to a neighborhood and operating under time constraints and the network is largely criminal. By being on the streets and applying ethnographic skills, project ethnographers were able to supply the guidance for accurate network sampling.

Project ethnographers can also train the outreach workers in basic ethnographic skills that further the collection of data, the understanding of those data and the ability to follow up sample members. Some ethnographers encourage outreach workers to write or tape-record field notes regarding network members and activities. Further, outreach workers are trained to listen more than talk and to take particular note of data that either increase understanding of AIDS-related behaviors or the ability to follow up sample members. In this manner, the ethnographer can acquire a considerable amount of information regarding the whereabouts of respondents or other individuals which can assist in finding these respondents, and this is systematically recorded.

When on the streets, it is a mistake to simply go around asking anyone and everyone about a respondent's whereabouts. Discretion is important in interacting with a criminal population, especially when we are known as AIDS researchers. Not only would such an approach be inefficient, but it also could have serious negative consequences for the researcher, interventionist and subject. For example, such an approach may create a rumor that the subject has AIDS. Indiscreet questioning may also tip off the wrong people that the subject is an IVDU and threatens to compromise subjects' trust in us. A credible and trusting relationship with targeted populations is necessary to maximize intervention and followup success. Ethnographic methods can help us gather this critical information while minimizing the sort of indiscretion that could bring a quick end to our ability to do this sensitive research. By learning about network members and their roles, rules, beliefs, values and relationships, project ethnographers are able to guide outreach

workers in doing discreet but effective followup. While outreach workers typically know network life, it is our experience that the discretion demanded by research is greater than that which most outreach workers are accustomed to practicing when on the street.

Finally, by their regular presence on the streets and among network members, ethnographers develop their own contacts and information, both of which can be of considerable assistance in doing followup. Not only is an ethnographer trained in the subtle extraction and recording of the sort of information that assists followup, but s/he is also seen by some of the network members as a more neutral confidant than the outreach worker. Outreach workers typically have had prior contact with at least a few members of the networks they are now serving, and some of these people may not wish to share certain items of information with the outreach worker. Instead, they turn to the ethnographer. (For example, in one project, the only way one female subject was willing to provide her address was with the provision that no one but the ethnographer would have it because she was afraid that the outreach worker, who knows her "ex-old man", might accidentally leak this information.)

In sum, the focus on social networks, the use of indigenous outreach workers and supervision and research by an ethnographer greatly enhance the ability to do interviewing and intervention followups on a highly transient and secretive population. From the indicators available at this time, it is estimated that it is possible to regularly follow up at least 80% of a sample panel in this kind of project. If interviewing of incarcerated panel members can be arranged, this estimate can be increased.

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Chapter 6

Interviewing

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Using the questionnaire and sampling plan provided by the study director, the interviewing staff is responsible for the collection of quality data from a representative percentage of respondents.

Importance of the Interviewer

Traditionally, the interviewing staff is one of the last elements to join a research study, has minimal, if any, input in the planning stages and is the lowest paid. However, regardless of the amount of thought, planning and expertise that goes into defining the purpose and developing the design of a study, *no research can be better than the information the interviewers collect*: the raw data. The interviewing staff can be viewed as the base of a pyramid, supporting all other components of the study. Consequently, the selection, training and supervision of the interviewing staff is vital to the success of any research.

The Role of the Interviewer

The interviewer's primary responsibility is to administer the questionnaire in a competent professional manner that holds the respondent's interest and encourages complete meaningful answers to all pertinent questions. In addition, some studies require the interviewer to locate respondents who meet study qualifications and persuade them to participate.

The basic ethic of the research process is respondent confidentiality. Researchers are legally entitled to withhold the identities of respondents from all persons not associated with the research. Interviewers are responsible for maintaining research ethics in the field, and should be trained to guard against lapses in confidentiality through carelessness. Confidentiality is not only a matter of simple respect for

respondents-- the kind of privacy everyone wants for oneself--but also in the interests of preserving the credibility of the entire study. If people who answer the questions find their names and opinions discussed, they could refuse further cooperation and/or influence the participation of others.

Choosing Interviewers

Interviewing drug program clients frequently entails finding them. Locating members of a transient, nomadic population is a skill requiring patience and ingenuity. These same characteristics are frequently necessary in conducting the interview, along with the ability to hold a respondent's attention and recognition of the need to probe for meaningful answers.

The field staff of a study needs people who track, people who interview respondents the trackers have found and people who are adept at both tracking and interviewing. Standardized interviewer and tracker training, both initial and refresher sessions, are necessary to assure uniform and competent data collection.

Personal Qualities

Successful interviewers are usually outgoing people with good basic common sense. They have the skills to get along with all kinds of people and are interested in, rather than judgmental of, the behavior of others--conveying a sincere spirit of equality. They are firm and friendly, not overbearing or demanding, and are able to take respondent indifference or hostility as a challenge of the job rather than a personal rejection.

