

**SAN DIEGO STATE  
UNIVERSITY**

**HEALTHPromotion**


# **Impaired Driving Prevention Efforts for College Students**

**James Lange, Ph.D.**  
**Director, Health Promotion**  
**San Diego State University**

**Educational Session at the Meeting of the Minds 2015 Area 5  
Spring Conference, Kansas City, Missouri**

**April 9-11, 2015**

**HEALTHPromotion**



**SAN DIEGO STATE  
UNIVERSITY**

## **The Problem**

- Hingson and Colleagues (2009) estimate that in 2005:
  - 3,360,000 students drove under the influence
  - 1,357 died in traffic alcohol deaths
  - 74.4% of all alcohol-related student deaths were traffic related
  - From 1999-2005 DUI rates went up for college students

## The Evolving Problem

- Arria, and colleagues (2011) found in their sample of college students that drugged driving prevalence is similar to drunk driving. Defined drugged driving as “drove while high.”

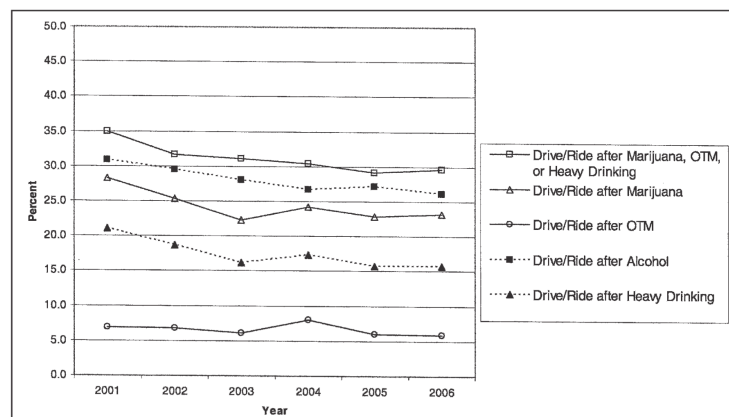
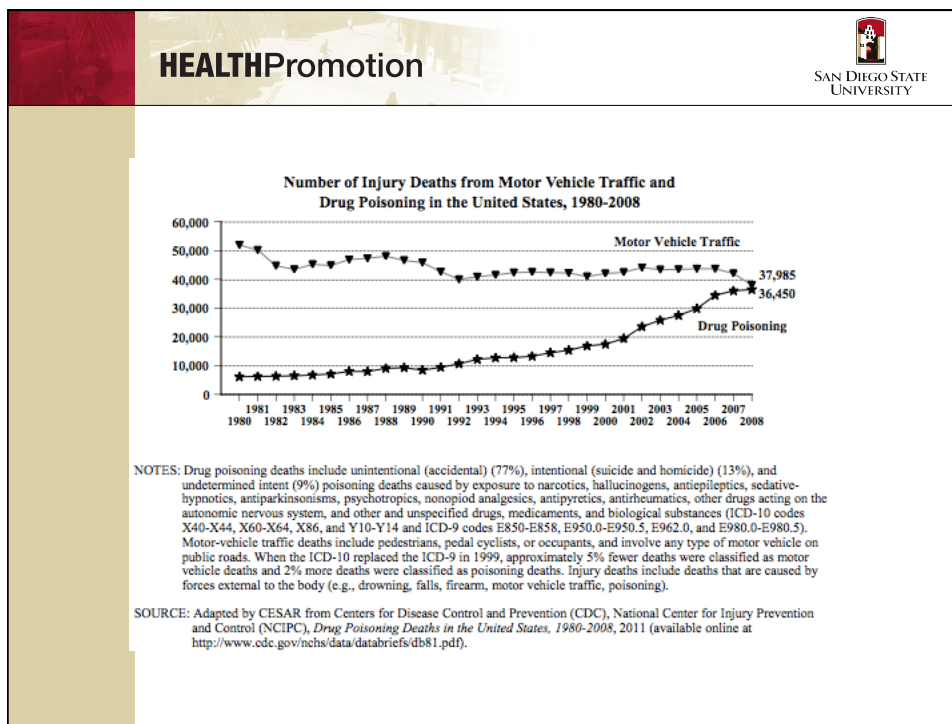


FIGURE 1. Trends in the percentage of high school seniors driving after alcohol/drug use or riding in a vehicle after alcohol/drug use by the driver, 2001-2006. OTM = illicit drugs other than marijuana.

For high school seniors, O'Malley & Johnston (2007) found that driving after marijuana was more common than driving after heavy drinking.



