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Off-Premise Alcohol Outlets On and Around Tribal Land: Risks for Rural California Indian Youth

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Abstract

Investigating the alcohol environment for rural American Indian youth, we conducted 70 interviews with leading members and youth representatives of nine Southern California tribes. We also conducted brief observations in all 13 stores licensed to sell alcohol on and close to the reservation lands of the nine tribes. Underage youth may obtain alcoholic beverages at stores either directly through illegal sales to minors or indirectly through social sources. Stores are also environments within which alcoholic beverages and heavy drinking may become normalized for youth. Limitations and implications for convenience store-based prevention research on alcohol retail environment for youth in rural population areas are discussed.

Keywords

alcohol; availability; environmental prevention; American Indian; adolescents; qualitative

INTRODUCTION

Adolescence is a key period in the development of disordered use of alcohol and other substances. U.S. survey research shows that alcohol use and binge drinking steadily increase and then level off at age 21 years (Masten, Faden, Zucker, & Spear, 2009). Consequently, problem drinking in adulthood may be stemmed by intervening on underage drinking. Compared to other U.S. populations, American Indians are particularly at risk for high-risk drinking and alcohol use disorders (Chartier & Caetano, 2010) and the U.S. Indian Health Service has cited alcoholism as the most urgent health problem facing American Indians and Alaska Natives (Burns, 1995; U.S. Indian Health Service, 1977, 1982). Early initiation of alcohol use and early intoxication have been associated with increased risks of subsequent alcohol dependence (Grant, Stinson, & Harford, 2001; Hingson, Heeren, & Winter, 2006), including among American Indians (Ehlers, Slutske, Gilder, Lau, & Wilhelmsen, 2006). Environmental approaches to the prevention of underage drinking that focus on the alcohol

retail environment are highly effective in reducing underage alcohol use and related problems (Treno, Gruenewald, Lee, & Remer, 2007; Treno & Lee, 2002). Restrictions on sales to youth and enforcement of responsible beverage service can reduce youth access by increasing the social costs of youths' obtaining alcohol, both for youths and for adults who supply alcohol to them. In addition, these policies and their enforcement reinforce social norms against underage drinking (Grube, 2009; Grube & Nygaard, 2001).

Although many studies have sought to identify the etiology and progression of disordered alcohol use among American Indians, Alaska Natives, First Nations, and other colonized indigenous peoples (May & Gossage, 2001; Whitesell, Beals, Crow, Mitchell, & Novins, 2012; Young & Joe, 2009), few studies have addressed access to alcohol by Indigenous youth. One recent study indicated that compared to White youth, American Indian youth in rural Montana were more likely to obtain alcohol from social sources and from stores (Friese, Grube, Seninger, Paschall, & Moore, 2011).

In addition to potential sources for obtaining alcohol, stores selling alcohol represent risks for youth exposure to alcohol products and to alcohol advertising, which has been associated with underage drinking (Collins, Ellickson, McCaffrey, & Hambarsoomians, 2005; Ellickson, Collins, Hambarsoomians, & McCaffrey, 2005; Grube & Wallack, 1994; Smith & Foxcroft, 2009). Alcohol industry targeting of youth, women, low-income communities, and ethnic minority communities through advertising and distribution of alcohol products is well documented (Alaniz, 1998; McCreanor, Barnes, Gregory, Kaiwai, & Borell, 2005; Moore, Williams, & Qualls, 1996; Mosher, 2005). However, there are surprisingly few scientific reports of the alcohol retail environment at all, including for youth. Compared to studies of the tobacco retail environment that have assessed types of available products, costs, advertising, and product placement in stores (Cantrell et al., 2013; Frick, Klein, Ferketich, & Wewers, 2012; Ruel et al., 2004; Slater, Chaloupka, & Wakefield, 2001; Slater, Giovino, & Chaloupka, 2008; Wakefield et al., 2002), including the impact of these on youth (Johns, Sacks, Rane, & Kansagra, 2013; MacKintosh, Moodie, & Hastings, 2012), only a handful of studies have investigated any of these aspects of the marketing of alcoholic beverages. Corelli, Aschebrook-Kilfoy, Kim, Ambrose, and Hudmon (2012) assessed the availability of alcoholic beverages and promotional items in pharmacies in Los Angeles, California. Nakamura, Pechey, Suhrcke, Jebb, and Marteau (2014) assessed in-store product placement in over one year in one store in the United Kingdom. For the ImpacTeen Project, Harwood et al. assessed beer prices and promotions in a random sample of outlets in 160 US communities (Harwood et al., 2003; Terry-McElrath et al., 2003), and in a follow-up study Jones-Webb et al. (2008) assessed malt liquor availability, pricing, and advertising in 343 retail outlets in 10 inner city communities.

