Published in final edited form as:

Sex Transm Dis. 2008 December ; 35(12 Suppl): S30–S39. doi:10.1097/OLQ.0b013e31818eb923.

Traditional Sexually Transmitted Disease Prevention and Control Strategies: Tailoring for African American Communities

Roxanne Y. Barrow, MD, MPH^{*}, Cady Berkel, PhD[†], Lesley C. Brooks, MD[‡], Samuel L. Groseclose, DVM, MPH^{*}, David B. Johnson, BA^{*}, and Jo A. Valentine, MSW^{*}

^{*}Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia

[†]Prevention Research Center, Arizona State University, Tempe, AZ

[‡]North Colorado Family Medicine, Greeley, Colorado

Abstract

African Americans carry the largest disease burden for bacterial sexually transmitted diseases (STDs) in the United States. These infections can have a devastating impact on sexual and reproductive health if they are not diagnosed and treated. Traditionally, public health efforts to prevent and control bacterial STDs have been through surveillance, clinical services, partner management, and behavioral intervention strategies. However, the persistence of disparities in STDs indicates that these strategies are not achieving sufficient impact in African American communities. It may be that factors such as limited access, acceptability, appropriateness, and affordability of services reduce the efficacy of these strategies for African American communities. In this article we describe the STD prevention strategies and highlight the challenges and implications of these strategies in addressing disparities in African American communities.

Surveillance, clinical services, partner management, and behavioral interventions have been used to prevent and control bacterial sexually transmitted diseases (STDs)—gonorrhea, chlamydia, and syphilis—in the United States. These traditional strategies, with the exception of clinical services, are routinely funded in part by the Centers for Disease Control and Prevention (CDC) through a program announcement, which provides federal funding to support activities of STD prevention programs in health departments nationwide. Clinical services are an integral part of STD prevention programs. Health department programs generally support public STD clinical services through state and local funds.

African Americans carry the largest disease burden for gonorrhea, chlamydia, and syphilis in the United States.¹ These infections can have a devastating impact on sexual and reproductive health if infections are not diagnosed and treated.² Although the traditional strategies for STD prevention and control are implemented in all communities, regardless of race or ethnicity, the annual rates of disease among African Americans have remained disparate from other racial and ethnic communities. These strategies as currently applied may be less successful in African American communities than other racial and ethnic communities.

STD surveillance includes the monitoring of STDs or their sequelae, pathogen-specific antimicrobial resistance, sexual behaviors, screening, and healthcare quality and coverage. It

is a useful strategy for understanding and addressing the burden of bacterial STDs in African American communities.

The essential components of effective clinical STD prevention and control services are routine screening of asymptomatic individuals-at-risk, and prompt diagnosis and accurate treatment for individuals infected with, or exposed to, bacterial STDs. Providing STD clinical services can interrupt the transmission of STDs and prevent their sequelae. However, there are key challenges that can impact clinical service-based STD prevention and control for African Americans: access to care, acceptability of care, appropriateness of care, and affordability of care.

Partner services typically involve interviewing and counseling STD patients to identify their sex partners and facilitate their access to care, thereby reducing the transmission of STDs and preventing adverse outcomes. There are challenges to the successful implementation of partner services as an effective public health tool; however, when offered in a culturally sensitive manner that respects community norms with the intent of providing a comprehensive approach to STD case management, this modality can be an effective tool for reducing STD rates and, perhaps, disparities.

STD behavioral interventions are aimed at helping individuals reduce their behavioral risks for acquiring and transmitting STDs. The focus of behavioral interventions is generally on risk reduction (e.g., reducing number of partners, increasing condom use). For these interventions to reduce the disparate rates of STDs in African American communities, they must (1) be culturally competent, (2) engage the audience, and (3) address cultural and societal constraints on behavior, including the availability of partners.

Although these traditional strategies are described separately, in practice they usually function in seamless cooperation with each other. Currently a number of these strategies do not seem as effective at preventing and controlling STD infections among African Americans as among other groups. Tailoring them to enhance their outcomes to better meet the needs of African Americans is clearly warranted. As an example, in a study from the National Longitudinal Study of Adolescent Health, researchers reported that the traditional strategies targeting individual risk behaviors, although suitable for whites, are not necessarily so for African Americans.³ Understanding how and when to apply the current strategies or to develop new ones is fundamental for efficiently reducing the rates of bacterial STDs in African American communities.

Surveillance

Surveillance is a core public health function and is essential for identifying and monitoring STD disparities.⁴ However, tracking STD case-associated demographics alone is inadequate for understanding the dynamics of STD transmission and its persistence in the community. In addition to monitoring the incidence and prevalence of STDs or their sequelae, STD surveillance may include the monitoring of pathogen-specific antimicrobial resistance, sexual behaviors, STD screening, and quality of healthcare services. STD surveillance must also be responsive to changes in STD distribution. Most state and local areas focus surveillance efforts on case reporting of gonorrhea, chlamydia, and syphilis for which prevention and control programs have been established.⁴ Many health departments also have access to prevalence monitoring data, behavioral surveillance information, and health services databases. It is only through the use of multiple surveillance approaches, routine data analysis and interpretation, and evaluation that the burden of these complex infections may be truly understood.

