Lessons from the Fields: A Migrant HIV Prevention Project

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SYNOPSIS

Migrant and seasonal workers are vulnerable to human immunodeficiency virus (HIV) due to poverty, inadequate knowledge of preventive strategies, and lack of access to health care. This study addresses the disparate impact of HIV among Hispanic and African American migrant workers in Immokalee, Florida, who use alcohol and other drugs. Through pilot testing to adapt the experimental and comparison interventions to these two distinct populations, research staff have learned the importance of (*1*) establishing and maintaining trust between outreach staff and the migrant community; (*2*) being aware of cultural nuances and practices that might create challenges to the research process, and the interaction of these factors with poverty; and (*3*) having flexibility in recruitment and intervention. As one of the first intervention studies in this population to use an experimental design and to focus on the social and contextual factors that contribute to risky behaviors, these lessons may provide guidance for future researchers.

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"Five plead guilty in Immokalee Fla. slavery case" reads the headline of a 2008 article in the *Fort Myers News Press*, a local newspaper in the town of Immokalee, Florida, the site of a human immunodeficiency virus (HIV) prevention intervention among migrant and seasonal workers.[1] The article and court case it describes highlight incidents of migrants being forcefully prevented from leaving farms, and report on extreme forms of punishment meted out to migrants for a range of perceived offenses. In an era of heightened interest in the lives of migrant workers, the conditions under which many of them live, including extreme poverty, and vulnerability to and lack of knowledge of disease, are still unknown to many in mainstream America.

To bring some of these issues to light by addressing the disparate health impact of HIV, we undertook the current study among Hispanic (primarily Mexican American, but also Cuban, Puerto Rican, and Guatamalan) and African American (U.S.-born black) migrant and seasonal agricultural workers (hereafter referred to as migrants), the largest groups who use alcohol and other drugs in Immokalee. This article reports on the pilot testing phase of a community trial study in which interventions were adapted to the distinct cultures of these two groups, and outreach and recruitment strategies were refined, highlighting the importance of (*1*) establishing and maintaining trust between outreach staff and the migrant community; (*2*) being aware of cultural nuances and practices that might create challenges to the research and intervention process, and the interaction of these factors with poverty; and (*3*) having flexibility in recruitment and intervention.

HIV has had a disproportionate impact on black and Hispanic people in Florida. Recent surveillance data indicate that while black people represent 15% of the adult population in Florida, they account for 45% of the HIV cases. Hispanic people, representing 20% of the Florida population, account for 21% of the HIV cases.[2] These figures may represent underestimates among the migrant population, as HIV prevalence has not been well established in this group.[3] As one of the centers of migrant farming activity in Florida, Immokalee has been hard hit by the epidemic. While the Immokalee area represents approximately 8% of the population of Collier County, it accounts for 41% of the cumulative acquired immunodeficiency syndrome (AIDS) cases and 37% of the cumulative HIV cases.[4,5]

The study population for the community trial on which this article is based comprised male and female African American and Hispanic people who are at risk for HIV due to their alcohol and other drug use and sexual behaviors. While culturally distinct, both groups work in various aspects of migrant and agricultural labor, including planting, harvesting, processing, maintaining farms and migrant housing, and the sex trade. African American people in this community tend not to migrate, but some do. Mexican American and other Hispanic people are more likely to migrate, but stay in Immokalee for four to eight months of the year due to the long growing season in South Florida. While the study did not inquire about the migrants' documentation status (for legal deniability), anecdotal evidence—such as raids by U.S. Immigration & Customs Enforcement, which netted some of our study participants—suggests that many may in fact be undocumented. Hispanic people tend to speak a common dialect of Spanish, although some are bilingual. African American people speak English.

