Original Article

Ethical insights into toxic alcohol consumption in Iran: a call for a public health approach

Maryam Modabber[1], Vahid Moazzen[2], Ehsan Shamsi Gooshki[3*]

1. PhD Candidate of Medical Ethics, Medical Ethics and History of Medicine Research Center, Tehran University of Medical Sciences, Tehran, Iran.
2. Visiting Lecturer, Department of Public and International Law, Faculty of Law, Farabi Campus, University of Tehran, Tehran, Iran.
3. Lecturer, Monash Bioethics Center, Monash University, Melbourne, Australia; Associate Professor, Medical Ethics and History of Medicine Research Center, Tehran University of Medical Sciences, Tehran, Iran.

Abstract

Despite the legal prohibition of alcohol in Iran, consumption of non-standard and often toxic alcoholic beverages continues to present a significant public health challenge. Methanol poisoning and associated mortality underscore the urgent need to address alcohol-related harms through ethical and population-centered strategies. This analysis employs the three core goals of contemporary public health—autonomy, well-being, and equality—integrating both duty-based and outcome-oriented ethical reasoning to evaluate current responses and guide interventions. A public health approach is necessary to address ethical issues such as disproportionate impact on young adults and socioeconomically vulnerable groups. A public health centered approach that emphasizes prevention, protection, and health promotion provides opportunities to reduce harm, improve health outcomes, and empower individuals even within restrictive legal and cultural environments.

Lessons from national experiences in harm reduction and public health interventions, such as programs for substance addiction and sexually transmitted disease control, particularly HIV control, demonstrate that effective and ethically grounded strategies are achievable even when such certain behaviors such as sex work or alcohol consumption are legally sanctioned or even criminalized. These experiences highlight the moral responsibility of public health authorities to protect vulnerable populations while promoting collective well-being through inclusive, evidence-based, and context-sensitive measures.

Keywords: *Alcoholic beverages; Methanol; Public health; Public health ethics; Iran.*

****Corresponding Author***
Ehsan Shamsi Gooshki
Address: *Monash Bioethics Centre, Monash University, 20 Cahcellor Walk, Clayton, Melbourne, VIC, Australia.*
Postal Code: *3146*
Tel: (+61) 09 90 26 000
Email: *ehsan.shamsigooshki@monash.edu*
Received: *11 Nov 2025*
Accepted: *28 Feb 2026*
Published: *29 Jun 2026*
Citation to this article:
Modabber M, Moazzen V, Shamsi Gooshki E. Ethical insights into toxic alcohol consumption in Iran: a call for a public health approach. J Med Ethics Hist Med. 2026; 19: 7.
https://doi.org/10.18502/jmehm.v19i7.21992

Copyright © 2026 Tehran University of Medical Sciences.
This work is licensed under a Creative Commons Attribution-Non-Commercial 4.0 International license https://creativecommons.org/licenses/by-nc/4.0/).
Non-commercial uses of the work are permitted, provided the original work is properly cited.

Introduction

Alcohol consumption is a major public health challenge around the globe, contributing to a wide range of social and medical harms, including injuries, chronic diseases, and premature mortality. It is estimated to be the seventh leading risk factor for disease and death worldwide (1, 2), and its negative impacts place a substantial burden on healthcare systems (3).

Although the production, distribution, and consumption of alcohol are legally prohibited in Iran, alcohol use remains a significant and growing public health concern. Illegality has not eliminated demand; rather, it has driven consumption into hidden and unregulated settings, complicating surveillance, prevention, and treatment efforts. Recent evidence suggests that alcohol consumption in Iran is more prevalent than officially perceived. The World Health Organization (WHO) estimates reported a prevalence of 3.5% and a per capita consumption of approximately one liter of pure alcohol among individuals aged over 15 years in 2016, which is higher than the Middle East regional average (4). More recent population-based data from 2021 indicated that 6.9% of Iranian adults reported alcohol use (5).

This growing prevalence should be interpreted in the context of Iran's strict legal framework surrounding alcohol. Following the 1979 Islamic Revolution, alcohol consumption was criminalized for Muslim citizens, regardless of setting or quantity, under the Islamic penal law (6). The current Penal Code (2013) categorizes all forms of alcohol consumption as punishable offenses, while allowing limited exceptions for non-Muslims only when consumption is non-public (7). As a result, alcohol use and distribution are largely treated within a criminal justice framework rather than viewed through a public health lens (8, 9). This approach has contributed to underground markets, a lack of quality control, and barriers to timely healthcare-seeking due to fear of legal consequences (10), which in turn has facilitated the widespread consumption of homemade and counterfeit alcoholic beverages. These unregulated products are often contaminated with methanol, a highly toxic alcohol that can cause severe metabolic acidosis, visual impairment, respiratory failure, and death (1). Multiple large-scale methanol

poisoning outbreaks have been reported in Iran over the past decade, resulting in thousands of hospitalizations and significant mortality. Although the hidden nature of alcohol consumption in Iran limits the availability of precise population-level statistics, converging evidence from hospital admissions, forensic medicine organization records, and repeated nationwide methanol poisoning outbreaks provide a robust and credible indication of the magnitude of this public health problem. WHO estimates suggest that approximately 0.6% of all deaths in Iran are attributable to alcohol consumption, corresponding to more than 2,000 deaths annually, a substantial proportion of which are linked to toxic and homemade alcohol (11).

