

## RESEARCH REPORT

# Drug use in the high intensity drug trafficking area of the US Southwest border

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### Abstract

*This paper examines the prevalence of alcohol, tobacco and illicit drug use in the Southwest border region of the United States. Based on the seriousness of drug trafficking in the area, the Southwest border has been designated a "High Intensity Drug Trafficking Area." Yet there is little quantitative data on the nature and magnitude of drug use in the Southwest border region. This paper examines the prevalence of drug use in the area by extracting data from the National Household Survey on Drug Abuse. The data show that drug use rates in the Southwest border area are very similar to those found throughout the remainder of the United States. Hispanics, who constitute about 41% of the Southwest border population, have lower prevalence rates for most classes of drugs than non-Hispanics. The border Hispanics exhibit even lower prevalence rates than Hispanics in the remainder of the United States. However, many of these differences are attributable to the lower levels of drug use among women, and youth and older adults. As these demographic subgroups become increasingly acculturated, their drug use could come to more closely resemble that of their peers in the remainder of the United States.*

### Introduction

Created by the League of Nations in 1928 to extend international control over drugs with additive potential and continued thereafter by the United Nations, the International Narcotics Control Board has always been concerned with illicit trafficking, especially in the border areas between countries (United Nations, 1973). A number of countries that previously had no drug problems or had been involved in the drug trade only as suppliers have struggled with problems of illegal drug use among their own citizens. As the

breadth and extent of trafficking networks worldwide appear to be increasing, it is imperative to examine the impact of illicit drug trafficking in placing border populations at risk for increased drug use.

This paper examines the nature and extent of drug use in the Southwest border area of the United States, an imaginary zone of approximately 2000 miles separating the United States and Mexico. Although there is no official definition of the United States-Mexico Border area the one used herein, promulgated by de-

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The views expressed in this paper are those of the authors, and do not reflect the official position of the Center for Substance Abuse Prevention or the US Department of Health and Human Services.

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mographers from the US Bureau of the Census, are those 25 counties (from the states of California, Arizona, New Mexico and Texas) contiguous to the international line with Mexico<sup>1</sup> (Fernandez, 1991).

Scant quantitative research has been conducted focusing specifically on drug use in the Southwest border area (cf. Greene, M. 1974; Montoya, 1985; Adams, 1986; PAHO, 1989; Harrison, 1991; Harrison & Kennedy, 1994). Most research on drug use in this area has been conducted by ethnographers who provide qualitative information about the social organizations and behavioral patterns of drug users and the drug scene in a specified geographic location along the border (cf. Ramos, 1989; Gutierrez-Ramos & Flores-Farfán, 1992). However, due to a fortunate design aspect of the National Household Survey on Drug Abuse (NH Survey), we are able to characterize drug use along the full length of the international border with Mexico; more specifically, in the urbanized counties bordering the international line with Mexico.

Concern has been expressed about higher drug usage rates in the Southwest border region for many years, although this concern has largely been based on anecdotal information about drug availability. Mexico is known as a "supplier" nation, and trafficking routes to the US abound. It is estimated that Mexico supplies approximately 60% of the foreign-grown marijuana and over 20% of the heroin reaching US markets (NNICC, 1993; Bureau of International Narcotics Matters, 1994). One form of Mexican heroin, known as "black tar", is generally of higher purity but lower priced than that from other source countries (OTA, 1987). In addition to the "supplier" label, at least half the cocaine entering the US is believed to be transshipped through Mexico (Bureau of International Narcotics Matters, 1994). There have been record seizures of marijuana and cocaine in recent years (NNICC, 1993). The 1993 Annual Statistical Report from the Drug Enforcement Administration (DEA) indicated that 115 270.5 kilograms of marijuana were seized in the Southwest border, 10 times the amount seized in the Southeast Offices which primarily include Florida cities.

1. These 25 counties include two in California (San Diego and Imperial), four in Arizona (Yuma, Pima, Santa Cruz and Cochise), three in New Mexico (Hidalgo, Luna, Dona Ana) and 16 in Texas (El Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Van Verde, Kinney, Maverick, Dimmit, Webb, Zapata, Starr, Hidalgo, and Cameron).

The US Congress established, as part of the Anti-Drug Abuse Act of 1988, the High Intensity Drug Trafficking Area (HIDTA) Program to be implemented by the Office of National Drug Control Policy. Because of the seriousness of the drug trafficking problems and the subsequent effects when these drugs arrive at their final destinations, the Office of National Drug Control Policy designated five areas of the United States as HIDTAs. Four are cities—New York, Miami, Houston, and Los Angeles—and the other is the Southwest border area. The HIDTA guidelines require funds to be used primarily to enhance law enforcement efforts against drug trafficking organizations. Operation Alliance administers the HIDTA Program in the Southwest border area and is a multi-agency initiative established to support and coordinate law enforcement operations for Federal, State and local agencies in the states of Texas, New Mexico, Arizona and California.

Drug smuggling is considered a serious threat all along the Southwest border. The proliferation of drugs passing through the area presumably translates into increased availability which then, in turn, translates into increased use. In addition, an abundance of other precursors and risk factors associated with drug abuse are present in this area. Perhaps most important is the youthfulness of the population. Young people, especially those in their late teens and early twenties, are at increased risk for drug use (Kandel & Logan, 1984; Anthony & Helzer, 1991). The median age of Mexican origin individuals in the United States in 1990 was 24.1 years compared to 33.5 years for non-Hispanics (Chapa & Valencia, 1993).

The border population is also considered both a minority population and a hidden population. Both types of populations are thought to be at higher risk for drug use and abuse due to their lack of educational achievement and lower socioeconomic status (cf. Hawkins, Lishner & Catalano, 1985; Simcha-Fagen, Gersten & Langer, 1986; Brounstein *et al.*, 1989; Flewelling *et al.*, 1993). Males and females of Mexican origin have lower average earnings and the highest unemployment rates in the US, with 28.4% of this ethnic subgroup living below the poverty line (US Bureau of the Census, 1990). Among Mexican origin adults aged 25 years and older, 55.9% have not completed high school (Chapa & Valencia, 1993). More than seven of every ten Hispanic high school dropouts are of Mexican

origin and of all 16-24-year-old dropouts of Mexican origin, 73% were born in Mexico (GAO, 1994). Due to their relatively low educational levels and the language barrier, Mexican origin Hispanics tend to have low-wage jobs and little chance of advancement.