Migration has been linked to increased vulnerability to HIV across nations and cultures because of the low socioeconomic status, relative lack of education, and substandard access to health care found among migrant populations in the host countries.[6–8] The distinctness of Mexican migrants' cultures and languages often mark them as outsiders, and make it more difficult for them to access support and social services. Moreover, migrant workers in the southeastern region of the United States are more likely to live away from their families while doing migrant work.[9,10] These migrants, often men traveling in small groups, are at higher levels of risk due to the absence of familial and societal influences on their risky behaviors.[3,6,7]

The synergistic effects of substance use and risky sexual behaviors have been well documented in the public health literature.[11–14] For African American and Mexican migrants, as in other populations, substance use is a means of coping with a difficult environment, and studies have shown a significant relationship between alcohol use and the isolation, acculturation, and employment frustration among migrant populations.[15–18] The impact of substance use among migrants is more pronounced, however, due to the lack of social support and alienation from mainstream society.

At the time of grant submission, this project represented the first quasi-experimental study of an HIV prevention program in a migrant sample. This five-year randomized study used a peer-counseling approach in the experimental intervention to reduce risky sexual behaviors among this sample. The primary aim is to assess the impact of two community-based interventions—a peer-assisted condition compared with a health promotion condition—on producing long-term reductions in HIV risk and increased health behaviors among migrant workers who use alcohol and other drugs. This study aims to expand the focus

of prevention research to address the social and contextual components of risky behaviors, as the majority of previous studies have focused on individual-level variables as the primary mediators.

This article discusses and elucidates the lessons learned in the pilot-testing and intervention adaptation phase of this study during the first years of the research grant.

METHODS

This five-year randomized study uses a peer-counseling approach in the experimental intervention to reduce risky sexual behaviors in the sample. The primary aim is to assess the impact of two community-based interventions—a peer-assisted condition and a health promotion condition—on producing long-term reductions in HIV risk and increased health behaviors among migrant workers who use alcohol and other drugs.

Unforeseen administrative issues delayed the onset of the project for more than a year. During one particularly busy hurricane season in 2005, both the project and the administrative sites, which are more than 100 miles apart and on opposite coasts of Florida, were hit by three hurricanes (Wilma, Charley, and Katrina). In addition, staffing issues proved difficult, particularly finding a project director willing to make the more than 100-mile drive several times per week or finding a qualified person on the Gulf Coast to oversee project activities. However, at this time, the project maintains a full complement of staff for project activities.

We undertook a series of preparatory activities prior to implementation of the study to better inform the intervention and research processes. For one, we held a total of six participant focus groups, including Hispanic and African American people from the target community, four community advisory board focus groups, eight interagency meetings, and four meetings with the health department. The lessons from these focus groups and meetings, as well as individual interviews and focus groups with field and intervention staff and a review of project documents, were used to obtain information for this article.

Establishing and maintaining trust

The goal of the preparatory activities was to culturally adapt the intervention to provide an enhanced community outreach model and to expand our partnerships with health and human service professionals and researchers, thereby improving access to health care by migrants in Immokalee.

We conducted pilot testing of the intervention, including pre- and posttests assessing HIV transmission knowledge, among Hispanic and African American samples. While the participants were generally aware of how HIV was transmitted, they were less sure about how to prevent transmission, confirming the importance of establishing an effective link between transmission routes and preventative measures. There were also areas in which participants held incorrect views on transmission: several participants did not know the risks of transmission associated with unsanitary drug paraphernalia, several thought that HIV could be transmitted by mosquito bites, some thought that an individual could get HIV while giving blood, and a few did not know that women were more vulnerable to HIV than men. This information led to additional efforts to address knowledge deficits within the intervention modules.

As a result of the focus group discussions and pilot testing, and with contributions from our local staff, the research team added content to the health promotion control condition by including information on diabetes, safety, and first aid; incorporating more interactive and up-to-date activities to both interventions; and offering more rest periods for participants during the intervention sessions. In addition, we decided to pay participants with cash instead of gift cards because very few stores in the area accept gift cards. This collaboration of community partners, local multilingual research staff, and local residents in the decision-making process led to an intervention that is more responsive to the local population's specific needs.