These patterns demonstrate that strict prohibition has not prevented alcohol consumption (5, 12) but its health risks by fostering unsafe production and distribution channels are still impacting the public health (13). Similar experiences in other settings with restrictive alcohol policies, as well as historical examples such as alcohol prohibition in the United States (14), illustrate how absolute bans can increase morbidity and mortality by encouraging illicit markets and low-quality products. From a public health perspective, the burden of alcohol-related harm in Iran, particularly methanol poisoning, should be understood as a collective societal problem rather than solely the result of individual behavior (15). Framing alcohol consumption as a public health issue acknowledges the role of structural, legal, and social determinants in shaping risk and shifts responsibility toward coordinated preventive action. This includes surveillance, harm reduction, public education, and ensuring access to non-punitive healthcare services for affected individuals (16, 17). Ethically speaking, alcohol consumption in Iran raises complex tensions between public health protection, individual autonomy, social justice, and state responsibility. Deontological ethics emphasizes the state's public health system duty to protect life and prevent harm, regardless of the legal status of alcohol (18). Utilitarian approaches focus on minimizing overall harm and mortality, supporting evidence-based interventions even in restrictive legal contexts (19). Principles of justice and equity highlight how criminalization disproportionately harms vulnerable populations by exposing them to unsafe products and deterring them from seeking medical care. A rights-based public health framework further underscores the obligation to

ensure access to life-saving information and treatment without fear of punishment.

This article examines alcohol consumption and recurrent toxic alcohol crises in Iran from a public health ethics perspective. Rather than approaching alcohol use solely through a criminal or legal lens, the analysis situates alcohol-related harms within broader social, structural, and policy contexts that shape risk, vulnerability, and access to care. Drawing on autonomy, well-being, and equality as core ethical goals, the article assesses how existing responses influence individual agency, population health outcomes, and the distribution of harm across social groups. It argues that the persistence of toxic alcohol-related morbidity and mortality reflects a failure of prevention and health protection, rather than individual wrongdoing alone. Accordingly, the article advances a shift toward ethically grounded public health strategies centered on prevention, protection, and health promotion (PPP) that are adapted to Iran's specific legal and cultural context.

Methods

In this study, a normative public health ethics approach is used to examine the growing problem of counterfeit and toxic alcohol consumption in Iran. The analysis is guided exclusively by three substantive goals of contemporary public health: autonomy, well-being, and equality (20). Ethical assessment draws on both deontological and consequentialist reasoning, which are integrated throughout the analysis to evaluate moral obligations toward individuals alongside population-level health consequences rather than treat them as separate or competing frameworks. The analysis follows a structured and sequential approach. First, existing responses and policy measures are examined in relation to the three substantive ethical goals in order to identify ethical gaps and normative tensions. Within each of these domains, deontological considerations such as duties of care, respect, and non-discrimination, together with consequentialist considerations such as the prevention of avoidable harm and the reduction of morbidity and mortality, are applied jointly to assess the ethical adequacy of prevailing responses. Second, counterfeit alcohol consumption is conceptualized as a public health concern with collective impact, rather than being understood solely as an issue of individual behavior or criminality. Finally, ethical recommendations are articulated within three

classical domains of public health action: prevention, protection, and health promotion (21). Preventive measures focus on reducing exposure to toxic alcohol and associated risks; protective actions aim to safeguard populations from hazardous substances and unsafe production or distribution practices; and health promotion strategies seek to enhance individuals' capacity to make safer choices and improve overall health outcomes. Situating these recommendations within the three substantive ethical goals ensures that the proposed interventions are normatively grounded while remaining consistent with established public health standards.

Discussion

The persistence of counterfeit and toxic alcohol consumption in Iran raises complex ethical questions that extend beyond individual behavior and legal prohibition. Examining this issue through the lenses of well-being, equality, and autonomy enables a systematic assessment of how existing responses shape health outcomes, social vulnerability, and access to protection and care. In this context, preventive, protective, and health-promoting strategies emerge as ethically justified responses to alcohol-related harms, particularly when informed by prior public health experiences in Iran, where effective interventions were implemented despite similar legal and cultural constraints.

Well-being

From a population well-being perspective, alcohol consumption plays a significant role in healthcare costs and early deaths (22), contributing to increased Disability-Adjusted Life Years (DALYs) and overall burden in the Global Burden of Disease (GBD) framework. Young adults are disproportionately affected, as they experience higher rates of alcohol-related morbidity and mortality compared to older populations (23). In Iran, the risks are amplified due to the widespread consumption of homemade and non-standard alcoholic beverages, which are often contaminated with methanol and other toxic substances. During the COVID-19 period from February to May 2020, more than 4,000 people sought medical care for acute methanol poisoning, with 796 deaths confirmed by the forensic country's medicine organization (24). Subsequent outbreaks in June 2023 in Alborz province and other provinces—including Mazandaran, Hamadan, and Gilan—resulted in hundreds of hospitalizations, cases of blindness, and multiple deaths (25, 26). Overall,

in the first five months of the year, 229 fatalities due to alcohol poisoning were reported, predominantly affecting young adults. These premature deaths contribute to increases in DALYs, Years of Life Lost (YLL), and Years Lived with Disability (YLDs), highlighting the substantial public health burden on Iranian society (27, 28).