In conclusion, there is an abundance of known risk factors for higher drug use rates evident in the Southwest border region of the United States. Due to Mexico's status as a supplier nation, and the transshipment routes for drugs into the United States along the border, the border area was designated a HIDTA. This means that extra funds are expended in the area to enhance law enforcement efforts against drug trafficking organizations. Anecdotal information suggests that drug use is higher in the area. It is assumed that the intensity of drug trafficking translates into increased drug availability, which translates into increased drug use. However, these assumptions have not been empirically examined. This paper attempts to address these issues by providing some assessment of drug use among the population residing in the Southwest border of the US.

### Methods

It is possible to examine the prevalence of drug use in the Southwest border using the National Household Survey on Drug Abuse (HH Survey)—the primary source of data on illicit drug use in the United States. The HH Survey oversamples Hispanics in the geographical areas where they are most concentrated in order to increase the precision of estimates for this ethnic subgroup. Due to the concentration of Hispanics in the Southwest border area, the HH Survey can provide estimates of drug use for this area, with some limitations. The HH Survey contains a near census of the Metropolitan Statistical Areas (MSAs) along the international border with Mexico. (An MSA is a term created by the US Census Bureau to describe a geographic area consisting of a large population nucleus together with adjacent communities having a high degree of economic and social integration.) Ninety per cent of the Southwest border population resides in MSAs adjoining the border, permitting estimation of drug use among the majority of border county residents.

The HH Survey is designed to measure the prevalence of drug use experience and related

behaviors within the US population aged 12 years and older. Conducted among a random sample of the population at 1-3-year intervals since 1974, the survey yields prevalence estimates on the following substances: alcohol, cigarettes, marijuana/hashish, cocaine, inhalants, hallucinogens, heroin, the non-medical use of psychotherapeutics (stimulants, sedatives, tranquilizers and analgesics) and anabolic steroids. The HH Survey traditionally reports drug use prevalence in three time periods—any use in the life-time, in the past year, and in the past month.

Respondents are interviewed in their homes by trained interviewers using standardized methods. There are both English and Spanish versions of the questionnaire, and bilingual interviewers trained to administer either. Several mechanisms designed to increase the validity of responses are built into the study. Respondents are given assurances of anonymity and confidentiality, and self-administered answer sheets are used for the questions on drugs. Although methodological studies suggest that the data quality is quite good, we can not be sure how much under-reporting might occur (cf. Harrison, 1995). Further, self-reported drug use may vary as a function of Hispanic ethnicity or the legal immigration status of the respondent. Nevertheless, the HH Survey is the best source of drug prevalence data available in the United States, and uses a number of state-of-the-art survey procedures, data quality checks and adjustments. For example, the data are adjusted using a weighting class adjustment to account for interview non-response in deriving national estimates of drug use. Additional information on the survey methodology can be found in the technical appendices of the *Main Findings* report produced from this data set (Substance Abuse and Mental Health Services Administration [SAMHSA], 1993).

The sample for the 1991 HH Survey included eight counties in the United States adjacent to the international border with Mexico. Six of these counties are MSAs, representing six of the eight MSAs along the border. The two other counties in the HH Survey sample are rural counties. As previously mentioned, the six MSAs border counties in the HH survey contain 90% of the population living along the border. In addition, they contain 95% of the population living in MSAs along the border. Therefore, the HH Survey covers most of the population living in MSAs adjoining the border with Mexico. The

two rural border counties included in the HH Survey contain about 1% of the population. Therefore, the HH Survey cannot as accurately characterize the non-urban border population.

According to the 1990 Census, 41% of the residents in border counties are of Hispanic origin. The HH Survey provided reasonable representation of Hispanics, reporting that 37.5% of its (weighted) 1991 sample in border counties was of Hispanic ethnicity with 97% of Mexican origin. In the six border MSA counties, the HH Survey sample is 38% Hispanic, which compares very favorably with the Census count of 37%. However, the 1990 US Census reveals that only about 80% of the Hispanic population living in border counties reside in the six MSAs included in the HH Survey. In order to broaden the representation of Hispanics in the analyses contained herein, the Hispanic population in the two rural counties contained in the HH Survey are included.

The inclusion of these rural counties is also useful for other reasons. Since the HH Survey is designed to measure drug use in the entire US population, the sample sizes in any one county are not necessarily large. The 1991 survey included 32 594 respondents, of whom 759 lived in the border MSAs. This is a relatively small sample size, especially when investigating a comparatively rare behavior such as illicit drug use. Further subdividing this sample size by gender, age group or other characteristics of interest becomes problematic based on the small sample sizes. The sample size for the Hispanic population in the six urban and two rural counties was 850. Although the rural counties contain but a small portion of the Southwest border Hispanic population, and were not selected to be representative of the rural counties in the region, they nonetheless contain several hundred respondents of Hispanic ethnicity. The data are weighted to account for selection probability so the rural county residents are not given excessive weight. Therefore, for the purposes of the analyses herein examining drug use among Hispanics in the Southwest border, the survey population includes those from the six urban and two rural counties. Separate analyses are presented for the MSA border population.

## Results

The prevalence rates for lifetime, past year and past month use of alcohol, tobacco, any illicit

drug, any psychotherapeutic drug, marijuana/hashish, cocaine and inhalants in the Southwest border MSAs are shown in Table 1. Weekly alcohol and daily cigarette use are also shown. Other classes of drugs are not shown due to their low overall prevalence and the relatively small numbers in the sample upon which these rates are based. The HH Survey analyses generally suppress estimates that have a relatively large standard error or a relatively small sample size.