High-quality STD surveillance data are essential for identifying and monitoring health disparities. Knowledge of the STD surveillance methods used, the types of data collected, and

the context in which the data are collected is essential for interpretation of surveillance data and provides insight into how the data contribute to our understanding of health disparities in various communities.

Surveillance Methods

The types of surveillance data needed to monitor STD program activities include (1) data to monitor the magnitude of STDs, and their demographic and geographic distribution, and (2) data to define and monitor effective behavioral interventions and diagnostic and therapeutic procedures (e.g., relative frequency of STD pathogens, and by the type of care STD patients receive by healthcare provider).⁵ Comparing these data by sociodemographic and geographic population subgroups reveals disparities in STD distribution. Surveillance data can be captured at the appropriate level (local, state, or federal) of the public health system by using one or more of the following methods: case reporting, prevalence monitoring, sentinel surveillance, behavioral surveillance, and population-based surveys.

Case Reporting—Case reporting is the process of reporting cases of notifiable STDs by healthcare providers or laboratories to local and state health departments.⁵ Notifiable disease reporting is mandated by legislation or regulation at the state and local levels. Case reporting data for the nationally notifiable STDs (other than HIV infection)—chancroid, chlamydia, gonorrhea, and syphilis—are voluntarily reported from states to CDC. To improve data quality, standardized surveillance case definitions specify the clinical, laboratory, and epidemiologic criteria for each nationally notifiable STD.⁶

Case reporting data are used to estimate STD incidence. Incidence is expressed as the absolute number of new STD cases occurring during a given period in a specified population or as a rate per population subgroup (e.g., 515 female gonorrhea cases were reported in a jurisdiction during 2007 for a rate of 119.2 cases per 100,000 female population).⁷ Case reporting data are typically inadequate to determine whether racial or ethnic differences in incidence result from differing sexual attitudes and behaviors, patterns of health seeking behavior, or quality of services provided. To improve our understanding of trends in STD incidence in population subgroups, local and state health departments often collect additional data about cases reported through routine notifiable STD surveillance (e.g., sexual orientation, number of sex partners, exchange of sex for money or drugs, and venues for meeting new or anonymous sex partners).

Prevalence Monitoring—Disease prevalence is the number of people that have a given condition (e.g., STDs) in a specified population in a designated time.⁷ An individual should only be counted one time, even if tested several times in the interval. In the United States, the best systems for monitoring STD prevalence have been established by the federally funded Regional Infertility Prevention Projects in family planning and other clinics.¹ Other populations in which STD prevalence is monitored include individuals entering correctional facilities, men who have sex with men (MSM) attending STD clinics and other primary care settings, and adolescents and young adults entering the National Job Training Program.¹ Prevalence data augment case reporting data but can be difficult to interpret because both screening policies and the populations screened may change over time. Consequently, little behavioral information is available about individuals with STDs identified through prevalence monitoring.

Sentinel Surveillance—The sentinel surveillance approach can also be used to monitor a variety of STDs when ongoing, detailed surveillance of the entire population is not feasible. Sentinel surveillance typically involves the collection of data from a sample—ideally representative—of the population of interest. An example of sentinel surveillance is the Gonococcal Isolate Surveillance Project that monitors trends in antimicrobial susceptibilities

of strains of *Neisseria gonorrhoeae* in the United States.⁸ Sentinel STD surveillance systems may be useful in identifying the burden of disease for special populations or for obtaining information that is not routinely collected (e.g., behavioral or health services data). When resources are limited, intermittent sentinel surveillance may be useful.

Behavioral Surveillance—Typically, the information in STD case reports and prevalence monitoring systems is limited to patients' demographic characteristics. However, additional information about patient behaviors can also be very useful. Behavioral surveillance is the periodic collection and interpretation of behavioral risk factor information (e.g., describing the general or a specific at-risk population's risk behaviors or linking behavioral risk information with other patient information). These data provide critical contextual information to help explain changes in STD rates over time (e.g., association of 1990 syphilis epidemic with the exchange of sex for drugs and the use of crack cocaine⁹), to estimate the size of a subpopulation that may be at risk for STDs, and to communicate prevention efforts. Behavioral surveillance information from national and state-specific representative samples of the general population (e.g., the Youth Risk Behavior Survey and the National Survey of Family Growth) is a key source of population-level data on STD-related behaviors, knowledge, and attitudes, and may allow for estimating the size of at-risk population(s).^{10–13}