Moreover, the direct pressures resulting from the hospitalization of poisoned individuals on the healthcare system—particularly emergency departments and dialysis units, which are already under significant strain in terms of personnel and resources—may negatively impact the provision of healthcare services to other patients (29, 30). Since most alcohol-related victims are in the younger age group, their situations not only hinder economic growth and development but also indirectly exert considerable pressure on healthcare resources. This reality clearly illustrates the economic vulnerability tied to alcohol consumption among the youth, as this age group represents the prime working years. Their absence from the workforce can lead to decreased productivity and economic output. Additionally, the medical costs associated with diseases and accidents related to alcohol consumption impose a further financial burden on the healthcare system, adversely affecting its limited resources (31, 32). Therefore, the social and economic harms stemming from alcohol consumption among young people not only affect individuals but also have profound and widespread implications for society and the country's economy.

Equality

The 2030 Agenda for Sustainable Development, adopted by United Nations member states in 2015, sets 17 goals to boost progress in areas such as poverty, health, education, and equality. It flags alcohol use as a major health factor, noting that cutting it back can help meet goals like the reduction of poverty and inequality (33, 34).

In Iran, as elsewhere, people with lower socioeconomic status (SES)—those with less education or from marginalized groups—face worse alcohol-related harms (1, 35). This phenomenon, called the alcohol harm paradox, holds even when the drinking levels of these populations match or fall below those of wealthier groups, driven by stacked risks like smoking or obesity and poor healthcare access (36, 37). The relationship between individuals' income levels and their health literacy is inversely related to the adverse effects arising

from poor health choices, specifically in the context of alcohol consumption (38). More explicitly, individuals in higher socioeconomic strata have greater access to high-quality alcoholic beverages, regardless of cost, and benefit from more comprehensive health information. As a result, they are less susceptible to illnesses associated with alcohol consumption and therefore do not need to allocate a budget for treating its consequences due to their financial stability. In contrast, individuals in the middle and lower socioeconomic groups are often compelled to consume low-quality and illicit alcoholic beverages due to economic constraints and a lack of awareness. Notably, when confronting the risks associated with such consumption, they typically lack the financial resources necessary for treatment, as they are economically disadvantaged (39). Additionally, differences in access to healthcare, the safety context of drinking, and drinking cultures are potential factors that increase the risks associated with alcohol consumption for individuals with lower socioeconomic status (40). This is not merely a health issue, but rather a justice and equality problem at the heart of public health. A deontological view insists that ensuring equal access to safe care for all, especially the disadvantaged, is a moral obligation of public health authorities, not an optional policy choice.

The cultural norms among some communities add another layer; for instance, drinking may carry heavy stigma, branding users as outcasts (41). This shame, tied to a harsh punitive system, blocks many from seeking help (42). Fear of punishment could keep methanol poisoning victims from hospitals, delaying critical care and increasing the risk of blindness or death. Despite provisions in Iran’s code of ethics for medical professionals, prohibiting hospitals from reporting alcohol-related cases—including toxic alcohol poisoning (43)—public distrust remains widespread (44). While no systemic evidence of verified cases of legal repercussions against individuals seeking treatment exist, deeply rooted stigma and institutional skepticism continue to deter victims from accessing critical care. Therefore, to address the current treatment gap, there is an urgent need to reduce the social and professional barriers to seeking medical care for potential alcohol-related health problems. Interventions should also focus on educating healthcare professionals to treat these individuals with respect, using non-stigmatizing language—such as “alcohol use disorder”—instead of derogatory terms like "alcohol abuse,"

"alcoholic," or "drunk" (45). Additionally, it is essential that all involved parties (including potential victims of toxic alcohols and healthcare providers) be completely aware that, according to current Iranian laws and regulations, healthcare facilities are not required to report cases of poisoning to the police. Given the fact that most of the victims of toxic alcohol are young, the "fair innings principle" is another argument that requires more attention to this issue by public health authorities (46).

Autonomy

Public health ethics is based on society's responsibility to protect and promote the health of the entire community. Traditionally, this has justified paternalistic interventions that limit individual freedoms to improve collective health. However, modern approaches to public health recognize that individual autonomy is also an important goal, alongside community well-being, especially as socio-economic conditions develop (47). Ethical principles recognize autonomy as a core aspect of human well-being and a foundation for responsible behavior. In modern public health, the tension between individual autonomy and collective interventions is less pronounced than in the past, particularly as attention to non-communicable diseases grows. Autonomy is not just freedom to act, but also includes self-determination, responsibility, and the ability to make informed choices. Supporting autonomy alongside equality strengthens public health efforts by empowering individuals while promoting societal well-being (48). Furthermore, a utilitarian approach suggests that as lifestyle choices like alcohol use drive more deaths, expanding autonomy through education and support leads to better health outcomes than restricting it with punitive measures (49). However, it is important to mention that the legal prohibition of alcohol consumption in Iran is not related to its health or public health impact but roots in Islamic rules that underpin the Iran legal system after 1979. Empowering people to make safer choices maximizes well-being. Undue emphasis on justifying interventions designed to limit and control unhealthy behaviors, such as alcohol consumption, can detract from potentially more effective strategies (50). Moreover, supporting paternalistic interventions may serve to erode trust in public health authorities (51). Therefore, to achieve public health goals, it is essential to promote a shared understanding of a just society. In addressing the issue of counterfeit alcohol, the public health sector must engage directly with the

community to foster agreement on our collective responsibilities in creating a society where all citizens feel supported in living dignified lives characterized by respect, coherence, and mutual responsibility. For public health professionals, the objective is to ensure that individuals have sufficient opportunities to achieve good health, but not to impose a requirement that they must take advantage of these opportunities (52). Deontological ethics argues that respecting individual autonomy is a fundamental duty, requiring public health efforts to educate and empower people about toxic alcohol risks rather than solely punishing their choices.

