

HIV Prevention With Mexican Migrants

Review, Critique, and Recommendations

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Summary: Charged with the task of reviewing the research outcome literature on HIV prevention with Mexican migrants in the United States, the following broad observations and conclusion were made: (1) there is little research on this specialized topic of concern; (2) the research that exists reflects an overly individualistic behavioral science approach designed to reduce individual risk factors, with little regard for structural and environmental factors that influence HIV risk; and (3) there is a compelling need to develop better theoretic frameworks for understanding the complex and dynamic social and cultural processes influencing sexual behavior among Mexican migrants so as to better inform HIV prevention efforts with this unique and diverse Latino(a) population.

Key Words: Mexican, Latino, migrants, HIV/AIDS prevention

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The purpose of this article is to review the HIV prevention outcome literature on Mexican migrants, to identify gaps, and to recommend research directions that build on individual level approaches by considering the social, cultural, and sexual contexts of HIV risk as well as ways in which structural and environmental factors influence patterns of risk in this unique Latino(a) population. Given the cross-cultural and international nature of this problem area, mechanisms such as the Binational Migrant Health Initiative between the United States and Mexico hold particular promise in disease prevention and health promotion. The review of scarce HIV prevention outcome literature is framed by a brief critique of current prevention approaches. We begin with a definition of Mexican migrants that may be used to inform prevention research, fol-

lowed by discussion of major risk factors and scenarios, prevention approaches, and ideas.

DEFINING MEXICAN MIGRANTS IN HIV PREVENTION RESEARCH

Mexican migrants are defined here as individuals from Mexico who come to live and/or work in the United States for varied but generally time-limited stays. In contrast, the term *Mexican immigrant* refers to those who move to the United States with the intention of permanent settlement. It should be noted, however, that the line between these terms is blurred by the fact that migrants frequently settle permanently in the United States and immigrants sometimes return to live in Mexico, despite their initial intentions. Indeed, the intention of migrants to stay temporarily in the United States or to settle more permanently may not be fully defined at the time of their departure from Mexico. Furthermore, small but increasing numbers of Mexicans are fashioning transnational lives characterized by homes, work, and lifestyles in both countries simultaneously.

These forms of human movement occur in the context of different rules of sexual and social interaction and pronounced processes of social and cultural change in Mexico and the United States. The complexity of factors that may influence sexual and drug-related behaviors under these circumstances underscores the need for HIV prevention researchers to transcend a sole focus on individual factors, such as HIV knowledge, attitudes, beliefs, motivations, and intentions, so as to consider broader social and cultural phenomena influencing HIV risk in Mexican migrants.

NEED FOR A CONTEXTUAL APPROACH TO HIV PREVENTION RESEARCH

As we enter a third decade of HIV prevention research, we can trace the evolution of 3 overlapping and increasingly complex approaches that guide the current review, which have resulted in increasing levels of knowledge production and progress (Table 1). The first and predominant paradigm has been a behavioral science approach, based on theories of individual psychology, that links HIV transmission to primarily behavioral and cognitive factors (eg, knowledge, attitudes, be-

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TABLE 1. Evolving Complexity of HIV Prevention Research Approaches Needed to Enhance Understanding of HIV Risk and Prevention in Mexican Migrants and Other Groups

HIV Prevention Research Approaches	Prevention Knowledge and Outcome	Emphasis in Current Literature
Behavioral science approach	Reproduction	High
Integration of social and cultural contexts into behavioral science and other research approaches	Reformation	Medium
Identify structural and environmental factors linked to HIV risk and their interactions with the personal agency and resiliency of oppressed groups	Transformation	Low

liefs, skills) and cofactors (eg, alcohol use). This approach has been helpful in establishing baseline risk data for different groups as well as in identifying some reasonably predictive risk factors.¹ This approach has also exposed our limited knowledge of the cultural, social-relational, and sexual nature of HIV risk, however.²⁻⁴ For this reason, we may be witnessing diminishing returns on the behavioral science approach, with respect to infection rates and levels of safer sex as well as its limitations in conducting cross-cultural research.⁵ Thus, a continued sole reliance on an overly individualistic cognitive approach is likely to result in a reproduction of limited past findings.

The second approach builds on the first by including dimensions of social and cultural contexts that influence individual, dyadic, and group sexual and drug-related decision making and/or the enactment of HIV risk-related behaviors. With regard to contextual inquiry, Aggleton¹ notes, "For many people, motivations towards sex and drug use may be complex, unclear, and possibly not thought out. They are heavily influenced by factors as diverse as economic need, the desire for social status, religious beliefs, and legal constraints. These environmental and structural factors give meaning to our desires, and constrain and enable individuals differentially in their actions." Community-based research collaboration represents a viable way of addressing contextual factors that influence HIV risk in Mexican migrants and other risk groups. Such collaboration involves changing shared norms through opinion leaders, role models, and communication messages directed at groups that share social and cultural experiences.¹ The success of community-based collaborations depends on the coordinated efforts of coalitions of key players such as nonprofit and governmental health agencies and administrators, researchers, and community members, including those belonging to populations under study.

The broadening in scope that results from contextual inquiry is beginning to result in a reformation of an individualistic behavioral science approach because it facilitates tailoring interventions to the lived experiences of distinct groups

within their local realities. The full potential of this second approach has yet to be fully realized, however. Huge gaps remain in the literature with regard to identifying and analyzing how contextual factors shape risk and how the cultural and social-relational contexts of sexual behavior can be used to link short-term behavioral goals with longer term social and cultural change goals.

The second approach complements a third and even broader approach that focuses on structural, environmental, and social change issues. At present, few prevention efforts attend to the structural/environmental factors, rooted in macrosocial, macroeconomic, and macropolitical arrangements and frequently codified by laws and social policies, that powerfully constrain the ability of oppressed groups to protect themselves adequately from HIV and other problems.⁶ This third approach draws attention to how marginalized and oppressed groups, conceptualized as actors with agency, frequently respond to and often modify environmental obstacles. Change at this level typically involves changes to legislation and social policy. By paying greater attention to macroenvironmental influences, this approach has the potential to result in a much needed transformation of the HIV prevention research enterprise.

HIV prevention with Mexican migrants would be expedited if future research, service, and policy could be advanced to integrate the 3 approaches described previously. Although a challenging prospect, the probability of succeeding in such a direction could be facilitated by genuine interdisciplinary efforts, binational collaborations between the United States and Mexico, the blending of governmental top-down and community bottom-up approaches to prevention intervention, and incorporating the border thinking of marginalized groups. By border thinking, we are referring to the potential insights of social and cultural interlopers (eg, bicultural and transnational Latinos, residents of the United States–Mexico border region) who blend and integrate disparate perspectives with considerable success, albeit with substantial risk for social and cultural marginality and related problems such as HIV/AIDS.

UNDERSTANDING HIV RISK IN MEXICAN MIGRANTS

In her discussion of social contextualism, Castañeda⁷ reminds us that research participants are influenced by multiple social contexts at differing levels of organization, ranging from cultural norms and larger social structures to those existing in immediate situations. With respect to Mexican migrants, such an analysis requires paying attention to how migratory processes, such as acculturation to US–Latino and mainstream cultures, and transnationalism affect gender- and sexuality-related values and practices, including those that place migrants at risk for HIV.

