

Environmental Strategies to Address High-Risk Drinking Events



Laura Oster-Aaland, Ph.D.
North Dakota State University
May 21, 2013

Overview

- Context of college student drinking
 - National
- High-Risk drinking events
 - Identification of events specific to campuses
 - Deconstruction of events
- Event-specific prevention framework
- Examples
- Campus action plans

Context of college student drinking

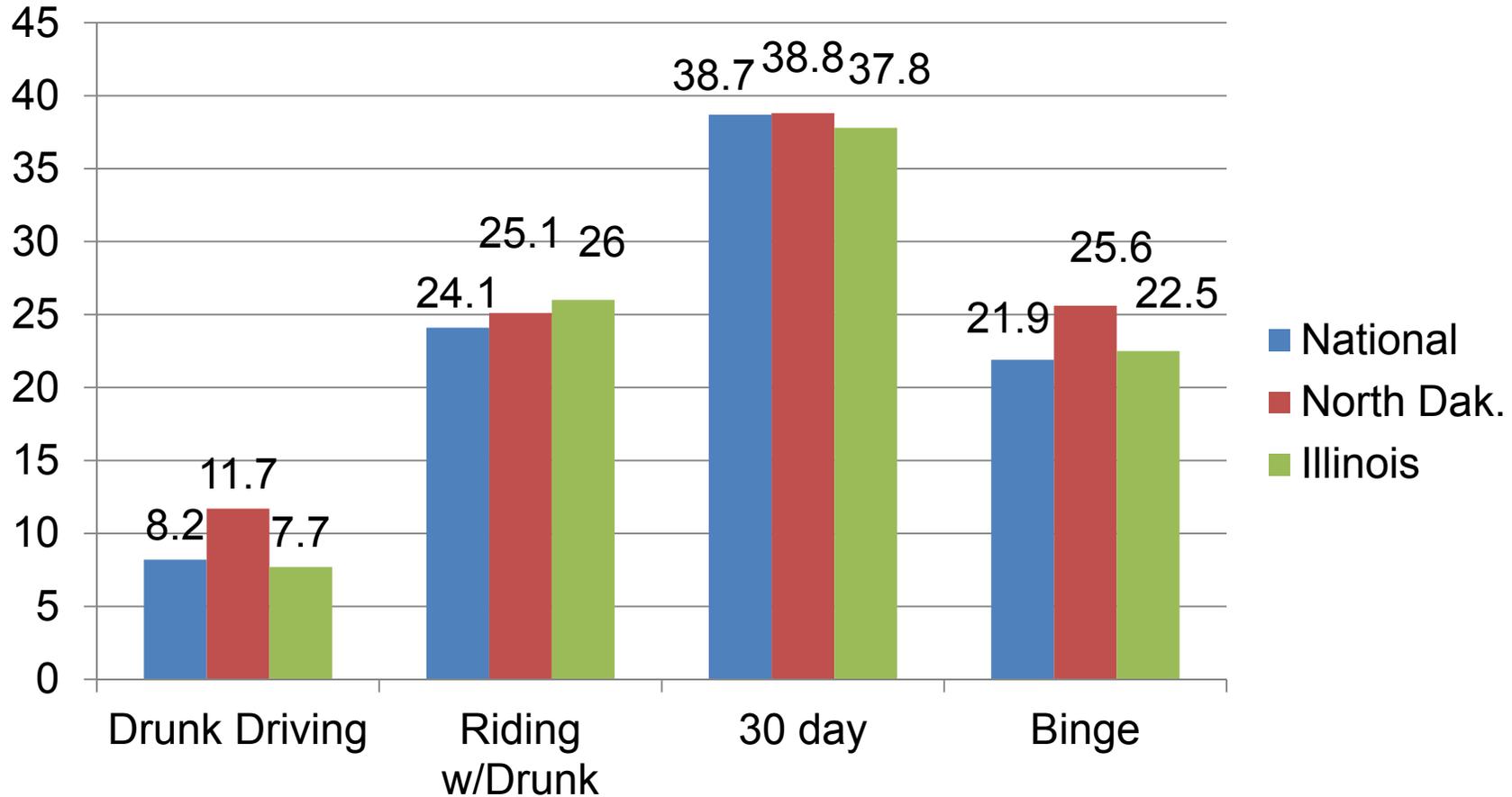
National context

Each year...

- **1,825** college students **die** from alcohol related injuries
- **599,000** college students are **injured** while under the influence of alcohol
- **696,000** college students are **assaulted** by another student who has been drinking
- **97,000** college students were victims of alcohol-related **sexual assault**

Hingson, R. et al. Magnitude of and Trends in Alcohol-Related Mortality and Morbidity Among U.S. College Students Ages 18-24, 1998-2005. Journal of Studies on Alcohol and Drugs, Suppl. 2009 July; (Supplement no. 16): 12-20.

