

NEEDLE SHARING FOR THE USE OF THERAPEUTIC DRUGS  
AS A POTENTIAL AIDS RISK BEHAVIOR AMONG  
MIGRANT HISPANIC FARMWORKERS IN THE EASTERN STREAM

Resource ID#: 1149

**Needle sharing for the use of therapeutic drugs as a  
potential AIDS risk behavior among migrant  
farmworkers in the eastern stream**

## ABSTRACT

In the United States, 41 percent of the AIDS cases are found in ethnic minorities. While it is true that AIDS is disproportionately represented among minorities, not enough research has been directed at identifying risk factors peculiar to different ethnic groups. This study explored critical knowledge of AIDS, patterns of sexual behavior, and self-injection for therapeutic reasons among migrant workers. Data were collected through face to face interviews with 378 hispanic migrant workers. Respondents, 79 (21.4 percent), reported self-injecting antibiotics and vitamins for medicinal reasons while only 2.6 percent self-injected recreational drugs. The likelihood of contracting AIDS escalates as the number of risk factors increase. Self-injection of therapeutic agents is a great risk when considered in concert with the other risk factors present in the migrant farmworker population. Exposure to additional factors such as sexual promiscuity, frequenting prostitutes, homosexual behavior and having vaginal or anal intercourse without a condom creates a potentially dangerous situation. Hence, each of the individual AIDS risk factors may be multiplied and broadcast through the needle risk.

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**INTRODUCTION**

Testimony before the President's Commission on HIV Infection stated that of the AIDS cases in the United States 41 percent are found in ethnic minorities. Latins comprise 6 percent of the nation's population, yet account for 14% of AIDS patients, while blacks, though 12 % of the United States population, constitute 2% of the AIDS cases. Although AIDS affects all racial groups, Blacks and Latins are disproportionately represented.<sup>1</sup> For whatever reason, research has not been directed at identifying risk factors peculiar to this group. Most studies have failed to look at cultural subtleties which may have a dramatic effect on AIDS related behavior. The report to the President's Commission and the void in data concerning ethnic and cultural differences in populations provided the impetus for assembling Georgia Southern University's project staff. This staff then conducted a preliminary fact-finding study on migrant farmworkers in the state of Georgia. This exploratory and descriptive study revealed a number of AIDS risk behaviors and a lack of knowledge about AIDS among migrant workers in Georgia.<sup>2</sup>

The Centers for Disease Control (CDC) conducted a national serosurvey of HIV among migrant farmworkers. The results of this study revealed a significant seroprevalence in the eastern stream.<sup>3</sup> The findings of the Georgia Study coupled with the Centers for Disease Control seroprevalence data created cause for great concern.<sup>4</sup> These factors promoted an expansion of the initial Georgia Southern Study.

In the United States intravenous drug use is a major window for heterosexual transmission and a primary source for perinatal transmission of AIDS.<sup>5</sup> The human immunodeficiency virus (HIV) can be transmitted through contaminated blood left in needles, syringes, and other paraphernalia used by drug abusers and nonmedical therapeutic drugs users.

AIDS research on conditions under which needle sharing occurs is limited. Two ethnographic studies have identified various situational factors, economic considerations, and social pressures that may lead to needle sharing.<sup>678</sup> Anecdotal reports indicate that self-injection of vitamins and antibiotics is relatively common among migrant workers in the United States, as it is in Mexico. These people live in an environment where needle use for self-injection of vitamins and therapeutic drugs is accepted behavior.

Depressed income levels and socio-cultural acceptance of needle use may encourage sharing in this population. In January 1985, there was a report of a six month old Dominican child who was diagnosed positive to HIV. Subsequently, the three year old brother was tested and found to be HIV positive but symptom free. Interviews with the family revealed no known AIDS risk exposure except that the mother gave vitamin injections to first the baby and second to the older brother. After the first injection, the mother wiped the needle with bay rum (an aromatic of about 45% alcohol concentration) and injected the second boy. According to this article, needlesticks rarely are associated with seroconversion but this finding suggests that under certain conditions, a small amount of blood left in a needle can transmit HIV.<sup>9</sup>

