

STI/HIV Risks for Mexican Migrant Laborers: Exploratory Ethnographies

Yorghos Apostolopoulos,¹ Sevil Sonmez,^{1,4} Jennie Kronenfeld,² Ellis Castillo,²
Lucia McLendon,³ and Donna Smith¹

The influx of Latino laborers into the U.S. and the confluence of migration-driven factors in an environment ripe for risk-taking have the potential to exacerbate already rising STI/HIV rates among migrants and their social networks at both the home and receiving regions. This paper focuses on Mexican migrant laborers who are among the most marginalized and exploited Latinos in the U.S. This study used ethnographic methods to delineate the sociocultural and spatial contexts and social organization of migrant farmwork, and examined how intertwined individual and environmental factors render migrant farmworkers vulnerable to STI/HIV risks. Findings indicate the presence of a number of factors in the study population of Mexican migrant workers ($N = 23$)—such as poverty, limited education, physical/social/cultural isolation, long work hours, constant mobility, hazardous work conditions, limited access to health care, low rates of condom use, multipartnering, and use of sexworkers—which increase their risks for STI/HIV transmission. To be successful, prevention efforts need to focus not only on condom education and HIV awareness and testing, but also on reducing migrants' social isolation and understanding their social networks.

KEY WORDS: Mexican migrants; migrant farmworkers; STI/HIV risks.

INTRODUCTION

Connections between population mobility, migrant labor, and the spread of infectious diseases have long been established across diverse populations and geographic regions (1, 2). In fact, irrespective of demographic parameters, migration has been identified as an independent risk factor in the diffusion of sexually transmitted (STIs) and bloodborne infections (BBIs), including HIV (3). The influx of Latin American migrant laborers into the United States bears significant bridging ramifications for the

ongoing STI/BBI/HIV transmission at both generating and receiving regions (4). The confluence of migration-driven factors has the potential to exacerbate the already increasing HIV rates to epidemic levels among migrant laborers and their families in their home countries (5).

As Latinos comprise about 19% of all new AIDS cases in the U.S. (6), their HIV infection rates are disproportionately high (as much as 10 times higher than the U.S. national rate) with a rapid rise in the prevalence of heterosexual transmission (7). This paper focuses on Mexican migrant laborers “who are among the poorest, most marginalized, and exploited Latinos in America” (8, p. 3). The case studies presented here zero in on those parameters that can either promote or impede STI/HIV risks among Mexican migrant laborers (and especially among migrant farmworkers) in the U.S. The objectives of this exploratory ethnography are to: (a) delineate the sociocultural and physical contexts and social organization of Mexican migrant laborers, and (b)

¹Mobility and Population Health Office, Emory University School of Medicine, Atlanta, Georgia.

²Arizona State University, Tempe, Arizona.

³St. George's University School of Medicine, St. George's, Grenada.

⁴Correspondence should be directed to Sevil Sonmez, Mobility and Population Health Office, Emory University School of Medicine, 49 Jesse Hill Jr. Drive, S.E., Atlanta, Georgia 30303-3219; e-mail: ssonmez@emory.edu.

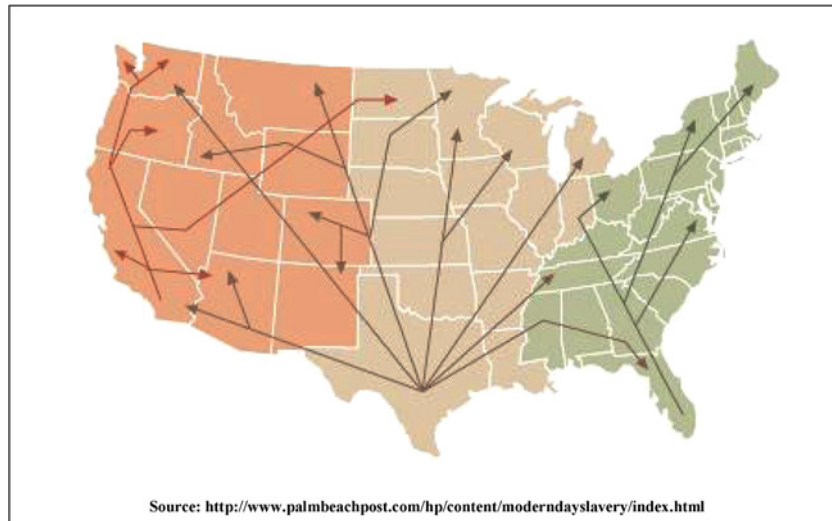


Fig. 1. Western, midwestern, and eastern streams of migrant labor movement.

examine how intertwined psychosocial, network, and environmental factors render Mexican migrant laborers vulnerable to STI/HIV risks.⁵

Migratory Farm Labor in the United States

As they enter and disperse throughout the U.S., Latino migrant laborers move in three distinct streams. The eastern stream begins in Florida and reaches Ohio and the New England states. The most divergent midwestern stream starts and branches off in southern Texas and circulates through every midwestern state with some workers ending up in Washington or Florida. The western stream either unfolds from southern California and hugs the coast up to Washington, or heads northeast from central California all the way to North Dakota (Fig. 1).

