Tearing Down Fences

HIV/STD PREVENTION IN RURAL AMERICA

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RURAL CENTER FOR AIDS/STD PREVENTION

A Joint Project of Indiana University, University of Colorado, and University of Kentucky

RURAL HIV/STD PREVENTION WORKGROUP

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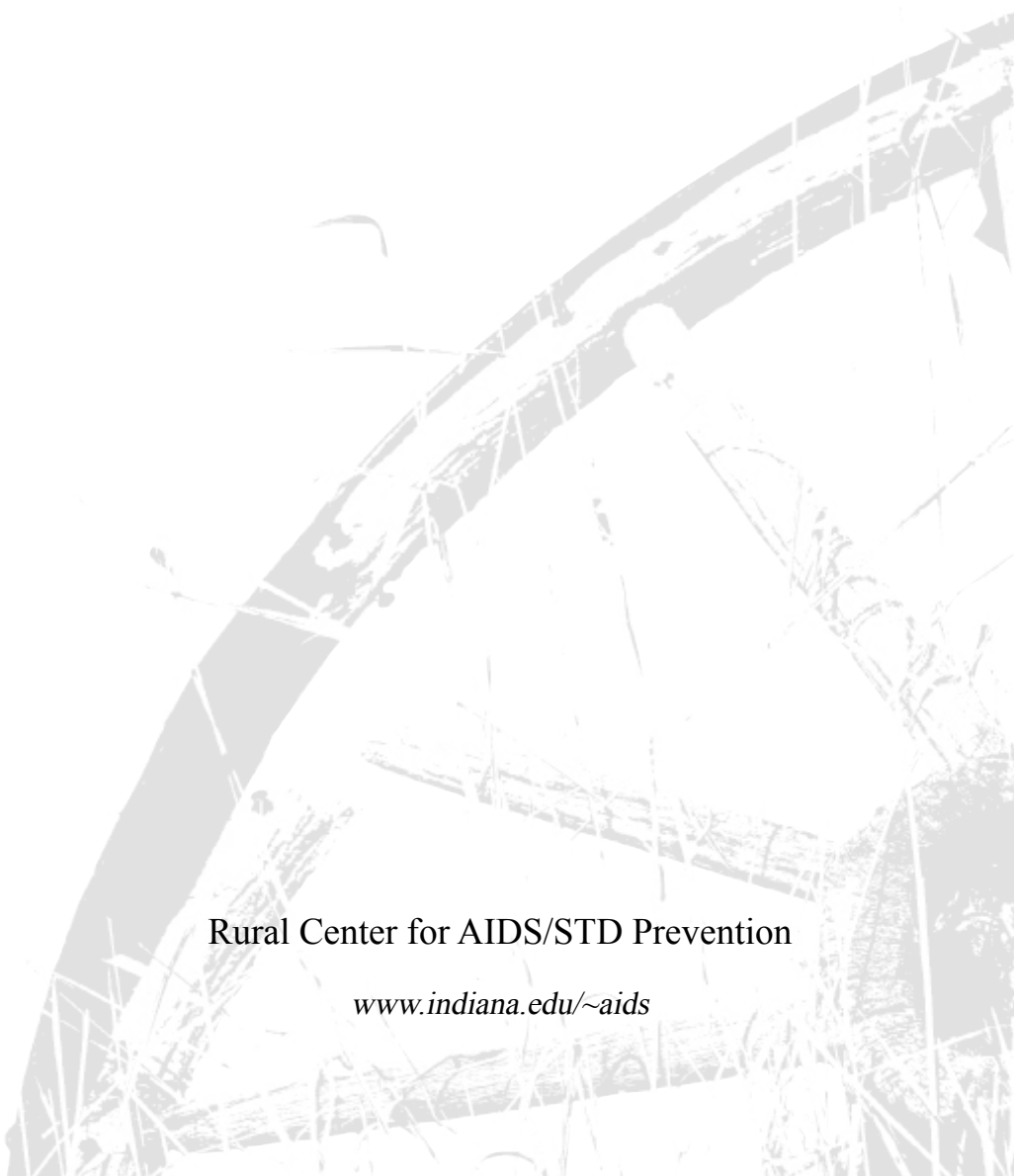

Rural Center for AIDS/STD Prevention

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The preparation of this document was a team effort of the editors led by senior editor Susan Dreisbach, who guided chapter preparation and document design. Susan is a co-director of the Rural Center for AIDS/STD Prevention (RCAP) and assistant research professor in the Department of Health and Behavioral Sciences, University of Colorado Denver. Richard Crosby is a co-director of RCAP and the Developmental Dimensions International Endowed Professor, Department of Health Behavior, University of Kentucky. Seth M. Noar is an associate professor in the Department of Communication, University of Kentucky and RCAP visiting research fellow. William L. Yarber is professor of applied health science and RCAP senior director at Indiana University.

Special appreciation is given to the co-sponsors of the guide: National Alliance of State and Territorial AIDS Directors, National Association of People with AIDS, National Coalition of STD Directors, National Minority AIDS Council, and the National Rural Health Association. The collaboration of these organizations with RCAP throughout the production of the document was invaluable.

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Forward

Julie Scofield
Executive Director,
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Rural communities face many unique challenges that often go unrecognized. Geographic and cultural barriers greatly influence the availability, accessibility and provision of services. Providers may cover vast distances, little public transportation exists, inclement weather can strand clients for days, and stigma may make clients uncomfortable receiving services in their community or taking part in the planning process.

These barriers increase the difficulties in responding to the rural HIV/AIDS, STD and viral hepatitis epidemics. Clients in rural areas face competing needs and HIV prevention is seldom the top priority for someone facing broader challenges such as isolation and poverty. In some instances, the lack of infrastructure presents a further challenge to delivering HIV prevention messages to clients. And many experts argue that prevention in rural areas requires more resources because of the long distances clients and outreach workers must travel to obtain and deliver services. Furthermore, rural communities are often faced with adapting interventions that work in urban areas to rural and frontier contexts.

While communities of color are disproportionately affected by HIV and STDs in rural areas, particularly the rural South, it is more difficult to relay prevention messages because these populations are relatively small and diffuse. It is important to work with these communities and acknowledge the cultural variability of rural communities of color. Furthermore, stigma and homophobia can be very strong in rural America, leading rural gay men to feel more isolated and less accessible through traditional HIV and STD outreach.

While these challenges can be daunting, they are not insurmountable. With *Tearing Down Fences*, we now have a comprehensive compilation of interventions and strategies for and by those in rural communities. *Tearing Down Fences* also concisely frames the unique needs and challenges faced by rural communities and can be an important tool for educating policymakers, planners and programmers about the issues impacting HIV/AIDS prevention in rural America.

In particular, Chapters 1 and 2 lay out a foundation for the contexts that challenge HIV/STD prevention in rural America, most poignantly the social isolation as well as the geographic isolation many face. Building upon these chapters, Chapter 3 lays out how HIV / STD prevention education currently works and can work, and Chapter 4 outlines HIV testing in rural areas. Each of these chapters includes profiles from the field. Chapter 6 further explores the contexts of HIV and STDs in rural America by profiling what it is like to be living with HIV/STDs in rural areas, again including vignettes from several local programs. Chapter 7 provides perhaps the meatiest section of the document, outlining behavioral interventions that may work in rural America, including considerations for select-

ing and adapting interventions. Several rural programs are fully described in this chapter. *Tearing Down Fences* concludes with a look toward opportunities for the next decade, aptly summarizing the challenges we all face that are felt more acutely in rural areas. NASTAD is pleased to have been involved in the development of this important document. It well compliments NASTAD's *National HIV Prevention Blueprint*, which calls for a national commitment to provide full coverage of tools to prevent infection to all populations, ever expand the prevention arsenal, encourage all people living with HIV/AIDS to know their status and be linked into care, and to address the complexity of individuals' lives.

Tearing Down Fences concludes by noting that while there are no magic bullets to ending rural HIV/STDs, there are many opportunities. We must collectively seize these opportunities to ensure that no one is left behind as we refocus our attention on HIV prevention in the U.S.

Guide Development

This guide is the first to focus on HIV/STD prevention in rural communities. The document reflects the perspectives of the HIV/STD prevention specialists represented in the Rural HIV/STD Prevention Work Group as well as other selected rural HIV/STD professionals. Their experiences infuse this guide with ideas that serve as a starting point for prevention programming at the local level.

Leaders in HIV/STD prevention in rural communities throughout the United States were identified and invited to a consultation meeting at Indiana University, Bloomington. This meeting of the Work Group was sponsored by the Rural Center for AIDS/STD Prevention at Indiana University, in collaboration with the document co-sponsors. At the meeting, the key HIV/STD leaders who comprised the Work Group identified important issues and essential prevention strategies unique to rural communities. Following the consultation meeting, the editors developed the text for the guidelines, bringing together the perspectives of the Work Group members. Finally, drafts of the document were sent to the Work Group and document co-sponsors for their review and input prior to publication of the final document.

Suggested Reference: Rural HIV/STD Prevention Work Group. *Tearing Down Fences: HIV/STD Prevention in Rural America.* Bloomington, IN: Rural Center for AIDS/STD Prevention, 2009.

Table of Contents

"The fear of stigma leads to silence, and when it comes to fighting AIDS, silence is death. It suppresses public discussion about AIDS, and detours people from finding out whether they are infected. It can cause people – whether a mother breastfeeding her child or a sexual partner reluctant to disclose their HIV status – to risk transmitting HIV rather than attract suspicion that they might be infected."

Kofi Annan, Secretary General United Nations, December 2002.

Chapter 1

HIV/STD PREVENTION IN RURAL AMERICA

Serene open spaces, farms, quaint churches, and self-sufficient hardworking young families are common stereotypical images of rural America. Rural communities are seen as good places to raise children away from "city problems." Although these images still apply to some rural settings, for the most part today's rural America is incredibly diverse. Rural settings vary from forests and mountains to plains and deserts. Only 6.5% of the rural labor force is engaged in farming while manufacturing, tourism, and energy production gain prominence. Even though the vast majority of the rural population remains white, African Americans, Latinos, and Native Americans have a substantial presence today, especially in the rural Southeast, Southwest, and northern Great Plains. Over the past decade, migration of ethnic minorities has fueled population growth in rural areas, even though young adults under age thirty still tend to leave rural areas for urban opportunities.[1] Despite their stereotypical "safe" image, today's rural communities are not immune to problems associated with cities such as drug and alcohol abuse, risky sexual behavior, and diseases such as human immunodeficiency virus (HIV) infection, acquired immunodeficiency syndrome (AIDS) and other sexually transmitted diseases (STDs).

This document shares concerns and ideas generated by those living and working in rural areas to prevent, detect, treat, and manage HIV and other STDs. It describes the state of HIV and STD infections in rural America, unique prevention challenges, approaches to HIV/STD education, and strategies for meeting the needs of those diagnosed with HIV infection or AIDS. In addition, this guide shares ideas for reaching

hard to reach populations and describes programs that are currently being implemented in rural areas that may work to prevent the transmission of HIV and other STDs in rural settings.

The intent is to help those who create and implement policy to understand the unique issues that rural communities face and to help those who live and work in rural communities harness their strengths, address inherent challenges, and prevent HIV and other STDs in their communities.

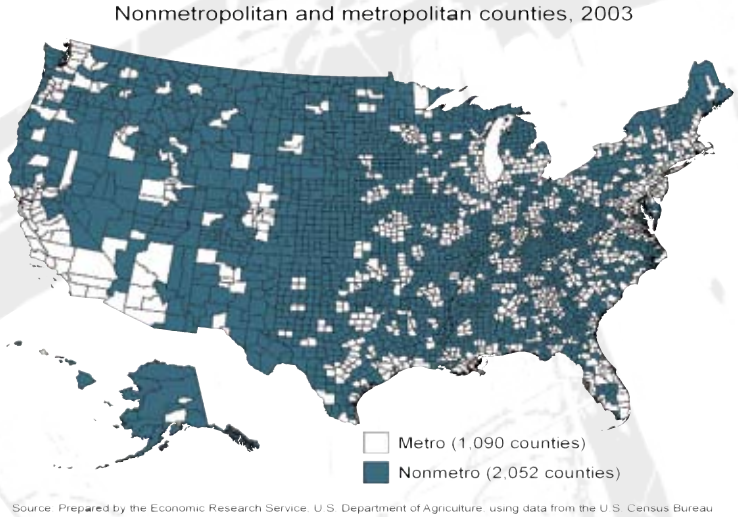
What Does "Rural" Mean?

In 2000, as shown in Figure 1, non-metropolitan counties in the United States outnumbered metropolitan counties by two to one.[2] Does this mean that the majority of the country is rural? That depends on how rural is defined. Currently, there is no national consensus on how and where to draw the line between rural and urban. Federal and state agencies, researchers and policy makers apply different definitions for different purposes.

Many agencies define "urban" and everything outside of that definition is labeled "rural" by default. For example, the U.S. Census Bureau defines urban areas as continuously built up areas with a population nucleus of 50,000 or more and a population density greater than 1,000 people per square mile. Based on this definition, the Census Bureau reported in 2000 that 59 million people (21% of the population) were living in rural settings.[2]

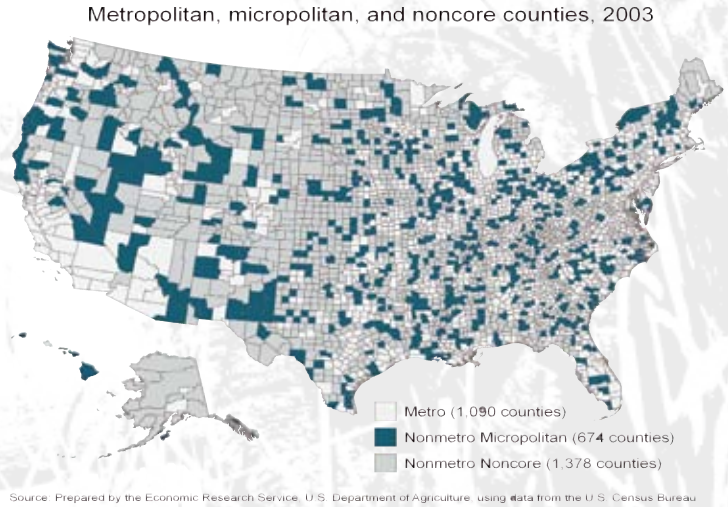
In contrast, the White House's Office of Management and Budget (OMB) concluded from the same Census 2000 data that 55.9 million people (20% of the total population) should be considered rural.[3] Then, in 2003 the OMB revised the definitions to reflect today's economic and social ties between rural and urban communities. As illustrated in Figure 2, OMB currently defines metro counties as those with

Figure 1: Rural defined as nonmetropolitan counties



one or more urbanized area of 50,000 or more. Metro areas may include outlying counties that show economic and social ties to the central county indicated by frequent commuting between the two. Non-metro areas are subdivided into micropolitan areas, those with a population center of 10,000 to 50,000, and noncore counties with smaller or no population centers. Using this newest definition, the OMB reports that in 2005, micropolitan areas and noncore counties covered 75% of America's and area and were home to nearly 49 million people, just over 17% of the country's population.[4]

Figure 2: Micropolitan and noncore rural counties



Going one step further, the U.S. Department of Agriculture's Economic Research Service (USDA ERS) uses a 9-code urban-rural continuum that defines urban areas by size of the population cluster and rural areas by population size plus proximity to metropolitan areas. Codes range from "1" for the largest population cluster to "9" for the smallest. The six codes applied to rural areas range from areas with towns of 20,000 or more that are adjacent to a metropolitan area to those with towns 2,500 or less that are not adjacent to a metro area.[5] Using this 9-code definition, rural America would include 57.6 million people.[5] Although the USDA ERS coding is perhaps the most precise, for this report, we use the OMB and Centers for Disease Control and Prevention definition which establishes a base of 48.8 million rural Americans.[6]

HIV, AIDS, and STD rates may vary depending on the definition of rural used to establish the number of people included in the denominator. Thus, the way rural is defined matters because it helps define disease epidemiology, which in turn influences public policy, resource allocation, and access to services. The definition also matters because simple rural and urban categories do not adequately describe the diversity of rural America. Being labeled "rural" does not mean that those living in a rural setting are all the same or even similar. What unites the 49 million rural Americans are the challenges that come from living in a rural setting such as isolation, poverty, and limited access to health care, mental health care, and social services. Beyond any definition, it is the diversity of rural America, the realities of living in a rural setting, and the disparities between urban and rural policies that contribute to the unique challenge of rural HIV/STD prevention.

Health Disparities in Rural America

Evidence shows that rural Americans experience a broad range of health disparities, especially in comparison to persons living in suburban areas. For example, infant mortality rates in both urban and rural areas typically exceed the rates reported for suburban areas.[7] Other indicators suggest that rural Americans experience more illness and mortality compared to their urban counterparts. For example, findings from a study conducted in the late 1990s show that rates of premature mortality from all causes were highest among rural Americans.[8] Similar disparities have been observed for heart disease, chronic obstructive pulmonary disease, suicide, and unintentional injuries.[7]

Disparities in HIV/AIDS, and STD morbidity and mortality are particularly evident in the rural South. Two-thirds of newly diagnosed rural HIV cases were located in the rural South in 2006 and the greatest number of deaths from AIDS now occurs in the South.[9] Yet the South receives the least funding for HIV testing and treatment compared to other regions of the country.[10]

The reasons that rural Americans experience greater disease and premature death are not fully understood but may be a function, in part, of general characteristics of rural populations in the U.S. For example, in contrast to their urban and suburban counterparts, rural Americans are more likely to be classified as low-income.[11,12] They are nearly twice as likely as their suburban counterparts to lack health insurance with 21% of rural Americans lacking health insurance as compared to 12% of suburban Americans.[11]

Another difference between rural America and the rest of the country pertains to mental health. Rural residents are more likely to stigmatize mental illness, be under-diagnosed, and receive inadequate treatment for mental illness. This may contribute to behaviors such as drug use, early initiation of sexual activity, or unprotected sex with multiple partners that put individuals at greater risk for HIV infection and other STDs.[14-16]

Health disparities experienced by rural Americans are complicated by a number of factors. One factor is that rural areas often lack the resources for early detection and cutting-edge treatment of diseases including HIV/AIDS. With limited resources, acute care and mandated prevention efforts such as childhood immunizations may take priority over less urgent and less obvious needs such as HIV/STD prevention. Another complication arises from the fact that rural social networks may be close-knit and highly stratified, with distinct groups of insiders and outsiders. Although some rural residents embrace the isolation inherent in rural settings, others are involuntarily isolated by closed social networks in small communities. This means that there are unique challenges for mobilizing rural communities to respond to public health threats such as HIV and for implementing and adapting innovations developed in urban settings for those at increased risk who must remain "hidden" in rural areas.

Challenges in HIV/STD Prevention & Management for Rural America

Given all the disparities that exist for rural America, it is not surprising that the social issues that characterize the HIV/AIDS epidemic in the U.S. may be very different in rural settings and present unique challenges to HIV prevention. For instance, several studies identified that rural residents commonly deny that HIV exists in their community.[15-17] This makes community awareness of HIV risks a priority for rural prevention. Similarly, stigma surrounding HIV/AIDS and other STDs appears to be very prevalent in rural areas, creating a substantial barrier to HIV/STD prevention, testing, and treatment.[17-21]

Traditional values may contribute to negative views toward homosexuality, injection drug use, and HIV/STD in rural areas, especially in southern states.[10,16,20,21] Although it is not clear whether rural residents have more negative views of these behaviors than urban residents, it is clear is that men who have sex with men are more likely to conceal those behaviors in rural areas in response to high levels of stigma.[22] The need to remain "hidden" in a rural community, combined with a lack of rural venues for men to meet and socialize with male partners, encourages rural men and teens to travel to urban areas to find sexual partners.[23,24] The increased availability of Internet sites to locate sexual partners in other locales contributes to the rural-urban pathway as well. Since urban areas tend to have a higher prevalence of HIV and STDs than rural areas, rural men may unknowingly bring an infection back to their rural community where they do not have a safe, confidential place to access HIV/STD testing.

Stigma goes hand in hand with the lack of anonymity that rural Americans experience in contrast to their urban counterparts. The threat of being noticed and identified buying condoms or seeking HIV/STD testing, substance abuse treatment, or HIV/STD treatment is real enough in a small rural town to dissuade some people from getting services in their local community if at all. Stigma, racism, and other forms of discrimination create pressures that drive rural folks who engage in risky behaviors underground,[17-21] making HIV/STD prevention interventions targeted to high risk groups especially problematic.

In the past decade, pervasive rural methamphetamine use has increased rural risk of HIV, hepatitis B and C, and other STDs. Increased risk occurs when drug users measure or inject meth using a contaminated syringe or shared rinse water. Risk also increases from prolonged unprotected sexual intercourse associated with methamphetamine use. Rural communities hit hard by methamphetamine abuse are struggling to reduce and treat meth use and have few resources left over to devote to HIV/STD risk reduction and prevention.[18,25]

Rural America is far from culturally monolithic. Consequently, cultural differences abound and create additional HIV prevention and treatment challenges. For example, rural culture and attitudes toward HIV/STD prevention in Appalachia will be greatly different from those in the plains states and both of these cultures may have very little resemblance to the culture found in the Deep South. Thus,

"one size fits all" HIV/STD prevention efforts are clearly not realistic for multi-cultural rural America.

Nevertheless, there are some cultural commonalities. For many communities, especially Black, Native American, and immigrant communities*, there is a long-standing culture of distrust of the government and health care system that may impede HIV/STD efforts.[10,26] Another rural cultural commonality is the value placed on local control. This means that local control may result in different interpretations of state policies or a decision to disregard them altogether. This has been observed in the case of state mandated HIV/STD in-school education where local groups choose to ignore the state mandate or initiate an untested homegrown program for their youth.

Structural disparity influences rural HIV/STD prevention as well. Perhaps the greatest structural disparity between rural and urban settings is the poverty and limited economic opportunity faced in some rural areas. Settings that are isolated from major transportation routes and urban centers have fewer job opportunities, a smaller tax base, and must struggle to recruit well-trained stable health care providers. They often have no public transportation and may not have health, mental health, or substance abuse treatment available without traveling long distances. For individuals and families living in sparsely populated areas, there are few community infrastructures for mobilizing or leveraging resources.[21] In the economic context of extremely limited federal funding for HIV/STD prevention in rural America, these complex and diverse rural realities suggest that rural HIV/STD prevention challenges may exceed those found in urban America.

** The editors acknowledge the inadequacy of racial and ethnic labels to describe rural Americans. The terms, White, Black, Latino, Native American and Asian will be used in this document to describe groups with similar cultural or immigration heritages because those who identify as racial and ethnic minorities are disproportionately affected by STDs and HIV.*

A recent study identified three other structural differences associated with HIV prevention success in states that are predominantly rural. First, less successful HIV prevention was associated with having a higher proportion of religious adherents in a state. Second, states with more venues and programs for individuals who engage in male-to male sex and/or identify as gay, lesbian, bisexual, or transgender were more likely to have HIV prevention programs rated as successful. The authors noted a particular lack of programs and services for men of color who have sex with men in all 13 states defined as rural in the study even though some states had large proportions of ethnic and racial minorities. Third, the study found that the amount of state resources spent on HIV prevention was not associated with successful prevention programs. However, allocating more funds to community-based organizations and programs that support men who have sex with men (MSM) was associated with more successful HIV prevention.[27]

Multiple factors contribute to the challenge of HIV/STD prevention in rural areas with the mix and force of factors varying among communities. However, even one factor may be formidable. For instance, rural isolation may mean that rural residents simply do not have access to services taken for granted by metropolitan residents, for instance, high speed Internet, stores that stock a wide variety of condoms, and free or low-cost HIV/STD testing.

Factors that contribute to challenges of rural HIV/STD prevention

- Lack of infrastructure to support MSM
- Rural to urban travel for sex
- Denial that HIV exists in rural areas
- Stigma toward HIV and those at risk
- Traditional values
- "Hidden" at-risk populations
- Isolation – social and geographic
- Limited access to healthcare resources
- Methamphetamine use

Summary

Much like rural America itself, the road to effective HIV/STD prevention and control may be unpaved and winding, yet the moral obligation to develop and smooth this road is clearly evident. The challenges are inherently difficult and the available research and financial support are modest at best. Innovative, collaborative responses and solutions are required to contain and reduce HIV and other STDs in rural locations. After describing the epidemiology of HIV/STD in rural America, this guide will elaborate on various strategies that may work within the rural setting to reduce HIV/STD.

"STDs are hidden epidemics of tremendous health and economic consequences in the United States. They are hidden because Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs, and all individuals directly or indirectly pay for the costs of these diseases."

Institute of Medicine, The Hidden Epidemic: Confronting Sexually Transmitted Diseases

Chapter 2

EPIDEMIOLOGY OF HIV AND STDs IN RURAL AMERICA

The Spread of HIV/STD to Rural Areas

The spread of HIV to rural areas of the United States is clearly a significant threat to public health.[1-3] Moreover, rates of chlamydia and gonorrhea remain high in rural America. In 2005, the rate of chlamydia in rural counties (population less than 50,000) was 230.4 per 100,000 population compared to 340.9 per 100,000 in the remaining U.S. counties. The relatively high rural rate shows that rural America is not far behind the rest of the nation when it comes to the acquisition and transmission of chlamydia. Gonorrhea provides a similar example. In 2005, the rate in rural counties was 62.2 versus 121.6 per 100,000 in non-rural counties. Although the rural rate is about half that of the urban rate, it nonetheless indicates that gonorrhea is not *un*common in rural areas. In 2006, new cases of primary and secondary (P&S) syphilis continued to cluster in the South more than in other geographic areas of the country. A 13% increase in new P&S syphilis cases occurred also in the West between 2005 and 2006.[4] Although the national incidence of syphilis in rural counties is not available, it is of concern that there are increases in P&S syphilis in geographic areas with large rural areas. High rates of STDs indicate not only high rates of unprotected sex but also that there are a large number of people in rural areas who are more susceptible to HIV due to their having another STD.