The questionnaires used in most drug studies are lengthy and require a reasonable level of intelligence to administer. Interviewers must be able to understand the mechanics of the instrument and the intent of the questions. They must be able to recognize a reply that does not answer the question asked, and then clarify or amplify that "non-answer" by asking neutral questions to help respondents give relevant and complete answers.

Service Delivery Site

Respondents should be encouraged to give full answers to questions, including reports of illegal activities and drug use as well as criticisms of services, staff members and modalities. When interviewers are service delivery site staff

members known to respondents, frankness may suffer. Respondents can feel they have to give "right answers" to staff members. Despite assurances of confidentiality, they may be reluctant to criticize for fear of offending people they know or for fear that their treatment or welfare status will be affected.

Interviewers hired specifically for the project or staff members separated from the service process and unknown to patients are good choices as neutral interviewers.

Gender, Age, Race and Ethnicity of Interviewers

Gender. The decision to match the gender of interviewer and respondent is one that confronts every study director. From the inception of opinion research in the 1920's, there has been vacillation in attitudes and decisions with respect to use of same-gender interviewer. In the beginning, male interviewers were used almost exclusively, resulting in large part from the prevalent custom of the male as the sole or primary wage earner. As the industry grew, women began to take over the interviewer role, primarily because of time availability and wage considerations. Furthermore, for several years, many market researchers preferred female interviewers because they seemed less threatening when they appeared at a respondent's door and were also less likely to be perceived as salespeople. In recent years, with the increasing emphasis in the work place of making most jobs available to everyone, regardless of gender, the view of interviewing as an almost exclusively female occupation has disappeared. Today, market research is conducted regularly by both men and women, irrespective of the sexual makeup of the study population.

Despite the fact that the majority of respondents in drug studies are men, projects have been conducted successfully without attempting to match the sex of respondent and interviewer. Male respondents can relate well to women and answer their questions readily and fully. The occasional female respondents also react well to male interviewers. However, comparisons of drug studies conducted over the years indicate that the quality of data improves when the interviewer and respondent are the same sex. Some researchers have found respondents to be more truthful in talking with same-sex interviewers. In these situations, respondents are less likely to feel the necessity of making a forceful impression, to exaggerate their activities and abilities or to try to relate on a personal level. There appears to be some interaction between gender and content; while not all material is affected, some might be.

Age. Matching the age of interviewer and respondent appears to have less impact on the quality of the data. While it is true that some middle-aged or older individuals may be reluctant to take an obviously youthful interviewer seriously, nonetheless, the professional demeanor of the interviewer, regardless of age, is the telling factor in conducting a meaningful interview.

Race/Ethnicity. Racial and ethnic backgrounds of the respondents and interviewers are also important considerations in hiring the interviewing staff. In the case of respondents who may not be proficient in English, communication and accuracy can be enhanced by a bilingual interviewer. Indeed, in some studies with a large proportion of Hispanic respondents, Spanish translations of questionnaires are employed. In close-knit neighborhoods, obvious outsiders distinguishable by dress, ethnicity or demeanor who seek information about residents are frequently ignored or deliberately misled. Even though an interviewer may feel comfortable in any milieu, respondents are more readily available to locators and/or interviewers who look pretty much like the people with whom the respondents normally associate.

An interviewing crew is more effective when distribution of gender, age, race and ethnic backgrounds of the interviewers and respondents are roughly parallel.

Knowledge of the Drug Culture

Studies have shown that addicts are forthcoming with an interviewer with whom they are comfortable, regardless of the degree of the interviewer's knowledge or awareness of street language or the drug culture. Indeed, most respondents willingly educate interviewers on language or elements of street life as long as the interviewers show sincere interest.

Ex-addicts as Interviewers

Study data collected by ex-addict interviewers does not necessarily differ from data collected by other interviewers. Because of their personal knowledge of the addict life style, ex-addict interviewers must strive for neutrality. On the one hand, they must avoid being judgmental and on the other, they have to guard against showing sympathy or identifying with the respondent. Some respondents may be reluctant to give valid information to a particular ex-addict interviewer with whom they may have had interacting or overlapping experiences. Specific training and monitoring of the work of an ex-addict interviewer is desirable to assure unbiased results.

How to Find Interviewers

When budget constraints require using service delivery site staff members as interviewers, the need for neutrality in recruiting must be stressed. An attempt should be made to choose people who are not identified with the treatment process and who are least likely to come in contact with respondents or to know them personally. Nearby universities provide a source for outside interviewers, either by referrals through contact with study directors of past studies or use of student employment services. Newspaper classified ads are likely to result in a flood of applicants, demanding time-consuming screening to identify one or two possibilities.