In a study of the Acquired Immunodeficiency Syndrome in Haiti researchers discussed intramuscular injections as a potential risk factor. Pape (et al.) reported that it is a common practice in Haiti for persons to obtain intramuscular injections when they are "not feeling well." The injections are given by either medical personnel or pigurists (untrained injection givers). Disposable needles and syringes are not readily available in Haiti, so they may be

reused without sterilization. Their research indicated that during a 5 year period before the onset of AIDS symptoms, intramuscular medications were received by 89% of the patients. These patients also received a larger number of injections annually and injections were more likely given by a nonmedical source.<sup>10</sup> In the United States, no other studies have examined self-injection for therapeutic reasons. Consequently, one of the major focal points of this study was to determine socio-cultural influence on needle sharing as a potential risk factor in the transmission of AIDS.

#### METHODS

##### The Subjects

This study sought to describe the health knowledge, attitudes and practices of eastern stream migrant farmworkers relative to AIDS. Data were collected using a sample of 378 migrant hispanic workers. These migrant workers follow a geographic path determined by harvest time for crops. The season begins in Florida in late summer and moves up the coast as crops ripen in Georgia, South Carolina, North Carolina, and ends in late summer in the Delaware, Maryland, and Virginia (Delmarva) peninsula. The

timing of this study sought to avoid overlap as workers migrated north. Data were collected by face-to-face interviews. The group studied was a multi-ethnic heterogenous group. Of these, 91.3 percent were male and 8.7 percent were female. The mean age was 28.4 (standard deviation = 10.3). The full distribution of ages which is presented in Table 1 indicates that these workers were at prime ages for AIDS risk. The majority (83.1 percent) of the respondents were Mexican; 44.4 percent considered Mexico to be their home base and 16.3 percent were U.S. citizens. Almost three quarters (77.1 percent) of the respondents were Catholic. The majority of the respondents were relatively long-time migrant farm-workers in the United States. Sixty-four percent report having spent four or more years in this country.

#### The Instrument

The knowledge items in this instrument were adapted from the National Health Interview Survey (NHIS) which was conducted by the National Center for Health Statistics (NCHS). The survey was composed of both general and critical knowledge items. Seven of the AIDS knowledge questions were constructed as a critical knowledge scale.

These are the items that relate to transmission routes and fatality. The National Health Interview Survey is a continuous, cross-sectional household interview survey. To facilitate the use of this instrument with the population of the study, items were modified by adjusting the language level and removing technical terms and references to match the educational and cultural backgrounds of the survey respondents. The survey was printed in English, Spanish, and Creole.\* To ensure the effectiveness of the questionnaire, interpreters were trained in proper interview technique and a pilot survey of 50 migrant workers was conducted. All interviews in the pilot and eastern stream study were conducted by trained bilingual interviewers.

#### The Collection of Data

During the months of July, August and September interviewers went to farm work camps. The majority of the visits were in the evening after the work day had been completed. All residents had an equal opportunity to take part in the study and participation was completely voluntary. Some interviews were also conducted in migrant

\*Copies of the instruments may be requested from the Center for Rural Health and Research, Georgia Southern College, Statesboro, Georgia.



health clinics. The use of a convenience sample limits the analysis of the results to exploratory, descriptive interpretation, but the lack of information in this important area makes preliminary research extremely valuable.

### Analyses

The analyses utilized Pearson's correlation with dummy variable analyses where appropriate. Recent statistical research has indicated that Pearson's correlation can reasonably be used with ordinal data when the numbers of cases are adequate and when the steps of the score are regular as they are in this case. Chi Square and other descriptive measures were used with nominal level variables.

## RESULTS

### AIDS Risk Factors

This study explored critical knowledge of AIDS, patterns of sexual behavior, and self-injection for therapeutic reasons. Respondents engaged in a number of AIDS risk behaviors. Sexual intercourse with multiple partners was the major source of risk. The study revealed that 25.4 percent had no sex partners during the past year, 39.1 percent reported only one sexual partner and 35.5

percent reported having two or more sexual partners during the past year. Of the respondents, 26.4 percent reported having multiple partners without the use of a condom. The mean number of sex partners in the past year was 1.7. Anal intercourse was present at insignificant levels. Anal receptive sexual behavior was reported by .8 percent of the male respondents. Anal insertive behavior was reported by .8 percent of the male respondents. Six (1.58 percent) of the farmworkers reported having taken money for sex, one reported having exchanged sex for drugs. Intercourse with prostitutes was also a major risk factor in this population with 70 (18.5 percent) indicating that they had paid for sex in the last year.