Therefore, effective educational programs aimed at increasing public awareness of related health issues are essential. These programs can utilize various media and communication channels to explain the dangers associated with the production, consumption, distribution, and sale of unauthorized alcohol (53). Additionally, activities related to educational and preventive programs should be tailored to specific groups of consumers that have been accurately identified and whose needs are fully understood (54). For example, adolescents—who are a primary target group—are particularly important because they often seek new experiences and behaviors, including alcohol consumption, as they work to identify their social role (55). In addition to raising public awareness about the dangers of consuming any type of alcoholic beverage, especially homemade ones due to the potential presence of methanol, it is crucial to take strict action against those who abuse and produce counterfeit alcoholic beverages that endanger public health. Furthermore, adequate supervision of disinfectant production should also be established (1). Other measures include establishing outpatient and inpatient alcohol treatment centers and integrating therapeutic environments into early identification programs, where patients with alcohol use disorders are often closely observed (56). It is also important to reassure the public that treatment centers do not have a protocol for reporting individuals who have been poisoned. The hospital's role is not to refer the patient or the poisoned individual to judicial authorities; rather, it is solely to provide medical treatment. Therefore, it is crucial to emphasize that in cases of alcohol poisoning, one should seek medical attention without hesitation (57).

Paradigm shifting from a criminal and punitive approach to a PPP (preventive, protective, and promotive)

From a utilitarian perspective, reducing deaths and harms from toxic alcohol in Iran depends on treating it as a public health and social issue, not just a crime. This shift could save more lives and cut healthcare costs—key outcomes that outweigh the benefits of punishment alone. This necessitates a comprehensive, integrated program involving collaboration across governmental institutions (58). An "all-government" and "all-society" approach, grounded in evidence-based policies and long-term strategies, is essential to address harmful alcohol use effectively (59). The concept of public health encompasses all aspects of society and all organized efforts—whether governmental or private—to prevent disease, improve health, and increase life expectancy for all people as a whole (60).

This perspective contrasts with a position from Iran's Minister of Health, who emphasized hospitals' duty in treating toxic alcohol victims while refusing the role of Ministry of Health in monitoring the substandard products. On the one hand, from a deontological ethics perspective, the positive aspect of this statement by the Minister of Health is that patients affected by toxic alcohol receive healthcare services in hospitals without being discriminated against because of the illegal nature of their act under the county's current law, which is compatible with ethical standards of professional medical ethics (61). On the other hand, however, this response may imply a downstream approach to toxic alcohol consumption and looking at this issue from a clinical medicine standpoint rather than through a public health lens. Such a reductionist approach could deflect attention from broader structural factors and the consequent responsibilities. Therefore, the health system must go beyond immediate care and tackle this as a public health priority, employing a PPP strategy.

We argue that health authorities have a moral duty to safeguard citizens from toxic alcohol harms, making it imperative to prioritize surveillance and prevention over punitive measures, even in a prohibitive legal framework, by using all possible means of public health, including PPP interventions. Health promotion focuses on activities and strategies that improve social and physical conditions and enhance health determinants by empowering individuals to take greater control over their health (62). In

contrast, health protection focuses on protecting the population from external threats, ensuring this security through government interventions, policies, and laws, such as food control measures. Finally, disease prevention involves identifying and assessing health risks, developing interventions to prevent disease occurrence and progression, and involving individuals. These three concepts are interrelated, and their ultimate goal is to improve the health and well-being of the population (63). Because of the legal status of alcohol consumption in the Iranian policy and the high sensitivity of this issue in Iranian politics, recognized public health interventions that are usually exploited in countries where alcohol is not legally banned are hardly feasible or at least more difficult to implement; these interventions include paternalistic public health tools like taxation (64) age limitations, or approaches based on libertarian paternalism, such as choice architecture. Even autonomy-based interventions, such as education could encounter limitations. Therefore, in addition to advocacy-based negotiations, public health authorities need to explore new types of interventions to address this issue.

One possible intervention in the scope of protection that can reduce the negative effects of alcohol consumption could be the establishment of a credible and effective monitoring system called the "Alcohol Surveillance System" (ASS). This system could play an important role in identifying, monitoring, and controlling the social impacts of this crisis, particularly in the area of alcohol consumption, thereby minimizing its negative consequences (65). Although the illegality of alcohol in Iran complicates this approach, it could still be possible in other ways, such as surveillance of alcoholic drinks that are confiscated by the police forces as illegal goods. Another necessary supervisory measure is to limit access to materials that can be used to produce toxic alcohol, as well as to implement programs that identify the supply chain of such materials, for example, sources of methanol (66). One may argue that the current policy-making system in Iran is more focused on this layer of protection. As an example, for the first time, four individuals were recently sentenced by the court for producing and distributing toxic alcoholic drinks (8).