The principal investigator and some of the research team have been working in this community for more than 15 years. While important relationships have been established with community agencies, staff members have discovered the need to reestablish trust among a majority of the migrants each season due to the population movement demanded by the migrant lifestyle. On this project, as participants moved from screening to intervention, staff learned that many participants were giving incorrect names and dates of birth because they did not initially know or trust the staff. The project's procedure of maintaining photographs of participants in locked files, following an Institutional Review Board (IRB)-approved protocol, eliminates the possibility that participants will attempt to create new identities to get more money, and also serves to keep track of physical features that help with identifying participants.

Flexibility in recruitment and protocol design; issues with follow-up

The success or failure of a program very often depends on the effectiveness of the recruiting and outreach staff. Particularly in a study such as this one, with a

mobile population who are often unavailable during standard working hours, flexible personnel who are able to talk with migrants and meet them "where they are" have an increased chance of being successful in recruitment efforts. The study has been fortunate to locate and work with community members who are able to "code switch;" that is, function culturally and linguistically as professionals when interacting within the office environment or with staff from other agencies, and as people of the streets when recruiting potential participants. The staff primarily comprises previous migrant workers, people whose parents were migrant workers, or people who have worked in agencies that required them to be in the field to perform their duties. Other staff have experience with alcohol and drug users. All staff make contact with potential participants in nonjudgmental ways.

Initially, recruiters were given lists of migrant camps from which to begin recruitment. In Immokalee, as in many other towns where migrants live, the definition of a camp is very fluid. A camp may be a well-established plot with permanent or semipermanent homes or dormitories, or it may be two trailers at the back of a farmer's home. When the project first started, the farming season was just beginning, and many camps were empty. As such, the recruiters increased their contact with community agencies and key informers familiar with the population, and started to frequent the places where farmworkers were more likely to congregate.

It is not unusual for migrants to move five or six times within the same town in one season. Given the very mobile nature of migrant workers, if a recruitment/screening interview takes place away from a migrant's residence, the recruiter requests that the participant show the recruiter his/her place of residence to establish a formal address. The high level of transience within the migrant community has, of necessity, required staff to cast a broad net in the community, find hangout spots, and familiarize themselves with community members who work with migrants. A toll-free number of the project's contact person or project site also offers some ease of contact for the participants.

In the early weeks of recruitment, outreach staff learned that many Hispanic migrants were reluctant to approach the outreach van because it had the same colors as official immigration vehicles. Initially, we ordered a white van, but we selected a different color based on advice from community contacts. We later discovered that this color was also similar to immigration vans. Regardless of these initial missteps, migrants' reluctance disappeared as our staff became more well-known in the community. Project staff members' efforts to be flexible in their recruitment approach and to establish trusting relationships with the community reflect a pragmatic assessment of the realities in the field and have allowed recruiters to reach recruitment targets.

Locating migrants, even after an initial contact when they are still in the same town, is often problematic. In addition, even when migrants do return to the same town the following year, they may not stay at the same residence as they did in the previous season. In anticipation of these challenges, research staff have implemented several procedures, including handing out cards with the project's toll-free number, getting contact information of friends and family who might know where the participant will be, and making home visits for follow-up assessments, if necessary.

Learning participants' nicknames has also been invaluable in project efforts to maintain contact with many of the migrants, as many of their friends and associates may not know their given names. The locator form on which personal information is collected follows IRB procedures that require maintenance of these data in locked cabinets and separate from risk behavior data. These tracking activities have worked quite well to date.

Culture and poverty

Cultural nuances and the interaction of these factors with poverty create challenges in the research process. For example, there are distinct differences between foreign-born and U.S.-born Hispanic people that influence their willingness to participate in the study. U.S.-born migrants are generally unwilling to participate in the study. Staff suggest that these individuals have more pride and do not want to be seen as part of a program for the new migrants. Also, many are on probation and are concerned about giving information to staff that may be passed on to officials.

In general, recruitment of African American people has not posed significant difficulties for the recruitment team.