## Typical Countermeasures

- Consumption Focus
  - Motivation
  - Access
- DUI Focus
  - Motivation
  - Enforcement
- Alternative Focus
  - Safe Ride
  - Designated Driver
  - Consumption Alternatives

## Consumption/Motivational Focus Examples

- Online educational programs
  - AlcoholEdu seems to reduce consumption, but no difference on DUI (Paschall et al, 2011).
- Other approaches also tend to either have disparate problems/consumption effects, or do not separate DUI from list of other problems
  - Screening (Schaus et al, 2009)
  - Larimer and Cronce (2007) review
- Beer Goggles Don't Work! (Jewell & Hupp, 2005)

**HEALTHPromotion**



## Environmental Interventions

- Typically use community mobilization to change the environmental availability of alcohol and increase enforcement of underage and DUI laws (e.g. Wolfson et al. 2012).
  - Increase coordination with police
  - Restrict alcohol use at campus events
  - Conduct compliance checks
  - Responsible beverage service training
- Can include alternative programming (fully restrictive environment)
- Both business and party focus

**HEALTHPromotion**



• Drinking Driving Laws are Strictly Enforced in the College Area

• Plan ahead for safe transportation



**S**

**Figure 1** Campaign advertisement promoting increased enforcement

Clapp et al, 2005

## Other Examples

- AMOD evaluation showed mixed results, but did report a reduction in drunk driving even without DUI an explicit part of the intervention (Weitzman et al, 2004).
- Saltz et al (2010) did include DUI focused interventions, but did not report on DUI effects.
- Wechsler et al (2003) finds correlational relationship between restrictive laws and college DUI reports.
- Other non-college focused examples (see Toomey et al, 2007 for review)

## Not Everything Works

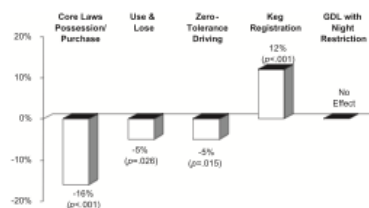


Fig. 2. MLDA-21 law effects on ratio of age <21 drinking drivers to age <21 nondrinking drivers in fatal crashes (1982 to 2004).

James C. Fell et al., "The impact of underage drinking laws on alcohol-related fatal crashes of young drivers.," *Alcoholism: Clinical and Experimental Research* 33, no. 7 (July 2009): 1208-1219.

## Alternative Focus Examples

- Consumption Focused
  - Residential Learning
  - Large-scale Alternative Events
- DUI Focused
  - Designated Driver Promotions

## Residential Learning

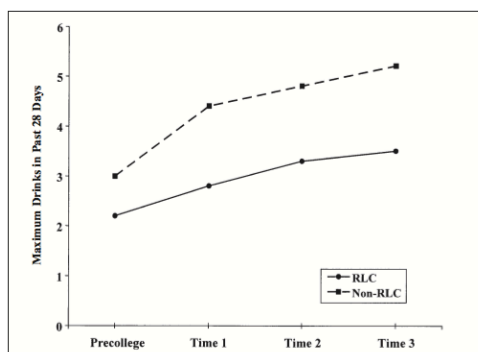



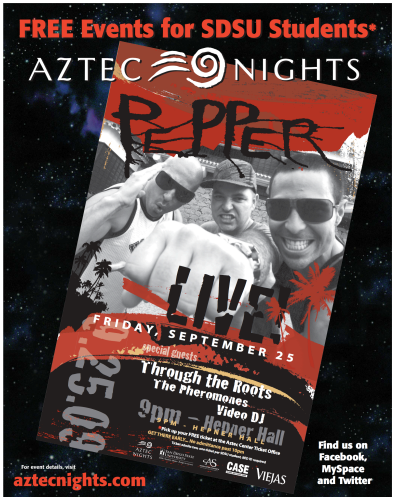
FIGURE 1. Trajectories of maximum drinks in past 28 days by residential learning community (RLC) status among first-year college students. Note: Post hoc comparisons using a modified Bonferroni correction showed that, for non-RLC students, there were statistically significant increases in drinking from precollege (mean = 3.0) to Time 1 (mean = 4.4), from Time 1 to Time 2 (mean = 4.8), and from Time 2 to Time 3 (mean = 5.2). For RLC students, there were statistically significant increases in drinking from precollege (mean = 2.2) to Time 1 (mean = 2.8) and from Time 1 to Time 2 (mean = 3.3). However, the increase from Time 2 to Time 3 (mean = 3.5) was not significant ( $p = .07$ ).

Cranford et al., "Effects of Residential Learning Communities on Drinking Trajectories During the First Two Years of College", no. 16 (July 2009): 86-95.