Although there are serious questions about the disincentive effect of such a harsh criminal approach, a similar course of action has been

followed in Iran with regard to narcotics for years with ultimately ineffective results; the government was eventually compelled to change its approach toward to public health-oriented approach and pursue harm reduction programs by implementing the widespread legal distribution of alternative narcotic substances such as methadone and opium tincture (67). However, the position of Islamic Sharia regarding alcohol, along with Iranian law, which is based on this Sharia, likely makes adopting an approach similar to narcotics much more complex and difficult. Under the circumstances, efforts to increase public health literacy about the effects of alcohol—especially homemade alcohol—at various levels, including in high schools and universities, can be effective (68). In this context, health promotion strategies can assist individuals who regularly consume alcohol in quitting, or educate target groups on potential methods to identify toxic alcohol. However, the successful implementation of all these policies requires consideration of ethical frameworks in policy-making, particularly procedural values such as accountability, transparency, inclusion, and evidence-informed policy-making. For instance, analyzing the mortality and morbidity resulting from illegal alcohol and related diseases through the integration of public health data from hospitals and the community is only possible when the issue is acknowledged, and statistics related to these harms and deaths are presented to society in a transparent and systematic manner (56). At the same time, adherence to academic freedom and the full autonomy to conduct research in these areas—which is necessary for evidence-informed policy-making—is essential. Inclusion and encouragement of participation in these research efforts from various stakeholders, especially regular alcohol consumers, can be facilitated. Given the legal complexities involved, non-governmental organizations and professional and civil societies can play a crucial role in this regard. As a result, these efforts can benefit the whole country and the whole nation (33).

Iran’s strict punitive approach to alcohol raises ethical concerns by prioritizing state control over public health. Relying on punishment to deter consumption fails to reduce demand and instead drives individuals toward unsafe, illegal sources, contributing to rising methanol poisoning. In contrast, a public health ethics perspective focuses on harm reduction, equity, and community well-being, promoting education,

surveillance, and supportive interventions rather than solely punitive measures.

Successful instructive examples of a public health approach

The consumption of non-standard alcohol and its consequences are neither the first nor the last public health concern in Iran. In the past, even more socially and legally sensitive public health issues have been addressed through timely and effective interventions by the public health system. One successful example of public health intervention is the effort to control Sexually Transmitted Diseases (STDs) among key populations, including injecting drug users and sex workers. In Iran, commercial sex acts have been criminalized, and those who engage in or manage such activities face severe penalties if found guilty. These relationships are not only considered criminal from a legal perspective and carry heavy penalties, but also pose significant challenges to open dialogue and academic research due to the dominant culture, specifically at the policy-making level, and prevailing traditions in some sectors of society. Nevertheless, as the prevalence of HIV increased, Iran gradually adopted a public health approach, leading to notable improvements in prevention and treatment statistics. Among the effective interventions are sexual health education, the free distribution of condoms (69), and the establishment of safe houses for key populations, including sex workers, through the involvement of NGOs. These measures, along with continuous monitoring of the programs, have significantly improved the current situation. An interesting aspect of this issue is the role of health institutions in changing the approach. In safe houses, where essential health services are provided, individuals who could be legally considered criminals can receive care without fear, allowing them to come and go with peace of mind. Therefore, the field of public health acts as a protective and supportive umbrella for this key population. Although the legal framework has not changed and these behaviors have not been decriminalized, it can be argued that public health initiatives have effectively created an environment that allows for the practical effective interventions disregard of this crime. In spite of the criticisms that public policy and legal experts may have regarding this approach, it seems that a similar strategy for regular alcohol consumers—who are often victims of toxic alcohol—could be beneficial.

A similar notable example from Iran, recognized as a success story in the Middle East and North

Africa, involves the consumption of narcotics, which, like alcohol consumption in Iran, was considered a crime. However, the public health sector reduced risky behaviors through intervention strategies that respected individual autonomy. Following the 1979 Revolution, the new government discontinued voluntary treatment programs and introduced reformatory centers, leading to numerous negative consequences. Subsequently, however, by adopting a medical and public health-oriented approach, the government began distributing free needles and syringes to drug users and established voluntary treatment centers across the country. These centers aimed to provide psychiatric medications as well as maintenance opioid treatments and antagonists (67, 70).

Conclusion

Despite legal prohibition, alcohol consumption in Iran constitutes a complex public health crisis driven by toxic and non-standard beverages. The harms extend beyond individual behavior and reflect legal, social, and economic factors. To reduce morbidity and mortality, especially among young and vulnerable populations, public policies must shift from punitive measures to public health strategies that emphasize prevention, protection, and health promotion. Effective interventions should include surveillance systems, health literacy programs, harm reduction strategies, and non-discriminatory access to care. Drawing on successful experiences in controlling HIV and substance use in Iran, the healthcare system can implement ethically grounded public health policies even within restrictive legal environments. Ultimately, addressing alcohol-related harms requires prioritizing population well-being, equity, and individual autonomy while safeguarding the dignity and health of all citizens.

Acknowledgments

This article used the GPT-5 Mini AI model grammar edit.

Conflict of Interests

The authors of this study declare that they have no conflicts of interest.

References

1. Hajmanouchehri R, Tabesh A, Farokhi A. Studying the Epidemiology of Death Caused by Methanol in Corpses Referred to Iranian Legal Medicine Organization Between 2019 and 2021. Iranian Journal of Forensic Medicine. 2023;29(3):186–93.

2. Huang DQ, Mathurin P, Cortez-Pinto H, Loomba R. Global epidemiology of alcohol-associated cirrhosis and HCC: trends, projections and risk factors. Nature reviews Gastroenterology & hepatology. 2023;20(1):37–49.