Of these studies of the alcohol retail environment, only the ImpacTeen Project directly considered the impact of these retail environments on youth. This gap in the literature is particularly striking given that underage sales represent a substantial market for the alcohol industry—estimated at 17.5% of total consumer expenditures for alcohol in 2001 (Foster, Vaughan, Foster, & Califano, 2006). To date, practically no studies have assessed the alcohol (or tobacco) retail environment in rural areas. The ImpacTeen Project sample did

include rural communities (16%), but no results broken out for rural communities were reported (Harwood et al., 2003).

Given the disparities in alcohol-related outcomes for American Indians, a consideration of the social environment for rural American Indian youths would be important for understanding the social ecological contexts within which disordered alcohol use may develop and be maintained. Several studies have described the use of American Indian motifs to sell alcoholic products—specifically, the appropriation of American Indian identities to market alcohol products to other populations, capitalizing on the imagery evoked for non-Natives in names like “Crazy Horse”¹ and associations with racist stereotypes of the “drunken Indian” (Alaniz, 1998; Quintero, 2001). However, currently no studies have described the marketing of alcohol products to American Indians.

For a project aiming to reduce and prevent underage drinking among American Indian youth residing on rural reservations in Southern California, we assessed the risks represented by off-premise alcohol outlets (i.e., stores licensed to sell alcoholic beverages to be consumed off the store premises) located on and near reservation lands. The project was designed and implemented as a collaboration between two scientific research institutes and SCTHC,² a health service and research center serving nine tribes in Southern California. This project was structured as an equal and respectful partnership between the collaborating partners. This type of community engagement is of increasing interest in addressing disparities in health experiences across populations because this approach “engages community members, employs local knowledge in the understanding of health problems and the design of interventions, and invests community members in the processes and products of research” (Centers for Disease Control and Prevention, 2013), and thus may yield better results than projects initiated from outside communities. The community engagement approach is strongly recommended for research with American Indians (Burhansstipanov, Christopher, & Schumacher, 2005; Wallerstein & Duran, 2010) due to a long history of disrespect, not to mention genocide and mass expropriation, that American Indians have experienced in interactions with non-Natives. To this end, the project initiated with a 3-year capacity building phase. In this phase, extensive meetings, planning sessions, document drafts, and trainings allowed the team to build common bases of understanding about local and scientific issues and orientation and build trust, as well as generate pilot data. In a competitive application, the team was awarded funds for a second 5-year intervention phase. In both phases, a community advisory board composed of tribal leaders and experts in addiction science in American Indian communities provided oversight, support, and assistance. All research activities for both phases were approved by the institutional review boards of SCTHC and the two scientific research institutes.

Alcohol Policy in Indian Country

The history of alcohol policy in Indian country is intertwined with the history of the relationship between the United States and Indigenous people. Ethnohistorical records

¹Descendants of Crazy Horse, a revered spiritual leader, have protested and sued the brewing company and its holding company (Teret & Michaelis, 2005).

²To protect the confidentiality of the tribes, we use a pseudonym selected by the tribal IRB to refer to the clinic.

indicate that while intoxicating beverages were known and consumed in the New World prior to contact with Europeans, North American indigenous people did not consume alcoholic beverages recreationally or to excess, but rather only in ritually controlled contexts (Ishii, 2008; Weibel-Orlando, 1990). However, European colonials introduced the practice of recreational drinking and heavy drinking, as well as distilled spirits in the form of grain liquors and rum, which could be cheaply mass-produced in the colonies of the West Indies (Mancall, 2004). Historic records indicate mixed responses to liquor among American Indians: some drank moderately, some drank to ruinous degrees, and others did not develop a taste for it or merely disdained intoxication (Mancall, 2004).