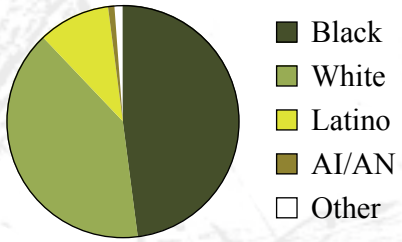
Fortunately, the rates of HIV and AIDS cases in most of rural America have remained relatively low compared to rates in metropolitan areas. Since the early 1990s, 5% to 8% of the annual new AIDS cases have been diagnosed among those who live in rural areas. Although the proportion of rural people

living with AIDS is relatively small, it represented over 51,000 people at the end of 2006.[5] This number is an underestimate since it does not include those who are currently unaware of their HIV+ status, migrate to rural areas after diagnosis[6] or those who are diagnosed in urban areas and do not provide their home address to avoid hometown stigma. Having more rural people living with HIV/AIDS means there are also more people requiring services and more people capable of transmitting the virus.

Hidden within the seemingly level national incidence of new rural HIV and AIDS cases, is a soaring incidence of new cases and deaths from AIDS in the rural and non-rural South[7] (defined by the CDC as Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia). In 2006, 67% of all new rural AIDS cases were located in the rural South and there were more deaths from AIDS there than in any other area of the country.[7,8] Two decades of the highest rates of STDs in the South, recent increases in syphilis, and the ongoing disproportionate infection of Blacks and Latinos adds additional weight to the need to reduce STDs including HIV in the rural South. [7]

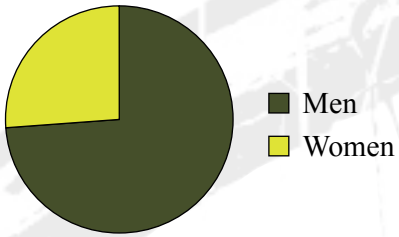
Rural Blacks and Latinos, especially those living in the rural South and Northeast, bear a disproportionate burden of HIV/AIDS. Blacks account for 48% of rural AIDS cases, Whites 37%, Latinos 10%, and American Indian/Alaska Native (AI/AN) 1.3% (Figure 3).[8] Men continue to comprise the majority of reported rural AIDS cases (9.6 per 100,000) at nearly three times the rate for women (3.3 per 100,000) (Figure 4).

Figure 3: Racial/Ethnic Disparities in Rural AIDS Cases, 2006 - U.S.



Source: Centers for Disease Control and Prevention[8]

Figure 4: Distribution of Rural AIDS Cases by Sex, 2006 - U.S.



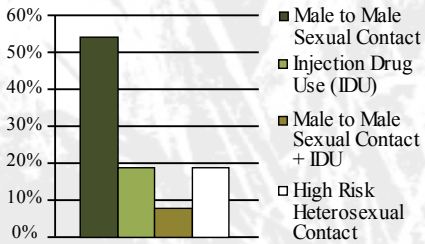
Source: Centers for Disease Control and Prevention[8]

Although little research has focused specifically on rural men of color who have sex with men, attention to this group may be warranted based on the findings from a study in five urban centers showing that 46% of Black MSM and 17% of Latino MSM who were tested were HIV positive. Of those tested, 67% of the Black MSM and 48% of the Latino MSM were unaware of their status.[9] Although Black and Latino MSM are more likely than White MSM to have sex with women also,[10] studies show that Black MSM are no more likely to engage in HIV high-risk behaviors than other MSM.[11,12] Unprotected bisexual activity among Black men is associated with secrecy and appears related to habituation to same-sex relations during incarceration and the need to maintain a heterosexual identity in homophobic communities.[13] Additional research is needed to better understand how structural factors contribute to the disproportionate burden of HIV on rural men of color.

In 2006, the rural distribution of new AIDS cases among teens, young adults, middle age adults, and older adults was similar to non-rural areas with the largest proportion of new rural cases diagnosed among adults ages 35-44. Evidence indicates that nearly half of rural HIV infections are diagnosed "late," that is, within 12 months of advancing to AIDS.[14,15] This suggests that the acquisition of HIV probably occurs most often among rural residents in their late twenties and early thirties.

As shown in Figure 5, exposure through male-to male sexual contact accounts for over half of all male AIDS cases. About 20% are attributed to injection drug use exposure.[8] These are nearly the same proportions as in urban areas.

Figure 5: Proportion of Rural Male Adolescent and Adult Estimated AIDS Cases by Transmission Category, 2002-2006, 50 US States and DC

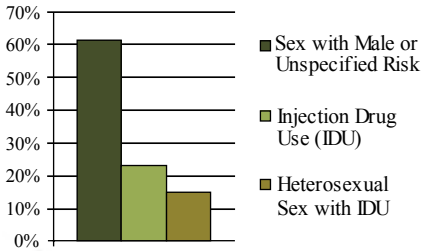


Source: Centers for Disease Control and Prevention[8]

Although men account for the majority of rural AIDS cases, the rural epidemic may be shifting to women, particularly Black women in the rural South.[5,16-19] In the rural South and Northeast, the majority of HIV-infected Black women report being exposed through heterosexual sex with an HIV infected

partner. Often, they are not aware of the behaviors that put their partner (Figure 6) at risk.[17]

Figure 6: Proportion of Rural Female Adult and Adolescent Estimated AIDS Cases by Transmission Category, 2002-2006, 50 US States and DC



Source: Centers for Disease Control and Prevention[8]

The shift of infection to Black women is partly an extension of the legacy of high rates of STDs in the southern U.S.[4,15-18] However, a complex web of factors contributes to this shift. These factors include racism and discrimination, persistent poverty, limited educational and employment opportunities, substance abuse, high rates of HIV/STD among Black men, high rates of incarceration, and a lack of accessible and affordable prevention and health care services.[18]

In addition to the increasing rate of infection among women of color in the South and North, there is an increasing rate of infection among women who are involved in methamphetamine use in the Midwest and West, especially if they inject the drug or have sex with an infected partner.[19]

Risk Factors for HIV/STD in Rural Areas

Despite, the compelling epidemiological evidence relative to HIV and STD in rural America, little is known about the prevalence of sexual risk-taking behaviors among rural Americans in comparison to individuals from metropolitan areas. Fortunately, a handful of studies exist that provide a starting point for investigations of HIV/STD risk behaviors, and their antecedents, among rural Americans. For example, one study found that rural women were more likely than their metropolitan counterparts to report never using condoms for HIV prevention.[20] A related study among low-income Black women found that rural women were more likely than their metropolitan counterparts to report:

- not having HIV prevention counseling during pregnancy
- not using condoms
- not having a preferred method of protection because they did not worry about HIV/STD
- having a sex partner who had not been tested for HIV, and
- believing that their current partner was HIV negative, even without an HIV test. [21]

Data from the 1995 National Health and Social Life Survey indicated that rural Americans were less likely than their non-rural counterparts to report any change in sexual behavior in response to the AIDS epidemic, including condom use.[22] Also, a recent analysis of data collected from a national probability sample found that individuals living in rural areas were less likely to use condoms than those living in large metropolitan areas.[23]

In a recent analysis of data from the National Survey of Family Growth[24] investigators found remarkable similarities between metropolitan and rural Americans relative to their reported behavioral risks for HIV/STD acquisition. There were no significant differences between rural and urban men and women in terms of lifetime number of sexual partners, rates of unprotected sex (in previous four weeks), condom use at last sexual encounter, ever having had an HIV test, and discussing correct condom use with a health professional during the last HIV test. Also, non-metropolitan men were significantly less likely to report discussing STDs other than HIV with a health professional after their last HIV test.

Protecting Rural America against AIDS

Fortunately, the prevalence of HIV/AIDS in rural America is relatively low at this time, offering a window of opportunity for intervening to prevent a potential increase in rural HIV/AIDS. This "window" is somewhat delicate because public perceptions may dictate that action should follow rather than precede a public health problem.

An important epidemiological principle is that new cases of a sexually transmitted disease (incident cases) are a function of the number of untreated cases in the population (prevalence). In essence, the "risk" in sexual behaviors and injection drug use behaviors rises and falls in correspondence with the respective presence or absence of the disease within the sexual or injecting network of a given person. Because sexual networks are often based on geographic location, it is apparent that "rural risk" and "urban risk" for any single behavior (e.g., unprotected anal sex) may vary due to differences in the size of the pool of infection. That means that one is more likely to be exposed to HIV or an STD in an urban area with a high prevalence of those diseases. Conceivably, detecting and treating all bacterial STDs with antibiotics in rural areas could eliminate the pool of those diseases, reducing the risk for chlamydia and gonorrhea unless the infections were "imported" from urbanized areas. However, the scenario for HIV is much different since HIV cannot be cured and prevalence only declines as a function of death.

The composition of the sexual network and number of concurrent partners also impacts HIV/STD risk. Having more than one partner in a given time increases passing STDs between those partners and within their sexual networks. Since options for sexual partners may be limited in smaller communities, a few people

with multiple concurrent partners may spread disease to a large network in rural areas.[25] One study found that more than half of rural Blacks with heterosexually transmitted HIV had multiple partners, 40% had concurrent partners, and 87% believed their partners had sex with others during their relationship.[26]

Summary

Although rates of HIV infection and AIDS are relatively low in many rural areas, rural rates of more common STDs approach rates in urban areas indicating that risky behaviors exist in rural as well as urban communities. While male-to-male sexual activity is responsible for the greatest number of HIV infections, increasingly, heterosexual exposure is spreading the infection to rural women, especially women of color. The sexual and drug injection behaviors that put individuals at risk for transmission of STDs are quite similar for urban and rural residents and have increased in the past decade in rural areas due to methamphetamine use. Concurrent sexual relationships are not uncommon in rural social networks. This means that as pools of HIV or other STD infections increase in rural areas, the chance for new infections increases.

Rural stigmatization of drug use, male to male sex, and having multiple partners hinders discussion of HIV/STD risks and early detection through risk assessment and testing. Stigmatization discourages the use of rural venues by men to find male sexual partners and encourages travel to urban centers where the pool of infection is larger. Similarly, traditional values and denial that HIV and STDs even exist in rural communities further block prevention efforts especially with teens as they explore their sexuality and question their sexual identity.

Dedicated HIV/STD professionals have at least a twofold task in light of this. First, they must understand that acting early in an epidemic while prevalence is low is the best assurance that incidence will not dramatically escalate. Second, they must consider that people in rural areas may be hesitant to attend to something like HIV and other STDs that remain "hidden" in their community. This second point is addressed in the subsequent chapter pertaining to HIV/STD prevention education in rural America.

“Ignorance breeds passivity, pessimism, resignation, or a sense that AIDS is someone else’s problem.”

Paul Farmer, MD in Global AIDS: Myths and Facts – Tools for Fighting the AIDS Pandemic.

Chapter 3

RURAL HIV/STD PREVENTION EDUCATION

Introduction

The ultimate solution to HIV/STD infection lies beyond medical advances. Preventing new infections depends not only on individuals’ practicing safe sexual and drug use behaviors, but also on public awareness of HIV/STD risks, and developing systems for early detection and treatment of HIV and other STDs. Such prevention strategies rely on HIV/STD education of individuals, networks of friends, health care providers, and the community as a whole. Often, HIV/STD education has been poorly planned, implemented, and evaluated. However, as the epidemic has evolved, research has identified effective educational approaches. Education is an essential frontline defense against HIV and other STDs even though measuring its impact is often impossible. Education may be an especially strong prevention strategy for rural communities with limited or no resources designated for HIV/STD prevention. Although lack of funding is a major barrier to rural HIV/STD prevention, the smaller size of rural communities enables them to draw on their human resources and existing community institutions such as schools, faith-based organizations, service organizations, and local media for affordable prevention education. This chapter will focus on education strategies that utilize the existing and often rich assets of rural communities.

For rural communities in particular, effective HIV/STD prevention education starts with a solid understanding of the values and competing health concerns of the community. It engages people who influence public opinion. Because different groups of people are motivated by different messages and respond to different educational approaches, multiple messages and approaches optimize the probability of success. This means that approaches and messages should be tailored to the audience. It also means that for a wide-spread impact, rural prevention education should target many different venues including schools, community-based organizations, faith-based organizations, and health-care facilities.

Education, like any other intervention, is typically a response to a perceived need. In urban America, the relatively high annual incidence of HIV/AIDS cases warrants and inspires ongoing educational efforts to stem the rising tide of the epidemic. The same cannot be said about rural communities. Instead, HIV prevention education in rural America may often occur as a direct result of an event that triggers fear about the spread of HIV. These precipitating events may be grounded in a new case of HIV/AIDS recently found in the community or having someone living with HIV/AIDS move into a given rural community. A precipitating event may be the catalyst needed to engage the community, address misconceptions about HIV/AIDS, and form a community committee to direct prevention education efforts. Such committees, whether large or small, are vital to planning and designing education efforts tailored for a specific rural community.

Schools

Because schools reach nearly all youth, they have the opportunity and obligation to provide young people with the knowledge and skills to avoid HIV and other STDs during their lifetime.

Schools can be an important partner in HIV/STD prevention education efforts. As of 2008, 70% of states mandate schools to teach HIV/STD prevention. A 2004 national survey showed that 93% of U.S. adults support school-based sexuality education.[1] However, controversy remains at the local level about what this education should include and role parents should play. State guidelines about content are weighted toward stressing abstinence and no states require that contraception be stressed.[2] A review of hundreds of sexuality education programs found those that effectively decrease sexual risk behaviors among teens require age appropriate, medically accurate instruction delivered by a nonjudgmental instructor over adequate time with attention to skill development.[3,4] There are many prevention curricula and after school programs that effectively delay initiation of sex, improve refusal skills, and increase condom use that have been show to be effective. Lists and descriptions of effective programs are available online through the CDC compendium (*www.cdc.gov/hiv/topics/prev_prog/rep/resources/initiatives/compendium.htm*), Advocates for Youth (*www.advocatesforyouth.org/programsthatwork/index.htm*), The National Campaign to Prevent Teen and Unplanned Pregnancy (*www.thenationalcampaign.org/resources/pdf/pubs/WhatWorks.pdf*) *(Please copy and paste in your browser)* and ETR Associates *(http://programservices.etr.org/index.cfm?fuseaction=evidence.home#reviews)*

Many obstacles stand in the way of rural schools implementing effective HIV/STD education. Because rural Americans generally hold more traditional values,[5] some may be resistant to sexuality education. Rural communities may need to create a community advocacy group consisting of parents, students, clergy, PTA members, faith community representatives, health professionals, educators, community leaders, and other community members to mobilize support for HIV/STD education. Presentations of local data that highlight youth risk behaviors from the Youth Risk Behavior Surveillance System (*www.cdc.gov/HealthyYouth/yrbs/*), county rates of STDs among youth, and local teen pregnancy or birth rates may move policy-makers to action. Educators and health care providers who work in rural settings suggest framing HIV/STD education less as sexuality education and more as disease prevention education. Focusing on how to stay healthy and prevent diseases through decision-making, refusal, and negotiation skills may provide an acceptable starting point for rural communities that embrace more traditional values. *Emerging Answers*, a document distributed by The National Campaign to Prevent Teen and Unplanned Pregnancy, provides a list of youth development programs shown to decrease sexual risk behaviors without any focus on sexuality education (*www.thenationalcampaign.org/resources/pdf/pubs/WhatWorks.pdf*). These have been found to be well-accepted in rural areas and lend themselves to implementation in after school programs or in youth-serving organizations that already exist in rural communities such as 4-H, Boys and Girls Clubs, or GED programs. Understanding a community's potentially conflicting values and identifying those individuals who influence youth policies provide the basis for selecting the program that is right for a specific community at a given time.

Another barrier is that rural schools may also lack trained health educators with the knowledge, skills, and comfort level needed for effective delivery of HIV/STD prevention education. Overcoming this obstacle requires a school to identify a teacher, guidance counselor, or health professional in the school or community-at-large with the nonjudgmental and open attitude needed to engage students in preven-

tion education. If that person does not have adequate training in HIV/STD prevention education for youth, such training is available through state departments of health or education and a national network of state organizations that prevent teen pregnancy and HIV/STD. Having a trusted HIV/STD prevention educator from within the school is preferable since this allows students to ask questions and receive message reinforcement throughout the school year. However, another option is to recruit a health or counseling professional from the community to provide school-based HIV/STD education. State and local health departments, local AIDS Service Organizations, the American Red Cross, and local family planning clinics may be able to provide or suggest a local health educator. Although it may be more difficult for an outsider to develop a trusted relationship with the youth, this approach is reasonable if that is the most knowledgeable and approachable person available. In fact, sometimes the anonymity of the outside person increases perceived confidentiality.

Although there is broad consensus that abstinence is the best way for young people to protect themselves from HIV/STDs and unintended pregnancy, federally funded abstinence-only-until-marriage programs have strict performance specifications, called the A through H guidelines, of what information can and cannot be included in presentations.[6] While most abstinence-until-marriage programs do discuss HIV and other STDs as good reasons to abstain from sex, they cannot include prevention specific information or demonstrations about condom use. In 2007, a rigorous federally funded evaluation of four school-based abstinence-until-marriage programs following Title V's A through H guidelines showed these programs were not effective in delaying sexual initiation over time or preparing young people to protect themselves from HIV, STDs, and/or unintended pregnancy when they became sexually active.[7] This may suggest that parents and concerned community members may want to be involved in the selection and ongoing support of HIV/STD prevention education in their local school. At a minimum, prevention education for youth should teach young people the benefits of abstaining from sexual intercourse, how to take responsibility for their health, how to protect themselves from HIV/STD infection, how to identify the signs and symptoms of infection, how and where to get tested, and how to talk with partners about preventing HIV/STD.

Rural communities may lack funding resources, but may be rich in human resources, especially those added through volunteers. Although volunteers are a valuable asset, they cannot be solely responsible for HIV/STD prevention, and state and local health departments should remain mindful of this limitation.

Community

Rural communities have unique HIV/STD prevention needs. Groups at elevated risk for HIV and STDs vary from one community to another and may include those imprisoned in correctional facilities, men who have male to male sex, migrant workers, victims of partner violence, or methamphetamine drug users. Another rural challenge is that it is often unclear who in the community is responsible for HIV/STD prevention. Local health departments are often under-staffed and minimally funded. Private rural health care providers may shy away from these stigmatized diseases. Service organizations and faith based organizations have other missions. And community leaders face other pressing concerns. That means that the first task for community leaders, organizations, churches, schools, and health care facilities is to identify the populations most in need of HIV/STD prevention information and in need of changing behaviors. Getting to "know your community" through a defined process guides resource allocation and establishes some measures that will be useful to judge the impact of community education efforts. The process should include a review of risk behaviors in the literature, a review of local data, and interviews or focus groups with professionals knowledgeable about HIV/STDs and high risk groups, gatekeepers (such as owners of bars or adult bookstores), and individuals from the target population. The intent should be to identify structures, policies, attitudes, economic factors, and behaviors that put local people at increased risk for HIV and other STDs.

In American Indian and Native Alaskan communities, it is especially important to consider the impact of historical trauma on these communities and make education programs congruent with cultural values and traditions. This holds true for programs for African-Americans who have also been traumatized over the course of American history. For Latino communities, education programs need to incorporate the values of the culture and not just be translated into Spanish. Equally important is the identification of assets and non-traditional resources the community can draw on. A Community Tool Box to help community groups conduct local assessments is available online through the University of Kansas at *http://ctb.ku.edu/en/dothework/tools_tk_2.htm*.

Community HIV/STD prevention education can serve several purposes. First it can increase general awareness of HIV and other STDs and how transmission can be prevented.

Second, it can change community attitudes and norms, increasing tolerance of those who engage in risky behaviors and putting a human face on those diagnosed with HIV. Community education can help decrease stigma and homophobia which are leading barriers to rural HIV prevention.[8] Decreasing stigma, in turn, increases the likelihood that people will come forward for diagnosis and treatment of HIV/STDs, engage in HIV/STD testing, and disclose their HIV/STD status to partners. Changes may also include the promotion of new attitudes and behaviors such as being abstinent, limiting the number of sex partners, remaining monogamous, using condoms, using sterile syringes, and not sharing works for injecting drugs. However, there can be a fine line between approaches that decrease stigma and ones that inadvertently increase stigma and discrimination. In general, in order to decrease stigma, community level HIV/STD awareness campaigns should be careful not to "point fingers" at certain populations. Campaigns aimed at specific high-risk groups must be mindful of potential unintentional consequences such as suggesting that if "those people" would only leave the community, then there would be no further HIV or STD risk.

It is difficult for rural communities to provide major and continuous attention to HIV/STD prevention in part because HIV infection is an unlikely event in comparison to other health conditions that rural communities "see" on a regular basis, such as pregnancy, diabetes, and heart disease. Other STDs, while generally more common than HIV/AIDS in rural areas, are often not publicized and remain hidden to the broader public. The focus on other more visible health concerns presents an opportunity for HIV prevention messages to be delivered in tandem with other health promotion efforts like prenatal visits, diabetes care, substance abuse treatment, and domestic violence counseling.

HIV/STD prevention messages may be quite effective when communicated by non-traditional partners such as pharmacists, hair stylists, barbers, and even tattoo artists. Rural prevention specialists have suggested sharing information in pre-existing social networks such as agricultural organizations, church auxiliaries, talking circles, platicas, parent-teacher associations, or bowling leagues. Each community needs to assess what groups exist that would be open to HIV/STD education and would be likely to disseminate the information further into the community. Finding groups that may link with less accessible but more at-risk groups, such as men who have male-to-male sex and drug users, is difficult but ideal. Bringing community members into the planning process will help to identify such groups.

Lay Community Health Workers in New Mexico

The New Mexico Border Health Initiative uses Spanish-speaking lay health outreach workers (HOWs) to reach out to MSM, injection drug users (IDU), and women. The HOWs' effectiveness is due in great part to their personal familiarity with the groups they engage. For example, the HOW who targets IDUs is an ex-drug-user and the HOWs who target MSM are Latino MSMs. They know the local places to reach their audiences and how to discuss risk behaviors and risk reduction with them. Outreach is conducted door-to-door, in small groups in homes (*platicas*), and at places where sex and drug sales occur. On-site oral HIV testing, counseling, and referral is offered as well as weekly testing sessions at a local health center. Lay health worker programs, although effective, require extensive training and ongoing support of outreach workers. *(www.hab.hrsa.gov/special/border_innovative.htm)*

Current research suggests that HIV/STD mass media or social marketing campaigns can result in behavior change in about 6% of the target audience, which is comparable to results for other health promotion campaigns such as anti-smoking campaigns.[9] Social marketing uses the same marketing techniques and media channels used by commercial marketers to influence social attitudes, behaviors, or social norms to benefit the target audience and larger community.

Although social marketing through media placement of messages can be out of reach for rural budgets, rural communities do have some cost-effective options. Radio continues to be a primary media source for rural areas and is more reasonably priced than television for mass media campaigns. Areas with large Latino populations often have stations dedicated to programming in Spanish. Radio usually has a broad reach into the community, but it is important to know whether it will reach the target audience. Radio stations know and can identify their listeners. In a smaller town, local celebrities such as the mayor, football coach, or local newscaster may be willing to promote HIV/STD prevention or an education campaign on local radio. Attaching a personal face (or voice) to HIV makes the epidemic more personal and helps break down stigma. One potential advantage of rural mass media education is that prevention messages that are carefully constructed and well placed may travel through smaller close-knit social networks more quickly than in urban areas. It is always wise to test the intended messages to ensure that they have the anticipated interpretation and effect.

The steps for conducting an effective media campaign are not difficult but are time-consuming. They include:

1. collecting data about and from the target audience to identify the best communication channels and guide tailoring of messages
2. using behavior change theory to identify the behavior or attitude being targeted
3. dividing the audience into groups based on similar qualities to determine the best way to reach each group
4. using message design theory to develop tailored messages and test those with target audience representatives in focus groups
5. strategically placing messages in media channels accessed by the target audience, and
6. monitoring and measuring whether the specified process was followed and whether the desired outcome was achieved.[10]

Vih Y Comunidad Call-In Radio Program

"Listening to music is one of the few sources of fun that people in rural areas can access and enjoy. Everyone can do it." (HIV Program Coordinator). This community-level intervention uses a popular Spanish language radio station to disseminate information about HIV infection, free HIV testing, and free medical services available in the community. The call-in feature engages listeners and motivates them to ask questions about HIV and other STDs. Programs are in Spanish and intersperse HIV/STD prevention information, audience questions, answers, and upbeat music. Each radio program focuses on a theme although all calls and questions are welcome. It can be a challenge to find the right health educator with the cultural sensitivity to portray the right demeanor on the air. This is an intervention that may reach audiences that are otherwise very hard to reach. *(www.connectingtocare.net/files/ctc_complete.pdf)*

At the very minimum, rural communities should assess the HIV/STD prevention needs of their community, be actively involved in reducing HIV/STD stigma and denial, and coordinate HIV/STD and unintended pregnancy prevention efforts between organizations and agencies. Community educational efforts need to be tailored to accommodate different learning styles, languages, and literacy levels. More importantly, programs should be culturally appropriate and build upon the existing value system of the community. Rural communities may lack funding resources, but may be rich in human resources especially those added through volunteers. Although volunteers are a valuable asset, they cannot be solely responsible for HIV/STD prevention, and state and local health departments should remain mindful of this limitation. By leveraging resources from agencies such as health departments and the Rural Center for AIDS/STD Prevention and partnering with existing community institutions and media channels, rural communities have the potential to be creative and tap existing resources in innovative ways to effectively bring an awareness of HIV/STD prevention to their communities.

Social Marketing to Latinas in Border Communities

The Valley AIDS Council in Harlingen, Texas, implemented a social marketing campaign, *Proyecto Juntos*, targeting Latinas who speak limited English to identify HIV risk behaviors, recognize signs of HIV infection, and seek HIV counseling and testing. The 6-month campaign included spots on Spanish language TV and radio aired during programming popular with Latina women such as "*telenovelas*," or Mexican soap operas. Well-known local media personalities volunteered their time for the TV spots. During the media campaign, Spanish/English posters and brochures were distributed to places where Latinas congregate such as "*washaterias*" and beauty shops. The ads directed the Latinas to a phone line where staff gave callers basic HIV information, screened them for HIV risks, and referred them to counseling and testing sites when appropriate. The program identified 15 at-risk women, 10 of whom were diagnosed with HIV infection. The nature of the responses indicated that there is much need among Latinas for continued education about HIV and risk. *http://hab.hrsa.gov/publications/growinginnovative/ (Please copy and paste link into your browser)*

The Faith Community

"The church has been silent for too long about sexuality"

David Satcher, M.D.
16th U.S. Surgeon General

The majority of rural Americans are strongly connected to their faith community. Thus, faith-based organizations (FBOs) can draw on their spiritual connection to people to promote HIV/STD prevention and reach vulnerable populations in rural America. Communities of faith have an opportunity to play an integral role in supporting community-based and school-based HIV/STD prevention efforts. However, historically some faith-based groups have served as a passive barrier by avoiding the issue. Other faith-based organizations have created an active barrier by labeling HIV/STD risk behaviors as sins to be shunned and consequently hidden from public view. Advocacy for HIV/STD prevention may require a role change for some of the faith community.

