

ADOLESCENT ALCOHOL INTERVENTION: RECOMMENDATIONS FROM BASIC AND CLINICAL RESEARCH



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Surgeon General's Call to Action to Prevent and Reduce Underage Drinking

UNDERAGE ALCOHOL USE AND PROBLEMS
ARE NOT INEVITABLE

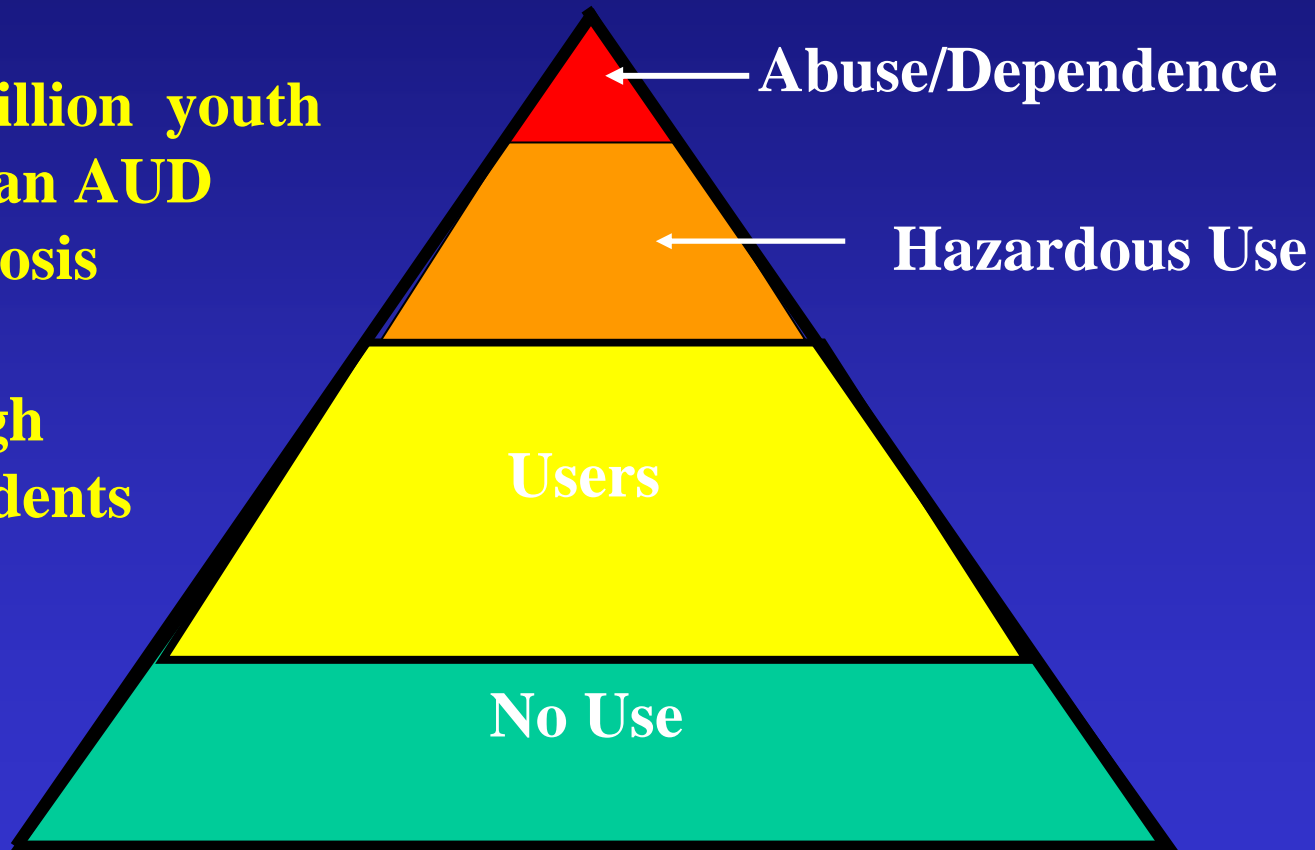
WE ARE NOT POWERLESS TO STOP IT,
but it takes a national commitment

