CD Summary

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OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

14 IS TOO YOUNG TO DRINK

Let's start with this: excessive alcohol use is bad for us. And it's badder for teens (in the baddest sense).

The toll is substantial:

- Binge drinking is associated with lower academic achievement, risky sexual behaviors and death;
- Alcohol is a major contributor to traffic accidents, the number one cause of death among teens. In Oregon during 2007, an estimated 25 traffic fatalities and 300 nonfatal traffic injuries involved an underage drinking driver;*
- Early alcohol initiators are also substantially more likely to go on to develop chronic alcohol abuse and dependence (figure 1).[1]

This *CD Summary* explores the data on early drinking and offers suggestions for addressing the problem.

THE SCOPE

Unfortunately, teen drinking is common. During 2009, 52% of Oregon 8th graders reported ever having drunk alcohol (more than a few sips); that number increased to 74% of 11th graders (table).† These proportions are not declining but have actually increased slightly since 2004. On this problem, girls don't get a pass: age of initiation is *not* associated with gender.

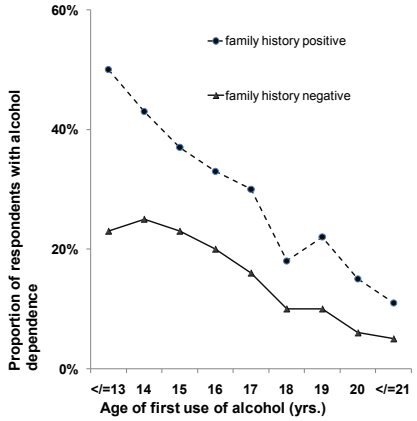
In addition, the earlier a youngster begins to drink the higher the level of past 30-day binging he or she will report in the 11th grade; data on consumption are similar (figure 2).

In addition to past 30 day abuse and misuse, the earlier one begins to consume alcohol the greater the likelihood of lifetime alcohol dependency.

EARLY ALCOHOL USE AND THE DEVELOPING BRAIN

Could early use simply be a marker for those predestined to develop alcohol disorders? Maybe, but early initiation might be causally related. Young adolescents who drink tend to drink larger quantities on each occasion than adults, perhaps because they are less sensitive to some of the unpleasant effects of intoxication. And, whereas they might tolerate more at one sitting, young adolescents appear to be more sensitive to alcohol's harmful effects on brain development.[2] One group of investigators found that adolescent rats were less facile at learning a task that required spatial memory than adults after exposure to alcohol.[3] Other research suggests that, in adolescents more than adults, alcohol inhibits the process in which, with repeated experience, nerve impulses travel across neurons involved in the task being learned.[4]

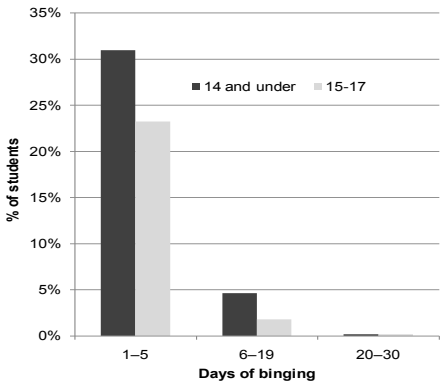
Figure 1. Prevalence of lifetime alcohol dependency by age of first use[1]



RISK AND PROTECTIVE FACTORS

Biological, psychological and social processes shape one's risk for alcohol use and misuse. Self-esteem, coping skills, adverse childhood experiences, parental and peer relationships, academic achievement, neighborhood attributes, media and advertising all contribute to or protect against alcohol use.[5] Medical providers who inquire about family and peer relationships, academic progress, nonacademic activities, acceptance of authority, degree of self-esteem, and ongoing episodes of familial conflict often identify risks and protective factors for current or future alcohol abuse.[3] Providers who establish confidentiality, comfort and trust are most successful at obtaining useful information. Pre-teens and teenagers should be interviewed without their parents/guardians present during at least a portion of each office visit, with the reassurance of confidentiality and a discussion of its limits.

Figure 2. Age of first alcohol use by past 30 day binge drinking among 11th graders, Oregon, 2009*



* among teens who drink

DETECTING ALCOHOL USE AND MISUSE

Bright Futures—an American Academy of Pediatrics initiative—recommends that all adolescents be asked annually about their use of alcohol and other substances as part of a comprehensive health assessment.[6] After establishing a modicum of trust and comfort, begin by asking the youth whether he/she has ever used alcohol (more than a few sips), marijuana, or other drugs to get high. If you elicit a "Yes"

Table. Alcohol consumption by grade level, Oregon, 2009

Grade level	Ever drank	Past 30 day drinking*	Past 30 day binging**
8th	52%	21%	10%
11th	74%	36%	22%

*more than a few sips on at least one day **4 (girls) or 5 (boys) drinks on at least one day

* www.oregon.gov/OHA/addiction/resource_center.shtml#pubs

† Oregon Healthy Teens Survey, 2004, 2009, http://public.health.oregon.gov/BirthDeathCertificates/Surveys/OregonHealthyTeens/Pages/index.aspx

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— Darn! Admit it; you were hoping to get home by 5 PM today — to any of the initial questions, the American Academy of Pediatrics recommends that you get in the habit of using a screening tool, such as the CRAFFT questions, to determine level of risk.