Population-Based Surveys—Some local and national surveys incorporate the assessment of STD biomarkers (e.g., diagnostic test result for an STD organism or subtyping of an infectious organism) and self-reported behavioral information from individuals representing a larger population. The National Health and Nutrition Examination Survey is the largest national survey that includes both the collection of biologic samples for STD identification and information on health care seeking and behavioral risk factors. This nationally representative probability survey of the noninstitutionalized United States population has examined the prevalence of positive test results for gonorrhea, chlamydia, syphilis, and other STDs, allowing the population burden of these infections to be estimated.^{14,15}

Interpretation, Use, and Evaluation of Surveillance Data

In the United States, race and ethnicity are risk markers for other basic determinants of health status such as poverty, access to quality healthcare, behavior related to seeking healthcare, illicit drug use, and living in communities with a high prevalence of STDs.¹ Incidence rate ratios by demographic subgroup (e.g., syphilis incidence rate among African American men aged 15–19 divided by syphilis incidence rate among white men aged 15–19) can be useful to illustrate the magnitude of health disparities for intervention and planning purposes.¹⁶ Because some surveillance data may not be representative of the communities at risk, rate ratios derived from surveillance data should be used with caution when drawing conclusions from reported race and ethnicity data. However, acknowledging the disparity in STD rates by race or ethnicity can be one of the first steps in motivating public health officials and mobilizing affected communities to act.

The asymptomatic nature of bacterial STDs results in substantial under detection by case reporting. People who are asymptomatic may not seek care and therefore are not likely to generate a case report. Additionally, different STDs may be distributed differently in the same racial or ethnic group. For example, in 2006, African American men aged 20 to 24 have the highest rates of gonorrhea and African American men aged 25 to 39 have the highest rates of primary and secondary syphilis.¹ Similarly, African American women have fewer behavioral risk factors than African American men, but similar STD burden.¹⁷ An analysis of STD surveillance data should be conducted separately for each STD to identify population subgroups at increased risk and also in an integrated way (i.e., assess distribution of multiple STDs in the same population) to identify similar and different epidemiologic, spatial, or

temporal patterns that may indicate approaches to increase prevention effectiveness. Depending on the findings, further investigation may be needed to elucidate the reasons for the distributions of STD incidence distributions. Using mapping and spatial analyses of STD incidence, prevalence, and their correlates allows visualization and monitoring of the spatiotemporal distribution of STDs in a given community and can lead to detection of clusters of STD cases in small geographic areas and data-based redirection of case management and intervention resources.^{18–24}

Trends in case reports and prevalence data can be difficult to interpret without information regarding the context in which data were collected. The proportion of STD morbidity that can be attributed to certain high-risk subgroups may not be accurate if surveillance is not representative or if race/ethnicity data are incomplete. For example, approximately 26% (state-specific range: 0%–50%) of race/ethnicity data were missing, invalid, or unknown for cases of chlamydia reported to CDC in 2006, 22% (state-specific range: 0%–47%) were unknown for reported gonorrhea cases, and 4% were unknown (state-specific range: 0%–20%) for cases of primary and secondary syphilis.¹ Biases in surveillance associated with health care-seeking behaviors (i.e., historically, individuals of minority races/ethnicities more often seek care in public STD clinics in comparison to whites) and completeness of reporting by provider type (i.e., completeness of reporting is considered greater from public STD clinics than from other types of providers) have been described.^{25,26} Therefore, STD surveillance processes and information should be evaluated periodically to identify ways to improve the surveillance processes, data quality, and data interpretation.²⁷

Implications for Surveillance in Addressing Disparities in African American Communities

Identifying and monitoring disparities using STD incidence or prevalence rates or rate ratios according to demographics, risk behavior, type of health service, and geographic location require that surveillance systems be established in health department-based STD programs. It is essential that surveillance methods beyond tracking STD case-associated demographics be used to adequately understand the dynamics of STD transmission in African American communities. A renewed commitment is needed to increase the public health system's capacity to direct STD prevention efforts using local surveillance and evaluation data. In most state and local public health systems, the workforce capacity for STD prevention programs is insufficient to support routine data analysis and use.²⁸ Evaluation and monitoring of the impact of prevention and control activities must be a routine part of STD program functions to effectively address STD disparities in African American communities.

Clinical Services

Bacterial STDs can easily be diagnosed with laboratory tests and treated with antibiotics. Providing routine screening services for asymptomatic individuals-at-risk and prompt diagnosis and accurate treatment for individuals infected with, or exposed to, bacterial STDs are the essential components of effective clinical STD prevention and control. Differences in the prevalence of bacterial STDs, screening and testing rates, and the diagnosis-to-treatment ratio between African Americans and other racial/ethnic groups have been documented.^{1,29–31} Studies suggest that the reasons for these disparities include limited access to care, unacceptable care, inadequate care, and lack of symptom recognition by providers and patients.^{32,33} Better understanding of these important factors will enhance efforts to improve STD clinical services for African Americans.