RESEARCH ON HUMAN DEVELOPMENT AND
ALCOHOL INTERVENTION CAN GUIDE
THESE EFFORTS

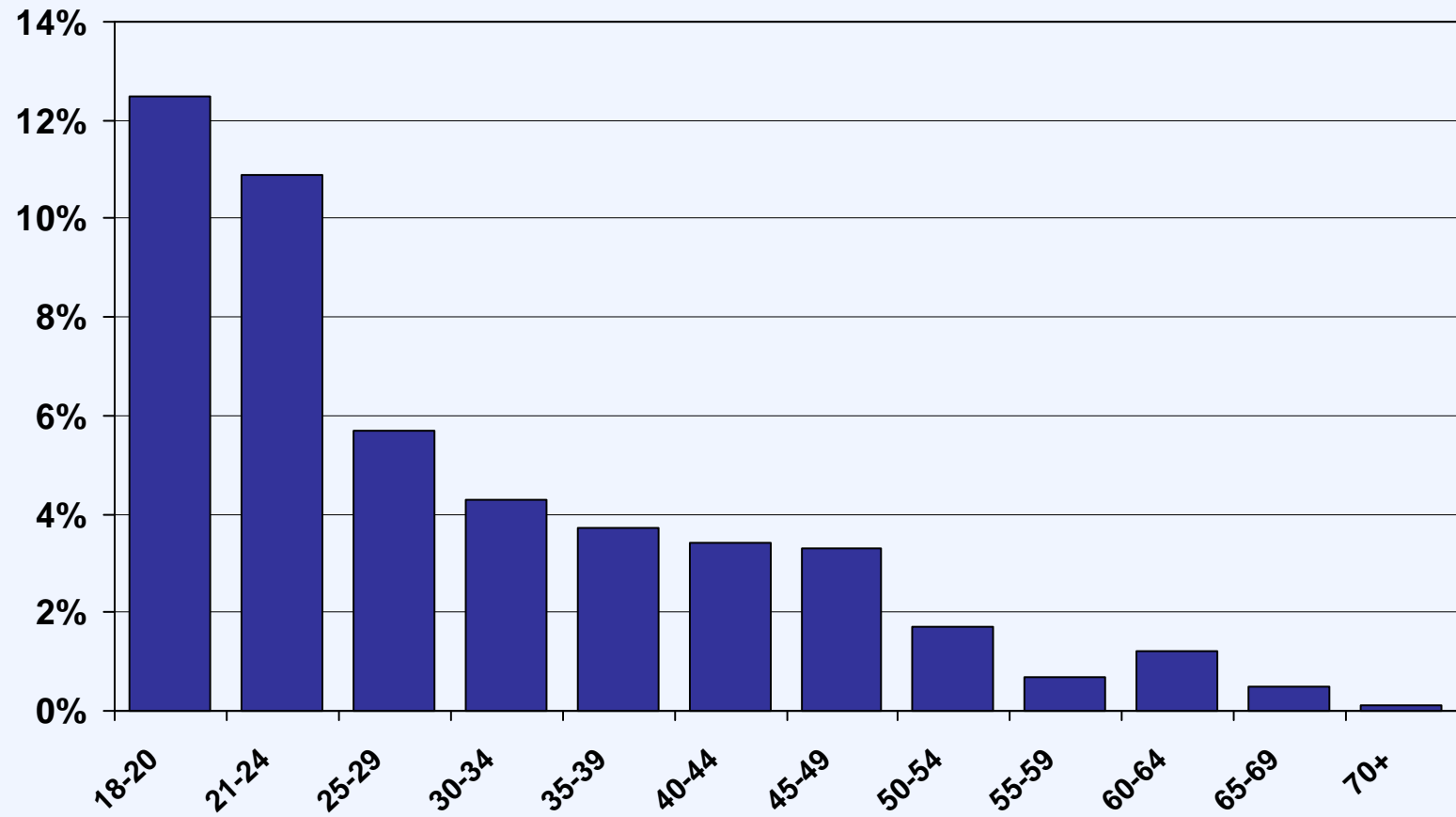
Youth Alcohol Use Patterns

**3.7 million youth
have an AUD
diagnosis**

**Half of high
school students
who drink
binge**



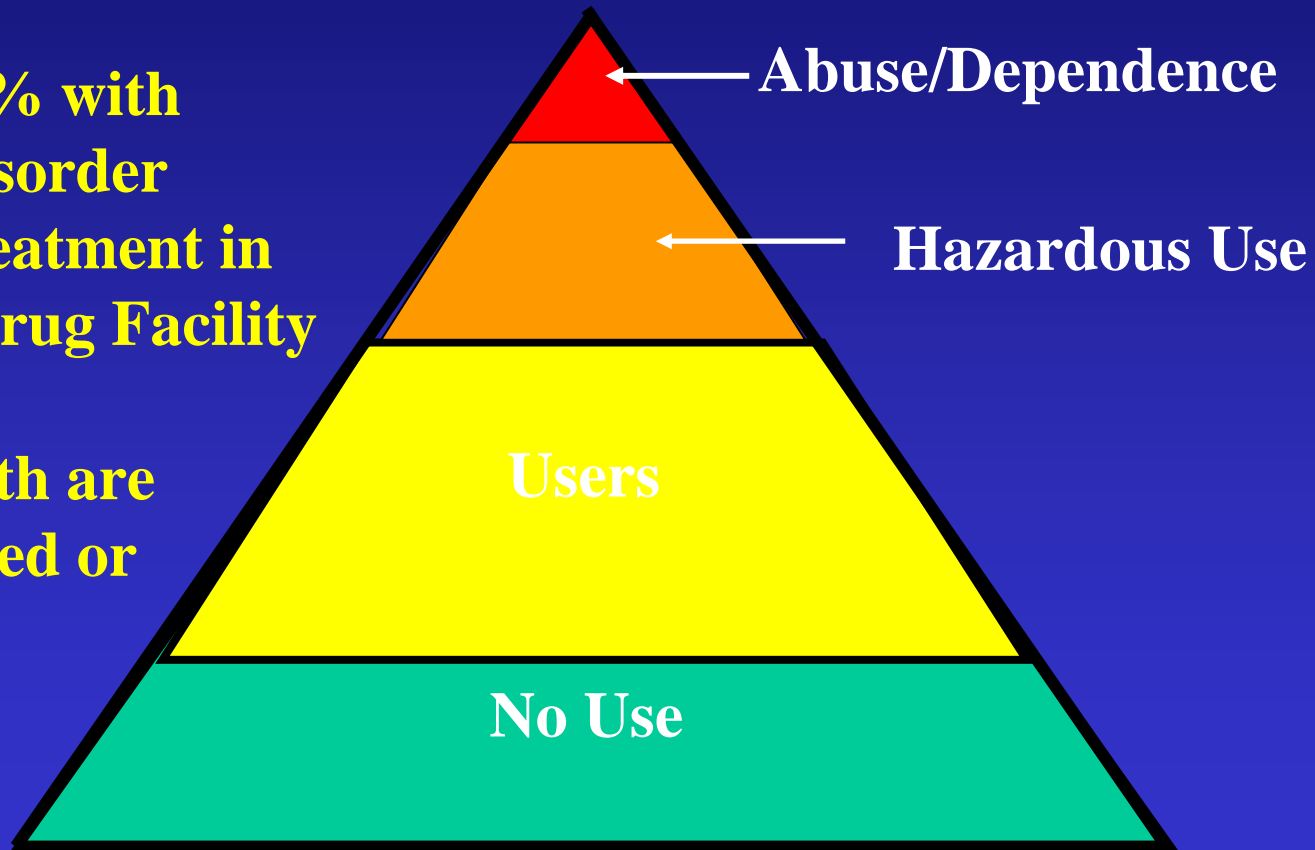
Prevalence of Past-year DSM-IV Alcohol Dependence: United States, 2001-2002



Need for Youth Alcohol Interventions

Under 10% with alcohol disorder receive treatment in Alcohol/Drug Facility

Many youth are not screened or diagnosed



Routine Screening is a Critical Link in the Prevention and Early Treatment of Underage Drinking

- Screening
 - Sends a message of concern
 - Is an opportunity for youth to ask knowledgeable adults about alcohol
 - Is an opportunity to intervene before or after problems develop
 - Should be standard in multiple settings

Screening and Brief Intervention Works!

Recent studies on adolescents have found that:

- **Youth expect and are open to discussing alcohol and drug use** (Steiner, 1996. Stern, 2006)
- **And that screening and brief interventions can reduce alcohol, tobacco and marijuana use.** (Knight, 2005, McCambridge, 2004, Oze et al., 2003)
- **Brief Interventions in emergency rooms can reduce both adolescent alcohol use and problems** (Monti, et al., 2004)

Integrated Efforts are Needed to Prevent Alcohol Use and Problems, and Promote Adolescent Recovery

- Change Societal Acceptance of Underage Drinking
- Prevent Onset of Drinking
- Delay Initiation
- Intervene Early
- Reduce Drinking, Negative Consequences, and Progression to AUDs

To Reduce Underage Drinking, Prevention and Intervention Must Be More Developmentally Tailored

Focus on **contexts** appropriate for youth

(home, school/college, health care, recreation settings)

Use **systems** that can support healthy development

(parents, teachers, peers, doctors, coaches, mentors, probation officers, community and religious organizations, media)

Target **times and transitions** that accelerate risk

(school change, puberty, drivers license, dating, residence change)

Use **methods** that fit the developmental level

(consistency in consequences, brief interventions, motivational enhancement approach, acceptable options)

What do we know about adolescent alcohol intervention?

➤ Prevention:

- Must start early and change as developmental risk factors change
 - Family-media-peers-stress-access
- When multiple systems are involved, prevention is most effective
- Promotion of healthy behaviors protects against early alcohol involvement particularly in high risk individuals
 - Activities, sports, music, family communication, etc.