Engaging young people in discussion about alcohol use when a screen is positive is more likely to be successful when providers display respect for the youth's individuality and support for his/her emerging autonomy and focus on the youth's strengths. Though you might be sorely tempted, anything that smacks of scolding is not likely to help. Office-based brief interventions should focus on risk reduction, education, negotiation, and agreement on a specific change in behavior over a specific time period. We know that the world expects "the primary care physician" to solve everything from child abuse to chronic obesity to nail biting and world hunger. But in this case, though you're the greatest (doctor, nurse, PA, NP, assistant,…) who ever lived, you're not expected to solve the problem by yourself, let alone in one visit. Some adolescents will require more direct intervention, parental involvement, and referral to intensive treatment. If you aren't already, try to become familiar with treatment resources and referrals in your community. A directory of alcohol and drug treatment providers in Oregon can be found on the Alcohol and Mental Health Division (AMHD) website at www.oregon.gov/OHA/addiction/gethelp.shtml.

RESOURCES

- Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide. www.niaaa.nih.gov/YouthGuide

CRAFFT SCREENING QUESTIONS

1. Have you ever ridden in a **C**ar driven by someone (including yourself) who was 'high' or had been using alcohol or drugs?
2. Do you ever use alcohol or drugs to **R**elax, feel better about yourself, or fit in?
3. Do you ever use alcohol or drugs while you are by yourself, **A**lone?
4. Do you ever **F**orget things you did while using alcohol or drugs?
5. Does your **F**amily or **F**riends ever tell you that you should cut down on your drinking or drug use?
6. Have you ever gotten in **T**rouble while you were using alcohol or drugs?

Each "yes" response is scored 1 point. A score of 2 or higher is a positive screen result and indicates high risk for an alcohol- or drug-related disorder and should be followed by a more comprehensive history including age at first use; current pattern of use (quantity and frequency); impact on physical and emotional health, school, and family; other negative consequences; co-occurring mental disorders and parent/sibling alcohol use. More information on the use of the CRAFFT and a physician guide to interviewing youth specifically on alcohol use can be found in the *"The Adolescent Preventive Care Visit"* by the American Academy of Pediatrics (2010). See the resources section for a link to the guide.

- "The Adolescent Preventive Care Visit" (American Academy of Pediatrics. Information on administering the CRAFFT screening tool, brief office-based interventions.) https://www.nfaap.org/netforum/eweb/DynamicPage.aspx?webcode=aapbks_productdetail&key=184010d1-0558-4847-b41b-ddb24e894bf3
- American Academy of Pediatrics: Bright Futures

REFERENCES

1. Masten AS, Faden FB, Zucker RA, & Spear, LP. A developmental perspective on underage alcohol use. Alcohol Research & Health 2009 32:3–15.
2. White AM, and Swartzwelder, HS. Age-related effects of alcohol on memory and memory-related brain function in adolescents and adults. In: Galanter M, ed. *Recent developments in alcoholism: Alcohol problems in adolescents and young adults: Epidemiology, neurobiology, prevention, treatment*. New York: Springer; 2005. 161–76.
3. White AM, et al. Binge pattern ethanol exposure in adolescent and adult rats: Differential impact on subsequent responsiveness to ethanol. Alcoholism: Clinical and Experimental Research 2000;24:1251–6.
4. The effects of alcohol on physiological processes and biological development. Alcohol Res Health 2004;28:125–31. Available at www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19093686
5. Kulig JW. Tobacco, alcohol, and other drugs: The role of the pediatrician in prevention, identification, and management of substance abuse. Pediatrics 2005;115:816–21. Available at www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=15741395
6. Green M PJ, ed. Bright futures: Guidelines for health supervision of infants, children, and adolescents. 2nd ed. Arlington VA: National Center for Education in Maternal and Child Health; 2000.

ERRATA

CD Summary, Vol 60, No. 20. Erratum to [citation] In the table, "Provisional results of Social Networks Strategy for outreach to HIV testing in six Oregon counties, as of October 2011 The provisional results for County A should read: Number of HIV Tests (111) and New HIV Cases (10). County B results indicated in the Table should read: Recruiters (61), Network Associates (18), Number of HIV Tests (79), New HIV Cases (0), and %New HIV Cases (0). The resulting totals should read: Recruiters (117), Network Associates (139), Number of HIV Tests (194), New HIV Cases (10), and % New HIV Cases (5%). These results are as of October, 2011. The corrected version is now available online.