It is generally easier to recruit foreign-born men. However, it has been extremely challenging to recruit Hispanic women because they are much less likely to admit to substance use or risky sexual behaviors. The outreach workers have discovered, however, that if they are able to find these women out in the streets of the community, engaging in risky behaviors, they are much more likely to speak with recruiters. Among Hispanic women, staff have also discovered the importance of getting to know them on a personal level and making multiple attempts to encourage participation. We have addressed these recruitment difficulties by expanding

the range of recruitment locations and using contacts with existing relationships with these groups in the community.

The migrants and seasonal workers who participate in this study struggle daily with basic survival, as well as with issues and challenges that are not related to their direct experience; their needs of the present day receive less attention. The staff have found this reality to be particularly true with regard to migrants' own interest in their general health and well-being. Many of the participants appear uninterested in finding out the results of their HIV tests, and there is a general perception among staff that most are participating in the study for the financial incentive. It remains a challenge for the intervention staff to devise ways to encourage the participants to return for their results and to make changes that will be important for their overall health.

The perception of risk is often distorted among migrants in this community. Prostitution is an accepted form of entertainment in the area; however, there is a distinction made between "women of the house" (i.e., women who come to migrants' houses to trade sex for money) and streetwalkers. The former are perceived as safer, cleaner, and less likely to transmit disease to their male clients. During the intervention, it is often a challenge for staff to convey the idea that both types of women represent a high level of risk if condoms are not used.

The issue of culture often surfaces in unexpected ways. For example, many of the Hispanic men are extremely reluctant to do the condom skills test with the penile model. Often, they do not give an explanation for this discomfort during the test, but in the privacy of the outreach van, many feel comfortable enough to admit that they may be perceived as "gay" if they touch the model. As staff have become aware of this reluctance, they have devised creative methods (e.g., using humor) to make the men more comfortable with this task. For example, the staff demonstrate on a model how to use a condom, then make light of it by saying, "See, it doesn't bite." Others say, "All the guys say the same thing and all the women want to take the condoms home." Staff explain that to be included in the study, participants must demonstrate that they know how to use a condom correctly. Otherwise, how would they know that the woman, who reportedly puts the condom on her partner, is putting it on correctly.

Participants' seeming excitement about sharing their HIV-negative status with other participants within an intervention cohort was an unexpected occurrence. This of course represents a significant threat to confidentiality, as those who are HIV-positive do not participate in the information sharing and are, therefore, "identified" without actually admitting their status. To reduce the probability of this practice, staff members disclose HIV test results to each individual only after the intervention session is complete. This practice has reduced the possibility and incidence of group disclosures.

CONCLUSIONS

The primary lessons from the initial years' experience with this research study point to the importance of working consistently to establish and maintain trust; the need to understand culture and its interplay with poverty, as well as the resulting behaviors that derive from this interaction; and the significance of flexibility in recruitment and outreach practices. We also continue to formulate strategies to motivate migrants to personalize the dangers of HIV.

The contributions of field staff, advisory board members, and community members on issues of recruitment, community characteristics, and study implementation have been critical to our understanding of the nuances of culture; the realities regarding health, money, and survival; and the benefits of incremental change. They have a unique perspective, an intimate knowledge of the area, and have recommended adjustments to processes and practices detailed in this article that have led to more effective delivery of the intervention. Because of their efforts, the project has become more well-known in the community, and staff members report anecdotal evidence of behavior change (e.g., not as many women going into the men's trailers, and men asking for condoms when they see the outreach van). The preliminary data—to be reported in another article—also seem to support behavior change.