Because the vast majority of migrant laborers are an undocumented and hidden population “floating” through a variety of often seasonal economic sectors and geographic regions (9), their precise numbers are difficult to establish. Of the estimated five to six million migrant laborers, nearly 95% are

Latinos, about 90% are Mexicans, over 70% are illegal, about 90% are men, and roughly 55% are married with a mean age of around 30 and mean education of 6th grade (16).⁶

Motivated by severe economic need and desire for a better life, migrants take countless risks to venture into the U.S. Over the eastern Arizona border alone, more than 2,000 undocumented migrants cross daily during peak seasons (16). While many get caught and are sent back, they try repeatedly until they succeed. From the start, they are systematically exploited, mistreated, and often deprived of their basic human rights by a broad network of smugglers (*coyotes*), labor contractors, and businesses that hire them illegally (16). Traveling alone, in small numbers, or in large groups, migrants get themselves to the Mexico–U.S. border where, if they can afford it, they hire *coyotes* or *polleros* (or “poulterer” because migrants are often referred to as “chickens”). *Coyotes* offer transport and sometimes fake IDs as they smuggle migrants into the U.S. in trucks, trains, or rafts for fees reaching \$3,000, which often forces migrants to deplete their life savings. The smuggled are often either dropped off at “drop/safe houses” (to be picked up by a friend, relative, or labor contractor) or handed over to *rateros* who routinely drive

⁵Due to their undocumented status and hidden nature, the study population has traditionally remained off the radar screen of health departments, hospitals, and other sources of health indicators. Data on migrant workers presented in this paper come from the works of several researchers (4–14), fact sheets compiled by the National Center for Farmworker Health (15), and an investigative report published by the *Palm Beach Post* (16).

⁶Over a 9-month period, reporters of the *Palm Beach Post* worked to uncover the plight of migrant farmworkers in the U.S. Their findings were compiled in an extensive multi-part special report published in December 2003.

vans—packed with 10 or 20 new arrivals—to labor camps awaiting migrant farmworkers (MFWs).

Those unable to afford the cost, attempt the crossing alone by either swimming across the Rio Grande or walking across the desert. As they cross into the U.S., migrants endure heat, wind, rain, hunger, dehydration, fatigue, sleep deprivation, fire ants, rattlesnakes, scorpions, and tarantulas as well as agonizing blisters on feet and skin from the elements. Social relationships are often formed for support and to facilitate easier crossings, however, migrants still become victims of masked border bandits who routinely prey on those crossing the border.

Upon arriving in the U.S., the majority of migrants enter farmwork, while others find work in landscaping, construction, or meat packing industries. Migrants travel around the country weaving in and out of different sectors or following various crops across state lines and live in low-cost hotels and motels, trailers, or small houses wherever they can find work. Those who enter farmwork live and work in conditions that are often substandard, at socially and geographically isolated farm encampments that are frequently locked and sometimes fenced in with barbed wire (16). MFW housing often consists of rows of trailers or barrack-style buildings (often with windows nailed or painted shut) and kitchens, bathrooms, and showers that are shared with many others (17, 18). The accommodations are cramped, crowded, unsanitary, and without much privacy. MFWs quickly find their dreams for a better life shattered by extremely difficult and unhealthy work conditions extracting long hours in return for very little pay and a life marked by hardship and mistreatment. In essence, MFWs become indentured slaves to labor contractors who control their paychecks and deduct monies for smuggling fees, rent, water and sewer, cigarettes, or food at inflated rates (16).

The physical and mental health of migrants is greatly jeopardized by both the type of work they perform and their living conditions. Compared with the general population, migrant laborers are more likely to suffer from bacterial, viral, and parasitic infections, digestive diseases, vaccine-preventable illnesses, diabetes, hypertension, circulatory problems, anemia, and mental disorders (10). MFWs in particular, are likely to experience rashes and respiratory illnesses from pesticides, back pains from stooping for long hours (e.g., strawberry pickers), heat exhaustion from sun exposure, badly injured or amputated limbs from machinery accidents, tuberculosis from sharing

crowded living quarters, as well as chronic problems such as athlete's foot (acquired from community showers). MFWs, dramatically overrepresented by males detached from families, wives, or other partners, are susceptible to social isolation, stress, anxiety, loneliness, depression, and boredom, often-times leading to alcohol and drug abuse as well as risky sexual behaviors involving sexworkers, same sex partners, and/or multiple partners (11). Migrants' precarious legal status and limited English proficiency curtail their access to social services and limit their ability to obtain health care. The combination of fear, extreme poverty, and abuse leave migrants in a state of what seems to be overwhelming powerlessness.

Migrant Farmworkers and STIs/HIV

Any engagement of MFWs in risky behaviors is likely to be the consequence of several interconnected factors: their social, cultural/ethnic, and geographic isolation; their subjective coping with the disruption of their home social, familial, romantic, and sexual relationships; and their low levels of formal education and literacy rates. In fact, particularly because their living and working conditions render them highly vulnerable, the connection between Latino migrant labor and the spread of STIs/HIV has become the focus of increased research attention (4, 11–13, 17, 18). Studies have attributed infection risks to a convergence of behavioral, sociodemographic, and environmental factors (11). At the individual level, safer sex practices are affected by traditional cultural beliefs and attitudes regarding gender roles, sexual behaviors, and condom use and are weakened by either dangerous misconceptions or simple ignorance about STIs/HIV (15). At the structural level, an environment exists, which is filled with a multitude of risks, including drugs and prostitution and continuous flows of mostly male migrant laborers who are more likely to engage in risky behaviors due to their separation from families and spouses. Sexworkers and drug suppliers who sell their services and products to farmworkers often travel from state to state along with the MFWs, or remain stationed locally and make contact with each new group of farmworkers that passes through their area. While the majority of sexworkers are young Latinas, there are also American and Caribbean sexworkers that interact with the MFWs.