“SCAFFOLDING” may Protect and Facilitates Skill Development as the Brain Matures

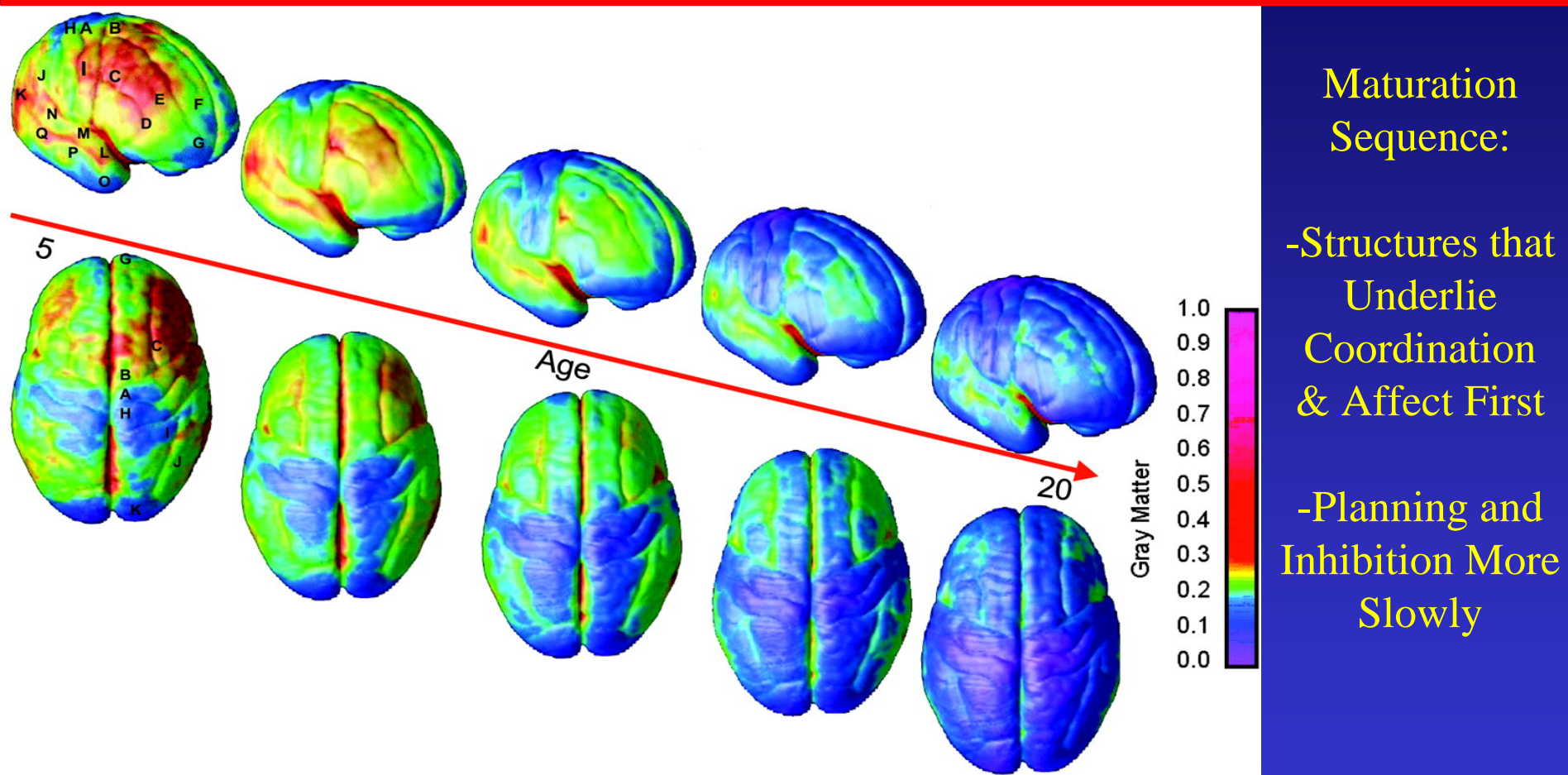
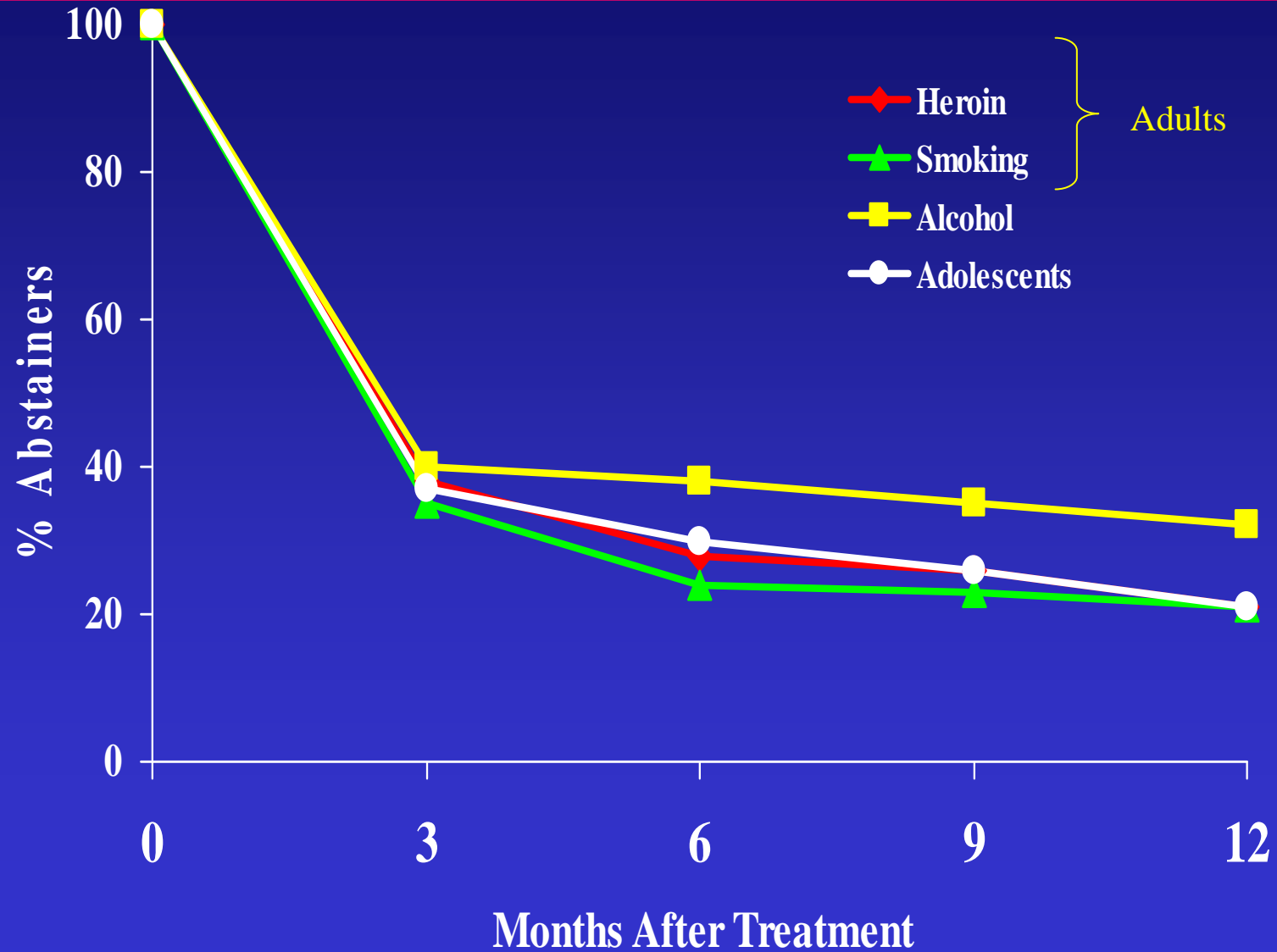