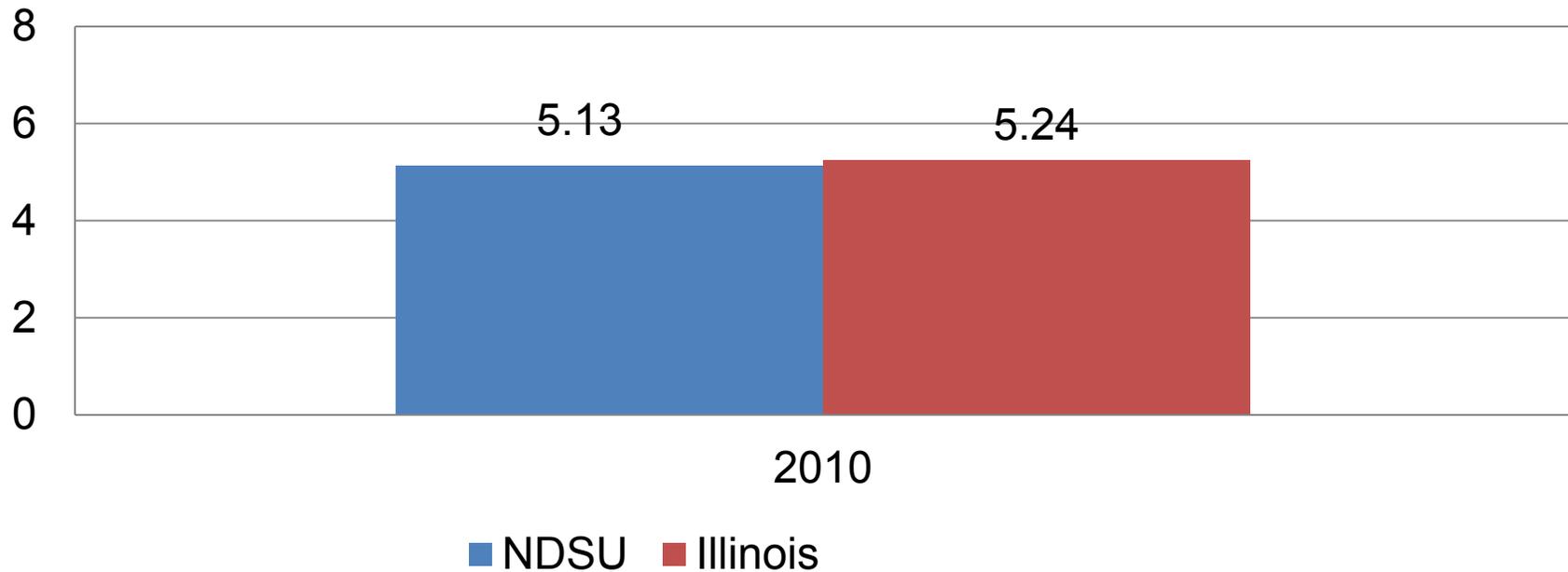
State context – youth*



*CDC: Youth Online: High School YRBS 9 – 12 graders: 2011

State context – college students

Number of drinks per week

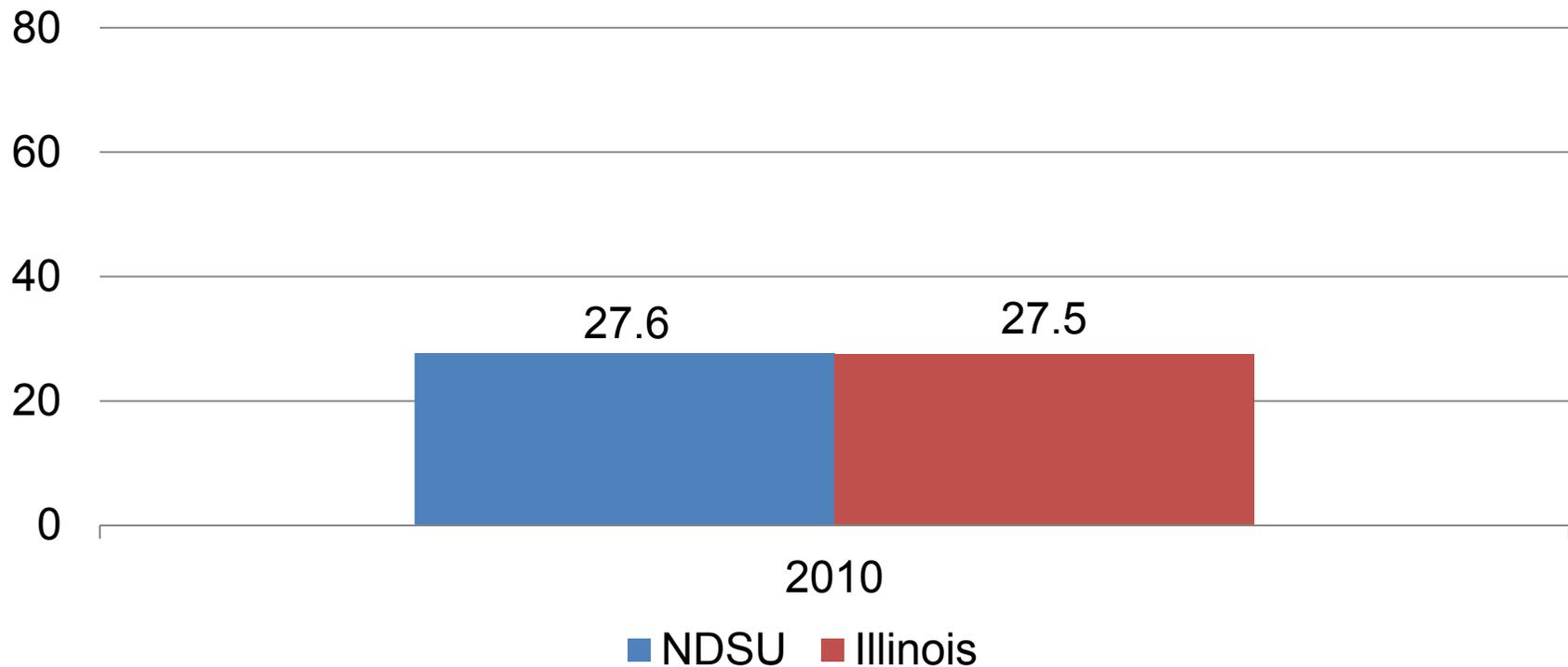


