Program Operations
Guidelines for STD Prevention

Partner Services

CDC
Centers for Disease Control and Prevention

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Foreword

The development of the Comprehensive STD Prevention Systems (CSPS) program announcement marked a major milestone in the efforts of CDC to implement the recommendations of the Institute of Medicine report, *The Hidden Epidemic, Confronting Sexually Transmitted Diseases, 1997*. With the publication of these STD Program Operations Guidelines, CDC is providing STD programs with the guidance to further develop the essential functions of the CSPS. Each chapter of the guidelines corresponds to an essential function of the CSPS announcement. This chapter on partner services is one of nine.

With many STDs, such as syphilis, on a downward trend, now is the time to employ new strategies and new ways of looking at STD control. Included in these guidelines are chapters that cover areas new to many STD programs, such as community and individual behavior change, and new initiatives, such as syphilis elimination. Each STD program should use these Program Operations Guidelines when deciding where to place priorities and resources. It is our hope that these guidelines will be widely distributed and used by STD programs across the country in the future planning and management of their prevention efforts.

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Introduction

These guidelines for STD prevention program operations are based on the essential functions contained in the Comprehensive STD Prevention Systems (CSPS) program announcement. The guidelines are divided into chapters that follow the eight major CSPS sections: Leadership and Program Management, Evaluation, Training and Professional Development, Surveillance and Data Management, Partner Services, Medical and Laboratory Services, Community and Individual Behavior Change, Outbreak Response, and Areas of Special Emphasis. Areas of special emphasis include corrections, adolescents, managed care, STD/HIV interaction, syphilis elimination, and other high-risk populations.

The target audience for these guidelines is public health personnel and other persons involved in managing STD prevention programs. The purpose of these guidelines is to further STD prevention by providing a resource to assist in the design, implementation, and evaluation of STD prevention and control programs.

The guidelines were developed by a workgroup of 18 members from program operations, research, surveillance and data management, training, and evaluation. Members included CDC headquarters and field staff, as well as non-CDC employees in State STD Programs and university settings.

For each chapter, subgroups were formed and assigned the task of developing a chapter, using evidence-based information, when available. Each subgroup was comprised of members of the workgroup plus subject matter experts in a particular field. All subgroups used causal pathways to help determine key questions for literature searches. Literature searches were conducted on key questions for each chapter. Many of the searches found little evidence-based information on particular topics. The chapter containing the most evidence-based guidance is on partner services. In future versions of this guidance, evidence-based information will be expanded. Recommendations are included in each chapter. Because programs are unique, diverse, and locally driven, recommendations are guidelines for operation rather than standards or options.

In developing these guidelines the workgroup followed the CDC publication "CDC Guidelines—Improving the Quality", published in September, 1996. The intent in writing the guidelines was to address appropriate issues such as the relevance of the health problem, the magnitude of the problem, the nature of the intervention, the guideline development methods, the strength of the evidence, the cost effectiveness, implementation issues, evaluation issues, and recommendations.

STD prevention programs exist in highly diverse, complex, and dynamic social and health service settings. There are significant differences in availability of resources and range and extent of services among different project areas. These differences include the level of various STDs and health conditions in communities, the level of preventive health services available, and the amount of financial resources available to provide STD services. Therefore, these guidelines should be adapted to local area needs. We have given broad, general recommendations that can be used by all program areas. However, each must be used in conjunction with local area needs and expectations. All STD programs should establish priorities, examine options, calculate resources, evaluate the demographic distribution of the diseases to be prevented and controlled, and adopt appropriate strategies. The success of the program will depend directly upon how well

program personnel carry out specific day to day responsibilities in implementing these strategies to interrupt disease transmission and minimize long term adverse health effects of STDs.

In this document we use a variety of terms familiar to STD readers. For purposes of simplification, we will use the word patient when referring to either patients or clients. Because some STD programs are combined with HIV programs and others are separate, we will use the term STD prevention program when referring to either STD programs or combined STD/HIV programs.

These guidelines, based on the CSPS program announcement, cover many topics new to program operations. Please note, however, that these guidelines replace all or parts of the following documents:

- Guidelines for STD Control Program Operations, 1985.
- Quality Assurance Guidelines for Managing the Performance of DIS in STD Control, 1985.
- Guidelines for STD Education, 1985.
- STD Clinical Practice Guidelines, Part 1, 1991.

The following websites may be useful:

• CDC	www.cdc.gov
• NCHSTP	www.cdc.gov/nchstp/od/nchstp.html
• DSTD	www.cdc.gov/nchstp/dstd/dstdp.html
• OSHA	www.osha.gov
• Surveillance in a Suitcase	www.cdc.gov/epo/surveillancein/
• Test Complexity Database	www.phppo.cdc.gov/dls/clia/testcat.asp
• Sample Purchasing Specifications	www.gwu.edu/~chsrp/
• STD Memoranda of Understanding	www.gwumc.edu/chpr/mcph/moustd.pdf
• National Plan to Eliminate Syphilis	www.cdc.gov/Stopsyphilis/
• Network Mapping	www.heinz.cmu.edu/project/INSNA/soft_inf.html
• Domestic Violence	www.ojp.usdoj.gov/vawo/
• Prevention Training Centers	www.stdhivpreventiontraining.org
• Regional Title X Training Centers	www.famplan.org www.cicatelli.org www.jba-cht.com
• HEDIS	www.cdc.gov/nchstp/dstd/hedis.htm
• Put Prevention Into Practice	www.ahrq.gov/clinic/ppipix.htm

Text in red boxes is linked to glossary definitions.

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Partner Services

INTRODUCTION

Shared Principles

Both STD prevention programs and HIV programs provide guidance on services to partners. Although STD prevention programs call these services "Partner Services," and HIV programs call these services "Partner Counseling and Referral Services," the services offered share many principles. Those principles are listed below.

i. **Voluntary**—Partner services are voluntary on the part of the infected person and his or her partners.

ii. **Confidential**—Every part of the partner service process is confidential.

iii. **Science-Based**—Partner service activities are science-based and require knowledge, skill, and training.

iv. **Culturally Appropriate**—Partner services are to be delivered in a nonjudgmental, culturally appropriate, and sensitive manner.

v. **A Component of a Comprehensive Prevention System**—Partner services is one of a number of public health strategies to control and prevent the spread of STD and HIV. Other strategies include accessible clinics, outreach to, and targeted screening of at-risk populations, behavioral interventions, and educational programs.

vi. **Diverse Referral Approaches**—Partner services may be delivered through two basic approaches: provider referral, whereby the provider locates and informs partners of their exposure; and client referral, whereby the infected person takes responsibility for informing his or her partners. Sometimes a combination of these approaches is used.

vii. **Support Services and Referral**—Partner services are delivered in a continuum of care context that includes the capacity to refer partners to HIV counseling, testing, and treatment, as well as other services (e.g., family planning, violence prevention, drug treatment, social support, housing).

viii. **Analysis and Use of Partner Service Data**—Programs should collect confidential data on the counseling and referral services provided and use the data for evaluating and improving program efficiency, effectiveness, and quality.

ix. **Counseling and Support**—Counseling and support for those who choose to notify their own partners is essential. Assistance to patients in deciding if, how, to whom, where, and when to disclose their infection can help them avoid stigmatization, discrimination, and other potential negative effects.

x. **Client-Centered Counseling**—Providing client-centered counseling for STD-infected individuals and their partners can reduce behavioral risks for acquiring or transmitting STDs.

xi. **Increased Importance as New Technologies Emerge**—As new technologies emerge, such as more sophisticated testing procedures and behavioral interventions, partner services will become an increasingly important prevention tool.

Text in red boxes is linked to glossary definitions.

Overview

Partner services have evolved from an exclusive focus on finding the sexual contacts of infected persons to a broad view of the clinical and epidemiologic activities needed to help persons infected with STDs. The basic process - interviewing infected persons and others potentially involved in transmission, identifying persons still at risk (whether through direct exposure or indirect involvement), and bringing the latter to diagnosis and treatment - has changed little, but the context for such activity has greatly changed. Partner services play several roles in this context. First, they are a clinical tool for identifying a patient's needs and requirements and connecting the patient to appropriate care. Second, partner services provide the basis for assessing local epidemiologic conditions, targeting resources, and evaluating program performance. Third, follow-up of partners who are at risk is a powerful tool for understanding the dynamics of disease transmission.

Partner services are offered to individuals who are infected with STD, to their partners, and to other persons who are at increased risk for infection in an effort to prevent transmission of these diseases and to reduce suffering from their complications. Services include:

- providing information regarding current infection(s) and other STDs;
- ensuring confidential notification, appropriate medical attention, and appropriate social referrals for partners and other high-risk individuals;
- using client-centered counseling to develop risk reduction plans to reduce the likelihood of acquiring future STDs;
- providing needed referrals to additional medical or social services; and
- defining and better targeting the at-risk community while assuring complete cnfidentiality for the patient.

Provision of partner services involves discussion and documentation of highly sensitive personal information about patients and their partners. Therefore, programs must demonstrate the highest regard for individual privacy, confidentiality of medical records, disease histories, and related information. Programs must be perceived by at-risk populations in particular and by the community in general as being fully committed to this principle. STD program staff must understand and adhere to their responsibilities with regard to confidentiality and to the overall quality of partner services and must be held accountable by performance guidelines and by supervisor observation. For the purpose of these guidelines, the term Disease Intervention Specialist (DIS) will be used to describe those personnel who are charged with providing partner services once a person has been diagnosed with a STD.

Effective prevention of disease transmission begins with infections that are properly diagnosed, appropriately treated, and fully reported in accordance with established laws and regulations. Cases reported from non-STD clinic settings must be carefully reviewed and record searched before contact with the reporting provider is initiated to confirm diagnoses and treatment status and to obtain, if necessary, permission to contact patients regarding partner services. Oftentimes, prior agreement or a memorandum of understanding with a provider allows routine permission to follow up.

Each program must individually determine those STDs for which partner services will be made available and to what extent these services will be provided. Factors to be considered include staffing, specific morbidity, infectiousness of disease (and stage of infection for syphilis), public health costs of infections and their sequellae, cost benefit of services, and amenability of the disease to the intervention planned. The availability of resources and the ability to enlist the support and cooperation of the medical community—particularly those located in or serving high risk communities–also play a role in the decision-making process with respect to partner services. Measures should be implemented to identify such providers and to develop a wide range of strategies, including informing providers about the components and importance of partner services, to gain their support and cooperation. One example might be collaboration with high-volume providers such as family planning clinics, juvenile detention facilities, selected jails and correctional

facilities, delivery hospitals, drug rehab groups, or other high-volume providers to ensure more comprehensive testing, appropriate treatment, early reporting, and the availability of partner services.

Recommendations

- Programs should establish the mix of partner services that is appropriate to local epidemiology.
- Programs should prioritize patients for partner services in terms of specific diseases, local area data, the potential for productive intervention, case load, and available resources.

Legal authority

Legal authority for the notification and referral of partners to persons with known STD infections resides with the states. Program policies and procedures should be consistent with applicable state laws, statutes, and regulations.

Case Management

Case management is the systematic pursuit, documentation, and analysis of medical and epidemiologic case information that focuses on opportunities to develop and implement timely disease intervention plans. Effective case management normally progresses through a very specific process: pre-interview analysis, interview (original, reinterviews, and cluster interviews), post-interview analyses, referral of sex partners, and case closure. Although the concepts and techniques of case management are usually consistent in various program areas, specific policies may differ.

Effective case management is sustained by 1) identifying the information needs of individual and related cases; 2) developing agendas for prospective interviews; 3) assuming responsibility for critical communications with other members of the staff; and 4) remaining current on progress of case elements assigned to others. The DIS must promptly pursue case needs and activities resulting from personal analysis, supervisory input, or the contributions by other staff members—both within and outside of the immediate program area.

Resource Requirements

Programs should provide DIS and managers with the tools, training, and resources necessary to conduct partner services successfully. Interview rooms that are quiet and contain at least a desk or table, three chairs, a telephone, and appropriate support materials should be readily accessible to the DIS. Also, DIS should have access to appropriate STD clinic patient records, program interview and investigative files, relevant maps, telephone books, and cross directories. Investigative resources should be carefully developed and maintained. At a minimum, efforts should be made to develop access to department of motor vehicles (DMV), welfare, utilities, post office, local schools, and health department records.

DIS should be encouraged to identify, develop, and share information with each other on agencies that serve or that have information on at-risk populations. Such efforts would include identifying specific members of the at-risk community willing to advocate community support for program activities. Programs are further encouraged to develop and implement interview records and data collection instruments that reflect information needed by the program, that are easy to complete, that can be stored and retrieved electronically, and that will assist program efforts to better define and serve at-risk populations. Programs should make maximum possible use of current technology to facilitate DIS record keeping and case management, including computer storage and case analysis software when available. Case management tools can be stored and retrieved electronically, provided the security and confidentiality of those tools are maintained.

Text in red boxes is linked to glossary definitions.

Recommendations

- Programs must ensure that DIS and managers possess the tools, training, and resources necessary to conduct program business successfully.
- Programs must have some form of case management process in place. Case management "tools" should reflect established information needs, should be easy to complete, and should provide information that can be used to define at-risk populations and to target them for intervention.
- Programs should provide interview space that is quiet and confidential, and contains at least a desk or table, three chairs, a telephone, and educational materials needed by the DIS.

Safety

Many field activities may pose potential unsafe situations for public health workers. Program managers should develop and maintain detailed guidelines for ensuring DIS safety in the performance of their responsibilities. Training should include a common-sense approach to field work (appropriate dress; expensive looking jewelry, purses, and other valuables kept out of sight; car doors locked and windows rolled up; constant awareness of surroundings; and the importance of relying on instincts). DIS should be provided picture identification (ID) and the ID should be required to be in an employee's possession when in the field. An employee file should be kept on each field worker which can be shared with authorities in case of emergency. This file should include name, address, physical description, emergency locating information, a recent picture of the employee, a description of the employee's vehicle, and the vehicle license number. Other steps that programs might take to promote safety include allowing DIS to work in pairs as situations warrant, making cellular phones and pagers available and requiring DIS to call in when changing plans or when an investigation becomes problematic. Some programs require DIS to have all field notes prepared ahead of time to ensure the DIS is efficient and alert to the surroundings. Others require that DIS submit a daily route sheet of intended stops to the supervisor so that a DIS route can be followed if an emergency arises. Although route sheets change as a DIS develops investigational leads, such sheets offer a place to start.

Before allowing new DIS to conduct field work alone, immediate supervisors or other, more experienced workers should be assigned to accompany them for purposes of identifying locations within the community where high-risk activities take place—drug houses, parks, bars, prostitution stroll areas, or those controlled by gangs—and to model desired behavior. When working in such areas, DIS must learn to be particularly alert. Safety issues and emerging problem areas should be routinely discussed in staff meetings and daily debriefings.

The primary protection from unsafe situations is the DIS's knowledge of the community and visibility in important locations. Programs should understand the need for DIS to spend time in areas to establish critical personal rapport with members of the community. This can be accomplished while performing outreach activities, organizing field screenings, and participating with CBOs in outreach activities.

Other safety issues involve "occupational infections in the workplace." At a minimum, local policies and procedures should encompass those in the Occupational Safety and Health Administration policy (more current information may be obtained from the OSHA website at www.osha.gov). Each program area must have a local policy for avoiding occupational exposure and for dealing with such exposures, should they occur. Each DIS should be required to practice local policies and procedures for avoiding infection(s) that could be acquired in the performance of their program responsibilities. These policies and procedures should be regularly updated and formally reviewed with staff members at least yearly. The section titled "Diagnostic assessment of partners in the field" also addresses this issue.

Confidentiality

Confidentiality policies of public health agencies are designed to prevent unauthorized persons from learning information shared in confidence. Confidential

information includes any material, whether oral or recorded in any form or medium, that identifies or can readily be associated with the identity of a person and is directly related to their health care.

Minimum professional standards for any agency handling confidential information should include providing employees with appropriate information regarding confidential guidelines and legal regulations. All public health staff involved in partner notification activities with access to such information should sign a confidentiality statement acknowledging the legal requirements not to disclose STD/HIV information.

Efforts to contact and communicate with infected patients, partners, and spouses must be carried out in a manner that preserves the confidentiality and privacy of all involved. This includes counseling partners in a private setting; trying to notify exposed partners face-to-face; never revealing the name of the original patient to the partner; not leaving verbal messages that include STD/HIV on answering machines; not leaving written messages that include any mention of STD/HIV; not giving confidential information to third parties (roommates, neighbors, parents, spouses, children).

Recommendations

- Programs must have written safety guidelines and procedures in place and follow these policies.
- Programs must ensure that DIS are aware of and comply with safety guidelines.

PARTNER SERVICES

Partner services are offered to all patients with STDs whether reported by public or private agencies. Some patients voluntarily seek medical attention, while others are examined as a direct result of outside intervention, such as insurance or job requirements, legal reasons (e.g., premarital, jail sentence), local health departments efforts, or partner request. Ideally, every patient would be offered partner services, but the specific population for partner services may vary by program, as determined by locally established priorities and by available resources.

Patients who are being treated for STDs are the best source of information regarding their infections. Every interview must be planned and approached as if it will be the only opportunity to provide and to secure information from the patient. Every effort must be made to interact face-to-face. Interviews should include an effort to identify others at risk within the community who would benefit from an examination. Necessary identifying, descriptive, locating, and exposure information for each partner within the interview period must be exhaustively pursued. Finally, interviews afford an opportunity to identify areas or specific locations within a community where at-risk populations reside or congregate. This information can be used to conduct carefully planned screening efforts for at-risk populations. Such an approach to targeted screening can be particularly effective and is critically important to the efficient use of limited resources.

While interviewing the patient, the DIS should make every attempt to enlist the patient as a resource, making it clear that the information the patient provides will be confidential and very helpful to the DIS, the patient, and the patient's partners. The DIS can incorporate elements of client-centered counseling by acknowledging treating the patient as a partner in reducing additional STD in their community. The partnership should be clear to the patient.

Recommendation

- Interviews with patients about partner services should be planned, client-centered, culturally appropriate, and voluntary.

Patient types

Volunteers and Index patients

The person who comes into a clinic for STD services without being referred is known as a volunteer. Generally, people who voluntarily come into the clinic for a STD exam have noticed symptoms of disease on themselves or their partners, have been told that they need an exam, or have been motivated by something they have read, seen, or heard. This reason may be an important clue which can be used later to elicit partners.

Index patient is a term often inter-changed with "original" patient and refers to patients newly diagnosed with a STD who are candidates for interview by trained DIS. Included among the services offered during the course of such interviews is assistance with the notification and timely referral of those partners determined to be at risk for infection. Effort also is expended to identify others within the patient's "community or social network" of friends or acquaintances (but not sexual partners) who might benefit from an examination. This is called "clustering".

In addition to partners, individuals who are identified as the result of an interview with an infected person but who are not partners of that person are called suspects and are divided into three (3) categories based on likelihood of infection:

S-1—People with symptoms suggestive of disease
S-2—Partners of other persons known to be infected
S-3—Others who might benefit from a STD examination (e.g., pregnant females, roommates)

All partners and suspects who are referred for examination as the result of an interview should, at a minimum, be informed as to the reason for the referral; should be provided information about the disease; should be informed of the reasons why they should have a sense of urgency in seeking a timely and appropriate medical evaluation; should be given the opportunity to be examined, should be given the opportunity to ask questions; and should receive client-centered counseling to develop a personalized risk reduction plan. In certain situations it may be appropriate also to interview partners and suspects.

Partners to the index patient

Another reason people come to the clinic is that they have been told by a partner or by a DIS that they may have been exposed to a disease. In such cases, the person may not have any signs or symptoms of the disease but still needs to be examined and treated. Anyone reasonably believed to have been exposed to a disease should be prophylatically treated at the time of exam based on CDC treatment guidelines. As an example, any partner thought to have been exposed to primary, secondary, or early latent syphilis within the preceding 90 days may test negative, yet still be infected since the incubation period for syphilis can be up to 90 days. Even though a partner tests negative, he or she should be treated. If test results are not available on a stat basis, the partner should still be treated during the initial visit and the infection status (infected-brought to treat or preventively treated) can be determined when test results return.