As Table 1 shows, 38.8% of residents in MSAs along the border have used some illicit drug in their life-time, 13.6% have used in the past year and 7.9% in the past month. The most commonly used illicit drug was marijuana/hashish (hereafter referred to as marijuana since the majority of cannabis use in the United States is marijuana rather than hashish), with 33.5% reporting life-time use, 10.7% reporting past year use, and 5.4% reporting use in the past month. The non-medical use of psychotherapeutics (which includes analgesics, tranquilizers, stimulants and sedatives) was reported by 15.3% in their life-time, 4.7% in the past year and 1.0% in the past month. Cocaine was used by 13.0% in the life-time, 3.3% in the past year and 1.6% in the past month. The highest prevalence rates were for alcohol, with 20.0% reporting use in the past week. Tobacco was also frequently reported. An estimated 19.3% of residents in border MSAs reported daily cigarette use.

In order to place drug use in the Southwest border in perspective, Table 1 compares the prevalence rates of selected drugs in the border MSAs with those for the remaining MSAs in the United States. The overall picture is one of great similarity, with a few minor exceptions. Cigarette use is lower in the border MSAs, but only past month cigarette use is significantly lower. Inhalant use is higher in the border MSAs, but only the life-time measure is significantly higher. The past month prevalence of cocaine use is also significantly higher in the border MSAs, although it is 1.6% compared to 1.0% for the non-border MSAs.

As previously mentioned, due to the oversampling of Hispanics in the HH Survey sample it is possible to estimate the prevalence of various drugs among Hispanics living in the Southwest border. Before reporting the results, it should be noted that Hispanics generally report significantly lower prevalence rates for most

**Table 1.** Licit and illicit drug use in border MSAs and non-border MSAs: 1991

|                                 | Border MSAs<br>(%) | Non-border MSAs<br>(%) |
|---------------------------------|--------------------|------------------------|
| Alcohol                         |                    |                        |
| Lifetime                        | 84.0               | 85.9                   |
| Past year                       | 71.2               | 70.6                   |
| Past month                      | 51.1               | 54.1                   |
| Past week                       | 20.0               | 22.8                   |
| Cigarettes                      |                    |                        |
| Lifetime                        | 64.7               | 72.6                   |
| Past year                       | 26.9               | 31.1                   |
| Past month                      | 19.7               | 26.3*                  |
| Daily                           | 19.3               | 25.5                   |
| Any illicit drug <sup>1</sup>   |                    |                        |
| Lifetime                        | 38.8               | 38.3                   |
| Past year                       | 13.6               | 13.2                   |
| Past month                      | 7.9                | 6.6                    |
| Marijuana/hashish               |                    |                        |
| Lifetime                        | 33.5               | 34.7                   |
| Past year                       | 10.7               | 9.9                    |
| Past month                      | 5.4                | 5.1                    |
| Psychotherapeutics <sup>2</sup> |                    |                        |
| Lifetime                        | 15.3               | 12.5                   |
| Past year                       | 4.7                | 4.4                    |
| Past month                      | 1.0                | 1.6                    |
| Cocaine                         |                    |                        |
| Lifetime                        | 13.0               | 12.4                   |
| Past year                       | 3.3                | 3.2                    |
| Past month                      | 1.6                | 1.0*                   |
| Inhalants                       |                    |                        |
| Lifetime                        | 9.5                | 5.5*                   |
| Past year                       | 3.7                | 1.2                    |
| Past month                      | 2.5                | 0.6                    |
|                                 | (n = 759)          | (n = 27903)            |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the-counter drugs.

\*Difference statistically significant at  $p < 0.05$  level.

Source: 1991 *National Household Survey on Drug Abuse*.

classes of drugs than non-Hispanics in the United States. They report lower usage rates of alcohol (lifetime, past year and past month), cigarettes (lifetime, past month, daily), psychotherapeutics (lifetime and past year), less lifetime experience with illicit drugs overall, and less lifetime marijuana use. Conversely, they report higher rates of past year and past month cocaine use. Comparing Hispanics living in the Southwest border to non-Hispanics in the remainder of the United States (data not shown), these same patterns are replicated.

Perhaps more importantly, Southwest border Hispanics show lower prevalence rates for several

classes of drugs than their Hispanic peers in the remainder of the United States. Table 2 shows that significantly fewer Hispanics residing in the Southwest border report marijuana use. Although only the lifetime prevalence rates are significantly different, border Hispanics report lower prevalence for several other drugs including alcohol and inhalants. In addition, border Hispanics report less overall lifetime "any illicit drug" use. While lifetime cocaine use is lower among border Hispanics, the past year and past month cocaine prevalence measures are higher than those for the remaining United States Hispanic population.

**Table 2.** Licit and illicit drug use among Hispanics in the border area and remaining US Hispanic population: 1991

|                                 | Hispanics in border | Hispanics in remainder of US |
|---------------------------------|---------------------|------------------------------|
| Alcohol                         |                     |                              |
| Lifetime                        | 69.1                | 78.4**                       |
| Past year                       | 60.0                | 65.5                         |
| Past month                      | 43.4                | 47.9                         |
| Past week                       | 17.3                | 20.5                         |
| Cigarettes                      |                     |                              |
| Lifetime                        | 56.9                | 61.1                         |
| Past year                       | 30.5                | 30.3                         |
| Past month                      | 23.1                | 24.9                         |
| Daily                           | 22.0                | 23.9                         |
| Any illicit drug <sup>1</sup>   |                     |                              |
| Lifetime                        | 23.3                | 31.8*                        |
| Past year                       | 10.1                | 12.1                         |
| Past month                      | 5.9                 | 6.4                          |
| Marijuana/hashish               |                     |                              |
| Lifetime                        | 18.4                | 28.3**                       |
| Past year                       | 6.1                 | 9.0**                        |
| Past month                      | 2.2                 | 4.6***                       |
| Psychotherapeutics <sup>2</sup> |                     |                              |
| Lifetime                        | 6.4                 | 9.4                          |
| Past year                       | 2.7                 | 3.4                          |
| Past month                      | 1.3                 | 1.4                          |
| Cocaine                         |                     |                              |
| Lifetime                        | 8.5                 | 11.5*                        |
| Past year                       | 5.8                 | 3.5**                        |
| Past month                      | 3.3                 | 1.4***                       |
| Inhalants                       |                     |                              |
| Lifetime                        | 2.7                 | 5.0*                         |
| Past year                       | 0.9                 | 1.2                          |
| Past month                      | 0.6                 | 0.8                          |
|                                 | (n = 850)           | (n = 7066)                   |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the-counter drugs.