2010 North Dakota: 4.78 drinks/week

2008 National Reference: 5.2 drinks/week

NDSU males: Avg = 7.35 drinks/week; NDSU females: Avg = 2.77 drinks/week

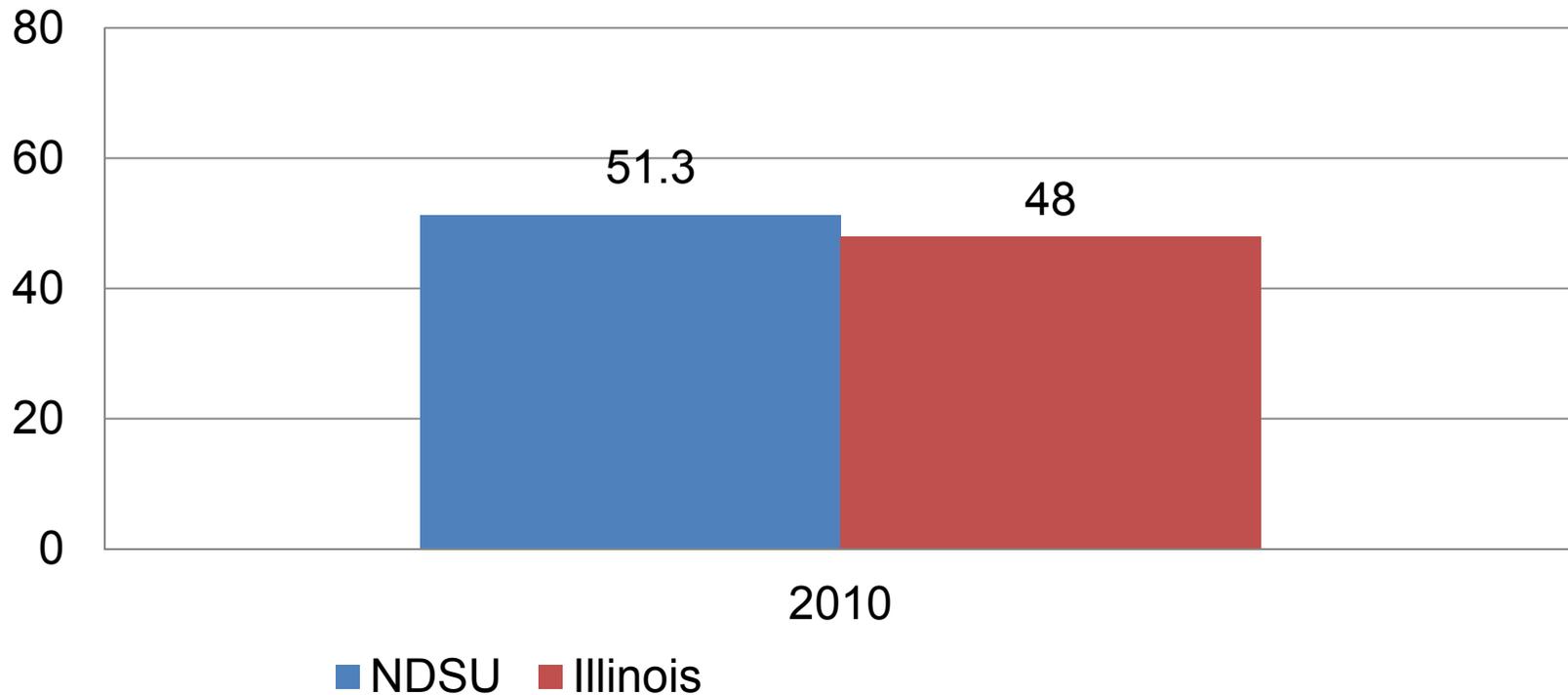
State context – college students % Abstainers past 30 days