If the partner is not infected, he or she may be interviewed about recent partners and other persons within the community who might benefit from an examination. Interviews of this type are called cluster interviews and often provide important information. For example, if the individual being cluster interviewed is a partner who provides more recent date(s) of exposure than the date stated by the index patient, the result could be the prophylactic treatment that might otherwise not have been offered. These same individuals may be able to provide target locations for screening and outreach, additional information about partners, or locating information for other partners or cluster suspects already named but for whom there was insufficient information to initiate field investigation. To maintain confidentiality it is important to pursue such cluster information equally among all at-risk persons named by the partner during the interview. This approach provides valuable social network information. This type of interview requires special training, as the DIS employs specific motivational approaches and because special measures must be taken to preserve the confidentiality of the index patient.

Individuals initiated for field investigation from non-infected persons during cluster interviews are called "associates" and also fall into three categories:

A-1—People with symptoms suggestive of disease
A-2—Partners of other persons known to be infected
A-3—Others who might benefit from a STD examination

Information obtained from interviewing partners, suspects, and associates should be carefully reviewed in light of information provided by the index patient and through other investigative efforts and used as the basis for any subsequent reinterview of the index patient.

Index patients referred by other providers

New STD infections diagnosed by non-health department providers come to the attention of program surveillance units in a variety of ways. A health care provider may directly notify the program office of a newly diagnosed case; a provider may send a patient to the health department clinic for clinical management; or positive laboratory results may be reported which prompt follow-up by the surveillance unit. Providers reporting cases of STD to the health department should be contacted for permission before the DIS approaches the patient for partner services. Many providers prefer to treat their patients for STD and leave the responsibility of counseling them to the health department. In many instances, prior agreements or memoranda of agreement are in place, providing routine permission for follow up. In this case, the DIS would contact the patient and perform an original interview.

Another type of index patient is the patient who is identified via syphilis screening. In this case, the positive test result is reported to the health department by the laboratory while the result may not be known to the individual who was screened. The DIS in this situation must first perform a record search to determine whether the positive test is related to a previously known infection. If it is a new (and not previously adequately treated) infection, the DIS should notify the index patient of his or her infection and then refer the index patient for the full range of partner services.

Presumptive interviews

Patients are sometimes presumptively interviewed on the basis of presenting symptoms or laboratory findings that are suspicious or not yet available or confirmed. This also may be the only opportunity to speak to the patient. The purpose of this type of interview is to afford the staff additional information by assuring the rapid examination and medical evaluation of recent sex partners. This information can help medical practitioners make appropriate diagnostic and treatment decisions. These efforts have the secondary benefit of expediting the disease intervention process for those patients later determined to be infected.

Recommendation

- Anyone reasonably believed to have been exposed to a STD should be treated prophylatically at the time of exam based on CDC treatment guidelines.

Pre-interview activities

Case management efforts entail seven steps: pre- interview analysis, original interview, post-interview analysis, referral of at-risk individuals (sex or needle-sharing partners and clusters), cluster interview(s), reinterview(s), and case closure. Please refer to the STD Employee Development Guide (Centers for Disease Control and Prevention) for additional information. Because the interview process is complex, a recommended "interview format" has been developed and is discussed in the section on types of interviews. Formal training in the application of this format is available and programs are strongly encouraged to require formal training for all new staff performing DIS partner services before they interview patients.

Setting priorities

Ideally, every patient with a STD should be interviewed and counseled. However, the extent to which all such patients can be interviewed and counseled will be determined by the availability of qualified staff, by funding, and by morbidity levels. If it is not feasible to provide these services to every patient, programs should establish a priority basis for determining which patients with STD will be interviewed and counseled. The extent to which DIS assist patients in notifying their partners should also be determined by local program areas. The following factors should be considered for setting interview priorities: STD specific morbidity, infectiousness of disease (and stage of disease for syphilis), public health cost or burden of infections and their sequellae, amenability of the disease to the intervention, profile of partners (e.g., adolescent or female with a known or suspected pregnancy), and available program resources. Programs should re-evaluate priorities for partner notification in light of these factors at regular intervals.

Using these principles, some program areas have developed priorities similar to the following:

- Pregnant females testing positive for HIV, syphilis, gonorrhea, or chlamydia
- Persons testing positive for HIV
- Persons with early syphilis
- Persons with positive tests from a high risk geographic area

Interview periods

The interview period covers the time from the earliest date a patient could have been infected to the date of treatment. It is divided into two sections; the source period (which always includes the maximum incubation period) and the spread period. The incubation period begins with the date of infection and ends with the first appearance of signs or symptoms. The source period is the interval during which a patient most likely contracted the disease. The spread period is the time during which a patient is potentially infectious and could have passed the disease on to others. With syphilis, the source period and the incubation period never overlap with the spread period, since the exposure (source) and the development of disease (incubation) precede active infection (spread). It is important that the components of the interview period be thoroughly understood. See Appendix PS-A for disease specific information.

Although there are standard interview periods recommended in this guideline (Appendix PS-A), it is suggested that individual programs regularly review local data and social network analysis to determine appropriate interview periods for optimal resource allocation and case-finding. For example, recommendations based on localized data collection have ranged from 15 to 30 days for gonorrhea patients (Starcher, 1983; unpublished data, 1997), from 30 days to as long as six months for female chlamydia patients (Zimmerman-Rogers, 1997; unpublished data, 1997), and 90 to 180 days for early latent syphilis (Gunn, 1998; unpublished data, 1997).

The interview setting

Most often, the public health clinic provides a safe and convenient setting in which to interview and counsel patients compared to the field setting. The clinic allows for greater control over the interview process and permits access to additional personnel and materials, including medical records. However, interviews conducted outside the clinic setting afford the opportunity to observe patients in surroundings in which they are more comfortable and more in control. Interviews conducted in the home, for example, will afford the patient ready access to personal address books, pictures, etc., that can be helpful in locating partners, suspects, and associates. Interviews undertaken in other settings (e.g., crack houses, bars, housing projects, cars) also introduce the issue of personal safety for staff. Whatever the setting, DIS must foster a patient's trust and must assure confidentiality if an interview is to be successful, that is, create an opportunity for disease intervention.

Interviews should be conducted in person and confidentially. However, in certain situations, it may be necessary to interview and counsel the patient by telephone. When efforts to meet with a patient in person have been unsuccessful or when the patient is not in the same city as the DIS, a telephone interview may be considered, if consistent with local policy. Telephone interviews do not allow patient observation and should be used with discretion and in accordance with local program policy. When interviewing by phone, certain privacy issues must be taken into account (such as making sure that one is speaking to the patient, cellular phones are not being used, no one else is on the line, etc). Telephone interviews may be followed by a face-to-face reinterview. No studies have been published comparing the effectiveness of telephone interviewing vs. face-to-face interviewing, nor have any studies been published that discuss the ethical implications of telephone interviewing vs. face-to-face interviewing.

Pre-interview analysis (patient assessment)

DIS should thoroughly review all available materials related to a patient's case before each interview and counseling session. Such a review should include as many of the following as possible:

- reviewing available medical and case information, supervisor's notes/comments, and closed field records to:
  - establish the reason for the initial examination;
  - establish possible history of STDs;
  - establish a critical period and interview period;
  - establish pregnancy status for females;
  - establish information objectives (e.g. relationship to other cases); and
  - identify any unique problems and circumstances concerning the patient (confidentiality, embarrassment, sexual orientation, cooperativeness, apathy about infections, domestic violence history, etc.);
- reviewing available socio-sexual information and attempting to verify:
  - demographics (age, DOB, race and ethnicity, sex, marital status);
  - address and phone;
  - living situation;
  - employment; and
  - emergency locating information;
- assembling necessary materials and supplies, including:
  - visual aids;
  - writing materials (no official documents);
  - business cards;
  - disease-specific pamphlets;
  - referral forms and envelopes;
  - local map(s); and,
  - phone book and cross directory.

Verification is particularly important for those patients who "volunteer" at the STD clinic because any discrepancy provides cause for concern that must be addressed in the interview as this may be the only opportunity to speak with the patient.

Once pre-interview analysis is completed, the DIS should initiate the session. However, a willingness to speak with a DIS does not mean that the individual is willing to fully disclose everything that is needed to best manage the case, especially partner information. When the patient is resistant to the interview process, the DIS should attempt to determine the reason(s) behind this unwillingness to cooperate and then address each issue, using motivational techniques such as: mode of transmission, confidentiality, asymptomatic nature of disease, reinfection, complications, consequences, social responsibility, and risk of HIV. Sometimes, a change in interviewer will facilitate a more open discussion. An interview should not be conducted with a third party present, even at the patient's request, unless it is for reasons of auditing DIS performance or translation.

For those patients that still refuse to go forward with the interview, the DIS must carefully weigh any benefits to be gained by continuing to pursue the issue. Any decision not to interview a patient should be reviewed with the immediate supervisor. Whenever possible, this review should take place before the patient leaves the clinic. Programs are encouraged to require supervisory personnel to follow up with patients refusing an interview to assess whether there are DIS skill deficiencies that need to be addressed, patient dissatisfaction issues or a poor match of patient and interviewer.

Types of interviews and their objectives

The following section describes three types of interviews: the original interview, the reinterview, and the cluster interview. All interviews should employ the techniques in the section that follows, titled "Other important interviewing concepts." In any interview situation the interviewer should always pursue information on pregnant females who would benefit from STD screening and should ultimately ensure prenatal care. For example, the interviewer should always ask the interviewee (male or female) if they know anyone who is pregnant. If yes, the interviewer should then ask if they know if the pregnant person is receiving prenatal care. If the answer is no, the person should be initiated for follow-up and the interviewer should offer screening and have a specific prenatal service provider for referral.

Original Interview

The objective of the original interview (Appendix PS-B) is to prevent further transmission of disease through the prompt identification and examination of all elicited partners and suspects. The original interview is designed to ensure the patient understands the seriousness of the infection and the importance of their cooperation in STD/HIV prevention and control efforts. It is also designed to provide client-centered counseling to develop a personalized risk reduction plan and to increase the likelihood that all partners and suspects are disclosed so that they can receive an examination and treatment.

A fundamental part of the original interview (as well as reinterviews and cluster interviews) is partner elicitation. Elicitation is the process by which the interviewer assists the patient in identifying partners and other high-risk individuals (suspects) who might benefit from a medical examination. The goal of partner elicitation is to obtain sufficient information to confidentially locate, notify, and refer the partners or suspects for necessary examination, treatment (if appropriate), and risk reduction counseling.

Referrals to other medical and social services (such as HIV early intervention, prenatal care, or substance-abuse treatment) are an important aspect of original interviews. The interviewer should make every effort to create an accessible and appropriate referral and should also follow up to ensure that any referral appointment is kept. All information obtained in an original interview should be documented on a standardized form, an example of which is located in Appendix PS-E.

When a patient is diagnosed and treated in a non-public health clinic setting, or when a patient exits the clinic prior to the DIS conducting an interview, the original interview must be assigned for field follow-up at the earliest opportunity and with the expectation that the interview will:

- occur within 72 hours of assignment, or within established program time frames;
- be conducted face-to-face in the clinic, at the patient's place of residence, or in some other suitably private place; and
- elicit (or confirm) all information necessary and provide appropriate case management to complete the interview record.

In accordance with local practice, the DIS should confer with the supervisor (or designated co-worker) before completion of a patient interview if:

- an unexplained exposure gap exists;
- no source candidate has been elicited;
- inconsistencies in information persist; or
- the DIS feels dissatisfaction or uncertainty regarding the outcome.

The DIS should elicit a commitment from the patient to pursue identified information needs, establish an appointment for reinterview, and determine best time(s) and alternate methods for reaching the patient. When appropriate, the DIS arranges for a field tour with the patient to identify home addresses, to point out locations where partners hang out, where the patient met a partner, etc. The DIS concludes by addressing any questions, providing reassurance on any problem areas, restating commitments, providing handouts, and planing for the reinterview.

Reinterview

While the original interview is intended to elicit all interview period partners and suspects, the reinterview of persons with high-priority infections (HIV, early syphilis, or other high-priority infections, based on local criteria) is usually warranted. A reinterview may be required, for example, when a patient has clearly evaded discussing or referring all partners or suspects during the original interview.

A reinterview (Appendix PS-C) is any interviewing session following the initial interview with a STD patient. DIS conduct reinterviews when indicated, or when requested by the supervisor, and always with a plan to accomplish specific objectives that are the product of careful review and analysis. Reinterviews are conducted to:

- gather additional information that may help prove or disprove a hypothesis about case relationships;
- address points not covered during the original interview;

- identify additional partners or suspects ("clustering") to the original patient;
- support patient risk-reduction attempts;
- support and reinforce a patient's successful use of referred services;
- confront points that are illogical or that are disputed by other information; and
- solicit assistance in locating previously named persons who have not been located or are being uncooperative.

In most program areas, reinterviews are conducted with a plan to obtain information necessary to advance disease intervention. The benefits to be derived from reinterviews are further enhanced when conducted within reasonable time frames—normally within 72 hours of the last interview. The time and place of the reinterview should be set during the original interview process.

DIS should document the results of reinterviews on a STD Reinterview Record within time frames established by the local program. At a minimum, the documentation must address information needs previously established for the reinterview and must provide an updated analysis. The updated case is made available for supervisory review or is given to the appropriate case manager at the earliest reasonable time after the DIS completes the documentation.

The Cluster Interview

When interviewing patients regarding partners, adequate information for disease intervention is not always known or able to be obtained. Therefore, other intervention strategies, such as cluster interviewing, are initiated to expedite the intervention process. The cluster procedure has progressed through many stages since at least 1950 (Spencer, 2000) and currently consists of selective interviewing of partners, suspects, and associates who are not known to be infected at the time of the interview.

The purpose of the cluster interview (Appendix PS-D) is to gather information about previously unnamed or uninitiated partners, suspects, or associates of known cases. The cluster interview is designed to further expedite the disease intervention process by expanding the base of information about any high-risk groups associated with the infected person.

This information in turn may be used by the program to determine the appropriateness of screening activities, including risk or demographic profiles and the geographic location of target groups for screening. Cluster interviews should be planned, time permitting, and are particularly helpful in outbreak situations. They require skill and time commitment by the interviewer in exchange for returns that are often difficult to estimate in advance.

The DIS conducts cluster interviews, as indicated by case analysis or when requested by the supervisor, with a plan to accomplish specific objectives such as:

- identify high-risk associates such as individuals with symptoms of STD (A-1); individuals exposed to known cases of STD (A-2); and, others at increased risk for acquiring STD (A-3).
- meet informational needs revealed by case analysis; and,
- gain information about known cases of STD which can be used to better plan re-interviews through case management.

In conducting STD cluster interviews, care must be taken never to indicate that any specific person is infected with any disease, has been exposed to disease, or has been examined for disease. In the interview, the patient should be provided with:

- logical reasons as to why it is in his or her personal interest to discuss partners and other high-risk persons and the behavior of others to reduce the risk of disease in his or her social network; and
- easily understood information about the disease to which he or she has been exposed, and ways to avoid similar risk in the future.

Other important interview concepts

Motivational techniques to encourage voluntary disclosure

The ability to motivate patients to voluntarily disclose information about their partners and others is central to the success of disease control and prevention. An interviewer can use a number of techniques to motivate disclosure. Several approaches are described in the Employee Development Guide and the two week Introduction to STD Intervention course. One example,

the LOVER approach, is a very effective method of addressing patients' questions and encouraging disclosure of information. Using this approach, the interviewer will Listen, Observe, Verify, Evaluate, and Respond to the patient's issues. The interviewer must listen to what the patient is saying and observe any non-verbal cues that the patient is giving. The information must be verified and evaluated against other known information and the DIS must respond to the information given.

Another example is providing information about a potential issue such as same-sex transmission, complications, etc., followed by an open ended question. In addition, the interviewer can appeal to patient's sense of responsibility to other members of their community and to their responsibility to themselves with regard to re-infection. To increase the likelihood for success, motivational techniques should be tailored to the specific needs of the patient. Visual aids are also very helpful and can be used to depict the potential consequences of untreated infection. Suggestions for successful motivation of disclosure include:

- establishing and making the most of rapport with the patient;
- reassuring patient confidentiality by redefining confidentiality, role playing, or demonstrating confidentiality;
- remaining non-judgmental—exhibiting a strong sense of comfort in dealing with diverse sexual or social histories and being familiar with and using sexual vernacular;
- being direct and client-centered—asking the patient about his or her concerns;
- focusing on changing negative perceptions of disclosure;
- confronting and minimizing specific biases that may be apparent or relative to the case;
- addressing possibilities of and potential risks for reoccurrence of symptoms, re-infection, multiple infections, and complications for both the patient and others, including the possibility of fetal damage or death, when appropriate;
- using social or sexual network diagrams to illustrate the infection or re-infection picture;
- addressing and assisting with socio-economic issues (e.g., homelessness, unemployment, need for prenatal care, etc.), and related concerns (intimate violence, gangs);
- discussing partner location information and recent patient-partner or patient-network contacts in detail; and
- seeking assistance and advice about unknown information on clusters, screening sites, patient hangouts, and partner homes (e.g., field tours through area, etc.).

Client-centered approach to risk reduction

Counseling patients who are sexually active is likely to be more effective when counseling strategies are shaped to fit the individual patient's needs. To ensure patient-centered STD and HIV prevention counseling, interviews should be based on CDC's standards for prevention counseling, including a discussion of risk-reduction strategies the patient will be able to realistically attempt, as well as specific strategies to assist the patient with making these changes.

Referrals

Referrals to other medical and social services are an important aspect of all interviews. Although the focus of interactions is disease intervention, the interviewer should remain sensitive to other health or social needs of individuals served in the STD clinic or through the disease intervention process. Training will help DIS recognize and address problems that interfere with sexual health, such as intimate (or domestic) violence, substance abuse, and homelessness. When such needs are expressed by a patient or are otherwise perceived, the DIS should facilitate appropriate referrals to other available services in a tactful manner that does not interfere with disease intervention priorities. Local programs should develop a community referral guide or directory, including such services as:

- HIV intervention;
- Prenatal care;
- Family planning;
- Drug and alcohol counseling;
- Tuberculosis;
- Maternal and Child Health;
- Mental health;
- Immunization;
- Intimate or domestic violence;

- Sex addiction groups;
- Crisis intervention;
- Rape crisis;
- Language assistance;
- Temporary housing;
- Family counseling;
- Legal services;
- Child Protective Services;
- and other social or medical services.

When local policies allow, DIS should facilitate the referral by making a telephone call in the patient's presence and attempt to secure the first available appointment. All referrals should be documented in case management notes. The DIS should further assist patients by guiding them to a contiguous service area, providing directions to other locations, and offering transportation. Referrals should be documented and confirmed. Referrals made for the reasons listed below need to be followed up to ensure that they were successfully completed:

- HIV positive individuals referred for early intervention and case management;
- patients referred for penicillin desensitization;
- congenital syphilis treatment;
- pregnant females referred for prenatal care;
- and other locally defined priority referrals.

Unsuccessful referrals for these priority services require documentation and immediate action, including additional contact with the patient.

Post-interview activities

Documentation

Documentation is the careful and complete recording of facts surrounding a particular case or investigation and includes the essential events leading to its closure. DIS should concisely and legibly document the results of interviews, including case analysis, on the interview record and related program forms at the first reasonable opportunity (not to exceed one workday) consistent with established policy. Information to document includes unexplained exposure gaps, clustering needs or opportunities, and other information needs. The interview record and related forms are never completed in the presence of the patient. It may be helpful to review related cases and discuss the current interview with a supervisor or co-worker before completing the case write-up. Once all the paperwork necessary to fully document the initial interview has been completed, the entire case—including all field records and, where appropriate, a completed confidential morbidity report card—should immediately be directed to the attention of the supervisor for necessary review and comment. Proper documentation promotes effective disease intervention efforts through the efficient sharing of information with others—allowing co-workers to build on what has already occurred without having to needlessly repeat steps or actions already taken.

Interview and field records, whether on paper or in an electronic format, must be viewed as legal and confidential documents. As such, every effort must be made to ensure that each record is complete, accurate, fully legible, and able to stand the test of careful scrutiny. Interview records should be maintained in a secure location, accessible to the DIS and supervisors. DIS should review open cases at least twice weekly to determine status and evaluate needs. Such reviews enable reinterviews and cluster interviews to be easily and effectively planned. Supervisors should also regularly review cases and should clearly date, record, and initial all comments and directions. Whenever possible, supervisors should be encouraged to review cases in the presence of the responsible interviewers.

Information obtained from well documented interview and field records enables programs to make the most efficient use of resources by identifying and then targeting locations or specific populations within the community for screening activities. It also affords programs the opportunity to identify and draw upon additional resources and support by developing collaborations with carefully selected community-based and related organizations serving particular communities or at-risk populations.