In addition to local health department clinics, STD clinical services are available in a variety of other settings such as community health centers, family planning clinics, private physicians' offices, hospital emergency rooms, and correctional settings. Increasingly, STDs are being diagnosed in settings other than public STD clinics.¹ However, for African American men, the

public STD clinic remains the primary source of care.³⁴ Of those individuals diagnosed with gonorrhea in 2006, 56% of African American men were diagnosed in STD clinics in comparison to 40% of white men and 29% of African American women were diagnosed in STD clinics compared to 27% of white women. Therefore, ensuring availability of quality STD services, even for African Americans, involves expanding partnerships between public and private agencies and organizations and the community.

Screening Services

Screening is used to detect infection in individuals who have no symptoms and is important because most women and many men have no symptoms when infected with gonorrhea and chlamydia.³⁵ Although primary and secondary syphilis infections have characteristic symptoms, infected individuals may not recognize them.³⁶ Lack of symptom recognition can lead to delay in treatment and may result in further transmission of disease and the development of severe sequelae.^{32,33,36} Because many disadvantaged African Americans, particularly African American men, have limited access to general healthcare, screening for STDs is a critical means of disease prevention and control. For example, in a study examining the outcomes of screening for gonorrhea and chlamydia in an inner-city hospital emergency department serving a predominantly underserved African American community, the prevalence of gonorrhea and chlamydia was 13.6% among 454 patients aged 18 to 31 years. Although 58% of the patients reported having health insurance, they reported using the emergency department as their regular source of healthcare.³⁷

Issues for Developing Screening Criteria

CDC and other professional organizations provide screening recommendations for bacterial STDs, but these criteria are limited to certain population subgroups. For example, the criteria for syphilis screening are designed primarily for pregnant women.^{35,38} The criteria for chlamydia screening, although more broadly applicable, are mainly for sexually active women aged 25 years and younger and do not address male screening.^{35,39} U.S. Preventive Services Task Force recommends gonorrhea screening for all sexually active women having one or more of the following risks: aged 25 years and younger, a history of previous gonorrhea infection, other sexually transmitted infections, new or multiple sex partners, inconsistent condom use, sex work, and drug use.⁴⁰ These recommendations do not apply to men or residents of communities with low prevalence. Given the limited resources available to most public health departments and other healthcare agencies, more specific screening criteria could assist in the more efficient use of limited resources. The challenge then becomes how to develop more specific criteria, perhaps based on the burden of disease, and how to address the impact these criteria will have, particularly if these criteria include a race-based criterion.

Adherence to Screening Criteria

In addition to the need for increased screening criteria specificity, an equally important issue is adherence. A number of studies have shown that providers often fail to follow screening criteria for bacterial STDs.⁴¹ For example, the Health Plan Employer Data Information Set that monitors adherence to the chlamydia screening of sexually active female members between the ages of 16 and 25 years who were screened annually, found that in 2007, the average rate of chlamydia screening was 37.1% for members of commercial healthcare plans and 46% for Medicaid plans. Both chlamydia screening rate figures are lower than the screening rate for cervical cancer (81% commercial; 65.7% Medicaid) which suggests that although these women are accessing healthcare, they are not receiving the recommended care.^{42,43} Data from the National Hospital Ambulatory Medical Care Survey indicate that among the preventive care visits, white women were more likely to be screened for STDs than women of other races/ethnicities, despite the disparate burden of disease among African American women.⁴⁴ In

another study of African American adolescents living in an area of high STD prevalence, 79% of study participants reported having had a primary care visit since they initiated sexual activity, but only 20% of the men and 40% of the women reported being screened for STDs during the primary care visit.⁴⁵ Although African American adolescents, who are reportedly at greatest risk for gonorrhea and chlamydia, are utilizing healthcare services, this study again suggests that the lack of provider adherence to published screening criteria can result in inadequate STD care.

Diagnosis and Treatment

Accurate diagnosis and appropriate treatment are key elements of STD clinical care, but they are not the only important elements of STD management. Partner services and counseling to reduce risk are critical components too and will be further discussed later in this article.

STD Diagnostic Tests and Treatment Regimens—Test technologies for bacterial STDs are accurate and readily available. Highly effective medications are also available for the treatment of bacterial STDs. Recommended treatment regimens for bacterial STDs are outlined in the 2006 STD Treatment Guidelines.³⁵ An evaluation of clinician-reported adherence to the recommended CDC STD treatment guidelines for the treatment of chlamydia showed that the majority of clinicians surveyed complied with the guidelines.⁴⁶

Despite commercial availability of good diagnostic tests, effective medications, and screening and treatment guidance for preventing and curing bacterial STDs, several challenges restrict the full potential of these tools in providing quality care for African Americans in need of STD services. For example, can those in need find STD healthcare services, get an appointment for services, take time off from work to keep the appointment, receive appropriate care, and afford the cost of care and treatment?

Implications for Clinical Services in Addressing Disparities in African American Communities

Screening for bacterial STDs is a key strategy for STD prevention and control in African American communities. Although the scope of the current screening recommendations may need to be better defined, it is important that healthcare providers adhere to existing screening recommendations particularly for African Americans who can and do access the healthcare system. For African Americans who have no or limited access to the healthcare system, especially African American men, interventions are needed to ensure better access to quality and acceptable care.

