Alcohol Use and Related Problems Along the United States-Mexico Border

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The southern border the United States shares with Mexico has been of particular interest to alcohol researchers because of the presence of multiple risk factors conducive to alcoholrelated problems. The border region spans 2,000 miles and is home to more than 7 million U.S. residents of predominantly Mexican-American ethnicity.

Compared with other areas of the United States, border residents have higher rates of poverty, undereducation, and unemployment (Gerber 2009; Soden 2006). They also are at elevated risk for multiple negative health outcomes, including tuberculosis, hepatitis A, diabetes, and liver disease (Centers for Disease Control and Prevention 2008a,b; Pan American Health Organization 2007; Texas Comptroller of Public Accounts 2003) and are differentially affected by crime related to illegal drug trafficking (Office of National Drug Control Policy 2011).

The border also separates two distinct geopolitical areas with longstanding differences in alcohol policy. In Mexico, the legal drinking age is 18, compared with 21 in the United States, and alcohol is comparatively inexpensive. The many Mexican bars within walking distance of the border cater primarily to people in younger age-groups who travel from U.S. border towns to Mexico specifically to capitalize on the cheap alcohol and easier access (Lange and Voas 2000; Lange et al. 2002).

Consistent with the risk factors described above, early studies of alcohol use within border populations showed that border residents were at higher risk for some alcohol outcomes compared with people who do not live near the border. However, the findings

varied depending on the following factors:

- The populations studied—for example, Texas versus California;
- The comparison group used—for example, U.S. Hispanics versus U.S. Mexican Americans; and
- The specific alcohol outcome in question—for example, alcohol use versus alcohol-related problems (Substance Abuse and Mental Health Services Administration 2004; Wallisch 1998; Wallisch and Spence 2006; see also Harrison and Kennedy 1996; Holck et al. 1984).

Demonstrating the difficulties of finding good comparison groups, one study (Wallisch and Spence 2006) showed that, compared with more densely populated areas, rates of binge drinking and alcohol dependence tend to be higher in colonias, which are unregulated and sparsely populated settlements within the U.S. border region that often lack basic public services.

In more recent studies, researchers have drawn samples from geographic areas spanning the entire border region, and they have shifted the focus to comparisons between more ethnically homogeneous subgroups on and off the border, with the goal of clarifying the precise risk conferred by living in the border region. In general, these studies find that drinking levels are higher in U.S. border regions, regardless of ethnicity, compared with non-border regions and are particularly elevated among younger age-groups (Caetano et al. 2012; Liu 2012). Similar patterns

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are seen for alcohol-problem outcomes such as abuse, dependence, and social problems (Caetano et al. 2013*c*; Vaeth et al. 2012). Despite these findings of generally higher levels of alcohol use and related problems, in general, rates of driving under the influence do not differ on and away from the border (Caetano et al. 2013b), and border residents do not report more treatment seeking for alcohol-related problems than non-border residents (Reingle et al. 2014). Both findings, however, are consistent with risks that primarily are restricted to younger age-groups in the region, particularly considering that younger age-groups have not had time to consume large cumulative quantities of alcohol that lead to chronic alcohol problems and typically precede treatment seeking.

One factor that clearly contributes to elevated alcohol-related risks along the U.S. side of the border is the ability to temporarily cross into Mexico to drink. This leads to generally higher annual levels of drinking and alcohol-related problems on the U.S. side of the border, particularly among younger agegroups who deliberately exploit Mexico's lower legal drinking age. For example, among current drinkers living on the U.S. side of the border, those who reported any drinking in Mexico in the past year tended to be younger and reported significantly more alcohol intake (measured in volume), higher rates of binge drinking, and higher rates of alcohol problems than those who reported drinking only in the United States (Caetano et al. 2013*a*; Clapp et al. 2001). Many of these individuals cross the border on foot, spend the evening patronizing the local bars, and return to their cars on the U.S. side in the early hours of the morning (Lange and Voas 2000). When