Recommendation

- Documentation of partner services must be systematic, confidential, and regularly reviewed by the next level of supervision.

Analysis of case information and problem solving

Information obtained from medical records, interviews, reinterviews, and cluster interviews must be carefully analyzed for consistency. Visual case analysis (VCA) is an essential tool in syphilis case management for analyzing data from multiple sources. VCA allows the DIS to systematically document medical and epidemiologic facts related to early syphilis cases, analyze those facts, determine the most likely hypothesis of disease spread, identify where disease intervention could occur, and develop a plan for action. Information that is conflicting, unclear, or absent, but pertinent (for example, patient address(es), number of partners, descriptions of a partner, locating or exposure information) should be analyzed. In many instances, these issues can be quickly and easily clarified by speaking with the patient. There may be occasions, however, where the DIS chooses to explore other avenues before returning to the patient. Strategies for resolving inconsistencies in case management information include the following.

- Reinterviewing individuals who give sketchy information or whose partners give discrepant information.
- Offering field tours to patients in an effort to gain more complete locating information and to identify locations where the at-risk population gathers. These locations may become possible sites for targeted outreach activities.
- Performing an unannounced home visit for purposes of reinterview and to confirm the patients address and living situation.
- Clustering partners, suspects, and other individuals not named by the original patient (roommates, family members, neighbors, etc.) in an attempt to gain additional information about the original patient and the at-risk community. This is done with the understanding that some individuals can be expected to provide greater insights and information than others. For example, spouses and roommates should be considered for initiation and clustering even when exposure is denied by the index patient.

Prioritization of partners, suspects, and associates

Once field records have been completed for notification of partners, suspects, and associates, they should be carefully prioritized to ensure that those at highest risk—those who are pregnant, those exposed to lesions, or those indicated to have suspicious symptoms—are contacted or interviewed first. The prioritization of partners should be based on local program area policy and DIS workload using the same principles for priority setting discussed earlier.

Some program areas assign all field records (FRs) resulting from patient or cluster interviews to the interviewing DIS. However, if the number of priority partners or suspects is more than can reasonably be followed up in a 24-hour period, the immediate supervisor should assign some of the investigations to others. Priority suspects are individuals not named as sex partners, but who are identified as having suspicious symptoms (S-1) or as being an unnamed sex partner of another known case (S-2).

Quality analysis can only take place when interview records and supporting forms are properly completed and fully documented. A complete visual case analysis can be invaluable in documenting risk patterns in complex clusters of sex and STD transmission. Programs are encouraged to collect risk-behavior information on the interview record (i.e., with respect to drug use, the type of substances used and date of last use; whether the patient exchanged sex for drugs or money, or has had sex with someone or a partner of someone who exchanges sex for drugs or money). Important patient information should also identify the patient's usual health care provider and should provide sufficient space to fully document marginal partners. Collecting that information will assist program efforts to better understand the risk factors associated with various STDs.

Obtaining further information

DIS should tell all patients that it may become necessary to speak with them again and should attempt to determine the best way for doing so. Patients should be contacted the day following treatment to inquire about any reaction to medications, to answer any questions that may have come to mind, and to seek clarification concerning partner locating information as

needed. Follow-up after diagnosis underscores program concern for the patient as an individual. Rapid follow-up about partner locating information reinforces the urgent nature of partner notification. It provides an opportunity to follow up on how patients are doing with any commitments made; and affords an opportunity to review locating information already provided and to ask about additional partners that may have come to mind. If the original patient inquires about the status of partners that have been identified, the only information that may be relayed is whether the partners have or have not been notified.

Using Information Obtained From the Interview to Identify Possible Outbreak Situations

Programs should pursue information that will delineate at-risk populations so they might be more easily and effectively targeted for a wide range of interventions. This information can be obtained through community outreach activities, clustering, and increased testing by providers beyond the public STD clinic. Patients, their partners, and cluster suspects and associates can be particularly helpful in program efforts to identify specific at-risk populations in need of special initiatives. For example, a program may consider designing, evaluating, and implementing specific forms to identify and to assure the routine and continuing examination of sex workers within a particular community or program area.

Lot system: a case management tool

A lot system requires that case management records be maintained in a single folder. The goal of a lot system is to assure that all obtainable information regarding the continuing management of cases contained in a lot is readily available to all responsible workers. Workers should have access to information regarding other infections so that they have a comprehensive picture of the situation before conducting a reinterview or cluster interview. To further assure this process, information contained within each lot must be carefully maintained for each individual patient, and lots must be returned to a secure central location (file) when not being reviewed or updated. The lot system is a very useful tool in the management of syphilis, particularly in larger program areas or in areas with high syphilis morbidity. While it is most often used for syphilis, the lot system may be used for other diseases as well. Lot systems can facilitate identification of populations for which targeted screening is a suitable intervention.

The decision to file cases together can be for any "logical" reason, for example: 1) patients are related, i.e., they name one another as sex partners or are linked through clustering or 2) cases share something in common, such as working for the same company or living in the same apartment building.

The individual folders that constitute the lot system should be filed sequentially, by date reported. A "lot book", card file, or computerized system should be established, with information such as lot number, patient name, date of interview, diagnosis, etc. This system can be referred to when attempting to locate a particular interview record. When information allows cases in two or more lots to be "collapsed" into a single lot, the lot folder containing the most recently initiated case should normally be selected. The folders for those cases being moved should be retained in the file, with the lot number to which the case was moved written on the front.

With the increasing use of computers to store patient records, the use of an electronic lot system simplifies tasks. This may be accomplished by assigning a lot number in a local use field and then assigning the same number to all of the related records. When the records are sorted by the lot number, all of the records in that lot should be listed. A system should exist, either electronic or as hard copy, to cross-reference patient names, lot numbers, and case numbers.

Lot system forms

A major analytical points (MAP) sheet is used for gathering information about members of a lot as well as for analysis and communication. The MAP sheet is a preprinted list of items that are frequently needed in case management. Spaces are provided for other items unique to the lot. In addition, cluster and reinterview records may contain information that may generate agenda items during an interview of another patient in the same lot. These forms also may be used to document what occurred during the same interview. The original patient information sheet, along with the original interview record provides important disease intervention information. The lot folder status sheet is both

a reminder of cases in the lot and a summary of their relationships. Recent examples of these forms from the state of California, along with a field record form and a syphilis case management sheet, can be found in Appendix PS-E.

Partner Notification Strategies

Three primary strategies can be used to notify partners of possible exposure to STD or HIV infection: Provider, Self, or Contract referral. Often, more than one strategy may be used to notify different partners of the same infected patient. The strategy will depend on the particular patient, the particular STD, and on partner circumstances. For example, a patient with a STD may feel that he or she is in a better position to notify a main partner, but would prefer that the provider (DIS) notify other partners.

Programs must make the decision as to when a particular type of notification will work best in their area. This decision should be based on program priorities, disease morbidity, and program staffing levels. For example, a program may chose to utilize provider referral for patients with infectious syphilis yet utilize patient referral or contract referral for patients with gonorrhea and chlamydia. Others may chose to conduct provider referral for all patients, regardless of disease. In any case, DIS must work under the assumption they may have to locate a partner, even if the patient referral or contract referral option is used. DIS should obtain locating information on all partners and suspects, regardless of the option chosen, so they are prepared to follow up on partner notification activities.

Provider Referral

Provider referral is a notification strategy where, with the consent of the infected patient, the provider takes responsibility for confidentially notifying partners of the possibility of their exposure to a STD. The DIS will search health department open and closed records to determine whether the partner has ever been tested or treated for STD or HIV and to seek additional locating information. If the partner has been previously tested and/or treated, then the DIS determines whether notification is still warranted. Notification may not be needed if the partner has been recently tested, treated, or counseled and is aware that he or she has been exposed to an STD. If notification is needed, the DIS can use the information provided by the original patient or by record search to locate and refer the partner for prevention counseling, testing, and examination (see Appendix PS-F for details of provider notification process). Once the partner has been located, the DIS informs him or her confidentially and privately of the possibility of his or her exposure to STD. Information leading to the identity of the original patient is never revealed to the partner.

Research has shown that provider referral is the most effective method to notify partners (Macke, 1999). When discussing partners, the DIS should elicit names and exposure information with the assumption the health department will perform the notification. Advantages to this method are the ability to:

- verify that partners have been offered and have received evaluation and risk reduction counseling;
- ensure the patient's confidentiality since no information about the patient is disclosed to partners;
- help defuse any partner anger or blame reactions, and respond to the partner's questions or concerns;
- offer field specimen collection (blood, saliva, urine);
- provide on the spot counseling;
- identify opportunities to provide behavior change counseling; and
- provide immediate referrals and offer information.

Disadvantages to this method are:

- the difficulty in readily locating and identifying partners;
- less familiarity with the lifestyle and problems of the partner; and
- it uses more staff members and financial resources as compared with other methods.

Self (Patient) Referral

Self referral (sometimes called patient referral) is the notification strategy whereby the patient with a STD accepts full responsibility for informing partners of their exposure to a STD and for referring them to appropriate services. When self referral is chosen, the interviewer should coach and/or role play the following:

- WHEN to do the notification—encouraging the patient to notify partners promptly.
- WHERE to perform the notification—encouraging a private setting.
- HOW to tell the partner—coaching the patient to avoid blame by stating in simple terms someone has tested positive, and because this person cares about the partner, he/she is encouraging the partner to seek examination and treatment.
- REACTION—asking the patient how they think the partner will react, or has reacted to difficult news in the past. Help the patient anticipate potential problems, especially in regard to loss of anonymity. If a patient has difficulty at this point, the benefits of provider referral should be discussed and promoted.

Advantages to this method are:

- notification may result in a more prompt referral to appropriate services because the patient is usually more familiar with the identity and location of the partner; and
- fewer staff members and financial resources may be used.

The disadvantages of self referral include:

- forfeiting of anonymity, resulting in possible disclosure of the infection to third parties, subsequent discrimination, or a partner's reaction;
- the loss of confidentiality may increase the potential for violence;
- the patient may, intentionally or unintentionally, convey incorrect information, resulting in incomplete or ineffective referrals;
- the patient may not follow through on the notification of the partner, resulting in the increased probability of transmission to others and in additional time for the DIS, who will then have to contact the partner; and
- increased difficulty in evaluating outcomes.

Contract Referral

Contract referral is the notification strategy in which the provider negotiates a time frame (usually 24-48 hours) for the patient to inform his or her partners of their exposure and to refer them to appropriate services. The DIS collects all locating information for all partners, suspects, or associates discussed during the interview. If the patient is unable to inform partners within an agreed-upon time period, the DIS will notify and refer the partners. As in provider and self referral, the interviewer needs to obtain identifying and locating information on partners at the time of the interview. The DIS should also negotiate a confirmation of referral. Similar to provider referral, this option affords the DIS the ability to verify that partners have been notified and referred.

The advantages of this method are:

- it provides professionally trained support for the patient who chooses to notify his or her partners;
- it ensures that referral to appropriate services is provided and that prompt follow-up for the partner is available.

Disadvantages to this method are:

- it may result in lost time and the potential for further transmission of disease if the patient does not notify partners.

The following ideas and recommendations (West, 1997) may serve as guides for developing partner notification approaches:

- Provider referral is more effective than self referral in reaching partners, suspects, and associates.
- Most individuals will cooperate in notifying at least some partners, suspects, and associates.
- Partners are generally receptive to being notified and will seek testing once they have been notified.
- Partners often are unaware of their or their partners' STD risks.
- Partners frequently are found to have a STD.
- It is important for patients to recognize and understand the importance of partner notification.
- Reaching persons in early stages of their infection can enhance disease intervention and prevent disease complications.
- Many legal and ethical concepts pertain directly to partner notification and have important implications (duty to warn, right to know, duty to protect public health, right of confidentiality and privacy,

protection against discrimination, need to protect family and personal relationships).

DIS should be prepared to discuss the pros and cons of each notification strategy, including the likelihood of verbal or physical abuse. Programs should have in place a means of assessing the likelihood of violence as a result of partner notification and have a plan for addressing those situations.

Recommendation

- Partner services should be delivered in one of three ways: provider referral, patient referral, or contract referral.

Evidence supporting partner notification

While there are unanswered questions about partner notification, a review of the evidence supports several recommendations (Macke, 1999). There is good evidence to show 1) partner notification can be an effective means of finding at-risk and infected persons, 2) provider referral generally ensures that more partners are notified and medically evaluated; and 3) the reputation of partner notification service providers influences the success of partner notification as an intervention. More research is needed on tailoring elicitation and notification procedures to specific populations, the effect of new testing technologies on partner notification, and the consequences of partner notification for infected persons and their partners.

Other important concepts about partner notification

Encouraging the partner to seek medical treatment

The actions that a person takes (or does not take) to address health concerns include appraising the problem and the need for clinical care, reaching a decision to seek care, and acting on that decision. For example, a partner may have symptoms consistent with a STD but "appraise" the situation as a "normal" discharge and, as a result, not seek clinical care independently. People also sometimes treat themselves or consult with alternative practitioners. Partners tested in the field should be encouraged to obtain their test results and an appropriate medical evaluation (including treatment, if needed). Published literature identifies that the following factors contribute to delays in seeking appropriate treatment for an STD: a lack of symptoms (Niemiec, 1978) or the classification of STD symptoms as normal (Harrison, 1982; Fortenberry, 1997); being female (Leenaars, 1993); adolescents' sense of invulnerability and the stigma associated with acquiring a STD (Fortenberry, 1997). It is worth noting that persons with multiple partners and persons with a single partner are equally likely to delay care (Leenaars, 1993). Finally, partners may need other types of referrals as well (i.e., pregnancy, intimate violence) and DIS should be prepared to make these referrals and to support the patient in obtaining other services to the extent possible.

Follow-up to ensure notification is received and understood

When a partner who has been notified of his or her exposure does not seek medical evaluation, the DIS should follow up with that partner to ensure they understand the importance of timely and appropriate medical evaluation. Often, repeated conversations are needed. In these situations, DIS should be persistent and employ appropriate motivational techniques in a manner that conveys a sense of urgency and re-emphasizes the benefits and value of medical evaluation. Stalled investigations should be brought to the attention of a supervisor at the earliest opportunity for discussion and further action. Non-productive routine visits or dropping a referral letter is not an effective use of program resources.

Ensuring that the partner has access to health care

If a partner is evaluated by a provider outside the health department, the DIS should contact the provider to ensure that the partner receives appropriate and timely test(s) and treatment(s). Following the appointment time, the DIS should contact the provider to verify appropriate management of the partner. Self-reporting is not sufficient. The health care provider treating a partner should be personally contacted, or the medical record reviewed to verify that appropriate tests and treatments were administered. Conversely, if the partner was referred from another health care provider

and is treated in a health department clinic, the information regarding treatment of the partner should be communicated back to the referring health care provider.

Diagnostic assessment of partners in the field

Venipuncture is a skill required of public health nurses, and of many federal, state, and local DIS and is an especially valuable tool in the disease intervention process. Programs intending to use DIS in this manner need to review all relevant state health and safety codes and local public health protocols to determine required training and certification procedures before performing this activity. DIS must exercise the utmost care and professional judgement when performing field venipuncture procedures and must be certain to have the appropriate equipment and supplies available before undertaking field activities that may include drawing blood. For more detailed information regarding venipuncture, see the chapter titled "Medical and Laboratory Services." It is strongly recommended that part of the training afforded DIS include an orientation to the state or local "Occupational Infections in the Workplace" policy and the supporting procedural manual. This will expose the DIS to precautions and procedural recommendations set forth by NIOSH, CDC, and state OSHA programs. Programs also must have in place an "Occupational Infections in the Workplace" policy that is at least as restrictive as the Occupational Safety and Health Administration policy (see references for complete citation). More current information may be obtained from the OSHA website (www.osha.gov).

More and more disease control programs are exploring opportunities presented by emerging laboratory technology and the resulting testing procedures to identify and control communicable diseases. For example, tests that rely on urine or saliva to detect chlamydia, gonorrhea, or HIV infection have created opportunities for conducting screening activities that target specific high-risk populations at the community level. Some programs have expanded or are in the process of expanding the responsibilities of DIS to include administering these tests in the field and are using DIS to read skin tests for tuberculosis. Any decision to expand the responsibilities of the DIS in this area must be predicated on 1) the additional duties being consistent with DIS position descriptions; 2) DIS ability to legally provide the services outlined; and 3) DIS being afforded the necessary training to properly and safely deliver those services.

Case closure

For some cases of syphilis, diagnosis is not determined until case closure. This is particularly true for those persons with positive bloods, but without a symptom or blood test history. Only through interview and follow up of sex partners can it be determined if such a person should be classified as early latent, late latent, or syphilis of unknown duration.

A case is closed when the DIS and next level supervisor agree that all reasonable steps to intervene in the disease process have been completed. Before such a discussion, the DIS should carefully review the entire case record and those of related infections to ensure that all program required data needs have been met; that information is complete and consistent (e.g., test results documented, reinterview and cluster interview forms present, contacts and clusters dispositioned, and any necessary source/spread determinations made); and that all supervisory recommendations have been fully addressed. The entire lot or record should be submitted to the supervisor for final review. Interview records indicating that contact was not made or that partners were not medically evaluated must be discussed and signed off with the supervisor before closure. With the concurrence of the supervisor, the case is updated to reflect the closure date. Cases should be closed within locally established time frames.

Recommendations

- Partner services should be one of a number of public health strategies, including accessible clinics, outreach, and targeted screening of at risk populations.
- Programs should have the capacity to deliver services such as counseling, testing, and treatment, as well as referral for other services (e.g., family planning, drug treatment, social support, and housing).

SPECIAL CONSIDERATIONS

Collaborating with other service providers

Programs should implement protocols for the following circumstances:

- The diagnosis of the index patient is performed by non-health department agencies and the patient is referred to the health department for partner services;
- The elicitation of partners is performed by non-health department agencies and such information is provided to the health department for partner notification.

STD prevention programs should actively inform providers about partner services (for example, through DIS distributing pamphlets to key providers) and initiate collaborations with providers outside of the health department.

Interstate Transmission of STD Intervention Information

The Interstate Transmission of STD Intervention Information is the system that oversees the transmission of STD intervention information between STD prevention programs. Success depends upon the willingness of program managers to take the steps necessary to assure its provisions are observed and to hold one another accountable when deviations occur. STD prevention programs should review existing protocols and procedures to ensure they are specific on how to handle incoming and outgoing intervention requests. In reviewing or developing these protocols and procedures, programs should consider the principles outlined in Appendix PS-G to ensure consistency on a national level for interstate and intrastate transmission of information. Disease prevention will be facilitated by inter-jurisdictional sharing of information on patients, partners, suspects, and associates in a secure and confidential manner.

Suggested Strategies for Patients With Repeat Infections

Persons repeatedly infected and treated are often referred to as recalcitrant patients or "repeaters." Management of such patients should include HIV prevention counseling and testing (and possibly HIV prevention case management), since they are at high risk for acquiring HIV. Although such patients are a challenge for any STD prevention program, they are an important source of information regarding other at-risk individuals and locations within the community where they gather and interact. This information can be used to develop specific outreach screening activities targeting these areas that include carefully crafted and intensive behavioral interventions.

Recommendations

- Programs should implement a protocol for collaboration with non-health department care providers within their own area and with STD programs in other jurisdictions.
- Programs should implement a protocol for identifying and developing a case management plan for patients with repeat infections.

EVALUATION AND QUALITY ASSURANCE

Case Management

Supervisors and managers should regularly and carefully review information obtained through patient and cluster interviews to assure that cases are being vigorously pursued, properly documented, effectively analyzed, and that the findings are appropriately applied to continuing intervention activities. Managers should also assure that case information involving other program areas is being shared promptly and cooperatively.

Performance expectations of the program and personnel for all aspects of disease control should be established. Performance guidelines are relatively detailed instructions and standards about the process by which staff are expected to apply acquired knowledge and skills to critical elements of daily work in STD con-

trol. For supervisors, guidelines are an aid to evaluating the capabilities and deficiencies of workers. Beyond simply establishing program expectation, "guidelines" describe the process by which those expectations can be achieved. Programs should develop, disseminate, and maintain signed copies of local process performance standards, indicating that an employee has received, reviewed, understood, and agreed to these standards.