Representing roughly 10% of all migrants venturing into the U.S., females are uniquely vulnerable

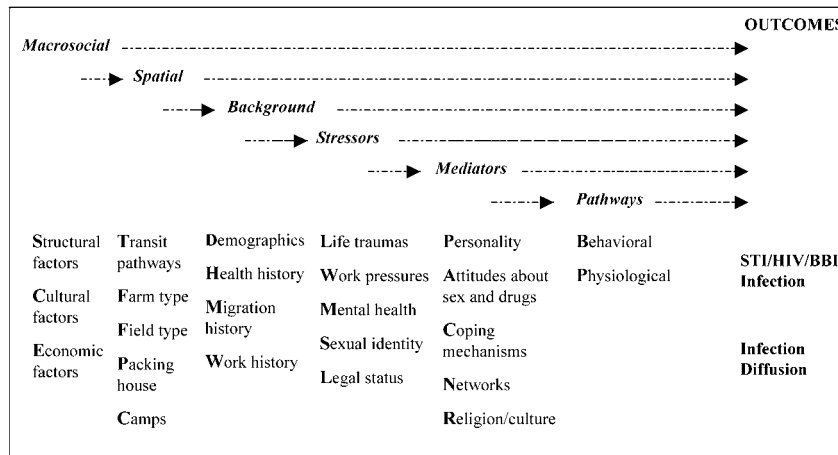


Fig. 2. Infection risks for migrant farmworkers: Theoretical framework.

to numerous perils (16). Women, especially those traveling alone, are often raped, sexually abused, and sometimes kidnapped for trafficking purposes. Some women find safety in partnering with men for protection in return for sex, while others find it necessary to practice survival sex by selling sexual services or providing sex in return for necessities. Unfortunately, others become victims of organized prostitution rings (16). For example, Mexican gangs traffic young women and girls into the U.S. from Mexico after luring them with promises of high-paying jobs, then forcing them to work as prostitutes in trailers that cater to MFW communities; these gangs keep the trafficked women in perpetual debt beginning with a charge of \$2,000 for smuggling costs (16).

Over the recent past, increases in Mexico’s AIDS cases (90% of which were sexually transmitted) have been linked to the migration of Mexicans toward the U.S. where there are higher HIV/AIDS prevalence rates and because migrants who cross back and forth between the two countries function as a bridge for infection spread (7). According to UNAIDS, Mexico’s concentrated AIDS epidemic is spreading quickly among certain population subgroups but has not yet reached the general population (7). Several interrelated factors are poised to have a significant impact on Mexico’s HIV/AIDS cases in the coming years: the majority of migrants to the U.S. come from Mexico’s rural areas, they begin to engage in risk behaviors within the precarious conditions they find themselves in once in the U.S., and they take on the role of a bridge between the higher-

and lower-HIV/AIDS prevalence areas of the U.S. and Mexico, respectively.

Infection Risks for Migrant Farmworkers: Theoretical Framework

This ethnographic study was grounded in an amalgam of social cognitive and ecological theories (17, 18). The working theoretical framework (Fig. 2) does not constitute the basis for an integrated theory to delineate infection risks for MFWs. It does, however, comprise a step toward the eventual formulation of such a theory as it permits the operationalization of constructs that can be tested empirically.

Drawing from these theories, *structural factors*, which are sociocultural and socioeconomic in nature, shape the context of migrancy and migrant milieu. *Spatial factors*, which include transit pathways, farm and field types, packing houses, and camps, comprise geographic parameters within which MFWs interact with others and increase their risk. *Background factors*, such as the individual’s health, history as a migrant, and sociodemographic profile include individual characteristics of MFWs that contextualize their sexual and substance use behaviors. Life traumas, work pressures, mental health, legal status, poverty, loneliness, and sexual identity can operate as *stressors* assuming that social environment can exacerbate or diminish health outcomes. On the other hand, personality traits, cognitive and affective attitudes, coping mechanisms, religious/cultural values, and social networks operate as *mediators* that can either

Table I. Sociodemographic Profiles

	Arizona (N = 14)	South Carolina (N = 9)
Gender	100% male	100% male
Mean age	30.5	27.4
Median age	31	26
Mean education level	9th grade	5th grade
Mexico as country of origin	100%	100%
Sexual identity	100% straight-identified	56% straight-identified 22% bisexual-identified 22% gay-identified
Mean years in U.S.	9.9 years	4.7 years
Undocumented immigration status	79%	100%
Number of crossings	86% single, 14% multiple	100% 1–2 crossings only

facilitate or impede risk behaviors. Finally, *pathways* involve behavioral and physiological processes, which may lead to *outcomes* of infection acquisition and dissemination.

DATA AND METHODS

Data were collected using snowball sampling procedures from one site located along the eastern stream and one along the western stream from a total of 23 individuals. Interviews were conducted with: (a) nine Mexican male MFWs at a tomato farm in Beaufort, South Carolina where the local agriculture sector is heavily dependent on Latino migrant labor and (b) 14 Mexican migrant workers in El Mirage, Arizona attending English classes at a community center.

Diverse ethnographic methods were employed in data collection. Social and spatial mapping, non-participant observation, and informal discussions helped paint a picture of migrants’ work and living conditions, their roles in their new environments, and how they cope with their new circumstances. Data obtained through personal interviews included sociodemographics, characteristics of migrants’ lives and work conditions, descriptions of migrants’ values, beliefs, norms, and attitudes about sex and substance use, as well as their knowledge about sexual health, STIs/HIV, and overall health. The interviews were conducted in Spanish by two bilingual graduate students. To minimize respondents’ anxiety over their undocumented status and potential inhibition about discussing sensitive issues, field researchers obtained verbal informed consent and refrained from tape-recording the interviews. As they occurred, the interviews were transcribed verbatim into a laptop computer and later checked, read, corrected, and

translated into English. As a result, all of the quotes from the study participants that are included represent the interviewers’ translated and paraphrased versions of the original responses. Data were coded for textual analysis to identify underlying recurrent themes and to extract excerpts.