Although alcohol's intoxicating effects could be exploited by traders and administrators in their dealings with native peoples (Frank, Moore, & Ames, 2000; Miller & Hazlett, 1996; Teret & Michaelis, 2005), by the early 20th century Euro-Americans included alcohol as a piece of an overall paternalistic framing of U.S.-Native relations. In this depiction, American Indians and non-Natives alike needed to be protected from the Indians' uncontrollable urges to drink and subsequent dangerous conduct, and Indians should additionally be protected from predatory alcohol traders. Thus, when national Prohibition (1919–1933) ended and alcohol control policy was ceded to U.S. states, prohibition was maintained for American Indians for another two decades. During this time, U.S. law prohibited any alcohol sales or possession to Indians, whether on or off Indian lands. In 1953, the law was amended, lifting the ban on Indian alcohol possession off-reservation and ceding to tribes the option to maintain prohibition or allow on-reservation sales and possession on the condition that each tribe establish and file with the federal government a tribal alcohol control ordinance and that this ordinance conform to the laws of the state (Berman, 1999; Kovas, McFarland, Landen, Lopez, & May, 2008; Miller & Hazlett, 1996; Mosher, 1975). Although the condition of state oversight has been challenged as limiting tribal sovereignty (Baker, 2002; Harris, 2007; Lilley, 1983; Saltsman, Solomon, & Jamieson, 2004), to date the U.S. Supreme Court has upheld state regulation of alcohol trade on Indian lands.

The issue of alcohol sales on reservation lands remains controversial. Initially after the repeal of prohibition of Indian alcohol trade and consumption, few tribes opted to allow alcohol sales. Kovas et al. (2008) reported that even two decades later, by 1975, only 29% of tribes allowed alcohol sales. In a review of the literature on alcohol policy in Indian Country, Berman (1999) cited many arguments against prohibition, including that it does not work and that drinkers will obtain alcohol off-reservation; that criminalization may encourage rapid binge drinking on-reservation and other problematic behaviors; and that criminalization contributes to a continued and harmful pathologization of drinking by American Indians. In addition, obliging drinkers to drink in off-reservation locations may expose them to increased risk for assault and reinforcement of negative stereotyping by non-Natives (May, 1975), as well as arrests and prosecution in non-Native courts (Stewart, 1964). In rural areas, risks associated with driving under the influence of alcohol remain a prime area of concern (May, 1992; Newman, 2012). More recently, tribes may be motivated to allow alcohol sales to support the revenues derived from tribally owned casinos, and Kovas et al. (2008) cited the growth since the 1990s of tribally owned casinos, as well as potential alcohol sales tax revenue, in motivating an increase in complete or partial repeal of

prohibition on tribal lands. By 2008, they reported that 69% of tribes had fully or partially repealed prohibition (Kovas et al., 2008).

Berman (1999) noted that the risk-benefit ratio for allowing or prohibiting on-reservation alcohol sales varies according to many factors, most saliently location. Alcohol prohibition may be easier to enforce on tribal land in remote areas (Berman, 1999; Wood & Gruenewald, 2006). However, even in remote areas, prohibition on-reservation is no guarantee that alcohol vendors will not set up shop next door, as illustrated by the case of the city of Whiteclay, Nebraska, with only approximately 10 residents and four beer stores, reportedly selling 13,000 cans of beer and malt liquor a day to residents of the Pine Ridge Indian Reservation across the reservation border. In 2012, the tribe unsuccessfully brought suit against alcohol marketers and producers (Schulte, 2012; Teret & Michaelis, 2005; Williams, 2012), and in 2013 held a controversial election to legalize on-reservation sales to wrest control (and profits) from Whiteclay (Williams & Eligon, 2013).