Migration and HIV/AIDS

Global migratory labor systems play key roles in the geographic spread of HIV as a result of many migration-related factors. In the case of male migrants, for example, such factors include their being away from home for extended periods, family breakdown, and increased number of sex partners (including sex with commercial sex workers and sex between men) and the consequent risks posed to wives and other sex partners of migrant men.⁸ In Mexico, for example, Bronfman et al⁹ studied the spread of AIDS cases and found that one third were from Mexican states with the highest migration to the United States and that 1 in 10 patients reported having lived in the United States.

Structural/Environmental Factors

Simply put, focusing on structural factors allows researchers to consider the role of risky environments in shaping the HIV/AIDS epidemic versus focusing solely on risky individuals. For example, in the United States, these migration-related risk factors exist within social and political contexts in which migratory labor has been historically constructed to exploit and disempower foreign Mexican labor. For instance, migrant farm workers have been generally excluded from major federal and state laws designed to protect the health, safety, and economic well-being of workers, despite the fact that agricultural labor is one of the nation's most hazardous occupations.¹⁰ Such laws range from the National Relations Act of 1935, which guarantees the right to collective bargaining, to the Occupational Safety and Health Act of 1970, which regulates safety work standards. Such unappealing work-related factors shape a unique and vulnerable work force of 2 to 3 million migrant farm workers that is predominantly foreign born, Mexican, male, poor, and low in education, half of whom are undocumented.¹¹

Although collective bargaining rights were won by California farm workers in 1975 through passage of the Agricultural Labor Relations Act (ALRA), auspicious initial gains in labor contracts (complete with health plan provisions) dissipated after only approximately 5 years because of a combination of political change and internal organizational problems.

According to Majika and Majika,¹² a dramatic reversal in ALRA enforcement accompanied the change in governorship from liberal Democrat Jerry Brown, who signed the ALRA into law, to conservative Republican George Deukmejian in 1983, who opposed farm worker unions and campaigned with heavy contributions from agricultural corporations. As a result, the ALRA budget was slashed, progrower personnel were appointed to the ALRA enforcement board, and the state ceased to enforce the bill's provisions.

Migration-Related Risk Factors

Documented risk factors in urban and rural Mexican migrants include high numbers of sex partners, including sex between men and between men and female sex workers, high rates of sexually transmitted diseases (STDs), sex with intravenous drug-using partners on the part of female migrants, needle sharing after injection of illegal drugs as well as “therapeutic” injections of vitamins and antibiotics,¹³ a high prevalence of alcohol and substance dependency, and depression.¹⁴ Such “risk factors” converge in the lived experiences of migrant laborers. For example, a screening of 151 drug-using farm workers in the DelMarVa Peninsula of Delaware revealed 6 men who were HIV-positive.¹⁵ Of these, 4 were Mexican, who each had a history of trading sex for money or drugs. To make matters worse, Mexican farm workers report lower perceived risk than black and white farm workers, a perception related to less risk management.¹⁶

Self-reported rates of sex between men in most of the survey literature are unexpectedly low, between 2% and 4%, most likely reflecting the difficulty in detecting actual prevalence with administered survey questionnaires. Qualitative research methods such as private anonymous interviews with key informants can help to render more visible this sensitive and important HIV exposure category.^{4,10}

These risk factors are exacerbated by migrant labor that is generally difficult, dangerous, inconsistent, low paying, exploitative, lonely, and disruptive of social, familial, romantic, and sexual relations in the country of origin. Background migrant characteristics that influence risk include a low level of formal education and literacy rates, limited English proficiency, significant rates of undocumented status, traditional gender roles, and low access to health and social services. Our focus, however, must not be limited to the considerable negative factors affecting migrants but should also include resiliency factors associated with migration, overcoming social obstacles, and a collective and familial cultural orientation.

Acculturation

There is widespread agreement in the literature that HIV risk differs between immigrant Latinos(as) and those born in the United States. Less consensus exists regarding the direction of such differences and the causes behind them. Some researchers believe that in comparison to highly acculturated

Latinos(as), those who are less acculturated to mainstream US culture, including migrants and immigrants, are protected by traditional Latino(a) sexual values.¹⁷⁻²⁰ Others argue that the acquisition of US mainstream values via acculturation is protective because it increases a sense of individualism and self-determination.²¹⁻²⁴ In either case, researchers seem to agree that the sexual cultures prevalent in different Latino(a) subpopulations influence risk.

In the case of migrants, the health literature has suggested that they may be more vulnerable than Latinos(as) born in the United States because of their newcomer status (ie, adaptational demands, lack of preparation for poverty-related problems) and the poor health conditions prevalent in their places of origin, and that they simultaneously may also be more resilient to disease and health risks because of self-selection processes associated with migration as well as culture-based practices (eg, social controls within conservative culture, lower alcohol and drug use, healthier diet). With regard to HIV risk, the latter view implies that HIV risk factors may be mitigated by strengths and protective factors that migrants bring with them such as their drive to *progresar* [progress] economically and socially and their responsibility to their families.²⁵ (These resiliency factors are often noted in the literature about migration but rarely, if ever, considered in the HIV literature about this population). Conversely, such protective factors may be hindered by changes in the migrants' sexual values and practices after arrival, especially because many of them find themselves in a country that they perceive as being more sexually liberated than Mexico.

Table 2 lists different factors that have been identified in the literature on HIV among Latinos(as) as protecting against or favoring HIV risk. To date, it is unclear how these factors facilitate or hinder drug-related and sexual risk behaviors among Mexican migrants in the United States.

Diversity Within Migrants: High-Risk Groups and Contexts

Conceptualizations of HIV risk need to pay more attention to diversity within the Mexican migrant population, in-

cluding variations based on gender, sexual orientation, social class, and ethnicity. The few existing studies of female and gay Mexican migrants strongly suggest that their motivations to migrate and their work and life experiences in the United States differ considerably from those of heterosexual male migrants.^{26,27} Because gender and sexual orientation are so critically related to HIV risk, investigating the specific social and structural factors influencing the migratory experiences of gay men as well as women is urgent.

Men Who Have Sex With Men

Because sex between men is the highest HIV risk category in the United States and Mexico, priority should be given to this factor in Mexican migrants and to research linking it to social, cultural, and environmental variables. For example, Diaz and Ayala²⁸ have conducted research connecting HIV risk in urban gay Latino men to their personal experiences of homophobia (operationalized as verbal and physical harassment during childhood for being homosexual), racism (ie, rude treatment, police harassment linked to race/ethnicity), and poverty (ie, running out of money for basic necessities, having to borrow money, having to look for work). More specifically, these researchers found that men with high levels of HIV risk (ie, reporting unprotected sex with a recent nonmonogamous partner) reported more of these oppressive experiences as compared with their counterparts with lower risk.