Partner Services

Partner services is the process by which individuals diagnosed with an STD, commonly known as index patients, are interviewed to identify their sex partners and help arrange for their evaluation and treatment.⁴⁷ In some circumstances, the members of their social network may also be offered partner services. Partner services has two goals (1) reducing the incidence of STDs; and (2) preventing the adverse consequences of STDs, including adverse outcomes of pregnancy associated with untreated or undetected STDs.⁴⁸ Therefore, many people can benefit from partner services. When sex partners are treated, STD patients have reduced risk for reinfection. Unborn infants whose mothers receive STD treatment are also protected from the dangerous complications of STDs. At a population level, notifying sex partners can disrupt networks of STD transmission and reduce disease incidence.

Legal authority for conducting partner notification and referral of partners for services varies from state to state. STD prevention programs have a duty to warn⁴⁹ individuals that they may

have been exposed to an STD. Partner services should be offered to all patients diagnosed with STDs, whether they are diagnosed by public or private agencies.⁵⁰ Although commonly associated with public health departments, partner services can also be arranged by private providers in conjunction with public health officials. As reported case data suggest, larger numbers of individuals are being diagnosed and treated in settings other than health departments.¹ This makes it even more essential for public health officials and private providers to work together to ensure that partner services are provided. In addition to facilitating access to care for individuals exposed to STDs, partner services should also include risk-reduction counseling and, whenever appropriate, referral services to other medical and social services such as drug treatment.⁵¹ In a National Institute of Health/National Institute on Drug Abuse study, researchers at Brown University Medical School learned that partner services in STD programs would be useful in “linking substance abusers to a regular source of primary care and supportive social networks.”⁵² This study was further supported by surveys done by the Substance Abuse and Mental Health Services Administration (SAMHSA) to indicate that individuals between the ages of 18 to 25 who were diagnosed with an STD were more likely to have used “both alcohol and an illicit drug in the past month.”⁵³ Making referrals, as appropriate, to drug treatment and other support services for STD patients is an important component of STD patient interviews and is a key technique used for providing partner services. In addition, the use of expedited partner therapy is an innovative approach to partner referral service.

Partner Referral Methods

The two most widely practiced methods of partner notification are (1) asking infected individuals to notify their partners—patient referral, and (2) assigning notification to public health professionals—provider referral. A third type of referral called contract referral refers to the practice of contracting with infected individuals to use self-referral for a period of time, after which the partners who have not been notified will be contacted by the provider. This method of referral is least used.⁵⁴ Disease Intervention Specialists in STD prevention programs are usually assigned the task of conducting partner services, although these services may be provided by other public health officials, such as nurses. Some local health departments have contracted with community-based organizations to provide services.⁵⁴

Based on factors such as prevention program staffing, local morbidity, infectiousness of the STD pathogen, and disease complications, STD health department programs should determine the STDs for which partner services will be made available and to what extent these services will be provided.⁴⁷ Although a systematic review of 11 studies concluded that provider referral is more likely to result in the sex partners of index patients receiving medical care,⁵⁵ many STD health department programs often offer provider-referral partner services only for syphilis infection. This is in part because of the long period between syphilis infection and becoming infectious in comparison with the shorter incubation periods of gonococcal and chlamydial infections.⁵⁴ Moreover, private providers may be less likely to offer provider-referred partner services for any STD diagnosed in their practices.⁵⁶

Patient Interviews

In the provider-referral process, patient interviews are often conducted. Preventing further transmission of an STD by promptly identifying, notifying, examining, and treating sex partners is the primary goal of the patient interview. Client-centered counseling on risk reduction and making referrals to other medical and social services are also important goals of the patient interview.

One of the main objectives of the interview is partner elicitation. Partner elicitation is the process by which the interviewer facilitates a discussion to obtain the name and contact

information of the patient's sex partners and other high-risk individuals who might benefit from an STD evaluation.⁴⁷ More than one interview may be conducted if the patient is evasive or does not disclose all sex partners during the original interview. The success of the interview is dependent on motivating patients to voluntarily divulge very sensitive and personal information about their sexual practices.

Expedited Partner Therapy

Expedited Partner Therapy (EPT) is a newest option in partner services. It involves the clinical practice of treating the sex partners of patients with a diagnosis of chlamydia or gonorrhea by providing prescriptions or medications to the patient, who in turn takes them to the partner without a requirement that the healthcare provider first examines the partner.⁵⁷ Although the Expedited Partner Therapy in the Management of STDs-Review and Guidance does not recommend EPT for routine use in the care of patients with infectious syphilis, it does suggest that EPT is at least equivalent to patient referral in preventing persistent or recurrent gonorrhea or chlamydia in heterosexual men and women. For patients diagnosed with gonorrhea and chlamydia, EPT can be used to treat partners when other strategies are impractical or unsuccessful. Symptomatic male partners and all female partners should be encouraged to seek medical attention, in addition to accepting EPT. For MSM, EPT should not be considered a routine partner management strategy, because data are lacking on its efficacy in this population and because of a high risk for comorbidity, especially undiagnosed HIV infection, in partners. EPT should not replace other strategies, such as standard patient referral and provider-assisted partner referral. However, because many African American men have limited access to care, EPT can be a means of ensuring that they receive adequate treatment and reduce the risk of reinfecting their female partners. Currently, EPT is not feasible in many settings because of operational barriers, including the fact that EPT does not have clear legal status in some states. It is also important to note that EPT, like any other partner service intervention, will be influenced by the dynamics of the partners' relationship.