Like many U.S. states, California requires tribes to include in their tribal alcohol ordinances oversight by the state's office of Alcohol Beverage Control. Thus, in our study area, all alcohol outlets, whether on- or off-reservation, were licensed by the California Office of Alcohol Beverage Control (CA ABC). The majority of CA ABC regulations relate to on-premise licensing. In off-premise outlets, ABC laws prohibit sales to minors and, although specifically allowing product advertising in off- and on-premise establishments, they prohibit use of promotional items that only appeal to children, such as toys, balloons, candy, or dolls (State of California, 2012). Certain other restrictions on alcohol product display and advertising apply to gas stations but not to other off-premise outlets, although ABC reserves the right to set such conditions of any individual license on a case-by-case basis (California Department of Alcoholic Beverage Control, 2011). In August 2011, the state banned the sale of alcoholic beverages with added caffeine (McGreevy, 2011), and the latest version of ABC codes includes this restriction (State of California, 2012). Otherwise, ABC licensing does not impact the retail environment in terms of the amount or types of products available or advertised. The CA ABC offers free trainings in locations across the state on responsible beverage service to all alcohol retailers, but these are currently voluntary and not mandated (California Department of Alcoholic Beverage Control, 2013).

Local Setting for the Study

The tribes in the study have inhabited the general area for more than 1000 years, according to ethnohistorical and archaeological evidence. Multiple dislocations from traditional living areas, beginning with the establishment of the Spanish missions at the end of the 18th century (Hackel, 2005) and other traumatic examples of dispossession (Carrico, 1987) followed by successful political and legal struggles to reassert sovereignty, have resulted in nine current reservations of approximately 5000 people of Southwest California American Indian tribal heritage. The study area, with a population density of less than 30 persons per square mile, may be classified as rural by U.S. Census Bureau criteria.

At the time of our study, all of the stores on the reservations were tribally owned. Two tribes owned two stores each; and two tribes owned one store each. In most cases, stores were leased to non-Native merchants. The other five tribes had no stores on reservation lands, and

three of these had no alcohol sales ordinance (these were bands with few enrolled members or were located in remote areas). In addition, there were seven off-premise outlets within a 10-mile radius of the reservations (one of which has since closed) that were included in the study as potential sources of alcohol; none were owned by the tribes. Aside from seasonal produce stands and one natural foods store, these stores represented the totality of retail food outlets on and proximal to the reservations. All were of the small store type; the nearest grocery stores were located in small towns approximately 30 minutes away by car.

DATA COLLECTION

As pilot data in first phase of the project (2007–2010), we conducted a qualitative assessment of risks to youths represented by off- premise alcohol outlets. We collected data through a combination of store observations and key informant interviews. Using a semi-structured interview protocol developed by the collaborative, SCTHC staff members conducted confidential in-person interviews with Native youth ($n = 36$) and key leaders ($n = 34$) to investigate mechanisms and social contexts for youth access and use of alcohol. These key informants were purposively selected for their ability to provide insights into several areas of interest to the project, including youth access to alcohol (e.g., tribal chairpersons and council members, youth program staff). The interviews were all conducted in English and were digitally recorded and professionally transcribed. To observe the ways in which alcohol may be available to reservation youth, the project staff conducted unstructured observations in all 13 reservation-area stores selling alcohol (defined as on or within 5 miles of reservation borders). Most stores were visited on multiple occasions. The staff documented their observations in narrative field notes and, during a later intervention activity, recorded details of the store environments on a brief checklist.

ANALYSIS

The transcripts and field notes data files were uploaded to a secure shared project website. These files were coded for recurring themes or topics in the qualitative text management software package ATLAS.ti (Muhr, 2010). The authors retrieved coded segments of text that made reference to stores as sources of alcohol for underage youth on the reservations and analyzed these for salient themes. The authors also reviewed the checklist data regarding the types of stores and where alcohol was displayed within the outlet. Discussion of these preliminary findings by the authors resulted in the addition of new concepts and data drawn from the personal experiences and knowledge of the SCTHC team, which includes individuals with in-depth personal knowledge of reservation life. The thematic results reported below were identified as salient based on recurrence across data sources, importance, or both (Buetow, 2010). Importance was based primarily on the judgments of the coauthors who were indigenous to the community. Quotes presented below were selected for succinctly and evocatively illustrating the salient themes.

