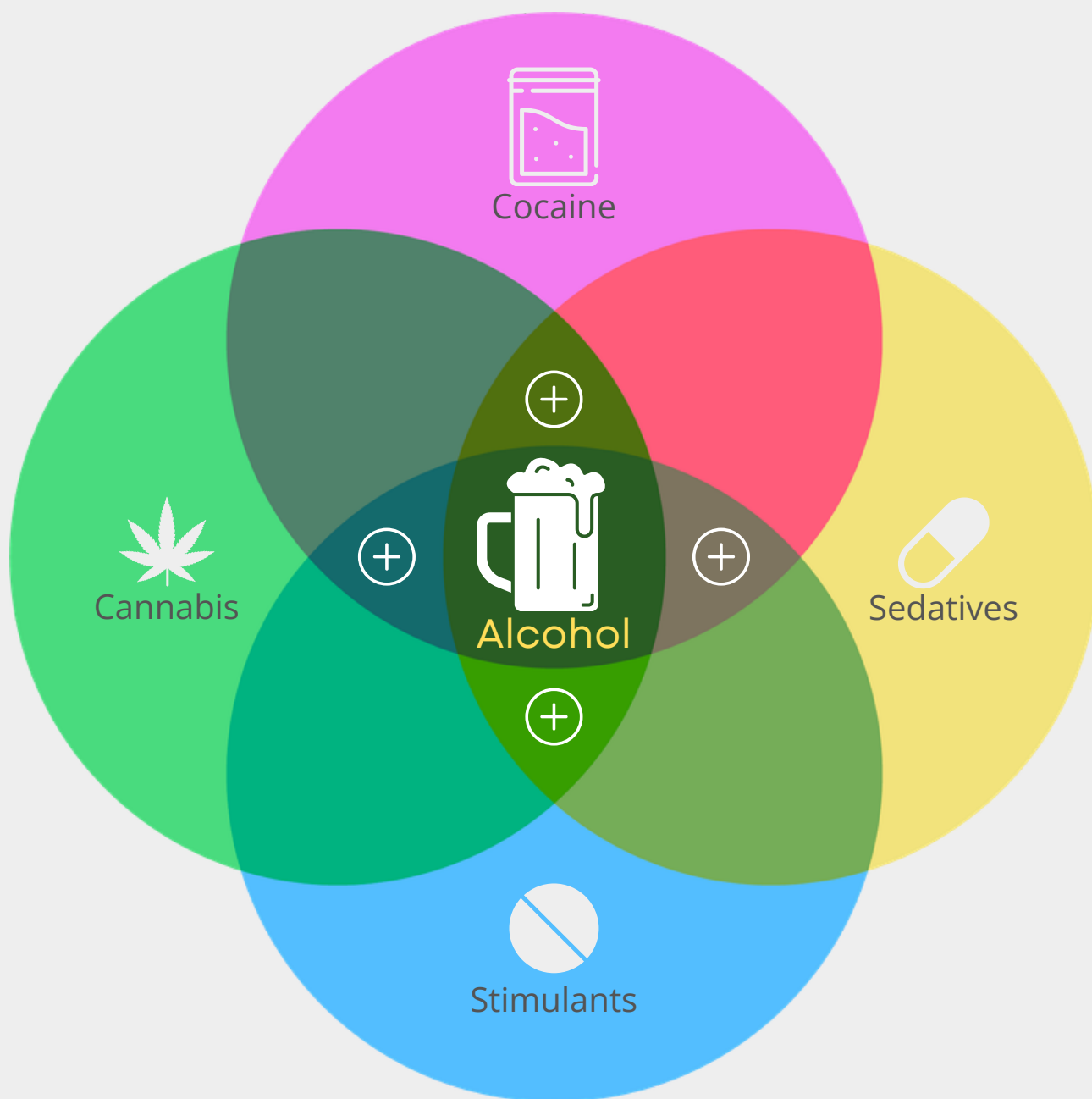




The relationship between alcohol and other drug use



About us

Alcohol Action Ireland (AAI) is the national independent advocate for reducing alcohol harm. We campaign for the burden of alcohol harm to be lifted from the individual, community and State, and have a strong track record in effective advocacy, campaigning and policy research.

Our work involves providing information on alcohol-related issues, creating awareness of alcohol-related harm and offering policy solutions with the potential to reduce that harm, with a particular emphasis on the implementation of the Public Health (Alcohol) Act 2018. Our overarching goal is to achieve a reduction in consumption of alcohol and the consequent health and social harms which alcohol causes in society.