2010 North Dakota Data = 29.5%

2008 National Data = 28.3%

State context – college students % Binge drinkers past 2 weeks



2010 North Dakota: 48.3%

2008 National Reference: 46.1%

High-risk drinking events

Definitions of high-risk drinking events

- Drinking “events that are culturally significant or personally meaningful” (Neighbors, et al, 2007)
 - Community events – experienced at the same time by all students
 - Personal events – experienced by individual students and timing is unique to each person or small group of people

Identification and classification of events

- Classify event into dimensions
 - Individual
 - Group
 - Institution
 - Community
 - Society

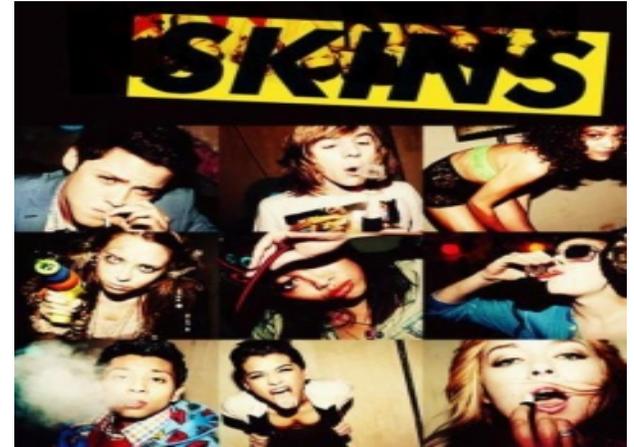
DeJong and Langford (2002).

Deconstructing the events

- How does the environment contribute to the event?
 - Location
 - Enforcement
 - Noise level
 - Number of people
 - Age of people
 - Closed or open
 - Cost

Why do these events continue?

- Media
- Traditions
- Expectations/Beliefs
- Environmental factors
- Culture



Event-specific prevention*

Approaches to prevention: Individual/Educational

“Students know what they need to know. If given a test on this topic they would score high. But they don’t do what they need to do. What they do is what they see taking place around them, in ads, movies, music videos, accounts of adult behavior . . .”

- Richard Keeling PhD

Presentation in Fargo, 1998

Approaches to prevention: Environmental

“Students receive ‘educational’ messages from a number of sources, and until these messages in the campus and community are changed, college officials face an uphill battle.”

*DeJong, W., Vince-Whitman, C., Colthurst, T., Cretella, M., Gilbreath, M., Rosati, M. & Zweig, K., 1998

An ecological framework*

Personal Responsibility

Individual factors

Education – teach students
how to be responsible

Peer factors

Social Norms – teach
students that most
students drink moderately

Environmental Management

Institutional factors

Campus policy
Campus Coalitions

Community factors

City enforcement
City & State Coalitions

Public Policy

State & federal laws

*Center for College Health & Safety, 2004

Eliminating/modifying environmental contributors

- Offer alcohol-free social/recreational options
- Create environment that supports **health promoting norms/correct misperceptions**
- limit alcohol availability on and off campus
- Restrict marketing & promotion of alcohol
- Increase enforcement of laws and policies at all levels

*Center for College Health & Safety, 2004

Areas of strategic intervention*

- Changing knowledge, attitudes, skills, self-efficacy and behavioral intentions
- Eliminating or modifying **environmental** contributors
- Protecting students from negative consequences (health protection)
- Intervening with students who show evidence of problematic drinking