\*Difference statistically significant at  $p < 0.05$  level.

\*\*Difference statistically significant at  $p < 0.01$  level.

\*\*\*Difference statistically significant at  $p < 0.001$  level.

Source: 1991 National Household Survey on Drug Abuse.

#### *Drug use prevalence by gender and age in the Mexico border region*

The sample size for the 1991 HH Survey is sufficiently large to permit estimation of drug use rates among some specified demographic sub-groups. The analysis here is restricted to gender and age, two demographic characteristics which have been shown to be highly correlated with licit and illicit drug use. Age is categorized into four distinct age groups, youth (aged 12–17 years of age), young adults (18–25), middle adults (26–34), and older adults (35 and older).

Generally, the highest rates of both licit and illicit drug use are found among young adults and middle adults. Due to the small sample size in the Southwest border, some low precision estimates are suppressed since they do not meet the requirements for publication. Generally, estimates with a relatively large standard error are suppressed due to our lack of confidence in the estimates. Table 3 shows the results by age group, and Table 4 shows the results by gender.

Recall there were few differences in drug use patterns between the border MSAs and the

Table 3. Licit and illicit drug use in border and non-border MSAs by age group: 1991

|                                 | Border MSAs |           |           |           | Non-border MSAs |            |            |            |
|---------------------------------|-------------|-----------|-----------|-----------|-----------------|------------|------------|------------|
|                                 | 12-17       | 18-25     | 26-34     | > 35      | 12-17           | 18-25      | 26-34      | > 35       |
| Alcohol                         |             |           |           |           |                 |            |            |            |
| Lifetime                        | —           | 90.3      | 96.1      | 85.5      | 46.4            | 90.4       | 92.6*      | 89.1       |
| Past year                       | —           | —         | 90.7      | —         | 40.7            | 83.7       | 82.7*      | 68.2       |
| Past month                      | 15.3        | 76.0      | 71.2      | 43.5      | 21.1            | 65.3       | 64.6*      | 53.2       |
| Past week                       | 5.9         | —         | 23.1      | —         | 5.3             | 25.2       | 26.3       | 23.9       |
| Cigarettes                      |             |           |           |           |                 |            |            |            |
| Lifetime                        | 23.3        | 77.2      | 81.0      | —         | 36.0*           | 71.2       | 76.0       | 77.8       |
| Past year                       | 16.0        | 50.5      | 34.3      | 18.9      | 19.2            | 40.8       | 37.5       | 28.6*      |
| Past month                      | —           | 33.2      | 26.2      | 15.9      | 10.6            | 31.6       | 32.5       | 25.5       |
| Daily                           | —           | 32.8      | 26.2      | 15.2      | 10.1            | 30.6       | 31.5       | 24.7       |
| Any illicit drug <sup>1</sup>   |             |           |           |           |                 |            |            |            |
| Lifetime                        | 14.2        | —         | 63.3      | 24.2      | 20.6            | 56.0       | 62.9       | 28.4       |
| Past year                       | 11.7        | 36.5      | 19.9      | 3.9       | 15.0            | 30.3       | 19.5       | 6.5        |
| Past month                      | 6.3         | 22.6      | —         | 1.3       | 6.7             | 15.7*      | 9.6        | 3.4**      |
| Marijuana/hashish               |             |           |           |           |                 |            |            |            |
| Lifetime                        | 7.6         | 65.1      | 59.8      | 18.3      | 13.7*           | 52.1*      | 60.6       | 25.0       |
| Past year                       | 7.1         | 32.4      | 14.5      | —         | 10.3            | 26.0       | 15.4       | 4.0        |
| Past month                      | —           | 20.2      | —         | —         | 4.6             | 13.5*      | 7.6        | 2.3        |
| Psychotherapeutics <sup>2</sup> |             |           |           |           |                 |            |            |            |
| Lifetime                        | 6.9         | 13.7      | —         | —         | 7.0             | 17.0       | 20.0       | 9.7        |
| Past year                       | 4.8         | 7.7       | 10.7      | 0.9       | 5.1             | 8.1        | 5.7        | 3.0***     |
| Past month                      | 0.7         | —         | —         | 0.7       | 1.6             | 2.2        | 2.1        | 1.2        |
| Cocaine                         |             |           |           |           |                 |            |            |            |
| Lifetime                        | 4.5         | 20.8      | —         | —         | 2.4             | 19.6       | 27.2       | 7.2        |
| Past year                       | 4.5         | 10.4      | 3.7       | —         | 1.5*            | 8.1        | 5.3        | 1.5        |
| Past month                      | 1.8         | 2.2       | 3.2       | —         | 0.4*            | 2.0        | 1.9        | 0.6        |
| Inhalants                       |             |           |           |           |                 |            |            |            |
| Lifetime                        | 7.9         | —         | —         | —         | 6.6             | 11.7       | 9.0        | 2.6        |
| Past year                       | 6.2         | —         | —         | —         | 3.6             | 3.7        | 0.6        | 0.4        |
| Past month                      | 3.6         | —         | —         | —         | 1.6             | 1.5        | 0.4        | 0.3        |
|                                 | (n = 202)   | (n = 171) | (n = 182) | (n = 204) | (n = 6797)      | (n = 6770) | (n = 7052) | (n = 7284) |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the-counter drugs.

—: Low precision, no estimate reported.

\*Difference statistically significant at  $p < 0.05$  level.

\*\*Difference statistically significant at  $p < 0.01$  level.

\*\*\*Difference statistically significant at  $p < 0.001$  level.