Fig. 3. Right lateral and top views of the dynamic sequence of GM maturation over the cortical surface

Gogtay, Nitin et al. (2004) Proc. Natl. Acad. Sci. USA 101, 8174-8179

**What do we know about
adolescent alcohol intervention?**

Even though Adolescents Use Alcohol for Shorter Periods Before Treatment, They Relapse as Quickly as Adults



AUD Adolescents have greater cue reactivity and reduced forethought

Alcohol Pictures



Non-Alcohol Pictures

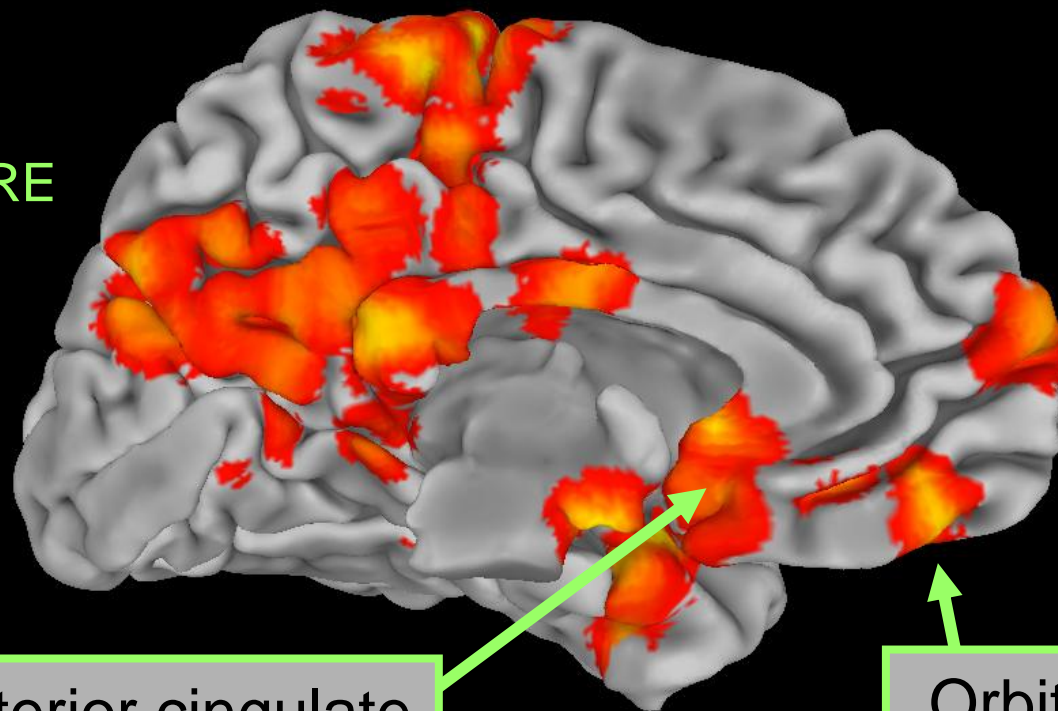


Adolescent Brain Response to Alcohol Cues is Pronounced Even with Abstinence

- Alcohol picture trials relative to non-alcohol beverage trials:

- Affect
- Interest
- Craving

LEFT
HEMISPHERE



Anterior cingulate
& NAc

Orbital/prefrontal
(BA11)

- Orange: AUD teens had more response to alcohol pictures

Adolescents With Mental Health Disorders Do More Poorly after Alcohol Treatment than Other AUD