Use of injectable illegal drugs was relatively low in this study, (2.6 percent reported injecting drugs such as heroin, cocaine, and speed); but the data did suggest a major incidence of a previously undocumented self-injected drug risk pattern. Eighty of the respondents (21.2 percent) reported self-injecting antibiotics and vitamins. Twelve (3.2 percent) reported having injected antibiotics and vitamins with a shared needle.\* Of the respondents, 22.5

\* It seems likely, however, that attempts to clean needles may have been inadequate.

percent indicated that they knew individuals who self-injected antibiotics and vitamins.

**INSERT TABLE 1**

As indicated by description statistics in Table 1, those who self-inject medicinal drugs tend to be male, older, and Catholic.\*\* Table 2 shows that self-injectors have slightly higher critical knowledge about AIDS and they have a tendency to worry about getting the disease and many frequent prostitutes.\*\*\* The self-injectors do not differ significantly from non-injectors in risk behaviors; however, they do have one tendency toward a positive attitude about condom use and they are somewhat more likely to use condoms with non-spousal partners (Table 3).

**(INSERT TABLES 2 AND 3)**

\*\* Non significant tendency.

\*\*\* The critical knowledge score is a total of correct answers on the seven knowledge questions specific to AIDS fatality and transmission routes.

## DISCUSSION

Most of the research on needle sharing as an AIDS-related risk behavior has focused on individuals involved in recreational drug use. Magura (et. al., 1989) stated that intravenous drug use by friends and sexual partners creates a social environment that leads to sharing. Their research supported previous observations that peer behavior strongly influences needle sharing decisions.<sup>6</sup> Though needle sharing is prevalent in the eastern stream migrant population, it is not perceived by the participants as a negative or dangerous behavior. This study documented that while injections of recreational drugs is present in this population, a more prevailing potential risk factor is self-injection by those using drugs and vitamins as a preventive health behavior. Recreational intravenous drug users represented 2.9 percent of the population while 20.3 percent self-inject drugs and vitamins for medical reasons.

In this eastern stream study, needle sharing was the potentially most prevalent and dangerous risk behavior for the spread of AIDS found in the migrant population. It was established that the number of individuals who self-injected as a therapeutic behavior and shared needles was greater than those who used recreational drugs and shared needles.

The number of therapeutic injectors that share needles was also greater than the number engaged in anal intercourse. There is every reason to believe that the number of individuals using dirty needles to self-inject is vastly under reported. It is very possible that the economic status of migrant workers affords them little discretionary income. Limited funds may force workers to choose between buying new needles and other necessary goods and services. In addition, most workers live in migrant farm work camps located miles from any town making it difficult to purchase new needles. Self-injecting appears to be a culturally accepted behavior in the eastern stream camps. Twenty-two percent of the respondents reported knowing individuals that self-inject antibiotics and vitamins for medicinal purposes which is very similar to the 22.9 percent that reported self-injecting. It is obvious that this represents a network of people who self-inject and creates a dangerous situation that may lead to needle sharing and an increased potential for spreading AIDS.

The likelihood of contracting AIDS escalates as the number of risk factors increase. The study documents that sharing needles in the migrant population is a serious AIDS risk factor. Self injection of therapeutic agents becomes a

greater risk when considered in concert with the other risk factors present in this population. Exposure to additional factors such as sexual promiscuity, frequenting prostitutes, homosexual behavior, and having vaginal or anal intercourse without a condom creates a serious web of causation. These interrelated factors dramatically increase the risk of spreading AIDS in the migrant and seasonal worker population. Hence, each of the individual risk factors may be multiplied and broadcast through the needle risk.