Although not a migrant sample per se, Diaz and Ayala²⁸ collected data in several sites, including Los Angeles, where the gay men were predominantly Mexican immigrants. With regard to risk, 17% of the Los Angeles sample self-identified as HIV-positive, 22% reported unprotected anal sex with at least 2 partners during the past year, and 45% reported use of at least 1 nonprescribed drug during the last 6 months, including methamphetamine, which was used by 20% of sample. It is also important to note that 15% of the Los Angeles sample reported coming to the United States to live their homosexual life more openly, with the 2 top reasons being to improve financial status (24%) and accompanying family (22%). These latter data reflect the motivation and personal agency of Mexi-

TABLE 2. HIV Risk and Protective Factor by Level of Acculturation in Mexican/Latino Groups

Mexicans and Latinos	Protective Cultural Factors Reported in the Literature	Cultural Factors Perceived in the Literature as Promoting HIV Risk
Lower acculturation	Sexual modesty Fewer sexual partners Fewer sexual encounters Low alcohol and drug use	Machismo and power differentials between sexual partners Little education about sex Sexual silence
Higher acculturation	Values of individuality Self-determination Empowerment Ability to insist on the use of protection Lower prevalence of machismo	Sexual liberalization Increased number of sexual partners Increased incidence of sexual behaviors Exposure to social contexts that condone substance use and sex

can and other Latino gay immigrants to improve their lives economically and socially as well as sexually. Such self-affirming factors need to be understood better so as to tap their protective potential in prevention interventions.

Female Sex Partners at Risk

If Mexican male migrants are engaged in an array of risky behaviors and situations, the HIV risk to wives and other sex partners back in Mexico must be significant, especially considering that approximately half of migrant men are married.^{11,29} Indeed, Organista et al²⁹ found that married migrant men were just as likely as single migrants to have sex with female prostitutes while in the United States; yet, they were less likely to use condoms. Married Mexican migrant men unaccompanied by their wives while working in the United States also report more lifetime sexual partners, more partners in the previous 2 years, more extramarital affairs, and more sex with prostitutes as compared with men accompanied by their wives.³⁰ The fact that guest worker contracts typically contain provisions preventing wives from joining their migrant husbands during seasonal work³¹ is another example of how structural factors, in the form of labor policies, can exacerbate HIV risk beyond individual control.

Factors and situations that place the female sex partners of migrant men at risk for HIV are still not well understood but are likely to include traditional gender roles in which sex with husbands is not frequently discussed, let alone negotiated, resulting in low levels of safer sex strategies. For example, in a study of 100 rural women in Mexico who were the wives of Mexican migrants working in the United States, Salgado de Snyder et al³² found that two thirds did not practice safer sex when having sex with their husbands during the men's visits to Mexico, despite being knowledgeable about HIV transmission and feeling at risk because of known or suspected infidelity on the part of their husbands. This latter point is not surprising in view of research showing that such women consider it promiscuous to carry and suggest condoms and that they rely primarily on nonbarrier contraceptive methods such as the pill and intrauterine device (IUD) for family planning but not for disease prevention.^{29,32,33}

A follow-up study by Salgado de Snyder et al³⁴ compared this sample of 100 rural wives of migrant laborers left behind in Mexico with 100 wives currently living with their husbands in rural Mexico and 100 wives of migrant men currently living with their husbands in Los Angeles. The results of this study indicate a clear acculturation trend in that the Los Angeles-based wives reported more lifetime sex partners, engagement in a wider variety of sexual behaviors, greater condom use during last sexual episode with their husbands, and a higher frequency of asking husbands to use condoms. Such findings suggest that sexual negotiation and safer sex may indeed increase with exposure to the United States for female

migrants and can be incorporated into prevention strategies for Mexican women.

More research is needed focusing on female partners of migrant men, including *amantes* [lovers, often more than casual relationships] in the United States, as well as the social-relational context of risk management. For example, Bajos and Marquet² studied the social-relational context of risk factors using HIV/AIDS survey data from 11 European countries, noting that a quarter of the survey items assessed relationship characteristics. These data allowed the researchers to study risk management within the context of macrosocial gender roles (via cross-national comparisons) as well as within the context of different types of relationships. For example, differences between men and women in number of sex partners and frequency of condom use were smaller in more egalitarian northern countries (eg, The Netherlands, Switzerland), as characterized by greater female labor force participation and higher divorce rates. The opposite pattern was found in more traditional southern countries (eg, Portugal, Greece). With regard to types of relationships, Bajos and Marquet² divided long-term relationship survey participants into those who knew or suspected that their partner was having an affair (2.8%), those who did not know or had not thought about this issue (4.5%), and those who were certain that their partners were not having an affair (92.7%). Higher rates of condom use were found in the first 2 types of relationships. Further, those who believed that their partners were having affairs were those with the least power in relationships (ie, forced to have sex, taking sexual initiative less than partner, less likely to have more money than partner), yet they were more likely than their partners to bring up the issue of affairs.

With regard to Mexican couples, Castañeda⁷ examined predictors of HIV risk management in Mexican–American couples involved in long-term relationships, half of whom were immigrants. She found that contrary to notions of sexual silence, HIV-related communication was predicted by the perception of intimacy on the part of women and by the perception of commitment on the part of men. In turn, HIV communication predicted condom use for men as well as women. These studies represent much needed basic explorations of the ways in which social-relational contexts pattern HIV risk and risk management.

US–Mexico Border Inhabitants

Any discussion of HIV and Mexican migrants bears mentioning that along the US–Mexico border, regional dynamics such as the drug and sex trade industries, tourism, transnationalism, and blurred sexual boundaries among men and women can result in a significant rate of HIV infection. For example, Ruiz³⁵ reported extremely high rates of HIV infection in Latino men who have sex with men (MSM): 19% of 240 MSM tested in a Tijuana public park area well known for prostitution and 35% of 125 men tested in San Diego from gay

bars and dance clubs. Men at both sites reported engaging in high rates of risky sexual behaviors (eg, unprotected anal and vaginal sex, risky drug use behaviors) with multiple male and female sex partners from across the border: Nearly half of the Tijuana sample and three quarters of the San Diego sample reported sex with partners from across the border. The uniqueness of the border's international, social, and cultural matrix warrants its own binational research focus and prevention strategies.

Social Class

A proportion of migrants, including some with the highest levels of HIV risk, are people who were middle class and professional before leaving Mexico and who typically seek work opportunities in service-oriented and professional sectors while living in the United States. This subpopulation is important from an HIV prevention perspective, because some of the Mexican migrants with the highest HIV risk in the state are men who participate in middle-class gay communities in places like San Diego, Los Angeles, and San Francisco during their stays in California. At the other end of the economic continuum, small but increasing numbers of indigenous Mexican Indians are entering the migrant labor stream, often speaking native dialects instead of Spanish.