Adolescents and Adults

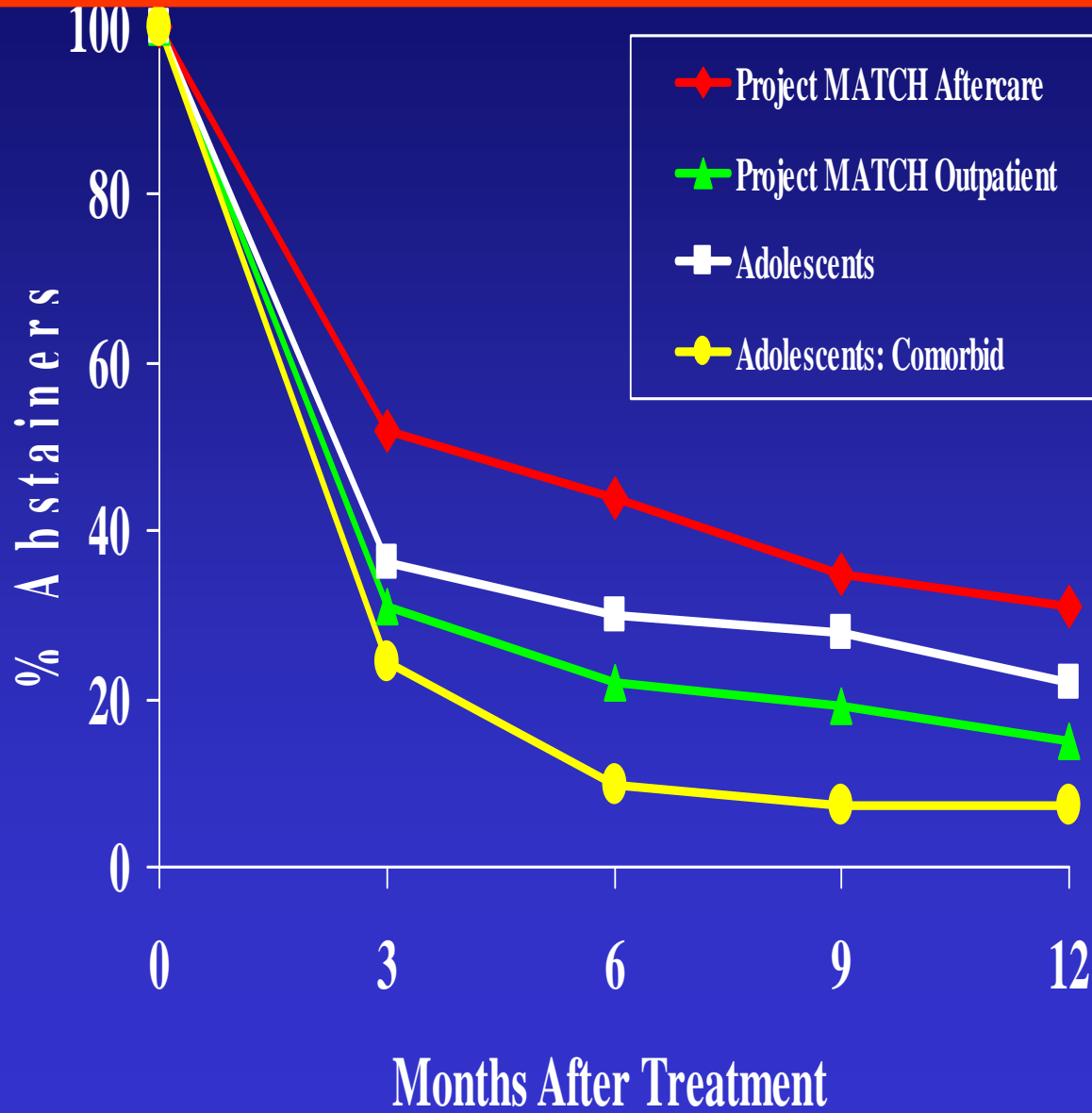
Psychiatric Comorbidity

- Disruptive Disorders
- Depression & Anxiety
- Reduces Success
- Influences Relapse