RESULTS

Sociodemographic Profile of Participants

All participants in both the South Carolina and Arizona samples were Mexican men. The South Carolina sample revealed a lower mean age, mean education level, and mean number of years spent in the U.S. compared to their Arizona counterparts. The entire Arizona sample identified as straight, while close to half (44%) of the South Carolina identified as either gay or bisexual. Finally, 100% of the South Carolina sample was undocumented, compared with close to 80% of the Arizona sample (Table I).

Life and Risks on the Road

Economic reasons were noted as the primary motivation for migration. The desire for better jobs, more money, and an overall improved quality of life is reinforced by the sight of others returning to Mexico from the U.S. with money and the belief that it is easy to find work in the U.S. Some migrants stated that they originally planned to stay in the U.S. only long enough to make money and return, but wound up staying indefinitely. While the prevailing motive was financial, other reasons were given as having influenced decisions to migrate to the U.S. One respondent clearly noted his desire to escape

prejudice against homosexuality as having played a key role in his decision:

I came to the U.S. to find a better job, to make more money, and to escape prejudice against male homosexuals in Mexico. Others called me names, made fun of me, excluded me, and threw stones at me. Most of the time, I tried to hide my homosexuality from people. [19 year old, gay, tomato picker in SC farm]⁷

In exchange for opportunities for a better life, migrants noted parting with their families, risking getting caught and being sent back or being incarcerated, endangering their lives, and tolerating every conceivable difficulty. They described getting themselves to the border, hiring *coyotes* to smuggle them into the U.S., then hiring other *coyotes* to get them to their destination or a worksite:

My friend introduced me to a coyote who got me fake papers and a plane ticket to Florida. I had to pay him \$3,000—half up front and then the crewleader paid the second half to the coyote. [21 year old, bisexual, water boy in SC farm]

I hired a coyote to escort me and my brothers from Vera Cruz across the border to Tijuana. We traveled by car to the border and waited for a day, then crossed the border at night, walking across the desert. Then someone met us on the other side and helped us get to a safe place. Once in the U.S., I paid another coyote to take us to Naples, Florida where we heard there was work. Again, we were put on a crowded van and taken to Naples where the coyote dropped us off at the camp. [35 year old, gay, tomato picker in SC farm]

Respondents recounted the difficulties of crossing as they described their personal experiences trekking across the desert, crossing the Rio Grande in small rafts, often hiding behind trees and buildings to evade law enforcement, and going for days without sleep or food:

... you suffer ... I remember we got really thirsty and we even drank salty water ... we followed a cow's footsteps to find water ... one time we drank water from a gallon full of ants. [48 year old, straight, farmworker in AZ]

It was an adventure through the wilderness ... one week walking with people I knew that already knew the route ... we passed through Texas and Ciudad Juarez. [48 year old, straight, farmworker in AZ]

... we were just helping each other. There was a woman with two little girls, I helped her carry one

of the girls, but other people did not want to help out. [23 year old, straight, tire repairman in AZ]

Several migrants also described how they formed supportive relationships with others they had not known before to make the crossing easier. Others described the number of attempts they made before finally succeeding to enter the U.S.

Where Farmworkers Live and Work

Migrants in both the South Carolina and Arizona samples recounted their unfortunate experiences after entering the U.S. They described finding extremely difficult work conditions requiring long hours for little pay, being taken advantage of by their employers, being mistreated by locals, and feeling isolated, lonely, and depressed:

Some people, usually white people, treat me bad like I am below them and I do not know, sometimes I feel like I am treated like a dog. [24 year old, straight, tire repairman in AZ]

I worked as a dishwasher for 3 months; I left because I got paid so little. I got paid \$170 a week and they would steal my hours. I got in at 10 am and left at 2 pm and then again from 5–10 pm ... I started getting 3, 4, 5 hours short on my paycheck. Now, I don't make great money, they pay me whatever they want ... I barely make it, I need to find a night job. [30 year old, straight, auto repairman in AZ]

I worked in the field as a picker with the sacks. It was very hard. We would work from 9 to 4 or 5 in the afternoon. We lived in the fields in tents below the trees and we ate there. We got paid 50 cents for a sack of lemons ... [48 year old, straight, farmworker in AZ]

Both the Arizona and South Carolina study participants held a variety of jobs before entering the U.S. ranging from higher skill to unskilled labor (e.g., carpentry, welding, factory work, fishing, farmwork, street cleaning). As described earlier, most migrants entering the U.S. begin working in agriculture and travel through various states following different crops, while others work in a number of other sectors. Of the South Carolina sample, 100% noted farmwork as their primary occupation and of the Arizona sample, 43% noted farmwork, 21% auto repair, 14% restaurant work, 14% construction, and 8% landscaping. The South Carolina MFWs described a typical route they follow: moving from south Florida where they pick tomatoes, to

⁷All excerpts included in this paper have been translated and paraphrased by the interviewers.

Table II. Hierarchical Social Structure of MFWs

Fieldwork population groups	Campwork population groups
<ul style="list-style-type: none"> • <i>Pickers</i>: majority of workers (including men, women, children); get paid by the bucket (40–50 cents) or by the row • <i>Crewleaders</i>: usually males of same ethnicity as pickers; run farm operation; get paid by amount of crop crew brings in • <i>Field walkers, bus drivers, and water boys</i>: have easier jobs; are either long-time employees or family members of crewleader • <i>Truck drivers</i>: drive trucks into field and down rows as they are filled, then to packing houses • <i>Dumperos</i>: strong males responsible for dumping buckets of picked tomatoes into larger bins on back of trucks 	<ul style="list-style-type: none"> • <i>Camperos</i>: paid by crewleaders on weekly basis to clean up camps • <i>Loncheras</i>: women who serve meals at camps before and after work and/or take meals out to fields to sell to workers • <i>Nannies</i>: younger women who watch children while parents work; usually get paid per child per day • <i>Rideros</i>: usually males with their own cars; give rides into town to workers for money

north Florida to pick oranges, to Georgia to pick onions, to South Carolina to pick tomatoes, then to Virginia to pick tomatoes, back to north Florida to pick grapes, and then back to south Florida again. Sometimes during winter months, MFWs briefly enter other sectors (e.g., construction, meat packing) to work while waiting for the harvesting season.