NEED TO RECENTER SEX IN HIV PREVENTION RESEARCH

The previous sections reveal the urgent need for more basic exploratory research on migrants to increase our understanding of HIV risk, with an emphasis on sexuality and the ways that sexual cultures vary across subgroups of migrants and across different social, cultural, and relational contexts. Aggleton¹ takes this recommendation further by advocating alternative nonexperimental evaluations that are theory driven or at least objectives based. Such a recommendation is in response to our lack of basic HIV risk knowledge as well as to the recognition that randomized controlled trials are exceedingly difficult to implement with certain populations such those discussed previously.

Sexual Cultures

Parker et al⁴ describe sex as a culturally informed experience shaped by biopsychologic and biosocial factors and define sexual culture as the relation between sexuality and other sociocultural systems such as religion, politics, and economics. Culture is viewed as shaping individual sexuality and expression through norms, roles, and values in each of these institutions. These authors note that the relation between individual and collective patterns requires study at both levels (eg, private versus public distinctions, behaviors versus prescriptions).

Recent research by Carrillo³ strongly suggests that while in Mexico, migrants are exposed to sexual cultures that differ

significantly from those prevalent in the mainstream society in the United States. Mexican sexual cultures are characterized by a certain hybridity that allows for the coexistence of "traditional" and "modern" (or "global") values related to gender relations, sexual identification, sexual socialization, and the adoption of sexual ideologies. Within such a system, Mexicans have considerable flexibility in defining categories of sexual identity that mix traditional gender classifications with contemporary classifications of hetero-, bi- and homosexuality. Against the backdrop of a strong cultural emphasis on collectivity and what has been termed *sexual silence*^{3,36} as a productive strategy to create forms of social tolerance for sexual diversity, Mexicans often strongly emphasize a certain spontaneity and surrender during sex as well as a silent abandonment to the flow of sex and sexual passion. Such an emphasis is at odds with the recommendations of open negotiation, disclosure, and rational decision making that are typical of HIV prevention messages in the United States. Indeed, some of the most successful users of protection against HIV in Mexico have managed to integrate preventative measures without disturbing the culturally influenced ways in which they prefer to have sex.³ For instance, some men and women in Guadalajara consistently used condoms without engaging in verbal negotiation with sex partners before sexual encounters, as prescribed by local HIV prevention messages, and instead seemed to enact condom use within culturally favored forms of seduction, spontaneity, and sexual passion that were overall wordless and dominated by bodily communication. Much more basic research is needed in this area.

In relation to Mexican migrants, it is crucial for us to understand what happens to them when they encounter different cultural expectations and rules of sexual interaction in the United States. To date, we know little about how their sexual ideologies are transformed by the migratory experience and how they adapt to contrasting sets of norms and values about sexuality and sexual interaction. We know little as well about what happens to the original sexual cultures in Mexico as a result of the sexual ideologies, norms, and values that the migrants bring back and how those contribute to broader changes in Mexico triggered by local processes of cultural and social change and by the cultural influence from the United States exerted through mass media. Attending to these issues is crucial to understand further the role of sexual cultures in shaping migrants' sexual behaviors and HIV risk in the United States and Mexico.

Recent research about sexuality in places like Mexico has shown that there are rapid and widespread processes of cultural change involving a number of different social players, including the mass media, HIV prevention educators and other professionals, activists, and younger Mexicans who have a strong desire for sexual modernization.^{3,37,38} Social science research with Mexican immigrants in the United States suggests that similar processes of cultural change are occur-

ring.^{26,27} There is a need in the research on HIV risk among Mexican migrants to adopt designs that allow for consideration of the dynamics of personal and cultural change in the context of transnational movement between Mexico and the United States.

HIV PREVENTION INTERVENTION WITH MEXICAN MIGRANTS AND RELATED GROUPS

Today, HIV prevention for Mexican migrants consists primarily of minimal and inconsistent HIV/AIDS education (eg, outreach, word of mouth, brochure), condom promotion and distribution, HIV testing and counseling, and support groups for HIV-positive and AIDS-affected individuals. For example, in a review of 181 California agencies providing HIV/AIDS services to Latino communities, Castañeda and Collins³⁹ report the most common types of service as follows: HIV/AIDS education (93%), counseling/therapy to HIV-positive clients (52%), HIV testing (49%), and support groups for HIV-positive clients (49%). Such services are typically provided by dedicated, predominantly Latino, front-line staff, including volunteers, who work within a loose network of non-profit community-based organizations (CBOs) that provide health and social services as well as in migrant health centers funded by federal and state government.¹⁰

Castañeda and Collins³⁹ also found that CBOs were more effective in reaching Latinos than federal and state agencies because of their greater number of bilingual staff, volunteers, and culturally sensitive approaches to service delivery. Further, although the Latino-focused CBOs in the study were fewer and smaller than non-Latino-focused agencies, they had more bilingual/bicultural staff and less staff turnover, made greater use of education videotapes and Spanish media, provided more one-on-one services, stressed outreach more often, and provided more services to sex workers. Surprisingly, non-Latino-focused agencies provided more services to farm workers because of the scarcity of Latino-focused agencies in rural small town communities. The few outcome research studies on and related to Mexican migrant laborers are reviewed below and summarized in Table 3.

BEHAVIORAL SCIENCE HIV PREVENTION APPROACHES

Improving HIV/AIDS Knowledge in Migrant Farm Workers

Ruiz and Molitor⁴⁰ reported on a community-based intervention designed to improve knowledge of HIV transmission in 142 predominantly Mexican, Spanish-speaking, migrant farm workers. The intervention relied primarily on outreach workers conducting one-to-one contacts to educate participants about HIV/AIDS and distributing and promoting condoms. Educational activities at community festivals and use of local Spanish language radio and television programs to

disseminate HIV/AIDS information were also used. The results of pre- and postintervention assessments showed significantly improved knowledge of HIV transmission. Although this evaluation supports the effectiveness of “HIV 101” education as well as culturally competent research methods (eg, outreach by bilingual staff, use of Spanish media), it is rooted in an individual cognitive model that does not address contextual and relational aspects of HIV risk.

Social and Cultural Contextual Approaches

Increasing Condom Use With Female Sex Workers on the Part of Mexican Male Farm Workers

Mishra and Connor⁴¹ evaluated the effectiveness of an intervention designed to increase condom use with female sex workers as well as to improve HIV/AIDS-related knowledge and attitudes among 193 Mexican male farm workers in Southern California. Participants were provided with HIV prevention information in the culture-based form of Mexican style *fotonovelas* [comic book-like novellas that use actual photographs]. *Radionovelas* [radio-broadcasted novellas] were also broadcast daily on a local Spanish-language station, and participants were given radios and program times and encouraged to tune in. The *novelas* depicted 3 scenarios in which a male farm worker, respectively: (1) uses a condom with a prostitute, (2) abstains from sex with the prostitute, and (3) infects his wife and child with HIV as a result of unprotected sex with the prostitute.

All participants were tested before and after the intervention, and results showed significant gains in HIV/AIDS knowledge and related attitudes as well as in reported condom use with prostitutes. Of those men who had sex with prostitutes during the course of the study, 20 of 37 reported condom use after participation in the study versus 1 of 32 before participation. This study demonstrates the promise of using methods sensitive to Mexican culture and to the experience of farm workers to target a particular farm worker subgroup (adult men) by risk factor (unprotected sex) by situation (sex with prostitute) interaction.