**HEALTHPromotion** 

## Large Scale Alternatives

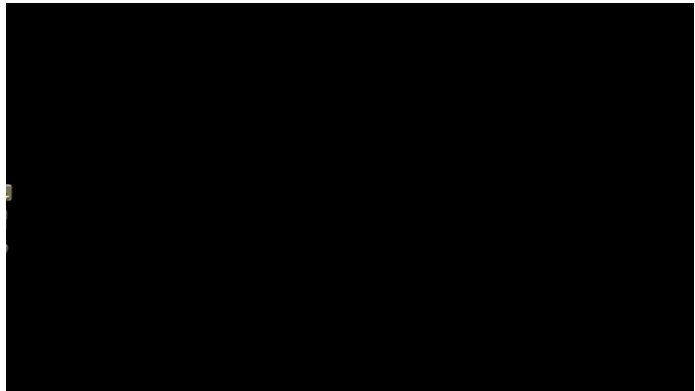
- Importance of the first 5 weeks of the college environment.
- Taking charge of initiation to campus identity.
- Competitive with pro-drinking environment



**FREE Events for SDSU Students\***  
**AZTEC NIGHTS**  
**PEPPER LIVE**  
FRIDAY, SEPTEMBER 25  
9pm - Hewer Hall  
Through the Roots  
The Pheromones  
Video DJ  
Find us on Facebook, MySpace and Twitter  
aztecnights.com

**HEALTHPromotion** 

## Aztec Nights Example

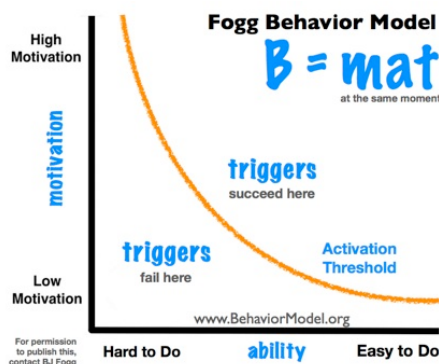





## Designated Drivers

- Designated Drivers often fail to implement in effective manner (Fell, Voas, & Lange, 1997).
- Brief prompts or group-level interventions can dramatically increase Designated Driver sobriety; do not increase passenger intoxication (Lange et al, 2006).
- In-bar prompts and promotion can increase Designated Driver use (Brigham, Meier & Goodner (1995).

## BJ Fogg Model





BJ Fogg's Behavior Model. Retrieved June 4, 2012, from <http://www.behaviormodel.org/>

HEALTHPromotion 

## Comprehensive *Promotion* Strategies

- Comprehensive Strategy:
  - Motivational focus
  - Trigger (*cue*) focus -
  - Ability (*agency*) focus -




HEALTHPromotion 

## BJ Fogg's Message

- 25 crummy trials are better than one “big brain” trial
- Trigger, ability and motivation.
- “Put hot triggers in the path of motivated people.”
- Try a bunch of quick things to make it happen.

**HEALTHPromotion**


  
 SAN DIEGO STATE  
UNIVERSITY

## Basic Premises

- Designated Drivers are widely known and popular (Anheuser-Busch, 2000; DeJong & Winsten, 1999; Fell, Voas, & Lange, 1997)
- Implementation of DD is inconsistent and flawed (Barry, Chaney, & Stellefson, 2013; Fell et al., 1997)
- Brief interactions can greatly enhance effective use of DD (Lange, Reed, Johnson, & Voas, 2006)


Anheuser-Busch. (2000). Designated driver poll 2000: Americans talk about designated drivers.  
 Barry, A. E., Chaney, B. H., & Stellefson, M. L. (2013). Breath Alcohol Concentrations of Designated Drivers [OPEN ACCESS]. *Journal of Studies on Alcohol and Drugs*, 74(4), 509.  
 DeJong, W., & Winsten, J. A. (1999). The use of designated drivers by US college students: A national study. *Journal of American College Health*, 47(4), 151-156.  
 Fell, J., Voas, R., & Lange, J. E. (1997). Designated driver concept: Extent of use in the USA. *J Traffic Med*, 25(3-4).  
 Lange, J. E., Reed, M. B., Johnson, M. B., & Voas, R. B. (2006). The efficacy of experimental interventions designed to reduce drinking among designated drivers. *Journal of Studies on Alcohol*, 67(2), 261-268.