Components of case management quality assurance

Involved program managers and firstline supervisors are critical to successful case management. Active involvement of supervisors is necessary to maximize DIS intervention activities. There must be the expectation that DIS will obtain complete locating information on partners, negotiate a risk reduction plan, and cluster to determine who may benefit from examination or to identify locations where high risk activities occur.

Supervisors should regularly and directly observe individual DIS in the performance of their day-to-day activities and should be willing and able to demonstrate appropriate skills and behaviors. Forms should be in place to fully document these audits and demonstrations (pouch, interview, and field audits). Completed forms should be shared with the individual employee regularly and immediately following the audit. Such forms can be used when writing individual evaluations to call attention to areas of strength and to those requiring improvement. An example of tools that can be used to assess the quality of partner service work is the skills inventory assessment, included in Appendix PS-H.

Supervisors should conduct sessions (sometimes called "Chalk Talks") that facilitate DIS discussion of case management efforts and provide opportunity for input from others. Such discussions can be used to share information on marginal partners—those partners for whom insufficient information has been elicited to initiate. Such meetings should also be used to discuss other case management issues, safety concerns, social network analysis, and newly developed investigative resources. Chalk talks provide the opportunity for peer-to-peer sharing of interviewing and investigative techniques and approaches. They also provide opportunities for program management to encourage appropriate attitudes and philosophies.

Programs should establish the expectation that case management—and the interview and investigative activities that support it—will be rigorously approached, fully documented, and carefully analyzed. This will place the STD prevention program in position to obtain the information necessary to address STD morbidity within communities.

Recommendations

- Supervisors should regularly observe and document individual DIS in the performance of their day-to-day activities and should be willing and able to demonstrate appropriate skills and behaviors.
- Supervisors should conduct sessions that facilitate DIS discussion of case management efforts and provide opportunity for input from others.
- Programs should routinely monitor partner services to improve efficiency, effectiveness, and quality of services.

Using information gathered to describe and reach target populations

Much of the information gathered in the partner services process may be used to describe and reach target populations in the program's jurisdiction. Information that may be used includes, but is not limited to, disease outcomes, risk behaviors (i.e., drug use or commercial sex work), location of home and "hang-outs", as well as information about partners, suspects, and associates. At the most basic level, trends in disease found through evaluating partners should be used to monitor disease transmission and to increase program awareness regarding potential outbreaks. Once this system is in place, more advanced analyses of data should take place regularly. For example, tabulate monthly the number (and type, where applicable) of risk behaviors that the original patient discusses in the original interview (i.e., sex for drugs), partners testing positive, partners testing negative, and the number of partners tested.

Recommendations

- Trends in disease found through evaluating partners should be used to monitor disease transmission and to increase program awareness regarding potential outbreaks.
- At a minimum, programs should analyze partners who are positive by residence (zip code, address). If resources permit, programs should also analyze location, demographics, and risk behaviors of partners and should compare positive (including previously treated partners) with negative partners to see what, if any, factors predict positive partners.

Measures for evaluating program effectiveness

The list of measures that follow are aids to help evaluate the effectiveness of the partner services component and to help reallocate resources if necessary. These measures are not an end in themselves but a means to analyze and improve program effectiveness. They should be reviewed regularly (i.e., monthly or quarterly) and tailored to meet the program's identified needs. Many states have developed detailed monthly reports of DIS productivity. In addition, programs may wish to use the tables in Appendix PS-I as analysis tools. Tables may be completed for each disease for which patients are interviewed; separate tables for suspects and associates may be done as well. These measures can be calculated using STD*MIS.

Essential Measures (for each disease):

- Number of original patients interviewed
- Total number of partners elicited
- Number of partners initiated to field follow-up
- Number of partners out of jurisdiction
- Number of partners identified but not located
- Number of partners identified and located but not notified (i.e., located in records as previously treated)
- Number of partners located and notified by provider;
- Time frames for locating and notifying partners (i.e., How many were notified within seven days of the interview of the original patient);
- Number of partners notified of their exposure to an STD, including:
  - Number of STD negative and no subsequent STD infection
  - Number of STD negative who have at least one subsequent STD infection
  - Number of STD positive who have at least one subsequent STD infection
  - Number of STD positive with no subsequent STD infection

Programs should also be able to evaluate partner services by:

- Individual Program Area (e.g., county, district, region, etc.)
- Provider Type (STD Clinic, Family Planning, Correctional Facilities, PMD, HMO, etc.)
- Sex of the patient
- Referral strategy (patient, provider, or other)
- Any selected time frame

The ability to delineate partner services information in a variety of ways enables a program to more easily determine activities that appear to be effective from those that do not. Is one program area or type of activity more effective or worthwhile than another? What are the individual strengths and weaknesses of field staff? Individual employee reports may help a supervisor and the program identify interviewing deficiencies that can be remedied by training. For example, managers can generate reports for a particular area before a scheduled visit. They may identify possible areas of concern that can then be examined more closely during the visit.

Programs should also collect data on reinterviews (number reinterviewed and results), on new partners, suspects, and associates initiated, and on the numbers of partners, suspects, and associates afforded prophylaxis. Programs should also develop reports that routinely examine the speed and effectiveness by which services are delivered to partners, suspects, and associates. Finally, these reports should be available to and used by all levels of management.

Other types of analysis and measures:
The measures discussed above are the traditional "bottom line" measures of success of partner services, but they are not the only ones. Using the number of original patients interviewed as the denominator, one can calculate various indices for each time period such as:

- Number or percentage of patients being interviewed; percent in 24 hours.
- Number or percentage of patients coming from: clinic, corrections settings, substance-abuse programs. Knowing this can help target screening resources more effectively.
- Number of partners elicited compared to the number initiated.
- Number of out of jurisdiction partners initiated and the timeframe on receiving disposition on these out of jurisdiction partners.
- Number of incoming out-of-jurisdiction partners actively pursued. Number and timeframe of incoming out-of-jurisdiction partners where disposition was given to other jurisdictions.
- Number of partners closed as unable to locate. Additional locating resources or training in the use of those resources may be needed (e.g., Internet directories as well as updated cross-directories; closer relationship with the department of motor vehicles or other agencies).
- Number of partners refusing service.
- Number of partners treated prior to being notified by the DIS.
- Percentage of original patients, partners, suspects, and associates with more than one STD.
- Number of partners, suspects, and associates that were located, notified, examined, and treated.

These calculations may be done for each individual DIS as well as the entire program. Useful calculations include the percentage of partners located and tested in a timely manner, for example, in less than a week. The ultimate question that these data should answer is how the program is doing in terms of controlling disease.

Recommendations

- Programs must have a means of regularly evaluating the effectiveness of partner services by time period and disease.
- Programs should develop the capacity to evaluate the effectiveness of the partner services by other locally set criteria to improve services and target them better.

COMMUNITY-BASED OUTREACH

Public health and STD prevention programs, in particular, have a duty to warn individuals that they may have been exposed to a sexually transmitted disease. In response, most STD prevention programs provide for the notification and evaluation of exposed partners who have been identified by an infected index case or partner. Examples of such services include partner notification (PN), clinical evaluation and testing of partners, the concurrent provision of prophylaxis, and risk-reduction counseling. Some have stated that this duty to warn extends also to individuals who were exposed but who could not be located through PN (Peterman, 1997). However, not all STD prevention programs directly provide for the evaluation of persons who have not been located through PN or who have not been identified by an infected index case or partner. Examples of strategies that address this expanded charge include clinical evaluation and testing of patients who come to the clinic as volunteers, cluster interviewing with resultant disease screening and prophylaxis, review of epidemiologic data collected through ethnographic means, targeted outreach, screening, and public awareness campaigns. It is important for STD prevention programs to evaluate their local situations and to employ interventions which complement PN. Such interventions include social network analysis in conjunction with PN, targeted screening and field testing, and other forms of outreach.

Overview of Interventions

Social Network Analysis

Network analysis is defined as the study of how people connect in social structures and of its implications (Potterat, 1998). A detailed discussion of social network analysis is available in Appendix PS-K. Several different social networking methods are commonly used. One method is to collect information about core environments in addition to partner names. Another is to make a programmatic commitment to investigate the networks where disease is located rather than investigating only individuals known to have a STD. Clustering, the technique by which infected and uninfected patients are interviewed about their associates (as well as their partners), may provide extra information about the identity and location of sought-after sex partners. Clustering also can be used to identify geographic areas or for narrowing criteria for targeted screening. Additional methods of social networking are spot-mapping home addresses and hangouts, studying partner mixing patterns, and performing old-fashioned shoe-leather epidemiology.

Research often centers around which behavioral and social features are necessary to continue disease transmission in epidemic numbers and around the exploration of which interventions could be implemented to halt transmission. Transmission dynamics are primarily dependent upon the effects of small populations with varying levels of sexual activity (i.e., frequency, number of different sex partners) (Oxman, 1996a). For example, in Oregon the number of syphilis infections was found to be affected by the number of clusters of women who have a large number of casual or anonymous partners. Oxman found that when the actual number of women in the group or the number of partners exchanged in any given time period, or both, was reduced, the rate of the group's infection decreased. When an epidemic begins, the number of infected people rises quickly to a peak that appears to be closely linked to the sexual behavior characteristics of the involved population.

There is support for the notion that syphilis outbreaks in heterosexuals, which are extremely difficult to control once underway, are a result of core transmission (a small number of interactive and networked individuals). STD control programs can incorporate social network methods, e.g., mapping, cluster interviewing, to identify the populations and conditions within its jurisdiction that facilitate disease transmission, especially by high-frequency (core) transmitters. In addition, programs may be able to prevent outbreaks by limiting disease occurrence in core transmitters. This should be done in partnership with communities that the program serves (Oxman, 1996a).

Woodhouse et al. researched how a group's social, sexual, and injection drug-sharing relationships might help or hinder the spread of various STD, including HIV (Woodhouse, 1994). What they found, surprisingly, was that the majority of the infected individuals were not part of the larger interconnected group engaging in high-risk activity, but in fact were connected to much smaller groups with no links to the larger group. In other words, it is not just the presence of infection that produces transmission, but other social factors such as group dynamics and behaviors, group size, and geographic area. Programs can take the information gathered from network analysis and review and can create and implement policy and operations that take into consideration the dynamics of day-to-day transmission within their jurisdictions (Woodhouse, 1994).

Rothenberg and Narramore outlined how social networking analysis was used by public health officials to address an increase in early syphilis cases in certain areas of Nashville, Tennessee (Rothenberg, 1996b). A map was created of all the addresses reported by individuals with early syphilis. As a result, staff were able to identify that 89.7% of all persons with early syphilis lived within nine well-defined geographic areas. This pattern had actually been occurring for several years. In addition, staff observed the use of crack cocaine in this network. In response, the Nashville STD control program implemented a network-informed approach to their syphilis prevention activities. Such efforts included the assignment of public health workers to specific geographic areas, staff having continuing contact with persons at risk and other community leaders, and mandatory reinterviewing of all infected persons to gather additional information on personal networks.

A recent report described the importance of social network and ethnographic tools in the investigation of a cluster of syphilis cases in Georgia (Rothenberg, 1998). Several complementary methods were used,

including the interviewing of as many people as possible who were believed to be involved in transmission (both infected and uninfected people); the detailed ethnographic exploration and documentation of sexual and social patterns; the collection of interview information on standard CDC interview forms; the conversion of interview data into databases to which network analysis software could be applied (including programs that allowed for graphic representations of patterns); and follow-up interviews several months to a year later to examine the social and sexual patterns that followed the outbreak. Ethnographic interviews revealed the existence of a complex sexual picture that predated the diagnosis of the first case by one year and that people without infection were often as central in the network and as important in transmission as infected people. In addition, uninfected people were as likely to identify partners with infection as people without infection. This approach underscores that if programs interview only people known to have infection, they will miss important people, including infected partners and individuals who do not have a STD, but who, by their connectedness within a network, sustain transmission. With appropriate training in ethnographic and social network methods and the use of databases such as STD*MIS, a network informed approach can be incorporated into STD prevention program activities.

An example of such incorporation has been attempted in an inner city area of Atlanta, Ga. with high syphilis rates. A DIS team, spending approximately 80% of its time in the field (compared to interviewing infected persons in the clinic and then seeking the partners), used network and ethnographic methods to identify an interconnected group of over 300 persons with a six month syphilis incidence of 12.6% (Rothenberg, in press). By identifying such groups at risk, the field team is in a position not only to interrupt disease transmission but to predict and respond to changing disease trends. These approaches provide direct observations of behavior change in a community (e.g., adoption of condom use, limiting numbers of anonymous partners, decreasing the frequency of sex and drug partner change) (Rothenberg, 1995), and provide a built-in mechanism for appropriate targeting.

Traditionally, public health has focused on specific behaviors or on some overall assessment of risk, which has often resulted in a broad characterization of various social groups, i.e., gay men and teenagers. Research has shown that specific behaviors determine the risk for infection and that social networks determine the extent of the disease within that given population. Over the years, partner notification has shown that social networks do play an important role in the public health approach to disease control. Initial work suggests that social structures can influence STD transmission. Social structures also can increase the effect of risky behaviors within each social setting. Epidemics do not result just from many risky acts, but are the result of complex interactions embedded in a social and geographic context (Rothenberg, 1996a). It is crucial that programs take into account both the risky behaviors of individuals and the risky behaviors ingrained within the culture of the social network when critiquing, revising, or developing disease control interventions.

History has shown that the act of segmenting social networks, such as closing bathhouses and shooting galleries, or housing disruption in economically impoverished areas, may result in higher rates and widespread disease for a period of time (Rothenberg, 1996a). Disease that was once self-contained in a small segregated community can expand beyond its previous boundaries and, as a result, create new possibilities for disease transmission. Instead of dividing social networks, programs can use social networking methods to identify those individuals who hold influence and who can potentially act in partnerships with health professionals in disease prevention.

A more formal approach to social network analysis has been shown to be very effective in reducing the incidence of disease transmission by targeting specific areas (Rothenberg, 1996b). However, it can be a very labor-intensive process and is recommended only if program staff are familiar with the techniques of data collection and evaluation and have the resources to process the information gathered. First, programs can expand the scope of partners to include close friends, acquaintances, persons within the same social group, roommates, former or occasional sex partners, and anyone else deemed at risk. Local protocol should dictate the exact criteria. Second, people identified would be (cluster) interviewed to determine the appropriateness of prophylaxis, to pursue further partners and associates, to identify what other social groups may

be involved, to determine the behaviors associated with the groups, and to gauge the strength of associations within the social network. Care must be taken to assure that there is no violation of confidentiality nor the perception of violation. Subsequently, programs can document what they have learned about individual communities, with a focus on the mixing patterns, frequency of partner change, and social hierarchy. Once these elements are understood and discussed by program staff, it will be easier to tailor and implement disease control methods toward the specific dynamics of disease transmission within the social network.

Social network analysis, in essence, means reducing the emphasis on individuals and looking at the commonalities among individuals with a STD and their associates. Experts believe that increased focus on STD transmission analysis or intervention should be placed on the social network rather than solely on the individual. It is widely thought that disease control methods targeted to the general population may be less valuable than approaches that focus resources on important group structures (Rothenberg, 1996a). Researchers add that since some social network analysis in the infectious diseases context may fall short in the area of sampling strategies and data collection, results should be used to stimulate further research in this area (Potterat, 1998). As a result, social network analysis can be seen as complementary to other models of infectious disease prevention.

Recommendations

- Programs should establish strategies for finding at-risk persons not identified by an infected index case or partner.
- Programs should evaluate or assess the social networks that influence disease transmission in their area.

Targeted Screening and Field Testing

Targeted screening can be defined as an activity to identify people with infection in a select group who are engaged in a behavior that puts them at greater risk for infection. Field testing is when public health workers offer testing at non-clinic locations associated with known cases and their partners.

As an example, the prevalence of Chlamydia trachomatis infection in inner-city youth was measured by collecting 486 urine specimens during a 20 month period (Rietmeijer, 1997). Specimens were collected both in the field and in clinic settings. The study found that positivity rates were higher in the field than in the clinic facilities (11.9% vs. 4.4%). Ninety-seven percent of all infected patients were treated within eight days of testing. Thus, screening can be done in non-traditional settings and still yield similar, if not better, results than screening done in standard clinic settings. Considering the substantial numbers of asymptomatic chlamydia infections in field-recruited male youths, the large number of recent sex partners, and a reluctance to seek clinic-based STD screening, it is doubtful whether, even with optimal access to STD treatment services, traditional clinic-based approaches will ever bring the chlamydia epidemic under control (Rietmeijer, 1997). In this context, the use of non-invasive screening methods embedded in targeted, community-level prevention programs has the potential to make significant contributions to STD control.

Disease control efforts also have used targeted screening to find otherwise unseen or undiagnosed disease. It continues to be a very effective way to locate a high percentage of new cases (Gerber, 1989). When traditional means of disease control fall short, clustering others within the same social network of the infected patient and offering them testing can be extremely effective. In this setting, screening close social associates of infected patients is almost as effective as screening actual partners.

During the first half of 1990, traditional approaches to the control of syphilis were found to be ineffective in slowing a syphilis epidemic (Mellinger, 1991). Persons who were involved in the exchange of drugs or money for sex often could not or would not provide sufficient information about their sex partners. That prevented public health personnel from locating exposed partners. As a result, alternative case-finding methods were needed. Disease transmission was reduced by using cluster interviewing to identify friends and associates at risk for syphilis and by setting up targeted serologic screening for those identified and for others engaging in high-risk sexual activity. This process documented a 27% reactivity rate, with 3%

of those newly infected diagnosed with either primary or secondary syphilis.

Similarly, staff involved in a different syphilis epidemic began to focus on identifying places associated with cases and partners, instead of just on partner names (Hutcheson, 1993). They discovered 21 places where affected people were most likely to meet sex partners. Subsequently, staff members familiar with the community visited the sites and took over 200 blood samples that were tested for syphilis. Thirty-one percent tested positive, and 17% were preventively treated. Of those testing positive, 78% received examination and treatment, and a majority were found to have additional STD. It is important to note that in this case a combination of innovative, conventional, and cluster interviewing and investigation methods were used to effectively identify previously undiagnosed syphilis cases.

Increased use of crack cocaine and the exchange of sex for money or drugs have been major contributors to the increased occurrence of syphilis in many areas throughout the country, affecting disproportionate numbers of people of color (Greenberg, 1992). Traditional syphilis control programs usually offer a combination of interventions, including serologic screening of asymptomatic individuals, diagnostic testing of individuals self-motivated by symptoms or by perceived risk, and DIS case management (Oxman, 1996b). To increase the effects on disease transmission, many programs have instituted targeted syphilis screening in areas connected with cases and their associates. In recent years, these targeted screenings have been provided for sex workers and their customers, and for the drug (crack cocaine) dealers and crack users. Since those groups tend not to use traditional health care, screening should be offered in non-clinic settings such as crack houses, bars, shelters, parks, jails, detention centers, back alleys, and other locations frequented by at-risk populations.

Traditional control of gonorrhea and chlamydia has often been clinic based and relied on the treatment of self-referred, mostly symptomatic patients in combination with the notification and treatment of their partners. However, delays between diagnosis and treatment are not uncommon and often result in recurrences of transmission and reinfection. To prevent the unintentional transmission of disease, suggestions have been made to expand targeted testing in non- clinic settings. Communities that have traditionally avoided clinical care will be more likely to seek care in non-traditional settings if given the opportunity. Field screening will become more practical with the increasing availability of convenient techniques for the detection of STD, such as urine testing.

While no one in the field of disease control is debating the usefulness of screening to identify undiagnosed disease, the common thought is that screening needs to target the highest prevalence areas to interrupt core transmission and, in turn, reduce disease rates. In general, STD prevention programs need to balance screening and DIS activity so that testing and field activity are complementary.

There is a strong movement to combine both field and clinic screening efforts. Each acts as a bridge to the other. Field screening results in patients accessing clinical care, and clinical care plays a very important part in disease control. Without traditional clinic screening, communities risk missing cases of other STDs, and reducing opportunities for such related prevention activities as pregnancy testing, Pap smear screening, risk-reduction counseling, HIV testing, hepatitis B vaccination, and the initiation of contraception.

Recommendations

- Programs should target screening based upon program morbidity data, including information on core transmission groups.
- Programs should use information from social network analysis, if available, to assist in targeting both field and clinic screening efforts.