With regard to theoretic underpinnings, the above program taps at least 2 areas in a culturally sensitive manner: increasing perceived susceptibility (but to family in addition to self) and promoting procondom social norms with prostitutes among male farm workers via role modeling of similar other models as depicted in the *novelas*. Also noteworthy is the extensive preparation for this study, which included focus groups with farm workers, low-literacy wording of materials and measures, and extensive field testing of measures and intervention approaches with farm workers from local nonstudy sites.

A more rigorous replication of this was realized by Sanudo⁴² with the same pattern of promising results: 20 of 85 male farm workers reported sex with prostitutes at baseline, and only 4 of the 20 reported having used condoms. After the intervention, 24 reported sex with prostitutes, with 16 of the 24

TABLE 3. Summary of HIV Prevention Outcome Evaluations With Mexican Migrant Laborers and Related Groups

Authors of Study	Intervention Description	Sample Description	Major Findings
Ruiz and Molitor (1998)	Community-based HIV education; mostly one-on-one contacts by outreach workers plus educational talks and activities at community venues	142 Mexican migrant farm workers	Improved pre- to postintervention HIV knowledge
Mishra and Connor (1996)	Condom promotion via <i>foto-</i> and <i>radio-novelas</i> depicting scenarios with female prostitutes	193 Mexican male migrant farm workers	Increased condom use with prostitutes
Sanudo (1999)	More rigorous replication of program reported by Mishra and Connor	175 Mexican male farm workers (85 experimental and 90 control conditions)	Same pattern of results as reported by Mishra and Connor
Organista et al (2004)	Community-based HIV prevention groups for predominantly Mexican migrant day laborers	23 predominantly Mexican male migrant day laborers	Preliminary results indicate pre- to postintervention increases in condom use with female sex partners, carrying condoms, and knowledge of correct condom use
Diaz (1998)	Groups for gay and bisexual men in which to discuss sex seriously; have opportunity for critical self-observation; and build sense of community, pride and activism	78 gay and bisexual Latino men	Men report greater capacity to practice safer sex and to avoid risky situations as well as greater understanding of sexuality and greater connection to Latino gay community
Haour-Knipe et al (1999)	Swiss Migrant Project: part of National AIDS Plan in which top-down and bottom-up collaborations developed on behalf of migrant laborers	Seasonal Turkish, Portuguese, and Spanish migrant laborers working in construction and hotel industry	Migrant HIV knowledge, attitudes, and condom use with casual partners comparable to that of general Swiss public

reporting condom use. Further, in the nonintervention control group, 22 of 90 male farm workers reported sex with prostitutes at baseline and 26 of 90 men reported using prostitutes at postintervention assessment. None of the control men reported condom use. Further replications of this intervention are highly warranted and can be expanded to address more situational factors common to migrant factors such as the role of excessive drinking in unprotected sex, sex between men, and sex with transgendered individuals.

More research is also needed to increase our understanding of the many contextual factors involved in migration-related prostitution. For example, Ayala et al⁴³ conducted a qualitative study of 20 migrant female commercial sex workers who sell sex to migrant men in the bars or *cantinas* that they frequent. These women were from Mexico and Central America and turned to prostitution for economic survival in the United States. Some had been delivered directly to the *cantinas* by *coyotes* [coyotes; slang term for those who smuggle undocumented Mexicans into the United States] paid by bar owners. The women interviewed noted the migration-related need for sex, companionship, and forms of sex harder to obtain from wives and girlfriends (eg, oral sex) on the part of their migrant male clients.

With regard to HIV/AIDS, these women were well aware of the major modes of transmission but downplayed their risk by reporting mostly vaginal versus anal sex, having sex with men that appear clean, and avoiding men they perceived to be using intravenous drugs. The women attributed their low condom use to the priority of earning money (ie, would have sex if condoms not available or if clients did not want to use them). In fact, condoms were viewed by the women primarily as a method for avoiding pregnancy and STDs, problems they could remedy by taking the pill and penicillin, respectively. Implications for HIV prevention with these women include teaching them about sex between men, unapparent HIV infection, and meeting their economic needs in less risky ways.

HIV Risk Management With Migrant Day Laborers

In the city of Berkeley, a collaboration between the first author and the city's HIV/AIDS Program, which conducts outreach to migrant day laborers (MDLs), resulted in a convenience sample survey of risk in 102 predominantly Mexican MDLs,⁴⁴ followed by the development and implementation of a pilot HIV prevention group.⁴⁵ Survey results indicated many of the usual risk factors in Mexican migrant men (eg, unpro-

tected sex with prostitutes, excessive drinking), and a follow-up focus group explored the context of risk for these MDLs, which included sexual risk taking while intoxicated as well as when feeling *desesperacion* [desperation] because of lack of work and money, boredom, and missing family, for example. Sex between men was discussed by an openly gay MDL in the focus group as well as by heterosexual identified men who reported being propositioned while performing work for informal employers.

The pilot intervention group was conducted twice with a total of 23 MDLs, all of whom were tested before the intervention and 12 of whom were located for a 1-month postintervention evaluation. The contents of the intervention focused primarily on (1) asking participants to share their personal goals in seeking work in the United States, including obstacles that interfere with such goals; (2) asking participants to discuss HIV risk for MDLs in general, and for each participant personally, following a review of HIV/STD transmission and a hands-on condom use demonstration and exercise with phallic replicas; and (3) asking participants to come up with personal risk reduction strategies, with multiple options, while receiving feedback from the group.

Group process was meant to facilitate participatory learning health circles as described by Magaña et al.⁴⁶ These researchers advocate the use of *circulos de salud* [health circles] for HIV prevention with Latinos, based on the empowering and progressive work of the Brazilian educator Paulo Friere. Such health circles provide participants with basic information about HIV transmission and prevention but aim at involving participants in active problem-solving discussion after posing risky situations and questions directly relevant to their lives.

HIV-related discussion with the MDLs was also facilitated by the use of poster-sized Mexican lottery cards depicting relevant aspects of the MDL experience. For example, the *El Borracho* [the drunk] card depicts a hunched over intoxicated Mexican man, the *La Muerte* [death] card depicts the Grim Reaper, and the *La Escalera* [the ladder] card depicts a ladder symbolizing progress. The research team copied these tarot card-like images from actual cards but also created their own to depict HIV/AIDS issues commonly raised by Mexican migrants such as *La Prostituta* [the prostitute], *La Amante* [the lover], and *Sexo entre Hombres* [sex between men]. Although preliminary results must be interpreted with caution given the small sample of convenience and the loss of approximately half of the sample to follow-up evaluation, results indicated increased condom use with female sex partners as well as carrying condoms and higher knowledge of correct condom use (see Table 3).

