

Multisectoral Approaches to Minimizing Alcohol Harms at the Population Level

DAKOTA CONFERENCE ON
RURAL AND PUBLIC HEALTH
2024

Quiz questions

1. North Dakota is the _____ leading binge-drinking state among adults.
 - a. 3rd
 - b. 10th
 - c. 20th
 - d. 38th
2. Alcohol consumption has no beneficial impact on health. True or False
3. Every 10% increase in price for alcohol has been shown to decrease alcohol consumption by _____.
 - a. 1.2%
 - b. 7.7%
 - c. 15.3%
 - d. 25.0%

Definitions

- Multisectoral –, it touches on many sectors – family, employment, healthcare, policy, community, law enforcement, behavioral health
- Approaches – many approaches, from individual to community, to systems, to policies are needed. Overall a Health in All Policies (HiAP) approach is needed
- Alcohol Harms – individual, family, societal; biological, psychological, social; economic, employment, medical
- Population Level -- alcohol affects individuals, but it's use occurs within populations

Is it a shared desire that we
reduce alcohol harms among
North Dakotans?

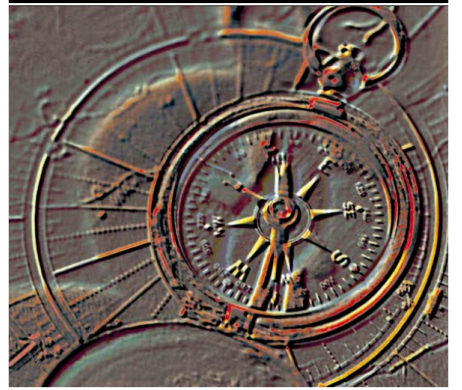
Guiding Principles

- It is a shared desire that all North Dakotans enjoy healthy flourishing lives.
- Therefore, it is a shared desire that we reduce alcohol harms among North Dakotans.
- The health of individuals within a population is affected by the health of the whole population, so we can't treat alcohol use as an individual behavior.
- Culture, preferences and personal choice inform our decisions, but facts and evidence are necessary for making policy decisions.
- All policies have an impact on health, so policies should optimize health benefits and minimize health harms.
- North Dakotans are people of good will, and they want their children and future generations to flourish, so they are willing to make individual sacrifices for the common good.

Principles of the Ethical Practice of Public Health

1. Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes.
2. Public health should achieve community health in a way that respects the rights of individuals in the community.
5. Public health should seek the information needed to implement effective policies and programs that protect and promote health.
8. Public health programs and policies should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community.

Principles of the Ethical Practice of Public Health



Public Health Leadership Society

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1. Explain why North Dakota reclaiming its 1990 ranking as the "healthiest state in the nation" will require attention to North Dakota's number 1 social problem -- drug and alcohol misuse

North Dakota: Cost

\$488 million

or \$1.40 per drink sold

Annual economic cost of excessive drinking due to lost productivity, criminal justice, and health care costs in 2010.³

\$0.21 per drink sold

Total federal and state alcohol taxes in 2010.⁴

NATIONAL

17%

Percentage of adults who binge drink.

Source: [Behavioral Risk Factor Surveillance System, 2022](#)⁵

NORTH DAKOTA

24%

NATIONAL

11%

Percentage of high school students who binge drink.

Source: [Youth Risk Behavior Surveillance System, 2021](#)⁶

NORTH DAKOTA

14%

North Dakota: Binge Drinking



9+ drinks
per occasion

Among adults in North Dakota who binge drink, 25% consume at least 9 drinks per binge drinking occasion.

Source: [Behavioral Risk Factor Surveillance System, 2022](#)⁵



5+ times
per month

Among adults in North Dakota who binge drink, 25% do so at least 5 times per month.