Event risk assessment

- Bring all stakeholders around the table
- Use data to thoroughly understand the consequences
- Seek consensus and understanding
- Empower students to “do the right thing”
- Understand where locus of control lies
- Understand the ecological nature of the problem and potential solutions

Possible courses of action

- Discontinue the event
 - Voluntarily
 - By policy, ordinance, law, sanctions
- Alter the event to reduce the risk
 - Voluntarily
 - Must have the buy in of all stakeholders
 - By policy, ordinance, law
 - By modifying the environment

Possible barriers

- Lack of institutional/community will
- Lack of understanding of risk
 - Lack of data on consequences
- Tradition/culture too strong
- Lack of resources (mostly human)
- Loss of income (but is usually offset by public health and safety costs)
- Other?

Examples

Examples from evidence and experience

- 21st birthday drinking/power hour
- Tailgating policy
- Greek life alcohol policy
- Specific traditions
 - Bison Bash

“You know, we teach about drinking and driving, but we really don’t teach about drinking and dying.”

Jenna Foellmi’s H.S. Principal, 2007

Winona State University Student

21st Birthday drinking

21st birthday drinking

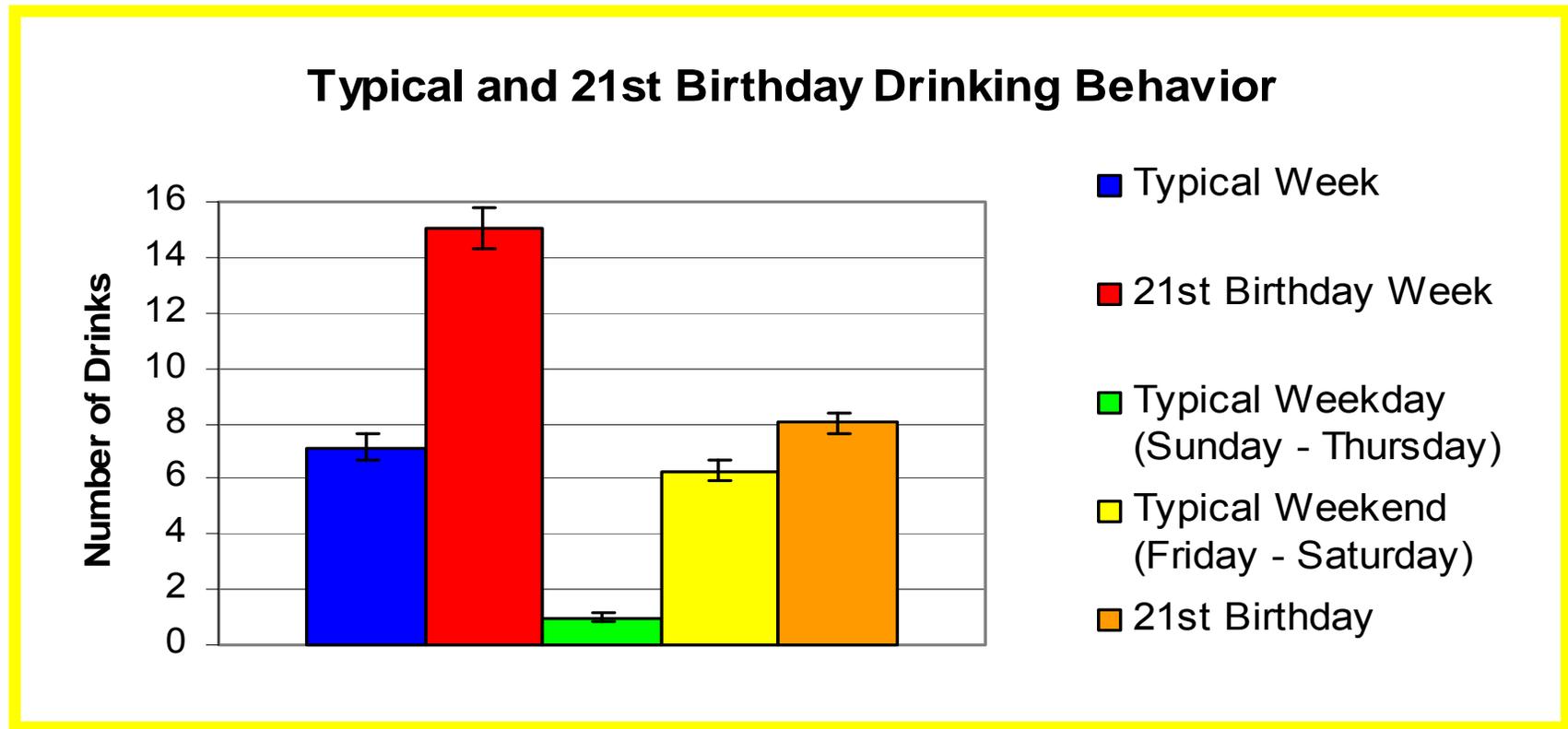
- Rutledge, Park & Sher (2008)
 - A longitudinal study over 4 years
 - 2,518 students aged 21
 - 83% of students reported drinking to celebrate on 21st birthday
 - 12% of birthday drinkers reported consuming 21 drinks
 - Half of birthday drinkers exceeded their prior maximum number of drinks.