As with the use of *fotonovelas*, the use of Mexican lottery cards is meant to facilitate HIV/AIDS-related discussion and self-reflection in ways that are consistent with expectations of the nature of Mexican social life and the spontaneity

and humor that characterize many social interactions.³ Another such method increasingly used in HIV prevention but in need of evaluation is *Teatro Chicano* [Chicano theater], a culturally based medium of politically charged, humorous, educational acting with roots in the *Teatro Campesino* [farmworker theater], which began in the 1960s to educate and activate farm worker involvement in labor issues (eg, Cesar Chavez' United Farmworker Union). In addition to delivering humorous and dramatic plays where farm workers live and work, members of the farm worker audience have been frequently invited to participate in the *actos* [acts] to act out their lived experiences.

Transgender Peer Education For Men Who Have Sex With Men

In San Jose, the Health Education and Training Center (HETC) and the Mexican-American Community Services Agency (MACSA) collaborated on an extraordinary peer education program in which Latino male-to-female transvestite and transgendered peers are trained to deliver HIV prevention messages to migrant MSM in gay Latino bars, where these peers perform night time entertainment shows (ie, dancing, singing, impersonations). After gaining access to the bars and earning the trust of the peers, they received training and developed ways of integrating HIV prevention information into their bar shows. This Spanish-language, indigenous, and subculture-based style of program delivery is humorous and entertaining (eg, impersonations of well-known actresses from Spanish language television and *novelas*).

Risk Management in Latino Gay Men

Although not Mexican migrant-specific, the *Hermanos de Luna y del Sol* (HLS) [Brothers of the Moon and Sun] program targets Latino gay men, with an emphasis on poor immigrant men, and typically enrolls high numbers of participants of Mexican descent in San Francisco. Based on Bandura's⁴⁷ theory of self-regulation and Freire's⁴⁸ principles of empowerment education, the HLS was developed by Rafael Diaz³⁶ and Latino gay health educators in San Francisco's Mission District during the 1990s. The intervention program is guided by qualitative research suggesting that sexual self-regulation among Latino gay men is frequently undermined by a host of oppressive sociocultural factors, including homophobia, racism, poverty, and sexual silence, which are viewed as contributing to decreased self-esteem, a sense of social isolation, perceptions of low sexual control, and fatalism regarding the inevitability of HIV infection, or *el premio gordo* [the grand prize] as many of the participants refer to it.

HLS developers believe that prevention programs for gay Latino men can be effective if they can (1) break the sexual silence by providing safe venues for serious communication about sex; (2) provide an experience of commonality and pride in which men can feel part of a larger supportive gay Latino

community; (3) provide opportunities for critical self-reflection and self-observation about factors that regulate sexual behavior; (4) collaborate in the construction of group, dyadic, and individual strategies to address perceived barriers to safer sex; and (5) create opportunities for social activism.

A preliminary evaluation of 78 HLS participants revealed promising findings in that most of the men felt better about themselves and more connected to the Latino gay community, better able to understand their sexuality and risk for HIV, and more capable of practicing safer sex and avoiding situations that make it difficult to practice safer sex.³⁶ The Centers for Disease Control and Prevention (CDC) recognize the value of the HLS and are providing technical assistance and financial support for implementing this intervention for gay Latinos across the country.

Structural/Environmental Level Interventions

Top-Down Government and Bottom-Up Community HIV Prevention Efforts

At the national level, the CDC's Division of HIV, STD, and TB Prevention, Capacity Building Branch (Priority Area 2), provides financial, programmatic, and training assistance to national, regional, and local nongovernment organizations to develop and implement regionally structured and integrated capacity-building systems. A network of CDC-funded organizations forms a national network that can be contacted by local CBOs interested in implementing or improving HIV prevention programs. The extent to which requests are made, how feasible the technical assistance is, and how effective past efforts have been remain unclear, given an emphasis on enhancing service delivery versus evaluation. One lingering problem is the lack of research on Mexican migrants coupled with the recommendation to replicate past behavioral science research approaches used in other populations. Although there is some promise in supporting efforts to adapt and test such interventions with Mexican migrants, the CDC could also support the research directions recommended previously, including bottom-up community initiatives.

Although bottom-up community HIV prevention efforts are the most effective in reaching Latinos,³⁹ they typically lack the capacity and resources that characterize top-down efforts. Thus, these approaches need to be integrated at the structural level, despite occasionally competing agendas. Such efforts could benefit from promising models elsewhere, such as the one described below.

Swiss Migrant Project

Haour-Knipe et al⁴⁹ have documented an impressive government-sponsored HIV/AIDS prevention program for migrant laborers in Switzerland. The Swiss Migrant Project is part of the country's National AIDS Plan and is designed to target urban-based Turkish, Portuguese, and Spanish migrants

who work in the hotel and construction industries for 9 of 12 months during the year. Through a comprehensive top-down collaboration between public health officials and nongovernment organizations, project structure and staffing were developed at the migrant community level by involving program coordinators and peer educators charged with designing culturally specific HIV/AIDS prevention strategies.

In terms of planning, the first phase of the Swiss Migrant Project consisted of exploratory studies to gauge the needs of migrant communities as well as to recruit program staff. The second phase involved establishing various flexible community level programs complete with process evaluation. The final phase involved the formal implementation of refined programs along with modest program evaluation. Results showed successful utilization of local community programs by migrants as well as HIV/AIDS-related knowledge, attitudes, and risk behaviors (ie, condom use with casual sex partners) comparable to that of the general Swiss public.

Although evaluation was slim in the Swiss Migrant Project, it does demonstrate the feasibility of placing migrant HIV prevention within national, state, county, and city HIV prevention plans. Acceptance of government involvement was won at the local level by involving members of the migrant community in local program development and delivery aimed at hard-to-reach and hidden high-risk groups, such as undocumented workers, outside official government jurisdiction. We were unable to identify similar examples for Mexican migrants in the United States.

With regard to Mexican migrants, structural/environmental HIV prevention efforts need to be pursued in the United States and Mexico, ideally through collaborations spawned by the recent Binational Migrant Health Initiative. Sweat and Denison⁶ discuss several structural/environmental levels of causation for HIV incidence and change mechanisms that are relevant to Mexican migrants. At the structural level, laws, policies, and standard operating procedures that result in a lack of migrant worker rights, lack of family housing at migrant labor work sites, unregulated commercial sex, and lack of financial support for social services can be changed through boycotts, constitutional and legal reform, civil and human rights activism, and legislative lobbying, for example. In the Napa Valley of California, a Catholic church was instrumental in initiating community efforts successful in getting a ballot initiative passed to create more family housing for grape pickers. At the environmental level, health-compromising work and living conditions, including lack of resources, can be remedied through community organizing, unionizing, legal reform with enforcement, and access to needed social and health services.

HIV PREVENTION TRAINING

In Castañeda and Collin's³⁹ review of 181 agencies providing HIV prevention services to Latino communities, they

found that the single most important training need identified by Latino-focused agencies was in the area of understanding sexual behavior and change in Latinos. As this article has stressed, meeting this need could be pursued by studying the sexual cultures and behaviors of Mexican migrants, including areas such as sex between men, sex involving commercial sex workers and transgendered partners, and sex with regular and occasional partners and within loving, stable, or casual sexual relationships.