**HEALTHPromotion**

  
 SAN DIEGO STATE  
UNIVERSITY

## Setting the Stage

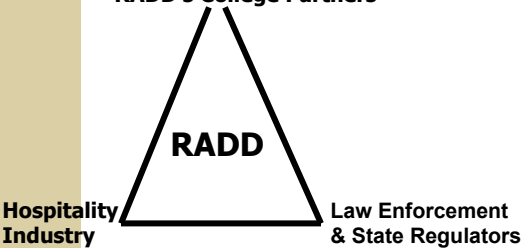
- Server/Patron based intervention
- Getting establishments on board
- Getting patrons on board

**HEALTHPromotion** 

## RADD California Coalition: Program Concept

**Steering**

RADD's College Partners




Hospitality Industry

Law Enforcement & State Regulators

**Implementation**


- Campus HE Departments
- Hospitality/Entertainment
- PR/Media
- Non-Hospitality Businesses
- Community Hubs
- Other Distribution Resources
- Transportation Partners

**HEALTHPromotion** 

## RADD Colleges

- 35 Member colleges: Public, Community and Private
- 4 State Regions
- Hospitality Zone Focuses Rewards Partners


**HEALTHPromotion**




**SAN DIEGO STATE UNIVERSITY**

## Program Elements

### College Handouts with Retail Rewards Partners' Lists




**RADD College Campaign 2011**  
[www.collegeisRADD.org](http://www.collegeisRADD.org)  
[www.RADDinDTLA.com](http://www.RADDinDTLA.com)




**RADD**  
Friends don't let friends drive drunk...Do You?!


SD (SDSU, UCSD, USD, CSUSM); OC (UCI, CSUF); LA (USC); NoCal (UCD, Sac State)



**USC card front**



**USD card front**



**USD card back**


Clockwise: USC, SDSU, USD card fronts

**HEALTHPromotion**



**SAN DIEGO STATE UNIVERSITY**

## Yelp Review: Crummy Trial #1



**Yelp About It!**


Check in and post a review of a RADD Member establishment.

Include if they offered you a **FREE NON-ALCOHOLIC BEVERAGE FOR THE DESIGNATED DRIVER** in your review. If they did, also include **THE SERVER'S NAME** that offered the drink so that he or she can be entered into a drawing for \$50 prize.


Email a copy of your review to [YelpReview@iprevention.com](mailto:YelpReview@iprevention.com) and we'll enter you in a drawing for a \$100 prize. The more reviews you do and send us, the more entries into the lottery you'll have and more chances you'll be the winner!

All prizes are [Amazon.Com](http://Amazon.Com) gift certificates. Prizes will be drawn on May 2 from the reviews received by 11:59 PM May 1.

Winners will be notified by email.

**HEALTHPromotion**


## Efforts to Raise DUID Awareness: It's Starting



HOME EVENT OUTREACH COLLEGES CONTACT

RADD-ONDCP **Ohio Teen DUID Summit 2014**


View Video Clips

Video Clips Coming Soon!

Download Slideshows



<http://www.radd.org/archived-summit.html>

**HEALTHPromotion**


## NIAAA Tiers by Function

Program Functional Domain	1—Evidence of effectiveness among students	2—Evidence of success with general populations	3—Evidence of logical and theoretical promise	4—Evidence of ineffectiveness
Individual/Motivational Focus	<ol style="list-style-type: none"> <li>1. Cognitive behavioral skills training</li> <li>2. Brief MI</li> <li>3. Expectancy Challenge</li> </ol>		<ol style="list-style-type: none"> <li>1. Enforcement publicity</li> <li>2. Norms Correction Campaign</li> <li>3. Policy info campaigns</li> </ol>	<ol style="list-style-type: none"> <li>1. Informational knowledge-based programs</li> <li>2. BAC Feedback</li> </ol>
Behavioral Alternative			<ol style="list-style-type: none"> <li>1. Alcohol free activities and dorms</li> <li>2. Friday classes</li> <li>3. Safe-ride program</li> </ol>	
Access Control		<ol style="list-style-type: none"> <li>1. MIP enforcement</li> <li>2. DUI Enforcement</li> <li>3. Restrict outlets</li> <li>4. Increase prices</li> <li>5. RBS</li> </ol>	<ol style="list-style-type: none"> <li>1. Keg bans</li> <li>2. Older R.A.s</li> <li>3. Control alcohol at sports events</li> <li>4. Dry campuses</li> <li>5. Enforcement at campus events</li> <li>6. Consistent disciplinary actions</li> <li>7. Regulate happy hours</li> </ol>	
Community Action		<ol style="list-style-type: none"> <li>1. Form coalition</li> </ol>	<ol style="list-style-type: none"> <li>1. Refuse alcohol sponsors</li> </ol>	

## Commentary

- Trends are pointing to shifting substance use, with alcohol penalties surpassing those of many illegal drugs and students underestimating the risks of drugged driving impairments.
- Lack of reporting or measuring of DUI outcomes, makes it difficult to know what has been effective.
- Campus student-development responsibility may run counter to community organization efforts for law changes unless all aspects of the student-experience is maximized towards pro-health and academic growth outcomes.