bars in the border city of Juárez, Mexico, shifted to an earlier closing time (from 5 a.m. to 2 a.m.), the percentage of people crossing back into the United States with a positive blood alcohol content dropped by 89 percent (Voas et al. 2002). A second factor associated with higher alcohol-related risks among U.S. border residents seems to be drinking in bars, as opposed to elsewhere, whether on the Mexico side or the U.S. side of the border. Among U.S. border residents, more than 75 percent report not traveling to Mexico at all in the past year, and young adult border residents report more drinking than other groups, regardless of whether they cross into Mexico to drink (Caetano et al. 2012, 2013a). Surprisingly, young adult border residents who reported not traveling to Mexico to drink actually reported slightly higher rates of past-year bar attendance (75 percent) than those who reported drinking in Mexico (69 percent), both of which were higher than rates of past-year bar attendance among non-border young adults (59 percent). Moreover, the specific pattern of differences on and off the border in drinking (Mills et al. 2012, 2014) and acute alcohol problems are precisely mirrored in, and are statistically explained by, patterns of bar attendance across these areas. These effects cannot be attributed to age or border/non-border differences in the ways people think about drinking (e.g., more liberal drinking attitudes) or perceptions of broad neighborhood characteristics (e.g., perceptions of violence). Bar attendance seems to be a key contributing factor to elevated alcohol-related risks among the border region's younger population. Therefore, future research would benefit from identifying characteristics of these on-premise

alcohol outlets in border areas, including their geographic distribution (Berke el at. 2010; Pollack et al. 2005; Romley et al. 2007) and characteristics of their clientele (Graham et al. 2006).

In sum, U.S. residents living near the country's border with Mexico are at higher risk for alcohol use and related consequences. This risk is accentuated among young people and is tightly connected to this group's higher frequency of bar attendance, whether on the U.S. or Mexico side of the border. Travelling to Mexico to drink a major focus of early border research—contributes to this risk but falls short of fully explaining it. U.S. policymakers should be aware that high levels of alcohol-related risks on the border are not simply a south-of-the-border phenomenon. To a large extent, they reflect factors within U.S. borders that are under their direct control.

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References

Berke, E.K.; Tanski, S.E.; Demidenko, E.; et al. Alcohol retail density and demographic predictors of health disparities: A geographic analysis. *American Journal of Public Health* 100(10):1967–1971, 2010. PMID: 20724696

Caetano, R.C.; Mills, B.A.; and Vaeth, P.A.C. Alcohol consumption and binge drinking among U.S.-Mexico border and non-border Mexican Americans. *Alcoholism: Clinical and Experimental Research* 36(4):677–685, 2012. PMID: 22017228

Caetano, R.C.; Mills, B.A.; and Vaeth, P.A.C. Alcohol use among Mexican American U.S.—Mexico border residents: Differences between those who drink and who do not drink in Mexico. *Addictive Behaviors* 38(4):2026–2031, 2013*a*. PMID: 23391852

Alcohol Use and Related Problems Along the United States-Mexico Border (continued)

Caetano, R.C.; Vaeth, P.A.C.; and Mills, B.A. Rates and predictors of DUI among U.S.-Mexico border and non-border Mexican Americans. Accident Analysis and Prevention 59:289-295, 2013b. PMID: 23845408

Caetano, R.C.; Vaeth, P.A.C.; Mills, B.A.; and Rodriguez, L.A. Alcohol abuse and dependence among U.S.-Mexico Border and Non-Border Mexican Americans. Alcoholism: Clinical and Experimental Research 37(5):847-853, 2013c. PMID: 23278433

Centers for Disease Control and Prevention (CDC). Morbidity Trend Tables United States: Tuberculosis Cases. Atlanta: CDC, 2008a. Available at: http://www. cdc.gov/tb/statistics/reports/2008/pdf/4_MorbTrend. pdf. Accessed May 29, 2013.

Centers for Disease Control and Prevention (CDC). Reported Cases of Acute Viral Hepatitis, by Type and Year, United States, 1966-2003. Atlanta: CDC, 2008b. Available at: http://www.cdc.gov/hepatitis/ PDFs/US-surv_table.pdf. Accessed May 20, 2013.

Clapp, J.D.; Voas, R.B.; and Lange, J.E. Cross-border college drinking. Journal of Safety Research 32(3):299-307, 2001.

Gerber, J. Developing the U.S.-Mexico Border Region for a Prosperous and Secure Relationship: Human and Physical Infrastructure Along the U.S. Border With Mexico. Houston: James A. Baker III Institute for Public Policy of Rice University, 2009.

Graham, K.; Bernards, S.; Osgood, D.W.; and Wells, S. Bad nights or bad bars? Multi-level analysis of environmental predictors of aggression in late-night large-capacity bars and clubs. Addiction 101(11): 1569-1580, 2006. PMID: 17034436

Harrison, L.D.; and Kennedy, N.J. Drug use in the high intensity drug trafficking area of the US Southwest border. Addiction 91(1):47-61, 1996.