There are many national and state level HIV training programs, some of which reach Latino-focused agency staff and, consequently, various groups of migrant laborers. For example, the National Latina/o Lesbian, Gay, Bisexual, and Transgendered Organization (LLEGO) consults CDC staff on the HLS program in the effort to encourage delivery of this program to Latino gay men nationally.

Beyond existing training programs, there is a pressing need for HIV prevention service providers to have a deeper understanding of the migrants' sexual cultures in Mexico and the United States. Providers also need to consider sexual diversity with regard to gender, sexual orientation, social class, and rural or urban settlement, for example. Furthermore, there is a need to understand the different social contexts of migrants and how migrants contribute to shaping such contexts, with a special emphasis on HIV risk and prevention. Finally, HIV prevention workers would greatly benefit from learning how to turn newly acquired knowledge into HIV prevention strategies that help migrants to develop goals and behaviors that fit well within their social and cultural experiences and that assist migrants with questioning norms, values, and practices that put them at risk for HIV.

RECOMMENDATIONS FOR HIV PREVENTION WITH MEXICAN MIGRANTS

Our review of the HIV prevention literature on Mexican migrants reveals an underresearched area with serious gaps in our basic understanding of the structural factors that create risky environments for Mexican migrants. Such contextual inquiry is needed to improve understanding of how HIV risk and risk management are linked to Mexican culture and migration, heterogeneity among migrants, and sexual cultures, for example. Thus, the following recommendations are offered:

1. Reform and transform HIV prevention research approaches by focusing on structural, environmental, cultural, social-relational, and sexual contexts that create risky environments for Mexican migrants, in addition to the tradition behavioral science focus on risky individual factors. Such approaches need to involve basic research that can identify and link contextual factors to HIV risk in Mexican migrants and build on the personal agency and resiliency of this unique Latino population.
2. Decrease risky environments for Mexican migrants by developing structural and environmental HIV prevention interventions through the promotion of binational governmental and community collaborations. For example, the recent Binational Migrant Health Initiative can help to promote needed HIV prevention collaborations between US- and Mexico-based researchers, health service providers and administrators, policy makers, and politicians.
3. Increase access to health and social services for Mexican migrants by amending federal and state laws. For example, the Migrant Health Centers Act of 1962 could be amended to prioritize disease prevention and health promotion, thereby increasing funds for HIV prevention. Another example is Medical/Medicare eligibility requirements, which should be changed so that state residency does not preclude eligibility for migrant farm workers traveling from state to state. These recommendations are based on a survey of policy recommendations by farm workers and their HIV prevention service providers.⁵⁰
4. Expand the capacity-building efforts of Latino-focused HIV prevention agencies, especially in rural regions, where services are scarce but migrant groups are numerous (eg, Castañeda and Collins³⁹ found that only 4% of Latino agencies and 6% of non-Latino agencies in their survey of 181 agencies were providing HIV prevention services to rural Latinos, including farm workers, in California).
5. Conduct HIV prevention research specific to the US-Mexico border region to inform our understanding of issues unique to this region as well as to directly address known risk situations there. Collaborations through the Binational Migrant Health Initiative can optimize such efforts.
6. Build greater flexibility into funding sources for researcher-community collaborations that include 6 months to a year of startup funding (relationship and trust building, codevelopment of research methods) as well as postintervention funding (eg, 1 year minimum) to support technology transfer or translation and integration of useful research findings into direct service products, services, and administrative procedures for agency personnel.
7. Direct greater attention in HIV prevention research to the considerable diversity among Mexican migrants, especially those at highest risk such as gay and bisexual men. Other groups that we need to consider include women, indigenous Mexican Indians, and migrants of varying social class backgrounds and transnational experiences.
8. Conduct research to increase our understanding of the dynamic nature of sexual cultures, including the goal of explaining how Mexican migrants become integrated into US communities as well as the role of transnational movement between the 2 countries.
9. Promote the use of quasiexperimental research designs and mixed methods in HIV prevention research. Quantitative and qualitative methods can be creatively combined to inform each other in an ongoing iterative fashion (eg, focus groups and interviews with key informants to in-

form empiric surveys and interventions, followed by focus groups and interviews to make sense of survey and intervention findings). A mixed-methods approach can provide generalizable numbers as well as give voice to members of migrant subgroups.

10. Develop, implement, and evaluate specific HIV prevention interventions by considering the framework used in this article to characterize approaches used in the outcome literature (ie, structural/environmental, social and cultural contextual, behavioral science) and by building on the specific outcome studies reviewed (see Table 3) by conducting broader and more rigorous replications and/or modifications to better fit local research settings and subgroups of Mexican migrants.