Source: 1991 National Household Survey on Drug Abuse.

remaining MSAs in the United States, except for slightly less cigarette use and slightly greater inhalant and cocaine use in the border MSAs. The lower rates in cigarette prevalence are accounted for by the lower prevalence of use among males. The smoking patterns among females in the border MSAs and females in the remaining MSAs are very similar. The lower rates of smoking in the border MSAs are also reflected primarily among those aged 35 years and older. Smoking rates are very similar in the MSAs among the younger age groups, although

youth (aged 12-17 years) report lower rates of ever trying cigarettes. The tendency for slightly greater inhalant use among residents of border MSAs is reflected among youth. However, since the estimates are low precision for the other age groups in the border MSAs, there is uncertainty about how their inhalant use compares. Males also show relatively higher usage rates, but the differences are not statistically significant. The slightly higher past month cocaine use is primarily found among youth.

Marijuana prevalence does not differ between

**Table 4.** Licit and illicit drug use in border MSAs and non-border MSAs by gender: 1991

|                                 | Border MSAs |           | Non-border MSAs |             |
|---------------------------------|-------------|-----------|-----------------|-------------|
|                                 | Males       | Females   | Males           | Females     |
| Alcohol                         |             |           |                 |             |
| Lifetime                        | 90.9        | 77.6      | 89.2            | 82.8        |
| Past year                       | —           | 64.8      | 75.1            | 66.5        |
| Past month                      | 58.9        | 43.9      | 61.3            | 47.5        |
| Past week                       | 26.2        | 14.3      | 31.2            | 15.1        |
| Cigarettes                      |             |           |                 |             |
| Lifetime                        | 71.9        | —         | 76.4            | 69.1        |
| Past year                       | 26.0        | 27.7      | 33.5*           | 28.9        |
| Past month                      | 19.4        | 20.0      | 27.9*           | 24.9        |
| Daily                           | 19.1        | 19.5      | 26.9**          | 24.2        |
| Any illicit drug <sup>1</sup>   |             |           |                 |             |
| Lifetime                        | —           | 40.6      | 42.6            | 34.4        |
| Past year                       | 15.4        | 12.0      | 15.5            | 11.2        |
| Past month                      | 11.0        | 5.0       | 8.1             | 5.3         |
| Marijuana/hashish               |             |           |                 |             |
| Lifetime                        | —           | 32.9      | 39.7            | 30.2        |
| Past year                       | 11.9        | 9.7       | 12.6            | 7.5         |
| Past month                      | 7.7         | 3.2       | 6.9             | 3.5         |
| Psychotherapeutics <sup>2</sup> |             |           |                 |             |
| Lifetime                        | 13.5        | 17.0      | 13.5            | 11.5        |
| Past year                       | 3.6         | 5.7       | 4.3             | 4.6         |
| Past month                      | 0.4         | 1.6       | 1.4*            | 1.7         |
| Cocaine                         |             |           |                 |             |
| Lifetime                        | 15.3        | 11.0      | 15.5            | 9.6         |
| Past year                       | 4.4         | 2.4       | 4.4             | 2.1         |
| Past month                      | 2.1         | 1.2       | 1.5             | 0.6         |
| Inhalants                       |             |           |                 |             |
| Lifetime                        | 13.2        | 6.1       | 7.0             | 4.2         |
| Past year                       | 6.1         | 1.4       | 1.5             | 0.9         |
| Past month                      | —           | 0.8       | 0.7             | 0.5         |
|                                 | (n = 307)   | (n = 452) | (n = 12358)     | (n = 15545) |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the counter drugs.

—: Low precision, no estimate reported.

\*Difference statistically significant at  $p < 0.05$  level.

\*\*Difference statistically significant at  $p < 0.01$  level.

\*\*\*Difference statistically significant at  $p < 0.001$  level.

Source: 1991 *National Household Survey on Drug Abuse*.

the populations of the border and non-border MSAs. However, the overall picture disguises an age pattern which finds youth a little less likely and young adults a little more likely to use marijuana. Young adults aged 18–25 years also show a tendency toward higher rates of “any illicit drug” use, although most of the differences are not statistically significant. The pattern among youth is more mixed, with youth residing in the border MSAs showing lower overall rates

of “any illicit drug” use, but not statistically significantly lower. The border youth show lower rates of marijuana use, but only the life-time measure is significantly lower. Significantly fewer border youth report any (lifetime) cigarette smoking. However, they report statistically significantly higher rates of cocaine use.

The drug usage patterns among middle adults, or those in the 26–34-year-old age range, are very similar in the border MSAs and non-border