Community Outreach

An effective strategy in reducing disease transmission is for DIS or other health professionals to develop relationships with the social and sexual leaders (core transmitters) within any given population. This requires that DIS build partnerships with people affected

by STD. However, first it is necessary to establish an effective line of communication between those who analyze data and the field staff, so that programs (and particularly DIS) can identify the core transmitters within their areas, i.e., develop a picture of the socio-sexual networks and transmission dynamics (Potterat, 1992). Once trust is established between the community and DIS, it may be much easier to locate partners and associates, set up effective targeted screening, provide risk-reduction counseling, and perform cluster interviews.

STD Clinic Outreach

Some practical approaches that STD prevention programs can use to help control STD, especially in populations who trade sex for money or drugs include: locating clinics close to high-incidence areas, adding evening hours, reducing waiting time, encouraging community participation in targeting behaviors to be changed, and immediately following up with infected patients (Dunn, 1991) Presumptive treatment of close associates and cluster suspects can be more effective than partner notification in controlling transmission of syphilis, especially in crack users, and the cost of this treatment may be negated by the cost savings of the cases prevented. Others have suggested that clinics consider gang boundaries and their effects when planning and implementing services.

Recommendations

- Programs should build partnerships with people affected by sexually transmitted diseases to increase trust and to facilitate partner services and other interventions.
- Programs should assess which diseases are being transmitted within their jurisdiction and how, including partner selection patterns and other risk factors for infection.

Appendix PS–A

INTERVIEW PERIODS BY DISEASE

Disease Code	Disease Type	Interview Period
200/300	Chlamydia/Gonorrhea	Symptomatic—60 days prior to onset of symptoms through the date of treatment Asymptomatic cases—60 days prior to treatment
490	Pelvic Inflammatory Disease	60 days prior to onset of symptoms through the date of treatment
710	Primary Syphilis	90 days prior to date of onset of primary lesion through the date of treatment
720	Secondary Syphilis	6.5 months prior to date of onset of secondary symptoms through the date of treatment
730	Early Latent Syphilis*	1 year prior to start of treatment
900/950	HIV/AIDS	1 year prior to the date of positive test through the date of posttest counseling (extended interview period may be warranted by individual circumstances) 10-year interview period for current or any previous spouses

Note: Interview periods may be modified if a history of symptoms, a negative test result, or incidental treatment are documented. If symptom history is questionable, a maximum interview period should be used. If the patient claims no partners during the interview period, then the most recent partner before the interview period should be elicited and notified.

* Many syphilis cases cannot be staged until after the case is closed. When the stage of syphilis is undetermined at the time of interview, a one-year interview period should be used. That is, STD prevention programs should initially interview a patient as early latent syphilis (730) and then, if appropriate, reclassify at case closure as late latent syphilis (745), latent syphilis of unknown duration (740), or not syphilis (serofast). To reclassify an early latent case as late latent or unknown duration, the following criteria must be met: no history of exposure to a known case of syphilis (as determined by interviewing the case and following up on sex partners), no history of symptoms in the last year, no history of a negative blood test in the last year, and no rise in titer of two dilutions or more. A case should be reported even if treatment is not verified.

Appendix PS–B

ORIGINAL INTERVIEW FORMAT

Introduction, Professional Role, and Purpose

The interviewer initiates the interview so as to foster productive dialogue by:

- introducing himself or herself and anyone else present, and explaining his or her professional role (avoiding titles such as DIS);
- explaining the purpose of the session; and
- emphasizing the confidential nature of the interview, defining confidentiality and its relevance to the patient's situation.

Patient Assessment

The interviewer maintains active, two-way client-centered communications throughout the interview by:

- communicating at the patient's level of understanding;
- using open-ended questions;
- using appropriate nonverbal communication;
- using positive reinforcement;
- soliciting feedback;
- listening effectively; and
- using plain paper to record interview notes (never take official forms into the interview).

Patient Concerns

The interviewer identifies and addresses the patient's concerns, determines reason for exam, and clarifies patient's concerns or misconceptions about the diagnosis.

Socio-sexual Information

The interviewer uses open-ended questions to gather information about where the patient lives; telephone, cell phone, beeper number; alternative locating information; who the patient is living with; employment; recent travel; recreation; and social groups. Explain reasons for questions if patient shows signs of concern.

Medical History and Disease Comprehension

The interviewer ensures that each patient is informed about the specific STD at issue (asymptomatic nature of disease, risk of re-infection, mode of transmission, course of disease, symptoms, sites of possible exposure, seriousness of disease, and risk reduction), uses visual aids to gather information on signs and symptoms of the original patient and ask about other persons with symptoms (S-1), and gathers information about STD history and previous testing and treatment.

Disease Intervention Behaviors

Assuring Examination of Partners and Suspects

After eliciting the names of partners and other high-risk persons (especially if pregnant), the interviewer pursues detailed identifying and descriptive information, making certain to get complete sexual exposure data and nature of symptoms when appropriate. Note: The same amount of locating and descriptive information should be pursued on all partners and suspects, even if the DIS is aware of the named individual.

"Clustering" is the process of identifying people who may be indirectly associated with the infected patient and who may benefit from an examination, even when they are not named as interview period partners. This is done by eliciting suspects during interviews with infected patients. While the number of actual partners exposed during the critical period is finite, the potential for clusters is almost limitless.

The following locating information should be pursued when a partner or suspect is elicited:

- name, nicknames, and other aliases;
- dates and frequency of exposure;
- address, phone and pager numbers;
- place and type of employment, trade, or school and phone number;
- personal appearance and description (including age or date of birth);
- co-residents and others residing at residence;
- other person(s) who can provide locating information or convey a message;

- hangouts, best places and times to encounter;
- previous place(s) of residence or employment;
- history of arrest or incarceration;
- other mailing address; and
- map and directions, especially when no address is known or there is patient uncertainty.

The DIS recognizes and addresses problem indicators through a process of:

- analysis;
- using the LOVER method (Listen, Observe, Verify, Evaluate, and Respond);
- assertive confrontation (without alienation);
- tactful persistence;
- timely uses of appropriate motivations, such as:
  - mode of transmission,
  - confidentiality,
  - asymptomatic nature of disease,
  - risk of re-infection,
  - complications and consequences,
  - social responsibility,
  - higher chance of getting or giving HIV, and
  - pregnancy and children.

Negotiating a risk reduction plan

STD prevention counseling should be incorporated into interviews. Prevention counseling with patients who are sexually active is likely to be more effective when the counseling skills and strategies are shaped to fit the individual's needs. To ensure that STD prevention counseling is client-centered, the interview should be based on appropriate CDC standards for prevention counseling, a discussion of risk-reduction or harm-reduction strategies that the patient will be able to attempt, and specific strategies to help the patient with making these changes.

Conclusion

Before concluding the original interview, the interviewer should:

- clear up any remaining questions;
- restate commitments (e.g., contract referral, risk reduction plan, referrals);
- plan for reinterview; and
- provide handouts (e.g., referrals, condoms, follow-up appointments, pamphlets)

In accordance with local practices, the DIS should confer with the supervisor (or designated co-worker) before completing a clinic interview if:

- an unexplained exposure gap exists;
- no source candidate has been elicited;
- information inconsistencies persist; or
- the DIS feels dissatisfaction or uncertainty regarding the results of the interview.

Appendix PS–C

REINTERVIEW FORMAT

Introduction, Professional Role, and Purpose

- Introduce (or reintroduce) yourself and anyone else present.
- Explain your role if different from the original interviewer.
- Review confidentiality (if different DIS, emphasize that confidentiality is maintained).
- Define the purpose of the session:
- to discuss problems with commitments made in the original interview,
- to discuss new information learned about the patient's infection.

Patient Assessment

Patient Concerns

- Inquire about and resolve any of the patient's concerns during the interim period (possible reactions to the medication, compliance issues, etc.)

Socio-sexual Information

- Describe the importance of having accurate personal and medical information in resolving the patient's disease problems.
- Address any conflicting locating or demographic information provided by the patient.

Medical History and Disease Comprehension

- Review what the patient knows about the disease.
- Emphasize the infectiousness of the disease, the asymptomatic nature of the disease, and the severity of the disease.
- Confirm that the patient kept referrals made in the original interview.
- Pursue S-1's based on the responsiveness of the patient.

Disease Intervention Behaviors

Assure the Examination of All Partners

- Stress the importance of all partners getting examined.
- Pursue a specific agenda based on the analysis of the original interview and the interim period.
- Analysis of the original interview:
  - Problem-solving analysis to motivate the patient effectively
  - Identification of potential source candidates
  - Identification of potential spread candidates
  - Dispositions of previously identified partners or suspects
- Analysis of areas unexplored in the original interview

- Analysis of the interim period:
  - Locating problems
  - Partner and locating information validity.
  - Results of cluster interview(s)
  - Other incidental intelligence
  - Pursue S-2's and S-3's

Risk-Reduction Plan

- Review the patient's plan for preventing future STD/HIV exposures, as discussed in the original interview.
- Engage the patient in a discussion on how their behavior change plan has worked to date.
- Support any positive changes that have occurred.
- Discuss any barriers to behavior change that occurred, and how to work around those barriers in the future.
- Review test results that have returned, and reinforce the necessity to return for future test results.

Conclusion

- Evaluate remaining patient needs or potential compliance problems.
- Analyze case information for any inconsistencies, gaps, or missing information.
- Confront any inconsistencies, and apply problem-solving approaches needed to resolve problems.
- Reinforce any commitments made by the patient.

Appendix PS–D

CLUSTER INTERVIEW FORMAT

Introduction, Professional Role, and Purpose

- Introduce yourself and anyone else present.
- Explain your professional role (avoiding titles such as DIS).
- Explain confidentiality.
- Explain the purpose of the session:
  - to provide information about the disease to which exposed and the reason for treatment
  - to provide information to help prevent future exposures
  - to help the patient know what to do if reexposed

Patient Assessment

The interviewer maintains active, two-way client-centered communications throughout the interview by:

- communicating at the patient's level of understanding;
- using open-ended questions;
- using appropriate nonverbal communication;
- using positive reinforcement;
- soliciting feedback;
- listening effectively; and
- using plain paper to record interview notes (never take standard forms into the interview).

Patient Concerns

- Identify and resolve any of the patient's concerns (why given treatment with a negative test; why talk with DIS if test is negative; confidentiality; time; clinic experience; etc.).
- Determine the content and emphasis of disease intervention behaviors based on the patient's attitudes and needs.

Socio-sexual Information

- Describe the importance of having accurate personal and medical information in resolving the patient's disease problems.
- Question the patient conversationally about where he or she lives; telephone number; alternative locating information; living with whom: employment; travel; recreation; and social groups. Explain reasons for questions if patient shows signs of concern.

Medical History and Disease Comprehension

- Determine what the patient knows about the disease.
- Reinforce what the patient knows about the disease, and correct any misconceptions that arise.
- Present an individualized discussion, not a medical lecture.
- Discuss incubation and the natural course of the disease, mode of transmission, symptoms, possible sites of exposure, risk of re-infection, risk reduction, and patient's STD history.
- Pursue A-1's based on the responsiveness of the patient.

Disease Intervention Behaviors

Assuring Examination of Partners and Associates

- Review confidentiality and the professional role of the DIS.
- Briefly review the patient's comprehension of the disease and the modes of transmission.
- Define the significance of immediate partner referral, emphasizing that one or more may have an STD which would re-expose the patient.
- Establish that the referral will be done immediately and will be for everyone's benefit.
- Assess the patient's response to the session thus far and determine the patient's concerns regarding partners.
- Determine the patient's capability to participate in partner referral (if that option exists).
- Evaluate problems and select appropriate solutions. Some specific motivational approaches to problem solving are:

  - prevention of reexposure to disease
  - potential of having asymptomatic partners
  - risk of being asymptomatic if infected
  - risk of complications if infected
  - inconvenience
  - concern about partners or social group
  - rapid examination reduces potential for spread
  - reduce the chance of complications by helping now.

- Gather the following information about each partner:
  - Name (including nicknames), address (including apartment number), telephone number, living arrangements, work address and telephone number, age/race/sex/marital status, physical description, and other locating information
  - Exposure information

- Pursue A-2's and A-3's (A-2's will include the original patient's partners).

Risk-Reduction Plan

(This section shifts attention to the patient's behaviors that put him or her at risk for all sexually transmitted disease, and includes an HIV counseling session. These messages should be individualized and tailored to each patient.)

- Point out that the patient can expose themselves to HIV or other STDs in exactly the same manner as this exposure occurred.
- Determine what the patient knows about HIV and other STDs, and correct any misconceptions.
- Review the patient's sexual and drug-related behaviors and STD history from earlier in the interview, and engage the patient in a discussion regarding the patient's perceived risks for HIV and STDs.
- Reinforce and support patient's knowledge, actions, intentions, and communications about current or future safer sex and other risk-reduction behavior changes.
- Negotiate a realistic and incremental plan for reducing risks.
- Help the patient identify possible barriers to behavior change, particularly condom use.
- Document what the patient feels is a reasonable, attainable risk-reduction plan, and offer the patient a copy.
- Offer the patient the opportunity to test for HIV. If the patient refuses the test, offer the facility's HIV services in the future.
- Document the date and time for return appointments for STD and HIV test results.
- If tested, discuss the patient's plan to cope while waiting for the test results. If the patient appears not to have a support system, offer your office phone number and a hotline number as part of support available during the waiting period.

Conclusion

- Evaluate remaining patient needs or potential compliance problems.
- Reinforce any commitments made by the patient.
- Redefine respective roles and referral procedures.
- Reinforce confidentiality.

Appendix PS–E

LOT SYSTEM FORMS

The lot system includes the major analytical points (MAP) sheet, the lot folder status sheet, an original interview record (73.54), the original patient information sheet, the reinterview record, the cluster interview record, the syphilis case analysis sheet, and copies of any field records (73.2936) associated with the case.

MAJOR ANALYTICAL POINTS SHEET

P = PURSUE / C = COVERED

Patient	Case Number	Control Number	Outbreak Number

GENERAL

P C
- ☐ ☐ Confirmation of Current Address
- ☐ ☐ Time: in Country, State, or Local Area; at Present Address; Reason for Moving
- ☐ ☐ Living With / Marital Status
- ☐ ☐ Occupation / Means of Support
- ☐ ☐

MEDICAL

- ☐ ☐ 710 / 720 Symptom History
- ☐ ☐ STS History
- ☐ ☐ Reason for Examination
- ☐ ☐ STD / Incidental Treatment History
- ☐ ☐ "Illogical" 710 / 720 Hx & STS Results
- ☐ ☐ Ghosted Primary Lesion from Approximately: _____ To _____
- ☐ ☐ Herxheimer Reaction
- ☐ ☐ Repeat STS _____
- ☐ ☐
- ☐ ☐ Pregnancy History

PARTNERS

- ☐ ☐ Revisit Exposure Information
- ☐ ☐ Exposure Gap(s) (_____ To _____) (_____ To _____)
- ☐ ☐ No Partners Named During Patient's Lesion Period
- ☐ ☐ Unexplained Change in Sexual Activity
- ☐ ☐ Steady Partner
- ☐ ☐ Challenge: Pick-ups Only; Pros Only; 1x Ct; 1x Cts Only; or Out-of-Area Cts Only
- ☐ ☐ NO Source / NO Source Candidate
- ☐ ☐ Locating / Identifying Information for **OPEN** Partners:
- ☐ ☐ Locating / Identifying Information for **MARGINAL** Partners / Suspects:
- ☐ ☐

CLUSTERS

P C
- ☐ ☐ OP is Not Being Named Back By Partners
- ☐ ☐ A2s / S2s Suggested as Partners to the OP:
- ☐ ☐ OP Has Not Named Partners Who Have Named Him/Her
- ☐ ☐ Other Patients Around Whom The OP Might Know S2s:

RISK ASSESSMENT

- ☐ ☐ Life Style (Social Habits & Pattern)
- ☐ ☐ Sexual Practices / Condom Use
- ☐ ☐ Jail / Prison History
- ☐ ☐ Drug Use
- ☐ ☐ Sex Worker (Sex for Drugs or Money)
- ☐ ☐ Gay / Bisexual
- ☐ ☐ HIV
- ☐ ☐

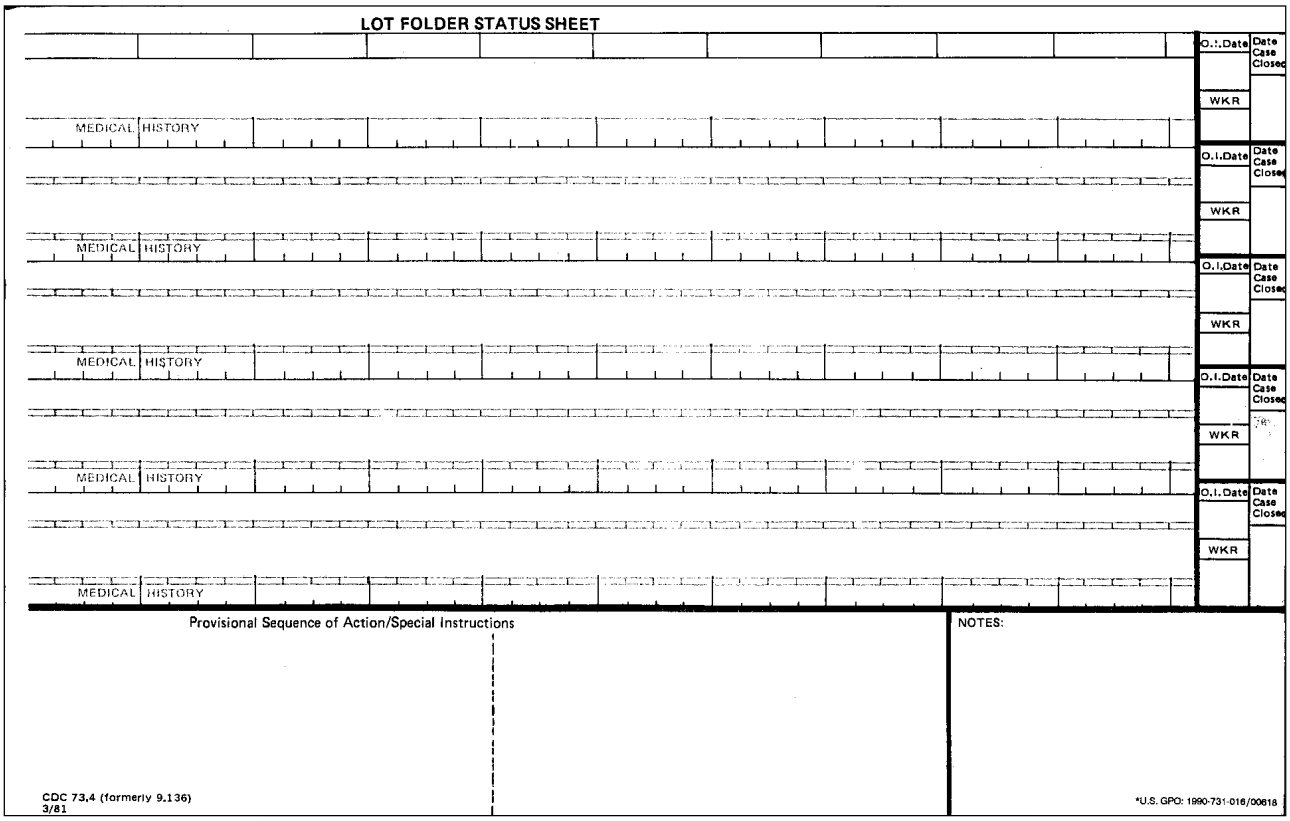
AT-RISK INDIVIDUALS / LOCATIONS

- ☐ ☐ OP's Roommate(s)
- ☐ ☐ Sex Workers / Others Who Exchange Sex for Drugs
- ☐ ☐ Individuals Involved With Drugs
- ☐ ☐ Pregnant Friends
- ☐ ☐ Gay / Bisexual / Transgendered Individuals
- ☐ ☐ Locations / Addresses Where High Risk Activities Occur
- ☐ ☐
- ☐ ☐ **Commitments Made To or By the OP:**

SPECIAL INSTRUCTIONS

- ☐ ☐ Change of Interviewer
- ☐ ☐ Chalk Talk
- ☐ ☐ Request Related Case(s) / Merge Lots
- ☐ ☐
- ☐ ☐

MAP.doc Rev 8/23/99



LOT FOLDER STATUS SHEET

O.I. Date | Date Case Closed

WKR

MEDICAL HISTORY

O.I. Date | Date Case Closed

WKR

MEDICAL HISTORY

O.I. Date | Date Case Closed

WKR

MEDICAL HISTORY

O.I. Date | Date Case Closed

WKR

MEDICAL HISTORY

O.I. Date | Date Case Closed

WKR

MEDICAL HISTORY

Provisional Sequence of Action/Special Instructions

NOTES:

CDC 73.4 (formerly 9.136)
3/81

*U.S. GPO: 1990-731-016/00618

Interview Record

Note: See the reverse side of page one of this record for the codes and the reverse side of pages two and three for an abbreviated set of instructions. See the full set of Interview Record instructions for further definition.