HIV/STD prevention advocates may find it helpful to identify highly respected individuals who could become advocates and open the conversa-

tion in their faith-based organization. Women elders have been the mobilizing force in some southern Black congregations, encouraging the clergy to address HIV prevention from the pulpit. Recently, a coalition of Black clergy have mobilized to bring HIV/STD prevention into their faith communities Other influential individuals might be a church nurse, the minister's wife, lay ministers, or other lay leaders. If there is one congregation in the area that is open to HIV/STD prevention, this group may be able to act as a champion, encouraging other more hesitant congregations and denominations. In some instances, the leadership of a faith-based organization may be the catalyst to initiate discussion around HIV/STD prevention. This happened in the Unitarian Universalistic Association of Congregations when they developed a lifespan sexuality education curriculum. The take-home message is that rural communities need to carefully identify who should initially be brought to the HIV/STD prevention table to represent the faith community and allow sufficient time for the faith community to embrace this issue.

Although faith-based organizations are important in this respect throughout the country, the role of the Black faith community in HIV/STD prevention is critical given the disproportionate impact of HIV, AIDS, and other STDs on rural Black Americans. In October 2007, the National Conclave on HIV/AIDS Policy for Black Clergy in conjunction with the National Black Leadership Commission on AIDS announced their intention to take a leadership role in eliminating HIV among Blacks in the U.S. They plan to aggressively promote HIV testing among their congregations and insure that all Black clergy are equipped to address HIV-related issues in a scientifically sound manner. In addition, Black clergy will promote the ABC/D prevention model that advises people to abstain, be faithful, use condoms, and avoid engaging in risky behavior.[11] It will be essential for rural HIV/STD prevention specialists to offer their expertise to support this effort and expand it to include STD prevention.

Project F.A.I.T.H.

Project F.A.I.T.H. (Fostering AIDS Initiatives That Heal) is a statewide demonstration project of the South Carolina HIV/AIDS Council designed to build the capacity of churches and other faith-based entities who want to create local solutions to local problems. The initiative includes on-site training of clergy and funding for churches and other faith-based entities who seek to make a difference in their local community and state. *(www.schivaidscouncil.org/p-project-faith.html) (Please copy and paste link into your browser)*

Faith-based organizations have played key roles in HIV/STD prevention in developing countries for years and we can learn from their experience.

For example, throughout Africa, the Salvation Army has provided HIV education, testing, and counseling, relief supplies, and spiritual support for those infected by HIV/AIDS. In Asia, World Vision is promoting and distributing condoms, treating STDs, and trying to reduce risk behaviors among sex workers, truck drivers, migrant workers, fishermen, and injecting drug users. International AIDS workers note that involving faith communities requires patience, thoughtful partnerships, and respectful conversation between potentially contentious positions.[12] The potential influence of faith-based organizations on community norms, their ability to reach broadly into the community, and their potential participation in prevention programs all make the effort a good investment.

Rural American faith-based organizations may also play a supportive role for those at increased risk of HIV/STD infection. The faith community has the potential to provide sanctuary for teens through youth development programs and nonjudgmental counseling. They can promote empowerment and develop employment programs for low-income women. Many faith-based organizations provide spiritual support, transportation, food, and shelter to those infected with or affected by HIV/AIDS. They can advocate for open discussions about risky sexual behaviors and ways to combat poverty and racism, both of which may contribute to HIV infection in rural communities as much as individual behaviors.[13] Rural HIV/STD prevention specialists can contribute to this

process by providing clergy with essential HIV/STD prevention information and by motivating local clergy using approaches sensitive to individual religious beliefs and values.

Although faith-based organizations have a unique potential for participating in HIV/STD prevention, the degree to which an organization or congregation chooses to participate and the pace at which they become involved will vary greatly. At the very least, rural faith-based organizations should identify the HIV/STD prevention needs of their faith community, open a conversation about HIV/STD prevention among their members, and be actively involved in reducing HIV/STD stigma and denial. Some faith-based organizations may be comfortable representing the faith-based community on commu-

nity HIV/STD prevention tasks forces. Others may be comfortable providing spiritual and/or concrete support to those who are most vulnerable to infection or those already affected by HIV/STD infection. Additional guidance about how to work with the faith community to promote and support HIV/STD prevention is available through

YOUR Center, Michigan

Started in 1996 by 13 churches, this faith-based program takes advantage of the special role that faith plays in the African American community in order to address HIV needs identified by the community. Early on, YOUR Center had to overcome resistance from the ministers to provide HIV education to the entire membership, not just the youth. They also had to collaborate with other AIDS service organizations to avoid duplication. Programs include HIV education, outreach, testing and counseling, community forums, home parties, skills building workshops, and prevention case management.

For more information see page 21 at *www.mihivnews.com*

Faith-Based HIV Prevention Interventions: *A Technical Assistance Guide for Working with Communities of Faith* at *www.mihivnews.com/pdffiles/faith-b_manual.pdf. (Please copy and paste link into your browser)*

Healthcare Providers

Rural health-care providers can play a leadership role in HIV/STD prevention education by committing to ask patients about their risk behaviors and counseling patients how to reduce HIV/STD risk with consideration for individual needs and circumstances.

Healthcare providers have unique and powerful influence over people's health behavior. In rural settings, medical professionals may be in a position to reach "hidden" populations at heightened risk for infection. This would include anyone with multiple sex partners, teens, pregnant women, clients using drugs or having sex with a drug user, women trading sex for economic survival, and men engaging in sex with other men whether or not they identify as gay. Healthcare providers are also in a position to normalize risk behavior screening, HIV and STD testing, and prevention counseling. It is critical for rural providers to appreciate the role they can play in early identification and treatment of common STDs such as chlamydia and gonorrhea by annually testing sexually active female patients 25 or younger for these infections using a simple urine test. Early treatment of these infections can prevent infertility, reduce the risk of HIV infection, and provide an opportunity to educate patients about the risks of STDs including HIV.

Despite these opportunities for incorporating HIV/STD prevention into rural medical protocols, rural providers may be uncomfortable having these discussions with patients who may also be neighbors and friends. They may be inadequately trained to conduct sexual and risk histories and to provide HIV/STD testing and counseling. In addition, many rural providers are already overburdened due to inadequate numbers of rural healthcare professionals. Consequently, they may be hesitant to add a prevention intervention that will require additional time, even minimal time. In contrast to urban medical facilities, there usually is no specially trained person to take on the responsibility for HIV/STD prevention in rural clinics. An additional barrier is that rural providers and healthcare facilities may lack knowledge about federal and state resources available to assist those diagnosed with HIV/AIDS.

Rural communities should first and foremost utilize those who are already trained, funded, and comfortable addressing HIV/STD prevention education. Most states have Disease Intervention Specialists (DIS) who are trained to conduct field investigations of communicable diseases by locating and counseling persons exposed to, infected with, or having a positive test for a communicable disease such as an STD, HIV, or tuberculosis (TB). DIS often visit HIV+ clients at their home, help identify those who may also have been exposed, and can offer on the spot confidential rapid tests and counseling to partners. DIS also provide information to physicians, local health departments, and medical laboratories about the diagnosis and treatment of patients and the prevention, detection, and reporting of communicable diseases. First responders might also be trained to provide HIV/STD education and offer HIV/STD testing and counseling. In Indian Country, paraprofessional community health representatives (CHR) are in an ideal situation to provide HIV/STD education and could be trained to conduct HIV and STD testing and counseling if that is acceptable within the tribe.

Community Health Centers can be key players in rural HIV/STD prevention (*www.nachc.com/client/documents/blogs/HIVAIDS_Fact_Sheet.PDF*). Located in every state and territory, community health centers provide high-quality, affordable care regardless of insurance status or ability to pay. Health centers offer HIV testing, health care, and counseling services. They bring expertise in accessing resources for low-income, uninsured, or underinsured people who are living with HIV/AIDS through the federal Ryan

White CARE Act (RWCA). They are also well positioned to lead rural collaborations among clinics, hospitals, and individual providers.

Most rural areas can take advantage of Title X reproductive health clinics where there are clinicians well-versed in HIV/STD prevention and management protocols. In rural Colorado, local public health nurses often conduct a risk assessment and then refer clients at heightened risk for HIV/STD to Title X family planning facilities in their county or a neighboring county. Title X clinics conduct risk assessments, HIV/STD testing, STD treatment, or referral for treatment. Title X clinics also receive regular updates on HIV/STD prevention skills such as how to conduct a sexual history and state-of-the-art diagnosis and treatment of HIV and other STDs. These training updates are often held in rural locations and are usually open to all local clinicians.

Additional information about Title X family planning service and training opportunities can be found on the Office of Population Affairs website at *www.hhs.gov/opa/familyplanning/grantees/services/index.html*. *(Please copy and paste link into your browser)*

There are 11 regional AIDS Education and Training Centers (AETCs) and a National Minority AETC whose mission is to train health care and dental professionals to diagnose, treat, and manage HIV infection (http://hab.hrsa.gov/educating.htm). AETCs bring training to rural health professionals in their communities to teach them how to take sexual and risk histories, conduct HIV tests, manage HIV+ patients, and counsel them about reducing HIV/STD risk behaviors. AETC training can increase providers' knowledge of federal resources available to them for HIV detection and management such as Ryan White CARE Act funds and those provided to community-based primary care providers in underserved areas through section 330 of the Public Health Service Act. They may also be able to link local physicians with university-based infectious disease doctors to provide ongoing support for local HIV treatment. Regional AETCs provide pocket guides to help health care providers assess HIV/STD risk, educational pamphlets for waiting rooms, and examination room posters that encourage patients to talk with their care providers about HIV and preventing infection. For additional information on AETCs, go to *www.aids-ed.org/*.

Another federally funded resource is the National Network of STD/HIV Prevention Training Centers (PTCs) which provides prevention training throughout the country (*http://depts.washington.edu/nnptc*). The PTCs try to offer travel support to those traveling long distances for HIV/STD training. They also bring training to rural communities if there is a need and interest. The PTCs provide three categories of training. First they provide clinicians with the latest knowledge and clinical skills for the prevention, diagnosis and management of STD infections. Second, the PTCs offer training in evidence-based individual, group, and community level interventions shown to change behaviors to prevent the transmission of HIV and other STDs. Third, the PTCs offer extensive training on partner management services. Currently, they are offering interventions to train clinicians to use brief tailored messages to effectively counsel and motivate HIV+ clients to reduce their risk of transmitting HIV and/or getting a new STD (see the *Partnership for Health* intervention in Chapter 6).

The Capacity Building Branch of the CDC provides training and technical assistance to organizations to help them build the infrastructure needed to improve the delivery and effectiveness of HIV/STD prevention. Capacity building may be particularly valuable for rural organizations that lack other resources for developing infrastructure. Capacity building assistance supports the implementation and/or adaption of effective HIV/STD prevention interventions and strategies. These strategies include implementation of rapid HIV testing, comprehensive risk counseling and services, and prevention counseling. More information about capacity building is at *www.cdc.gov/hiv/topics/cba/*.

One innovative technology available to rural providers is an Internet-based system of notifying partners of exposure to an STD. Commercial programs such as inSPOT (*www.inspot.org*) enable people to anonymously notify partners by email that they may have been exposed to HIV or another STD. There are humorous and serious message options, both of which are nonjudgmental and to the point. Some state health departments provide this program. A Kentucky non-profit has developed its own comparable notification service that can be accessed free of charge at *www.stopthespreadonline.org*/.

Involving rural healthcare providers in HIV/STD prevention education may require encouragement from community leaders or local HIV/STD prevention advocates. Getting local medical organizations to embrace this issue opens the door for training family

practice, internal medicine, and women's health clinicians to provide HIV/STD prevention education through risk behavior screening, testing, treatment, and risk-reduction counseling. Providing continuing medical education credit provides an additional incentive for HIV/STD prevention training. Providers may be more open initially to providing education along with annual chlamydia and gonorrhea screening for sexually active female patients age 25 and under as recommended by the CDC. Once they become involved, rural health care providers make powerful advocates for HIV/STD education and prevention, especially with policy-makers.

Although the health care system would seem to be the easiest place for HIV/STD prevention education to occur, it is clear this is often a challenge in rural settings. At a minimum, health care facilities should have written materials about the risks of HIV and other STDs available in their clinical settings. Rural communities should provide information on where individuals can access confidential HIV/STD testing and treatment. And health care providers and facilities should, at a minimum, create relationships with and refer clients to state and local providers who are already trained to address HIV/STD prevention and provide early diagnosis and treatment. Community advocates may be best positioned to make local health care providers aware of the federal resources available to ease their entry into HIV/STD prevention education. Of course, planning for confidentiality throughout the health care system is a critical step and one that may help to decrease the reluctance of individuals to participate in testing, risk reduction, and disclosure with partners.

Summary

This chapter has presented a broad spectrum of what HIV/STD prevention education might look like in rural settings. Knowing the community, honoring local values, thinking creatively, and leveraging existing resources are keys to success. Although science-based accurate, developmentally and culturally appropriate HIV/STD prevention programs might ideally be offered in rural schools, some communities may prefer after-school programs, youth development programs, or a youth information hot line. Increasing public awareness of HIV/STD risk and decreasing stigma may start as thoughtful responses to local occurrences such as an increase in teen births or chlamydia rates. Advocacy groups can bring people together to open the conversation. Bringing community leaders, the faith community, and health care providers together in such a way creates the potential for powerful prevention opportunities. And perhaps most important, rural communities can take advantage of existing resources while capitalizing on volunteers and local resources available to them to maximize prevention efforts and minimize cost.

In addition to the concepts outlined in this chapter, three overarching principles deserve elaboration. First, education designed to actively engage recipients tends to be far more effective in motivating behavior change. Numerous studies have shown that people are more likely to adopt safer sex behaviors in response to education programs that are interactive rather than those coming across as a directive. Second, education programs designed to promote safer sex and other HIV/STD prevention behaviors should always be tailored based on the cultural values of the target audience as well as their level of literacy. Clearly, programs that work are based on the values, needs, beliefs, and practices of the specific target audience and these audiences differ from one rural area to the next. Literacy is equally important and the prospect of finding low literacy in rural communities should always be anticipated. Finally, education designed to promote HIV/STD protective behaviors is far different from "academic education." That means it is vital to remain nonjudgmental and to avoid being directive. Sex is an extremely personal behavior that people tend to value as a freedom in their lives. When education creates even an appearance of trespassing on this freedom, the effort may fail. The goal is to create conditions that allow people to adopt protective behaviors as a result of their decisions.

Community Assessment and Prevention Education Circles in Minnesota

HIV/AIDS prevention programs based on what urban experts think rural target groups ought to know don't work well. The Rural AIDS Action Network (RAAN), a community-based non-profit in Minnesota, assessed HIV/STD prevention needs among two vulnerable rural populations, at-risk youth and MSM. Using confidential surveys, focus groups, and discussions with peer leaders, RAAN asked these groups "What would you like to know and how would you like to learn it?" Prevention Education Circles emerged that share culturally relevant HIV/STD education materials with a small social group in a confidential and peer-defined environment on a routine basis. (*www.raan.org/pec.html*)

"Wake up. Don't let someone feed you a line and don't be afraid to ask questions. Find out yourself."

Ryan White, talking to teenagers

Chapter 4

HIV/STD TESTING IN RURAL SETTINGS

Why test?

If most cases of HIV are concentrated in urban areas, why should health care providers test people in rural areas for HIV? First, according to the CDC, about 25% of those infected with HIV are not aware of their status. There is no reason to think that this is not also true in rural communities. Second, there is evidence that people in rural settings often seek HIV care later than those in urban areas.[1-3] This prevents them from receiving the benefits of early treatment and care and can lead to their unknowingly infecting others. Third, it is essential for the health department to know when and where new infections occur to take steps to prevent HIV from spreading in rural areas.

Screening for other STDs in rural settings is equally important for three reasons. First, untreated infections such as chlamydia and gonorrhea can lead to long-term health consequences in women including pelvic inflammatory disease, infertility, ectopic pregnancy, and chronic pelvic pain. Consequently, the CDC's *Sexually Transmitted Disease Treatment Guidelines, 2006* recommend annual screening of all asymptomatic sexually active females 25 and younger for chlamydia and screening asymptomatic sexually active women of all ages who are engaging in risk behaviors for gonorrhea. Screening asymptomatic men for chlamydia, gonorrhea, and syphilis is recommended when the sexual history

reveals risky behaviors such as concurrent partners, unprotected sex, or male to male sex.[4] Second, early detection and treatment of all STDs is a powerful HIV prevention strategy since having one sexually transmitted infection increases the chance of acquiring HIV infection. And third, the process of STD screening provides an opportunity to identify and modify risk behaviors.

There are many challenges and barriers that increase the difficulty of HIV and other STD screening and testing in rural communities. Health care is far less accessible in rural areas than urban settings. People in rural areas often have to travel long distances for care. Even when health care is accessible, HIV and STD testing may not be offered. Provider-reported barriers include cost, lack of time, lack of skills, a belief that HIV or STD infection is not a rural priority, and for some, a reluctance to discuss HIV/STD and sexual or injection drug use risk behaviors. [5,6]

Other factors discourage rural residents from getting tested even when testing is available. Some individuals may not believe they are at risk. They may be embarrassed or afraid that others will find out about their risky behaviors or are afraid to learn that they are infected. They may be worried that treatment and care would not be available, that they could not pay for it, or that they could loose a job or loved one. All of these concerns can be very real, especially concerns about privacy. The overlapping social networks in small towns can make it difficult to get tested and receive results confidentially. For example, the clinic clerk may be a relative, family friend or member of the client's faith community. In addition there is a real threat of being recognized going into a certain clinic at a certain time or of even having your car parked there on the "STD clinic afternoon." [5,6]

HIV Testing Options – Routine and Targeted Testing

The *2006 Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings* recommend that HIV screening be part of routine clinical care in health care settings with an option for patients to opt out of voluntary participation. This shift in policy from targeted testing coupled with pre and post-test counseling is intended not only to identify those who are unaware that they are infected but also to reduce the stigma associated with getting tested. However, this recommendation may not apply to some rural communities because the CDC does *not* recommend routine HIV testing in settings with patient populations that have less than 1 person infected out of 1,000 who are tested.[7]

Determining how to respond to the routine testing recommendations in rural areas is not always straightforward. Response will vary depending on local data on HIV/AIDS, syphilis, other STDs, and diseases such as tuberculosis (TB) that may accompany HIV. Rural health care settings must judge whether they can expect 1 positive HIV test among 1,000. The lack of evidence of HIV, syphilis, or TB in a geographic area may point to a plan to continue with targeted testing and periodically review data for any changes. In rural areas that have a few identified cases of HIV/AIDS, new cases of syphilis, or a moderate or high prevalence of TB, it may be reasonable to initiate routine screening at the area's referral health care facility to determine whether routine HIV testing is warranted. In a rural area, such as the rural South, where HIV/AIDS incidence is on the rise, routine testing in referral health care facilities should be initiated to determine the local positivity rate. When routine HIV testing was implemented in response to the *2006 Revised Recommendations* to determine the positivity rate in six mostly rural community health centers in North Carolina, all but one exceeded the 1 in 1,000 threshold.

Even when prevalence is too low to prompt or continue a routine testing program in a rural healthcare setting, the recommendations do advocate HIV testing for certain patients including anyone seeking treatment for an STD, diagnosed with TB, or receiving routine prenatal care. In addition, testing targeted to those with identified risk behaviors continues to be recommended for low prevalence rural populations. Statutes and regulations governing routine and targeted testing vary by state. More information on state policies that impact HIV screening are summarized in the NASTAD publication, *2007 Report on Findings from an Assessment of Health Department Efforts to Implement HIV Screening in Health Care Settings* (*www.nastad.org/Docs/highlight/2007626_NASTAD_Screening_Assessment_Report_062607.pdf*). [8]

Which HIV Test to Use

The choice of HIV test depends on factors including laboratory requirements, how easy the test is to administer, how accurate it is, and how much it costs. Often, state health department policy dictates which test will be used. The state health department HIV division and state laboratory are excellent sources of additional information about testing. In turn, NASTAD publications offer guidance to state health departments to help them develop testing policies.[8,9]

Most HIV tests look for the presence of HIV antibody, which usually appears within weeks of infection but can take up to three months to develop after exposure to the virus. Once present, the

Who Should Be Tested for HIV?

- Patients seeking STD treatment
- Patients with tuberculosis
- All pregnant women
- People having unprotected sex with:
  - multiple concurrent partners
  - recently incarcerated partner
  - partner who injects drugs
- Those engaging in:
  - male-to-male sex
  - exchanging sex for drugs or money
  - injecting drugs or steroids

antibody remains and can be detected in blood (serum and plasma) and in oral fluid (oral mucosa transudate which is different from saliva). Despite a possible delay in the development of HIV antibody levels of several weeks, testing for HIV within weeks of exposure is recommended to ensure the earliest possible detection and treatment of HIV as well as other STDs. The traditional EIA (enzyme immunoassay) tests for the presence of HIV antibody in a sample of blood or oral fluid and must be processed in a lab. The test is relatively inexpensive and may be offered for no charge by some state health department labs. Drawbacks to the EIA for rural testing include the need for a trained person to draw the blood and the one to two week delay in getting results back. This delay can be a problem since many rural clients cannot readily return for test results or may change their mind about learning their status during the wait. On the other hand, this waiting period gives rural providers time to organize treatment referrals and assemble a support network if there is a positive test result. Telephone notification of negative results may be an option for rural settings, especially for clients who are not engaged in ongoing high-risk behaviors such as injection drug use or unprotected sex.[10]

There is a trend toward using rapid HIV tests that provide results in 30 minutes or less, are minimally invasive, and can be done in the field. These tests can be performed using oral fluid, whole blood (can be from a finger stick), serum, or plasma. Although a blood draw is not required, adequate training is still essential to ensure accurate results by following precise procedures for storing and transporting test kits, conducting control tests, correctly performing the test, and interpreting the results. Unlike at-home pregnancy tests that are clearly positive or negative, rapid test results are more subtle and reading them accurately requires a good light source and some experience on the part of the tester. Rapid oral tests can be confusing to clients who erroneously think that it is the saliva being tested. It is important to explain that the test is for HIV *antibodies* (not the virus) found in the oral fluid obtained from the gums and cheeks of the mouth. In contrast, saliva is excreted into the mouth by the salivary glands and contains insufficient amounts of HIV antibody to test for HIV infection.

Another concern is whether the results from rapid testing are as valid as those for conventional EIA. Clinical studies show rapid tests are as valid as EIA tests to identify HIV antibody in true HIV cases and the lack of any HIV antibody for true negative cases. There is a probability of getting from two to five false positives for every 1000 tests administered, depending on the particular brand of rapid test used. False negatives can also occur. False positives from rapid tests may be minimized slightly by testing blood from a finger stick rather than using the oral fluid swab but they cannot be eliminated with any HIV test. Indeed, all reactive (preliminary positive) results from a rapid test must have a secondary confirming test. Counseling from the health care provider or other trained counselor can be important to minimize the negative impact of a false positive test result on the individual and on the community..

Who Should Be Tested for STDs?

Understanding who should be tested or screened for which STD and how frequently can be complicated. Some groups require routine screening such as sexually active asymptomatic women aged 25 or younger being screened annually for chlamydia and pregnant women being screened for chlamydia, syphilis, and hepatitis B. Similarly, MSM who have had unprotected sex with a casual partner require annual screening for chlamydia, gonorrhea, and syphilis. Conducting a thorough sexual history that asks about specific sexual behaviors, the gender and risk behaviors of partners, and correct use of condoms is essential to decide when to test for STDs such as gonorrhea or when to repeat a test more often than once a year. Early diagnosis and treatment of chlamydia, gonorrhea, syphilis, and HIV prevents potentially serious health consequences and further transmission of the infection. Vaccinating for hepatitis A and B and human papillomavirus (HPV) can reduce morbidity as well. CDC recommendations for STD testing and vaccination are detailed online at *http://www.hivtest.org/faq.cfm#stdtest*.

Who Should Be Tested for STDs?

- Anyone seeking STD care
- Sexually active women ≤25 yrs old
  - annual screen for chlamydia
- All pregnant women
  - screen for chlamydia, syphilis, hepatitis at early prenatal visit
- People having unprotected sex with casual partners
  - annual screen for chlamydia, gonorrhea
- Men having male-to-male sex with casual partners
  - annual screen for chlamydia, gonorrhea, syphilis
- People exchanging sex for drugs or money
  - screen for chlamydia, gonorrhea, syphilis as recommended by physician

Who Should Do HIV and STD Testing and Where?

In many rural communities, there are not enough health care providers to conduct HIV/STD testing. From the health care provider's perspective, barriers to testing include lack of time, discomfort with the topic, and inadequate or outdated skills. State health departments, AIDS Education and Training Centers, and regional STD/HIV Prevention Training Centers can help reduce these barriers by training clinicians and non-traditional community helpers in risk assessment, HIV testing, STD screening, and risk-reduction counseling. CDC recommendations in 2006 that remove the requirement for counseling as part of routine testing in health care settings may also reduce provider barriers.

Although HIV/STD testing sites can vary from community to community depending on their resources and needs, traditional testing sites generally include medical care sites with clinical professionals doing the testing. Counseling may or may not be offered for routine HIV screening prior to surgery, childbirth, or emergency treatment, depending on state law and institutional policies. However, counseling should be provided to everyone who receives a positive or preliminary positive test result.

Traditional HIV/STD testing sites are facility based:

- Private doctor offices
- Community Health Centers
- Hospital out-patient clinics
- Hospital in-patient
- Emergency departments
- Health departments
- Family planning clinics
- Correctional facilities (on intake and/or discharge)
- Mental health treatment clinics
- Substance abuse treatment clinics

The advent of non-invasive testing procedures enables HIV/STD testing in rural areas to expand beyond traditional health care providers and traditional testing sites. Before embarking on a non-traditional HIV/STD testing program, though, it is wise to check applicable state laws that may limit who can conduct HIV testing (National HIV/AIDS Clinicians' Consultation Center at *www.nccc.ucsf.edu*). Where state law allows, rapid HIV tests enable well-trained non-licensed individuals to take testing and counseling to those who are at heightened risk for infection. Chlamydia and gonorrhea screenings are easy to do by simply collecting a urine specimen, making it feasible to screen for these common STDs during annual exams and in conjunction with rapid HIV testing in non-traditional settings.