**Table 5.** Licit and illicit drug use among border Hispanics and remaining US Hispanic population by age group: 1991

|                                 | Hispanics in border |           |           |           | Hispanics in remainder of US |            |            |            |
|---------------------------------|---------------------|-----------|-----------|-----------|------------------------------|------------|------------|------------|
|                                 | 12-17               | 18-25     | 26-34     | > 35      | 12-17                        | 18-25      | 26-34      | > 35       |
| Alcohol                         |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 37.5                | 82.2      | 87.1      | —         | 47.2                         | 82.1       | 85.6       | 82.6       |
| Past year                       | 34.7                | —         | 81.2      | 50.9      | 41.0                         | 71.7       | 73.6*      | 65.9*      |
| Past month                      | 18.0                | —         | 63.8      | 37.0      | 23.2                         | 52.3       | 56.5       | 49.0**     |
| Past week                       | 4.7                 | 27.3      | 24.8      | 13.9      | 7.1                          | 18.7       | 22.4       | 24.4*      |
| Cigarettes                      |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 23.4                | 61.0      | 79.0      | 57.1      | 33.3**                       | 57.7       | 68.1***    | 67.3*      |
| Past year                       | 12.7                | 30.4      | 44.3      | 30.4      | 17.3                         | 33.4       | 33.5**     | 31.2       |
| Past month                      | 3.7                 | 23.2      | 32.6      | 26.0      | 9.5**                        | 25.0       | 28.1       | 27.8       |
| Daily                           | 3.7                 | 22.6      | 31.8      | 24.1      | 8.5*                         | 23.8       | 27.4       | 26.8       |
| Any illicit drug <sup>1</sup>   |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 9.2                 | —         | 38.3      | 14.2      | 19.2**                       | 40.3       | 42.6       | 26.1**     |
| Past year                       | 7.0                 | 19.8      | 14.0      | 4.8       | 14.2**                       | 21.1       | 13.0       | 7.2        |
| Past month                      | 5.1                 | 9.2       | 6.8       | 4.1       | 8.4                          | 11.9       | 5.8        | 3.8        |
| Marijuana/hashish               |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 4.1                 | —         | 33.2      | 9.1       | 13.4***                      | 36.4       | 40.0       | 23.0***    |
| Past year                       | 3.5                 | 14.1      | 9.7       | —         | 10.3***                      | 17.2       | 9.3        | 4.9        |
| Past month                      | 1.5                 | 5.7       | 3.7       | —         | 5.1**                        | 9.5        | 4.2        | 2.6        |
| Psychotherapeutics <sup>2</sup> |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 4.7                 | —         | 11.1      | 4.9       | 5.8                          | 11.8       | 11.0       | 8.6        |
| Past year                       | 4.0                 | —         | 2.9       | 1.8       | 4.2                          | 6.8        | 2.9        | 2.0        |
| Past month                      | 0.9                 | —         | —         | 1.4       | 1.8                          | 2.3        | 1.4        | 0.9        |
| Cocaine                         |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 2.9                 | —         | 15.5      | 3.2       | 3.8                          | 14.9       | 19.0       | 8.3***     |
| Past year                       | 2.7                 | 13.0      | 7.7       | 2.7       | 3.0                          | 6.4*       | 4.2**      | 2.1        |
| Past month                      | 2.3                 | 3.7       | 5.0       | 2.7       | 1.2                          | 2.6        | 1.7*       | 0.8*       |
| Inhalants                       |                     |           |           |           |                              |            |            |            |
| Lifetime                        | 4.3                 | —         | 2.6       | 1.0       | 7.0                          | 6.7        | 6.7**      | 2.8        |
| Past year                       | 2.2                 | 1.2       | —         | —         | 4.3                          | 1.5        | 0.6        | 0.5        |
| Past month                      | 1.4                 | —         | —         | —         | 3.1                          | 0.8        | 0.3        | 0.3        |
|                                 | (n = 222)           | (n = 191) | (n = 199) | (n = 236) | (n = 1807)                   | (n = 1726) | (n = 1763) | (n = 1770) |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the-counter drugs.

—: Low precision, no estimate reported.

\*Difference statistically significant at  $p < 0.05$  level.

\*\*Difference statistically significant at  $p < 0.01$  level.

\*\*\*Difference statistically significant at  $p < 0.001$  level.

Source: 1991 *National Household Survey on Drug Abuse*.

MSAs. The only exception is that more border MSA residents report alcohol use. Among older adults, those aged 35 years and older, there is a tendency for residents of the border MSAs to report lower levels of cigarette, "any illicit drug", and "any psychotherapeutic drug" use. There are several significant differences across the various drug categories, but none are significant across all three prevalence periods. Many of the prevalence estimates for older adults are suppressed due to low precision.

In summary, the overall pattern of drug use in the border MSAs is very similar to that found in the non-border MSAs. However, the overall pattern tends to mask the higher drug use rates found among young adults. There are few differences by gender other than the previously mentioned cigarette smoking. Males exhibit slightly greater drug use than females, as is the general pattern in the United States. The only drug and prevalence period for which males report lower prevalence rates than

**Table 6.** Licit and illicit drug use among Hispanics in the border area and remaining US Hispanic population by gender: 1991

|                                 | Hispanics in border |           | Hispanics in remainder of US |            |
|---------------------------------|---------------------|-----------|------------------------------|------------|
|                                 | Males               | Females   | Males                        | Females    |
| Alcohol                         |                     |           |                              |            |
| Lifetime                        | 85.3                | 57.7      | 86.1                         | 70.5**     |
| Past year                       | 78.7                | 46.7      | 74.6                         | 56.0*      |
| Past month                      | 64.9                | 28.3      | 59.7                         | 35.8       |
| Past week                       | 33.7                | 5.6       | 31.1                         | 9.6***     |
| Cigarettes                      |                     |           |                              |            |
| Lifetime                        | 70.4                | 47.4      | 70.8                         | 51.1       |
| Past year                       | 37.3                | 25.6      | 35.7                         | 24.7       |
| Past month                      | 29.3                | 18.7      | 29.8                         | 19.8       |
| Daily                           | 28.8                | 17.2      | 28.6                         | 19.2       |
| Any illicit drug <sup>1</sup>   |                     |           |                              |            |
| Lifetime                        | —                   | 16.0      | 37.7                         | 25.8       |
| Past year                       | 14.3                | 7.1       | 15.6                         | 8.6        |
| Past month                      | 7.1                 | 5.0       | 7.8                          | 4.9        |
| Marijuana/hashish               |                     |           |                              |            |
| Lifetime                        | 29.4                | 10.7      | 34.9                         | 21.5***    |
| Past year                       | 10.2                | 3.2       | 12.7                         | 5.2*       |
| Past month                      | 3.1                 | 1.5       | 6.2**                        | 3.0*       |
| Psychotherapeutics <sup>2</sup> |                     |           |                              |            |
| Lifetime                        | 8.5                 | 4.9       | 10.6                         | 8.1*       |
| Past year                       | 2.9                 | 2.6       | 3.2                          | 3.7        |
| Past month                      | 0.8                 | 1.7       | 1.3                          | 1.5        |
| Cocaine                         |                     |           |                              |            |
| Lifetime                        | 14.1                | 4.5       | 15.2                         | 7.6**      |
| Past year                       | 9.2                 | 3.4       | 4.8**                        | 2.1        |
| Past month                      | 4.6                 | 2.5       | 1.8*                         | 1.0*       |
| Inhalants                       |                     |           |                              |            |
| Lifetime                        | 4.1                 | 1.7       | 6.5                          | 3.5        |
| Past year                       | 1.6                 | 0.5       | 1.2                          | 1.2        |
| Past month                      | 1.3                 | 1.5       | 0.7                          | 0.8*       |
|                                 | (n = 343)           | (n = 507) | (n = 3187)                   | (n = 3879) |

<sup>1</sup>Non-medical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP), heroin or psychotherapeutics at least once.