Source: [Behavioral Risk Factor Surveillance System, 2022](#)⁵

North Dakota: The Numbers

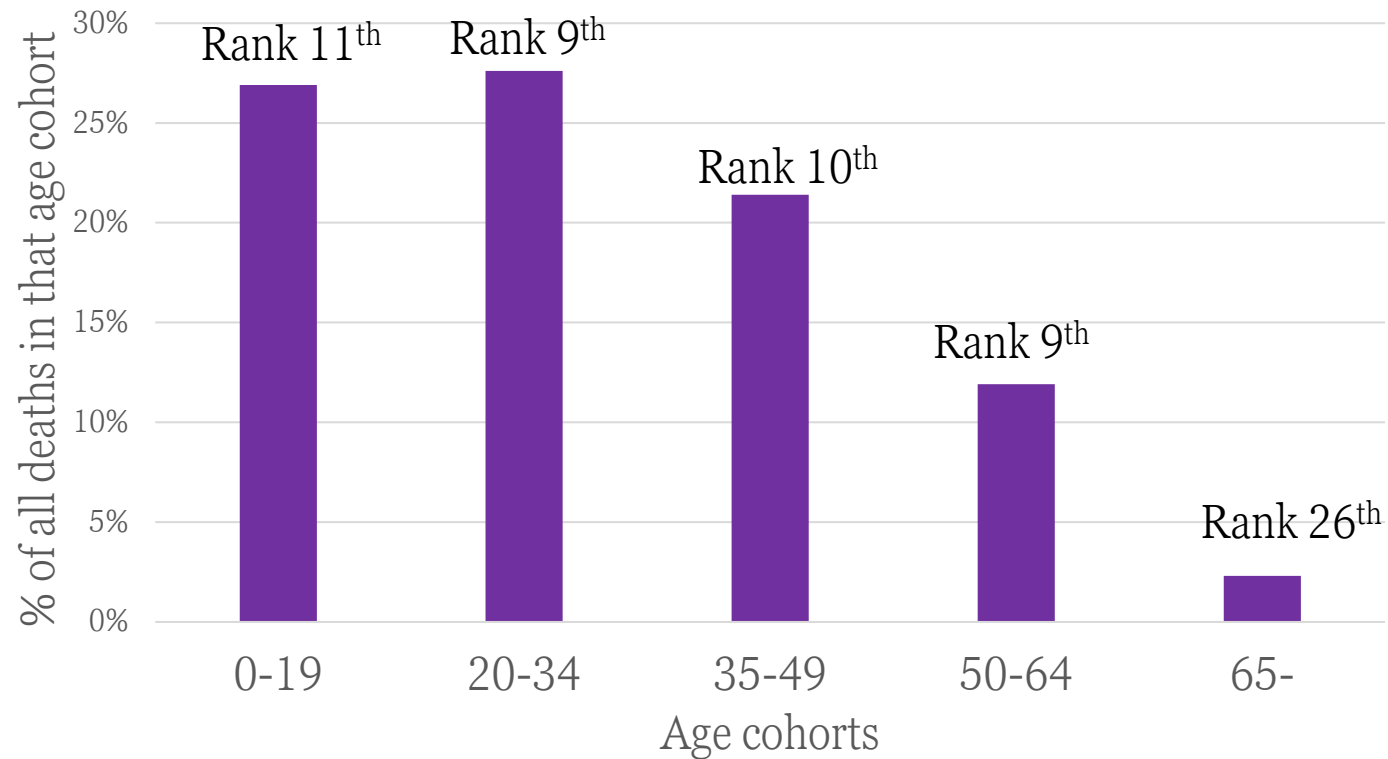


More than 400

Average number of deaths from excessive drinking each year.