RESULTS

Youth Access to Alcohol

Laws prohibiting sales to minors may be not very well upheld in rural reservation areas. Youth reported that although some stores were strict about checking IDs (driver's licenses or other identification cards used to prove age), some clerks, especially non-tribal members, at certain convenience stores were comfortable selling alcohol to minors. Although adults may drive to nearby towns for goods including alcohol, stores on and around tribal land appear to be a primary direct source of alcohol for youth. According to one youth respondent, "I don't think I've heard of any, like my friends going to town, like to the city to buy alcohol. They just get it down here." Youths appeared to be aware of which stores were easier or less easy for direct access: "I've heard people talk about they can buy here but they can't buy there, or whatever."

Store credit was another means by which underage tribal youths may obtain alcohol directly at stores on or near tribal lands. Many of these stores sold items to local families on credit. A 17 year-old girl said, "I've heard that [A Market] would sell to some of the kids down there, or the kids just put it on their parents' tab and say it's for them." Project staff confirmed the importance of the tab as a means for youth to access alcohol, particularly for youth who were assumed by clerks to have access to "per cap" funds (i.e., per capita distributions of revenues from tribally-owned casinos and other businesses).

Even without directly attempting to purchase alcohol for themselves, underage youths were said to be able to obtain alcohol by way of social sources. Sometimes, this involved a person of legal age obtaining the alcohol for the youths. Typically, these proxy purchasers were described as older cousins, siblings, or friends. As one youth reported,

My friend told me this the other day, actually, that this girl and five of her friends were at the store and her dad was buying alcohol. Well, how obvious is that? But they can't not sell it to him because he's twenty-one or older, so . . .

In addition to family and friends, youths reported using "shoulder tap" strategies, asking whatever adult was available outside the store to make a purchase (Toomey, Fabian, Erickson, & Lenk, 2007).

If you, you want beer, you can find someone to buy it for you. It's not hard. Like if you can't, if you don't have an older brother or older cousin that can buy it for you, you can find some drunk outside the store, give him a couple dollars, he'll go and get you some beer. I, like, me personally, I've done it a couple times. Me and my friends have done it a couple times, and I know other people that have done it. It's not, like, hard to get beer if you want it.

Youth Exposure to Alcohol

Of the 13 stores we observed, 6 were convenience stores with gas, 4 were convenience stores without gas, and 3 were small markets or small grocery stores. None of these stores were "liquor stores" in that they all sold beverages, food items, and/or dry goods. In all 13 stores, alcoholic beverages were sold, and in all of these stores these beverages were located

on open shelves or racks (self-service) rather than only behind the counter or another area that would be inaccessible to youths. In addition, the team identified five specific aspects of the retail environment that represent risks for youth:

- a. Prominence of alcohol sales. Alcoholic beverages were prominently displayed in all stores, including beer, wine, and liquor. Some stores featured alcohol products in windows, making the items visible from outside. Some stores featured alcohol products at the doorway or near the sales counter (Figure 1). As one key leader noted:

I mean, c'mon, I mean in the [B Market], like there's nothing but Budweiser, Coors Light. Over there at [C's], there's nothing but—I mean as soon as you walk in the store, boom, it hits you, liquor. Over here, liquor. In impoverished areas, you'll see the most liquor stores. I mean, c'mon, you don't have to drive too far to get it. Even the rural of the rural of the destitute, they got easy access to alcohol, but they don't have easy access to services or assistance in addressing the issue.
- b. Prominent sale of “alco-pops” (sweetened alcoholic beverages) and high-energy, high-alcohol drinks, including caffeinated beverages, marketed in colorful packaging (in observations made prior to the California ban on sales of caffeinated alcoholic beverages). These were seen in all 13 of the stores.
- c. Display of “minis” (Figure 2), also known as “airplane bottles” (i.e., a small bottle of 1 to 1.5 ounces of spirits). These bottles allow shoppers to purchase high-alcohol content hard liquors at very low cost and, because of their small size, may be easy for underage youths to steal and conceal. These were observed for sale in 3 of the 13 stores.
- d. Placement of alcohol in close proximity to other products (Figure 3). This placement may “normalize” alcohol products for youths, and youths may also mistakenly purchase alcohol products. In one store observation, two of the coauthors overheard some older male teen-agers talking about energy drinks. When one decided to buy an energy drink, he ended up grabbing an alco-pop that looked similar and was located right next to the energy drinks. He only realized his mistake at the counter when he noticed the alcohol content label (his confusion appeared genuine to both the indigenous and non-indigenous staff members conducting the observations). Alcohol products, including low-cost items, were displayed close to other non-alcohol products in all 13 stores.
- e. Off-premise outlets as *de facto* on-premise drinking sites. Youths may be exposed to drinking by adults at outlets, which may add to the normalization of alcohol use. Moreover, these on-premise drinkers appear to represent the problematic end of the spectrum of adult drinking styles. One key leader reported the following of an off-reservation store:

I see people drinking in front of the store. I see people drinking right in front of X store. When they're chased [from the front], they go in back of the store. And the people who are drinking definitely have a problem with

drinking, but he still sells it to the same people. That's the only local business that's not owned by the tribe.

As noted in the quote about shoulder-tap strategies, youth also reported “drunks” outside the stores as normal, to the extent that they might rely on these drinkers as an access strategy. One youth reported observing store clerks refusing to serve intoxicated patrons. However, his comments may be seen to underline the normalization of heavy drinking at stores for youths who frequent these establishments:

Some of the stores, like, for the adults they do have cut-off points. Like, if they see you coming in really drunk, they won't serve you.

DISCUSSION

Marketing of alcohol to youth and sales of alcohol to minors by clerks are not uncommon in ethnic minority communities. Along with liquor stores, convenience stores have frequently been cited as important sites for youth access and exposure to alcohol. On rural reservations, these issues are highly problematic because small stores may be the sole sources of goods and supplies, particularly for youth. Indeed, for the youth residing in our study area, the 13 stores represented the universe of local retail food sources easily accessed by youth.

There have been remarkably few scientific studies of alcohol retail environments, including for youth. Some alcoholic beverage types may be marketed specifically to youth and ethnic minority communities (Mart, 2011). Malt liquor has been overtly marketed to African Americans, and malt liquor advertising has been found to be disproportionately distributed in African American communities (McKee, Jones-Webb, Hannan, & Pham, 2011). Alcopops represent overt attempts by alcohol marketers to exploit youth as emerging consumers (Mosher, 2012; Mosher & Johnsson, 2005). The packaging for these products and promotional materials are designed specifically to appeal to youth, who often initiate with these flavored drinks, and then transition to other forms of alcohol use (Mosher, 2012). However, to date no studies have reported on observed sales of alcopops in stores.

Although our study was based on a small sample of stores, it nevertheless indicates a need for further investigations to assess comprehensively alcohol product availability and the impacts of availability on youth drinking. In this, we echo recent calls for increased research on alcohol marketing strategies and effects (Mart, 2011; Meier, 2011). Targeted marketing of specific products may be particularly problematic for youths living on rural reservations. Similar to residents of other “food deserts” (Beaulac, Kristjansson, & Cummins, 2009), small stores such as convenience stores and gas stations may represent the only retail food sources on or near reservations (Curran et al., 2005; O'Connell, Buchwald, & Duncan, 2011), and particularly for reservation-dwelling youths. Although food acquisition for adults may include drives to a distant grocery store, children and teens seeking snacks or other small items may visit convenience stores much more frequently. The ImpacTeen Project found that although liquor stores had the most aggressive in-store advertising, convenience stores had the most accessible alcohol products (Terry-McElrath et al., 2003).