Interviewer Training

Purpose of Training

In any interview situation, the interviewer is expected to conduct the proceedings. The purpose of the training session, then, is to equip the interviewer with the skills necessary to hold the initiative and to produce complete, high quality questionnaire data.

Training should provide knowledge of the general principles of opinion research and specific instructions on the study questionnaire. These specific questionnaire instructions are then augmented by the opportunity to gain complete familiarity with the instrument through practice. The best interviewers are those who can concentrate on the respondent rather than on the questionnaire. Thus, the best interviewers are those who are thoroughly familiar with the mechanics of the questionnaire: skip patterns, pre-coded answer categories, and necessary and appropriate probes.

Training Classes

The lengthy questionnaires used in drug studies usually request detailed information, often for specific time periods, about drug use, health and family history. To achieve the understanding and familiarity needed to administer the questionnaire usually requires three days of training, including practice interviews before assignment to actual study respondents to interview.

An outline of a typical training session includes:

1. **An explanation of the background and purpose of the study.** This will include the following: a) how the study is funded, b) a description of the study population, c) an overview of the interviewing and tracking tasks involved and d) a statement of how the information will be used and the importance of the findings. All information which interviewers garner from this section can be used as necessary to reassure respondents and to answer questions about why they were chosen and why their experiences are valuable to others. Much of the information on background and purpose will be stated in the Respondent Consent Form.
2. **Explanation of drugs and street language.** Even though interviewers need not be familiar with drugs or street language, they do need information on drugs. Interviewers should be provided with a list of commonly used drugs, including some of their street names, and a verbal review of the list to explain the usual effects (stimulant, depressant, hypnotic, tranquilizing, hallucinogenic, etc.)
3. **Confidentiality.** There will be an emphasis on the need to preserve anonymity of respondents and their answers, explaining the legal protection provided for respondents, and the interviewer's responsibility in preserving confidentiality.
4. **The approach.** This includes the following: a) how to greet the respondent and establish a natural, friendly, courteous yet business-like atmosphere, b) the necessity of obtaining the respondent's consent to be interviewed and c) the mechanics of administering the consent form and keeping it confidential.
5. **Interviewing techniques.** In many studies, an interviewing manual is provided by the study director. Manuals are available for purchase from the Institute for Social Research, Publication Sales, P.O.Box 1248, Ann Arbor, Michigan 48106. If manuals are not available, interviewers should be encouraged to take

notes. Each of the basic requirements and techniques outlined below should be illustrated in the round-robin interview portion of the training session.

- a. Reading of the questions exactly as written to assure consistent results from all interviewers. Speaking slowly and clearly in a natural, conversational tone of voice.
 - b. Avoiding interpreting questions for respondents, even if requested.
 - c. Instructions printed on the interview questionnaire for the use of the interviewer are not to be read to respondents.
 - d. Always reading the introduction to a question or the transitional statements bridging sections of the questionnaire.
 - e. Following of skip instructions printed on the questionnaire so that *only* applicable questions are asked.
 - f. Kinds of appropriate probing questions, and when and how to probe.
 - g. Recording of answers, by circling codes or writing answers verbatim.
6. **Round-robin practice interviews.** The supervisor plays the role of the respondent while interviewers take turns asking the questions in order, and *all* interviewers record every answer. This training technique accomplishes two functions: a) a review of the questions, skip patterns, and necessary probes and b) a beginning familiarity with the questionnaire.

7. **The Field Edit Explanation** of the necessity for editing the completed questionnaires, and guidelines for doing this.
8. **Practice Field Interviews.** Before beginning an assignment, each interviewer conducts a practice interview. The agency can recruit respondents from among staff members or treatment clients not included in the sample. Upon completion of this interview, the supervisor will review practice questionnaires with each interviewer individually.
9. **A group session** to exchange practice interview experiences, to review common mistakes and to discuss solutions to problems encountered.
10. **Validation and verification procedures.** Trainers provide an explanation of the necessity for recontacting respondents to verify the interview for purposes of assuring the study director of quality data, obtaining answers to questions inadvertently omitted or validating respondent qualifications if that is a part of the study.
11. The training session ends with **an explanation of payment procedures**, and instructions on assignments and return of completed material such as interview forms.

Contacting the Respondent

In some studies, outreach workers recruit and bring respondents to the interviewer in a central location. In other studies, trackers or interviewers locate respondents and make appointments for interviewers. Appointment "no shows" are an occupational hazard for interviewers. To minimize wasted trips, it is advisable for the contact person to remind the respondent of the appointment before setting out and to arrive early or arrange transportation to bring the respondent to the interview site.