3. Stockwell T, Giesbrecht N, Vallance K, Wettlaufer A. Government options to reduce the impact of alcohol on human health: obstacles to effective policy implementation. Nutrients. 2021;13(8):2846.

4. World Health Organization. Alcohol Iran (Islamic Republic of) 2019 country profile [Internet]. 2019 [cited 2024 Oct 29]. Available from: https://www.who.int/publications/m/item/alcohol-irn-2019

5. Hajebi A, Nasserinejad M, Rezaei N, Azadnajafabad S, Rashidi MM, Ahmadi N, et al. Alcohol consumption among Iranian population based on the findings of STEPS survey 2021. Scientific Reports. 2024 Jul 22;14(1):16819.

6. Tofangsazi B. Religiosity, social influence, and drinking among Iranians. Sociology of Islam. 2020;8(1):53–79.

7. The Constitution law of the Islamic Republic of Iran. The Constitution law of the Islamic Republic of Iran, Article 264-266. [Internet]. 2013. Available from: https://sherloc.unodc.org/cld/uploads/res/islamic-penal-code_html/Islamic_Penal_Code.pdf

8. Fararu. Fararu, The Islamic Republic News Agency. 2024. Execution of 4 convicts in counterfeit alcohol case. Available from: https://fararu.com/fa/news/789854. (accessed 25 oct 2024)

9. Ghiabi M. Drugs Politics: Managing Disorder in the Islamic Republic of Iran [Internet]. Cambridge (UK): Cambridge University Press; 2019 [cited 2025 Apr 4]. (Wellcome Trust–Funded Monographs and Book Chapters). Available from: http://www.ncbi.nlm.nih.gov/books/NBK543503/

10. Ghammari F, Khodayari-Zarnaq R. Identifying the facilitators of Iran's alcoholic beverage black market and presenting solutions for harm reduction: a qualitative document analysis. Harm Reduction Journal. 2024;21(1):228.

11. World Health Organization. Alcohol and Health and Treatment of Substance Use Disorders [Internet]. 2024 [cited 2024 Oct 17]. Available from: https://www.who.int/publications/i/item/9789240096745

12. Hosseinkhani Z, Mohammadkhanloo M, Zamanian M, Moradzadeh R, Ramezani M, Cheraghi Z, et al. Prevalence of alcohol consumption in most at-risk groups in Iran: a systematic review and meta-analysis. Journal of Substance Use. 2023;28(2):135–42.

13. The Associated Press. Alcohol poisoning kills dozens of people in Iran [Internet]. 2024. Available from: https://apnews.com/article/alcohol-poisoning-iran-toxic-methanal-deaths-6f32f86c215caff87e647d53528b73f3. (accessed 29 oct 2024)

14. the collector. The Impact of Banned Alcohol in Prohibition-era America [Internet]. 2023 [cited 2024 Nov 5]. Available from: https://www.thecollector.com/impact-alcohol-ban-prohibition-era-america/

15. Wiener C. The politics of alcoholism: Building an arena around a social problem [Internet]. Routledge; 2023. Available from: https://doi.org/10.4324/9781003418993

16. Babor TF, Casswell S, Graham K, Huckle T, Livingston M, Rehm J, et al. Alcohol: no ordinary commodity—a summary of the third edition. Addiction. 2022;117(12):3024–36.

17. Ayares G, Idalsoaga F, Arnold J, Fuentes-López E, Arab JP, Díaz LA. Public health measures and prevention of alcohol-associated liver disease. Journal of Clinical and Experimental Hepatology. 2022;12(6):1480–91.

18. Green NL. Deontological argumentation: Argumentation schemes and rhetorical devices. Argument & Computation. 2025;16(1):94–107.

19. Savulescu J, Persson I, Wilkinson D. Utilitarianism and the pandemic. Bioethics. 2020;34(6):620–32.

20. Munthe C. The goals of public health: an integrated, multidimensional model. Public health ethics. 2008;1(1):39–52.

21. Royo-Bordonada MÁ, Román-Maestre B. Towards public health ethics. Public Health Reviews. 2015;36(1):3.

22. Rumgay H, Ortega-Ortega M, Sharp L, Lunet N, Soerjomataram I. The cost of premature death from cancer attributable to alcohol: Productivity losses in Europe in 2018. Cancer Epidemiology. 2023;84:102365.

23. Safiri S, Nejadghaderi SA, Noori M, Sullman MJ, Collins GS, Kaufman JS, et al. Burden of diseases and injuries attributable to alcohol consumption in the Middle East and North Africa region, 1990–2019. Scientific reports. 2022;12(1):19301.

24. Irna. Irna, The Islamic Republic News Agency. 2024. "The dominoes of death and poisoning with adulterated alcohol" (in Persian). Available from: https://www.irna.ir/news/85621703. (accessed 19 oct 2024).

25. Jaafari M. "Iran" reports on the recent poisoning of alcoholic beverages: a drink with the taste of death (in Persian). Iran Newspaper. 2024;18.

26. Entekhab. Entekhab, The Islamic Republic News Agency. 2024. Forensic medicine: the number of alcoholic deaths in the first 5 months of this year reached 229 people. Available from: https://www.entekhab.ir/fa/news/827017(accessed 25 oct 2024)

27. Safiri S, Nejadghaderi SA, Karamzad N, Carson-Chahhoud K, Bragazzi NL, Sullman MJ, et al. Global, regional, and national cancer deaths and disability-adjusted life-years (DALYs) attributable to alcohol consumption in 204 countries and territories, 1990-2019. Cancer. 2022;128(9):1840–52.