Interviews revealed that within the context of farmwork, a hierarchical social structure develops as individuals take on roles in the field or at the camp and establish social relationships accordingly (Table II). Specific names are often attributed to these roles in Spanglish, such as *dumpero*, *lonchera*, *ridero*, or *campero*. In addition, others become a part of this social network—as described by the South Carolina MFWs, *sexworkers* (local, migrant, or transient) routinely visit the camps in the evening and on weekends (working independently or via *pimps*) and *drug suppliers* provide a variety of drugs to migrants including marijuana, speed, and crack:

Prostitutes routinely visit the camps on Friday and Saturday nights (after pay day). The women in the camp look the other way. A lot of the younger guys use the prostitutes to get blowjobs or hand jobs. [25 year old, straight, dumpero in SC farm]

The same people that sell drugs bring the prostitutes here and if you do a lot of drugs, girls come to you. [26 year old, straight, restaurant worker in AZ]

Members of both samples noted their awareness of sexworkers and drug suppliers who target migrant laborers in the U.S. and some who follow MFWs from state to state. From the interviews we learned that drug dealing and pimping of sexworkers are often done by the same individuals.

Health Risks on the Farm

General Health

The overall health of migrant workers is clearly affected by the type of work they perform and their living conditions. The interviewees complained about diabetes, hypertension, bladder infections, oral infections, vision problems, pains, and rashes. The MFWs in South Carolina reported more health problems than the Arizona sample, ranging from less to more serious ailments: skin rashes, chronic athlete’s foot, severe back pains, various infections that might be related to exposure to pesticides, and tuberculosis:

I tested positive for tuberculosis a few months ago ... I haven’t been able to get to a health department for a chest x-ray ... I have a rash on my arms and around my neck and multiple mosquito bites around my ankles. [24 year old, gay, dumpero in SC farm]

I have an oral infection and have had a tooth pulled recently. I think I have a bladder infection because I have pain when I urinate. [19 year old, gay, tomato picker in SC farm]

Interviewees in both samples described feeling lonely and depressed, indicating that their mental health was also influenced by their conditions. While none of the migrants had health insurance, some reported having gained access to Medicaid through the use of counterfeit Social Security cards. A number of factors, however, such as intense work schedules, continuous movement across state lines, language problems, poverty, and the persistent fear of getting caught create very real barriers for migrants seeking medical care. As a result of these obstacles, preventive care was rarely sought by any of the interviewees,

instead medical attention was viewed as compulsory only when the health problem interfered with work or required emergency care:

Right now my testicle hurts . . . it started with a little pain but later it would wake me up at night . . . they took me to the hospital and found out I had stones . . . I still have pain but I take Tylenol because I already ran out of what they gave me for the pain. I do not go to the doctor because it is very expensive and right now I barely make it. [30 year old, straight, auto repairman in AZ]

My family is not insured . . . but I have ways to take them to the hospital . . . if you take them through emergency they always take you in because you can sue them if they do not, they are forced to see you. [26 year old, straight, restaurant worker in AZ]

Several of the study participants noted hospital emergency rooms or the veterans' hospital as the best solution to cheap and quick care for unavoidable situations, which appears to provide migrants some reassurance that they can get medical care when it is absolutely necessary.

Substance Use: Attitudes and Practices

Participant attitudes toward alcohol use were found to reflect traditional gender roles. Respondents indicated that drinking is considered a harmless way to celebrate, but more importantly it is not only widely accepted for men but in fact encouraged. What's more, one is not considered a man unless he drinks, whereas women who drink at all are disapproved of. Almost all migrants reported drinking, often heavily, to cope with loneliness, depression, and the physical difficulties of their labor:

A man who doesn't drink isn't macho and doesn't have any balls. [50 year old, straight, truck driver in SC farm]

It's acceptable for men to drink large quantities of alcohol. Men who don't drink are encouraged to drink . . . and sometimes teased if they don't. [19 year old, gay, tomato picker in SC farm]

I drink a lot . . . a lot of times I feel lonely, depressed . . . loneliness drives you there. [26 year old, straight, restaurant worker in AZ]

Migrants described getting exposed to drugs almost from the moment they undertook the crossing into the U.S. at border towns, along the way, and after they entered the U.S. Some have witnessed *coyotes* smuggling drugs along with migrants into the U.S., others have used drugs to make their crossing

easier, and still others have friends, family members, or neighbors who use or sell drugs:

We used "asitas," they are like pain killers. We would drink the pills with coffee and tequila. We walked through the mountains, where there are many snakes, from like 6 pm to 9 am, we almost threw up, but we took "asitas" to keep us awake and did not feel tired. [48 year old, straight, farmworker in AZ]

My neighbors sell drugs, they are smoking all the time, and even my room gets stinky . . . it is very strong. They sell crack cocaine . . . that is what sells more. [30 year old, straight, auto repairman in AZ]