Alcohol Action Ireland directors:

- Pat Cahill, former President ASTI (Company Secretary)
- Aidan Connaughton, Chartered accountant, former partner and head of risk, Grant Thornton
- Paddy Creedon, Recovery Advocate
- Dr Eoin Fogarty, Consultant in Emergency and Retrieval Medicine
- Michael Foy, Head of Finance, Commission for Communications Regulation
- Prof Jo-Hanna Ivers, Associate Professor, Addiction: Public Health & Primary Care, Trinity College Dublin
- Prof Frank Murray (Chair) Consultant in Hepatology & Gastroenterology. M.B., B.Ch. B.A.O., M.D., F.R.C.P.I., F.R.C.P. (Ed)
- Dr Mary T. O'Mahony, Consultant in Public Health Medicine & Medical Officer of Health, Department of Public Health, Public Health Area D (Cork & Kerry)
- Dr Catriona O'Toole, Associate Professor/Senior Lecturer Psychology of Education, Maynooth University
- Dr Bobby Smyth (Vice Chair), Consultant Child & Adolescent Psychiatrist
- Kathryn Walsh, Director of Policy and Advocacy at the National Youth Council of Ireland

Patron: Mr Justice Geoffrey Shannon

Alcohol Action Ireland is a registered Irish charity
 Registered charity number: 20052713
 Company number: 378738
 CHY: 15342

Foreword

Dr. Sheila Gilheany,
CEO, Alcohol Action Ireland



Alcohol is Ireland's most widely consumed drug carrying significant impacts on health, social care, road safety, justice and the economy. In recent years there has also been a growth in the use of a range of illegal drugs though still at a level much less than that of alcohol.

These are not two separate issues. The evidence presented in this report shows that alcohol is frequently a driver of the consumption of other drugs and that in combination there are even more risks and harms arising from this practice.

What is clear is that efforts to reduce illegal drug use will not succeed without concurrent actions to address Ireland's alcohol consumption – particularly given the surge in youth drinking over the past decade.

However, it is not unusual to find policy makers separating out the issues or indeed prioritising actions around illegal drug use. For example, the terms of reference of the recent Citizens Assembly on Drugs specifically excluded consideration of alcohol. In contrast many of the agencies providing treatment services or working in the areas of education and prevention do so for both alcohol and illegal drugs.

National and international evidence strongly indicates that the 'best buys' to reduce alcohol harm are measures to address pricing, marketing and availability. An important benefit of such an approach is the likely reduction in the consumption of other drugs. Such actions require cross-governmental support and a fundamental understanding of the role of alcohol within illegal drug use.

Ireland has already taken important steps in developing a public health approach to alcohol through the Public Health (Alcohol) Act 2018. However, slow implementation of the modest measures within it means that this legislation has not yet achieved its full potential. Meanwhile other areas of government seek to support the alcohol industry including delaying measures such as controls on advertising and on health information labelling.

A renewed focus on alcohol is needed both within the upcoming Drugs Strategy and across government, so that there is a fully coherent approach to both alcohol and illegal drugs.

Introduction

Alcohol is Ireland's most widely consumed drug, with almost ten times more people using it than illegal drugs. According to research by Healthy Ireland, 71% of the population aged 15 and over drink alcohol,[1] while 7.3% use illegal drugs.[2] Using CSO population data we can therefore estimate that there are 3.2 million drinkers and just over 320,000 people reported using drugs in Ireland aged 15 and over.

Yet public and political debate too often treats alcohol harm and drug harm as separate concerns, or overlooks alcohol altogether. This framing is not only inaccurate but actively unhelpful, because it obscures the substance most consistently implicated in polydrug harm – alcohol. In recent years there has been a tendency among politicians, media commentators, and the alcohol industry to overstate drug use while downplaying the scale and seriousness of alcohol use and its harms.[3]

This policy paper seeks to examine the phenomenon of the co-use of alcohol and illicit drugs. Drawing on national data, such as the Irish National Drug Treatment Reporting System and the National Drug and Alcohol Survey, alongside international evidence, this paper will demonstrate that comorbid consumption places individuals at greater risk of severe and problematic outcomes than when either substance is used alone. Examining alcohol's combination with cocaine, cannabis, benzodiazepines, opioids and other substances including ketamine and MDMA/ecstasy, it will show that alcohol is rarely the incidental partner in polydrug use, and frequently the foundational driver.



My research, including work examining drug use in festival settings and the particular harms associated with cocaine, has reinforced the importance of looking beyond individual substances and recognising the significant risks created by polysubstance use. The combination of alcohol with drugs such as cocaine, ketamine and MDMA can increase both acute and longer-term harms, while alcohol itself can alter judgement and contribute to higher-risk patterns of consumption.