21st Birthday Drinking

- Brister, Sher & Fromme, 2011
 - Questionnaires and interviews
 - Average # of drinks 10.85
 - Celebrating in bars and birthday-specific traditions associated w/higher eBACs
 - Participants paid for < 5% of their drinks
 - 55% received free drinks
 - Presence of caretaking peers did not protect students against heavy drinking or risks
 - ¼ of participants rode with non-sober friend

21st Birthday Drinking

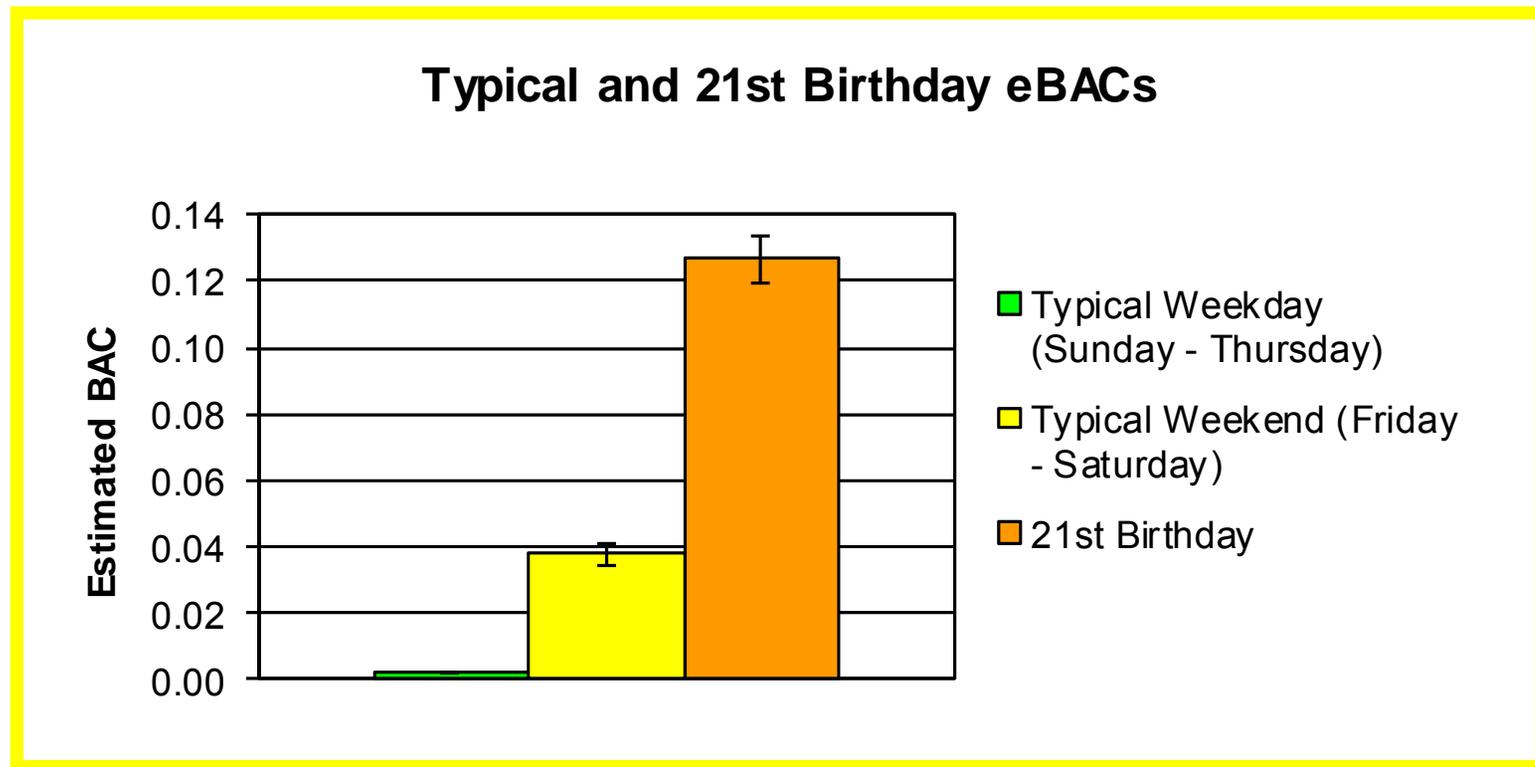
Number of drinks consumed



Lewis, M. A., Lindgren, K. P., Fossos, N., Oster-Aaland, L., & Neighbors, C. (2009).