Although rapid HIV test results are available in 30 minutes or less, chlamydia and gonorrhea test results from nucleic acid amplification technology (NAAT) are not available for several days. When rapid HIV and NAAT tests are performed at the same time, a plan is needed for getting results and treatment, if needed, to those screened.

Another concern is that testing for primary and secondary syphilis requires a sample of blood drawn from a vein, making it more difficult to test for syphilis using non-traditional testers and outreach sites. In some states, disease intervention specialists (DIS) collaborate with rural testing programs to draw blood for syphilis, HIV, and other STD testing while conducting field epidemiology to identify potentially exposed sexual partners.

Ensuring that professional and non-traditional testers are adequately trained in testing, counseling, and referral can be challenging in rural settings. The time and cost of travelling to urban training sites may stop rural providers from getting training, especially training on HIV/STD prevention practices that may not seem that urgent in a rural area. Rural providers or non-traditional testers may not be able to leave their jobs for training if they have no back-up coverage. As a result, HIV/STD testing and counseling training may need to go *to* providers and non-traditional testers. Providing training locally may motivate rural providers to attend and simultaneously help to normalize HIV/STD testing within the local provider network. Distance learning technology such as Internet video seminars can be an option to augment face-to-face training in a cost-effective and acceptable way.

Expanding testing to non-traditional sites can work in rural settings but may require innovative approaches. Testing in non-traditional sites requires clarification of who is at risk for HIV/STD, identification of places where those at risk congregate, consideration of community and target audience values, ways to protect confidentiality, and available resources. State laws and health department policies may govern who may do what, in what venues, with what funds, and with what outcomes in mind. If the goal is to detect cases of HIV or STDs, targeted testing events and outreach may be a wise use of resources. Community-wide events, on the other hand, may be better for increasing HIV/STD awareness. Combining HIV rapid testing with urine-based NAAT testing for chlamydia and gonorrhea may also be a good rural strategy.

Special events are useful to increase public awareness of HIV/STD risks and sites where they and their partners can get tested and treated. Special events are often part of a larger community event so cost can be minimal. Trained volunteers can act as community educators and may conduct HIV/STD testing and counseling if allowed by state law. Rural venues for special events have included:

- Health Fairs
- County Fairs
- Rodeos
- College Fairs
- AIDS Walks
- Anti-Meth Walks
- Pow-Wows

Targeted Outreach Testing Programs identify specific at-risk groups and try to take prevention education and testing to those groups at places where they naturally gather. The following are examples of non-traditional rural HIV/STD outreach testing programs currently being implemented.

Targeted Outreach Men Who Have Sex with Men

Adult Bookstore

Outreach worker in popular adult bookstore offers educational materials and confidential rapid HIV testing and counseling. Being on-site frequently increases trust to promote interaction between customers and the outreach worker.

Public Sex Venues

Outreach workers take education and confidential HIV testing to known public environments where men meet male sexual partners. These locations are often advertised on the Internet. Outreach workers should partner for safety. Information on how to assess whether sexual activity in public places should be targeted for intervention is available at *www.popcenter.org/problems/illicit_sex/1*

Targeted Outreach Substance Users

A health educator trained in HIV testing and counseling rides a 600 mile circuit through the mountains and plains in rural Colorado to provide HIV education and free, confidential HIV testing. The program reaches people in substance abuse treatment, court mandated programs for driving under the influence or domestic violence, and those attending a monthly free testing evening in a resort community with many immigrant workers. The circuit rider goes to homes to deliver positive results in person.

Targeted Outreach Latinos/as

Promotores de Salud

This approach uses natural helpers or "promotores" from the community to provide HIV/STD testing, prevention education, and condom distribution to migrant workers. Promotores talk with workers, offer testing, and provide opportunities to try different styles of condoms. Promotores talk to farm workers where they gather or they get permission from supervisors to talk with workers during short breaks in the fields. Promotores take along trained HIV testers after the initial contact to offer oral fluid collection on the spot. Some programs collect urine specimens for NAAT at the same time. The promotores and testing and counseling team return together to give results. They also educate and test female sex workers living near the male worker camps.[11,12]

US-Mexico Border Truck Stop Outreach

At border truck stops, Spanish speaking outreach workers reach people in transit by approaching them at truck stops and border crossings where people are waiting for long periods. This provides opportunities to talk at length or conduct rapid testing and counseling.[12]

House Parties

House parties are a way to engage Latinas in conversations about HIV and other STDs in a safe and comfortable setting and offer them confidential testing for HIV, chlamydia and gonorrhea. A public health professional and promotora join together to present information and facilitate discussion. House parties are bilingual or in Spanish depending on the group of women gathered. [12]

Migrant Workers

In Kentucky, HIV testing strategies extend far beyond the mandated provision of testing and counseling in each of the 120 local health departments, most of which are rural. Kentucky Cabinet of Health and Family Services contracts with community-based organizations and local health departments to literally take testing "into the field" meaning fields of tobacco, corn, soybeans, and other common crops. Rapid testing is most often used so results can be provided in the same session, eliminating the need for the client to come back for results.

Targeted Outreach Incarcerated Males

Testing individuals serving time in prison or jail for HIV and other STDs is ideally done on admission and discharge. Inmates receive HIV/STD education and are treated for STDs. HIV-infected inmates receive case management and discharge planning such as providing transportation assistance for the first doctor's visit after release. In rural areas, jail programs have been directed by DIS, local public health nurses, or correctional facility staff. This outreach effort requires developing a solid working relationship with prison officials who may be

reluctant to identify new cases, pay for care, and address inmate sexual activity. Practices developed in more urban institutions have been implemented in rural jails and detention centers. Model programs for HIV/STD prevention in prisons are described online at:
www.nmac.org/index/prison-initiative
www.caps.ucsf.edu/projects/Centerforce/

Targeted Outreach Long-Haul Truckers

There are 3.2 million over the road truckers in the US and 1.4 million are long haul drivers covering the 48 states and Canada. A project in Spokane, Washington, found that 88% of truckers would participate in confidential rapid HIV testing at truck stops, weigh stations, or rest stops. The report identifies the risk behaviors that put truckers at risk for HIV/STD, the specific ways truckers would want to know about testing sites, and how they want to receive follow-up test results. This report is available online at:
www.srhd.org/documents/PublicHealthData/TruckerHealthReport.pdf (Please copy and paste link into your browser)

Targeted Outreach ~~American Indian Youth~~

Circle of Health is a culturally appropriate HIV, STD, and substance abuse prevention education and testing program tailored for American Indiana/Alaska Native youth attending tribal colleges in Montana. HAWK (Honoring Ancient Wisdom and Knowledge) is a California program in which trained Native Peer Advocates deliver education and risk prevention awareness to teens in the community through information booths, small group workshops and event presentations at Pow-Wows. HAWK advisor provides HIV/STD education and testing materials in the local jail.

Reasons given for NOT getting tested:

- No perceived risk of HIV
- No benefit of knowing status
- Cost
- Inconvenience (lack of immediate results or transportation barriers)
- Lack of local availability of testing
- Cultural norms, especially stigma
- Lack of privacy in testing and counseling
- Perceived lack of confidentiality
- Lack of provision and support for testing couples

Adapted from Vermund and Wilson (2002) [13]

Targeted Outreach Workplace

This community-level intervention has been implemented successfully in food processing plants to bring HIV/STD education, free HIV and other STD testing, and medical services to large groups of workers in the community. After getting support from plant management, a 2-person outreach team schedules HIV educational presentations at all orientation sessions for new workers and at quarterly sessions with a question and answer table set up for several hours during each shift. Having the same outreach workers over time increases rapport and trust so that workers feel increasingly comfortable asking questions. This program has been successful using bilingual/bicultural outreach workers in plants with a large proportion of Spanish-speaking migrant workers. HIV testing has increased 100% for agencies that have initiated this program. One challenge is getting worksite management to support HIV/STD prevention education and to acknowledge that HIV exists in the community.

Removing Individual Barriers to Testing

Perhaps the most significant barriers to HIV/STD testing are from the individual's perspective. Barriers include lack of perceived risk; fear of adverse emotional, social, and physical consequences; concerns about access to treatment and support; confidentiality concerns; and cost. These individual level concerns are much more difficult to address than provider concerns. This is particularly true in rural communities where access to affordable and confidential care is a real issue and disclosure of HIV status could have disastrous consequences to the individual and his or her family.

However, individual level barriers to testing can be addressed in a number of ways, including strategies involving the community. Community level educational efforts can address the value and need for testing (see Chapter 3 for examples). These efforts need to address the availability of treatment and care services for those who test positive (see Chapter 6). Health care facilities can improve confidentiality

Ways to increase rural testing:

- Increase awareness of HIV risk
- Increase awareness of benefit of testing
- Offer affordable tests and free tests
- Offer as routine part of health care
- Ensure that treatment would be available
- Promote social acceptability of testing
- Encourage shift towards acceptance and support of HIV-infected persons
- Ensure confidentiality during all phases: parking, site, testing, results, treatment
- Test couples and provide social support
- Take testing to people or provide transportation

Adapted from Vermund and Wilson (2002) [13]

and reduce stigma by following some of the suggestions outlined in the document *Fighting Stigma and Denial*, distributed by the National Rural Health Association (NRHA).[5] Providing testing at locations that are not easily identifiable as HIV testing sites may be one of the most practical suggestions. For example, a community center, WIC center, counseling center, faith-based organization, bar, college dormitory, truck stop, park, adult bookstore all would provide locations and that do not necessarily disclose one's HIV/STD status. Planning for reliable and confidential ways to get information to individuals who have tested positive will enable people to begin care as early as possible. This is important since many rural people go outside their community where they are not known to receive more confidential testing. Unfortunately, there are no comprehensive solutions that will motivate every individual at increased risk to seek testing or to relieve their concerns about testing issues.

A final but important individual barrier to testing is cost and access to health care. System level barriers such as access to care and cost are very difficult to address. However, there are some approaches that communities have used to increase access to care and funding for testing which may be suitable for a variety of other communities. Some rural areas that do not have enough HIV/AIDS cases to qualify for state or federal funding programs have joined together to create a consortium to buy HIV testing supplies and seek consortia funding. Other rural areas with few HIV+ cases rely on DIS from the state health department to test partners of those known to be infected. As of late 2007, Medicaid law permits coverage of routine HIV screening as an option if a state opts to include it. Medicare does not cover HIV testing unless medically indicated for symptoms suggesting HIV infection. To date, Ryan White CARE Act funding can fund HIV testing for population-based screening although screening funded by this act has been minimal and has largely been conducted in urban areas. [14]

Counseling and Testing Issues

There has been some confusion over how the 2006 CDC revised recommendations for routine opt-out HIV testing in health care settings pertain to rural settings. The revisions allow routine HIV testing in health care settings to occur without the previously recommended pre and post-test prevention counseling. Removing the counseling requirement is intended to increase the number of tests conducted in health care settings such as emergency departments where traditional prevention counseling is perceived as a barrier.[7] Post-test counseling for those identified as HIV positive is still indicated in all circumstances. Eliminating prevention counseling is not intended to apply to community-based non-health care testing and is an option not a mandate for health care settings. Some rural providers consider HIV testing as a "teachable moment" to discuss risk reduction. However, evidence suggests that a reduction in frequency of unprotected sex occurs after a positive HIV test result, not a negative test result.[15] On the other hand, there is evidence that brief messages from a physician can change risk behaviors such as tobacco use. Knowing this, rural communities may want to focus on increasing the frequency of sexual health risk assessment in medical and mental health settings to create teachable moments that would serve a broader population and possibly intervene earlier in the primary prevention process. All individuals at heightened risk of infection should be provided with or referred to HIV risk-reduction services such as drug treatment, STD treatment, and/or behavior change counseling.

Summary

Rural communities should use public health recommendations and local data to guide development of a community-tailored HIV and STD screening and testing plan that provides ongoing surveillance through routine and targeted testing using traditional and non-traditional venues and testers. Testing plans should reflect the HIV and STD epidemiology, values, available resources, identified high-risk groups, and confidentiality concerns of the community. The planning process can create community acceptance regarding the implementation of the testing and screening plan from community leaders, health professionals, advocates (e.g., advocates for migrant workers), men and women revered in the community, leaders in the faith community, and other interested and pivotal community members. Although testing appears to only involve individuals, in reality it does take the entire community to support the need for testing through anti-stigma campaigns. With community support in place, HIV testing can detect previously unidentified cases, and those individuals can begin care as soon as possible to ensure the best individual and community outcomes.

"You probably think HIV happens most in big cities – certainly not in little towns. I bet you think only certain people get it. Well, think about this.

I'm 19. I live in a town with a population of 5,000. I've never touched drugs and guess what? My old boyfriend has HIV, the virus that causes AIDS, and now, so do I. Do you know why? I used to think like you."

Kristen Blake, Young HIV+ Rural Female

Chapter 5

RESPONDING TO NEW REPORTS OF INFECTION

Flat federal funding for HIV prevention and care over the past decade along with growing urban demands for HIV prevention and services have in essence decreased the funds available to rural areas for HIV prevention and care.[1] This has been particularly evident in the South which has the largest rural HIV burden and has historically received the least federal HIV funding.[2] Despite calls to action for increased funding,[1,2] rural areas may be slow to see more money and need ways to provide HIV/STD prevention with minimal funding. Given the limited resources for rural HIV/STD prevention, a major strategy for reducing the spread of infection needs to be based on the steps health care providers, health department staff, and others involved in HIV/STD prevention take in response to newly reported cases of HIV or other STDs.

How a New Case of HIV Infection or Other STD is Identified

A new diagnosis of HIV or another STD can be a sentinel event for preventing additional infections in a rural community. One new hepatitis B or C infection may lead to the identification of multiple infections within a drug sharing network. The detection of a case of syphilis in a rural community may

lead to the discovery of others infected with syphilis, other STDs, or HIV. As such, it is essential for health departments to plan how they respond to newly identified HIV and STD cases.

State health departments require that physicians, health care facilities, and laboratories report positive test results for a variety of STDs including HIV, syphilis, congenital syphilis, gonorrhea, and chlamydia.[3] The process for notifying local health departments may vary from state to state. Once a newly reported infection is identified, it is important to determine whether the individual has any sex or drug-injection partners in his or her home community. If so, the partners might also be infected, but not be aware of their infection; thus, they may be at risk for unknowingly transmitting the infection to others.

Generally, Disease Investigation and Intervention Specialists (DIS) will contact individuals whose infections were diagnosed in health department sites to talk about their partners. However, many patients learn of their infection through sites not directly connected to a health department such as a doctor's office, community-based testing program, out-patient clinic, or emergency department. If an individual is diagnosed at such a site, there may not be anyone clearly designated to talk to the patient about the need for his or her sex and drug-injection partners to be notified of their potential exposure to HIV or another STD. If an individual is diagnosed with HIV infection or another STD infection in a doctor's office, the doctor or other health care provider may talk directly to the patient about his/her infection, ways to decrease the risk for transmission to partners, and the need to notify sex and drug-injection partners of potential exposure to the infection. However, some doctors and other health care providers may feel uncomfortable or unprepared to have this conversation with patients, or may not be aware of the importance of discussing these topics.[4]

The possibility that some clinicians may be unwilling or unable to talk frankly to their patients about sex can be a significant obstacle to preventing HIV infection and other STDs in rural areas. One person with an undiagnosed HIV infection or other STD in a rural community could transmit the infection to one or more individuals, who in turn, could infect others. For this reason, rural communities need a strategy to educate doctors, clinic staff, and others who might diagnose HIV infection or other STDs about the need for sexual risk assessments, appropriate testing, motivational risk-reduction counseling and referral to Partner Services (previously called Partner Counseling and Referral Services) provided by state and local health departments.

A proactive approach could include mailings or emails to all health care providers or at least to those known to have seen STD or HIV patients in their practices. State health departments could periodically mail or email updates about reporting requirements, training opportunities, how to utilize Partner Services, and the availability of staff to provide Partner Services in a sensitive and confidential manner.

Some state health departments have assigned DIS to particular regions while others house their DIS centrally and send them out on an as-needed basis. There are advantages to each approach. For one, DIS who are responsible for a particular geographic area become familiar with resources in the area. The downside is that they could become identified as the "STD man (or woman)." When their car is seen at someone's house, others suspect why they are there. It should be noted that this is not to imply that having regional DIS is a bad strategy. The DIS may cover such a broad area that he or she is not readily identified and many drive their own cars (versus a car with health department or government markings). The advantage of having a DIS work on an as-needed basis is that they are not likely to be recognized as being from the health department.

A more serious concern is when there is no DIS available to talk to the client. Local public health nurses or other staff may be trained to perform this function. The STD/HIV Prevention Training Centers are funded by the CDC to provide such training. One option for partner notification that may work for rural areas takes advantage of the Internet. As of 2008, nine U.S. cities and ten states (California, Colorado, Florida, Idaho, Indiana, Kentucky, Louisiana, Massachusetts, Minnesota, and Wisconsin) have em-

ployed the Internet to allow infected individuals to anonymously notify partners using clever e-mailed "postcards" through commercial programs such as inSPOT (www.inspot.org) or using internally developed programs. Although such programs do not offer individual counseling, they at least offer a means for notifying partners of potential exposure to HIV or another STD. There is no reason that such programs could not link those notified to web sites with substantial information on HIV and other STDs as well.

Suggested Strategies to Follow

There are a number of very different approaches that could or should be taken depending on the infection involved (HIV, syphilis, chlamydia, or gonorrhea) and how an infected individual responds to questions about partners.

It is beyond the scope of this document to describe such approaches in detail. However, in general, the DIS or health care provider should talk to the infected individual to identify partners who may also be infected, to identify and address ongoing risk behaviors, and to identify sexual and drug sharing networks. This discussion should also identify sexual and drug sharing networks in which disease transmission may be occurring. A more complete description of these processes is described in the 2008 *Recommendations for Partner Services Programs for HIV Infection, Syphilis, Gonorrhea, and Chlamydial Infection*, available online at www.cdc.gov/mmwR/preview/mmwrhtml/rr57e1030a1.htm *(Please copy and paste link into your browser)*

STDs are part of life. One reason they're so common has nothing to do with sex, and everything to do with silence.

inSPOT 2008

A community plan might include recommendations concerning media response to reports of new infections. Inappropriate media reporting can easily result in a breach of confidentiality, creating the unintended consequence of increasing stigma, discrimination, and possibly violence toward those who are infected or are suspected of engaging in risky behaviors. This, in turn, may discourage others from coming forth for testing or care. It may not be possible to make decisions about media coverage in advance, but having an advisory group in place through the planning process will provide a means for careful consideration of the consequences of media coverage by people who have taken time to assess community needs and attitudes towards HIV and other STDs.

Summary

The steps a community takes when new infections are identified do matter. It also matters that rural communities may have limited financial resources for HIV/STD testing and responding to people newly diagnosed with HIV or other STDs. However, having a plan in place will allow rural communities to accomplish three things:

1) ensure that people infected with HIV and other STDs are diagnosed as early as possible to prevent further transmission and to get them into care as early as possible to improve their own health outcomes;

2) have ongoing surveillance to quickly identify a potential outbreak of HIV or an STD such as syphilis that may indicate the presence of unidentified HIV cases; and

3)) respond to newly identified cases as rapidly and effectively as possible.

The planning process can be used to involve the community, to generate their support for HIV/STD prevention, and to reduce stigma and denial in the process. However, the critical piece is identifying a lead person or agency to direct this planning process. State health departments may provide guidance and support for rural planning for and responding to new cases of HIV and other STDs.

"Their needs are immense and all encompassing – yet rural areas do not have this capacity."

Rural Health Care Provider

Chapter 6

LIVING WITH HIV/AIDS IN RURAL COMMUNITIES

The number of rural people living with HIV/AIDS (PLWHA) continues to grow due to new infections, extended life expectancies for those living with HIV or AIDS, and people moving to or returning to rural areas after being diagnosed. With early detection and anti-retroviral therapy people infected with HIV can expect to live productive lives with appropriate and consistent health care. A recent report suggests, however, that certain medical conditions are prematurely striking those who are aging and living with AIDS.[1] These age-related health problems can complicate the medical management for older HIV+ individuals and increase their need for medical and support services. Regardless of age or whether they are living in urban or rural settings, people living with HIV/AIDS need high-level medical services and case management. However, many HIV-infected people in rural America have inconsistent or nonexistent relationships with primary care providers despite the Ryan White CARE Act (*www.hab.hrsa.gov/*) that provides health care and social services for those living with HIV/AIDS.[2] As one rural health care provider put it, "Their needs are immense and all encompassing – yet rural areas do not have this capacity."

Receiving a diagnosis of HIV/AIDS is daunting under any circumstances, but when it occurs in a rural setting it carries extra burdens.[3-5] Rural residents are less likely to have health insurance

making it difficult to access both care and expensive essential medications.[3] There are too few rural health care providers trained to manage the complex care for a patient with HIV/AIDS. Basic health services may be more than an hour away and specialized care may entail a several hour drive. This barrier to care is compounded by the lack of public transportation in most rural areas. Another significant gap in care for those living with HIV in rural areas is a lack

of adequate mental health services, support groups, and substance abuse treatment programs even though the need for these services in rural areas meets or exceeds the need in urban areas.[4]

A lack of stable housing can also be a barrier to care. Stable housing has been shown to increase access to consistent medical care, increase adherence to drug therapy, and decrease HIV-related risk behaviors.[6] However, rural residents living with HIV/AIDS risk loosing their housing due to discrimination, limited housing options in some rural areas, medical expenses, or an inability to work due to AIDS and related illnesses. Requesting or receiving housing assistance may unintentionally disclose a person's HIV status in a small community. And people in more remote areas may be less aware of how to access services available through Housing Options for Persons with AIDS (HOPWA) (*www.hud.gov/offices/cpd/aidshousing/*).

The burden that is perhaps hardest for rural people diagnosed with HIV/AIDS is fear of stigma and discrimination. It is not that these negative social reactions are unique to rural areas but they are often more severe and readily observed, leading to loss of jobs, housing, family, and friends. Some rural people living with HIV/AIDS have voiced concern for their personal safety as well.[7] This may be one of the most important areas of care that rural communities need to confront. Although it is a slow process, shifting social attitudes to be more tolerant of those with HIV is possible through increasing public awareness and giving these diseases a rural "face."

The important ethical issue of unintentional disclosure deserves consideration at this point. Well intended services and interventions can put PLWHA at risk for disclosure of their HIV status to other program participants, extraneous clinic or program staff, drivers, and even people merely walking by the program site. Successful programs need to put a lot of thought into ways to protect the privacy and safety of participants.

Ways to Protect Privacy and Confidentiality of Participants

- Ask participants how best to protect their confidentiality.
- Ask participants and volunteers to sign a pledge of confidentiality.
- Offer programs at neutral sites not identified with health or HIV/AIDS.
- Consider how the program is marketed and announced and whether this will "label" the site.
- Set up and clean up well before and after participants are present.
- Do not record HIV status in open medical records or program records.
- Carefully select transportation services and stress the need for confidentiality.
- Provide gas vouchers for family or partners to transport participants.
- Avoid discussing the program or participants in person or by cell phone in a public venue.

This rest of this chapter focuses on ways to overcome stigma and obstacles to care. The fifteen interventions suggest ways to link patients to quality HIV care despite limited resources and long distances. They explore ways to help providers and patients work together to reduce HIV/STD transmission. They describe innovative ways to meet mental health and social support needs of rural individuals living with HIV/AIDS. And they offer examples of how real rural communities are creatively collaborating to help integrate those living with HIV/AIDS into the community and decrease HIV stigma. Examples come from a national survey of rural HIV/STD prevention specialists [8] and from *Connecting to Care II*, a workbook by the AIDS Action Foundation that details evidence-based interventions to reduce stigma and bring quality care and support systems to patients (*www.connectingtocare.net/files/ctc_complete.pdf)*.[2]

Interventions to Link Rural People to Care

Traveling HIV Clinics

The general concept of the traveling clinic is that an HIV specialist (infectious disease physician) travels to rural areas to provide state-of-the art HIV care to those living with HIV/AIDS in the area. There is a sponsoring health care facility in the rural community that donates space and nursing staff on a regularly scheduled basis every six to twelve weeks. The host facility should be one that provides general medical care and is well-used and well respected by the target population. Regional medical centers are one example of a successful host facility. Having a personable and reliable local case manager who organizes the schedule, provides clients with lab results after the visit, and serves as a communication link between local clients and visiting specialist is one key to success.

The travel team varies depending on local resources. One model has only the HIV specialist traveling to the outlying area and working with a full medical team from the local area. In this case, the visiting specialist trains a local physician in HIV care on an ongoing basis and consults with the local physician between visits by phone. In more remote places with few local health care providers, an entire team travels to the rural location, leaving follow-up care with the local healthcare provider best suited to manage ongoing HIV treatment. In that case, the traveling team might include a nurse or advanced practice nurse, medical resident, and a phlebotomist for blood draws. In many instances, the traveling team will collect specimens for sophisticated analysis to be done in an urban or university medical center. In some states, coordinating organizations have received funding from pharmaceutical companies for a chartered airplane to minimize travel time for the traveling HIV care team.

Traveling clinics are most successful when local healthcare representatives, state health departments, and urban medical centers work together to provide high quality continuity of care in outlying areas. The AETCs are often instrumental in organizing such clinics. Ryan White Care Act Title II and III funds are used to cover many of the expenses. Although this model presents a sensible solution for getting quality care to people living with HIV/AIDS in rural areas, the scheduling logistics can be overwhelming and do not always match emergency needs of patients. This means that programs such as this must have contingency plans for transporting patients to the sponsoring medical center at times for special or urgent services.