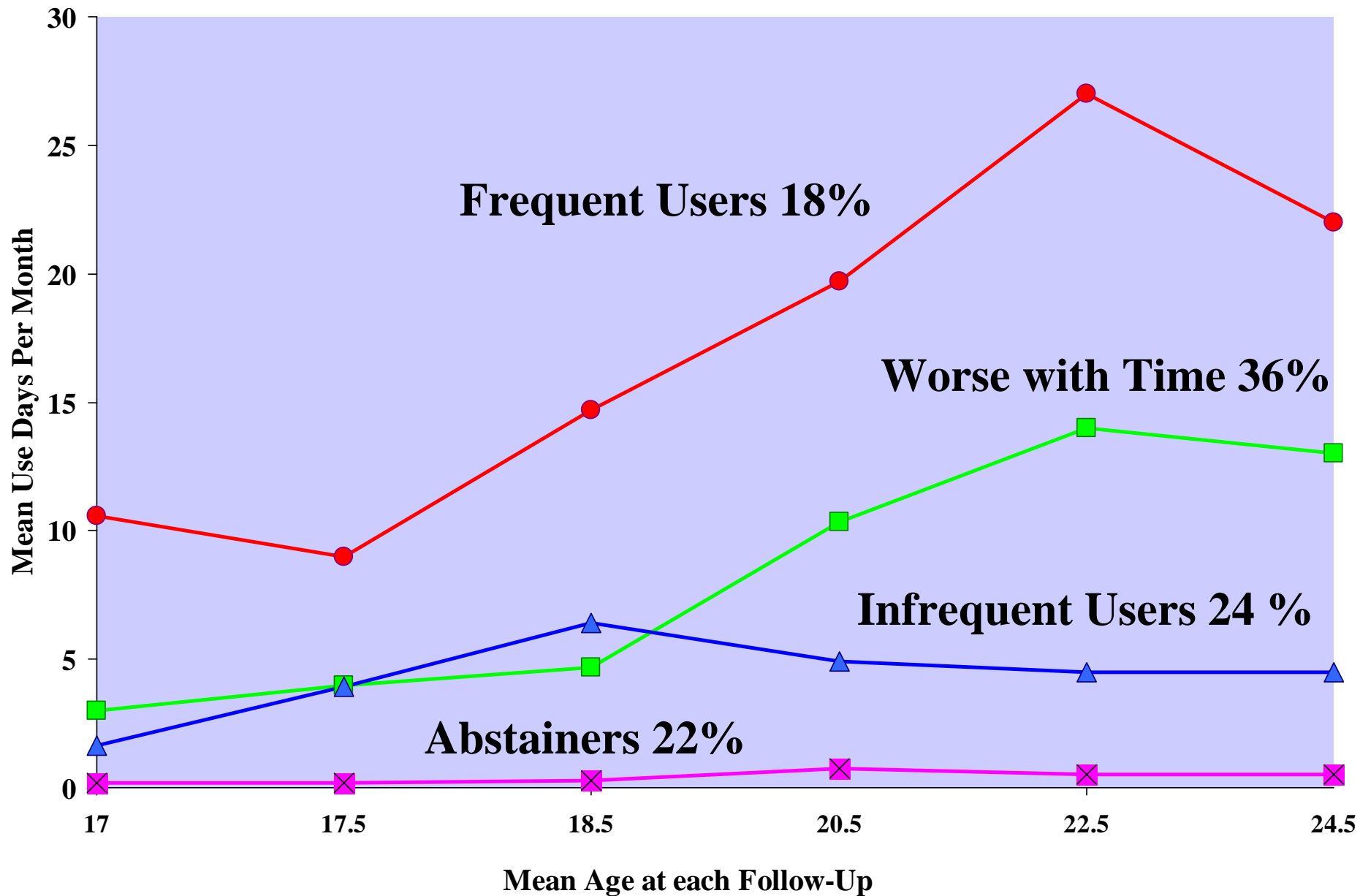
↑ negative affect

↑ cog/beh symptoms

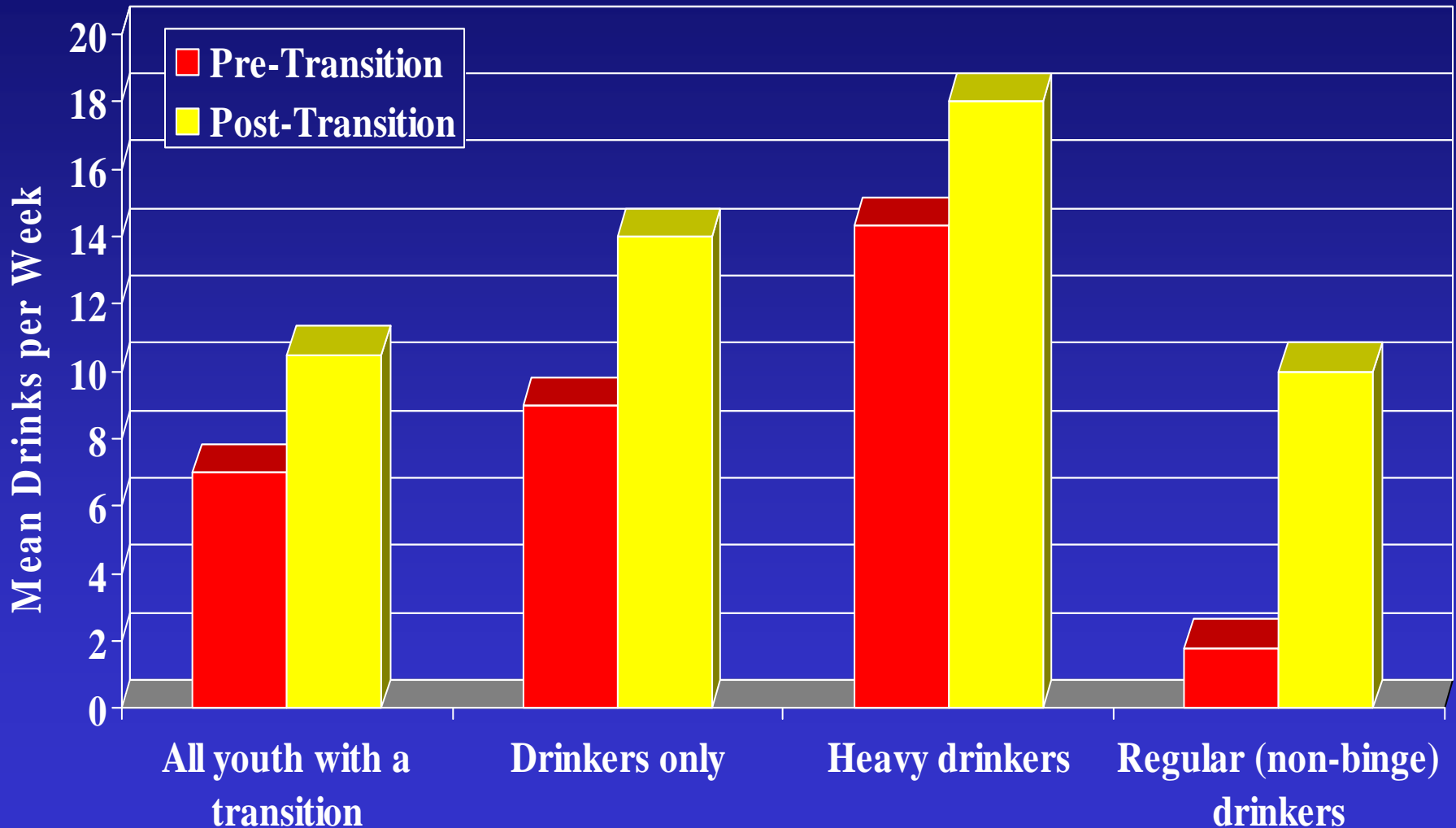
↑ relapse alone



Alcohol Treatment Trajectory Groups



Developmental Transitions can Provoke Risk: Moving to Independent Living



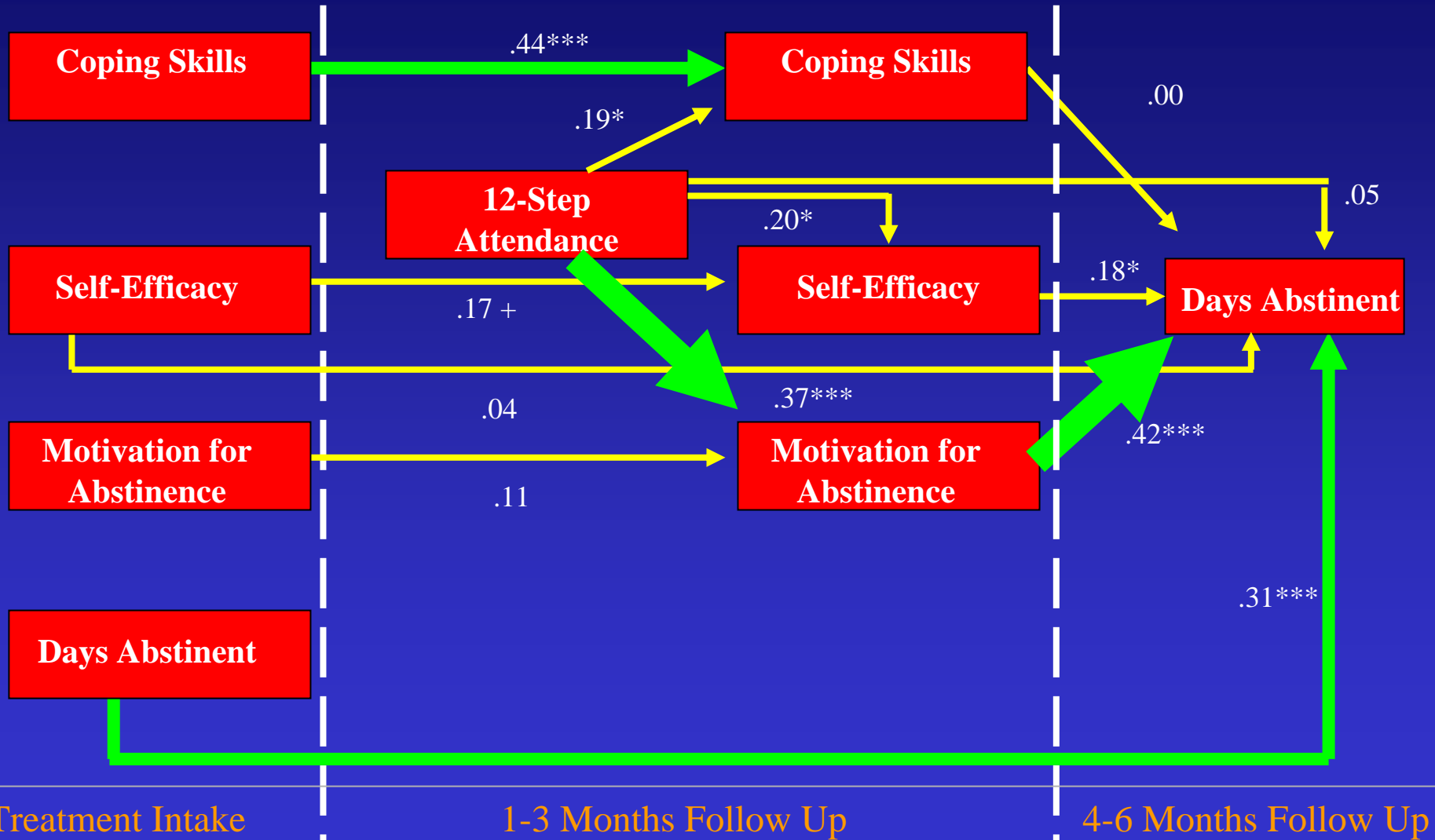
Several Psychosocial Treatments Are Effective for Youth with AUDs

- Family Therapy
- Cognitive Behavior Therapy
 - Group and Individual
- 12 Step
- Community Reinforcement
- Motivational Enhancement Therapy