Source: [Alcohol-Related Disease Impact application](#), during 2020–2021²

North Dakota: Lives Lost to Alcohol

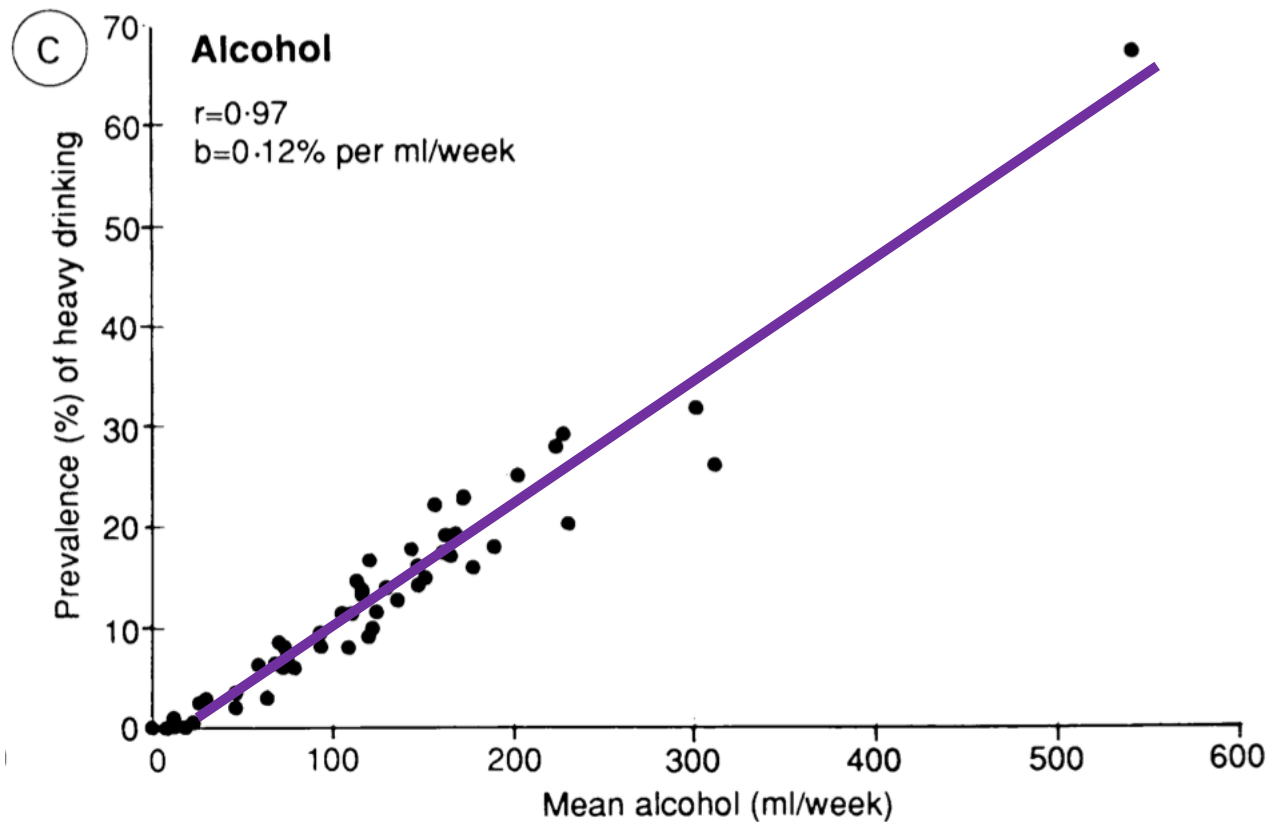


Underage Drinking Correlates with Adult Alcohol Use

- Adolescents whose parents drank frequently (≥ 5 days/month) or binge drank had significantly higher odds (AOR 4.06) of drinking than adolescents whose parents did not drink frequently or binge drink.
- Many businesses fail compliance checks regarding selling alcohol to minors.¹¹⁻¹³



The Population Mean Predicts the Number of Individuals Cases



Health Consequences

- Chronic excessive alcohol use contributes directly to cardiovascular disease,⁴ nutritional deficiency,⁵ cancer,⁶ accelerated aging,⁷ gastrointestinal deaths, liver cirrhosis in younger adults,⁸ injuries, and alcohol use disorders.²
- Whereas among all U.S. cirrhosis deaths in 2015, approximately 49.5% were related to alcohol use and occurred in younger adults ages 25-34,⁹ so this is a health concern for all ages.
- There is increasing evidence that there is no level of alcohol intake that is considered beneficial to health.¹⁰

Low Cost

- Alcohol is cheap and is becoming more affordable with time, not less,¹⁴ despite global evidence that alcohol per capita consumption is associated with affordability.¹⁵
- The alcohol industry indiscriminately promotes its products to increase sales, without being held responsible for the personal and societal harm caused by alcohol misuse.¹⁶
- Alcohol consumption is considered a social norm, resulting in many people in society resisting any restrictions on alcohol, so that alcohol taxes have been under-utilized as a public health measure.