Holck, S.E.; Warren, C.W.; Smith, J.C.; and Rochat, R.W. Alcohol consumption among Mexican American and Anglo women: Results of a survey along the

U.S.-Mexico border. Journal of Studies on Alcohol 45(2):149-154, 1984. PMID: 6727375

Lange, J.E.; and Voas, R.B. Youth escaping limits on drinking: Binging in Mexico. Addiction 95(4):521-528, 2000. PMID: 10829328

Lange, J.E.; Voas, R.B.; and Johnson, M.B. South of the border: A legal haven for underage drinking. Addiction 97(9):1195-1203, 2002. PMID: 12199835

Liu, L.Y. 2010 Texas School Survey of Substance Use Among Students: Grades 7-12. Austin, TX: Texas Department of State Health Services, August 2012.

Mills, B.A.; Caetano, R.C.; and Vaeth, P.A.C. What explains higher levels of drinking among Mexican Americans on the U.S-Mexico border? Alcoholism: Clinical and Experimental Research 36(6):S258,

Mills, B.A.; Caetano, R.; and Vaeth, P.A.C. Crossborder policy effects on alcohol outcomes: Drinking without thinking on the U.S.-Mexico border? Alcoholism: Clinical and Experimental Research 38(11):2809-2815, 2014. PMID: 25336299

Office of National Drug Control Policy. High Intensity Drug Trafficking Areas (HIDTA) Program: Report to Congress. Washington, DC: Executive Office of the President, ONDCP, 2011. Available at: http://www. whitehouse.gov/ondcp/high-intensity-drug-trafficking-areas-program. Accessed May 20, 2013.

Pan American Health Organization (PAHO). United States-Mexico border area. In: Health in Americas, Volume II—Countries. Washington, DC: PAHO, 2007, pp. 733-744.

Pollack, C.E.; Cubbin, C.; Ahn, D.; and Winkleby, M. Neighbourhood deprivation and alcohol consumption: Does the availability of alcohol play a role? International Journal of Epidemiology 34(4):772-780, 2005. PMID: 15737966

Reingle Gonzalez, J.M.; Caetano, R.; Mills, B.A.; and Vaeth, P.A. An assessment of individual-level factors associated with alcohol treatment utilization among

Mexican Americans, Journal of Substance Abuse Treatment 47(5):347-352, 2014. PMID: 25113028

Romley, J.A.; Cohen, D.; Ringel, J.; and Strum, R. Alcohol and environmental justice: The density of liquor stores and bars in urban neighborhoods in the United States. Journal of Studies on Alcohol and Drugs 68(1):48-55, 2007. PMID: 17149517

Soden, D.J. At the Cross Roads: US/Mexico Border Countries in Transition. El Paso, TX: Institute for Policy and Economic Development, 2006. Available at: http://digitalcommons.utep.edu/iped_techrep/27. Accessed May 20, 2013.

Substance Abuse and Mental Health Services Administration (SAMHSA). Alcohol Dependence or Abuse and Age at First Use [The NSDUH Report]. Rockville, MD: U.S. Department of Health and Human Services, SAMHSA, Office of Applied Studies, 2004.

Texas Comptroller of Public Accounts. The Border: Snapshot. Washington, DC: U.S. Bureau of Labor Statistics, 2003. Accessed May 20, 2013.

Vaeth, P.A.C.; Caetano, R.; Mills, B.A.; and Rodriguez, L.A. Alcohol-related social problems among Mexican Americans living in U.S.-Mexico border and nonborder areas. Addictive Behaviors 37(8):998-1001, 2012. Available at: www.ncbi.nlm.nih.aov/pmc/ articles/PMC3378374. Accessed January 11, 2016.

Voas, R. B.; Lange, J. E.; and Johnson, M. B. Reducing high-risk drinking by young Americans south of the border: The impact of a partial ban on sales of alcohol. Journal of Studies on Alcohol 63(3):286-292, 2002. PMID: 12086129

Wallisch, L.S. The 1996 Survey of Substance Use on the Texas-Mexico Border and in Colonias. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1998.

Wallisch, L.S.; and Spence, R.T. Alcohol and drug use, abuse, and dependence in urban areas and colonias of the Texas-Mexico border. Hispanic Journal of Behavioral Sciences 28(2):286-307, 2006.