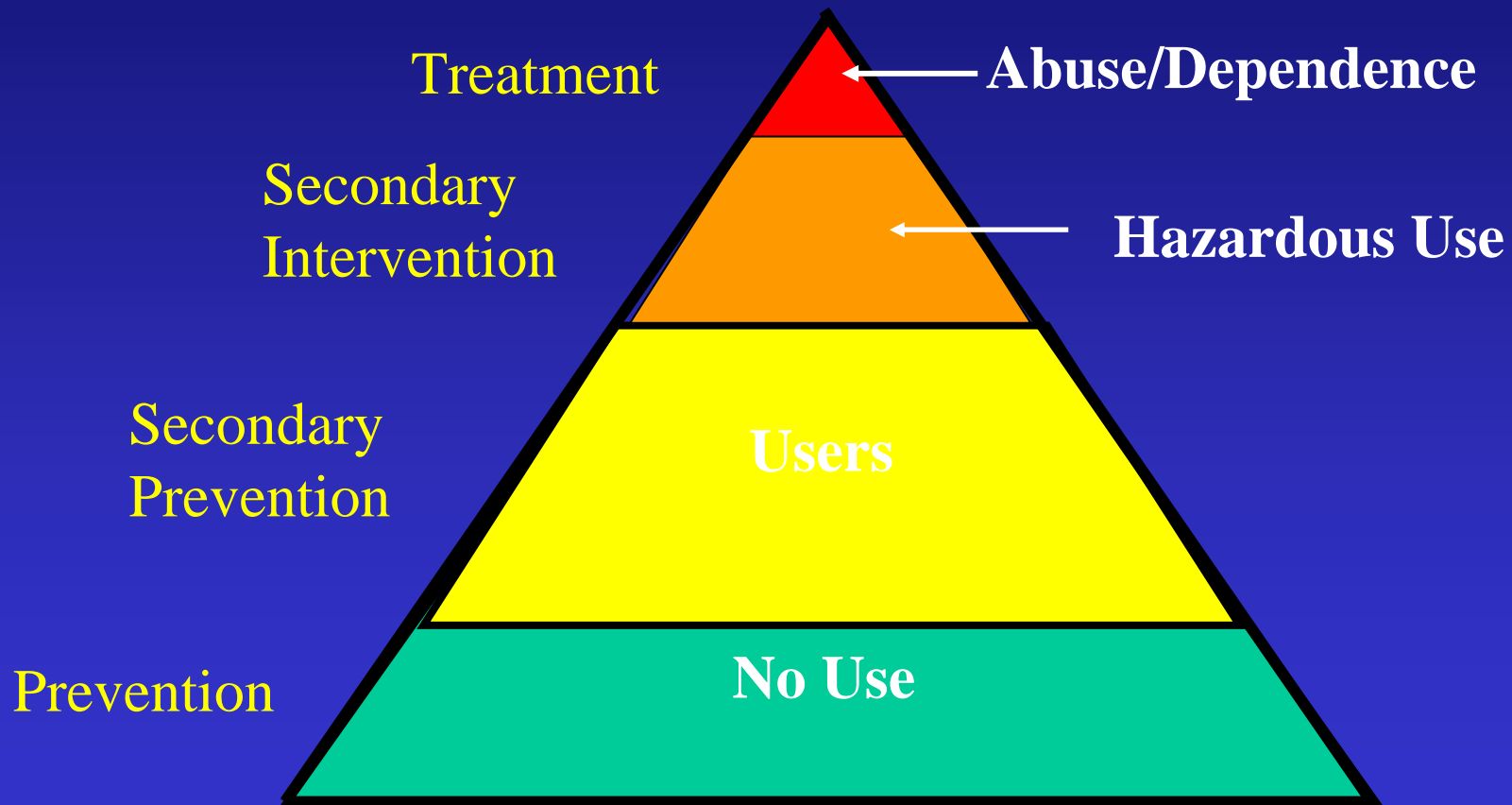
BUT THERE IS STRONG NEED FOR
IMPROVED OUTCOMES



12-Step Participation Helps Youth Remain Abstinent by Sustaining Motivation



Few Alcohol Interventions are Available Before Youth get in Trouble with Authority



Building Developmentally Informed Alcohol Interventions

Youth Preferences

- Formats
- Context
- Content

Intervention Research

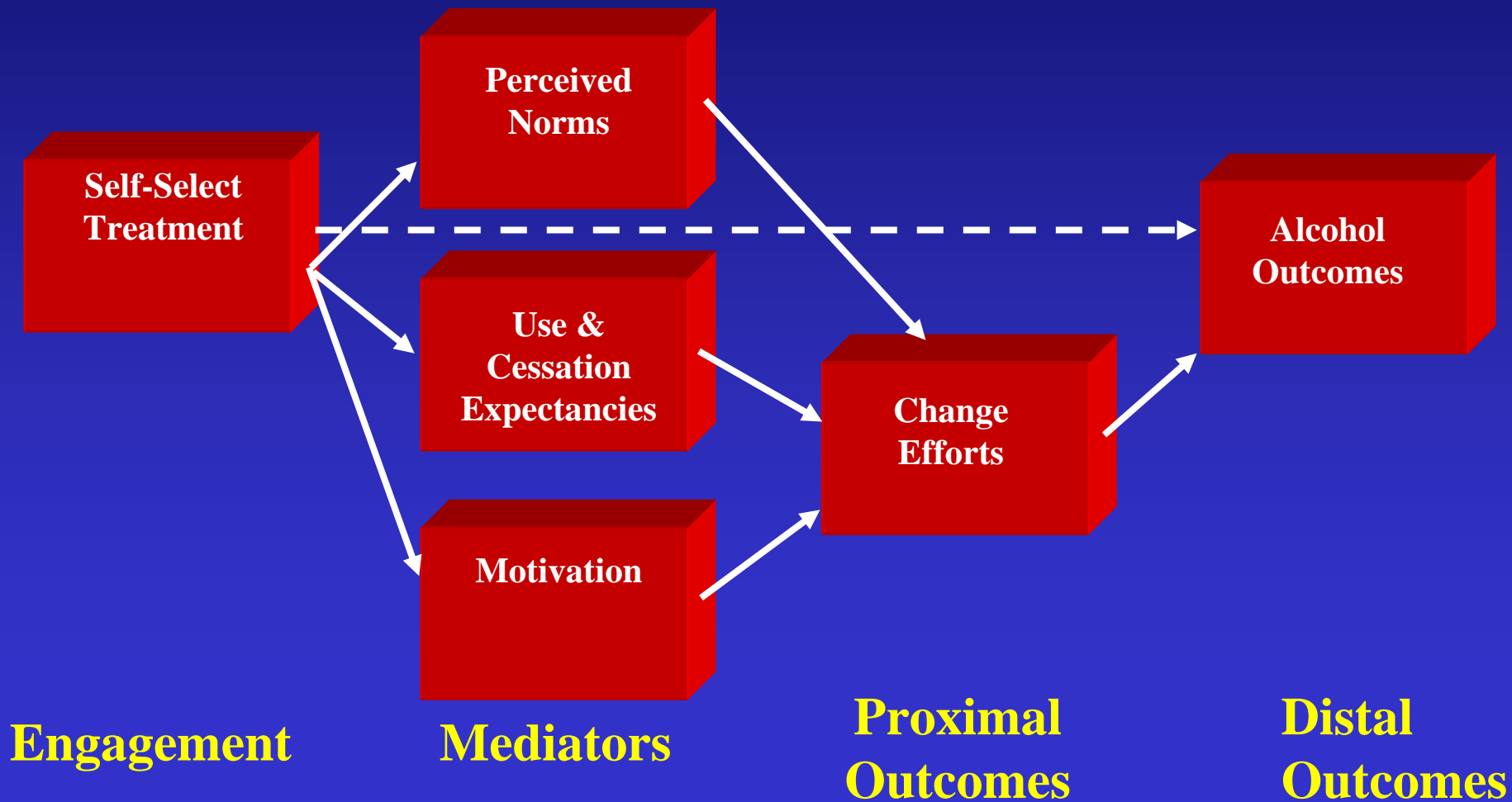
- Perceived Norms
- Quit Attempts
- Change Strategies
- MET & CBT
- Facilitators/Barriers