21st Birthday Drinking

Estimated BACs



21st birthday interventions

Review of birthday card literature

- Neighbors, et al., 2005
 - Harm reduction message, control group
 - Students liked the card, but it had no impact on drinking
- Neighbors, et al., 2006
 - Two different harm reduction cards, one with BAC card and safe drinking tips
 - Cards had no impact on drinking
 - First to document a 21st birthday misperception

21st birthday interventions

Review of birthday card literature

- Smith, et al., 2006
 - 4 cards (control card w/neutral greeting, harm reduction, B.R.A.D., social norms)
 - No effects on drinking or alcohol related problems
- Hembroff, et al., 2007
 - Control group, B.R.A.D., gender-tailored card
 - Students drank less and used more protective behaviors **if** they received the card, read it, understood it

21st Birthday Interventions

Review of birthday card literature

- Lewis, et al., 2008
 - Control group, personalized normative feedback card
 - No effects on drinking or consequences, however card did reduce normative misperceptions

21st birthday intervention

Personalized normative feedback

- Oster-Aaland, et al, 2009
 - Used PNF to reduce drinking
 - Measured recognition of, observation of alcohol poisoning symptoms
 - Willingness to help others

Intervention

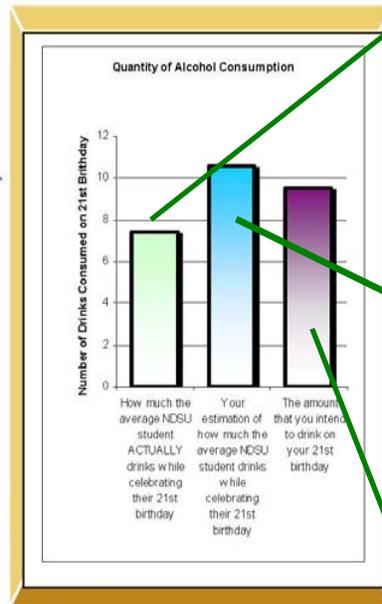
21st Birthday Sample Feedback

According to the information you provided us during the computer assessment, the amount you intend to drink on your 21st birthday (quantity) is 9 drinks.

You completed questions asking you what you believed the average quantity of alcohol consumed by other college students on their 21st birthday. You told us that you believed that the average North Dakota State University student consumed 11 drinks while celebrating their 21st birthday.

The actual drinking norm while celebrating their 21st birthday for college students at North Dakota State University is 6.99 drinks. The 6.99 average was obtained from students attending NDSU during the 2005-2006 academic year.

Your percentile rank (comparing you to other NDSU students) is 68%, which suggests that you intend to drink more than 68% of other college students when celebrating your 21st birthday.



How much the average student actually drank on their 21st birthday

What participants thought other students drank on their 21st birthday

How much the participant intended to drink on their 21st birthday

Results of PNF intervention

- No main effect of intervention on drinking behavior or related consequences
- PNF may not be enough to change 21st birthday behavior due to environmental factors such as
 - **Peer influences**
 - **Free and low priced drinks**
 - **Tradition**

Conclusions

- Birthday cards alone are not enough to change behavior
- Personalized Normative Feedback alone is not enough to change behavior on 21st birthdays

Possible explanations

- Peer influence
- Cultural influences (*ie parents, movies, TV*)
- Tradition (*power hour, 21 for 21, century club, pub crawl*)
- Low priced or free drinks
- **Bar closing time (*ie 12 am – 1 am*)**
- Developmental issues/perception of immortality
- Lack of understanding of alcohol as a drug and potential for “overdose”

Strategic intervention - 21st Birthday

- Knowledge, attitudes, behavioral intentions
 - Standard drink education
 - BAC education
 - Social norms
 - Alcohol poisoning education
 - Bystander training
- Intervention and treatment
 - Personalized normative feedback
- Environment
 - Power hour campaign
 - Power hour legislation
 - Drink discounting bans
 - Server training
 - Prohibit free shots
 - Alcohol free b-day parties
- Health protection
 - Safe ride program
 - Medical amnesty policy

**You can blow out
21 candles...**



**but we
won't allow
you to down
21
drinks.**

*We do not permit Power Hour or
the overconsumption of alcohol.*

You'll thank us later!