Evidence shows rural people living with HIV/AIDS who participate in a traveling clinic program have improved CD4 counts, lower viral loads, and lead longer and healthier lives. Such programs allow HIV+ individuals to remain in a rural setting and still get quality medical care. Vermont Comprehensive Care Clinic and AETC sponsored clinics in outlying areas of Colorado are strong examples of successful traveling clinics. (*www.fletcherallen.org/Medicine/Infectious_Disease/practice_sites.html)* and (*www.aidsetc.org/aidsetc?page=ab-02-05) (Please copy and paste this link into your browser)*

Comprehensive Care Clinics

Comprehensive Care Clinics may be "traveling clinics" or may be housed in regional medical centers with an HIV specialist on staff. The key concept of these clinics is to provide all services needed at one place to minimize transportation barriers and increase comprehensiveness of care. Services include primary care with a specialist in HIV care (local or traveling physician), anti-retroviral medication management, case management, risk-reduction and prevention counseling, mental health and substance abuse treatment, "inreach" testing and referral to care for partners, immunizations, housing, food banks, job placement, treatment or referral for opportunistic infections, and hospice.

Regional medical centers are a good choice for comprehensive HIV care clinics because they have the staff and facilities to provide high level care, and because people run less risk of inadvertent disclosure in a larger facility. Health Resources and Services Administration Title III funds are often used to fund such clinics. Most are built on collaborations between regional and local health systems, such as a university medical center and state health department. Even though travel distance may be further to a regional center, being able to get all or many services at once may be worth the cost and challenges of travel. Travel vouchers may be helpful to compensate family or friends who provide transportation. Volunteers often help with transportation and other services although involving volunteers often comes with a price of disclosure.

The Oklahoma State University (OSU) comprehensive clinic program includes all medical, social, and mental health services, a formal risk reduction counseling program, and a strong "in-reach" testing program targeting partners, spouses, and friends of HIV+ patients. The average positivity rate of their HIV screening program is 10-13%. Another innovative and successful component of the OSU program is a peer "outreach" program through which volunteers with close connections to social networks of those at heightened risk for infection are trained to offer HIV testing and risk reduction education. This peer outreach program has increased the proportion of rural people living with HIV/AIDS who are in care by 25%. A similar program in Florida has used a $10 food voucher incentive to bring people in to be tested and to get those who test positive linked to care. (OSU Comprehensive Care details online at *www.hivcareinok.org/care.htm*)

Provider Pocket Guides for HIV Care

The AIDS Education and Training Centers (AETCs) provide a wide variety of pocket guides for health care providers to use to support their HIV/STD prevention and care of patients living with HIV/AIDS. The *STD/HIV Risk Assessment and Risk Reduction* pocket guide includes tips for conducting drug use and sexual risk assessments on one side with information on risk reduction counseling on the other side. The *HIV Medication Quick Reference* provides information about current HIV/AIDS medications. A chart with actual size photos of current HIV/AIDS medica-

tions is available to supplement the medication reference card. *Pocket Guide to Adult HIV/AIDS Treatment* is intended to be a quick reference for antiretroviral drugs, antiretroviral therapy, opportunistic infections, and related issues. And *Common Legal Issues and Concerns of Adolescents with HIV: A Guide for Clinicians* informs clinicians about issues specific to caring for adolescents with HIV/AIDS. Many of these resources are available for personal digital assistants (PDAs). Pocket guides and other AETC resources can be found at the following: *www.aids-ed.org/aidsetc?page=et-00-cstools (Please copy and paste this link into your browser)*

Home-Based Treatment Coordinator

The Home-Based Treatment Coordinator is appropriate for adult patients whose best option is to travel to an urban center for care. A registered nurse from the treatment institution travels to rural HIV+ patients and visits with them in their homes or another location selected by the client to discuss care plans. Specifically the nurse acts as a patient advocate and navigator, helping the patient navigate through an urban health care system.

The Treatment Coordinator coordinates these services with those provided by the case manager. The Treatment Coordinator brings the healthcare agency closer to people living with HIV/AIDS so that a conversation about beginning or continuing care can occur. Transportation and childcare are provided if needed. The Coordinator focuses on the health of the "whole person" and helps clients overcome barriers in a fragmented system. Evidence shows increased consistent care and increased CD4 counts. For more information go to: *www.connectingtocare.net/files/ctc_complete.pdf (Please copy and paste)*

Care Renewal and Prescriptions by Post

This individual level intervention takes advantage of existing postal services to help people remain enrolled in their state HIV care program and receive their medications without compromising their privacy. A case manager guides clients through the re-enrollment process by phone and assures that the materials are submitted by mail by the deadline. Another service involves having the pharmacy deliver medications to the agency or case manager. The case manager then repackages and mails the medications to the client using only a street address for the return address. This program promotes continuity of care and adherence to medication regimes while enhancing the relationship between client and case manager.

Managing our HIV Workshop Series

This group-level intervention provides a safe environment for health educators and HIV+ clients to share information about HIV/AIDS, ideas for managing symptoms, nutrition suggestions, safer sex tips, and ways to improve adherence to antiretroviral regimes. The five week series is geared to those struggling with medication adherence or just starting antiretroviral therapy. In rural areas, participants might be drawn from a regional area and sessions could rotate among locations. Transportation subsidies based on available resources and participant need are provided and prioritized based on distance travelled.

Ideally, two health educators co-facilitate most sessions and one educator should be HIV+. Depending on the group, it might be necessary to have at least one health educator who is also bilingual. A nutritionist also comes in to facilitate a session on nutrition. Open discussion, activities, and games encourage learning in a non-threatening way. Depending on the available facilities, it is best to hold the workshops in a community setting outside the clinic, perhaps at a community college, to protect privacy. Offering tasty and nutritious food at each workshop provides an incentive for participants and reinforces the nutrition messages, although it also requires additional funds. Having volunteers from local organizations provide food could be a way to garner community support, although involving volunteers may infringe on participant confidentiality.

This workshop has been shown to increase patient interest in their health care, decrease viral load through improved medication adherence, and increase social support. Participants also report increased confidence in the efficacy of their medications. It is most successful in areas with enough HIV+ clients to fill a class several times a year so people do not have to wait months for a group to begin.

Interventions to Reduce Risk Behaviors Among Patients Living with HIV/AIDS

People living with HIV/AIDS often adopt safer sexual practices after their initial diagnoses. Over time, some individuals resume risky behaviors such as not disclosing HIV status to sexual partners, engaging in unprotected intercourse, and having sex while under the influence of drugs or alcohol. These behaviors put the health of those living with HIV/AIDS and their sexual partners at risk. As a result, there is a current emphasis on preventing transmission from those already infected with HIV through ongoing, brief behavioral counseling by medical care providers as part of their routine care.

Prevention IS Care

Prevention IS Care is a social marketing campaign developed by the CDC to encourage medical care providers to include brief, tailored HIV/STD prevention messages in their regular care of patients who are liv-

ing with HIV/AIDS. Free materials help clinicians learn to tailor prevention messages, facilitate open dialogues, initiate information exchange, and strengthen patients' abilities to make healthy choices. Free informational posters and patient education brochures are available to increase patients' knowledge about risks associated with transmission of HIV and other STDs. Continuing education credit is available to motivate health care providers to update and enhance their knowledge and skills. Prevention IS Care materials and resources are available online at the following: *www.cdc.gov/hiv/topics/treatment/PIC/*

Partnership for Health

The Partnership for Health loss-frame intervention is a one-on-one, brief provider-administered safer sex intervention for HIV infected persons in medical care. The intervention is included in the CDC's Diffusion of Effective Behavioral Interventions (DEBI) program. It requires a commitment from the entire clinic to counsel patients living with HIV/AIDS to change behaviors to reduce HIV/STD transmission. The intervention emphasizes the importance of the patient-provider relationship to promote patients' healthful behavior. At each clinic visit, the provider delivers a 3-5 minute counseling session with messages that focus on self-protection, partner protection, and disclosure. Loss-framed messages emphasize the risks or negative consequences of risky behavior. The clinic posts brochures, informational flyers and posters with the loss-framed messages to facilitate counseling and help patients identify risk-reducing behavioral goals. The loss-framed intervention has been shown to significantly reduce unprotected anal and vaginal sex among HIV+ patients with two or more sex partners. In contrast, the gain-framed message intervention did not result in significant behavior changes. Partnership for Health intervention training is being provided through the STD/HIV Prevention Training Centers (PTCs) and CDC Capacity Building Assistance agencies. More information about the intervention is available online at the following: *www.effectiveinterventions.org*. More information about receiving training on Partners for Health interventions is available by emailing interventions@aed.org or going to *www.nnptc.org* to find the nearest PTC.

Ask, Screen, Intervene:

Incorporating HIV Prevention into the Medical Care of Persons Living with HIV

In contrast to Partnership for Health, Ask, Screen, Intervene (ASI) trains individual providers rather than entire clinics to screen for HIV/STD transmission risk behaviors, identify and treat other STDs, communicate prevention messages, facilitate changes in sexual and drug-use risk behaviors, refer selected clients for additional prevention services, and facilitate partner notification and referral to Partner Services. This course is designed for medical care providers of patients living with HIV/AIDS (e.g., medical doctors, nurse practitioners, registered nurses, and physician assistants); however persons who deliver prevention messages (e.g., case managers, social workers, health educators) may also benefit from the information and prevention strategies delivered throughout the course. ASI Training in rural areas is offered by the STD/HIV Prevention Training Centers (PTCs) and can be arranged by going to *www.nnptc.org* and clicking on New Training Resources – Ask, Screen, Intervene.

Interventions to Meet Mental Health and Social Support Needs

Mental Health Triage Counseling

Mental Health Triage Counseling pairs primary care with mental health and substance abuse counseling in one location to achieve a coordinated health care regimen for rural HIV+ clinic patients. It requires a relatively large staff due to the "on-call" nature of the services and may not be feasible for smaller rural health care communities. The innovative feature is that once the health care provider identifies that an HIV+ client needs a counseling session, the provider contacts the on-call counselor and escorts the client to meet the counselor on the spot. The first 30-minute triage counseling session focuses on acute issues, assesses mental health needs, and ends with counselor and client creating a plan of action for future services.

Triage Counseling is most beneficial for people living with HIV/AIDS who show signs of or have been diagnosed with mental illness. Providing both essential services in the same location at the same time enables patients to stabilize their life situations so they can actively participate in their HIV medical care. The shared location also allows coordination and communication between medical care and mental health care providers through shared records, weekly interdisciplinary staff meetings, and interdisciplinary action plans.

This model requires a supervisor and several licensed counselors with complementary areas of specialization (substance use, trauma, mental health disorders, etc.) and an ability to provide counseling in languages commonly spoken among the patient population. Counselors need to receive intensive HIV training with monthly HIV/STD updates provided by clinical staff. A consulting psychiatrist should be available if needed.

Evidence shows that those participating in Mental Health Triage Coun-

seling have improved life function scores, are more consistent in attending medical appointments, and show clinical improvement in their health. It may be difficult for counselors to adapt to this primary care model and for small communities to find adequate space and staff.

Telephone-Delivered Group Counseling

Telephone-delivered group-level mental health counseling is appealing for people living with HIV/AIDS in rural areas since it eliminates transportation barriers and decreases potential unintentional disclosure. Interventions pair one counselor with one patient for the entire treatment period. The focus is on helping participants to identify changeable and unchangeable aspects of their stressors, to develop problem-focused coping strategies, and identify appropriate ways to gain social support.

While trials of this approach have resulted in less depression and better coping among urban PLWHA, results of the few rural trials have been less clear. In general this intervention has not been shown to reduce depressive symptoms among phone counseling participants more than a control condition. However, an intervention that focused more on information than coping skills showed there were higher levels of support from friends and fewer reported barriers to health and social services four months after the intervention. [9]

It is important to note this intervention requires counselors experienced with group work, telecommunication counseling and rural issues surrounding HIV/AIDS.

Social Event Gatherings

This group level intervention is intended to decrease the social isolation experienced by many rural HIV+ clients by developing a support network and building rapport between clients and case managers. Ideally, social events would take place four times a year in a location that is HIV neutral and central to those attending. Some or all events may include families. Events should honor all cultural values represented in the group. Clients help identify a theme, plan the food, and set up or clean-up. Transportation should be guaranteed for all. Volunteers from community service organizations may provide transportation if group participants agree. The potential for unintentional disclosure of HIV status needs to be considered in planning transportation, selecting locations, and including families or guests.

Evidence shows that social events decrease social isolation and strengthen bonds between clients and case managers in a fun way. Of course, not all clients are interested in this type of socialization and it may take several events for the group to gain momentum. Offering a variety of events (outdoor, indoor, with and without family) allows for clients to attend events at which they feel most comfortable. Clients with few resources may be embarrassed that they cannot contribute to the event in some way. This can be avoided by having the organizing agency provide the food, decorations, and transportation. Similarly, it is better to avoid events that require any special dress since those with very limited resources may feel intimidated. Since the group may be quite diverse, the case manager may need to facilitate group dynamics as people get to know each other and as new members join the group.

Interventions to Integrate Those Living with HIV/AIDS into the Community

The Housing Plan

The Housing Plan is a screening tool offered in *Connecting to Care II* that engages low income HIV+ individuals living in rural areas in formulating a comprehensive plan to address their housing, financial, medical, and mental-health care needs. The tool helps clients identify and accept their needs, which may be very difficult emotionally. The emphasis is on the listening and sharing process as much as the planning. A housing case manager should take the lead but in small agencies, this could be the medical case manager. The housing case manager helps the client navigate through the channels to access housing assistance. Meetings may be in the client's home or in another "safe" and private space. Transportation is provided if the client must travel a distance. The agency can use the Housing Plan to track changes in clients' housing and health conditions. Client Quality of Life Surveys show that 91% of Housing Plan clients report they "are better able to manage their lives because of the assistance." In client reports, 70% of clients note experiencing "less stress" and the number who "lost sleep because of bills" decreased by 50%. For more details see Connecting *to* Care II at the following link:
www.connectingtocare.net/files/ctc_complete.pdf

HIV Ministry Emergency Shelter

"People in this area are much more comfortable with homelessness than HIV."

Director of the HIV Christian Ministry Emergency Shelter.

This community-level project engages volunteers from a broad faith-based community to staff a homeless shelter and refer those who are HIV+ to services through the affiliated drop-in center staff and case managers. It is a starting point for gaining support of congregations for HIV care. The shelter serves all people regardless

of their HIV status. Four local congregations rotate responsibility for shelter staffing for one month at a time. All volunteers receive information on HIV/AIDS and learn how to support clients who choose to disclose their HIV status. For those who do disclose their HIV status, paid staff members at the drop-in center connect them to medical, mental health, and social services. The shelter helps to decrease community stigma and discrimination by giving a "face" to HIV/AIDS. Case managers are available to help people find employment and develop a plan for permanent housing. Such shelters and drop-in centers could be sites for voluntary HIV and STD testing. Since there is high turnover in the shelter volunteer staff, policies should be in place to help prevent unintentional disclosure of HIV status to those outside the program. Clients who have fully engaged in the transitional shelter and counseling have reported that they have regained their dignity and self-worth through the experience. Congregation members appear to be more tolerant of PLWHA based on their increased donations to the shelter and an increase in the number of volunteers involved.

For more details go to *Connecting 2 Care II* at: *www.connectingtocare.net/files/ctc_complete.pdf (Please copy and paste this link into your browser)*

HIV Community Task Force

An HIV Community Task Force brings together HIV+ and HIV- community members, service providers, educators, and leaders from faith-based organizations to identify and address HIV/AIDS specific issues in the community. The focus is often the needs of those living with HIV/AIDS. Collaborative groups help to break down HIV/AIDS stigma by increasing understanding of the commonalities shared by those infected and not infected with HIV. A key staff person, such as a case manager from the local health department, often acts as the organizer. The group may select somebody different to facilitate meetings. It is helpful if the organizer and facilitator remain consistent for at least a year.

Keys to success include: meeting in a neutral location, giving group members the right to disclose or not, and establishing a high level of confidentiality and trust between group members. Neutral locations might include a community center, church, public library, community college, or a local business meeting room. All participants must feel comfortable meeting in a church space if that is an option. This model has been used successfully in communities with Black populations and in communities in the rural West with primarily white MSM and youth affected by HIV. Involvement of faith leaders has had a strong impact in the rural South and may encourage participation by Black women. Groups usually meet monthly, which can contribute to fluctuations in attendance and make it difficult to accomplish tasks in a timely manner. Transportation support helps assure full attendance as does having a conference telephone line and speaker phone available for those unable to attend in person.

Having a concrete task for the group to work on leads to team building, insightful conversations, and increased attendance. Recruiting members based on the core task ensures that those involved have common interests. Tasks might include a community awareness campaign, compiling a local resource directory, or planning a local fundraiser such as an AIDS walk. The San Luis Valley HIV/AIDS Task Force in rural Colorado sponsored a rapid HIV testing and counseling training session for several neighboring counties. The Huntingdon County AIDS Task Force in Pennsylvania is reinventing their group to provide general HIV/AIDS information and specific resources to support those infected and affected by HIV/AIDS. Task forces may face the challenge of needs that exceed volunteer capacity and available funds. On the other hand, the group creates an ability to leverage resources within the group and bring together resources from the networks of each group member.

Summary

Providing care for those living with HIV/AIDS is challenging in all settings, but it is uniquely challenging in rural areas. Several interventions presented here show that the lack of rural HIV care specialists, transportation challenges, and poverty can be overcome to effectively link rural residents to HIV care. Other interventions describe programs to motivate and train rural medical care providers to include HIV/STD prevention messages in their routine care to help protect the health of those living with HIV/AIDS and their partners. Meeting mental health needs in rural area can be improved by partnering with primary care, using telephone technology, and bringing those affected by HIV together to develop support networks. Helping people living with HIV/AIDS maintain stable housing and become more integrated with the community can be accomplished through individual level counseling, programs sponsored by faith-based organizations, and community task forces. Hopefully, these programs can work for other rural communities or at least provide suggestions for ways to bring innovative ideas and resources together at multiple levels to confront rural obstacles to HIV care and prevention.

"The evidence demonstrates that we are not powerless against the epidemic, but our response is still a fraction of what it needs to be. The real task now is to increase, massively, the political will, resources, systems, and social commitment to turn the tide."

Peter Piot,
Joint United Nations Programme on AIDS

Chapter 7

BEHAVIORAL INTERVENTIONS THAT MAY WORK

Introduction

HIV/STD prevention encompasses at least four kinds of activities: 1) sharing information with the whole community about HIV/STD, how it passes from person to person, and encouraging acceptance of those at risk for and infected with HIV and other STDs (Chapter 3); 2) implementing a surveillance system to identify those who are infected and monitor risk behaviors (Chapters 4 and 5); 3) providing care and treatment for those living with HIV/AIDS and those diagnosed with another STD (Chapter 6); and 4) motivating groups at risk of infection to reduce or eliminate risky behaviors. All of these activities work best when they take into account community needs, values, and resources as well as the target audience's needs, values, and experience. This chapter focuses on the fourth activity, behavior change, and introduces interventions intended to motivate individuals to reduce or eliminate risky behaviors to prevent both the transmission and acquisition of HIV and other STDs.

The spread of HIV and STDs depends on two things: the risky things people do, and doing those risky things with people who are infected with HIV, hepatitis, or another STD. The most common behaviors that put people at risk for HIV and other STDs involve: having anal sex without a condom; having vaginal sex without a condom; having more than one sex partner; having an untreated STD; sharing drugs, injection works

or needles that have been in contact with an infected person's blood, and having a sex partner who injects drugs or has had unprotected sex with an infected individual.

Certain realities inherent in rural America can lead some people into risky behaviors. For instance, rural MSM may seek sex partners through the Internet or in a place away from home because there are few potential partners in their rural area or because they want to prevent local disclosure of their sexual orientation. Long-haul truckers and migrant farm workers may engage in unprotected inter-

course with a sex worker or casual partner. Rural methamphetamine users may have unprotected sex with multiple partners, some of whom may be sharing injection works. These same partners may also travel between rural areas or to urban areas to buy or sell drugs, exchange sex for drugs, or to party with other drug-users, creating a pathway for the spread of HIV and other STDs into and between rural communities.

HIV/STD behavioral interventions that have been shown to change risk behaviors have some common characteristics. Interventions are considered efficacious if rigorous evaluation has shown that they reduce high-risk sexual and drug use behaviors over time and increase safer sex attitudes, self-efficacy, behavioral intentions, and protective social norms. Interventions work better when they are tailored for a specific target audience. They can target the community, small groups, individuals, or employ strategies at multiple levels to initiate behavior change. Interventions are more likely to change behavior when designed to impact the underlying factors (behavioral determinants) that have been shown through research to contribute to health behavior. For HIV/STD prevention, interventions commonly target behavioral determinants such as knowledge, skills, attitudes, beliefs, perceived risk, perceived severity of consequences, self-efficacy, behavioral intentions, and social norms.

To have the greatest impact, HIV/STD behavioral interventions should target both risky behaviors and people at heightened risk for infection. Epidemiological data can help to identify groups at heightened risk and risky behaviors. For example, more than half of rural males living with AIDS between 2001 and 2005 reported they were exposed to HIV from having sex with other men. About 20% of rural males living with HIV/AIDS reported being exposed by injecting drugs and another 20% reported being exposed by having sex with a woman. In contrast to men, over half of rural women living with HIV/AIDS attribute their disease exposure either to having sex with a man or to an unknown source of exposure – that is, they simply do not know how they were exposed. Women in rural areas are somewhat less likely than women in urban areas to be exposed to HIV by injecting drugs.[1]

In addition to targeting specific risk groups and behaviors, interventions should consider the social and cultural contexts in which risk behaviors occur. Some rural prevention specialists worry that behavioral interventions designed for urban populations may not work the same for rural populations because rural contexts differ from urban contexts. This is a reasonable concern since few evidence-based interventions have been developed for and tested with rural populations. The following sections address that concern by outlining steps to select behavioral interventions that address the risk behaviors in the community regardless of whether it is rural or urban. Then, steps for adapting that intervention to fit the social and cultural contexts are presented. By combining knowledge of local disease patterns, community risks, assets, and needs with the knowledge of what works to change risk behaviors, rural prevention specialists can decide 1) if a behavioral intervention is needed, 2) what intervention would be best suited to change the risk behaviors, and 3) what adaptations may be needed to make the intervention successful in the rural setting.

In general, efficacious behavioral interventions:

- Emphasize safer sex knowledge
- Target theory-based behavioral determinants
- Provide safer sex skills training
- Provide practice of new skills
- Focus on a well-defined audience
- Use formative research to understand how the target audience reacts to program content and delivery and gather specific suggestions from the target audience
- Target and tailor messages to the specific audience
- Connect with the target audience through sites frequented by them
- Incorporate behavioral goals, teaching methods, and materials that are appropriate to the age, sexual experience, and culture of participants
- Use a variety of delivery methods|
- Are delivered in multiple sessions spanning at least three weeks

Adapted from DiClemente and Peterson (1994), Kirby (2001), Herbst (2005) and Noar (2008) [2-5]

When should HIV/STD behavioral interventions be used?

How does a community decide whether and when to implement a behavioral HIV/STD intervention? The first step is to gather information to assess the community's health needs, available resources, and cultural views about HIV/STD. However, this process requires a person, organization, or task force to coordinate the collection, analysis, and interpretation of community information. This role can be filled by a public health official, community activist, local medical care provider or group of providers, community-based organization, or a community task force that includes a multitude of people who are invested in HIV/STD prevention.

During the assessment process, it may become evident that there are competing health needs and inadequate resources to address all the existing needs fully. To justify allocating resources for HIV/STD prevention, rural communities need HIV/STD information from two surveillance systems: one that detects, reports, and responds to incident and prevalent cases of STDs and HIV/AIDS and a second that tracks behaviors that increase the risk of HIV and STD transmission. That said, gathering disease surveillance data in rural areas may be less than straightforward due to health department policies that limit the release of data when reporting small numbers of infections could compromise confidentiality. Consequently, the DIS may become an important channel for identifying a change in disease incidence or exposure in a rural community. Tracking risk behaviors may also be challenging since national survey data may not be applicable to some rural areas. Community assessment teams may need to look for innovative data sources (social services records, key informant interviews, or local observations) to document existing and changing risk behaviors.

If disease surveillance shows that HIV and sentinel STDs are not very prevalent in a rural community at a particular point in time, then surveillance and community activities that increase awareness and reduce stigma may suffice for the time. (See Chapter 3 for more information about community awareness campaigns and Chapters 4 and 5 for more information about early detection and how to respond to new cases of HIV/STD.) In areas with low disease prevalence, local health care providers need to at least be asking patients about risk behaviors, screening for HIV/STD among those at heightened risk, providing treatment or linking to care, reporting new infections, providing individual risk reduction counseling, and initiating partner services. Consequently, improving risk assessment and HIV/STD screening practices among health and mental health care providers may be a reasonable place for rural communities with low HIV/STD prevalence to start. Training for providers is available through regional AETCs and STD/HIV Prevention Training Centers (*www.aidsetc.org) and (www.nnptc.org*).

On the other hand, an increase in new cases of STDs, particularly syphilis or hepatitis B and C, may warrant expending resources on an HIV/STD behavioral intervention. There are many options for primary and secondary HIV/STD prevention that are appropriate for the needs in rural areas, and behavioral interventions are one option when an HIV/STD problem has been identified. The key is to have a process in place by which a rural community can determine when there is an increase in infection, who is being infected, how infection is spreading, what resources are available to conduct an intervention, and what behaviors contributing to transmission can be modified by an intervention of some kind.

Interventions promoted through the Diffusion of Effective Behavioral Interventions (DEBI) project have been designed to target a wide range of populations and risky behaviors. DEBIs target the community, small groups, individuals, or use multiple intervention levels to reduce risk behaviors among individuals at heightened risk for HIV/STD. DEBIs require varying levels of resources to implement and sustain. Expenses involved in implementing DEBIs may include costs associated with program materials, travel for training personnel or for participants, and developing adequate organizational infrastructure to implement and evaluate the program.

One concern voiced by those in rural areas is that allocation of government funds for the implementation of DEBIs may be prioritized based on HIV/STD prevalence or spikes in incidence of disease or risk behaviors, which generally are higher in urban areas. Although this perception may oversimplify the allocation process, it highlights the importance of rural areas having a system in place to track emerging risk behaviors and incident STDs in order to document a new problem and secure intervention funding when needed. In addition, the system needs to specify who is responsible for routinely reviewing these data and what level of change might warrant intervention. Lastly, such a system needs to define the process by which an intervention would be selected that would meet the identified need and be feasible given the resources available.

Selecting an HIV/STD Behavioral Intervention

After a community decides that disease and behavioral surveillance justify the need for a behavioral intervention, the following four-step process should guide selection of a program that is likely to change the desired behavior in the specific at-risk population.