In general, attitudes toward drugs appeared to follow generational lines as younger men expressed finding it more acceptable than their elders to experiment with marijuana, crack cocaine, and other stimulants. While some reported using drugs for recreational, relaxation, or social purposes, others noted using drugs in order to increase their productivity. Study participants in the South Carolina sample reported some use of *pericos* (pills to stay awake) or caffeine pills and speed in order to stay alert and work longer hours:

I take caffeine pills before work to help me work faster . . . they have increased my speed and length of workday [27 year old, bisexual (married), tomato picker in SC farm]

I use speed when I have the money and when I feel very tired, it helps me work faster and longer . . . there's a guy who comes by the camp and sells it. [31 year old, straight, dumpero in SC farm]

Several South Carolina MFWs reported that drugs are as available as alcohol, as long as one has money to spend, and that someone can always be found to supply them, either from within the camps or from people who visit them for that purpose. Many MFWs reported that although they drank alcohol back home, they had never tried drugs in Mexico; but since arriving in the U.S. they have been using drugs when they can afford them in order to be able to work harder and longer hours.

Social and Sexual Relationships

Regardless of sexual identity or marital status, migrants expressed traditional and conservative attitudes toward gender roles and sexuality. Because the men expect the women to tend to all housework and care-giving, women work longer days filled with cleaning, cooking, and taking care of the men

and children after working in the field all day. Further, study participants of all ages expressed their belief that it is natural for men to be promiscuous and even to have sex with sexworkers, which the women are expected to ignore or accept while they remain faithful to their men or otherwise risk developing a bad reputation within the community. The men also believe that premarital sex is acceptable for women only when they love their partners and that women need sex only in order to bear children.

Men should have sex, they need it. The more women a man has sex with, the more macho he is. Women are looked down upon for sleeping around. [19 year old, gay, tomato picker in SC farm]

Men should have sex whenever they can . . . they have sex with prostitutes or women who live in the camp . . . this is acceptable. Women who live in the camp can only have sex with their boyfriend or husband or they get a bad name. [15 year old, straight, tomato picker in SC farm]

Migrants in Arizona were very reluctant to accept involvement with sexworkers and several even stated their discomfort when talking about prostitution during the interview. With regard to homosexuality, they (all straight-identified) expressed somewhat tolerant attitudes but much greater disapproval and lack of knowledge than members of the South Carolina sample, where gay or bisexual males were found to be more common and live openly in the community and be less likely to be ridiculed or abused. It is interesting to note that despite some homophobic attitudes under certain circumstances, it is not entirely unacceptable for a heterosexual man to have sex with another man. In these instances, the heterosexual man does not forfeit his *machismo* depending on who performs the sex act and the type of sex act involved:

If a man needs a blowjob from another man, that's fine, but he should not be giving the blowjob. [21 year old, bisexual, water boy in SC farm]

Homosexuals are not respected. Some people don't want to work with homosexuals. Bisexuals get more respect because people don't know that they are having sex with men. [19 year old, gay, tomato picker in SC farm]

Homosexual behavior stays in the shadows. When I first started having sex with men, people would be really mean to me when they first found out I was gay . . . nowadays, people just tell me to keep it in my room. [35 year old, gay, tomato picker in SC farm]

Much in the same way as their attitudes, migrants' sexual practices reflect their traditional views: men can have multiple partners, can have sex with sexworkers, and at times can have sex with other men (without being homosexual), while women are expected to remain within their traditional roles. Even some unmarried couples who pair up out of necessity (although they may have spouses back in Mexico), fall into traditional roles with the men providing protection in return for meals and sex provided by the women:

I met a woman from another part of Mexico . . . she has kids and a husband in Mexico. We decided to start living together after hanging out a few times. Now we share a small room as romantic partners. She needed a man to protect her and I needed someone to cook for me and clean around the room. [31 year old, straight, dumpero in SC farm]

Beginning with the border towns bridging Mexico and the U.S. where migrants start their journeys and throughout communities where they live and work in the U.S., male migrants represent a captive market for sexworkers who exploit their loneliness and isolation. As noted earlier, sexworkers catering specifically to migrant farmworker communities include both organized and independent forms.

For the past year, I've been having blowjobs and regular sex with the prostitutes who visit the camp on the weekends. At first I would just get blowjobs from them but now I'm having intercourse with them. I'm usually with a prostitute every weekend and I've had about 40 in the last year. Some of the prostitutes follow the crews up the east coast while others are local girls . . . their ages are from early 20s to mid-30s . . . they're mostly Hispanic. [25 year old, straight, dumpero in SC farm]

I used to get a blowjob or have sex with a prostitute once or twice a month, if it was a good month. I didn't really use them in the winter because money was tight. I think I've been with about 50 different women. [50 year old, straight, truck driver in SC farm]

Several MFWs in the South Carolina sample who identify as gay or bisexual appear to enjoy greater freedom in the U.S. than they experienced back in Mexico; both of the two gay-identified MFWs in the sample lived in the camp openly with their male partners. Some married men, whether or not they identify as bisexual, have sex with both men and women, while others who are gay-identified still feel obligated to appear interested in women at the camp in order to appear more "macho":

I started having sex with men before my wife arrived in the U.S. I would just do it on the weekends with some of the guys around the camp. I could get blowjobs from them or a hand job. Then I started having anal sex with them. I had about 36 partners. Now that my wife is here, I'm having sex with her and I'm having sex with the men when she's not around I don't use protection with the wife . . . she's on depo [birth control] . . . I use protection with the guys when it's available. [27 year old, bisexual, tomato picker in SC farm]

At first, I had sex with both men and women, but then I moved to only men . . . I've had anal and oral sex with over 25 men. Some of my partners were openly homosexual and had sex only with men . . . others were married or had girlfriends and had sex with me on the side. [35 year old, gay, tomato picker in SC farm]

The commonly held view that a man needs sex and that he can and should have as many sex partners as he wants—as a testament to how macho he is—may help to explain the extent of sexual multipartnering among MFWs as well as how comfortable heterosexual males are with regard to receiving sexual services from other men without judgment.