Tailgating

Tailgating history at NDSU

- Pre 2004
- Vote of tailgating task force (8 to 9) to allow alcohol in controlled environment
- City ordinance changed
- Post 2004 rules
 - Limit to one specific area with clear borders
 - Increased law enforcement
 - Must be over age 21 unless accompanied by parent
 - Random checking of IDs
 - Tailgating shut down ½ hour after kick off
 - No alcohol sales inside stadium

Evaluation methods

- Pre and post survey
- Typical alcohol consumption
- Typical attendance at and alcohol consumption at tailgating
- Perceptions of drinking at tailgating
- Football game attendance
- Game attendance based on policy
- Negative consequences due to tailgating

Results

- No differences in
 - Drinking rates
 - Prevalence of problems
- **Perceptions** of tailgating drinking increased
- Students' reported intentions to attend more games if alcohol was allowed were higher than their reported actual attendance after the policy
- *Collaboration with athletic department led to Athletic Director as chair of campus coalition*

Strategic intervention - Tailgating

- Knowledge, attitudes, behavioral
 - Alumni education
 - Parent education
 - Student education
- Environment
 - Clear tailgating rules
 - Publicize the facts “not everyone drinks at tailgating!”
 - Offer alcohol free tailgating option
 - Wrist bands for < 21
- Environment (cont.)
 - Strong enforcement
 - End prior to game
- Health protection
 - Availability of safe ride/cab service
 - Bystander training
- Intervention & Treatment
 - Publicize online screening and resources
 - Refer to counseling/brief interventions as sanctions

Greek Life

NDSU NORTH DAKOTA
STATE UNIVERSITY

Oster-Aaland, 2013 -- Do not reprint
without permission

History

- 7 fraternities, 3 sororities
- Off campus, privately owned houses
- Student organizations sanctioned by student government
- 1999 discussion group formed
- 2000 made recommendations
- 2001 finalized into “Greek Life Initiatives and Action Plan”

Greek Life Initiative and Action Plan

- Regular discussions between student leaders and administrators
- University commitment to provide administrative support for Greek life activities
- Formation of Greek life advisory council
- Minimum GPA requirement of 2.5
- Advisor requirement
- Substance free housing requirement (phased in over 2 years)

Results

- Major reduction in loud party complaints
- Major reduction in police calls
- Better relationships with neighborhood
 - Good Neighbor program
- Increase in GPA for many chapters
- Increase in recruitment for many chapters

Strategic intervention – Greek Life

- Knowledge, attitudes, behavioral intentions
 - Alumni education
 - Parent education
 - Student education
 - Re-commitment to Greek values
- Environment
 - GPA requirements
 - Advisor/House Parents
 - Service requirements
 - Campaigns re: Greek life values
- Environment (cont.)
 - Alcohol bans from common spaces and open parties
 - Good neighbor campaigns
 - Social host ordinances
- Health protection
 - Bystander training
 - Alcohol overdose training
- Intervention & Treatment
 - Publicize online screening and resources
 - Refer to counseling/brief interventions as sanctions

Bison Bash

NDSU NORTH DAKOTA
STATE UNIVERSITY

Oster-Aaland, 2013 -- Do not reprint
without permission

Bison Bash history

- Private business property adjacent to campus
 - Owned by NDSU graduate
 - Intention to “start a new tradition”
- Advertised on Facebook as “Bison Bash”
 - Unauthorized use of NDSU parking lots
- Beer garden
- Live bands

Concerns

- First day of classes in fall
- Monitoring of beer garden
 - Approval by city w/out university knowledge
- Underage drinking/pre-partying
- Association with University logo/mascot
- Neighborhood issues
 - Parking, noise, etc.
- Lack of control on number of people
- Lack of security/enforcement

Response for fall 2011

- Meeting with President's Cabinet
- Meeting with city police
- Invitation to remove alcohol from event
- Restriction of parking lots
- Extra security
- Emails to student body (not focusing on event)
- Event drew very small attendance

Strategic intervention –

Off campus events

- Knowledge, attitudes, behavioral intentions
 - Education w/event sponsor
 - Offer to partner to make event successful
- Health protection
 - EMT on stand by?
- Intervention & Treatment
 - Intervene with brief interventions through sanctions
- Environment
 - Removal of alcohol from event
 - Publicize as alcohol free event
 - Provide prizes/fun environment
 - Enforce any pre-partying

Campus action plans

Questions?

Laura Oster-Aaland, Ph.D.

Director of Orientation and Student Success
Alcohol and Other Drug Abuse Prevention Programs

Laura.Oster-Aaland@ndsu.edu

www.ndsu.edu/alcoholinfo