Implications for Partner Services in African American Communities

Many disadvantaged African American men, who are more likely to be uninsured and underinsured, are less likely to seek STD healthcare, particularly if they are asymptomatic.⁵⁸ As noted earlier, many of the screening services for STDs, particularly for gonorrhea and chlamydia, are designed to reach women, making the woman the necessary linchpin to the man's STD care. This linchpin may be useful for linking male sex partners to needed STD services by offering provider-referral partner services to the woman. However, STD programs generally offer only provider-referral services for patients diagnosed with infectious syphilis and not for patients diagnosed with gonorrhea or chlamydia. Therefore, using only provider-referral services, it is reasonable to expect that many asymptomatic African American men will not have their disease treated, thus placing their sex partners at risk for new infection and re-infection, and thus sustaining epidemics in their social networks. EPT may be an alternative approach for reaching African American men at risk for STDs which may be helpful in reducing the risk of African Americans acquiring and transmitting STDs in African American communities.

A number of studies have found that partner services probably work best when main partners are involved. In African American communities, researchers have noted a distinction between romantic partners (or main partners) and sex-only partners.⁵⁹ Individuals with romantic partners describe themselves as being in respectful, honest, kind, and monogamous relationships. Individuals in sex-only partnerships report these relationships as having less commitment and open to multiple partners.⁵⁹ Clearly, main-partner status seems to imply a greater degree of intimacy and commitment and a sense of shared responsibility,^{60,61} which may facilitate index patients' ensuring that their main partner gets the care he or she needs.

Still main-partner status does not necessarily guarantee that partners will inform each other in the event one person is diagnosed with an STD. For example, in one study, 14% of men had not informed their main sex partner of an STD diagnosis compared to 2% of women.⁶² The effectiveness of partner services is directly affected by the nature and quality of the relationships between sex partners. To enhance provider-referral strategies, it may be important to understand the nature of these sexual relationships. In this instance, as in many others, one size does not always fit all. For example, it may be more appropriate to offer contract-referral partner services for main partners and provider-referral partner services for sex-only partners.

The relationship between the index patient and the provider is as important as the sex partner relationship in the effectiveness of partner services. It is important to remember that the STD patient always has the right not to disclose the names of sex partners.⁶³ At the same time, the STD program has a legal obligation to inform individuals who may have been exposed to an STD. Herein lies a critical conflict. In an effort to reduce this conflict, STD programs often use 2 key strategies: (1) ensuring patient confidentiality; and (2) building rapport between the provider and the STD patient.⁶⁴

The stigma attached to STDs may generate challenges for partner services.^{65,66} People may be too ashamed to admit risk behaviors or too embarrassed to admit that they had engaged in sexual intercourse with someone who exposed them to an STD. Still others may be angry at the partner, blaming the patient for exposure to an STD. To minimize the patient's risk for stigma associated with an STD diagnosis, STD programs strive to maintain patient confidentiality. CDC recommends several techniques to achieve confidential interactions between providers and patients.⁴⁷ These include counseling partners in private settings, notifying exposed partners through in-person meetings, and avoiding disclosing the index patient's name to the partner.⁴⁷

The second key strategy to maximize interaction between the index patient and the provider is building rapport. Establishing rapport requires that public health officials: (1) be nonjudgmental; (2) accept the patient's right of self-determination; and (3) respect the patient's worth, dignity, and problem-solving ability. Introducing the element of empathy is essential to building rapport.⁶⁷ Rapport is important for facilitating the elicitation process by which the provider assists patients with identifying partners and other individuals at high risk.⁴⁷ The elicitation interview is likely to be a complex process and difficult for patients because the issue is not simply naming sex partners; it may be a value-laden experience, which may involve personal embarrassment.

Despite challenges to providing quality partner services, the hyperendemic rates of STDs, particularly gonorrhea and chlamydia, in underprivileged African American communities with segregated sexual networks and limited access to care, increase the need for high-quality partner services to interrupt disease transmission and improve community health. Involving patients in a shared responsibility for the management of their sex partners' health and using approaches that are sensitive to the unique dynamics of African American relationships can improve outcomes.