Disease: 1. [ ] 2. [ ]

Control Number A 0525162

Patient Name (Last) | (First & Nicknames) | Case # | Inform ID.

Home Address (Street) | City | Res. Co. | State | Zip Code | Home Phone

Date of Birth | Age | Race: W B A/PI AI/AN O/U | Ethnicity: H Non-His. | Sex: M F | Pregnant? Y ___ Wks. N U | Pregnancy in Last 12 Mos.? Y N U

Method of Case Detection:
- ☐ Provider Ref. To: _____
- ☐ Cluster To: _____
- ☐ Patient Ref. To: _____
- ☐ Prenatal
- ☐ Delivery
- ☐ Instit. Screening
- ☐ Community Screening
- ☐ Reactor
- ☐ Provider Report
- ☐ Volunteer

Information Source

Supv. No. | **Clinic Code** | **Medical Record No.**

Date Assigned	**Assigned to Wkr:**	**Date Treated**	**Case IX'D?**	**Interview Period**	**Period Partners Sex**	**N/S**	**Both**
1.							
2.							

Since 1978: (Check All That Apply) — Initial / Final
1. Sex w/ Male? Y Y
2. Sex w/ Female? Y Y
3. Used IV drugs? Y Y
4. Hemophilia? Y Y

Known Heterosexual Relations w/:
5. IVDU? Y Y
6. Bisexual Male? Y Y
7. Person w/ Hemophilia? Y Y
8. HIV Positive Transfusion Recip.? Y Y
9. Person w/ AIDS or HIV Risk UNK.? Y Y
10. One Born in Pattern II? Y Y
11. Rec'd Blood Transfusion? Y Y
12. Worked in Health Care Setting? Y Y
13. Sex for Drugs/Money? Y Y

1. Pre-Test Counseled? Y N
2. Tested for HIV? Y N R
3. Post-Test Counseled? Y N

Previous HIV Test: No P N I U — Date: _____ Provider: [ ]

Current HIV Test: No P N I U — Date: _____ Provider: [ ]

Symptoms Onset Date	Duration (Days)	Description	**Lab Results** Date	Test	Result	**Treatment**	**Other Infections**
						1.	
						2.	

INT No.	Date of Interview	Type	P CL	Ref	Exposure Dates First	Freq.	Last	FR Num	Name	Sex	Disease 1 Disp	Disp Date	Diag	Wkr. No.	Disease 2 Disp	Disp Date	Diag	Wkr. No.	Post Test CNSL	SO SP	Invst Agen
1																					
2																					
1																					
2																					
1																					
2																					
1																					
2																					
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Local Use: A B C D E F G | Date Closed (1): | Date Closed (2):

CDC 73.54 8-91

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control

Interview Record Codes

Disease/Diagnosis Codes

100 - Chancroid
200 - Chlamydia
300 - Gonorrhea
350 - Resistant Gonorrhea
400 - Non-Gonococcal Urethritis
450 - Mucopurulent Cervicitis
490 - Pelvic Inflammatory Disease (Syndrome)
500 - Granuloma Inguinale
600 - Lymphogranuloma Venereum
700 - Syphilis Reactor
710 - Primary Syphilis
720 - Secondary Syphilis
730 - Early Latent Syphilis
740 - Latent Syphilis, Unknown Duration
745 - Late Latent Syphilis
750 - Late Syphilis with Symptomatic Manifestations
760 - Neurosyphilis
790 - Congenital Syphilis
800 - Genital Warts
850 - Herpes
900 - HIV
950 - AIDS (Syndrome)

Information Source/Provider Codes

Clinics:
01 - HIV Counseling and Testing Site
02 - STD
03 - Drug Treatment
04 - Family Planning
05 - Prenatal/Obstetrics
06 - Tuberculosis
07 - Other Clinic (Specify)

Other:
08 - Private Physician/HMO
09 - Hospital (Inpatient)
10 - Emergency Room
11 - Correctional Facility
12 - Laboratory
13 - Blood Bank
88 - Other (Specify)

99 - Unknown

Case Interviewed

C - Clinic
F - Field
U - Unable to Locate
R - Refused Interview
O - Other

Type (of Interview)

O - Original
R - Reinterview
U - Unable to Interview (But Partners/Clusters are Initiated)
C - Cluster
P - Posttest

Type Ref. (Type Referral)

1 - Patient
2 - Provider

P/CL (Partner/Cluster)

P1 - Sex Partner
P2 - Needlesharing Partner
P3 - Both Sex and Needle
S1 - Suspect 1
S2 - Suspect 2
S3 - Suspect 3
A1 - Associate 1
A2 - Associate 2
A3 - Associate 3
N - No Partners/Clusters Initiated

Sex

M - Male
F - Female
P - Pregnant Female

Post-Test CNSL?

Y - Yes
N - No

SO/SP (Source/Spread)

1 - Source
2 - Spread

STD Dispositions

A - Preventive Treatment
B - Refused Preventive Treatment
C - Infected, Brought to Treatment
D - Infected, Not Treated
E - Previously Treated for This Infection
F - Not Infected
G - Insufficient Information to Begin Investigation
H - Unable To Locate
J - Located, Refused Examination
K - Out Of Jurisdiction
L - Other

HIV Dispositions

1 - Previous Positive
2 - Previous Negative, New Positive
3 - Previous Negative, Still Negative
4 - Previous Negative, Not Re-tested
5 - Not Previously Tested, New Positive
6 - Not Previously Tested, New Negative
7 - Not Previously Tested, Not Tested Now
G - Insufficient Information to Begin Investigation
H - Unable To Locate
J - Located, Refused Counseling and Testing
K - Out Of Jurisdiction
L - Other

ORIGINAL PATIENT INFORMATION SHEET

Patient Name	Epi Responsibility	Case Number	Control Number	Outbreak Number
	County: _____			

OP Description: Ht. _____ Wt. _____ Hair (style, color, length) _____ Other (scars, tattoos) _____

SOCIAL HISTORY:

Marital Status: *S M W D Sp Unk* Primary Language: ☐ English ☐ Spanish ☐ Other _____ SS# _____ - ____ - _____

Living Situation: ☐ House ☐ Apt ☐ Jail ☐ Homeless ☐ Transitional (*Shelter, Drug Rehab, Grp Home, Half Way*) ☐ Other _____

Country of Birth _____ Time: In U.S. _____ In State _____ At Current Address _____

Living With _____ Relationship _____

Other Interview Period Addresses (*Include City*):	Living With:	Dates:	Reason For Moving:
		to	
		to	

Education _____ Occupation/Means of Support: ☐☐ _____

Work Phone _____ - _____ Hours: _____ to _____ How Long? _____ Cell/Pager # _____ - _____ Code _____

Emergency Contact _____ Phone _____ - _____ Relationship _____

MEDICAL HISTORY:

Primary Care Provider: ☐☐ _____ Date Last Visited ___/___/___ Purpose _____

Prenatal Care Provider: ☐☐ _____ Date Last Visited ___/___/___

Previously Infected With Syphilis?: ☐ Y ☐ N ☐ U If Yes, Stage _____ Date Treated ___/___/___ With _____

Date of Last Reactive STS ___/___/___ Type _____ Titer _____ ☐ Unk Date of Last Negative STS ___/___/___ ☐ Unk

HIV Infected?: ☐ Y ☐ N ☐ U If Yes, Date Diagnosed ___/___/___ Receiving Antiretroviral Rx?: ☐ Y ☐ N ☐ U

Other STS or Rx Hx _____

Other STD Hx: ☐ CT ☐ GC ☐ HPV ☐ HSV ☐ Other _____ Past Year: ☐ CT ☐ GC ☐ HPV ☐ HSV ☐ Other _____ ☐ Unk

Self-Rx: ☐ Y ☐ N ☐ U If Yes, Indicate Source: ☐ Left Over (*own*) ☐ Other Person ☐ Out-of-Country ☐ Other _____

Pregnancy Hx: ☐ Denied _____

RISK ASSESSMENT:

Past 12 Months: Sex for $ / Drugs: ☐Y ☐N ☐ U Exchanged $ / Drugs for Sex: ☐ Y ☐ N ☐ U Gender of Partners: ☐ M ☐ F ☐ B ☐ U

IDU Drug Use: ☐Y ☐N ☐U If Yes, indicate: ☐ Cocaine ☐ Heroin ☐ Methamphetamines ☐ Other _____

Non-IDU Drug Use: ☐Y ☐N ☐U If Yes, indicate: ☐ Cocaine ☐ Crack ☐ Heroin ☐ Methamphetamines ☐ Other _____

Currently Incarcerated: ☐Y ☐N ☐U In Past Year: ☐Y ☐N ☐U (*Facilities /Dates*) _____

Past 3 Months: Sexual Practices: ☐ Vaginal ☐ Anal, Insertive ☐ Anal, Receptive ☐ Oral Anonymous Sex Partners: ☐Y ☐N ☐U

Has Pregnant Partner(s): ☐Y ☐N ☐U Victim of: Sexual Assault: ☐Y ☐N ☐U Domestic Violence: ☐Y ☐N ☐U

Transgender: ☐ MTF ☐ FTM ☐N ☐U Gang Member: ☐Y ☐N ☐U If Yes, Indicate Gang _____

Condom Used At Last Vaginal/Anal Sex?: ☐Y ☐N ☐U Other Risk Behaviors _____

HR Locales Frequented (*Possible Screening Sites*): ☐ Bars/Clubs _____

☐ Baths/Spas _____ ☐ Dance Halls _____

☐ Parks _____ ☐ Motels _____

☐ Streets _____ ☐ Internet _____

☐ Other _____

OTHER SERVICES ACCESSED (*Past Year*): ☐ ER ☐ DV ☐ HIV/ EIP ☐ Prenatal ☐ Sub Abuse ☐ WIC ☐ Other _____

REFERRALS MADE: ☐ DV ☐ FP ☐ HIV/EIP ☐ Prenatal ☐ Sub Abuse ☐ Other _____

OUT-OF-AREA TRAVEL (*Interview Period*): ☐ No ☐ Yes (*If Yes, document below*):

Place:	Reason:	Dates:	Companions:	Stayed With:	Local Sex Partners?
		to			☐ Yes ☐ No ☐ Unk
		to			☐ Yes ☐ No ☐ Unk

Comments: _____

_____

_____

MARGINAL INFORMATION CONTACTS *(Account for all interview period sex partners not initiated)*

1	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
2	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
3	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
4	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
5	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	

Every effort must be made to exhaustively pursue and develop information necessary to initiate marginal information contacts and high risk cluster suspects. Draw a single line through each MIC initiated.

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

OPIS6.doc Rev 05/12/00

REINTERVIEW RECORD

PATIENT NAME	CASE NUMBER	CONTROL NUMBER	OUTBREAK NUMBER	DATE	WORKER
				/ /	

REINTERVIEW TYPE: ☐ Clinic ☐ Home ☐ Jail ☐ Telephone* ☐ Other _____

**Requires justification in Comments Section*

REINTERVIEW INSTRUCTIONS (P = Pursue / C = Coveted)

C		C	
☐	S1s	☐	Income Source / Travel / Lifestyle
☐	S2s to: _____	☐	No Steady Partner
☐	S2 / A2s Named to the OP:	☐	No Source / No Candidate for Source
☐	710 / 720 Lesion History	☐	Time In Jail / Release Date
☐	Herxheimer Reaction	☐	Confront: Gay / 'Pro' / Drug Use
☐	Explore STS / Medical History	☐	Other 'Risk' Behaviors
☐	Incidental / Self Treatment	☐	High-Risk Individuals
☐	Exposure Gap(s) _____ to _____ _____ to _____	☐	Locations / Addresses Where High Risk Activities Occur (*Pos Screening Sites*)
☐	Unexplained Change in Sexual Pattern	☐	
☐	Locating / Identifying Information for OPEN Contacts / Suspec	☐	Review Commitments Made
☐	Locating / Identifying Information for MARGINAL Contacts /	☐	
☐	Living With:	☐	HIV
		☐	Obtain Follow-up Serology

COMMENTS (*Number Entries*): _____

SUSPECTS:

Name (Last, First)	S-	Ref	Relationship	FR Number	Sex	Disp	Date	DX	Worker Number	So Sp	Invest Agency
							/ /				
							/ /				
							/ /				
							/ /				
							/ /				

MARGINAL INFORMATION CONTACTS:

	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	
	Name	Age	Sex	Race	Exposure Dates	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	Locations	

ENTS (*Continued*): _____

☐ New Partners / Suspects Named ☐ Recorded on Interview Record

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CLUSTER INTERVIEW RECORD

ORIGINAL PATIENT NAME	CASE NUMBER	CONTROL NUMBER	OUTBREAK NUMBER	DATE	WORKER
				/ /	

INDIVIDUAL INFORMATION (*Person Being Clustered*) **FR Number:** _____

Name: Type: ☐ Partner ☐ Suspect ☐ Associate ☐ Other _____

SOCIAL HISTORY:

Marital Status: *S M W D Sp Unk* Primary Language: ☐ English ☐ Spanish ☐ Other _____

Living Situation: ☐ House ☐ Apt ☐ Jail ☐ Homeless ☐ Transitional (*Shelter, Drug Rehab, Grp Home, Half Way*) ☐ Other _____

Country of Birth _____ Time: In U.S. _____ In State _____ At Current Address _____

Living With _____ Relationship _____

MEDICAL HISTORY:

Primary Care Provider: Date Last Visited / / Purpose

Previously Infected With Syphilis?: ☐ Y ☐ N ☐ U If Yes, Stage _____ Date Treated ___/___/___ With _____

Date of Last Reactive STS ___/___/___ Type _____ Titer _____ ☐ Unk Date of Last Negative STS ___/___/___ ☐ Unk

HIV Infected?: ☐ Y ☐ N ☐ U If Yes, Date Diagnosed ___/___/___ Receiving Antiretroviral Rx?: ☐ Y ☐ N ☐ U

Other STD Hx: ☐ CT ☐ GC ☐ HPV ☐ HSV ☐ Other _____ Past Year: ☐ CT ☐ GC ☐ HPV ☐ HSV ☐ Other _____ ☐ Unk

Self-Rx: ☐ Y ☐ N ☐ U If Yes, Indicate Source: ☐ Left Over (*own*) ☐ Other Person ☐ Out-of-Country ☐ Other _____

RISK ASSESSMENT:

Past 12 Months: Sex for $/Drugs: ☐Y ☐N ☐U Exchanged $/Drugs for Sex: ☐Y ☐N ☐U Gender of Partners: ☐M ☐F ☐B ☐ U

IDU Drug Use: ☐Y ☐N ☐U If Yes, indicate: ☐ Cocaine ☐ Heroin ☐ Methamphetamines ☐ Other _____

Non-IDU Drug Use: ☐Y ☐N ☐U If Yes, indicate: ☐ Cocaine ☐ Crack ☐ Heroin ☐ Methamphetamines ☐ Other _____

Currently Incarcerated: ☐Y ☐N ☐U In Past Year: ☐Y ☐N ☐U (*Facilities/Dates*) _____

Past 3 Months: Sexual Practices: ☐ Vaginal ☐ Anal, Insertive ☐ Anal, Receptive ☐ Oral Anonymous Sex: ☐Y ☐N ☐U

Has Pregnant Partner(s): ☐Y ☐N ☐U Victim of: Sexual Assault: ☐Y ☐N ☐U Domestic Violence: ☐Y ☐ N ☐ U

Transgender: ☐ MTF ☐ FTM ☐ N ☐ U Gang Member: ☐ Y ☐ N ☐ U If Yes, Indicate Gang _____

Condom Used At Last Vaginal/Anal Sex?: ☐ Y ☐ N ☐ U Other Risk Behaviors _____

HR Locales Frequented (*Possible Screening Sites*): ☐ Bars/Clubs _____

☐ Baths/Spas _____ ☐ Dance Halls _____

☐ Parks _____ ☐ Motels _____

☐ Streets _____ ☐ Internet _____

☐ Other _____

OUT-OF-AREA TRAVEL (*Interview Period*): ☐ No ☐ Yes _____

CLUSTER INTERVIEW INFORMATION

Original Patient Named Back? ☐ Yes ☐ No

	First	Freq	Last
Original Patient: Sex	___/___/___	_____	___/___/___
N/S	___/___/___	_____	___/___/___
Interviewee: Sex	___/___/___	_____	___/___/___
N/S	___/___/___	_____	___/___/___

Current Exam Information:

CLUSTER INSTRUCTIONS: P = PURSUE / C = COVERED

C

☐ A-1s

☐ A-2s To: _____

☐ Lx Hx: _____

☐ OP's Living Situation

☐ OP's Source of Income

☐ Pregnant Friends

☐ OP's Risk Behaviors

☐ Possible Screening Sites

☐

☐

☐

ASSOCIATES:

Name (Last, First)	A -	Ref	Relationship	FR Number	Sex	Disp	Date	DX	Worker Number	So Sp	Invest Agency

Name (Last, First)	A -	Ref	Relationship	FR Number	Sex	Disp	Date	DX	Worker Number	So Sp	Invest Agency
							/ /				
							/ /				
							/ /				
							/ /				

MARGINAL INFORMATION ASSOCIATES:

	Name	Age	Sex	Race	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	

	Name	Age	Sex	Race	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	

	Name	Age	Sex	Race	Place of Encounter / Identifying-Locating / Other Risk Information
		Ht.	Wt.	Hair	

ENTS (*Continued*): _____

☐ New Associates Have Been Recorded on Interview Record (*Draw a single line through each MIA Initiated*)

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Last Name | First (& Nicknames) | Address (Street) (Apt.#) | Home Phone

City | State | Zip | Age/D.O.B. | Race: W B A/PI AI/AN O/U | Ethnicity: H Non-His | Sex: M F | Marital Status: S M W D SP U

Height | Size/Build | Hair | Complexion | Pregnancy Status: Y ___ wks N U | Place of Employment/Hours/Phone

Exposure: First | Freq. | Last

Original Patient ID. Number

Other Identifying, Locating, or Medical Information

REFERRAL BASIS:
- Partner ___
- Cluster ___
- Positive Lab Test
- OOJ/ICCR ___

Disease 1 | Disease 2

Initiating Agency

Invest. Agency

Clinic Code

Examination Date	Test	Result	Provider

Treatment Date	Drug	Dosage	Provider

FR Number	OOJ No.	OOJ Area	Due Date
1190100D			

Interviewer Number: | Date Initiated: | Type Interview: | Type Referral:

Disease 1 | New Case #: | Post-test Counseled? Yes No

Disposition: | Dispo. Date: | Diagnosis: | Worker Number:

Interviewer Number: | Date Initiated: | Type Interview: | Type Referral:

Disease 2 | New Case #: | Post-test Counseled? Yes No

Disposition: | Dispo. Date: | Diagnosis: | Worker Number:

Field Record
CDC 73.2936S
Rev.9/95

U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Note: See the reverse side of page one of this record for the codes and the reverse side of pages two and three for an abbreviated set of instructions. See the full set of Field Record instructions for further definition.