The outreach and intervention staff report that for the majority of participants and potential participants, the problems of immediate survival (e.g., housing and employment) take precedence over the possibility of developing a disease, even one as fatal as HIV, in the distant future. The staff suggest that the primary motivation for migrants participating in the study appears to be the promise of financial compensation. Regardless of the primacy of financial motivation, however, there is a strong need for early intervention among migrant populations.[19] However difficult the challenge, behavior change has been achieved in some migrant populations, suggesting that greater knowledge of HIV transmission and greater condom use self-efficacy are viable targets for intervention.[20] While poverty remains the most salient feature in the lives of many migrants, the objective of this and other prevention research

is to find a way to personalize the danger before the danger becomes personal.

The context of poverty is further exacerbated by long absences from the support and social restraints of family.[21,22] This reality, in concert with influences that focus on the culture of machismo and the practice of multiple partnerships among this population, create an environment in which engagement in risky drug and sexual behaviors is accepted practice. For example, in a study of Hispanic men in North Carolina, the rate of visiting a commercial sex worker in the previous year was more than 40% for single men and married men who were living apart from their wives.[23] Given these realities, an intervention such as this, which focuses on the social and contextual environment of migrant workers, and responds to the call for interventions that address social networks and social isolation, has the potential to lead to significant behavior change.[24]

Inadequate or incorrect HIV transmission knowledge and limited access to HIV risk reduction information, techniques, and support create additional risk for migrant workers.[6,25,26] Men's perception that condoms are uncomfortable or reduce pleasure, as well as traditional cultural and gender roles, also contribute to migrants' heightened risks of contracting HIV.[7,27] In this study, the research staff report an initial disinclination among many of the participants to consider using condoms and a reluctance to discuss these issues with partners. However, continuing contact with the participants through the follow-up period suggests a greater openness to change after completing the intervention sessions.

The impact of poverty, absence of family, and inadequate knowledge create resistance to behavior change. Researchers are challenged to design interventions that acknowledge the realities of poverty and the temptations of risky behaviors in this population. Intervention designs that integrate contextual factors and respond to the need for better theoretical frameworks and the integration of structural and environmental factors are needed among migrant populations.[28] It is hoped that the lessons from the field in the early stages of intervention adaptation and pilot testing will be helpful to other researchers in their design and implementation of community research trials among migrant workers.