Behavioral Interventions

STD behavioral interventions are designed to target and modify sexual and, in some instances, healthcare seeking behaviors of individuals at increased risk to reduce the risk of acquiring or transmitting STDs.⁶⁸ Behavioral interventions for STD prevention and control have routinely focused on reducing risk behaviors rather than on promoting good health.⁶⁹ These strategies are diverse, although they generally share these core elements: (1) knowledge about the transmission of STDs and situations that put individuals at risk, (2) attitudes about sex and condom use, and (3) skills in using condoms or negotiating condom use. Often the outcome

objectives are aimed at reducing sexual risk behavior, including frequency of sexual activities, unprotected intercourse, and number of partners. Behavioral interventions specifically designed to reduce the risk behavior of adolescents frequently include a parent component as well.⁷⁰ Additionally, behavioral interventions for adolescents may emphasize communicating values, which have also appeared to be useful in changing adolescent behavior.⁷¹ Most behavioral interventions assess a program's influence on behavior change, rather than the program's effect on STD rates. However, there are exceptions, such as the SiHLE (Sistering, Informing, Healing, Living and Empowering) and WiLLOW (Women Involved in Life Learning from Other Women) programs, which examined the impact of the behavioral interventions on gonorrhea and chlamydia incidence in young African American women.^{72,73}

Despite their apparent potential, behavioral interventions have had only modest effects for members of minority races and ethnicities.⁷⁴ Four issues that may be responsible for these small improvements are (1) cultural competence, (2) engaging the target audience, (3) cultural and societal constraints on behavior, and (4) the availability of partners.

Cultural Competence

A recent review of published outcome studies supports the efficacy of prevention interventions.⁷⁵ However, the effects of these programs were moderated by race and income. Behavioral interventions, which are generally designed for white, middle-class Americans, were found to be less effective for other populations. There is a great need to implement programs that are tailored to the unique cultural and structural attributes of communities made up of minority races and ethnicities. However, theories guiding most prevention efforts, such as the health belief model, the theory of reasoned action, social cognitive theory, and diffusion of innovations have limited capacity to consider cultural or structural factors.⁷⁶ The failure of prevention efforts to reduce disparities in populations of minority races and ethnicities may be related to the scarcity of guiding theories and research, which consider the strengths and needs of those populations.⁷⁷ When relevant research is not available, working with communities and conducting preliminary analyses (i.e., formative research) becomes most important for creating empirically based programs.⁷⁸

Culturally competent frameworks can enhance program effectiveness by identifying problems and strengths that are specifically relevant to the intended cultural group.⁷⁷ One reason advances in science related to health and wellbeing are not reaching such audiences may be that health researchers have typically not partnered with communities to develop strategic plans and procedures to translate research findings into programs.⁷⁹ However, policies are changing as the importance of translational research is recognized. For example, the National Institutes of Health has placed primary importance on translating their funded research activities into prevention practices that will alleviate health and social disparities.⁸⁰

Engaging the Target Audience

Just as African Americans are less likely to have access to prevention efforts associated with having a regular healthcare provider,⁸¹ they are also underrepresented in prevention programs.^{82,83} Unless they engage their target audiences, STD prevention programs cannot achieve their desired results.⁸⁴ Two conditions set the stage for difficulty in engaging African Americans in prevention programs: (1) historical mistrust of those providing health services, and (2) life circumstances that can obstruct help-seeking behavior.

Because of historical acts of discrimination and mistreatment, African Americans have little reason to trust members of the dominant group.⁸⁵ This can lead African American participants to approach programs with suspicion about the motives of program designers in targeting their group.⁸⁶ This suspicion may deter individuals from participating, or if they participate, can

impede their adherence to program processes.⁸⁵ For groups such as African Americans that have been historically mistreated, approval from community leaders may be necessary to foster a sense of trust.⁸⁷ The creation of Community Advisory Boards composed of locally respected community members, including clergy, is a growing trend that has had positive effects in reducing mistrust and engaging African American communities in programs.⁸⁶

Once potential participants are located, keeping participants engaged depends on the extent to which program planners and stakeholders designed the program to be relevant to participants' life experiences, and to meet their specific and urgent needs. Some researchers suggest using a problem-solving focus and addressing participants' immediate needs upfront.⁸⁵ As an example, unusually high rates of retention were observed in the Reaching for Excellence in Adolescent Care and Health project.⁸⁸ HIV-positive youth who participated in the program cited access to high-quality medical care and a caring staff who protected their confidentiality as motivation to continue with the program. Furthermore, the program provided a service that was not otherwise available in the community. Working with participants' motivations and needs can create a sense of trust that can lead to greater engagement with the program.^{85,89}

Even when trust is established, many African Americans have competing demands on their time and energy, including the demands associated with multiple jobs and inconsistent work schedules, maintaining households, working at the church, and taking care of kin—all of which interfere with taking care of themselves.⁹⁰ For example, low-income African American participants are highly mobile and may have sporadic phone service, creating difficulties in keeping them engaged with programs.⁹¹ Employing program liaisons (i.e., lay health advisors) who are embedded in the communities enables program managers to maintain contact with participants who move or change phone numbers during the program. Many programs provide child care, meals, and transportation to reduce barriers to attendance.