Step one Is to look at HIV/STD needs in the community to determine who is getting infected with HIV and other STDs, what behaviors are contributing to disease transmission, where those people gather or would feel safe gathering, how they might be reached, and the context in which risk behaviors are occurring. This assessment should lead to the definition of one or more HIV/STD problems faced by the

community and the identification of the at-risk population to be targeted for intervention. This is also the time to assess the resources needed and available to address the problem, as well as the readiness of the community and target group to act or make changes. Much of this assessment may have been completed prior to getting to the selection process.

A crucial part of the first step is to determine which behaviors (e.g., unprotected sex, sharing unclean syringes or injection works) are putting community members at risk for HIV/STD. Equally important is the creation of a list of behavioral determinants that could be modified to initiate behavior change. Focus groups composed of members of the target audience may generate this list of behavioral determinants. The process may also reveal social and structural determinants of risk behaviors such as poverty, stigma, a lack of access to health care, and/or policies that impact risk behaviors (e.g., needle exchange policies). Although social and structural determinants may not be used to select a behavioral intervention, an understanding of those determinants may be useful later when thinking about adapting a prevention program.

A logic model is a useful tool that explicitly shows the rationale that links the HIV/STD problem in the community to the risk behaviors/behavioral determinants and then to the intervention strategies that have been shown effective in creating positive change. Some excellent resources for developing logic models can be found online at: *www.cdc.gov/eval/resources.htm#logic%20model (Please copy and paste link to your browser)* or in the *Tools for Building Culturally Competent HIV Prevention Programs*.[6]

Step two requires matching the target audience, HIV/STD risk behaviors, and behavioral determinants of the community with those targeted by available effective behavioral interventions. Several websites list the intended target audience, targeted behaviors and behavioral determinants, and describe program activities and strategies of effective interventions (*www.effectiveinterventions.org/)* and *(www.cdc.gov/hiv/topics/research/prs/evidence-based-interventions.htm*) *(Please copy and paste links to your browser)*. It is important to thoroughly understand the intervention being considered by reviewing the literature that describes the program elements in detail. If the initial matching process identifies multiple programs that target the same audience and behaviors but use different strategies to achieve the desired outcomes, more than one program can be reviewed in step three when required program resources are matched with organization and community capacity.

Step three begins after the initial matching process and involves assessing the organization's readiness and capacity to implement the different options. Capacity depends, in part, on availability of organizational resources such as staff, space, and funding. It is equally important to assess the capacity of the organization to recruit, retain and work with the target audience, and to overcome challenges unique to the community such as stigma or lack of public transportation.

Step four the final selection, should be guided by matching the capacity of the organization with the requirements of the intervention. It is necessary to have adequate resources to conduct an intervention as designed to achieve the anticipated outcomes. If the organization does not have the capacity to implement the best-matched intervention despite a demonstrated need, the state/territorial AIDS director or STD director may be able to recommend a capacity building assistance provider. If the organization is having difficulty selecting an intervention, the STD/HIV Prevention Training Centers offer training to help organizations select, adapt, and implement effective HIV/STD behavioral interventions (*www.nnptc.org*).

Throughout the selection, adaptation, and implementation process, planners and implementers must keep issues of cultural sensitivity and program sustainability in mind. Insuring that a program is culturally appropriate for the specific audience(s) will improve the likelihood of that program's effectiveness. Identifying the correct personnel with the cultural competence, appropriate skills, and connections to the target community is a particular challenge in small communities. The recent publication Tools for Building Culturally Competent HIV Prevention Programs provides excellent tips for adapting tested programs to become culturally appropriate for a given community.[6] Planning for a program to be continued long enough to make a difference is important as well since it often takes multiple years to gain the trust of populations at heightened risk of infection. This requires both ongoing funding (whether from repeat or new sources) and the ability to replace staff to maintain program continuity.

Adapting an HIV/STD Behavioral Intervention

Even after the best-matched intervention is selected, there may be a need to adapt it to the unique local context in which the intervention will be implemented. Information gathered in the selection process should help determine what, if any, adaptations might be useful. The CDC recommends that when making program adaptations, it is critical to keep the "core elements" in place. Core elements are key foundations of the program that, if changed, are believed to potentially render the program ineffective.[7-9] Although each intervention has a unique set of core elements, most have to do with content, the number and order of sessions, and the specific way the intervention is delivered.

Adaptation should address contextual, cultural, and structural needs identified during the selection process. Program elements that can be changed to adapt a program to the rural context may include:

- changing elements of the program to better fit rural culture and social contexts
- changing language to terms and phrases used by the target audience
- using examples that reflect the experience of the target audience
- changing the days or times when the program meets to fit the target audience's needs
- changing location to meet the target audience where they congregate or feel safe

Adaptations should be carefully planned and documented to monitor success or guide future revisions. Adaptations should be piloted and evaluated to see how well they are received by the participants and whether the program, as adapted, results in the expected changes in the behavioral determinants. If the pilot uncovers shortcomings, then the intervention should be modified accordingly and piloted again. Final implementation of the adapted intervention should include monitoring to ensure the core elements are being implemented with fidelity and the desired outcomes are being achieved.[9] Organizations may benefit from technical assistance in adaptation from training centers, capacity building assistance providers, and state health departments or other funding agencies.

HIV/STD Behavioral Interventions that May Work in Rural Settings

The next section shares strategies used by rural providers to reduce specific risk behaviors in a defined group of people. Because most of the programs have not been rigorously evaluated in the rural context, they are described here as programs that *may* work for rural HIV prevention.

The CDC has defined four Tiers of Evidence to distinguish between interventions with strong evidence of efficacy and those with weak or minimal evidence. Tier 1 and Tier 2 interventions have strong evidence of efficacy such as significant behavior changes in the intervention group but not in a comparison group. Tier 1 interventions showed behavior changes that lasted three months or more after the intervention. Tier 2 behavior changes continued one month or more after the intervention. In contrast, Tier 3 and Tier 4 interventions are based on theory and a logic model but lack adequate evidence of efficacy. Tier 3 interventions show evidence of behavior change after the intervention but lack a large enough sample or comparison group. Tier 4 interventions are theory-based and have data showing how well the program is accepted by participants, but they lack behavioral outcome measures. The CDC recommends selecting interventions from Tier 1 and 2. Learn more about the tiers of evidence at *www.cdc.gov/hiv/topics/research/prs/tiers-of-evidence.htm. (Please copy and paste link to your browser)*

Many of the programs described in the following section are adaptations of interventions from the CDC's DEBI program. The DEBIs adapted for rural areas that are included in this list were developed and evaluated based on earlier standards of evidence that were appropriate for the time but are not as stringent as the tiers of evidence standards applied since 2005. The two individual-level DEBIs described below have been designated as Tier 1 and 2. At this point, the tiers of evidence have not been applied to community-level interventions due to the complexity of those study designs. Consequently, the community-level interventions published in the original 1999 compendium are currently classified as "interventions included in the original compendium" rather than given a tier designation. Many of the programs referenced below fall into that category. Other programs presented in this chapter could be considered Tier 3 since they are based on theory, a logic model, and have shown statistically significant behavioral outcomes, but lack the required sample size or retention rate for Tier 1 or 2 inclusion. A few Tier 4 interventions are included as examples of what is being done in rural areas, although it is not clear whether they reduce HIV/STD risk behaviors.

The following list offers an initial overview of rural HIV/STD prevention programs, but it is not exhaustive. The focus here is on behavioral interventions to reduce HIV/STD in rural settings. Programs were identified for this review from the results of a 2006 online and fax survey soliciting information about prevention programs from 264 rural prevention specialists in the RCAP network from 39 states and the District of Columbia. Additional programs were identified by the rural HIV/STD prevention work group and from presentations at the RCAP *HIV/STD Prevention in Rural Communities: Sharing Successful Strategies* conference held in April 2007 at Indiana University. In many cases, rural providers have made important adaptations to enable these programs to better "fit" the rural context, and these adaptations are noted. Many rural HIV/AIDS prevention specialists also reported in the 2006 survey that there is a need for evidence-based programs specifically designed for and tested in rural areas. Some of the programs presented here may serve as a foundation for such development. Additional descriptions of the evidence-based programs and guidance for community implementation can be found in the Updated Compendium of Evidence-Based Interventions and the Provisional Procedural Guidance for Community-Based Organizations..[7,8] The CDC's HIV/AIDS Prevention Research Synthesis website is another excellent resource for best-evidence as well as promising evidence interventions at *www.cdc.gov/hiv/topics/research/prs/evidence-based-intereventions.htm (Please copy and paste link to your browser)*

Programs to Decrease Unprotected Male to Male Sex

In the U.S., the largest proportion of people with HIV/AIDS is men exposed to the virus by having sex with men. This is true for both rural and urban areas.[1] Consequently, MSM are a primary focus for HIV prevention interventions. Successfully implementing programs to reduce HIV and STD transmission among MSM is a particular challenge in rural areas in part due to discrimination and homophobia. This seems to apply regardless of whether men identify as gay or bisexual, and whether they are open or secretive about their behavior. Although there are few if any venues for men to socialize with other men in rural areas, social networks may provide a good way to recruit men into interventions. Some MSM are fearful of disclosing their behavior to avoid stigma, discrimination, and potential violence so they may be reluctant to openly participate in interventions. The following interventions begin to address some of these challenges. However, the first step in any rural HIV/STD behavioral intervention is to assess the community and identify local social networks. This requires gathering information about the accessibility of the target audience, their stage of readiness to change, the assets they bring, the social or sexual networks in which risk behaviors occur, and cultural as well as structural influences that might hinder or support the implementation of a program. Rural adaptations of MPowerment, Community PROMISE, and VOICES/VOCES are described along with four Tier 3 and 4 interventions, two of which utilize the Internet. It is clear that more interventions addressing rural MSM and especially rural MSM of color are needed.

Colorado ManREACH: Rural Education in Action for Community Health

Target Behaviors and Behavioral Determinants

Unprotected male to male sex; lack of venues for safe socialization; perceived lack of power and social support.

Description

Adaptation of MPowerment
(DEBI from Original Compendium)
www.mpowerment.org

This community-level intervention builds positive connections among men of all ages who identify as gay, bisexual, or queer and live in rural Colorado. Regional events are hosted in varying locations. Events offer a safe space for sharing information, socializing, building support, and promoting safer sex. Modeling healthy behavior and mentoring are guiding principals. Statewide gatherings are held each summer. ManREACH uses a statewide steering committee to plan events.

Adaptation

Core elements have not been altered. The intervention has been modified to include rural MSM of all ages and takes advantage of rural isolation and beauty to provide inviting safe venues for activities.

Evidence

The original intervention showed a decrease in unprotected sex and a reduction in new HIV infections but these outcomes have not been measured in the adapted program. The numbers of rural men attending ManREACH events and working in the leadership group have increased each year. A ManREACH research and evaluation committee is working with the Colorado Department of Public Health and Environment's research and evaluation unit to collect and analyze outcome data.

Recommendations

Holding events at multiple sites throughout the state during months with good weather increases participation. Developing leadership with statewide representation of rural MSM is a critical component for success.

Where Implemented

Rural Colorado, statewide

Contact Information

www.manreach.org,
info@manreach.org.

Montana Gay Men's Task Force MPowerment

Target Behaviors and Behavioral Determinants

Unprotected male to male sex; lack of adequate knowledge about safer sex behaviors; lack of venues for safe socialization; perceived lack of power and social support.

Description

Adaptation of MPowerment
(DEBI from Original Compendium)
www.mpowerment.org

This statewide community-level HIV/STD prevention program targets openly gay and bisexual adult men who live in rural Montana (generally older than those in the MpowerMT group described next). Activities are developed, implemented and evaluated by a core leadership group of gay and bisexual men selected to represent different ethnicities, HIV status, and geographic locations. The group meets three times a year to plan holistic health retreats, one-on-one outreach, rapid HIV testing, Internet outreach, and health summits. Based on the MPowerment DEBI, this program includes discussion groups and educational presentations about safer sex. The intention is to mobilize rural gay and bisexual young men to shape a healthy community for themselves, build positive social connections, and encourage and support their friends to have safer sex.

Adaptation

Core elements remain intact. Montana Gay Men's Tasks Force (GMTF) has been modified to include a broader age

range of rural MSM and intentionally includes diversity in the leadership group to reflect the diversity of rural Montana MSM.

Evidence
The original intervention showed a decrease in unprotected sex and a reduction in new HIV infections but these outcomes have not been measured in the adapted program. For Montana GMTF, 80% of participants who completed a pre-post knowledge assessment demonstrated a gain in new information about safer sex.

Recommendations
It is essential to include rural gay men in the design, implementation and evaluation of the program.

Where Implemented
Rural Montana, statewide

Contact Information
www.mtgayhealth.org
1-888-713-GMTF (4683)

MpowerMT

Target Behaviors and Behavioral Determinants
Unprotected male to male sex among young MSM; lack of adequate knowledge about safer sex behaviors; lack of venues for safe socialization; perceived lack of power and social support.

Description
Adaptation of MPowerment (DEBI from Original Compendium)
Developed by and for young, rural MSM ages 18-29, this community-level DEBI is directed by a small core group (8-10) of gay and bisexual young men with support from AIDS Service Organization staff. The intervention has four integrated activities. Formal outreach is conducted by teams that create their own social events to attract young rural MSM and promote safer sex. In contrast, informal outreach involves the core group members discussing safer sex with friends. M-groups are peer-led 2-3 hour meetings of 8-10 young rural MSM to discuss factors contributing to unsafe sex. Through skills-building exercises, the young men practice safer sex negotiation and correct condom use skills. An ongoing publicity campaign attracts young men throughout the state to the project by word of mouth, the Internet, and articles or advertising in gay newspapers. Free condoms are provided at all meetings. *www.mpowerment.org*

Adaptation
Core elements remain intact and this is the age group of the original DEBI. MpowerMT has been modified to reflect rural culture by discussing issues pertinent to the group such as discrimination, American Indian values, and social isolation.

Evidence
The original intervention showed a decrease in unprotected sex and a reduction in new HIV infections but these outcomes have not been measured in the adapted program. Pre- and post-event knowledge assessments consistently show a gain in risk reduction knowledge of 80% for those completing the assessment.

Recommendations
This intervention is intended to have local adaptations and works well in rural Montana to reach the entire community of young gay and bisexual men and support safer sex behaviors through community empowerment.

Where Implemented
Rural Montana

Contact Information
www.mtgayhealth.org
1-888-713-4683

Sexuality Training, Education and Advocacy for Men (STEAM)

Target Behaviors and Behavioral Determinants Community identified risk behaviors: unprotected male to male sex; multiple partners; alcohol and substance use; lack of information and motivation to adopt safer sex and drug use behaviors.

Description
Adaptation Community PROMISE (Peers Reaching Out and Modeling Intervention Strategies)
(DEBI from Original Compendium)
www.effectiveinterventions.org

STEAM is a community-level intervention tailored to white men who have sex with men in rural Connecticut. The target community includes gay and bisexually identified men as well as non-identifying MSM. The intervention includes a community identification process to assess how ready the target community is to change HIV/STD risk behaviors. A small group creates role model stories based on stories from the target community. Role model stories are then matched to the various stages of readiness for change that exist in the community. These printed role model stories are distributed by peer advocates to the broader MSM community.

Adaptation
Core elements remain intact. The role model stories reflect the rural issues confronting the target community. Role model stories are distributed to MSM at locally defined sites including parks, rest areas, adult bookstores, and student centers at local colleges to reach a broad audience of men from the target community.

Recommendations
The program director says, "Of the DEBIs that are available, this is the most amenable to work with a rural population that has not been approached before, which is the situation for MSM in this corner of Connecticut. Our experience is that it is a model much better suited to an urban environment with a much more fully developed community infrastructure." This long-term intervention requires commitment of resources for several years and takes at least two years to receive training and implement. It also requires involve-

ment of the target community. In rural areas, it may be challenging to identify "hidden" groups of men who have sex with men and get them engaged in defining the "community" and its needs. The advantage is that it can be used for men who have sex with men as well as with people using drugs depending on how the risk community is defined.

Evidence
In the original research, those exposed to the intervention moved toward consistent condom use with main and non-main partners, increased condom carrying and showed positive progression in the stages-of-behavior-change for condom use and bleaching used syringes. Evaluation data for the adaptation described are not available at this time.

Where Implemented
Willimantic, Connecticut

Contact Information
www.perceptionprograms.org
860-450-7248

VOICES/VOCES (Video Opportunities for Innovative Condom Education and Safer Sex)

Target Behaviors and Behavioral Determinants
Inconsistent and incorrect condom use among rural Black and Latino men, women, youth, and MSM; lack of skills to use condoms correctly and consistently; lack of condom use negotiation skills; lack of social norms and social support to promote condom use.

Description
Adaptation of VOICES/VOCES (Tier 1 DEBI) *www.effectiveinterventions.org/go/interventions/voices/voces*

VOICES/VOCES is a group-level 45-minute video-based program that encourages condom use, and improves negotiation skills. Small groups of 3-8 watch a 20-minute video, discuss difficulties experienced trying to use condoms, and brainstorm strategies to increase condom use. There are two versions, one tailored for a Black audience and another (bilingual) for a Latino audience. Free condoms are distributed as part of the program.

Adaptation
Originally developed and tested for men and women of color attending STD clinics, this video has been used in rural Pennsylvania with rural youth under 18, young adults ages 19-24, drug users (including those who inject), incarcerated men, and MSM.

Evidence
When implemented in the original STD clinic setting, fewer STDs occurred in the group that saw the video and participated in the discussion. It is difficult to collect evidence of behavior change for these rural youth. However, after the single session, more participants report an intention to use condoms consistently.

Recommendations
Core elements are easy to deliver with fidelity in many rural settings with a variety of audiences. It is a "great one time program" that does not require too many resources and minimal recruitment.

Where Implemented
Johnstown, Pennsylvania

Contact Information
Commonwealth of Pennsylvania
Department of Health, Johnstown, PA
(814) 533-2205

VIBES (Very Informed Brothers Engaged for Survival)

Target Behaviors and Behavioral Determinants
Unprotected male to male sex among young African American men; lack of cultural pride; perception of lack of power; lack of condom negotiation and relationship negotiation skills; lack of personal sense of responsibility for sexual safety; lack of goal-setting skills, lack of problem-solving skills.

Description
VIBES is a Tier 3 theory guided, research based, group-level, six-session behavioral HIV prevention intervention for young rural Black MSM. The intervention develops decision-making and condom negotiation skills, helps youth create risk reduction strategies, and advances cultural empowerment.

Evidence
Youth who participated in the VIBES intervention experienced significant gains in condom use and risk reduction skills as compared to a control group of youth receiving basic HIV education.

Recommendations
Please see the VIBES curriculum for lesson plans, and implementation suggestions. Illinois Department of Public Health provides training on this intervention.

Where Implemented
Illinois, Indiana

Contact Information
Jeffery Erdman at Champaign-Urbana Public Health District (217) 239-7827
jerdman@cuphd.org

Project HOPE Internet Risk-Reduction Intervention

Target Behaviors and Behavioral Determinants
Unprotected male to male sex; sex with multiple partners linked through Internet dating services; lack of information and motivation to change behavior; lack of skills and self-efficacy to reduce risk behaviors with Internet sex partners; lack of social norms that support safer sex behaviors.

Description
This Tier 3 theory guided and research based three-session individual Internet intervention uses banners tailored to different ethnicities to recruit MSM into the intervention. The interactive illustrated interventions teach basic information about HIV transmission and prevention, help participants rethink how they can decrease their specific risk behaviors using real life scenarios, and help motivate participants to change behaviors. The intervention can be accessed at *www.wrapphome.net* but active recruitment through banner placement has been discontinued at this time.

Evidence
Those who completed the three sessions report decreased occurrences of unprotected sex, increased condom use, and decreased number of sexual partners (if person started with 2 or more). The long-term maintenance of these changes is not known.

Recommendations
Tailor messages to cultural values for each ethnicity. Repeated interventions work better than one time interventions. This intervention reaches hidden rural populations and protects their anonymity but may require active recruitment.

Where Implemented
Wyoming Rural AIDS Prevention Project (WRAPP)

Contact Information
Ann Bowen, WRAPP, University of Wyoming 1000 East University Ave, Laramie, WY 82071 (307) 766-4327
www.wrapphome.net

Internet Risk-Reduction Counseling

Target Behaviors and Behavioral Determinants
Client-identified risk behaviors include unprotected male to male sex and drug use before and during sex; client-identified behavioral determinants include lack of social networks that support safer sex behaviors; attitudes toward safer sex behaviors; lack of skills and self-efficacy to negotiate safer sex in some social situations.

Description
For this Tier 4 locally-developed, theory-based, individual level intervention, HIV prevention staff conduct risk reduction counseling sessions via the Internet, either in chat rooms or through instant messaging, to assist high-risk individuals in creating brief HIV risk reduction plans, assist them with skills-building, and refer them to HIV testing and other appropriate prevention services. This intervention builds on Social Cognitive Theory, Stages of Change, and Diffusion of Innovations Theory. It works to reach MSM in rural areas where services are scarce and/or distance impedes clients from accessing services.

Evidence
This intervention has not measured behavioral outcomes due to confidentiality concerns. Clients involved in the counseling report satisfaction with this method of obtaining information and referrals.

Recommendations
Choose the websites that community members log on to often; identify the times of day that clients access these sites; be upfront when online in identifying staff as being from a health center; be prepared to always offer referrals. Ethical issues such as protecting confidentiality should be addressed prior to beginning online counseling. Advising clients of security limitations and encrypting emails may be advisable.

Where Implemented
Rural Illinois

Contact Information
Illinois Department of Public Health 312-814-4846.

Programs to Decrease Risk from Injecting Drug Use

Healthy Communities / Safety Counts

Target Behaviors and Behavioral Determinants
Sharing unclean syringes, rinse water, other injection works; engaging in unprotected sex; unknown HIV serostatus; lack of motivation to change drug use or sexual risk behaviors; lack of social support for safer sex and drug use practices.

Description
Adaptation of Safety Counts (Tier 2 DEBI) *www.effectiveinterventions.org*

Alcohol and drug use can lead to behaviors that put people at heightened risk for HIV infection. Nearly 20% of rural male adolescents and adults diagnosed with AIDS between 2001 and 2005 were exposed to the virus by injecting drugs. Approximately 8% of rural men with AIDS were exposed both by injecting drugs and having male to male sex. In comparison, about 22% of female adolescents and adults living with AIDS in rural areas (with fewer than 50,000 residents) attribute their infection to exposure from injecting drugs. And in rural areas, an additional 15% of women with AIDS were exposed by having sex with a man who injected drugs.[1] This means that interventions need to target sharing drugs, syringes, injection works, and rinse water as well as sexual risk behaviors associated with having sex when intoxicated. The programs that follow are tailored to those who inject drugs. Programs specific to women who have sex with drug users are included in the subsequent section. Adaptations of published effective interventions are described first, followed by locally developed programs.

Healthy Communities is an individual-level outreach HIV prevention intervention based on the Safety Counts DEBI that targets out-of-treatment injection and non-injection drug users in rural Connecticut. The program aims to reduce high-risk drug use and sexual behaviors. The behaviorally focused, seven-session intervention includes both structured and unstructured educational, social, and counseling activities in group and individual settings. It helps clients identify the stage of their readiness to change, create a plan for behavior change, and access substance use counseling and medical services including HIV testing.

Adaptation

The core elements that dictate the content of the seven sessions remain unchanged. Recruitment is done at local single room occupancy living facilities, soup kitchens, shelters, and locations where drug users gather. The group sessions are held in a neutral appearing, but agency owned space. Recruiting from outlying rural areas has proven very challenging because of the difficulty posed by transporting people to a central location for the intervention.

Evidence

The original research showed that Safety Counts participants were more likely than a control group to decrease injection frequency, increase condom use, and decrease drug use and sexual risk behaviors. Process and outcome measures are being collected by Healthy Communities but are not available at this time.

Recommendations

This model may not work in all rural communities. This program has been successful because recruitment was done in a rural town with a large addict/recovering addict community and a long history of relationships between public health and gatekeepers. Small communities with fewer spaces for drug users to gather may require more creative recruitment strategies. Providing transportation assistance is important for retention.

Where Implemented

Willimantic, Connecticut
(town of about 16,000)

Contact Information

Connecticut Department of Health
860-509-7806

Taking It to the Population

Target Behaviors and Behavioral Determinants

Sharing unclean syringes, rinse water, other injection works; engaging in unprotected sex; unknown HIV and hepatitis C serostatus; lack of access to clean syringes; lack of motivation to adopt safer sex and drug use practices.

Description

Taking It to the Population is a locally developed Tier 3 theory-based, one-hour group-level HIV education outreach program facilitated by an outreach worker who preferably is a recovered addict or alternatively a service provider with a strong ability to relate to active drug users. The program includes information about HIV transmission, prevention, and testing resources; strategies to increase motivation to engage in HIV prevention behaviors; and skills needed to practice HIV prevention behaviors. The program is based on the Information-Motivation-Behavioral Skills HIV Prevention Model. Information on this model available at *www.socio.com/srch/summary/pasha/full/passt17.htm (Please copy and paste link to your browser)*

Evidence

The intervention group showed a significant gain in knowledge, motivation, and intention to engage in prevention behaviors from pre-test to post-test as compared to a control group. Of those followed for 18 months, 93% reported an ongoing positive effect from the training including: abstaining from drug use, not hanging out with people who use drugs, getting tested for HIV and hepatitis C, and seeking positive social support from a variety of sources.

Recommendations

Targeting community providers who interact with drug users at the same time enhances impact (for instance, working with pharmacies to support needle exchange and distribute prevention messages). Employing a former user to recruit and facilitate the group can open the door to the drug using community. This requires sensitive support and supervision of the facilitator.

Where Implemented

Rural Montana and rural Colorado

Contact Information

Casey Rudd 406-556-1139

Montana Targeted AIDS Prevention (MTAP)

Target Behaviors and Behavioral Determinants

Sharing unclean syringes, rinse water, other injection works; engaging in unprotected sex; unknown HIV and hepatitis C serostatus; lack of access to clean syringes; lack of motivation to adopt safer sex and drug use practices.