The statistical results of this study were generally consistent with the findings of previous studies that have looked at knowledge of AIDS in different cultures of our population. The migrant farmworker has knowledge about AIDS but many times what they know is not pertinent to the causation or the seriousness of the disease. A high percentage of respondents do not know that AIDS is a fatal disease. It is clear that the migrant workers in this study felt that self-injecting drugs and vitamins for preventive health reasons was a positive behavior. It appears that the migrant population knows it is safe to go to public restrooms, shake hands, drink water from a communal glass but don't know that it is dangerous to share needles while injecting drugs and vitamins for medicinal purposes.

General knowledge of AIDS does not motivate migrant behavior as much as critical knowledge and cultural influences.

Although many migrant farmworkers may consider self-injecting a positive health behavior, in reality it is one of the most dangerous risk behaviors in which they could engage. Our present AIDS education programs are sending an incomplete message when they do not consider cultural behaviors such as self-injecting for therapeutic reasons. AIDS education programs that do not take into account cultural assumptions and biases of ethnic groups are missing an important window of opportunity.

TABLE 1 - Sociodemographic of Hispanics Who Do and Do Not Self-Inject Drugs for Medicinal Purposes

Characteristics	SELF-INJECT MEDICINALS				Chi Square
	# YES	(Percent)	# NO	(Percent)	
<b>Gender</b>					
Male	76	(22.6)	261	(77.4)	Chi Square = 3.01 p = .082
Female	3	(9.4)	29	(90.6)	
<b>Marital Status</b>					
Married	42	(23.1)	140	(76.9)	Chi Square = 7.69 p = .3803
Unmarried	38	(19.4)	158	(80.6)	
<b>Age</b>					
14-18	6	(13.6)	38	(86.4)	Chi Square = 9.24 p = .0554
19-25	24	(17.0)	117	(83.0)	
26-35	24	(22.4)	83	(77.6)	
36-44	16	(34.0)	31	(66.0)	
45+	10	(30.3)	23	(69.7)	
<b>Ethnicity</b>					
Mexican	72	(22.9)	242	(77.1)	Chi Square = 6.59 p = .7634
Latino	1	(7.7)	12	(92.3)	
Chicano	0		5	(100)	
Puerto Rican	4	(20.0)	16	(80.0)	
Salvadoran	1	(20.0)	4	(80.0)	
Guatemalan	2	(22.0)	7	(78.0)	
Other	0		12	(100)	
<b>Citizenship</b>					
U.S. Citizen	10	(16.9)	49	(83.1)	Chi Square = 1.11 p = .29
Non U.S. Citizen	232	(76.8)	70	(23.2)	
<b>Religion</b>					
Catholic	68	(23.5)	221	(76.5)	Chi Square = 4.11 p = .042
Not Catholic	12	(13.5)	77	(86.5)	



**TABLE 2. Migrant Farmworker's Medicinal Self-Injection with  
AIDS Knowledge and Fear - Pearson's Correlations (N = 378)**

<u>Summary of Questions</u>	<u>r</u>	<u>p</u>
1. Afraid of Getting AIDS	.1413	.003
2. Think You Might Get AIDS	.1423	.003
3. Think You Know How One Gets AIDS	.1660	.001
4. Critical Knowledge	.1311	.005

Items 1 through 3 had yes/no answers coded with yes (high) and no (low). Item 4 used a knowledge scale which is described in the Methods section.

**TABLE 3. Migrant Farmworkers Medicinal Self-Injection with AIDS Risk Behaviors - Pearson's Correlation (N = 378)**

Questions	r	p
1. Feel Safe with Condoms	.1716	.001
2. Number of Sex Partners	.0149	ns
3. Hire Prostitutes	-.0614	ns
4. Condom Use with Spouse	-.0071	ns
5. Condom Use with Non Spouse	-.1081	.023

Item 1 (attitudinal questions) and Item 3 were yes/no items coded yes (high) and no (low). Items 4 and 5 were coded: 1 - always, 2 - sometimes, 3 - never.

## ACKNOWLEDGEMENTS

The authors recognize Karen Mountain of the National Migrant Referral Project for technical assistance in the construction of the interview. We also wish to acknowledge the cooperation of Eschan Sawez and the Delmarva Rural Ministries for their assistance in data collection in the Delmarva Peninsula and finally Barbara Glisson of Blue Ridge Community Health Center for her provision of bilingual personnel for much of the project.

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