28. Reime MA, Løseth HM, Lindeman SK, Titlestad KB, Dyregrov K, Selseng LB. Professional helpers' experiences of assisting the bereaved after drug-related deaths: A knowledge gap. Nordic Studies on Alcohol and Drugs. 2022;39(4):453–65.

29. Legome E, Bonadio W, Redlener M, Lavine E, Mealy A, Sondheim SE. Alcohol Intoxication in the Academic Emergency Department: Epidemiology and Facility-Fee Financial Impact. Western Journal of Emergency Medicine. 2025;26(5):1454.

30. Oliveras C, Bruguera P, Cordero-Torres I, Millán-Hernández A, Pons-Cabrera MT, Guzmán Cortez PR, et al. Effects of alcohol-related problems on the costs of frequent emergency department use: an economic analysis of a case–control study in Spain. Frontiers in Public Health. 2024;12:1322327.

31. Manthey J, Hassan SA, Carr S, Kilian C, Kuitunen-Paul S, Rehm J. What are the economic costs to society attributable to alcohol use? A systematic review and modelling study. Pharmacoeconomics. 2021;39(7):809–22.

32. Shield K, Manthey J, Rylett M, Probst C, Wettlaufer A, Parry CD, et al. National, regional, and global burdens of disease from 2000 to 2016 attributable to alcohol use: a comparative risk assessment study. The Lancet Public Health. 2020;5(1):e51–61.

33. World Health Organization. Global status report on alcohol and health 2018 [Internet]. Geneva: World Health Organization; 2018 [cited 2024 Oct 30]. Available from: https://iris.who.int/handle/10665/274603

34. The UN Sustainable Development Solutions Network. Transforming our world: the 2030 agenda for sustainable development [Internet]. 2023. Available from: https://sustainabledevelopment.un.org/ (accessed: October 24, 2024)

35. Collins SE. Associations Between Socioeconomic Factors and Alcohol Outcomes. 2016 [cited 2024 Oct 24]; Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC4872618/

36. Probst C, Kilian C, Sanchez S, Lange S, Rehm J. The role of alcohol use and drinking patterns in socioeconomic inequalities in mortality: a systematic review. 2020 [cited 2024 Oct 24]; Available from: https://www.thelancet.com/journals/lanpub/article/PIIS2468-26672030052-9/fulltext

37. Bellis MA, Hughes K, Nicholls J, Sheron N, Gilmore I, Jones L. The alcohol harm paradox: using a national survey to explore how alcohol may disproportionately impact health in deprived individuals. BMC public health. 2016;16:1–10.

38. Svendsen MT, Bak CK, Sørensen K, Pelikan J, Riddersholm SJ, Skals RK, et al. Associations of health literacy with socioeconomic position, health risk behavior, and health status: a large national population-based survey among Danish adults. BMC public health. 2020;20(1):565.

39. Moazzen V. Investigation of the Concept of Freedom with Focus on Its Application in the Realization of Social Justice in the Health System. MLJ. 2021 Apr 1;15(56):773–88.

40. Boyd J, Bambra C, Purshouse RC, Holmes J. Beyond behaviour: How health inequality theory can enhance our understanding of the 'alcohol-harm paradox.' International journal of environmental research and public health. 2021;18(11):6025.

41. Nikfarjam A, Hajimaghsoudi S, Rastegari A, Haghdoost AA, Nasehi AA, Memaryan N, et al. The frequency of alcohol use in Iranian urban population: the results of a national network scale up survey. International journal of health policy and management. 2017;6(2):97.

42. Cousin L, Roucoux G, Petit AS, Baumann-Coblentz L, Torrente OR, Cannafarina A, et al. Perceived stigma, substance use and self-medication in night-shift healthcare workers: a qualitative study. BMC health services research. 2022;22(1):698.

43. Shamsi-Gooshki E, Parsapoor A, Asghari F, Parsa M, Saeedinejad Y, Biroudian S, et al. Developing" code of ethics for medical professionals, medical council of Islamic Republic of Iran". Archives of Iranian Medicine. 2020;23(10):658–64.

44. Bagi HRM, Tagizadieh M, Moharamzadeh P, Pouraghaei M, Barhagi AK, Nia KS. Epidemiology of Alcohol Poisoning and Its Outcome in the North-West of Iran. Emergency. 2015 Winter;3(1):27.

45. Kelly JF, Saitz R, Wakeman S. Language, Substance Use Disorders, and Policy: The Need to Reach Consensus on an "Addiction-ary." Alcoholism Treatment Quarterly. 2016 Jan 2;34(1):116–23.

46. Mantel J. Age Is More than Just a Number: A Legal and Ethical Defense of Age-Based Triage Protocols. Ky LJ. 2022;111:387.

47. Munthe C. The goals of public health: an integrated, multidimensional model. Public health ethics. 2008;1(1):39–52.

48. Habibnejhad SA, Moazzen V. Ethical Challenges of Restrictions on Citizens' Health choices by the Government. IJMEHM. 2020 Mar 1;13(0):306–18.