Field Record Codes

Disease/Diagnosis Codes

- **100** - Chancroid
- **200** - Chlamydia
- **300** - Gonorrhea (uncomplicated)
- **350** - Resistant Gonorrhea
- **400** - Non-Gonococcal Urethritis
- **450** - Mucopurulent Cervicitis
- **490** - Pelvic Inflammatory Disease (Syndrome)
- **500** - Granuloma Inguinale
- **600** - Lymphogranuloma Venereum
- **700** - Syphilis Reactor
- **710** - Primary Syphilis
- **720** - Secondary Syphilis
- **730** - Early Latent Syphilis
- **740** - Latent Syphilis, Unknown Duration
- **745** - Late Latent Syphilis
- **750** - Late Syphilis with Symptomatic Manifestations
- **760** - Neurosyphilis
- **790** - Congenital Syphilis
- **800** - Genital Warts
- **850** - Herpes
- **900** - HIV
- **950** - AIDS (Syndrome)

STD Disposition Codes

- **A** - Preventive Treatment
- **B** - Refused Preventive Treatment
- **C** - Infected, Brought to Treatment
- **D** - Infected, Not Treated
- **E** - Previously Treated for This Infection
- **F** - Not Infected
- **G** - Insufficient Information to Begin Investigation
- **H** - Unable To Locate
- **J** - Located, Refused Examination
- **K** - Out Of Jurisdiction
- **L** - Other

HIV Disposition Codes

- **1** - Previous Positive
- **2** - Previous Negative, New Positive
- **3** - Previous Negative, Still Negative
- **4** - Previous Negative, Not Re-tested
- **5** - Not Previously Tested, New Positive
- **6** - Not Previously Tested, New Negative
- **7** - Not Previously Tested, Not Tested Now
- **G** - Insufficient Information to Begin Investigation
- **H** - Unable To Locate
- **J** - Located, Refused Counseling and Testing
- **K** - Out Of Jurisdiction
- **L** - Other

Partner Codes

- **P1** - Sex Partner
- **P2** - Needlesharing Partner
- **P3** - Both Sex and Needle

Cluster Codes

- **S1** - Suspect 1
- **S2** - Suspect 2
- **S3** - Suspect 3
- **A1** - Associate 1
- **A2** - Associate 2
- **A3** - Associate 3

Type Interview

- **O** - Original Interview
- **R** - Reinterview
- **C** - Cluster Interview
- **P** - Posttest Counseling
- **U** - Unable to Interview (But Partners/Clusters are Initiated)

OOJ/ICCR Codes

1 - Partner **2** - Cluster **3** - Positive Test

Type Referral

1 - Patient **2** - Provider

Appendix PS–F

FIELD INVESTIGATIONS

It is the responsibility of the DIS to ensure that persons who have or are at risk of acquiring a STD receive appropriate medical care at the earliest possible time. The use of the telephone for initial follow-up activities can be an efficient use of DIS time, especially when calls are made in the early morning or evening hours. Telephones, however, are not valuable for in-depth investigation and confronting highly sensitive issues. Also be aware of caller ID and like technologies, as they may compromise confidentiality.

While the field investigation may require a greater initial investment of DIS time, it is the most effective follow-up method and frequently the most efficient as well. All field investigations should be conducted in unmarked vehicles.

It is incumbent upon the DIS to make the most efficient use of field time and to conduct each field investigation thoroughly to make the most of this activity.

- To avoid duplication of effort and to expand locating information, the DIS should perform a record search immediately after initiating an investigation by reviewing available resources, including:
  a. open field investigation and case interview files;
  b. closed field investigation and case interview files;
  c. medical records;
  d. telephone white and yellow pages;
  e. directory assistance;
  f. cross directory; and
  g. computer locator resources.

The record(s) search and results should be completely documented on the back of the field record.

- The DIS should begin investigative action on priority follow-ups within one workday of assignment or of DIS initiation.

- When initial telephone attempts fail to reach the individual sought, or when the patient does not follow through with a commitment, the DIS should make a field visit within one working day or as directed by supervisor.

- The DIS should prepare for field investigations by:
  a. arranging investigations by investigative or intervention priority;
  b. planning a route that addresses the greatest number of investigative priorities in the most efficient sequence;
  c. including lower priority field activities that are near high-priority investigations;
  d. consulting the supervisor on the potential for pooling work when distant locations are involved;
  e. arranging work in the planned sequence at the front of the investigative pouch; and
  f. preparing all referral notes before leaving for the field to improve efficiency and alertness.

- Before leaving for the field, the DIS should assemble standard materials and supplies, including:
  a. investigative pouch;
  b. maps;
  c. venipuncture kit;
  d. writing materials (with spare pen);
  e. referral forms with envelopes;
  f. business cards;
  g. change for parking meter and public telephone (and telephone credit card, if available);
  h. identification card; and
  i. materials needed to perform field interviews, e.g., visual aids, consent forms.

- The DIS should record the beginning and ending odometer readings and the distances between stops, as needed for travel reimbursement.

- Before leaving the car for a field visit, the DIS should:
  a. review the field record and memorize all pertinent data to establish the precise objective(s) of the visit;
  b. observe the environment and anticipate obstacles to the investigation; and
  c. stow the pouch, confidential forms, and valuables in a secure place.

- When there is no response at the door of the individual sought, the DIS should check for occupants at the side and back of the building when the way is not barred and it appears safe to do so.
- When the individual sought is not found, the DIS should attempt to confirm the locating information in the initial visit by exploring all reasonable sources of information, such as:
  a. other persons encountered at the address;
  b. names on mailbox;
  c. neighbors, apartment managers, building superintendents;
  d. postal employees and other delivery personnel;
  e. local business people; and
  f. children in the area.

  - The DIS should gather patient locating information from sources in a manner which serves to improve upon the original data provided, including previously unknown information such as:

  a. full name and physical description;
  b. precise address, including apartment number;
  c. identity of co-residents;
  d. telephone number;
  e. type and place of employment;
  f. hours and habits;
  g. hangouts and associates;
  h. description of individual's car; and
  i. where the individual can be found now.
- When locating information appears invalid, the DIS should transpose house and street numbers, etc., and checks similar locations in the immediate vicinity.
- When the individual sought is encountered in the field, the DIS should convey a sense of urgency and motivate the patient to participate in the disease intervention process by:
  a. establishing the identity of the patient;
  b. engaging the patient in a private conversation;
  c. identifying self and conveying the reason for visit;
  d. establishing rapport and demonstrating concern;
  e. informing the patient of the STD at issue and of their risk status;
  f. clustering the patient for other high-risk persons; and
  g. referring the patient for the most immediate appropriate medical attention, which may include obtaining consent and collecting a specimen for testing.
- When the individual wants care from a non-health department provider, the DIS should arrange or confirm the appointment personally. The DIS should tell both the health provider and the individual of the need for recommended testing, counseling, and treatment, and determine when the test results will be available. The DIS should try to get a signed release of information form from the patient, so that test results and treatment can be confirmed.
- Even when the individual sought is not found, the field visit offers many advantages that can enhance disease intervention, such as:
  a. information about the individual's living situation, lifestyle, habits, or about the identity of cohabitants or co-residents, etc., may be gained, along with additional locating information;
  b. the DIS can leave a sealed referral notice that directs the individual to the first clinic session available;
  c. other high-risk persons may be identified; and,
  d. the validity of the provided locating information can be determined.
- When the individual sought is not encountered at a confirmed place of residence, the DIS may leave a referral notice in a sealed envelope marked "personal" or "confidential." The DIS may add a personal note of urgency to the form. Referral notices may be left by the DIS with co-residents, building managers, employers, or under the door or in any area where the referral is protected and not accessible to children or casual visitors. Referral notices

are not placed in or affixed to any mail box (U.S. Postal Service Code 1702, 1705, 1708, and 1725).

- The DIS should not leave a third referral notice at the same address except with supervisor's consent.
- When in a safe location, the DIS should document the results of the field investigation. The following information should be legibly, accurately, and concisely documented on the back of the investigative form with the use of accepted abbreviations and symbols:
  a. date and time of day;
  b. type activity (e.g. FV=field visit);
  c. persons encountered;
  d. results of investigation, which may include next planned action (date and type);
  e. referral specifics; and
  f. directions for difficult-to-find locations, when appropriate.
- If practical, before returning to the office from distant locations, the DIS should contact the supervisor (or other designated team member) by telephone to inquire about emergent needs to which she or he should attend before returning.
- The DIS should follow through on all commitments and pursue new information elicited during the course of investigations, as follows:
  a. confirms appointments made and kept (within one working day);
  b. re-initiates action within one working day when commitments fail; and,
  c. pursues new locating information within one working day.
- When the original information fails to locate the individual, the DIS should seek to contact the source of the information at the first reasonable opportunity in order to correct or to expand locating data. Sources to contact include:
  a. the patient or others involved in a case;
  b. other case managers;
  c. health care providers; and
  d. Interstate Transmission of STD Intervention Information desk (according to established local procedures)
- When there is no direct avenue to correct inadequate locating information, the DIS should discreetly accesses other agency resources, such as:
  a. Department of Motor Vehicles;
  b. Postal Service;
  c. utilities;
  d. Public Assistance;
  e. local schools;
  f. trade unions;
  g. law enforcement (jail rosters);
  h. voter registration;
  i. tax appraisal office;
  j. fire department (directory/department of streets);
  k. other health department programs (e.g. family planning, WIC, TB, etc.); and
  l. other community resources (e.g., hospitals, CBOs, etc.).
- When an investigation stalls, the DIS should notify the supervisor or appropriate case manager at the earliest reasonable opportunity (not to exceed 72 hours). Supervisor's approval is needed to close unsuccessful investigations.
- The DIS should complete and submit all assigned work to his or her supervisor before taking planned leave.

Appendix PS–G

INTERSTATE TRANSMISSION OF STD INTERVENTION INFORMATION

Basic Policy

The Interstate Transmission of STD Intervention Information is the system that oversees the transmission of STD intervention information among project areas. Success of the system depends on the willingness of each program manager to take the steps necessary to assure that its provisions are observed and to hold one another accountable when deviations occur. While these guidelines are designed to support and, where necessary, refine or clarify the process and procedures, project areas should review their protocols and procedures to ensure that they specify how to handle incoming and outgoing intervention requests. In reviewing or developing these protocols and procedures, programs are encouraged to consider these national guidelines in order to ensure consistency with respect to transmission of STD information between jurisdictions. Investigations should be conducted in accordance with local protocol, with respect to contacting partners outside your jurisdiction. There are situations where local protocol will specifically permit or prohibit cross-jurisdiction investigations. Disease prevention will be facilitated by the confidential sharing of information on STD cases, partners, suspects, and associates between jurisdictions.

All requests received by an area for conducting an interstate STD investigation, interview or counseling session, reinterview, etc., should be accorded at least the same priority as the same program activity initiated within the receiving area. It is suggested that the receiving area process cases from other areas, even if the program area does not process these same type of cases for patients in its own jurisdiction. To the extent possible, information on sex partners that is transmitted should focus on disease intervention priorities. Program areas should review the information carefully before transmitting information about partners or individuals with a last exposure date that represents a minimal likelihood of disease intervention and, if such a request is made, should explain the reason for the request. While each case is unique and rules must allow for flexibility, programs should assume that managers in other areas are exercising appropriate professional judgment when requests for follow-up are made. Therefore, the receiving area should accept these follow-up requests and act upon them without challenge. Questionable records should be brought to the attention of a supervisor. If it appears that areas are overloading the system with questionable requests, program managers are encouraged to discuss the issue with their counterparts in other program areas.

The following categories of partners and individuals are considered high priority:

- Women who are known to be pregnant and exposed to confirmed infectious syphilis, gonorrhea, chlamydia, or who have a reactive test for HIV.
- Women or infants with reactive prenatal or postpartum serologies and unknown treatment status.
- Persons with positive tests for or symptoms of gonorrhea, chlamydia, syphilis, and with unknown treatment status.
- Persons with positive tests for HIV (Not all areas will investigate HIV. If your area investigates HIV positives, then you should initiate an out-of-jurisdiction HIV positive. The receiving area will determine whether to investigate based on local policies and priorities).
- All partners who could be incubating disease because of a recent exposure to an infectious individual.

Areas with staff, workload capability, and desire to follow persons exposed to diseases beyond the normally prescribed periods should make this known in writing to other program areas. High-priority persons are those about whom the program has sufficient information to indicate that they may have been exposed to an infectious person, or those who the program has reason to believe may be infected and that locating them would prevent the further spread of disease.

Field Records

Field records (FR) that are initiated by a program area that are to be transmitted for investigations out of jurisdiction should be as accurate and complete as possible, and should at a minimum include the following information:

- For sex partners, suspects, or associates, a complete identification and physical description (name, sex, age, weight, height, complexion, ethnicity, etc.) as well as exposure dates, test results, and basis for the diagnosis of the original patient to whom the partner, suspect, or associate is linked, if applicable.
- At least two items of locating information (home address and telephone number are considered as one item). Other locating information could include place of work; work telephone number; beeper or cell phone numbers; friend or relative or other person known by the person; hangouts; make, model, color of car, etc.
- When a male partner is known to have the same name as his father or son, care should be taken to ensure that correct designations such as "Jr." or "Sr." are communicated to help avoid the potential for confidentiality problems.

When field records that are transmitted out of jurisdiction do not include any of these provisions, the initiating area should include the reason for the omission. An acceptable reason for omitting information should not include failure on the part of the initiating area to pursue the information. If the reason provided by the initiating agency is acceptable, receiving areas should accept and proceed with the individual requests. When an acceptable reason for omission of information is not given, receiving areas may demand one or suspend further action until an acceptable reason is given. Program areas should exercise sound judgment when making a decision to reject or suspend an investigation on technicalities since the primary concern for all areas should be the health of the individual and the prevention, or further spread, of disease in the community.

Military Patients

Program managers are encouraged to work closely with military installations in their jurisdictions to ensure that the military understands these guidelines for transmitting information on persons initiated during the course of their STD investigation, providing that no other system has been established. Any domestic military installation that initiates STD intervention information on civilians for investigation outside of its jurisdiction should forward the information through the appropriate state control point. The STD prevention program should review the information for appropriateness and comprehensiveness then transmit appropriately. Program managers should discourage military installations from sending investigative information directly to the Centers for Disease Control and Prevention (CDC).

Corrections

Program managers are encouraged to work closely with prisons, local jails, and juvenile detention centers. See the chapter on Special Emphasis for a detailed discussion of corrections issues.

Transmission and Disposition Procedures

When possible, program areas should telephone state control points in the receiving areas with all information on persons (see the following appendix for current list of interstate control points). When telephoning or transmitting STD intervention information, strict rules of confidentiality must be followed. The person responsible for transmitting that information between control points should observe confidentiality by affirming that the control point called is the correct one, and by receiving assurance that the person receiving the information is authorized to accept STD related intervention information. This assurance should come before the discussion of any STD intervention information. If either the initiating or receiving area is concerned about the confidential nature of the call,

communication should cease until such time as confidentiality can be assured by both parties. The initiating area should keep a record of the date, time of day, and name of the individual receiving the STD information. Confirmation of telephoned information can be mailed if requested by the receiving area.

Before telephoning or mailing STD investigation information, it would help the receiving area if the initiating area checked zip code directories and long distance telephone information to verify the spelling of the name and address and that the address and telephone number exist. Initiating areas should let receiving areas know if these verification activities were conducted and the results of those activities.

Priority STD intervention information, and information on individuals on which a "return disposition" is requested should be recorded on the Field Record, CDC 73.2936S, or a similar local form by the receiving area. Field record control numbers (preprinted number on a field record) and disposition due date should be exchanged between initiating and receiving areas. This information will be used by both areas to track the investigation request. The disposition due date is generally established as 14 calendar days from the date of receipt.

Low priority reactive serologic tests for syphilis (STS) are those tests that would not receive high priority attention within an area. Low priority requests should be written on Field Records and exchanged by mail. The information should be exchanged even if these low priority reactors would be administratively closed in the initiating area, or if they could be closed through a record search by the initiating area. A reason for exchanging the information is to give the receiving area test results that could be used for updating records. If a record exists on the reactor in the initiating area, and if local policy permits, that information should also be included on the field record when transmitted out of jurisdiction.

Initiating areas should not routinely expect or request a "return disposition" on low priority reactors unless there is a compelling reason to ask for the disposition. In those instances when a "return disposition" is desired, initiating areas should indicate "return disposition requested" on the field record. Requests for "return dispositions" on low priority reactors should be kept to a minimum. Sex partner information on uncomplicated gonorrhea and chlamydia should be written on a field record and exchanged by mail or phone. As with low priority reactors, "return dispositions" should not be routinely requested unless there is a compelling reason. Areas requesting "return dispositions" should follow procedures previously described in these guidelines.

Maps

A map showing where an individual may be found might prove critical to the success of an investigation. Since it could prove difficult to communicate the details of a map orally to the investigating area, the initiating area should prepare the field record with the map and mail it to the investigating area. If the request is a priority investigation, the investigating area should be telephoned and alerted to expect the mailed field record. Program areas should also consider faxing the information if it can be assured that the faxed information would be secure and confidential.

Record keeping

All areas should develop a record keeping system that will enable them to efficiently conduct the disease intervention outreach transmittal component of the interstate procedures. In most cases, the system will consist only of a file for field records or a log to record transmittal information. Simplicity is the key when record keeping systems are established by areas. For example, a system could be as simple as filing all incoming and outgoing forms together chronologically by "disposition due date." While the system should be specific to an area, each should have a method for keeping up with overdue follow-up requests. Overdue follow-up requests are those incoming and outgoing

requests that have been open for more than 14 days, or that are beyond the "disposition due date." Investigating areas have the responsibility to call initiating areas and inform them of the status of the investigations if they are still open beyond the "disposition due date." Whenever an initiating area obtains new or clarifying information on individuals being followed out of jurisdiction, every effort should be made to inform the area.

International Transmission of STD Information

The CDC policy and procedure for the international and military transmission of non-HIV/STD information is currently under review and is expected to be revised. While this policy is being reviewed, program areas should continue to use current polices that have been established in their areas for handling international and military transmission of non-HIV/STD information. The CDC involvement in the transmission of international STD information is minimal and will be done only on a case-by-case basis. Since CDC has limited involvement in the transmission of other international STD information, program areas are encouraged to counsel patients to self-refer or notify their partners who reside in foreign countries and who may have been exposed to a disease.

Appendix PS–H

SKILLS INVENTORY

Interviewing Skills Individual Feedback Record

Interview date_____

How did the Disease Intervention Specialist perform in the following areas?

Write N/O (not observed) in the satisfactory column if the interview did not present an opportunity to observe the skill.

COMMUNICATION	Needs Improvement	Satisfactory	Excellent
1. Demonstrates professionalism			
2. Establishes rapport			
3. Listens effectively			
4. Uses open-ended questions			
5. Communicates at the patient's level of understanding			
6. Gives factual information			
7. Solicits patient feedback			
8. Uses reinforcement			
9. Uses appropriate nonverbal communication			

Observations _____

_____

_____

Recommendations _____

_____

_____

SKILLS INVENTORY, continued

PROBLEM SOLVING	Needs Improvement	Satisfactory	Excellent
10. Recognizes verbal problem indicators			
11. Recognizes nonverbal problem indicators			
12. Verifies the meaning of recognized problem indicators			
13. Assertively confronts problems communicated by patients			
14. Resolves patient problems			
15. Uses STD motivations			
16. Motivates clearly and convincingly			
17. Emphasizes confidentiality			

ANALYTICAL CAPABILITIES	Needs Improvement	Satisfactory	Excellent
18. Computes and uses interview periods			
19. Recognizes exposure gaps			
20. Determines accurate source/spread relationships			
21. Determines investigative priorities			
22. Recognizes discrepancies in patient responses			

Observations _____

_____

_____

Recommendations _____

_____

_____

SKILLS INVENTORY, continued

DISEASE INTERVENTION BEHAVIORS	Needs Improvement	Satisfactory	Excellent
23. Emphasizes sex partner referral			
24. Tactfully persists to identify all at-risk sex partners			
25. Pursues detailed locating/identifying information on sex partners			
26. Emphasizes appropriate risk reduction behaviors			
27. Conveys a sense of urgency			
28. Establishes specific contracts and coaches patients			
29. Pursues timely reinterviews with a plan			

Observations _____

Recommendations _____

Field Activity One Day Skills Feedback Record

Field investigation date _____ Number of persons investigated _____

How well did the Disease Intervention Specialist perform in the following areas?

Write N/O (not observed) in the satisfactory column if the investigation did not present an opportunity to observe the skill.

DISEASE INTERVENTION BEHAVIORS	Needs Improvement	Satisfactory	Excellent
1. Assume the responsibility for the ultimate success of assigned investigations, regardless of co-worker participation in the referral process			
2. Utilize resources effectively in planning and executing referrals			
3. Recognize investigative priorities			
4. Select appropriate referral methods			
5. Take prompt initial action on priority investigations and promptly follow up when a person defaults on a referral			
6. Demonstrate timely, persistent, and imaginative action required to move a stalled investigation			
7. Demonstrate discretion and judgement in the use of the telephone as an investigative tool			
8. Confidentially and professionally manage circumstances that are obstacles in any investigation			
9. Motivate people to come in promptly			
10. Document the investigative activities completely and accurately			

Observations _____

_____

_____

Recommendations _____

_____

_____

Definitions of Elements in Interviewing and Field Activities Skills Inventories

Needs Improvement

Should be checked anytime the supervisor makes a constructive recommendation that the DIS is to follow.