Description

Montana Targeted AIDS Prevention (MTAP) is a collaborative Tier 4 theory-based project between local community-based organizations and the Missoula AIDS Council to provide individual-level street outreach to reduce injection and sexual behaviors that increase risk of HIV transmission. Target populations are rural injection drug users (IDU), MSM and MSM who also inject drugs (MSM/IDU). MTAP services include HIV prevention education, rapid HIV testing and counseling, distribution of risk reduction materials (condoms, lubricant, fit packs of clean syringes, sterile cottons,and bleach kits), and referrals for health and mental health care. Recent emphasis is on increasing HIV and hepatitis C testing and counseling. Small gift cards and

at-home hepatitis C test kits are being assessed for their impact as incentives for getting HIV tested.

Evidence

Since its inception in 2000, MTAP has reached over 20,000 contacts. In the most recently evaluated twelve month period, 3,444 contacts were made with individuals who identify as MSM, IDU, or MSM/IDU and 223 HIV tests were conducted. There were no positive results in that period. Testing was also targeted to heterosexual American Indians who are alcohol dependent and reported sexual risks. Changes in risk behaviors have not been measured at this point in the project due to budget limitations.

Recommendations

Be careful conducting IDU street outreach. Most rural communities do not have a "visible" street culture which makes direct contact outreach to active users risky from the user's perspective and law enforcement's. Make sure to have community buy-in. Outreach workers are the key to success for the program. Making sure that those tested are in the risk categories targeted is an ongoing challenge.

Where Implemented

Montana statewide through collaborations.

Contact Information

www.missoulaaidscouncil.org/MTAP

406-543-4770

LifeGuard

Target Behaviors and Behavioral Determinants

Sharing unclean syringes, rinse water, other injection works; having unprotected sex; lack of access to HIV/STD testing and hepatitis vaccination; lack of access to clean syringes; lack of transportation and access to counseling and medical services.

Description

Lifeguard is a locally-developed Tier 4 theory-based, comprehensive harm reduction program. Free mobile services include harm reduction counseling, confidential hepatitis C testing, confidential hepatitis A/B vaccines, anonymous syringe exchange, opiate overdose management training and support, and a wide range of referral resources. This program utilizes a "user circle" model, identifying gatekeepers for drug-user networks and working with them to access networks, conduct testing, and deliver materials and education. The program relies on community volunteers for much of its staffing.

Evidence

Based on Social Network Theory and Diffusion of Innovation Theory as well as evidence of efficacy of harm reduction activities in other settings. Budget constraints have prevented this small program from collecting evaluation data.

Recommendations

The LifeGuard program works because it is small, flexible and low-threshold. The program should remain targeted, growing contacts through word-of-mouth, collaborating with other organizations, and delivering services that meet the needs of the user. Requires thinking and working outside the box.

Where Implemented

Eastern Iowa and central Illinois along I-74 and I-80 corridors

Contact Information

www.ilregion6.org/pihrs/lifeguardhome.htm
563-528-1173 or
Toll Free: 1-888-528-1173,
lifeguard@mindspring.com

Programs Tailored to Women

Women in Action - RAPP (Real AIDS Prevention Project)

Target Behaviors and Behavioral Determinants

Sharing unclean syringes, water, or other injection drug works; having unprotected sex with a partner who injects drugs, is HIV+, or has recently been incarcerated.

Description

Adaptation of Real AIDS Prevention Project (RAPP)
(DEBI from Original Compendium)
www.cdc.gov/hiv/topics/prev_prog/rep/packages/rapp.htm

Women in Action is an adaptation of the RAPP curriculum that provides HIV/STD prevention and education programs tailored to women in rural Massachusetts. This peer-led harm

Women are the fastest growing group of people being infected with HIV. Although women account for only one-quarter of rural AIDS cases, the rate of infection is increasing, particularly among Black women living in the South. Women are most likely to be infected by exposure from heterosexual sex with a male partner who also has sex with men or with other partners. Approximately 22% of rural women with HIV/AIDS were exposed to HIV from injecting drugs. Another 15% were exposed by having sex with somebody who injected drugs.[1] Women of color living in the South have historically had higher rates of STDs, which puts them at greater risk for HIV infection. Women who trade sex for money or drugs are an especially vulnerable group. However, in rural America, these women may be especially difficult to identify and recruit into an intervention due to high levels of stigma, fear of arrest, and a desire to keep these behaviors "hidden." Rural culture laden with traditional gender roles, homophobia, and racism may also contribute substantially to women of color being at heightened risk for HIV.

Much of women's vulnerability comes from their lack of power to control the behaviors of their sexual partners. Poverty, homelessness, illiteracy, substance use, and unemployment may contribute to

rural women staying in unhealthy relationships for economic survival.[10] Interventions that encourage women's empowerment and employment are more common in developing countries than in the U.S. as part of HIV prevention efforts. Behavioral interventions that increase women's social support, power, and skills to negotiate safer sex practices can reduce HIV/STD risk.

One program, *Insights*, is included as a promising program for HIV/STD prevention among rural women although it has not been tested in rural areas. However, the program's similarity to successful mail-based programs for PLWHA (Chapter 6) suggests that it might work in rural areas.

reduction program brings information about HIV prevention to people where they are - not only in the drop-in site, but also in bars, homeless shelters, housing projects, at the bus stop and at other community programs. Peer-led activities include: outreach/one-on-one brief conversations with brochures, referrals, and condom distribution; small group safer sex discussions and presentations. Women in Action contacts 400 to 800 people every month through outreach activities.

RAPP involves mobilization of the entire community by getting businesses to provide in-kind services, display HIV prevention posters, and distribute HIV prevention role model stories and a resource list of women's health services. RAPP is based on the trans Transtheoretical Model (stages of behavior change), which states that people move through a series of stages in the process of changing their behavior. The program is also based on Social Cognitive Theory and Diffusion of Innovation Theory, which suggest that people are more likely to adopt new behaviors that have already been accepted by others who are similar to them and whom they respect. Evidence shows that participants are more likely to initiate condom use with a regular partner and be more confident to negotiate condoms use with both casual and regular partners.

Adaptation

Rural adaptation includes holding group meetings in public spaces such as community rooms in housing developments or at social service agencies rather than in people's homes as recommended in RAPP. Also, scheduling groups around the very limited;public bus schedule and providing bus tokens to participants who need them. The program travels to do outreach in housing developments and at shelters without good bus access.

Evidence

Data from the original research showed that program participants were more likely to initiate condom use with a regular partner and increase consistent condom use with both casual and regular partners. Routine process evaluations for Women in Action show that target numbers of the intended audience are recruited, counseled, and referred for services.

Recommendations

RAPP has proven challenging in this rural New England culture.

Where Implemented

Massachusetts, Greenfield and Turners Falls counties.

Contact Information

Women In Action, 14 Miles Street, Greenfield, MA 01301
413-775-0574 Community Action:
www.communityaction.us/index.php?id=391

HOPE
(Helping Our People Endure) Reinvention of SISTA

Target Behaviors and Behavioral Determinants

Unprotected sex with a partner who has power over the use of condoms; lack of knowledge and skills to negotiate and use condoms, negotiate relationships, make decisions; perceived lack of power; lack of ethnic pride.

Description

Reinvention of SISTA (Sisters Informing Sisters on Topics about AIDS) (DEBI from Original Compendium) *www.effectiveinterventions.org*

This group-level, gender- and culturally-tailored intervention, was originally designed to increase correct and consistent condom use among African American women. In this case it has been reinvented for use with Native American women. Five peer-led group sessions are conducted by a skilled, Native American female facilitator. Sessions focus on ethnic and gender pride, HIV/STD knowledge, and skills training around sexual risk reduction behaviors such as negotiating condom use and decision making. The intervention is based on Social Learning Theory as well as the Theory of Gender and Power.

Adaptation

Although the five sessions and most of the core content have been retained in the reinvention, much of the intervention has been redesigned to reflect Native American culture and the power distribution in American Indian heterosexual relationships. The CDC suggests that any adaptation of a DEBI that includes the addition or subtraction of activities (such as replacing African-American poetry readings with Native American stories) be considered a reinvention and requires collecting evaluation data to test the efficacy of the reinvented intervention.

Evidence

The original research showed that women who completed the intervention were more likely than a comparison group to use condoms. Evaluation evidence from the reinvention is in the process of being

collected but is not yet available.

Recommendations

Using a facilitator who is the same gender, race/ethnicity, and age and trained in the intervention encourages women to be engaged in the activities of this intervention. Reinvention is a time-consuming process that starts with information about the target population. It requires pilot testing and revision before implementation. Matching the cultural values in the intervention with the cultural values of the target audience is essential.

Where Implemented

Indian reservations in rural Montana

Contact Information

Montana Department of Public Health and Human Services
406-444-2457

Insights

Target Behaviors and Behavioral Determinants

Unprotected sex; inconsistent condom use; lack of knowledge to negotiate and initiate correct and consistent condom use by young women ages 18-24.

Description

This "promising-evidence" intervention has not been tested with rural populations but appears ideal for a low-cost tailored individual-level rural intervention for women. It mails a computer-generated self-help packet tailored to responses to survey items about stage of readiness to use condoms, perceived barriers to condoms, and partner type. It also includes a "safer sex kit" with male and female condom samples, instructions for use, and carrying case. This is followed in 3 months with a booster newsletter and condom packet.

Evidence

The original research shows that after 6 months, significantly more women in the intervention (versus control group) carried condoms, discussed condoms with partners, had higher self-efficacy to use condoms with primary partners, and used condoms more frequently. It is unknown whether these same outcomes would occur in a rural setting.

Recommendations

This trial was conducted through a managed care organization but could be adapted for young women identified as high risk through some other venue such as a local health department, community health center, community college, GED program, or worksite.

Where Implemented

North Carolina

Contact Information

www.cdc.gov/hiv/topics/research/prs/resources/factsheets/insights.htm (Please copy and paste to your browser)
Dr. D. Scholes,
Center for Health Studies
scholes.d@ghc.org

Programs Tailored to Youth

Sexually active young people in the U.S. are at persistent risk for HIV infection and other STDs. About 13% of those diagnosed with HIV in a given year are young people 13-24 years of age.[1,11] This number most likely under-represents the number of youth actually infected since many will not be diagnosed until they become symptomatic years later. Young males are infected twice as often as young females. Studies in urban areas show that young MSM, especially young men of color, are particularly at risk.[12] One study of over 5,500 young MSM ages 15-22 found that many young men kept their sexual attraction to men a secret. MSM who do not disclose their sexual orientation are less likely to access HIV testing and are more likely to have a female sex partner who is unaware of her partner's male-to-male sexual experiences. As a result, young MSM may not know if they become HIV infected and may unknowingly transmit it to other young men and/or women. [13]

Another disparity is that Blacks account for 55% of all HIV infections among youth ages 13-24. [14] Poverty, dropping out of school and lacking access to reproductive health care all contribute to the vulnerability of youth for HIV/STD infection. Programs that address these structural risks through youth development can be equally effective in delaying sexual debut and increasing abstinence. Programs that provide awareness of HIV/STD risks and teach negotiation and partner communication skills as well as condom use skills help to protect youth when they do become sexually active.[15]

Reducing the Risk

Target Behaviors and Behavioral Determinants

Early debut of sexual intercourse; lack of refusal skills and condom negotiation skills; lack of information about HIV/STD and unintended pregnancy prevention.

Description

This evidence-based behavioral HIV prevention program for youth has not been evaluated using the CDC Tiers of Evidence but appears to have qualities of a Tier 2 or Tier 3 intervention. *www.etr.org/recapp/*

This 12-session group-level skills based program was presented to 9th graders attending rural Kentucky schools to increase knowledge of HIV, STD and pregnancy risks, help student s build refusal skills, delay initiation of sex, avoid high-risk situations, and correctly use condoms and contraceptives when they become sexually active. The intervention included videos, powerpoint presentations, contemporary music, interactive discussions, and role plays. It is based on Social Learning Theory and Social Cognitive Theory.

Evidence

Those who completed the 12-session intervention were less likely to initiate sexual intercourse compared to a control group. There was no impact on condom use.

Recommendations

A modified version of Reducing the Risk was tested that included extra videos, music and involvement of peer educators in 9 of the 12 sessions. The modified version was equally as effective as the 12-session version of the original curriculum.

Where Implemented

Rural Kentucky public schools

Contact Information

www.etr.org/recapp/

Students Together Against Negative Decisions (STAND)

Target Behaviors and Behavioral Determinants

Early debut of sexual intercourse; lack of communication and negotiation skills; lack of consistent and correct condom use skills; lack of information about HIV/STD and unintended pregnancy prevention.

Description

Tier 2 or 3 reinvention of Popular Opinion Leader (POL) (DEBI from Original Compendium) with rigorous evaluation including a control group and behavioral outcomes.

STAND is a 32-hour course to prevent HIV/AIDS, STDs, and unintendedpregnancy in rural teens 18 andyounger. It trains teen opinion leaders to be role models and peer educators who promote abstinence and risk reduction with their friends. STAND focuses on empowering teensand developing mutual support systems. After the focused in-school training, student opinion leaders plan educational activities for local teens. The goals of the program are abstinence, reduction of risk for those who do not abstain, and developing norms that oppose sexual risk taking. A parent module is available to supplement the peer activities.

Evidence

STAND peer leaders were 100% abstinent during the training. Compared to a control group, at six months, STAND participants showed a 60% decrease in unprotected intercourse, 2-times more consistent condom use, a 7-fold increase in condom use, and 4-fold gain in HIV/AIDS risk knowledge.[16]

Recommendations

Developed for rural youth so needs little adaptation. Shown to be effec-

tive in rural schools. Best if there is a long-term commitment of school administrators, parents, teens, and adult program coordinator. Requires funding for program coordinator and incentives for peer educators. STAND is currently being adapted by Indian Health Services (IHS) for Native American youth.

Where Implemented
Georgia, Sandersville, Brunswick, Macon, and other counties.

Contact Information
Mike U. Smith, Ph.D.
Director of AIDS Educ. & Research
478-301-5832
Smith_mu@mercer.edu

American Red Cross HIV/AIDS Prevention Programs for Youth

Target Behaviors and Behavioral Determinants
Early debut of sexual intercourse; lack of communication and negotiation skills; lack of consistent and correct condom use skills; lack of information about HIV/STD and unintended pregnancy prevention; lack of compassion for those living with HIV/AIDS.

Description
Red Cross offers many age-appropriate and culturally sensitive programs and materials for HIV/AIDS prevention in rural schools and colleges, including the *Act SMART* curriculum; *The Party* video package for youth ages 13 to 15; and *Mi Hermano/My Brother* fotonovela (illustrated booklet). The *Act SMART* curriculum helps school-aged young people make smart decisions and develop healthy behaviors to prevent HIV infection and gain a sense of compassion for persons living with HIV or AIDS. The curriculum is divided into three units: for ages 6 to 9, 10 to 13, and 14 to 17. *The Party* video package provides HIV prevention education materials that can help youth enhance their decision-making skills related to HIV prevention. Issues raised include peer pressure, alcohol and drug use, sexual activity, and self-respect. *Mi Hermano/My Brother* tells the dramatic story of a Latino family dealing with the consequences of HIV and AIDS after the death of their son. Spanish and English versions are combined in one booklet. *www.redcross.org/www-files/Documents/pdf/international/together_we_can_fact_sheet.pdf (Please copy and paste in your browser)*

Evidence
There does not appear to be published evidence on behavior change resulting from these programs.

Recommendations
This is a volunteer program, which requires finding educators who are comfortable discussing sexuality and are nonjudgmental.

Where Implemented
Michigan, West Michigan, schools and college campus.

Contact Information
www.redcross.org/www-files/Documents/pdf/international/together_we_can_fact_sheet.pdf (Please copy and paste in your browser)

Vermont Cares Peer Outreach Program Partners in Prevention

Target Behaviors and Behavioral Determinants
Early debut of sexual intercourse; lack of communication and negotiation skills; lack of consistent and correct condom use skills; lack of information about HIV/STD and unintended pregnancy prevention; lack of compassion for those living with HIV/AIDS

Description
Based on evidence-based Partners in Prevention Intervention from the Center for AIDS Intervention Research. *www.mcw.edu/display/docid6269.htm*

This Tier 3 community-based program uses high-school aged youth living with HIV or at risk of HIV infection to reach out to their peers with HIV prevention information. Peer outreach workers use their natural connections in their communities to most effectively reach others at risk. Training, information, supplies, a stipend, and support from staff and volunteer teams are available to all peer outreach workers. Some HIV+ volunteers (preferably youth) are also trained to provide one-on-one support for people who are getting tested or who are newly positive. The peer outreach training series takes 10-hours and is offered at intervals in all four satellite office areas.

Evidence
The program demonstrated behavior change over the course of more than one year including: an increase in condom use and increased comfort in partner communication and sexual negotiation.

Recommendations
Some peer organizations in Vermont have had success with chat room outreach as part of the program. There has been limited success with public service announcements outreach. Rural stigma generally makes this program more difficult to implement since youth are reluctant to be identified with HIV prevention or an AIDS Service Organization.

Where Implemented
Vermont

Contact Information
http://www.vtcares.org
Prevention Director:
amy@vtcares.org

Programs Tailored to Ethnic and Racial Minorities

Three racial and ethnic minorities in the U.S. account for a greater proportion of rural HIV/AIDS cases than would be expected for their proportion of the population. Black men and women represent 50% of all rural AIDS cases, Latinos account for 9%, and American Indian/Alaska Natives 2%.[17] This disproportionate infection rate is related to common challenges that face these groups such as poverty, poor access to health care, stigmatization of HIV/AIDS, homophobia, higher rates of other STDs, discrimination, and racism. The following interventions show that there are some innovative programs that may work in rural settings that are tailored to reach these groups at heightened risk for infection. Having interventions that honor the cultural values and account for the challenges each group faces will be more likely to be effective. However, it is essential to remember that great diversity exists within each of these minority groups. This makes it necessary to know the community being targeted and adjust the intervention to reflect local culture and social context. The National Native American AIDS Prevention Center (NNAAPC) provides a directory of individual, group, and community level HIV prevention programs for American Indians, Alaskan Natives, and Native Hawaiians online at:

www.nnaapc.org/resources/hivppd.htm

Strong African American Families (SAAF)

Target Behaviors and Behavioral Determinants

Early initiation of sexual intercourse and drug and alcohol use; lack of communication between parents and teens about sexual and drug use risk behaviors; lack of social norms to support sexual and drug use abstinence and safer sex behaviors.

Description

This intervention has not been evaluated at this time using the CDC Tiers of Evidence standards but the evidence appears to be Tier 3.

The 7-week group-level prevention program designed for rural Black primary caregivers and their 10-12 year old children has been implemented with rural mothers and their 11 year olds. The program builds positive parenting skills to promote healthy early adolescent development and help youth gain control over their behavior, form influential friendships, and reduce risky behaviors. This intervention is based on the knowledge that rural Black families exert a significant influence on the choices their children make. Thus, the level of skill and involvement the caregiver has in his/her relationship with the child largely determines the risk path a child takes.

Evidence

After the SAAF intervention, parents engaged in more regulated, communicative parenting than parents in the control group. Youth who participated in the SAAF program reported reduced intentions to engage in risky sexual and drug use behaviors.

Recommendations

Involving the community in tailoring the curriculum builds community support and increases participant recruitment and retention.

Where Implemented

Rural Georgia

Contact Information

www.colorado.edu/cspv/blueprints/

Keystone Migrant Farmworker Health Outreach

Target Behaviors and Behavioral Determinants

Unprotected sex; multiple sex partners; unknown HIV serostatus; misconceptions about HIV/AIDS; HIV/STD stigma; lack of skills for negotiating consistent and correct use of condoms.

Description

Keystone Migrant Farmworker Health Outreach is a medical outreach program for migrant and seasonal farmworkers, which contains a Tier 3 HIV/AIDS/STD risk behavior reduction component that includes HIV testing (using Orasure) and counseling, as well as HIV prevention for positives. Activities are conducted in outreach settings such as farms, labor camps, and farmworkers' homes or during transportation to clinic appointments. The program uses a holistic approach where concern for HIV infection is no different from concern for hypertension or diabetes. This is in keeping with the Latino culture of health and healing and takes advantage of ongoing opportunities to give and enforce risk reduction messages.

Evidence

Farmworkers demonstrated an increase in accurate HIV/STD knowledge and increased use of condoms after the intervention. Substantial numbers of farm workers received voluntary HIV and STD testing and counseling.

Recommendations

This model takes advantage of established trust relationships and ongoing opportunities by integrating it fully into field clinics and other medical outreach activities. Any program that has access to medical information (medical histories or diagnosis) and provides much needed and wanted medical services should use their knowledge and

opportunities to provide and reinforce risk reduction messages. Bilingual outreach workers who understand the culture of the workers are essential.

Where Implemented
Pennsylvania - Berkshires, Lehigh, Lancaster and Schuylkill counties

Contact Information
Selina Zygmunt, Regional Manager
Keystone Farmworker
Health Program
khcberks@pa.net
(610) 372-5001

Project Red Talon

Target Behaviors and Behavioral Determinants
Unprotected sex; multiple partners; HIV/STD stigma; use of drugs and alcohol before sex; misconceptions about HIV/AIDS/STD; lack of skills for condom negotiation and correct use; lack of access to care; unknown HIV serostatus.

Description
This multi-component long-term project is designed to provide tribal communities in Idaho, Oregon, and Washington with education, training, and technical assistance for the prevention and treatment of HIV/AIDS and other STDs through community collaboration. Community outreach includes: media campaigns, especially on local radio, to increase community awareness and decrease stigma; training Indian Health services (IHS) and tribal health care providers to detect STDs and HIV early and provide appropriate treatment; condom distribution; testing events like area basketball games to normalize testing, and women's peer education.

Evidence
Together, the Red Talon STD/HIV Coalition and Project Red Talon have shown improvements in reducing the prevalence of STDs among American Indians and Alaska Natives in the Pacific Northwest. Among the Project's successes are increases in: STD/HIV networking and regional partnerships, knowledge about STD/HIV among tribal staff, STD screening and use of recommended treatment protocols at tribal and IHS clinics, STD/HIV surveillance for American Indians in the Pacific Northwest, tribal community awareness about STDs and HIV, and inter-agency collaboration in grant writing and receipt of awards

Recommendations
Working as an inter-tribal coalition decreases stigma and normalizes STD and HIV testing and treatment. Culturally appropriate outreach, education, training, and technical assistance are keys to success.

Where Implemented
43 federally recognized American Indian and Alaska Native tribes in the Pacific Northwest: Idaho, Oregon, Washington

Contact Information
www.npaihb.org/epicenter/project/project_red_talon
(Please copy and paste in your browser)

Project Contact: Northwest Portland
Area Indian Health Board
527 SW Hall, Suite 300
Portland, Oregon 97201

Stephanie Craig Rushing, MPH
Project Director
Phone (503) 228-4185
Fax (503) 228-8182
scraig@npaihb.org

"Each time a man stands up for an ideal, or acts to improve the lot of others, or strikes out against injustice, he sends forth a tiny ripple of hope... and crossing each other from a million different centers of energy those ripples build a current that can sweep down the mightiest walls of oppression and resistance."

Robert F. Kennedy

Chapter 8

OPPORTUNITIES FOR THE NEXT DECADE

This guide brings together voices and ideas from those working in HIV/STD prevention in and for rural America. The suggestions shared in this guide illustrate the creativity and dedication of national, state, and local HIV/STD prevention specialists. Those voices bring understanding of rural realities to those charged with developing and implementing policies for rural HIV/STD prevention. They provide encouragement for others just beginning to address HIV/STD prevention in their rural communities. And they express the frustration that comes with being asked to do important work with limited resources in an environment loaded with challenges.

Most likely in the next decade, HIV and other STDs will continue to be a public health challenge in both rural and urban areas of the country. Most likely, there will not be a windfall of resources for rural HIV/STD prevention. Yet, this guide highlights a third prediction as well - that by sharing the resources, ingenuity, and knowledge that we do have, realistic opportunities exist to keep rural HIV and other STDs from becoming more prevalent.

Opportunity 1: Challenge rural HIV/STD complacency

At the time this document was created, the U.S. had recorded over 51,000 cases of AIDS in rural America. Although the cases have accumulated slowly, almost unnoticeably, the magnitude of the number (51,000) cannot be ignored. Indeed, rural America may have a false sense of security as a result of the relatively low annual HIV incidence in rural counties. That sense of security is buoyed by denial of the existence of rural HIV since stigma and homophobia force many with HIV into the shadows of rural communities. Community denial, then, becomes the fuel for complacency which in turn sets the stage for the next 51,000 cases and the resulting morbidity and mortality. Many of those "next 51,000 cases" could be averted by replacing complacency with ongoing surveillance, increased public awareness, and attention to other STD infection rates. There is the opportunity to eliminate denial and complacency, one rural community at time, now and during the next decade.

One approach to challenging "rural HIV complacency" is to call attention to the existence of HIV risk by focusing on more common STDs. That may involve a more vigorous public health response to STDs such as syphilis, chlamydia, and gonorrhea in rural counties. If STDs are viewed as harbingers of HIV, then attention to the early detection and treatment of STDs along with HIV testing may raise community awareness of HIV risk and begin to erode rural complacency. Rural outbreaks of hepatitis B and C among rural methamphetamine users present additional opportunities to sensitize a rural community to the potential of an HIV outbreak. However, more vigorous responses will require a delicate balancing act between protecting the confidentiality of persons diagnosed with an STD and the obligation to inform the public about legitimate risks posed by these pathogens in their communities. This same dilemma might not apply as much to urban areas since having a much larger population might preclude speculation about "Who has the STD?"

Opportunity 2: Reduce stigma toward HIV and those at heightened risk

Nearly all rural advisors for this guide noted the need to "de-stigmatize" HIV in rural America so that people at risk for infection and those already infected by HIV can access confidential testing, risk reduction counseling and high quality care without fear of discrimination or violence. Removing stigma can also open the door to greater social support that may indeed impact survival and quality of life for those infected and affected by HIV. However, this requires changes in public attitudes about HIV, STDs, male-to-male sex, injection drug use, having multiple partners, and other substance use that increases the frequency of unprotected sex. It involves changing attitudes toward people who are often marginalized in society in general. Changing those attitudes does not happen spontaneously. Change requires a genuine understanding of the community's values and existing attitudes, intentionally crafted messages, and time. As people living with HIV/AIDS live longer, more productive lives there are increasing opportunities to put a positive "face" on the disease. As opportunities to communicate with the public emerge through the Internet (e,g, The Positive Project *www.thepositiveproject.org/*, YouTube, MySpace), mobile devices, and text messaging, rural areas can take advantage of lower-cost opportunities to inspire a change in attitudes toward HIV/STD and toward those affected by it.