49. Yan L, Ji CF, Xia LP, Sun W, Shi JQ, Wu XD. Summary of Best Evidence for Psychosocial Interventions in Adults with Alcohol Use Disorder: An Evidence-Based Review. Journal of Multidisciplinary Healthcare. 2025;6315–27.

50. Perrin S, Fillol A, Moriceau S, Le Tirant L, Allache A, Serre F, et al. Exploring and describing alcohol harm reduction interventions: a scoping review of literature from the past decade in the western world. Harm Reduction Journal. 2024;21(1):207.

51. Poikolainen K. Paternalism and alcohol policy. Drugs and Alcohol Today. 2021;21(1):6–14.

52. Babor TF, Casswell S, Graham K, Huckle T, Livingston M, Österberg E, et al. Alcohol: no ordinary commodity: research and public policy. 2022; Available from: https://books.google.com/books?hl=en&lr=&id=ftebEAAAQBAJ&oi=fnd&pg=PA1974&dq

53. Aghababaeian H, Araghi Ahvazi L, Ostadtaghizadeh A. The methanol poisoning outbreaks in Iran 2018. Alcohol and alcoholism. 2019;54(2):128–30.

54. Abramowicz M, Brosz M, Bykowska-Godlewska B, Michalski T, Strzałkowska A. Wzorce konsumpcji alkoholu. Studium socjologiczne [Internet]. Wydawnictwo Zakładu Realizacji Badań Społecznych Q&Q; 2018. Available from: https://open.icm.edu.pl/handle/123456789/16119

55. Jankowiak B, Wojtynkiewicz E. Kształtowanie się tożsamości w okresie adolescencji a podejmowanie zachowań ryzykownych w obszarze używania alkoholu przez młodzież. Studia Edukacyjne. 2018;(48):169–85.

56. Shokoohi M, Rahimi-Movaghar A, Noroozi A, Karamouzian M. A public health approach to alcohol use and its related harms in Iran. The Lancet Public Health. 2019;4(4):e175–6.

57. Irna. Irna, The Islamic Republic News Agency. 2018 [cited 2025 Apr 4]. People who are intoxicated with alcohol are not chased, they go to hospitals. Available from: https://www.irna.ir/news/83069192

58. Mirzaei S, Mehrolhassani MH, Yazdi-Feyzabadi V, Haghdoost A, Oroomiei N. Agenda-setting in policies related to high-risk sexual behaviours, stimulants, and alcohol abuse in Iranian adolescents. Health research policy and systems. 2023;21(1):104.

59. Park SH, Kim DJ. Global and regional impacts of alcohol use on public health: Emphasis on alcohol policies. 2020 [cited 2024 Oct 24]; Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC7641561/

60. Kohl III HW, Murray TD, Salvo D. Foundations of physical activity and public health [Internet]. Human Kinetics; 2025. Available from: https://books.google.com/books?hl=en&lr=&id=HQ9PEQAAQBAJ&oi=fnd&pg=PP1&dq

61. Rokna. Rokna, The Islamic Republic News Agency. 2024. The Minister of Health is concerned about numerous poisonings caused by non-standard alcohol consumption. Available from: https://www.rokna.net/95/1055110 (accessed 31 oct 2024)

62. Li Q, Babor TF, Zeigler D, Xuan Z, Morisky D, Hovell MF, et al. Health promotion interventions and policies addressing excessive alcohol use: a systematic review of national and global evidence as a guide to health-care reform in C hina. Addiction. 2015;110:68–78.

63. Caron RM, Noel K, Reed RN, Sibel J, Smith HJ. Health Promotion, Health Protection, and Disease Prevention: Challenges and Opportunities in a Dynamic Landscape. AJPM Focus. 2023 Nov 8;3(1):100167.

64. Cheung SNS. On a Fallacy in the Coase Theorem and the Theorem of Transaction Costs Substitution. 2020 Dec 1 [cited 2024 Nov 5]; Available from: https://www.degruyter.com/document/doi/10.1515/me-2020-0013/html?lang=en

65. Yazdi-Feyzabadi V, Alipouri Sakha M, Zandian H, Zahirian Moghadam T. Alcohol-related mortality during the COVID-19 outbreak in Iran: a commentary on happening a crisis amid another crisis. Journal of Substance Use. 2022;27(4):435–9.

66. Lachenmeier DW, Neufeld M, Rehm J. The impact of unrecorded alcohol use on health: what do we know in 2020? Journal of Studies on Alcohol and Drugs. 2021;82(1):28–41.

67. Gangi MF, Karamouzian M, Nedjat S, Rahimi-Movaghar A, Yazdani K, Shokoohi M, et al. HIV prevention cascades for injection and sexual risk behaviors among HIV-negative people who inject drug in Iran. International Journal of Drug Policy. 2020 Oct 1;84:102868.

68. Manthey J, Kokole D, Riedel-Heller S, Rowlands G, Schäfer I, Schomerus G, et al. Improving alcohol health literacy and reducing alcohol consumption: recommendations for Germany. Addict Sci Clin Pract. 2023;18:28.

69. SeyedAlinaghi S, Taj L, Mazaheri-Tehrani E, Ahsani-Nasab S, Abedinzadeh N, McFarland W, et al. HIV in Iran: onset, responses, and future directions. Aids. 2021;35(4):529–42.

70. Himmich H, Madani N. The state of harm reduction in the Middle East and North Africa: A focus on Iran and Morocco. International Journal of Drug Policy. 2016;31:184–9.