Despite their best efforts, prevention program staff may still encounter a problem inherent in the group meeting format that is typical of behavioral interventions—namely scheduling meetings. The sporadic employment available in many communities often creates inconsistent weekly personal schedules for participants. For example, during the recruitment phase of the Strong African American Families program, staff solicited feedback about the best day for families to meet and tried to schedule convenient meeting times.⁹² Participants' inconsistent work schedules, however, meant that the best day for families to meet was likely to change each week. Implementers of prevention programs should begin to investigate more flexible delivery formats to increase participation.

Addressing Cultural and Societal Constraints on Behavior

Behavioral interventions may be limited because choices about behavior are constrained by local context and culture. In an Institute of Medicine report, Smedley and Syme wrote, “It is clear that behavior change is a difficult and complex challenge. It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change.”⁹³ For example, one study⁷⁴ found that when adolescents were exposed to sex education classes and parent-child communication about sex, they intended to practice safer sex; however, this did not actually lead to increased condom use. Rather, situational attributes, including partner attitudes about, or the availability of, condoms played a greater role in behavior. Smedley and Syme went on to say that the effects of environmental risks, such as poverty and discrimination, may be moderated by interventions focused on the individual: “But such efforts do little to address the broader social and economic forces that influence these risks.”⁹³ Their report emphasized a comprehensive approach in which individual-level behavioral interventions are complemented by population-based interventions and changes in policies. Data from mathematical modeling suggest that mass

media campaigns, condom availability, and alcohol taxes might be useful population-based tools for STD prevention among African American populations.⁹⁵

Researchers are beginning to test the efficacy of more innovative solutions as well. For example, guided by the link between income and risky sexual behavior, one program sought to reduce the practice of risky sexual behaviors by providing women with economic opportunities.⁹⁶ This study resulted in a reduction in sex-trade practices and drug use. Although they did not extend the link from these high-risk behaviors to changes in STD rates, creative solutions, like this one, that address the context of risky sexual behavior may be the key to reducing disparities.

Partner Availability

As a final issue, disparities in STDs are particularly troubling because even though African Americans often engage in risk behavior at rates equal to, or less than, white peers, they often face consequences disproportionate to their actions.⁹⁷ Some literature suggests African Americans are more likely than any other racial or ethnic groups to suffer the negative consequences of sexual behavior.⁹⁸

The fact that even with only one lifetime partner, African American women are at greater risk raises concerns about how much individual-level behavioral interventions can accomplish.³ Researchers have investigated the influence of the sex-ratio imbalance on the attitudes of African American men and women. One study found that women accepted their partners' outside relationships as long as they received the most attention.¹⁰⁰ Researchers also found that it was rare for women to talk about their partners' infidelity as a health risk. Rather than trying to limit behavior in this context, behavioral interventions that focus on increasing awareness of risk and periodic testing may be an appropriate strategy for reducing disparities in bacterial STDs. Focused interventions should be used to reach people in areas with high prevalence. Identifying the appropriate groups for an intervention requires the integration of STD control tools, including testing and treatment, and surveillance and monitoring to identify high risk communities, health communications to share information about risk, and partner services for those who may have recently been exposed.

Because STD transmission is associated with behavior, behavioral interventions seem to be an important strategy for reducing disease transmission. For these interventions to reduce the disparate rates of STDs in African American communities, however, they must (1) use culturally competent strategies that take into account the unique stressors and strengths of communities, (2) reach the intended audience, and (3) find creative ways to provide a comprehensive approach to addressing the context of the risk behavior, including the availability of partners. Furthermore, because of the disproportionate outcomes associated with sex for African American women, strategies must take into account their low levels of risk behavior.

Implications for Behavioral Interventions in African American Communities

Creating and implementing effective behavioral interventions require close collaboration with community members. Program liaisons that are embedded in communities should be used to assist in the design, and in implementation, recruitment, and retention strategies. Representatives of the intended audience should be consulted about the stressors and strengths of their community to ensure that the program's content and strategies are relevant to that context. This contextual information should also be used in developing broad-based collaborative intervention efforts. Finally, behavioral interventions should include testing as a key outcome and should be integrated with other STD control tools to make the most efficient use of resources.

Conclusion

Traditionally, STD prevention and control strategies have included (1) surveillance, (2) clinical services, (3) partner management, and (4) behavioral interventions. Although these strategies are often described independently, they are frequently conducted as integrated services and function seamlessly in state and local health departments. As health departments vary in resources, service provisions, populations served, and STD incidence in the communities they serve, these factors should be considered when adopting and applying an appropriate strategy to preventing and controlling STDs. To improve the sexual health of African Americans, these traditional strategies will need to be tailored to enhance their outcomes and better meet the needs of African American communities. To accomplish this, increasing our understanding of how and when to apply the current strategies, or even develop new ones, through program evaluation is a fundamental consideration.

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