STI/HIV Risks

With very few exceptions, most migrants have heard about STIs and HIV and know that they can get tested and treated for them. They also know that STIs/HIV can be transmitted via sexual contact, blood transfusions, and sharing of contaminated needles. Yet, many are not fully cognizant of the seriousness of the infections and view STIs as a nuisance. Common misconceptions, expressed by several interviewees, include the belief that HIV can be transmitted through kissing, saliva, hugging, or contaminated clothing; that it is possible to tell if someone has an STI or HIV/AIDS simply by looking at them; that there is treatment for AIDS; and that sex with virgins should be sought.

HIV/AIDS and STIs are spread through sex . . . you should try and only have sex with virgins . . . you can use condoms to protect yourself. There is a cure for AIDS. STIs can't really hurt you, they're just annoying when you get them. [21 year old, bisexual, water boy in SC farm]

I can look at a woman's vagina to tell if she has a STI . . . warts, bumps . . . again only sick people have STIs and they're mostly in the cities. [24 year old, gay, dumpero in SC farm]

While the interviewed migrant laborers know that condoms can protect people from STI/HIV infection, their actual condom practices do not imply a solid grasp of their protective benefits. For example, women seem to seek out condom use after having several children as a form of birth control rather than to protect themselves from disease. On the other hand, men often have unprotected sex because they do not like condoms, or because they do not believe they are at risk, and sometimes even pay extra to avoid using them:

I'm usually with a prostitute every weekend and I've had about 40 partners in the last year. I don't like to use condoms with the prostitutes and if I pay them a bit extra, I can have sex without condoms. [25 year old, straight, dumpero in SC farm]

I court some of the younger girls around the camp or girls in other camps. I can usually convince them not to use a condom. Some of the girls have been virgins. I've been with about 10 young girls this way. [21 year old, bisexual, water boy in SC farm]

Sometimes MFWs do not use condoms because they have misconceptions about the need for them. For example, some noted that HIV is spread only through homosexual behavior and as a result, only gay men need to use them. Still others expressed their belief that “dirty” or “sick” women spread it to men, so men only need to use condoms with those women.

DISCUSSION

This research provides insights into the uniquely vulnerable population of Mexican migrant laborers in the U.S. Their overall physical and sexual health is extremely precarious due to a confluence of mostly migration-driven factors. Poverty, poor working conditions, insecure legal standing, social isolation, limited access to health care, cultural differences, and a prevalent male overrepresentation comprise some of the reasons that push Mexican migrant laborers toward high-risk behaviors.

Overall, findings provide a uniform picture of the difficulties, health detriments, and STI/HIV risks that MFWs, in particular, face; however, differences between the South Carolina and Arizona samples are often attributable to varying dynamics inherent in their living and working conditions. Tangible differences were found between the two samples, in their values, attitudes, and practices with respect to both sexual health and substance use, which might be attributable to the different social networks they are

embedded in. For the most part, those who reside at the South Carolina farm labor camp live within a social network that facilitates greater risk-taking as a result of higher tolerance levels toward sexual activities and substance use. In contrast, those who live in Arizona near family members and friends (some of whom have helped them to find jobs and lodging) may feel more inhibited from engaging in riskier practices and, as a result, emerge as more conservative in their views and behaviors compared with the South Carolina sample. The South Carolina camp houses some married couples, others who have entered into sexual partnerships of convenience, and several gay and bisexual men. Within this social context, the men revealed more liberal attitudes toward substance use and sexual behaviors as well as sexual multipartnering with women other than their spouses, with sexworkers, or with other men.

It is quite likely for individuals' social relationships, the strength of social ties, and the social capital resulting from these ties to serve as mediators that impede or facilitate risk behaviors. Mexican migrants arrive with their strict community norms on substance use and sexual behavior and enter an environment characterized by more permissive cultural norms and sudden freedoms from the gaze of family, spouses, and girlfriends—unfortunately in an environment with higher STI/HIV prevalence rates than their home communities. Often very young men who travel alone find themselves isolated at their work-sites while they have unrestricted access to sexworkers and sexual opportunities with women and other men, as well as access to alcohol and drugs. A final note on the potential effect of social networks is that within a familiar social network of family and friends, migrants are less likely to experience the same level of loneliness, fear, and depression that function as stressors for the MFWs living in the more isolated camps. The social context found in Arizona, when contrasted with that in South Carolina, provides such familiarity of family and friends while it is also much less ethnically isolated than the South Carolina farm camps due to a larger Mexican community of immigrants living in Arizona (which is also more integrated with non-Hispanic residents). This critical difference between the two groups needs to be kept in mind when examining the greater incidence of high-risk behaviors found in the South Carolina sample of Mexican migrants.

Other differences between the two samples can be ascribed to different demographic and spatial factors: the level of education; age; the number of years

spent in the U.S.; and the level of mobility within the U.S. The Arizona sample's four additional years of schooling might have enhanced their ability to survive under difficult circumstances, to gain access to health care and other useful resources, and their ability to hold different jobs. Study participants in the two samples also differ in the type of work they do. Migrants at the South Carolina farm offer a good example of typical MFWs, whereas workers in Arizona represent migrant laborers involved in a variety of sectors requiring different types of skills—including a higher proficiency in English. Those living at the farm camp have less need and fewer opportunities to speak English than the Arizona sample, and as a result, do not improve their proficiency very rapidly and have more difficulty finding other types of work. The additional schooling and skills (that can help migrants to find different jobs) are also likely to determine their level of knowledge and understanding of health issues and risks, which ultimately serves as a protective factor against health-risk behaviors.