<sup>2</sup>Non-medical use of any prescription-type stimulant, sedative, tranquilizer or analgesic; does not include over-the counter drugs.

—: Low precision, no estimate reported.

\*Difference statistically significant at  $p < 0.05$  level.

\*\*Difference statistically significant at  $p < 0.01$  level.

\*\*\*Difference statistically significant at  $p < 0.001$  level.

Source: 1991 *National Household Survey on Drug Abuse*.

females is past month psychotherapeutic drug use.

#### *Drug use prevalence by gender and age among Hispanics residing in the Mexico border region*

You will recall that there are several significant differences in drug use patterns among Hispanics in the Southwest border compared to Hispanics in the remainder of the United States. Marijuana use is much lower among border Hispanics, as is

lifetime cocaine use. The lifetime measure of alcohol, inhalants and the summary measure of "any illicit drug" are lower among border Hispanics. Past year and past month rates tend to be lower, but are not statistically significant. However, past year and past month cocaine use are reported at significantly higher rates among border Hispanics. Tables 5 and 6 show drug use prevalence rates by age group and gender, respectively, for Hispanics in the Southwest border

in comparison to the remaining US Hispanic population.

Marijuana use is lower among border Hispanics primarily because there are fewer female users. Only past month rates are significantly lower among males too. Marijuana use is also lower among youth (12-17 years) and older adults (aged 35 years and older). The higher rates of cocaine use were due to the significantly higher rates of use among middle adults and, to a lesser extent, both young and older adults. Hispanic males residing near the border also report a significantly higher rate of past year and past month cocaine use than Hispanic males in the remainder of the United States. Conversely, Hispanic females residing near the border report significantly lower lifetime cocaine use, although they report higher past month usage rates than Hispanic females in the remainder of the United States. Although only the life-time measure of alcohol use is lower among border Hispanics, alcohol use among females is significantly lower for all prevalence periods except the past month. Alcohol use is also lower among older border Hispanic adults, although middle adults show a tendency towards greater alcohol use.

Cigarette use is not significantly different among Hispanics residing near the border and the remaining Hispanic population, but this pattern disguises some age group differences. Hispanic border youth show significantly lower cigarette use. Older adults report lower lifetime cigarette use, but middle adults aged 26-34 years report significantly higher lifetime and past year cigarette use.

The general pattern evident among Hispanics in the Southwest border is toward lower rates for marijuana, and somewhat higher rates for cocaine. Youth show a general tendency toward lower use for all classes of drugs except cocaine, with significantly lower prevalence rates for cigarettes, marijuana, and the summary measure of "any illicit drug". There are no significant differences in drug use prevalence rates among young adults, except for higher past year cocaine usage rates among border Hispanics. Middle adults, or those aged 26-34 years, show significantly greater cigarette and cocaine use. They also report significantly greater lifetime inhalant use and past year alcohol use. Older Hispanic adults residing near the border (aged 35 years and older), are less likely to use most classes of licit and illicit drugs. They report

significantly less alcohol use, and less lifetime experience with cigarettes, marijuana, cocaine and the overall measure of "any illicit drug" use. Large differences are also found in drug use patterns between border Hispanic females and Hispanic females in the remainder of the United States. Border females report significantly less alcohol and marijuana use. They also report significantly less lifetime experience with psychotherapeutic drugs and cocaine. The higher past year and past month cocaine prevalence rates found for the Southwest border Hispanic population is primarily accounted for by males, although females also show a propensity towards greater use. The lower marijuana use among the Hispanic border population is also primarily attributable to the lower rates of use among females.

### Discussion

The goal of this paper is to provide some assessment of drug use in the Southwest border in the United States—an area designated by the Office of National Drug Control Policy as a High Intensity Drug Trafficking Area (HIDTA). The assessment was achieved by examining data from the 1991 National Household Survey on Drug Abuse (HH Survey), whose sampling base covered most of the urbanized population living in areas adjacent to the border. The overall HH Survey sample in the border can also adequately address drug use patterns among the Hispanic population residing in close proximity to the border. However, these data are based on small sample sizes and this, coupled with the above limitations and the relative rarity of illicit drug use, make these data less than ideal. However, they begin to fill a gap in our knowledge about the nature and extent of licit and illicit drug use in a drug trafficking area.

Given the proliferation of risk factors associated with drug abuse plus its HIDTA status, the Southwest border would be expected to have higher rates of illicit drug use. In spite of this, there are few differences in rates of licit and illicit drug use among the population in the Southwest border MSAs in comparison to the population residing in MSAs throughout the remainder of the United States. The Hispanic border population also shows similar patterns to the remaining US Hispanic population, but are actually much less likely to report illicit drug use. They

reported lower levels of marijuana use, but they were more likely to report cocaine use. Nevertheless, the overall similarities mask the lower rates among youth and older adults, which is offset by the higher rates among young and middle-aged adults. The lower rates of alcohol and marijuana use among Southwest border Hispanics are almost entirely attributable to lower rates of use among Hispanic females and those aged 35 years and older.

The fact that Mexico is a "supplier" nation and that the Mexico border is a known entry point for illicit drugs into the United States does not appear to significantly increase the probability of risk for using illicit drugs in the Southwest border region of the United States. It is important to note that this study did not directly measure supply or availability. Because of rapid transshipment, availability may not be any greater in this area than in other areas of the United States. Drug suppliers may be more interested in other potential markets away from the border area. "Availability" is a complex construct that includes not only the physical access to drugs, but also psychological and social availability. The mere presence of drugs in a geographical region does not translate into increased use unless other risk factors are also present. The presence of a profundity of risk factors in the border area makes it even more surprising that drug use rates are relatively low.

