

Treatment and Harm Reduction for Risky Alcohol Use

Fred Rottnek, MD, MAHCM
Program Director, Addiction Medicine Fellowship

Missouri Department of Health Spring Training Institute
May 9, 2025

Objectives

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- Discuss the impact of risky alcohol use on the U.S. in 2025
- Identify risks factors for risky alcohol use in youth, adults, and older adults
- Implement medication treatments for individuals with alcohol use disorder and problematic use
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www.cdc.gov/alcohol

Deaths on the rise in the US
from excessive alcohol use*

2016-2017

2020-2021



*178,000 deaths each year in the US during 2020-2021, compared to 138,000 deaths each year during 2016-2017.

Health Consequences of Risky Alcohol Use

- Cancer
- Liver Disease
- Cardiovascular Conditions
- Increased risks of injuries, violence, sexually transmitted infections
- Significant economic costs and social problems, including, increased healthcare expenses, reduced productivity, relationship issues with family and friends, and learning and work-related problems
 - *NIAAA data and CDC Wonder Data are not available at present*

Objectives

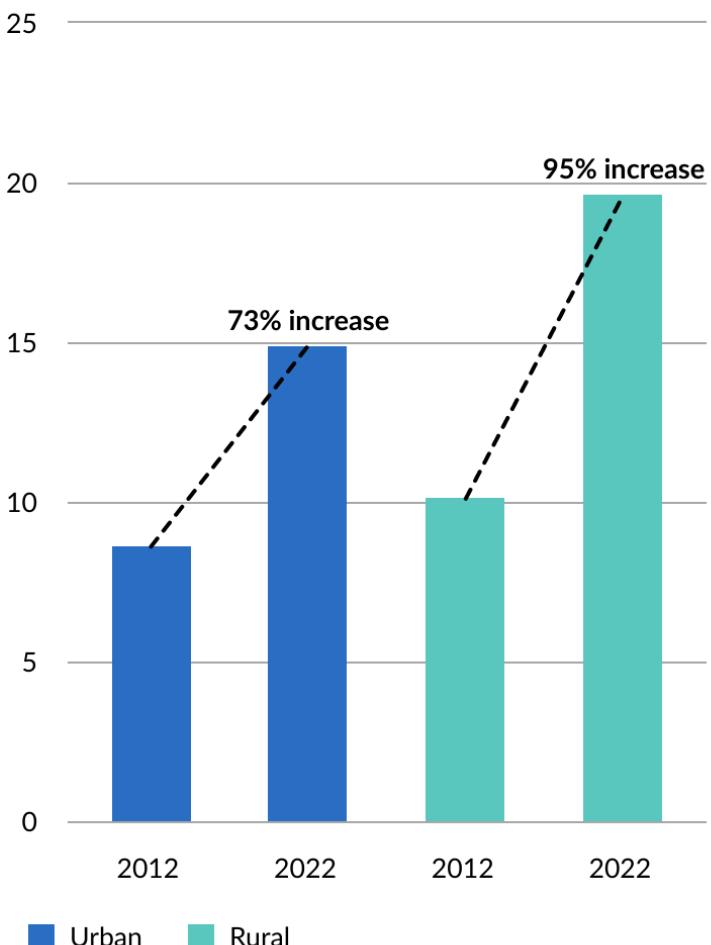
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Figure 3

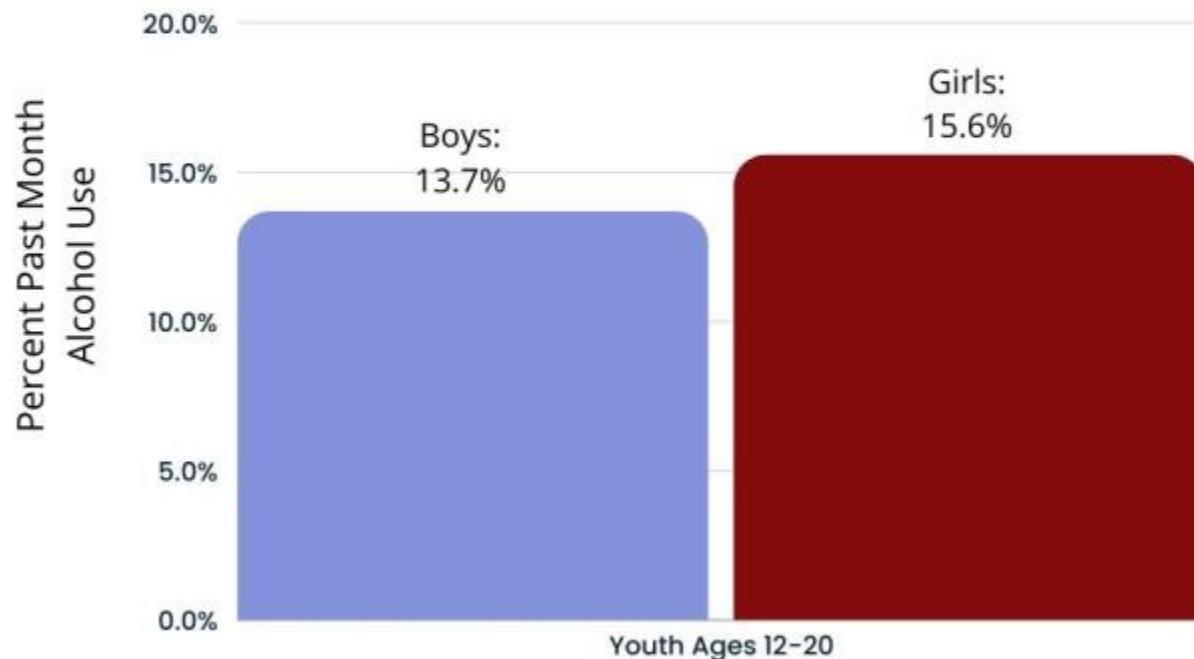
Alcohol-Related Deaths Have Increased Faster in Rural Areas