REFERENCES

1. Williams AB. Five plead guilty in Immokalee Fla. slavery case. Fort Myers News Press; 2008 Sep 3.
2. Florida Department of Health, Division of Disease Control. Florida annual report 2007: acquired immune deficiency syndrome/human immunodeficiency virus. Tallahassee (FL): Florida Department of Health; 2008. Also available from: URL: http://www.doh.state.fl.us/Disease_ctrl/aids/trends/epiprof/mini_aids07c.pdf [cited 2008 Sep 15].
3. Painter TM. Connecting the dots: when the risks of HIV/STD infection appear high but the burden of infection is not known—the case of male Latino migrants in the southern United States. AIDS Behav 2008;12:213-26.
4. Census Bureau (US). Factfinder: summary file 1 and summary file 3. 2000 [cited 2008 Sep 15]. Available from: URL: http://factfinder.census.gov/home/saff/main.html?_lang=en
5. Florida Department of Health, Collier County Health Department. Acquired immune deficiency syndrome: cumulative reported cases. 2008.
6. Kissinger P, Liddon N, Schmidt N, Curtin E, Salinas O, Narvaez A. HIV/STI risk behaviors among Latino migrant workers in New Orleans post-Hurricane Katrina disaster. Sex Transm Dis 2008; 35:924-9.
7. Varela-Ramirez A, Mejia A, Garcia D, Bader J, Aguilera RJ. HIV infection and risk behavior of Hispanic farm workers at the west Texas-Mexico border. Ethn Dis 2005;15(4 Suppl 5):S5-92-6.
8. Soskolne V, Shtarkshall RA. Migration and HIV prevention programmes: linking structural factors, culture, and individual behaviour—an Israeli experience. Soc Sci Med 2002;55:1297-307.
9. Roka F, Cook D. Farmworkers in southwest Florida: final report. 1998 [cited 2008 Sep 15]. Available from: URL: http://www.imok.ufl.edu/economics/labor/final98.pdf
10. Gadon M, Chierici RM, Rios P. Afro-American migrant farmworkers: a culture in isolation. AIDS Care 2001;13:789-801.
11. Rotheram-Borus MJ, Desmond K, Comulada WS, Arnold EM, Johnson M. Reducing risky sexual behavior and substance use among currently and formerly homeless adults living with HIV. Am J Public Health 2008;99:1100-7.
12. Seth P, Wingood GM, Diclemente RJ. Exposure to alcohol problems and its association with sexual behavior and biologically-confirmed *Trichomonas vaginalis* among women living with HIV. Sex Transm Infect 2008;84:390-2.
13. Schroder KE, Johnson CJ, Wiebe JS. An event-level analysis of condom use as a function of mood, alcohol use, and safer sex negotiations. Arch Sex Behav 2007;38:283-9.
14. Baskin-Sommers A, Sommers I. The co-occurrence of substance use and high-risk behaviors. J Adolesc Health 2006;38:609-11.
15. Alaniz ML. Migration, acculturation, displacement: migratory workers and "substance abuse." Subst Use Misuse 2002;37:1253-7.
16. Alderete E, Vega WA, Kolody B, Aguilar-Gaxiola S. Lifetime prevalence of and risk factors for psychiatric disorders among Mexican migrant farmworkers in California. Am J Public Health 2000;90:608-14.
17. Finch BK, Catalano RC, Novaco RW, Vega WA. Employment frustration and alcohol abuse/dependence among labor migrants in California. J Immigr Health 2003;5:181-6.
18. Vega WA, Sribney WM, Achara-Abrahams I. Co-occurring alcohol, drug, and other psychiatric disorders among Mexican-origin people in the United States. Am J Public Health 2003;93:1057-64.
19. Martinez-Donate AP, Rangel MG, Hovell MF, Santibanez J, Sipan CL, Izazola JA. HIV infection in mobile populations: the case of Mexican migrants to the United States. Rev Panam Salud Publica 2005;17:26-9.
20. Knipper E, Rhodes SD, Lindstrom K, Bloom FR, Leichliter JS, Montano J. Condom use among heterosexual immigrant Latino men in the southeastern United States. AIDS Educ Prev 2007;19:436-47.
21. Aranda-Naranjo B, Gaskins S. HIV/AIDS in migrant and seasonal farm workers. J Assoc Nurses AIDS Care 1998;9:80-3.
22. Organista PB, Organista KC, Soloff PR. Exploring AIDS-related knowledge, attitudes, and behaviors of female Mexican migrant workers. Health Soc Work 1998;23:96-103.
23. Parrado EA, Flippen CA, McQuiston C. Use of commercial sex workers among Hispanic migrants in North Carolina: implications for the spread of HIV. Perspect Sex Reprod Health 2004;36:150-6.
24. Apostolopoulos Y, Sonmez S, Kronenfeld J, Castillo E, McLendon L, Smith D. STI/HIV risks for Mexican migrant laborers: exploratory ethnographies. J Immigr Minor Health 2006;8:291-302.
25. Olshefsky AM, Zive MM, Scolari R, Zuniga M. Promoting HIV risk

awareness and testing in Latinos living on the U.S.-Mexico border: the Tú No Me Conoces social marketing campaign. AIDS Educ Prev 2007;19:422-35.
26. Denner J, Organista KC, Dupree JD, Thrush G. Predictors of HIV transmission among migrant and marginally housed Latinos. AIDS Behav 2005;9:201-10.
27. Caballero-Hoyos R, Torres-Lopez T, Pineda-Lucatero A, Navarro-Nunez C, Fosados R, Valente TW. Between tradition and change: condom use with primary sexual partners among Mexican migrants. AIDS Behav 2008;12:561-9.
28. Organista KC, Carrillo H, Ayala G. HIV prevention with Mexican migrants: review, critique, and recommendations. J Acquir Immun Defic Syndr 2004;37 Suppl 4:S227-39.