Excellent

Should be checked anytime the supervisor compliments the DIS on a specific aspect that is clearly above the expectations for satisfactory performance. The supervisor should be able to articulate exactly what led to this rating.

Check marks should be placed in the center of the appropriate box so that the DIS does not interpret performance as almost satisfactory or excellent. If the supervisor is unable to observe a particular skill element for any reason, N/O should be placed in the Satisfactory box. An effort should be made to create an opportunity for observation before the completion of the next skills inventory. Supervisors may role-play to find out whether the DIS makes appropriate responses but should see how the DIS performs with an actual patient before making a determination on the skills inventory.

Interviewing

Satisfactory ratings indicate that the Disease Intervention Specialist consistently:

1. **Demonstrates professionalism**
   Displayed self-confidence, competence, dependability, preparation, integrity, and appropriate seriousness. Convincingly conveys the capability (expertise, training, knowledge, devotion) and commitment to maintaining a patient's confidentiality. Smoothly preempts a patient's likely concerns about confidentiality and effectively reinforces it when discussing sex partners and when resolving a patient's special problems. Was nonjudgmental and objective about patient's behavior and conveyed tolerance for patient's lifestyle.

2. **Establishes rapport**
   Displayed respect, empathy, and sincerity to patients, e.g., introduced self, was polite, used plausible and factual motivations and sought out and dealt with patient's concerns.

3. **Listens effectively**
   Did not interrupt patients unnecessarily. Responded to patients' questions appropriately and gave evidence that important information was noted, such as following up with additional questions or mentioning specifics in the post-counseling critiques.

4. **Uses open-ended questions**
   Phrased questions (beginning with who, what, when, where, why, how, tell me) to stimulate meaningful responses. Used open-ended questions, particularly where the patient might avoid giving candid answers by using negative or condescending responses.

5. **Communicates at the patient's level of understanding**
   Avoided technical terms, jargon, or words deemed beyond the comprehension of patients. Clearly explained necessary medical and technical terms and concepts.

6. **Gives factual information**
   Demonstrated an accurate knowledge of STDs. Corrected patient's misconceptions and provided comprehensive disease information. Avoided extraneous information.

7. **Solicits patient feedback**
   After delivering messages, asked appropriate questions to determine whether patients understood and how they intended to comply. Used content (rephrasing what the patient said) and feelings (interpreting how the patient felt) responses to verify patients' meanings.

8. **Uses reinforcement**
   Sincerely complimented or acknowledged patients after hearing intentions to use, or descriptions of, healthful behaviors. Used smiles and affirmative nods and words effectively.

9. **Uses appropriate nonverbal communication**
   Conveyed sincere interest by maintaining eye contact, minimizing physical barriers, and leaning toward the patient. Avoided negative nonverbal signals that communicate anger, surprise, distaste, or fear of contagion; avoided finger shaking, arm crossing, and expressions of disinterest. Nonverbal communication complemented the verbal communication.

10. **Recognizes verbal problem indicators**
    Recognized verbal indicators by responding when patients asked direct questions, made direct contradictions, expressed or reiterated concerns, hesitated, or expressed misunderstandings.

11. **Recognizes nonverbal problem indicators**
    Recognized problem indicators either by responding to patient's eye contact, body language, posture, or other nonverbal gestures and behaviors or by discussing observations after the interviews.

12. **Verifies the meaning of problem indicators**
Asked patients directly about problem indicators, using techniques such as soliciting feedback (described above).

13. **Assertively confronts problems**
    In confronting problems, demonstrated self-confidence, appropriate body language and eye contact, and communicated his or her position while still maintaining rapport.

14. **Resolves patient problems**
    Solved typical STD patient problems such as those concerning marital situation, confidentiality, guilt, embarrassment, fatalism, homosexuality, special sex partners, parents, employers, hostility toward sex partners or clinic personnel, and apathy about infections.

15. **Uses STD motivations**
    Demonstrated an understanding of STD motivations including confidentiality, reinfection, spread and reinfection, responsibility to others, self-survival, potential hassles, and disease complications.

16. **Motivates clearly and convincingly**
    Created a sense of urgency. Used visual aids to enhance motivations. Tailored motivations appropriately to patient and problem.

17. **Emphasizes confidentiality**
    Gave examples of how the system works and emphasized the discreet approaches used by the program. Demonstrated what would be said to the partner (suspect, associate) when confidentiality seems a particularly sensitive issue or when the partner seemed not to understand.

18. **Computes and uses interview periods**
    Used correct periods according to program criteria and communicated the time period to the patient, using an understandable beginning date.

19. **Recognizes exposure gaps**
    Identified gaps when they occurred during interviews and confronted patients about them appropriately.

20. **Determines accurate source/spread relationships**
    Used case management and analysis methods to accurately determine source/spread relationships. Accurately charted lesion histories, lesion locations, exposure data, and ghosted primary lesions on the infectious syphilis epidemiologic analysis chart.

21. **Determines investigative priorities**
    Given a set of field investigation forms, was able to set priorities according to the criteria set by the program or the course.

22. **Recognizes discrepancies in patient responses**
    Detected and appropriately challenged discrepancies such as history inconsistent with medical facts,

social and sexual history inconsistent with lifestyle described by patient, and contradictory exposure dates.

23. Emphasizes sex partner referral
Regardless of other issues, ensured that appropriate time, attention, and importance were given to sex partner referral.

24. Tactfully persists in identifying sex partners
Within reason, and in a manner that maintained rapport, continued to probe for additional sex partners (including same sex) after the patient indicated that all had been discussed.

25. Pursues locating and identifying information
Gathered detailed locating information, including at least two items (home address and telephone number count as one item). Obtained basic identifying information (i.e., age, race, sex, marital status, height, weight, and complexion) and pursued distinguishing characteristics (i.e., hair color and style, facial hair, glasses, scars, physical impairments, and distinctive clothing).

26. Emphasizes risk reduction behaviors, as appropriate
Time permitting, used an interactive approach to discuss (other than sex partner referral) additional individualized intervention behaviors with patient, including taking medication, returning for follow up tests, reducing risk, and responding to disease suspicion. Discussed a risk reduction plan with each patient to encourage behavioral change when applicable.

27. Conveys a sense of urgency
Communicated to patients by word and deed that the spread of infection and the development of symptoms and complications can be averted only by immediately notifying and referring others who are at risk.

28. Establishes specific contracts and coaches patients
Made it clear to patients the time period during which they could refer partners before the DIS would take on that responsibility. Pointed out the pros and cons of patient referral when the patient selects that option. Helps patients know what to say when confronting their partners and, when necessary, made suggestions as to how to direct the conversation.

29. Pursues timely reinterviews with plan
Scheduled and performed reinterviews on the basis of the knowledge gained from the analysis of interviews and investigations. Prepared written agendas specifying the points to be pursued in reinterviews. Performed reinterviews as quickly as possible when major problems arose (e.g., unlocatable partners, no eligible source candidates, or new information indicating unidentified partners).

Field Activities

1. Assumes responsibility for success of investigations
Displayed a sense of obligation for the successful resolution of any investigation in which the DIS played a role. Assumed responsibility for initiating the investigation (gathered identifying and locating information and prepared the 73.2936 completely and legibly) and followed through with prompt, persistent, imaginative, assertive, and sensitive application of techniques and the complete, legible documentation of all activities. Accorded the same importance and applied the same effort to investigations initiated by others as to those initiated by himself or herself.

2. Utilizes resources effectively
Used standard locating resources before and during investigations (e.g., telephone book, cross directory, closed 73.2936s, clinic medical records, utility companies, public assistance files, driver's

license bureau, telephone company security, neighbors, children in vicinity, neighborhood businesses, zip code directory, and long distance telephone information for investigations sent out-of-area).

3. **Recognizes investigative priorities**
   Observing program guidelines, routinely and appropriately determined high and low priority investigations and organized field activity accordingly. Explained logically to supervisor when lower priority work was done before higher priority work.

4. **Selects appropriate referral methods**
   Selected methods that ensured the earliest examination while preserving confidentiality. Mailed letters only with supervisor's approval in conjunction with field or telephone referrals or after such referrals had failed. Left referral cards only after a reasonably exhaustive investigation had failed to establish contact. Unless with supervisor's approval, referral methods that failed once were not repeated (e.g., calling the same number at the same approximate time of day, leaving referral cards at the same address).

5. **Takes prompt action on initial and follow-up investigations**
   Verified the locating information for priority investigations within 24 hours after assignment. Consulted private physicians within 24 hours after receiving follow-ups from them. Intervals between action on priority investigations did not exceed more than one working day except in circumstances deemed justifiable by the supervisor. Referrals were made for next working day. Followed up by the next day on anyone who failed to keep an appointment.

6. **Demonstrates timely, persistent, and imaginative action to move a stalled investigation**
   With investigative workload and other professional obligations considered, took all reasonable steps to ensure that assigned investigations were resolved promptly and that they were not unnecessarily delayed or resolved inappropriately because of procrastination, timidity, the premature concession of defeat, or the unimaginative use of resources or investigative techniques. Used alternative avenues for locating or notifying when primary approaches seemed unproductive or likely to violate confidentiality. The supervisor was involved only in legitimately difficult cases or when information was needed.

7. **Demonstrates discretion in use of the telephone as an investigative tool**
   When using the telephone to expedite an investigation, initially tried to motivate subjects to come in or to meet face-to-face in a confidential setting while revealing as little sensitive information as possible, including exposure to an STD. Before discussing any sensitive information, took all reasonable steps to verify that the person on the line was the subject of the investigation.

8. **Confidentially and professionally manages obstacles**
   Was able to think on his or her feet when confronted with obstacles to an investigation (i.e., parents, siblings, spouses, roommates, school officials, bartenders, coworkers, or employers who have blocked notification efforts or whose curiosity could threaten confidentiality unless handled effectively). Provided subjects of investigation with believable covers when a third party had to be circumvented to reach the intended person. Gave logical reasons for the need for face-to-face meetings in confidential settings. Gave no clues to people who have no need to know the identity of patients or the purpose of field investigations.

9. **Motivates people to come in promptly**
   Created a sense of urgency about examinations through factual information and persistence. Did not imply that persons who had been notified were infected. Verified whether people were likely to keep appointments by exploring transportation plans and other conflicts such as job and child care. During field visits, updated locating information such as

home and work telephone numbers and addresses, and other methods of getting back in touch. In order to allay patient's fears (about embarrassment, parking, delays, etc.), explained how the appointment is likely to go.

10. Documents investigative activities

Documented each investigative step immediately after the activity took place and reflected the date, time, and nature of the activity according to protocols. Documentation was sufficiently legible, coherent, and accurate to permit the reconstruction of all activities so that a co-worker could complete any investigation without duplicating steps.

Appendix PS–I

"EVALUATION TABLES"

Table 1. Comparison of risk factors among partners, by disease outcome.

Risk behavior discussed in original interview	# of partners testing positive for STD of index patient	# of partners testing negative for STD of index patient	# of partners initiated not tested	total # of partners initiated
Sex for drugs				
Yes				
No				
Multiple Partners				
Yes				
No				

Table 2. Partner Services Outcomes, by Disease and Time Period

For all original patients that are interviewed **Disease (Fill in):**								
Time Period	# of original patients interviewed	Number of sex partners (and needle-sharing, if applicable)						
		elicited	initiated	out of jurisdiction	located and not notified (Previously treated)	located and notified by provider but refused services	located and notified by provider; accepted services	not located
January								
February								

Appendix PS–J

GLOSSARY OF TERMS ASSOCIATED WITH PARTNER SERVICES

Associate—Individuals initiated for field follow-up from cluster interviews. Associates are named by persons not infected with the disease in question. Associates can fall into one of three categories: A-1 People with symptoms of the disease. A-2 Unnamed partners of an infected patient. A-3 Others who might benefit from an examination. See Cluster Interview, Social Network Analysis.

Case Closure—A case is closed when the responsible DIS and the next-level supervisor agree that all reasonable steps to intervene in the disease process have been completed and documented.

Case Management—The systematic pursuit, documentation, and analysis of medical and epidemiologic case information that focuses on opportunities to develop and implement timely disease intervention plans.

Client—An individual who seeks HIV prevention counseling and testing services.

Client-Centered Counseling—Counseling conducted in an interactive manner, responsive to the individual patient's needs and requiring an understanding of the unique circumstances of the patient including behaviors, culture, knowledge, and social and economic status.

Cluster Interview—An interview of an uninfected person conducted to gather information about previously unnamed or uninitiated partners of known cases and about individuals who may be in need of an STD examination. The cluster interview is conducted with partners, suspects, or associates of known cases.

Confidentiality—The concept that information will be released only to persons who need the information to help with the patient's medical care and to protect the public health.

Contract Referral—Notification strategy in which the provider elicits locating information, negotiates a time frame for the infected patient to notify his or her partners of the possibility of their exposure, and refer them to appropriate services. If the patient is unable to do so within an agreed-upon time period, the provider has permission to notify and refer the partner(s).

Disease Intervention—The process of stopping the spread of a disease and the complications of disease.

Field Investigation—The process of informing infected persons and their partners of their status by going into the community to find them and to motivate them to accept medical attention and risk reduction counseling.

Incubation Period—The incubation period begins with the date of infection and ends with the appearance of signs or symptoms.

Index Patient—A patient newly diagnosed with a STD and who is a candidate for interview by trained DIS. The term index patient is often interchanged with original patient. Typically, the index patient is the first infected person identified in a lot involving multiple infections.

Interview Period—The interview period covers the time from the earliest date a patient could have been infected to the date of treatment; it always includes the maximum incubation period and the duration of symptoms. Thus, it includes the time during which a patient could become infected or spread the disease to others.

Lot System—A system of organizing cases so that related cases are filed in the same "lot" or folder. The goal is to assure that all obtainable information regarding the continuing management of related cases contained in a lot is readily available to all responsible workers.

MAP Sheet—The major analytical points (MAP) sheet is used for gathering information about members of a lot as well as for analysis and communication.

Original Interview—The first interview conducted with an infected patient. The objective of the interview is to prevent further spread of disease through the prompt identification and examination of all elicited partners and suspects. The interview is designed to ensure that the patient understands the seriousness of the disease, and motivates them to cooperate with STD/HIV control efforts. It is also designed to increase the likelihood that all at-risk partners and suspects are disclosed so they can be brought in for examination and treatment and to provide client-centered counseling to develop a personalized risk reduction plan.

Original Patient (OP)—See index patient.

Partner—A person who engages in any type of sexual activity or needle-sharing activity with the infected person.

Partner Elicitation—The process of obtaining names, descriptions, and locating information of persons who are either partners, suspects, or associates to the original patient.

Partner Notification—The process of locating and notifying partners that they have been exposed to a disease.

Partner Services—The wide range of services provided to partners of infected patients. Partner notification is but one aspect of these services. Other services include counseling, testing, and treatment, as well as referrals to appropriate services such as family planning, prenatal, drug treatment, social support, housing, etc.

Patient—An individual who is treated for a STD.

Patient (Self) Referral—A notification strategy whereby the infected patient accepts full responsibility for informing partners of the possibility of exposure to an STD and for referring them to appropriate services. With patient referral, the provider coaches the infected patient on when, where, and how to notify and what to expect with reactions.

Post-Interview Analysis—An analysis of the information obtained during the interview. The post- interview analysis should be done immediately after the interview when the information is still fresh on the mind of the DIS.

Pre-Interview Analysis—An analysis of the patient's situation done by the DIS before the original interview. The pre-interview analysis includes reviewing available medical information and case information, reviewing available socio-sexual information, and assembling necessary materials and supplies needed during the interview.

Presumptive Interview—An interview conducted on the basis of a patient presenting with symptoms or laboratory findings that are suspicious or not yet available. The purpose of this type of interview is to afford the staff additional time and information by assuring the rapid examination and medical evaluation of recent sex partners.

Provider Referral—A notification strategy where the provider takes responsibility for confidentially notifying partners of the possibilities of their exposure to a STD.

Re-Interview—Any interview following the original interview with a STD patient. Reinterviews are conducted to provide feedback, to gather additional information that may help prove or disprove a hypothesis about case relationships, to address points not covered during the original interview, to identify additional partners or suspects to the original patient, to confront points that are illogical or that are disputed by other information, to solicit assistance in locating

previously named persons who have not been located or are being uncooperative, to support patient risk-reduction attempts, and to support and reinforce a patient's successful use of referred services.

Social Network Analysis—The study of how people connect in social structures and of its implications. See Cluster Interview.

Source Period—The interval during which a patient most likely contracted the disease.

Spread Period—The time during which a patient is potentially infectious and could have passed the disease on to others.

Suspect—Individuals identified as the result of an interview with an infected person but who are not partners of that person. Suspects are divided into three categories: S-1 People with symptoms of disease. S-2 An unnamed partner of an infected patient. S-3 Others who might benefit from a STD examination. See Cluster Interview, Social Network Analysis.

Targeted Screening—An activity to identify infected people in a select group who are engaged in behaviors that put them at greater risk for infection.

Volunteer—A person who comes into the clinic without being referred.

Appendix PS–K

TOOLS FOR NETWORK ANALYSIS

The lot system, developed in the 1960s to assist in the analysis of syphilis transmission, places person who are connected to each other in the same case folder (for example, if A and C are both interviewed, and both name B, they are thereby connected, and can be placed in the same lot). Thus, the notion of examining networks of persons involved in sexual transmission is a traditional part of syphilis epidemiology. In the past few years, a number of software tools have been developed to assist in network visualization and analysis. These tools, once implemented as part of a case management approach, can provide useful insights into the nature of the groups at risk for STD transmission, and may provide a program manager with guidance on how to proceed with the investigation of both endemic transmission and STD outbreaks.

The traditional syphilis and gonorrhea interviewing forms and the contact investigation form contain all of the information necessary to perform a network analysis. Program managers may choose as well to gather information not included in these forms (or the versions used in program areas) such as places of aggregation, household information, history of incarceration, etc.; such additional information can be systematically added to the record. Most managers will probably select a subset of the variables that are collected on the routine interview forms. For network analysis, the single critical variable is the unique identification number (ID). Together, the information on a patient and on one of his/her partners is the basic observational unit for network analysis. To create a file for network analysis, the manager will want a single observation for each patient-partner pair. Thus, if a man names four women, he will generate four observations in the data set. Each of the observations will contain all of his information and all the information on a contact. (The repetition of his information four times is simply a convenience; he will not be counted four times.)

The data set can be created directly from the STD*MIS, if it is used, or by entering the data from the interview record into a data base manager, such as Epi Info, or a spreadsheet. Once entered, the data are converted into an ASCII, or "flat" file. The total number of observations in the file will be equal to the total number of partners named by all of the persons interviewed. The preservation of a unique ID for each individual identified is crucial. For example, if a person is named as a partner, he or she will be assigned a unique ID. That unique ID should be carried with him if he is then interviewed. This procedure permits the network program to create the connections between people. If the STD*MIS currently in use in a program area uses multiple identifiers for the same person, this procedure will not work. Creating a unique ID for each individual, whether identified as a patient or a partner, may be the major source of extra work that has to be performed.

Once a flat file has been constructed, it is read by a program that converts it to a "DL" file that can be read by the network analysis program, UCINET V. The DL file is then used by the network analysis program to construct a file that can be used for network analysis. Program managers may or may not want to calculate the properties of the network they are examining. More likely, they will want to visualize the network. UCINET V contains a module that will create another file to be read by KRACKPLOT, a program that permits visualization of all the connections in the network, and permits the manager to move the nodes (patients and partners) on the screen to create a visually informative display. The combination of these two programs permits attributes to be assigned to nodes (such as infected or not infected, male or female, sex partner or nonsex partner, etc.). Specific attributes of nodes are represented by the types of boxes in which the node identifiers are placed, and specific types of connections can be identified by the color of connecting lines.

As an investigation unfolds, and cases with partners are added, the diagrams can be frequently redrawn to visualize the direction and intensity of the outbreak or of endemic spread. By manipulating the visualization, managers can develop a sense of the "loose ends" and the persons or groups that might be most important to revisit. Such visualization can also provide a graphic sense of the boundaries of the epidemic.

For additional information on programs for network mapping, consult: http://www.heinz.cmu.edu/project/INSNA/soft_inf.html

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