REFERENCES

1. Aggleton P. Global priorities for HIV/AIDS intervention research. *Int J STD AIDS*. 1996;7(Suppl 2):13–16.
2. Bajos N, Marquet J. 2000.
3. Carrillo H. *The Night is Young: Sexuality in Mexico in the Time of AIDS*. Chicago: University of Chicago Press; 2002.
4. Parker RG, Herdt G, Carballo M. Sexual culture, HIV transmission, and AIDS research. *J Sex Res*. 1991;28:77–98.
5. Parker RG, Barbosa RM, Aggleton P. Framing the sexual subject. In: *Framing the Sexual Subject: The Politics of Gender, Sexuality, and Power*. Berkeley: University of California Press; 2000:1–25.
6. Sweat MD, Denison JA. Reducing HIV incidence in developing countries with structural and environmental interventions. *AIDS*. 1995;9(Suppl A):S251–S257.
7. Castañeda D. The close relationship context and HIV/AIDS risk reduction among Mexican Americans. *Sex Roles*. 2000;42:551–580.
8. Hulewicz JM. AIDS knows no borders. *World AIDS*. 1994;35:6–10.
9. Bronfman M, Campos-Ortega S, Medina H. La migración internacional y el SIDA: El caso de México y Estados Unidos [International migration and AIDS: the case of Mexico and the United States]. In: Amor SJ, Brofman M, Ruiz Palacios G, et al, eds. *SIDA, ciencia y sociedad en México*. Mexico City: Secretaría de Salud, Instituto Nacional de Salud Pública, Fondo de Cultural Económica; 1989:453–456.
10. Organista KC. HIV prevention models with Mexican farmworkers. Berkeley: School of Social Welfare, University of California. (2004). In: Mancoske RJ, Smith JD (eds). *Practice issues in HIV/AIDS services: Empowerment-based models and program applications* (pp. 127–160). New York: The Haworth Press, Inc.
11. US Department of Labor. Findings from the National Agricultural Workers Survey (NAWS): A Demographic and Employment Profile of United States Farmworkers. Washington, DC: US Department of Labor; 1998.
12. Majka TJ, Majka LC. Decline of the farm labor movement in California: organizational crisis and political change. *Crit Sociol*. 1992;19:3–36.
13. Organista KC, Balls Organista P. Migrant laborers and AIDS in the United States: a review of the literature. *AIDS Educ Prev*. 1997;9:83–93.
14. Alderete E, Vega WA, Kolody B, et al. Lifetime prevalence of risk factors for psychiatric disorders among Mexican migrant farmworkers in California. *Am J Public Health*. 2000;90:608–614.
15. Inciardi JA, Surratt HL, Colon HM, et al. Drug use and HIV risk among migrant workers on the DelMarVa Peninsula. *Subst Use Misuse*. 1999;34:653–666.
16. McBride DC, Weatherby NL, Inciardi JA, et al. AIDS susceptibility in a migrant population: perception and behavior. *Subst Use Misuse*. 1999;34:633–652.
17. Ford K, Norris AE. Urban Hispanic adolescents and young adults: relationship of acculturation to sexual behavior. *J Sex Res*. 1993;30:316–323.
18. Flaskerud JH, Uman G, Lara R, et al. Sexual practices, attitudes, and knowledge related to HIV transmission in low income Los Angeles Hispanic Women. *J Sex Res*. 1996;33:343–353.
19. Peragallo N. Latino women and AIDS risk. *Public Health Nurs*. 1996;13:217–222.
20. Newcomb MD, Wyatt GE, Romero GJ, et al. Acculturation, sexual risk taking, and HIV health promotion among Latinas. *J Couns Psychol*. 1998;45:454–467.
21. Mikawa JK, Morones PA, Gomez A, et al. Cultural practices of Hispanics: implications for the prevention of AIDS. *Hisp J Behav Sci*. 1992;14:421–433.
22. Marin BV, Tschann JM, Gómez CA, et al. Acculturation and gender differences in sexual attitudes and behaviors: Hispanic vs non-Hispanic white unmarried adults. *Am J Public Health*. 1993;83:1759–1761.
23. Marín BV, Flores E. Acculturation, sexual behavior, and alcohol use among Latinas. *Int J Addict*. 1994;29:1101–1114.
24. Marks G, Cantero PJ, Simoni JM. Is acculturation associated with sexual risk behaviours? An investigation of HIV-positive Latino men and women. *AIDS Care*. 1998;10:283–295.
25. Escobar JI. Immigration and mental health: why are the immigrants better off? *Arch Gen Psychiatry*. 1998;55:781–782.
26. Hondagneu-Sotelo P. *Gendered Transitions: Mexican Experiences of Immigration*. Berkeley: University of California Press; 1994.
27. Cantú L. *Border crossings: Mexican men and the sexuality of migration* [doctoral dissertation]. Irvine: University of California Irvine; 1999.
28. Diaz RM, Ayala G. *Social Discrimination and Health: The Case of Latino Gay Men and HIV Risk*. Washington, DC: The Policy Institute of the National Gay and Lesbian Task Force; 2000.
29. Organista KC, Balls Organista P, Garcia de Alba G, et al. Survey of condom-related beliefs, behaviors, and perceived social norms in Mexican migrant laborers. *J Community Health*. 1997;22:185–198.
30. Viadro CI, Earp JL. The sexual behavior of married Mexican immigrant men in North Carolina. *Soc Sci Med*. 2000;50:723–735.
31. Chang G. *Disposable Domestic: Immigrant Women Workers in the Global Economy*. Cambridge, MA: South End Press; 2000.
32. Salgado de Snyder VN, Diaz-Perez MJ, Maldonado M. AIDS: risk behaviors among rural Mexican women married to migrant workers in the United States. *AIDS Educ Prev*. 1996;8:134–142.
33. Balls Organista P, Organista KC, Soloff PR. Exploring AIDS-related knowledge, attitudes, and behaviors of female Mexican migrant workers. *Health Soc Work*. 1998;23:81–160.
34. Salgado de Snyder VN, Acevedo A, Diaz Perez MJ, et al. Understanding the sexuality of Mexican-born women and their risk for HIV/AIDS. *Psychiatr Womens Q*. 2000;24:100–109.
35. Ruiz J. HIV prevalence, risk behaviors, and access to care among young Latino MSM in San Diego, California and Tijuana, Mexico. Presented at Plenary Session of the Universitywide AIDS Research Program Conference, March 2002. Oakland, CA.
36. Diaz RM. *Latino Gay Men and HIV: Culture, Sexuality, and Risk Behavior*. London: Routledge; 1998.
37. LeVine S. *Dolor y alegría: Women and Social Change in Urban Mexico*. Madison: University of Wisconsin Press; 1993.
38. Gutmann MC. *The Meanings of Macho: Being a Man in Mexico City*. Berkeley: University of California Press; 1996.
39. Castañeda D, Collins BE. Structure and activities of agencies providing HIV and AIDS education and prevention to Latino/a communities. *AIDS Educ Prev*. 1997;9:533–550.
40. Ruiz JD, Molitor F. Community-based HIV/STD prevention interventions among a community of migrant farm workers in California. *California HIV/AIDS Update*. 1998;11:21–25.
41. Mishra SI, Conner RF. Evaluation of an HIV prevention program among Latino farmworkers. In: Mishra SI, Connor RF, Magana JR, eds. *AIDS Crossing Borders: The Spread of HIV Among Migrant Latinos*. Boulder, CO: Westview Press; 1996:157–181.
42. Sanudo F. The effects of a culturally appropriate HIV intervention on Mexican farmworkers' knowledge, attitudes, and condom use behavior [master's thesis]. San Diego: San Diego State University, Department of Public Health; 1999.
43. Ayala A, Carrier J, Magana JR. The underground world of Latina sex workers in cantinas. In: Mishra SI, Connor RF, Magana JR, eds. *AIDS Crossing Borders: The Spread of HIV Among Migrant Latinos*. Boulder, CO: Westview Press; 1996:95–112.

44. Organista KC, Kubo A. Pilot survey of HIV risk and contextual problems and issues in Mexican/Latino migrant day laborers. *Journal of Immigrant Health*. In press.
45. Organista KC, Alvarado N, Balbutin-Burnham A, et al. HIV prevention with Mexican/Latino migrant day laborers: Pilot study findings and description of a community-based program. Unpublished manuscript. Berkeley: School of Social Welfare, University of California, Berkeley; 2004.
46. Magaña JR, Ferreira-Pinto JB, Blair M, et al. Una pedagogia de concientización para la prevención del VIH/SIDA [A pedagogy of conscientization for the prevention of HIV/AIDS]. *Rev Latinoam Psicol*. 1992;24:97–108.
47. Bandura A. Social cognitive theory and exercise of control over HIV infection. In: DiClemente RJ, Peterson JL, eds. *Prevention and AIDS: Theories and Methods of Behavioral Interventions*. New York: Plenum Press; 1994;25–59.
48. Freire P. *Education for Critical Consciousness*. New York: Seabury; 1993.
49. Haour-Knipe M, Fleury F, Dubois-Arber F. HIV/AIDS prevention for migrants and ethnic minorities: three phase evaluation. *Soc Sci Med*. 1999;49:1357–1372.
50. Connor RF, Mishra SI, Magana R. HIV prevention policies and programs: perspectives from researchers, migrant workers, and policymakers. In: *AIDS Crossing Borders: The Spread of HIV Among Migrant Laborers*. Boulder, CO: Westview Press; 1996:185–214.