Mini-bottles emerged as a potential area of risk for tribal youths. Although a few studies have considered the availability and regulation of large-size alcoholic beverages containers thought to be associated with problematic drinking, such as beer kegs (Ringwalt & Paschall, 2011; Wagenaar, Harwood, Silianoff, & Toomey, 2005) and wine casks (Midford et al., 2010), there is surprisingly little published material on small-sized forms of alcohol packaging. In a study of community mobilization on alcohol in one U.S. city, one community member interviewed noted an increase in miniature bottles in his community's alcohol outlets. This key leader attributed the increased availability of these bottles to the alcohol sales industry astutely exploiting every possible economic niche, from demand for very large containers to very small (Herd, 2011). However, to our knowledge, ours is the only other study to consider these items, and these mini-bottles have not been previously linked with risks for youth access. California ABC code prohibits sales of "miniature bottles" in licensed off-premise establishments as a promotional item that may appeal only to youths (State of California, 2012); however, it is unclear whether this regulation has ever been applied. The regulatory system relies heavily on consumer complaints to focus investigation and it is unclear whether communities are aware of this aspect of the code or how this section of code might be interpreted in legal proceedings.

Our study is limited in scope. Because the outlet observations on which we report were conducted within an intervention project that focused on a group of tribes served by one health agency and because there were only 13 off-premise outlets located on or nearby their tribal lands, our sample is small and purposive. Furthermore, because of the small sample, our observation data are primarily qualitative. However, our findings do allow us to make some preliminary observations of how the stores we observed may compare to off-premise alcohol outlets in urban settings. In the ImpacTeen Study with a predominantly urban sample, 52% of randomly selected off-premise outlets in 160 communities were of the convenience-store type, with or without gas sales (Harwood et al., 2003), whereas in our rural sample, 100% of outlets were of this type (including "small markets"). Furthermore, for many youth (and adults) in our study area, these stores represent the only retail sources for any food and beverages. In this sense, the impacts from off-premise outlets experienced by rural youth may be somewhat comparable to those experienced by youth in low-income inner city neighborhoods where off-premise outlets are heavily concentrated (Romley, Cohen, Ringel, & Sturm, 2007; Truong & Sturm, 2009). However, the current state of the literature on off-premise outlets does not yet support such comparisons.

Our study is also limited by the exploratory nature of the interview data. The goals of the interviews with youths and key leaders were to assess youth access to alcohol as one domain within interviews aiming to inform and evaluate our multi-component intervention. We did not query the respondents directly about beverage or container types preferred by youth nor did these details arise during interviews. Future research on underage drinking and the impact of alcohol retail environments on youth might usefully focus more specifically on these items. In youth-led participatory research on environmental aspects of tobacco use, engaging youths with conducting and analyzing the tobacco retail environment in multi-methods research has provided useful insights and avenues for intervention efforts (Lee, Lipperman-Kreda, Saephan, & Kirkpatrick, 2013; Tanjasiri, Lew, Kuratani, Wong, & Fu,

2011) and such efforts might effectively support further research on the alcohol retail environment and its impacts on underage drinking.

Social relationships, including kinship, may play critical roles in youths' ability to get alcohol from stores. Reservation stores in the form of "trading posts" have been described as social centers that would systematically keep their dependent patrons in debt with imbalanced trade of expensive imported items for undervalued locally made products and services (Adams, 1963; Powers, 2001). Similarly, convenience stores often serve their patrons on credit, creating dependent relationships that may impede clerks' upholding underage drinking laws. We concur with other researchers who have called for more research on combined strategies to address both social and commercial sources of alcohol (Paschall et al., 2007; Treno, Ponicki, Remer, & Gruenewald, 2008).

Our project was specifically focused on the alcohol environment for rural reservation-dwelling California Indian youth in one geographic region. As such, the findings presented here may not represent the risks for access and exposure to alcohol experienced by Native youths in other regions or those living in urban areas. Nevertheless, to our knowledge, our findings are among the few scientific studies to consider the alcohol retail environment for American Indians. This is remarkable given the amount of scholarship devoted to alcohol abuse and dependence among American Indians and widespread interest in social determinants of health disparities. We support further research into this aspect of disparities in alcohol-related health outcome experienced by American Indians and other indigenous peoples.

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FIGURE 1.
Prominence of alcohol behind counter (convenience store clerk receiving community certificate).

FIGURE 2.
Mini bottles displayed in convenience store window

FIGURE 3.
Convenience store display with Thunderbird (fortified wine) price promotion.