2012-22 change in alcohol-induced death rate per 100,000 by urban and rural areas

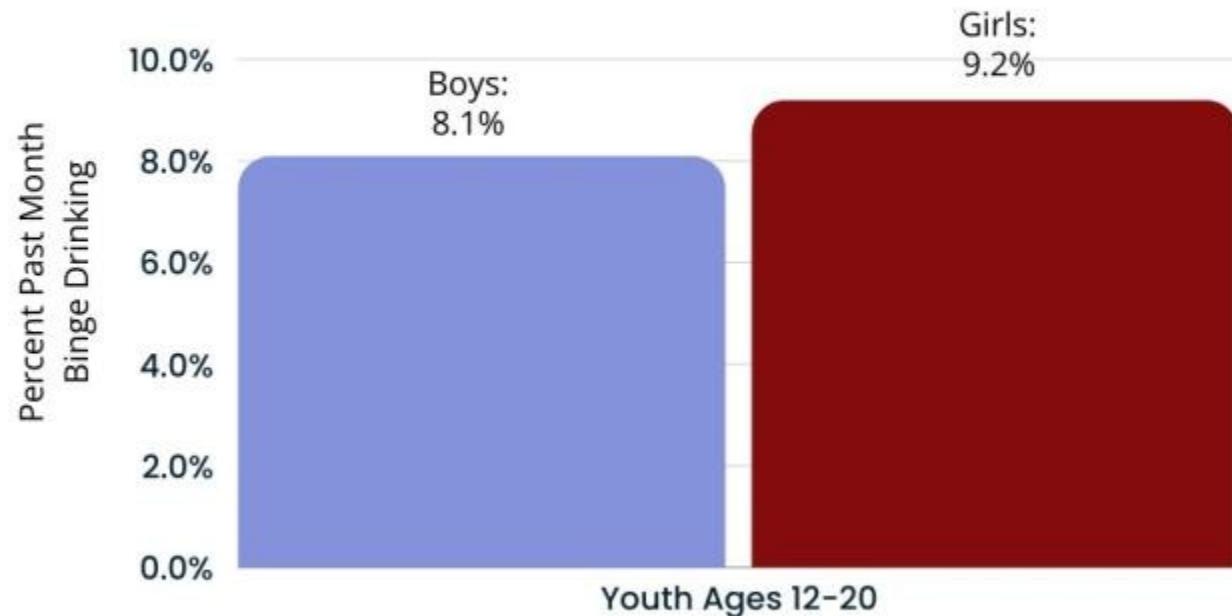


Source: KFF analysis of CDC National Center for Health Statistics
Multiple Cause of Death 1999-2020, 2018-22,
<https://www.kff.org/mental-health/issue-brief/a-look-at-the-latest-alcohol-death-data-and-change-over-the-last-decade/>

A comparison of U.S. boys and girls: Past-month alcohol use



A comparison of U.S. boys and girls: Past-month binge drinking



Risk factors for high-risk substance use

Risk factors for youth high-risk substance use can include:

- Family history of substance use
- Favorable parental attitudes towards the behavior
- Poor parental monitoring
- Parental substance use
- Family rejection of sexual orientation or gender identity
- Association with delinquent or substance using peers
- Lack of school connectedness
- Low academic achievement
- Childhood sexual abuse
- Mental health issues
 - <https://www.cdc.gov/healthyyouth/substance-use/index.htm>

Protective factors for high-risk substance use

These are also known as protective factors. Some protective factors for high-risk substance use include:

- Parent or family engagement
- Family support
- Parental disapproval of substance use
- Parental monitoring
- School connectedness
 - <https://www.cdc.gov/healthyyouth/substance-use/index.htm>



Adolescents are
4 times
more likely
to drink alcohol
if their parents
binge drink.

cdc.gov/alcohol

Screening Tools

AUDIT-C

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?					SCORE
Never (0)	Monthly or less (1)	Two to four times a month (2)	Two to three times per week (3)	Four or more times a week (4)	_____
2. How many drinks containing alcohol do you have on a typical day when you are drinking?					
1 or 2 (0)	3 or 4 (1)	5 or 6 (2)	7 to 9 (3)	10 or more (4)	_____
3. How often do you have six or more drinks on one occasion?					
Never (0)	Less than Monthly (1)	Monthly (2)	Two to three times per week (3)	Four or more times a week (4)	_____
TOTAL SCORE Add the number for each question to get your total score.					_____

Maximum score is 12. A score of ≥ 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.



Definition of Alcohol Use Disorder (DSM-V)

- Cravings
- Using larger amounts or for longer time than intended
- Persistent desire or unsuccessful attempts to cut down or control use
- Great deal of time obtaining, using, or recovering
- Fail to fulfill major roles (work, school, home)
- Persistent social or interpersonal problems caused by substance use
- **11 Criteria**
 - Mild: 2-3 symptoms
 - Moderate: 4-5 symptoms
 - Severe: 6 or more criteria

Problematic Drinking



A Professional Elephant in the Room

Risky or Problematic Drinking

- Drinking to celebrate
- Drinking to network
- Drinking to become more sociable
- Drinking because of peer pressure
- Drinking to cope with stress, anxiety, depression, or other discomfort
- Drinking to forget about personal problems
- Drinking to get drunk (enjoying feeling intoxicated)

Risky or Problematic Drinking

- We know long-term effects
- How about short-term effects of problematic drinking?
 - Concern from family and friends
 - Strains in relationships
 - Trouble with work
 - Financial problems

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What Are Your Goals?

- Are you comfortable with your current habits?
- Do you want to protect yourself in certain situations?
- Do you want to cut down?
- Do you want to stop drinking?

Treatment for Alcohol Withdrawal

- Minor withdrawal symptoms - stage 1
 - 6-12 hours after stopping alcohol
 - tremors, insomnia, irritability, mild agitation, anorexia, nausea, vomiting, tension, anxiety, sweating, restlessness
- Alcoholic hallucinosis - stage 2
 - 12-24 hours after stopping alcohol
 - hallucinations (auditory, visual, or tactile) may occur
- Withdrawal seizures - stage 3
 - 24-48 hours after stopping alcohol, although may begin as early as 2 hours after stopping alcohol
 - usually tonic-clonic seizures
- Alcohol withdrawal delirium (delirium tremens) - stage 4
 - usually occurs 3-7 days after stopping alcohol but can occur at any time up to 14 days
 - hallucinations (usually visual), disorientation, tachycardia, hypertension, agitation, diaphoresis, low-grade fever

DynaMed Plus

Management of AUD: Acute

Inpatient or outpatient?

- Inpatient is always the safest option, but it may not always be an option
- Use available validated tools
- Have discussion, offer opinion, and document plan

Prediction of Alcohol Withdrawal Severity Scale (PAWSS)

Maldonado et al, 2015

Part A: Threshold Criteria:

("Y" or "N", no point)

Have you consumed any amount of alcohol (i.e., been drinking) within the last 30 days? OR did the patient have a "+" BAL on admission?

IF the answer to either is YES, proceed with test:

Part B: Based on patient interview:

(1 point each)

1. Have you been recently intoxicated/drunk, within the last 30 days? _____
2. Have you ever undergone alcohol use disorder rehabilitation treatment or treatment for alcoholism?
(i.e., in-patient or out-patient treatment programs or AA attendance) _____
3. Have you ever experienced any previous episodes of alcohol withdrawal, regardless of severity? _____
4. Have you ever experienced blackouts? _____
5. Have you ever experienced alcohol withdrawal seizures? _____
6. Have you ever experienced delirium tremens or DT's? _____
7. Have you combined alcohol with other "downers" like benzodiazepines or barbiturates, during the last 90 days? _____
8. Have you combined alcohol with any other substance of abuse, during the last 90 days? _____

Part C: Based on clinical evidence:

(1 point each)

9. Was the patient's blood alcohol level (BAL) on presentation ≥ 200 ? _____
10. Is there evidence of increased autonomic activity?
(e.g., HR > 120 bpm, tremor, sweating, agitation, nausea) _____

Total Score: _____

Notes: Maximum score = 10. This instrument is intended as a SCREENING TOOL. The greater the number of positive findings, the higher the risk for the development of AWS.