Opportunity 3: Develop effective rural HIV/STD prevention interventions

Although this guide has provided many examples of existing rural HIV/STD prevention practices, ongoing efforts are needed to identify rural-specific strategies that promote safer sex behaviors as well as safer injecting practices among various populations of rural Americans. Indeed, there is an urgent need to develop and test HIV/STD prevention programs designed specifically for those populations of rural Americans at greatest risk for HIV/STD. Understandably, the current evidence-based interventions being promoted are tested almost entirely on urban populations. Most do not take into consideration the travel distances and isolation imposed by rural settings, the limited financial resources of rural areas, or the heightened challenge of maintaining confidentiality in a small town. Rural programs are forced to either adapt urban-based strategies to address rural realities or create their own interventions. It is unclear at this time how effective these adaptations and local interventions are. However, some empirical evidence is currently being gathered to begin to answer this question. This is a first step toward the development of HIV/STD prevention interventions tailored for rural areas. As these develop, attention will need to focus on at least five different rural populations: 1) white men who have sex with men; 2) men of color who have sex with men; 3) Black women residing in the rural South; 4) injection drug users in rural communities; and 5) migrant workers and new immigrants.

Opportunity 4: Take advantage of broad social and scientific advances

Current technologies such as telemedicine, the Internet, increasingly available mobile phones, text messaging, and inexpensive long distance services may provide some innovative avenues for providing state-of-the-art medical care, social services, and risk reduction counseling to rural residents. The Internet and cellular phone technology may be useful tools for spanning substantial rural distances to bring those with expertise together with those in need of the latest knowledge and skills, and to connect people looking for confidential social support. Chat rooms, MySpace, and other Internet-based social networks allow people to "come together" in a way that transcends geography. Whether this creates overall added risk by making "hook ups" quite easy or decreases risk by improving intervention accessibility will be a question resolved in the next ten years as technology becomes integrated into rural prevention.

Opportunity 5: Collaborate to take advantage of what you've got

Rural prevention efforts need to keep in mind that rural areas have limited resources, minimal funding options, and a difficult time initiating rapid change. However, rural HIV/STD prevention specialists point out that volunteers and partnerships are resources that may be more available in rural areas to augment prevention efforts. Having broad community representation at the table to plan how to address HIV/STD concerns multiplies the opportunities for new partners and resources. For instance, it may be easier to tap the relatively small pool of core providers to participate in a collaborative network in a rural area. Such collaborations increase the likelihood of finding ways to promote HIV/STD prevention messages with other health promotion campaigns that are important to the community. Collaborations also serve to clarify community values and the different perspectives that are available for discussing HIV/STD with diverse groups in the community. That said, it is important to remember that even though it may be easier to get people to the table in a rural area, that does not necessarily mean the collaboration will be without factions or friction and good group facilitation will be needed.

Conclusion

Indeed, there are no simple solutions that will magically end rural HIV or other STDs. But there are opportunities to make a difference. Despite unique challenges and limited resources, rural America has inherent strengths that can be harnessed to prevent HIV and STDs among rural youth and adults. By knowing the community, assessing who is at risk of infection, understanding the context of that risk, and bringing together the broader community to think, talk, plan and act on HIV/STD issues, a path can emerge to address rural HIV/STD prevention in a way that fits the community. Now is the time to come together to tear down the fences that divide communities, isolate individuals, prevent collaboration, and allow HIV and other STDs to flourish. As fences collapse, new ideas and partnerships will arise to strengthen HIV/STD prevention in rural America.

REFERENCES

CHAPTER ONE

1. Johnson, K. *Demographic Trends in Rural and Small Town America*. New Hampshire: Carsey Institute at the University of New Hampshire, 2006.
2. U.S. Department of Commerce. *United States Census 2000*. Washington, D.C.: GPO, 2001.
3. Office of Management and Budget. *Standards for Defining Metropolitan and Micropolitan Statistical Areas.* Washington, D.C.: 2000. Available online at www.whitehouse.gov/omb/fedreg/metroareas122700.pdf
4. Office of Management and Budget. *Revised Definitions of Metropolitan Statistical Areas, New Definitions of Micropolitan Statistical Areas and Combined Statistical Areas, and Guidance on Uses of the Statistical Definitions of These Areas.* Washington, D.C.: 2003.
5. United States Department of Agriculture, Economic Research Service. *Rural Urban Continuum Codes*. Washington, D.C.: 2003. Available online at www.ers.usda.gov/Data/RuralUrbanContinuumCodes/.
6. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Supplemental Report* 6.2 (2000) 1-16.
7. Eberhardt, M.S., Pamuk, E.R. "The importance of place of residence: Examining health in rural and non-rural areas." *American Journal of Public Health* 94 (2004): 1682-6.
8. Mansfield, C.J., Wilson, J.L., Kobrinski, E.J., Mitchell, J. "Premature mortality in the United States: The roles of geographic area, socioeconomic status, household type, and availability of medical care." *American Journal of Public Health* 89 (1999): 893–8.
9. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance in Urban and Non-urban Areas (through 2006)*. Slide 5 of slide set. Available online at www.cdc.gov/hiv/topics/surveillance/resources/slides/urban-nonurban/index.htm.
10. Southern AIDS Coalition. *Southern States Manifesto: Update 2008. HIV/AIDS and Sexually Transmitted Diseases in the South*. July 2008. Available online at www.southernaidscoalition.org/Manifesto%20Update%20Final%20pdf%20071408.pdf

11. Eberhardt, M.S., Ingram, D.D., Makuc, D.M., et al. *Urban and Rural Health Chartbook. Health, United States, 2001.* Hyattsville, MD: National Center for Health Statistics, 2001.
12. Pamuk, E., Makuc, D.M., Heck, K., Reuben, C., Lochner, K. *Socioeconomic Status and Health Chartbook. Health, United States, 1998.* Hyattsville, MD: National Center for Health Statistics, 1998.
13. Eberhardt, M.S. "Rural health of Black Americans, a complex frontier." In *Praeger Handbook of Black American Health (2nd Edition): Policies and Issues Behind Disparities in Health*. Editor I. Livingston. Westport, CT: Praeger, 2004.
14. Hoyt, D.R., Conger, R.D., Valde J.G., Weihs, K. "Psychological distress and help seeking in rural America." *American Journal of Community Psychology* 25 (1997): 449–70.
15. Dobalian, A., Tsao, J.C.I., Radcliff, T.A. "Diagnosed mental and physical health conditions in the United States nursing home population: differences between urban and rural facilities." *Journal of Rural Health* 19 (2003): 477–80.
16. Petterson, S.M. "Metropolitan–nonmetropolitan differences in amount and type of mental health treatment." *Archives of Psychiatric Nursing* 17 (2003): 12–9.
17. Foster, P. "Use of stigma, fear, and denial in development of a framework for prevention of HIV/AIDS in rural African American communities." *Family and Community Health* 30.4 (2006): 318-27.
18. Dreisbach, S. *Rural Methamphetamine Use and HIV/STD Risk*. Bloomington, IN: Rural Center for AIDS/STD Prevention, 2006. Available online at www.indiana.edu/~aids/factsheets18.pdf
19. Clayton, S.A., Bowen, A.M. *HIV/AIDS Stigma among Wyoming Residents*. Presentation at the Regional Rural HIV Prevention Conference. Denver, CO, 2007.
20. Lichtenstein, B. "Public tolerance, private pain: Stigma and sexually transmitted infections in the American Deep South." *Culture, Health and Sexuality* 7.1 (2005): 43-57.
21. Lichtenstein, B. "Stigma as a barrier to treatment of sexually transmitted infection in the American Deep South: Issues of race, gender and poverty." *Social Science and Medicine* 57.12 (2003): 2435-45.
22. Lichtenstein, B. "Secret encounters: Black men, bisexuality, and AIDS in Alabama." *Medical Anthropology Quarterly* 14.3 (2000): 374-93.
23. Preston, D.B., D'Augelli, A.R., Cain, R.E. "Issues in the development of HIV-preventive Interventions for men who have sex with men (MSM) in rural areas." *The Journal of Primary Prevention* 23.2 (2002): 199-214.
24. Barnett, S., Bowen, A.M., Alexander, E. "A pilot study of the epidemiology of HIV in a rural area." *International Conference on AIDS* 12 (1998): 454.
25. Mansergh, G., Purcell, D.W., Stall, R., et al. "CDC consultation on methamphetamine use and sexual risk behavior for HIV/STD infection: Summary and suggestions." *Public Health Reports* 121 (2006): 127–32.
26. Whetten, K., Leserman, J., Whetten, R., et al. "Exploring lack of trust in care providers and the government as a barrier to health service use." *American Journal of Public Health* 96 (2006): 716–21.
27. Rossner, B.R.S., Horvath, K.J. "Predictors of success in implementing HIV prevention in rural America: A state-level structural factor analysis of HIV prevention targeting men who have sex with men." *AIDS and Behavior* 12 (2008): 159-68.

CHAPTER TWO

1. Lam, N.S., Lui, K. Spread of AIDS in Rural America, 1982-1990. *Journal of Acquired Immuno Deficiency Syndrome. 7* (1994):485-490.
2. Holmberg, S.D. The estimated prevalence and incidence of HIV in 96 large US metropolitan areas. *American Journal of Public Health.* 86 (1996): 642-654.
3. Steinberg, S., Flemming, P. The geographic distribution of AIDS in the United States: Is there a rural epidemic? *Journal of Rural Health.* 16 (2000): 11-19.
4. Centers for Disease Control and Prevention. *Trends in Reportable Sexually Transmitted Diseases in the United States*, 2006 - *National Surveillance Data for Chlamydia, Gonorrhea, and Syphilis*. Atlanta, GA: U.S. Department of Health and Human Services, 2007.
5. Centers for Disease Control and Prevention *HIV/AIDS Surveillance Report of HIV Infections and AIDS in the United States and Dependent Areas, 2006.* Atlanta, GA: U.S. Department of Health and Human Services, 2007.
6. Lansky, A., Nakashima, A.K., Diaz, T., et al. "Human Immunodeficiency Virus infection in rural areas and small cities of the Southeast: Contributions of migration and behavior." *Journal of Rural Health.* 16(1) (2000): 20–30.
7. Southern AIDS Coalition. *Southern States Manifesto: Update 2008. HIV/AIDS and Sexually Transmitted Diseases in the South*. July 2008. Available online at http://www.southernaidscoalition.org/Manifesto%20Update%20Final%20pdf%20071408.pdf.
8. Centers for Disease Control and Prevention. *HIV/AIDS surveillance in urban and non-urban areas (through 2006)*. Slide set. Available online at http://www.cdc.gov/hiv/topics/surveillance/resources/slides/urban-nonurban/index.htm
9. Centers for Disease Control and Prevention. *HIV Prevalence*, *Unrecognized Infection, and HIV Testing Among Men Who Have Sex with Men – Five U.S. Cities, June 2004-April 2005*. MMWR 54.24 (2005): 597-601.
10. Montgomery, J.P., Mokotoff, E.D., Gentry, A.C., Blair, J.M. "The extent of bisexual behavior in HIV-infected men and implications for transmission to their female sex partners." *AIDS Care* 16.6 (2003): 920-837.

11. Millett, G., Malebranche, D., Mason, B., Spikes, P. "Focusing 'down low': Bisexual black men, HIV risk and heterosexual transmission." *Journal of the National Medical Association* 97.7 (Supp) (2005): 52-59.
12. Crosby, R., Holtgrave, D.R., Stall, R., Peterson, J.L., Shouse, L. "Differences in HIV risk behaviors among black and white men who have sex with men." *Journal of Sexually Transmitted Diseases* 34.10 (2007): 744-8.
13. Lichtenstein, B. "Secret encounters: Black men, bisexuality, and AIDS in Alabama." *Medical Anthropology Quarterly* 14.3 (2000): 374-93.
14. Gay, C.L, Napravnik, S., Eron, J.J. "Advanced immunosuppression at entry to HIV care in the southeastern United States and associated risk factors." *AIDS* 20.5 (2006): 775-8.
15. Hall, H.I., Li, J., McKenna, M.T. "HIV in predominantly rural areas of the United States." *Journal of Rural Health* 21 (2005): 245-53.
16. Southern States AIDS/STD Directors Work Group. *Southern States Manifesto: HIV/AIDS and STDs in the South – A Call to Action,* 2003.
17. Fleming, P.L., Lansky, A., Lee, L.M., Nakashima, A.K. "The epidemiology of HIV/AIDS in women in the southern United States." *Journal of Sexually Transmitted Diseases* 33.7 (2006): 532–8.
18. National Alliance of State and Territorial AIDS Directors (NASTAD). *The Landscape of HIV/AIDS among African American Women in the United States*. Issue Brief 1. Washington, D.C.: May 2008.
19. Dreisbach, S., Hickler, B., Koester, S. *Methamphetamine Use in Rural Colorado: Health Risks and Community Challenges*. Washington, D.C.: Association for Prevention Teaching and Research, 2004.
20. Crosby, R.A., Yarber, W.L., Meyerson, B.E. Frequency and predictors of condom use and reasons for not using condoms among low-income women. *Journal of Sexuality Education Therapy* 24 (1999): 63-70.
21. Crosby, R.A., Yarber, W.L., DiClemente, R.J., Wingood, G.M, Meyerson, B.E. "HIV-associated histories, perceptions, and practice among low-income African American women: Does rural residence matter?" *American Journal of Public Health* 92.4 (2002): 655-9.
22. Feinleib, J.A., Michael, R.T. "Reported changes in sexual behavior in response to AIDS in the United States." *Preventive Medicine* 27 (1998): 400-11.
23. Anderson, J.E., Wilson, R., Doll, L., Jones, T.S., and Barker, P. "Condom use and HIV risk behaviors among U.S. adults: Data from a national survey." *Family Planning Perspectives* 31 (1999): 24-8.
24. Yarber, W.L., Milhausen, R.R., Huang, B., Crosby, R.A. "Do rural and non-rural single, young adults differ in their risk and protective HIV/STD behaviors? Results from a national survey." *Health Education Monograph* 25.2 (2008): 7-12.
25. Potterat, .JJ., Muth, S.Q., Brody S. "Evidence undermining the adequacy of the HIV reproduction number formula." *Sexually Transmitted Diseases*. 27 (2000): 644-5.
26. Adimora, A.A., Schoenbach, V.J., Martinson, F.E.A., et al. "Concurrent partnerships among rural African Americans with recently reported heterosexually transmitted HIV infection." *Journal of AIDS* 34 (2003): 423-9.

CHAPTER THREE

1. Kaiser Family Foundation. *Sex Education in America: General Public/Parents Survey*. Washington, D.C.: National Public Radio, Kaiser Family Foundation, Kennedy School of Government, 2004. Available online at www.kff.org/kaiserpolls/pomr012904oth.cfm
2. Guttmacher Institute. *Sex and STI/HIV Education: State Policies in Brief*. 2008. Available online at: www.guttmacher.org/statecenter/spibs/spib_SE.pdf
3. Kirby, D., Laris, B., Rolleri, L. *The Characteristics of Effective Curriculum-Based Sex and HIV Education Programs for Adolescents*. Scotts Valley, CA: ETR Associates, 2006.
4. Kirby, D. *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases*. Washington, D.C.: National Campaign to Prevent Teen Pregnancy, 2007. Available online at www.thenationalcampaign.org/EA2007/EA2007_sum.pdf.
5. Dillon, M., Savage, S. *Values and Religion in Rural America: Attitudes toward Abortion and Same-Sex Relations*. Issue Brief 1. Carsey Institute, Durham, New Hampshire: University of New Hampshire, 2006.
6. Committee on Government Reform Special Investigations Division. *The Waxman Report: The Content of Federally Funded Abstinence-Only Education Programs*. Washington, D.C.: 2004.
7. Christopher Trenholm, C., Devaney, B., Fortson, K., Quay, L., Wheeler, J., Clark, M. *Evaluation of Abstinence Education Programs Funded Under Title V, Section 510*. Mathematica. Available online at http://www.mathematica-mpr.com/welfare/abstinence.asp#reports
8. Rossner, B.R.S., Horvath, K.J. "Predictors of success in implementing HIV prevention in rural America: A state-level structural factor analysis of HIV prevention targeting men who have sex with men." *AIDS and Behavior* 12 (2008): 159-68.
9. Snyder, L.B., Hamilton, M.A., Mitchell, E.W., Kiwanuka-Tondo, J., Fleming-Milici, F., Proctor, D. "A meta-analysis of the effect of mediated health communication campaigns on behavior change in the United States." *Journal of Health Communication* 9 (2004): 71-96.
10. Noar, S. *HIV/AIDS Mass Media Campaigns*. Fact Sheet #20. Bloomington, IN: Rural Center for AIDS/STD Prevention, 2007. Available online at www.indiana.edu/~aids/Fact_Sheet_20_v2.pdf

11. Conclave on HIV/AIDS Policy for Black Clergy. Clergy statement and National HIV/AIDS Elimination Act. Available online at www.prnewswire.com/cgi-bin/stories.pl?ACCT=ind_focus.story&STORY=/www/story/10-10-2007/0004679286&EDATE=WED+Oct+10+2007,+09:53+AM
12. Green, E.C. *Faith-Based Organizations: Contributions to HIV Prevention*. Harvard Center for Population and Development Studies and U.S. Agency for International Development, 2003.
13. Lichtenstein, B. *Stigma as a Barrier to Prevention in the Deep South*. Fact Sheet #16. Bloomington, IN: Rural Center for AIDS/STD Prevention, 2005. Available online at www.indiana.edu/~aids/074077_applied_health_final.pdf

CHAPTER FOUR

1. Mugavero, M.J., Castellano, C., Edelman, D., Hicks, C. "Late diagnosis of HIV infection: The role of age and sex." *American Journal of Medicine* 120 (2007): 370-3.
2. Gay, C.L, Napravnik, S., Eron, J.J. "Advanced immunosuppression at entry to HIV care in the southeastern United States and associated risk factors." *AIDS* 20.5 (2006): 775-8.
3. Hall, H.I., Li, J., McKenna, M.T. "HIV in predominantly rural areas of the United States." *Journal of Rural Health* 21 (2005): 245-53.
4. Centers for Disease Control and Prevention. "Sexually Transmitted Disease Treatment Guidelines." *MMWR* 55.RR-11 (2006): 1-76.
5. Rural Health Association. *Fighting Stigma and Denial.* Kansas, City, MO: April 2007. Available online at www.ruralhealthweb.org.
6. Dreisbach, S., Corbett, K., Ferraro, A., Koester, S. "Policy to prevention: Challenges and opportunities for HIV/STD prevention in rural Colorado." *Health Education Monograph* 22.3 (2005): 4-8.
7. Centers for Disease Control and Prevention. "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care." *MMWR* 55.RR-14 (2006): 1-13.
8. National Alliance of State and Territorial AIDS Directors. *Report on Findings from an Assessment of Health Department Efforts to Implement HIV Screening in Health Care Settings, 2007*. Available online at: www.nastad.org/Docs/highlight/2007626_NASTAD_Screening_Assessment_Report_062607.pdf
9. National Alliance of State and Territorial AIDS Directors. *Rapid HIV Testing Assessment. 2006*. Available online at www.nastad.org/Docs/highlight/20061030_NASTAD_RT_Implementation_2006_FINAL.pdf
10. Centers for Disease Control and Prevention. "Revised Guidelines for HIV Counseling, Testing, and Referral." *MMWR* 50.RR-19 (2001): 1-58.

11. Keane, D., Nielsen, C., Dower, C. *Community Health Workers and Promotores in California.* San Francisco, CA: UCSF Center for Health Professions, 2004. Available online at www.futurehealth.ucsf.edu/pdf_files/Final_English_101104.pdf
12. U.S. Department of Health and Human Services. *Border Health Initiative*. Special Projects of National Significance, 2004. Available online at ftp://ftp.hrsa.gov//hab/border_innovative.pdf
13. Vermunds, S.H., Wilson, M. "Barriers to HIV testing – Where next?" *Lancet* 360.9341 (2002): 1186-7.
14. Foundation for AIDS Research. *amFar Policy Statement on Routine HIV Testing*. Washington, D.C.: 2007. Available online at www.amfar.org/uploadedFiles/On_The_Hill/Resources/Routine_HIV_Testing.pdf
15. Weinhart, L.S., Carey, M., Johnson, B., Bickham, N. "Effects of HIV counseling and testing on sexual risk behavior: A meta-analytic review of published research, 1985-1997." *American Journal of Public Health* 89.9 (1999): 1397-405.

CHAPTER FIVE

1. National Alliance of State and Territorial AIDS Directors. *A New Blueprint: Ending the HIV/AIDS Epidemic through the Power of Prevention*. Washington, D.C.: NASTAD, 2008.
2. Southern AIDS Coalition. *Southern States Manifesto: Update 2008. HIV/AIDS and Sexually Transmitted Diseases in the South*. July 2008. Also available online at www.southernaidscoalition.org/Manifesto%20Update%20Final%20pdf%20071408.pdf.
3. Centers for Disease Control and Prevention. "Recommendations for Partner Services Programs for HIV Infection, Syphilis, Gonorrhea, and Chlamydial Infection." *MMWR* 57.RR-9 (Early Release) (30 Oct. 2008): 1-63.
4. St. Lawrence, J.S., Montano, D.A. Kasprzyk, D., Phillips, W.R., Armstrong, K., Leichliter, J. "National survey of US physicians' STD screening, testing, case reporting, clinical and notification practices." *American Journal of Public Health* 92.11 (2002): 1784-8.

CHAPTER SIX

1. Gross, J. "AIDS Patients Face Downside of Living Longer." *New York Times* 6 Jan 2008. Available online at www.nytimes.com/2008/01/06/health/06HIV.html.
2. AIDS Action. *Connecting to Care II: Addressing Unmet Need in HIV*. Washington, D.C.: 2006.
3. Ormand, B. Zuckerman, S., Lhila, A. *Rural/Urban Differences in Health Care are Not Uniform across States*. Assessing the New Federalism Brief B-11. Urban Institute, May 2000.

4. Heckman, T.G., Somlai, A.M., Peters, J., Walker, J., Otto-Salaj, L., Galdabini, C.A., Kelly, J.A. "Barriers to care among persons living with HIV/AIDS in urban and rural areas." *AIDS Care* 10 (1998): 365-75.
5. Reif S, Golin CE, Smith SR., Barriers to accessing HIV/AIDS care in North Carolina: rural and urban differences. *AIDS Care*. 17.5 (July 2005): 558-65.
6. Southern AIDS Coalition. *Southern States Manifesto: Update 2008. HIV/AIDS and Sexually Transmitted Diseases in the South*. July 2008. Also available online at www.southernaidscoalition.org/Manifesto%20Update%20Final%20pdf%20071408.pdf.
7. *Soft Smoke: AIDS in the Rural West*. Telluride, CO: Sparky Productions, 2000.
8. Dreisbach, S., Moyer, M. "Promising Approaches to Rural HIV Prevention." *Health Education Monograph* (2008): 38-44.
9. Heckman, T., Carlson, B. "A telephone-delivered coping improvement intervention for persons living with HIV/SIDS in rural areas. *AIDS and Behavior* 11.1(2001): 5-14.

CHAPTER SEVEN

1. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance in Urban and Non-urban Areas (through 2006)*. Slide set. Available online at www.cdc.gov/hiv/topics/surveillance/resources/slides/urban-nonurban/index.htm
2. DiClemente, R.J., Peterson, J. "Changing HIV/AIDS risk behaviors: The role of behavioral interventions." In *Handbook of HIV Prevention*. Editors R.J. DiClemente and J. Peterson. New York: Plenum, 1994.
3. Kirby, D., "Understanding what works and what doesn't in reducing adolescent sexual risk-taking." *Family Planning Perspectives* 33.6 (2001): 276-81.
4. Herbst, J.H., Sherba, R.T., Crepas, N. et. al. "A meta-analytic review of HIV behavioral interventions for reducing sexual risk behavior of men who have sex with men." *Journal of Acquired Immune Deficiency Syndrome* 39 (2005): 228–41.
5. Noar, S.M. "Behavioral interventions to reduce HIV-related sexual behavior: Review and synthesis of meta-analytic evidence." *AIDS and Behavior* 12 (2008): 335-53.
6. Card, J.J., Solomon, J., Berman, J. *Tools for Building Culturally Competent HIV Prevention Programs.* New York, NY: Springer, 2007.
7. Center for Disease Control and Prevention. *Updated Compendium of Evidence Based Interventions.* Available online at www.cdc.gov/hiv/topics/research/prs/evidence-based-interventions.htm
8. Centers for Disease Control and Prevention. Provisional Procedural Guidance for Community-Based Organizations. Available online at www.cdc.gov/hiv/topics/prev_prog/AHP/resources/guidelines/pro_guidance.htm
9. McKleroy, V.S., Galbraith, J.S., Cummings, B., et al. "Adapting evidence-based behavioral interventions for new settings and target populations." *AIDS Education and Prevention* 18 (Supp A) (2006): 59-73.
10. Holtgrave, D.R., Crosby, R.A. "Social capital, poverty, and income inequality as predictors of gonorrhea, syphilis, chlamydia, and AIDS cases in the United States." *Sexually Transmitted Diseases* 79 (2003): 62-4.
11. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2004.* Atlanta: US Department of Health and Human Services, 2005.
12. Centers for Disease Control and Prevention. "HIV incidence among young men who have sex with men—seven US cities, 1994–2000. *MMWR* 50 (2001): 440–4.
13. Centers for Disease Control and Prevention. HIV/STD risks in young men who have sex with men who do not disclose their sexual orientation—six US cities, 1994–2000". MMWR. 52 (2003):81–85.
14. Centers for Disease Control and Prevention. *HIV Prevention in the Third Decade*. Atlanta, GA: U.S. Department of Health and Human Services, 2005.
15. Kirby, D., Laris, B.A., Rolleri, L. *The Impact of Sex and HIV Education Programs in Schools and Communities on Sexual Behaviors among Young Adults.* Research Triangle Park, NC: Family Health International, 2006.
16. Smith, M., DiClemente, R.J. "STAND: A peer educator training curriculum for sexual risk reduction in the rural South. Students Together Against Negative Decisions." *Preventive Medicine* 30.6 (2000): 441-9.
17. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2005.* Volume 17. Rev ed. Atlanta, GA: U.S. Department of Health and Human Services, 2007.

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