The higher mean age of the Arizona sample (by 4 years) often implies greater maturity and life experiences. Overall, members of the Arizona sample have spent 5 more years in the U.S. compared with the South Carolina sample. Migrants who are newer arrivals are more likely to be at greater risk for engaging in potentially harmful practices because they have not had enough time to develop basic resources—such as proficiency in English, knowledge of rights and resources, a helpful social network, and beneficial experiences—which, especially collectively, can serve as a protective buffer between migrants and potential risks. Finally, the South Carolina sample of farmworkers who follow crops across state lines along the east coast was found to have much greater mobility within the U.S. than the Arizona sample. Representing a significant spatial factor, this mobility reduces geographic and social stability as migrants weave in and out of new social networks and constantly interact with new people and as a result, face more risks. This mobility also has serious implications for the spread of STIs/HIV as well as possibilities of providing care to and monitoring health problems of migrants. If a migrant goes to a health clinic for care but is unable to continue visits or obtain necessary medications, health care professionals cannot provide the necessary care.

The next phase of this research needs to link STI/HIV risks to actual serological evidence. At the same time, ongoing research and prevention programs need to focus not only on condom education

and HIV awareness and testing, but also on the role of social networks and social capital, structural conditions, social isolation, gender roles, sexual identity (for men who have sex with men), and women's rights on delineating risks and disease diffusion. While the unacceptable conditions in which migrant laborers live and work in the U.S. herald an urgent discussion of basic human rights, the need for researchers and health care professionals to pay serious attention to their health needs and grave risks for acquiring infectious diseases should not be underestimated.

ACKNOWLEDGMENTS

We wish to express our gratitude to all of the Mexican migrant workers in Arizona and South Carolina, who took time from their hard work, to share with us their personal stories and life experiences as working migrants in the U.S. We also extend our thanks to our graduate students Lucia McLendon (Emory University) and Ellis Castillo (Arizona State University) for their hard work in the collection of data from our study participants as well as the translation and transcription of the interviews.

REFERENCES

1. Apostolopoulos, Y, Sonmez S, eds.: *Crossing Boundaries, Compounding Infections: Perspectives on Population, Migration, and Disease*. New York: Kluwer (forthcoming; 2006)
2. Herdt G: *Sexual Cultures and Migration in the Era of AIDS*. New York: Oxford; 1997
3. Brockerhoff M, Biddlecom A: Migration, sexual behavior and the risk of HIV in Kenya. *Int Migration Rev* 1999; 33:833–856
4. Parrado E, Flippen CA, McQuiston C: Use of commercial sexworkers among Hispanic migrants in North Carolina: Implications for the spread of HIV. *Perspect Sex Reprod Health* 2004; 36:150–156
5. Sanchez M, Lemp G, Magis-Rodriguez C, et al.: The epidemiology of HIV among Mexican migrants and recent immigrants in California and Mexico. *J Acquir Immune Defic Syndr* 2004; 37S:S204–S214
6. Organista KC, Carrillo H, Ayala G: HIV prevention with Mexican migrants: Review, critique, and recommendations. *J Acquir Immune Defic Syndr* 2004; 37S:S227–S239
7. Magis-Rodriguez C, Gayet C, Negroni M, et al.: Migration and AIDS in Mexico: An overview based on research evidence. *J Acquir Immune Defic Syndr* 2004; 37S:S215–S226
8. Organista KC: Culturally competent HIV prevention with Mexican/Chicano farmworkers. JSRI Occasional Paper No: 47. The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan. Last accessed on June 14, 2005, from <http://www.jsri.msu.edu/RandS/research/ops/oc47.html>; 1998
9. Organista KC, Organista PB, Bola J, et al.: Predictors of condom use in Mexican migrant laborers. *Am J Community Psychol* 2000; 28:245–265
10. Mishra S, Conner RF, Magaña RJ, eds.: *AIDS Crossing Borders: The Spread of HIV among Migrant Hispanics*. Boulder, CO: Westview; 1996
11. Fernandez MI, Collazo JB, Hernandez N, et al.: Predictors of HIV risk among Hispanic farmworkers in South Florida: Women are at higher risk than men. *AIDS Behav* 2004; 8:165–174
12. Bletzer K: Risk and danger among women who prostitute in areas where farmworkers predominate. *Med Anthropol Q* 2003; 17:251–278
13. Ford K, King G, Nerenberg L, Rojo C: AIDS knowledge and risk behaviors among Midwest migrant farmworkers. *AIDS Educ Prev* 2001; 13:551–560
14. Solorio MR, Currier J, Cunningham W: HIV health care services for Mexican migrants. *J Acquir Immune Defic Syndr* 2004; 37(4):S240–S251
15. National Center for Farmworker Health: Fact sheets about farmworkers. Last accessed on September 5, 2004, from http://www.ncfh.org/factsheets_03; 2003
16. Palm Beach Post: Modern-day slavery. Last accessed on October 25, 2004, from <http://www.palmbeachpost.com/hp/content/moderndayslave-ry/index.html>; 2003
17. Apostolopoulos Y, Sonmez S, Smith D, Kronenfeld J, McLendon L: Occupational health of Mexican migrant farmworkers. Annual meeting of the East Coast Migrant Stream Forum, St. Petersburg, Florida; October 21–23, 2004
18. Apostolopoulos Y, McLendon L, Sonmez S, Smith D: Social and sexual identities of Latin migrant farmworkers and disease. Annual meeting of the East Coast Migrant Stream Forum, Tarrytown, New York; October 23–26, 2003