Developmental Issues

- Brief/Accessible
- Confidential
- Support Autonomy & Decision Making

Secondary Intervention Model:

Developmental Social Information Processing



Project Options: Voluntary Brief Intervention

<u>Formats</u>	<u>Sessions</u>	<u>Location</u>	<u>Time</u>
Group	6	Classroom	Lunch
Individual	6	Classroom	Lunch
Website	Unlimited	Anywhere	Anytime

- Normative Feedback

- Expectancies

- Successful Quits

- Alternative Activities

- Behavioral Management

- Communication

Intervention Engagement: Use Rates

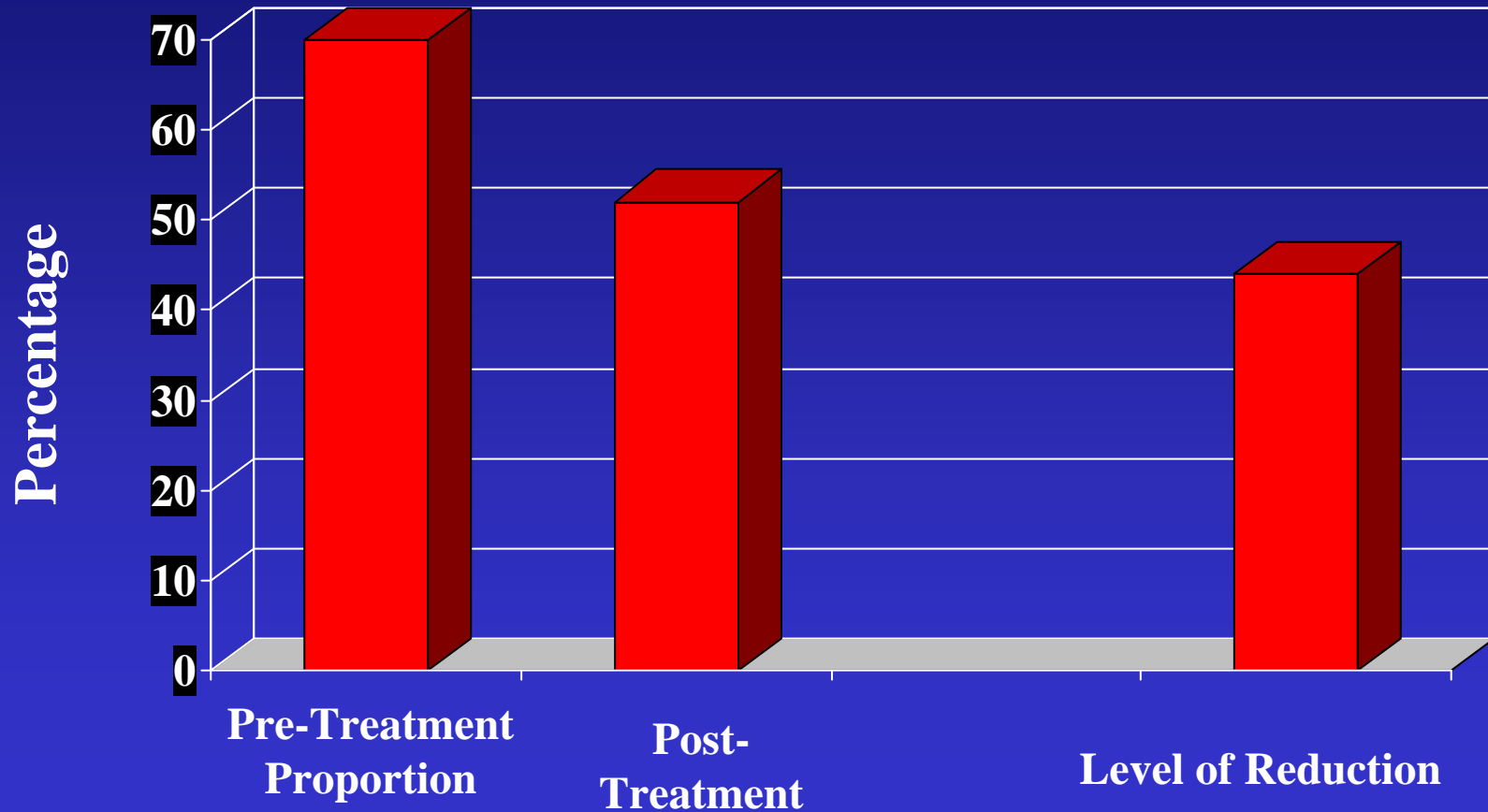
- **10% of Students Self-Select the Intervention**
 - 30% Freshmen
 - 34% Sophomores
 - 36% Juniors/Seniors
- **55-78% Current Drinkers**
 - 1.4-2.0 times base rate for frequent, binge drinking and alcohol problems
- **Proportional Representation of Gender/Ethnic Groups**
 - Boys and Hispanics → Group
 - Boys and Asians → Website
 - Seniors → Individual

Engagement: Evaluations of Sessions

Session Focus	Helpful	Useful	Style	Rules	Leadership
Normative Feedback	1.70	1.71	1.59	1.76	1.49
Alcohol Expectancies	1.67	1.71	1.62	1.72	1.40
Successful Quits	1.64	1.61	1.47	1.64	1.42
Alternative Activities	1.75	1.63	1.55	1.47	1.36
Behavioral Management	1.63	1.64	1.46	1.55	1.33
Communication	1.57	1.56	1.46	1.54	1.34
Grand Mean	1.66	1.64	1.53	1.61	1.39

^a Responses based on a scale from 1 to 5. 1=Best/Very Good; 5= Worst/Poor

Change in Perceived Norms



OVERESTIMATION

Intervention Students Cut Down/Stopped Drinking More and Reduced Alcohol Problems More than Matched Peers*

	Project Options	Matched Students
Tried to Cut down drinking	15%	10%
Tried to Stop Drinking	14%	8%
Reduced Number of Alcohol Related Problems	21%	6%

* Groups Comparable on sex, age, grade, alcohol use and problems

Survey Reports

Development: Implications for Alcohol Treatment & Prevention

Shape treatment to match youth . . .

- Cross system consistency required
- Influenced by peer issues
- Influenced by emotion before logic
- Primed for physical and sensory activities
- Impose structure (Practice frontal lobe skills)
- Attend/Market to youth interests & concerns
- Readily and easily accessible
- Build toward autonomy/independence

Thank You

Alcohol continues as top drug following treatment: 90 Day Prevalence