A score of ≥ 4 suggests HIGH RISK for moderate to severe (complicated) AWS; prophylaxis and/or treatment may be indicated.

Management of AUD: Acute

Hospital-based

- Administer thiamine (Strong recommendation), folic acid, and consider giving a multivitamin to patients with alcohol withdrawal.
- Provide hydration, nutritional support, and electrolyte replacement as part of the supportive care.
- Consider treatment with a benzodiazepine if CIWA-Ar score > 8-10.
Drowsy, but arousable.
 - Regimen options in the inpatient setting include symptom-triggered dosing, fixed-tapering dosing, or a loading-dose regimen. The symptom-triggered dosing is generally preferred in institutions capable of close patient monitoring.

DynaMed Plus

Management of AUD: Acute

Home-based

- Management involves alleviating symptoms and correcting metabolic abnormalities.
- Consider [outpatient treatment](#) for patients with mild-to-moderate symptoms who are not at high risk for delirium tremens or withdrawal seizures.
- Strongly recommend that a patient have someone at home with them for the first 2-5 days
- Administer [thiamine \(Strong recommendation\)](#), folic acid, and consider giving a multivitamin to patients with alcohol withdrawal.
- Consider [hydration](#), nutritional support, and electrolyte replacement as part of the supportive care.
- Consider treatment with a [benzodiazepine](#) if [CIWA-Ar score](#) > 8-10.
 - Regimen options in the outpatient setting include [fixed schedule](#) or [symptom-triggered](#) schedule. [DynaMed Plus](#)

ARCA Alcohol detoxification protocol

- **Naltrexone** 50mg - Take 1/2 tablet the first day and then one tablet by mouth daily AFTER eating #30
- **Librium/ Chlordiazepoxide** 25mg, DO NOT drive on this medication. DO NOT drink on this medication:
 - Take 1 tablet every 6 hours for the first 2 days
 - Take 1 tablet every 8 hours for the next 2 days
 - Take 1 tablet every 12 hours for the next 2 days
 - Take 1 tablet every 24 Hours for the final 2 days (no routine refill)
- **Folic Acid (Vitamin B9)** - 1mg Take 1 tablet daily for 14 days (no routine refill)
- **Thiamine (vitamin B1)** - 100mg - Take 1 tablet daily for 14 days (no routine refill)
- **Clonidine** - 0.1mg- Take one tablet every 12 hours daily as needed for anxiety, agitation, rapid heart rate, headache #20 Hold for BP less than 100/60 (no routine refill)
- **Seizure prophylaxis:** Choose one if client has had history of complicated alcohol withdrawal
 - Tegretol/carbamazepine 200 orally two times daily for 7 days
 - Gabapentin 300 orally three times daily for 7 days

Alcohol detoxification protocol: BZD-Sparing

- **See Maldonado paper**
 - Some patients can't or shouldn't or prefer not to take benzodiazepines
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Interventions for Problematic Substance Use

- Medications
 - Naltrexone (Sinclair Method)
 - Acamprosate
 - Disulfiram
- Non-pharmaceutical treatments
 - Mutual support groups
 - 12 Step Programs
 - Smart Recovery
 - Digital Applications
 - School supports
 - <https://www.sinclarmethod.org/what-is-the-sinclair-method-2/>

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Harm Reduction and Everyday Life

- Consider all the risky behaviors you've engaged in already today
- What did you engage in these behaviors?
- How did you reduce risk when engaging in these behaviors?



Harm Reduction and Alcohol

- Know your risks
- Drink less, drink lower potency products
- Know your limit and stay with it
- Know your surroundings
- Use harm reduction tools (including friends and colleagues)
- Minimize drinking reflexively
- Consider naltrexone

Resources

- Assisted Recovery Centers of America (ARCA), Medication Guidelines, <https://www.arcamidwest.com/arpa-behavioral-health-tools>
- Novel Algorithms for the Prophylaxis and Management of Alcohol Withdrawal Syndromes—Beyond Benzodiazepines. Maldonado, José R. Critical Care Clinics, Volume 33, Issue 3, 559 – 599
[https://www.criticalcare.theclinics.com/article/S0749-0704\(17\)30024-6/abstract](https://www.criticalcare.theclinics.com/article/S0749-0704(17)30024-6/abstract)
- ASAM Guidelines, <https://www.asam.org/quality-care/clinical-guidelines/alcohol-withdrawal-management-guideline>
- Providers Clinical Support System, <https://pcssnow.org/courses/pcss-maud-providers-clinical-support-system-medications-for-alcohol-use-disorder/>

Questions? Comments?

Fred Rottnek, MD, MAHCM

- Fred.Rottnek@health.slu.edu
- <https://www.slu.edu/medicine/family-medicine/addiction-medicine.php>