Interviewing Sites

Interviews should be conducted in a neutral location providing privacy and freedom from interruptions. It should be comfortable for both the interviewer and respondent. Because some respondents may get tired of sitting and wish to stand up or walk around the room while they talk, the room should accommodate some movement. Interviews may be conducted at the service delivery site, in a respondent's home or in a public place--perhaps a restaurant between normal meal hours--or, if all else fails, the interviewer's car.

When an interview is conducted at a service delivery site, a room should be chosen where the patient does not see a staff member or receive any type of service, to emphasize disassociation with the normal treatment routine and encourage frank answers. If the interview is conducted in the respondent's home, a room should be selected where family members cannot overhear or interrupt the interview.

Interviewer Safety

When interviews are planned away from service delivery sites, the safety of the interviewer is a factor to be considered. Interviewers should have knowledge of how to keep themselves safe when interviewing in dangerous areas in large cities. However, they should not be so timid that they are uncomfortable in all city neighborhoods. The hiring interview should include a description of the likely interviewing neighborhoods and an assessment should be made of the applicant's experience in operating in unsafe areas, as well as willingness to work in neighborhoods other than his/her own. Although an interviewer may be willing to go wherever necessary, the use of escorts in some notorious areas may be recommended by the supervisor.

Supervision of Interviewers

The supervisor is responsible for the productivity, quality and cost of each interviewer's work. For purposes of reinforcing training, the first day's work should be reviewed with each interviewer to catch and correct errors, to discuss problems encountered in the field and to make appropriate suggestions to assist in

conducting future interviews. When numerous errors are discovered, additional instruction should be provided as necessary before a second interview is conducted. A review is then repeated for the second interview before an additional assignment is made.

Once the supervisor is assured of an interviewer's competence, timely office edits of completed questionnaires are needed to catch questions omitted in error or other lapses in performance. Timely and consistent editing throughout the life of the project is necessary to maintain the quality of interviewing performance. Tracking efforts should be reviewed on a regular schedule and suggestions of other locating sources provided.

In order to assess the progress of the study, to meet deadlines and to control costs, a supervisor must be aware of how the interviewing crew is utilizing work time. Regular weekly assignment reviews with interviewers and trackers are essential for a supervisor to function effectively.

As a part of these regular reviews, it is advisable for supervisors to keep a log of questionnaire errors, field problems encountered and their solutions, and successful locating techniques devised by trackers. Experiences of individual interviewers and trackers can then be shared with the entire crew.

Interviewers and trackers work alone without the support of co-workers assigned to the same tasks. Regular progress reviews give the supervisor an opportunity to express interest in staff efforts, to offer encouragement and suggestions and, in general, to reemphasize an interviewer's and tracker's importance to the success of the project.

Quality Control

Regular reviews, timely editing, explanation of mistakes and solutions to field problems all contribute favorably to usable quality data. Close supervision of this type assures honest efforts from most interviewers. From time to time, an interviewer may be tempted to take short cuts. Short cuts include falsifying entire interviews (eliminating, locating and dealing with the respondent), asking some key questions and simply filling in answers to the remaining ones, or assuming answers to questions or sections inadvertently omitted. Close supervision utilizing the

regular reviews described above and sincere interest in an interviewer's efforts are deterrents to such short cutting. Validation of interviews is an additional device to assure quality control.

One type of validation uses verifiable questions built into the questionnaire. The respondent is asked questions about facts known to the study director, for example, date of birth, treatment modality, length of treatment, education or marital status. This method shows researchers that 100% of each interviewer's respondents were interviewed. It is most effective when interviews are conducted at the service delivery site, where the arrival, sequestering and departure of a respondent is witnessed.

Another type of validation is to recontact a 10% to 20% random sample of respondents of each interviewer by telephone or in person if telephoning is not possible. In this process, the respondent is asked the following: 1) some of the same questions that were asked in various sections of the original interview, 2) the date of the original interview, 3) an estimate of the length of the interview and 4) a short review of the subjects covered by the interviewer. In addition to evidence that an interview was conducted, this method provides some assurance that all appropriate parts of the questionnaire were actually included in the interview.

These two methods, verifiable questions in the questionnaire and recontacting respondents to administer a short check questionnaire, are used primarily to assure that the interview was, in fact, conducted. A third method is to conduct a consistency check by re-interviewing the respondent within less than a week, using a different interviewer and repeating the complete questionnaire. This technique does validate the work of the original interviewer but the primary purpose here is to permit analysis of each respondent's replies.

Finally, it should be emphasized that interviewing training must be a continuing effort throughout the data collection process. Regular refresher-training courses are recommended for long-term projects. Regardless of the time span allotted for interviewing, panel discussions for the field staff provide a valuable exchange of experiences, for example, difficulties in administering the questionnaire or successful tracking methods devised. Interviewer panel discussions have the additional advantage of reaffirming the importance of the interviewer and tracking functions to success of the study.