This study is certainly not definitive, but suggests that residents of this HIDTA are not using drugs at higher rates than others in the United States. The 1991 Household Survey oversampled six MSAs, three of which (New York, Miami and Los Angeles) were also designated as HDTAs by the Office of National Drug Control Policy. There was a tendency towards slightly higher drug use among residents of the Los Angeles MSA, but there was less drug use among residents of the Miami MSA (Hughes, 1992). New York exhibited drug prevalence rates similar to those for the United States. These analyses do not suggest a clear relationship between drug use prevalence rates and designation as a HIDTA.

In fact, there is a paucity of research between accessibility of alcohol and other drugs in a society and the prevalence of their use. The United States policy, which emphasizes reducing the supply of drugs in the country, is loosely based on the economic theory of the French

demographer, Sully Ledermann. The Ledermann curve postulates that the incidence of alcohol-related problems in society changes in relation to overall alcohol availability and consumption (Ledermann, 1956). The relationship between drug availability and use is rarely questioned, and drives policy in the United States resulting in practices such as designating areas as High Intensity Drug Trafficking Areas. Rarely has the relationship between drug trafficking and drug availability or use been scrutinized by rigorous research. This study does not address those relationships in any great detail but, at the societal level, our analyses suggest few connections between drug trafficking in an area and higher drug prevalence rates in that area. On the other hand, there may be other structural or cultural factors evident in this area that serve to reduce drug use. There is evidence that traditional Hispanic culture is a moderating influence in the use of illicit drugs, especially the importance of the family (De la Rosa & Gfroerer, 1993). The protective influence of the family may be more proximal than the risk factors of drug trafficking, availability and lower socio-economic status.

Youth (12-17 years) residing in the border MSAs generally reported less licit and illicit drug use than youth residing in other large MSAs, but only the differences between Hispanic youth were significant. In contrast, the young adult population (18-25 years) in the border MSAs shows a tendency towards greater use of alcohol, tobacco, marijuana and "any illicit drug" use. However, comparing the Southwest border Hispanic population in this age range with their Hispanic peers in the remainder of the United States shows great similarity in their patterns of drug use. Somewhere between youth and young adulthood, the Southwest border population "catches up" or exceeds the drug use prevalence rates of their respective comparison groups in the remainder of the United States. This suggests that the protective influence of the family is eroded as youth mature and begin to move away from the family. With close to half of the Southwest border population 20 years of age or younger, the data provide some justification for concern. Young adults comprise the age group with the highest rates of licit and illicit drug use overall. As they age young adults may continue their drug use, especially if they continue to be beset with a variety of formidable barriers found for this age group, including poverty and unemployment.

By the year 2010, Hispanics are expected to become the largest minority group in the United States. Population growth in the Southwest border area has been phenomenal. There are 11.8 million Hispanics of Mexican descent in the United States with the majority of that population living in the border area (Crespin, 1994). The growth has largely been due to both the legal and illegal immigration of Mexicans into the United States. The population growth rate has been substantially higher in the four border states than in the remainder of the country, and the population growth in the counties adjoining the border has outstripped those in the remainder of the state (Fernandez, 1991). Future studies need to examine how traditional Hispanic cultural values, especially familism, can be retained as acculturation of both legal and illegal Mexican immigrants occurs.

Results from this study could be examined relative to the results obtained by the Dirección General de Epidemiología within the Mexican Ministry of Health, which oversampled five areas in their Northern border in their most recent National Household Survey. Data extrapolated from the 1988 Mexican Household Survey suggests that although the rates of illicit drug use for Mexico are much lower than the United States, the highest prevalence rates in Mexico are found in the Northern states that border the United States (Dirección General de Epidemiología, 1990). The Information Reporting System on Drugs (IRSD), developed in 1986 by the Mexican Institute of Psychiatry recently expanded its operation to two border cities (Ortiz, Ramero & Rodriguez, 1992). Comparing cocaine use in the border cities to Mexico City showed that the user population is younger and more involved in drugs. This finding lends support to other research results (Castro-Sariñana & Chávez, 1986; Zúñiga & Palmer, 1987; Dirección General de Epidemiología, 1990; De la Serna *et al.*, 1991) indicating that the northern states are high-risk areas.

Since 1971, when President Richard Nixon delivered an address to the US Congress, the approach to dealing with illicit drug use within the US government has essentially been a dichotomized approach of "demand" and "supply" reduction efforts (Nixon, 1971). Demand for drugs is measured by understanding the nature and magnitude of use. Prevention, treatment and rehabilitation are the usual mechanisms to ad-

dress demand. Availability is the usual measure of supply. Supply efforts are based on the premise that stopping the production and trafficking of illegal substances reduces availability to potential users. With reduced supply comes supposedly concomitant decreases in drug abuse and addiction and the sequelae associated with these problems such as violence, HIV/AIDS and homelessness. Our analyses suggest that the relationship between supply and use is not clear-cut. Adding "supply" to the number of other risk factors present among the Southwest border population would suggest higher drug use prevalence in this area, but, instead, this border population displays rates of drug use more noteworthy for their similarities to their respective comparison groups than for their differences. However, there is a troubling increase in drug use prevalence between youth and young adulthood among Southwest border residents. There is also a disproportionately large youthful population in the Southwest border area. This and the variety of risk factors argue for greater research and prevention efforts in this area.

Although this study is about drug use in the Southwest border of the United States, there are implications that reach beyond this area. The most obvious is that drug trafficking areas do not necessarily have higher rates of drug use among the population. Drugs trafficking may not necessarily translate into increased drug availability. It appears that drug use rates in an area are impacted by a number of factors beyond trafficking and availability. The Mexican National Household Survey shows much lower rates of drug use than found in the United States, even though it is estimated that Mexico supplies approximately 60% of the foreign-grown marijuana and more than 20% of the heroin reaching US markets (NNICC, 1993; Bureau of International Narcotics Matters, 1994). It is obvious that we have to look beyond supply, trafficking and availability in understanding the drug use patterns in an area. Other structural, cultural and individual factors undoubtedly contribute to drug use patterns.

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