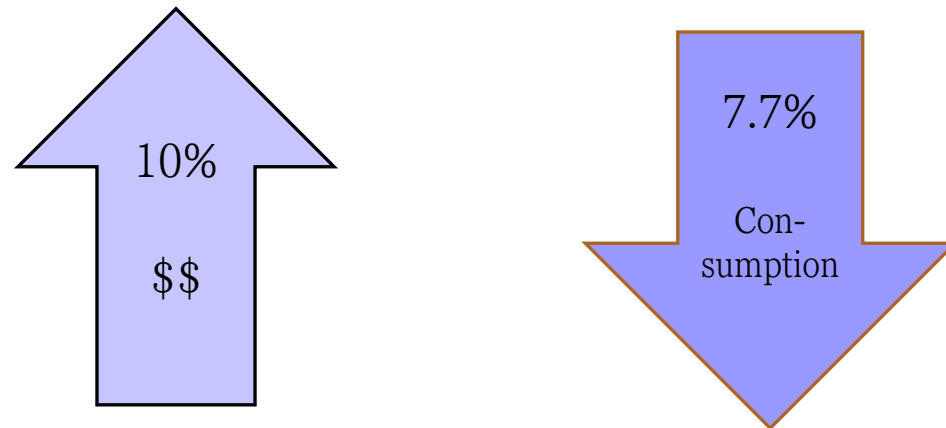
2. Describe excise taxes on alcohol as an effective evidence-based approach to curtail excessive alcohol use and harms

High Cost of Alcohol Reduces Consumption

- Alcohol taxes affect the price of alcohol and can reduce alcohol consumption.
- Communities have local authority to levy alcohol taxes with no major restrictions.^{12,13}
- North Dakota's excise tax is \$0.50/gallon for wine, \$0.16/gallon for beer, and \$2.50/gallon for liquor, ranking 32nd, 34th, and 28th in the United States.¹⁹
- Washington has the highest alcohol excise tax, with \$33.22 per gallon for liquor; and is among the states with the lowest prevalence of binge drinking (15.4%), and the lowest number of drinks consumed when drinking (5.3).¹⁹

Evidence-based Options

- The CDC Community Preventive Services Task Force has ranked increasing alcohol excise taxes to prevent excessive alcohol use and other harms as an evidence-based best practice, with the ability to decrease total alcohol consumption by 7.7% for every 10% increase in price.²⁰



NDPHA voting

NDPHA members were polled, "After reviewing the resolution on the NDPHA website to Raise Alcohol Tax, are you in support of this resolution?" 36 people responded:

- Yes 75%
- No 25%

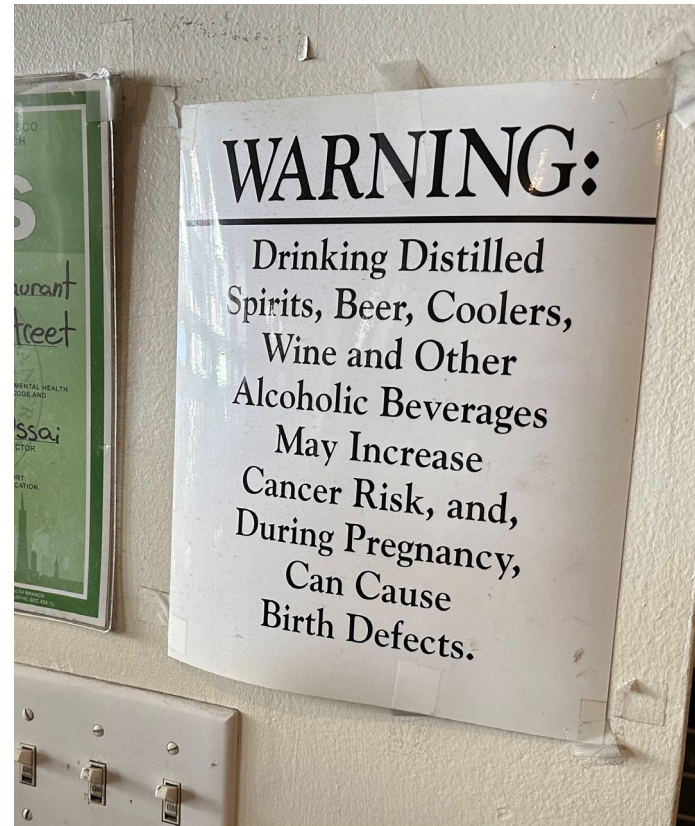
The Public Health Approach

“Doctors give prescriptions to individuals who are free to comply with them or not, but a public health recommendation is a collective response to a collective threat. For the policy to be effective, everyone in the population must know about it, and have access to its benefits.”

North Dakota Multisectoral Recommendations

Recommendation	Sector
Increase the excise tax on beer in bottles and cans from \$0.16/gallon to \$0.26/gallon, wine from \$0.50/gallon to \$0.87/gallon, and liquor from \$2.50/gallon to \$14.27/gallon.	Legislature
Evaluate the health impact of all alcohol-related policy decisions.	Legislature
Decrease the density of alcohol sales outlets.	City commission
Reduce the hours and the days of alcohol sales.	City commission
Forbid direct to consumer advertising of alcohol products.	Legislature
Increase the visibility of “alcohol can cause serious harm” messaging on alcohol product packaging.	Federal
Increase SBIRT screening for alcohol misuse in primary care settings.	Medical
Restrict alcohol at public events with minors present (sports events, concerts).	Private

California Proposition 65



Alcohol Response



HEALTH IN
ALL POLICIES



NEW SOCIAL
NORMS



INCREASE
HARM
MESSAGING

3. Explain some of the state level strategies that are effective to prevent alcohol-related harm

ND DHHS Division of Behavioral Health Programs

Preventing Underage Drinking



<https://www.hhs.nd.gov/prevention/alcohol/underage-drinking-prevention-strategies>

Preventing Adult Binge Drinking

<https://www.hhs.nd.gov/prevention/alcohol/adult-binge-drinking-prevention-strategies>

Conclusion

- Alcohol is a social norm that many people enjoy without serious harm.
- Criminalizing alcohol use is no more helpful than criminalizing other drugs.
- Legislation and policies can be effective levers to disincentive harmful use of alcohol.

Questions for the Audience

- Is it a shared desire that all North Dakotans enjoy healthy flourishing lives?
- Do we agree that alcohol is compromising healthy flourishing for North Dakotans?
- Do we have a shared desire to reduce alcohol harms among North Dakotans?
- Are North Dakotans people of good will, and willing to make individual sacrifices for the common good?
- What shall we do?

Quiz questions

1. North Dakota is the _____ leading binge-drinking state among adults.
 - a. 3rd (22.7%)
 - b. 10th
 - c. 20th
 - d. 38th
2. Alcohol consumption has no beneficial impact on health. **True** or False
3. Every 10% increase in price for alcohol has been shown to decrease alcohol consumption by _____.
 - a. 1.2%
 - b. 7.7%
 - c. 15.3%
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References cited:

1. Centers for Disease Control and Prevention. Data on Excessive Drinking. Centers for Disease Control and Prevention. <https://www.cdc.gov/alcohol/data-stats.htm>
2. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet*. 2009;373:2223-33.
3. Rehm J, Room R, Graham K, Monteiro M, Gmel G, Sempos C. The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease. *Addiction*. 2003;98:1209–28.
4. Zaridze D, Brennan P, Boreham J, et al. Alcohol and cause-specific mortality in Russia: a retrospective case-control study of 48 557 adult deaths. *Lancet*. 2009;373:2201–14.
5. Zahr NM, Sullivan EV, Rohlfing T, et al. Concomitants of alcoholism: differential effects of thiamine deficiency, liver damage, and food deprivation on the rat brain in vivo. *Psychopharmacology*. 2016;233(14):2675-2686.
6. Rehm J, Shield KD, Weiderpass E. Alcohol consumption. A leading risk factor for cancer. *Chemico-Biological Interactions*. 2020;331:109280.
7. Sullivan EV, Pfefferbaum A. Brain-behavior relations and effects of aging and common comorbidities in alcohol use disorder: A review. *Neuropsychology*. 2019;33(6):760.
8. Yoon Y-H, Chen CM. Surveillance Report# 111: Liver Cirrhosis Mortality in the United States: National, State, and Regional Trends, 2000–2015. *Rockville, MD: National Institute on Alcohol Abuse and Alcoholism*. 2018;
9. Chung W, Jo C, Chung WJ, Kim DJ. Liver cirrhosis and cancer: comparison of mortality. *Hepatology international*. 2018;12(3):269-276.
10. Burton R, Sheron N. No level of alcohol consumption improves health. *The Lancet*. 2018;392(10152):987-988.
11. Toomey TL, Komro KA, Oakes JM, Lenk KM. Propensity for illegal alcohol sales to underage youth in Chicago. *Journal of community health*. 2008;33(3):134-138.
12. van Hoof JJ, Gosselt JF. Underage alcohol sales—It only takes a minute: A new approach to underage alcohol availability. *Journal of studies on alcohol and drugs*. 2013;74(3):423-427.
13. Freisthler B, Gruenewald PJ, Treno AJ, Lee J. Evaluating alcohol access and the alcohol environment in neighborhood areas. *Alcoholism: clinical and experimental research*. 2003;27(3):477-484.
14. Knai C, Petticrew M, Durand MA, Eastmure E, Mays N. Are the Public Health Responsibility Deal alcohol pledges likely to improve public health? An evidence synthesis. *Addiction*. 2015;110(8):1232-1246.
15. Casswell S, Huckle T, Parker K, Romeo J, Graydon-Guy T. Benchmarking alcohol policy based on stringency and impact: The International Alcohol Control (IAC) policy index. *PLOS Global Public Health*. 2022;2(4):e0000109. doi:PLOS Global Public Health 2(4): e0000109. <https://doi.org/10.1371/journal.pgph.0000109>
16. Jernigan D, Ross CS. The Alcohol Marketing Landscape: Alcohol Industry Size, Structure, Strategies, and Public Health Responses. *Journal of Studies on Alcohol and Drugs, Supplement*. 2020/03/01 2020;(s19):13-25. doi:10.15288/jsads.2020.s19.13
17. Neufeld M, Rovira P, Ferreira-Borges C, et al. Impact of introducing a minimum alcohol tax share in retail prices on alcohol-attributable mortality in the WHO European Region: A modelling study. *The Lancet Regional Health – Europe*. 2022;p.100325.
18. White AM, Castle IJP, Powell PA, Hingson RW, Koob GF. Alcohol-Related Deaths During the COVID-19 Pandemic. *JAMA*. 2022;doi:10.1001/jama.2022.4308
19. World Population Review. Alcohol Tax by State 2022. April 22, 2022, <https://worldpopulationreview.com/state-rankings/alcohol-tax-by-state>
20. The Community Preventive Services Task Force. *Alcohol -- Excessive Consumption: Increasing Alcohol Taxes*. 2007. Accessed May 3, 2022. <https://www.thecommunityguide.org/findings/alcohol-excessive-consumption-increasing-alcohol-taxes>
21. Levin J. Human flourishing: a new concept for preventive medicine. *American Journal of Preventive Medicine*. 2021;61(5):761-764.