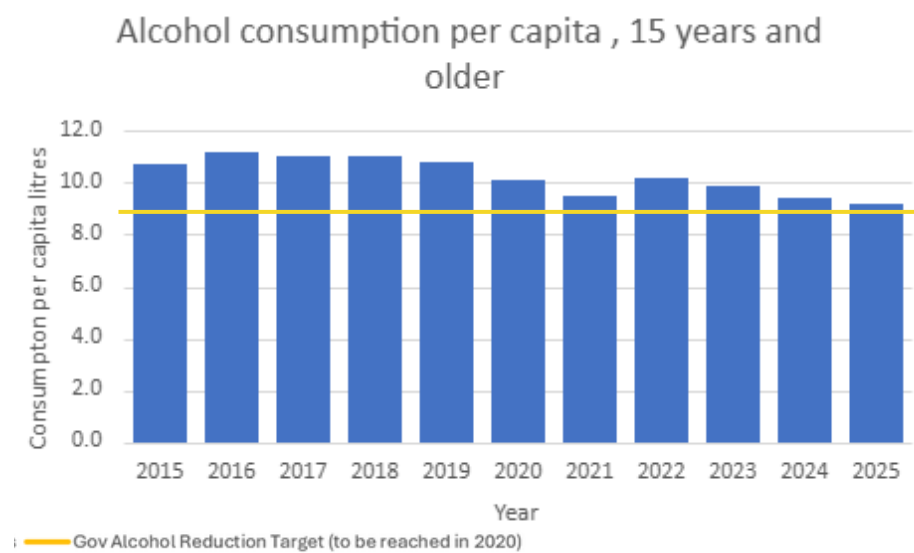
As a Board Member of Alcohol Action Ireland, I therefore welcome this report and its important contribution to improving public understanding of alcohol-related harm. Evidence, education and effective public-health policy are essential if we are to ensure that people, particularly younger adults, are better informed about the risks associated with combining alcohol with other drugs. This work also reinforces the importance of fully implementing the Public Health (Alcohol) Act 2018 as part of a wider commitment to reducing alcohol consumption and the health and social harms it causes across Irish society.

Prof Jo-Hanna Ivers, Associate Professor, Addiction: Public Health & Primary Care, Trinity College Dublin



Alcohol use

There is a high level of alcohol consumption across the Irish population, at 9.24 litres of pure alcohol per year per capita among those aged 15 years and over.[4] This is still above the government's modest reduction target of 9.1 litres per capita, which was set in 2013 to be achieved by 2020.[5] Given that 29% of the population do not drink at all,[6] the average level of consumption per drinker is considerably higher at 13.01 litres of pure alcohol per year.[7] That is around 30% above the level that would be expected if drinkers stayed within the current HSE lower-risk drinking guidelines. These guidelines are already acknowledged as comparatively high by international standards and are currently under review.



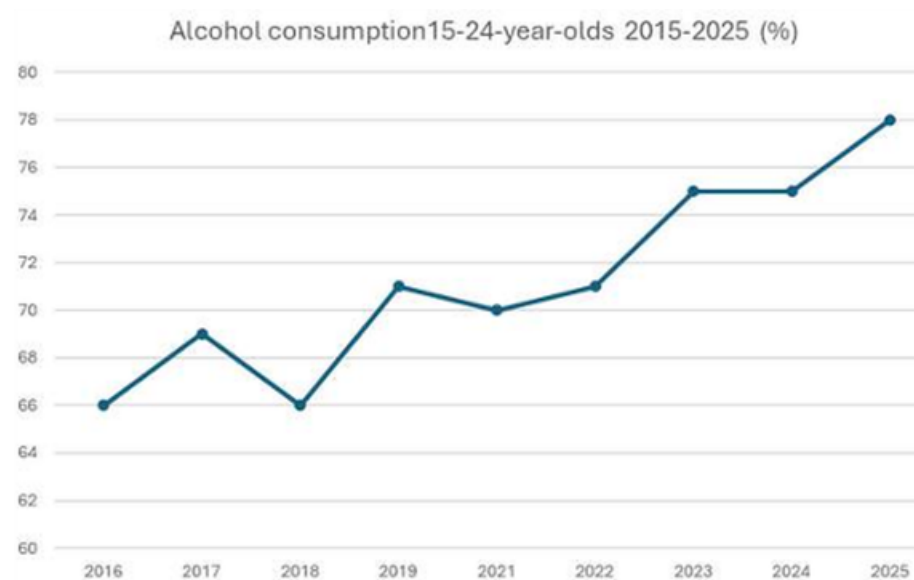
Above: Ireland's alcohol consumption rate 2015-2025 in litres per capita (>15 years)[8] compared to the government's own alcohol reduction target, set in 2013, to be achieved by 2020.[9]

In 2025, Ireland's alcohol use per drinker aged 15 years or older was:



It's not only the volume of alcohol consumed that is concerning, but also the patterns of drinking. Studies indicate that more than one-half of those who drink in Ireland are classified as hazardous drinkers[10] and that Ireland has the second highest level of binge drinking across OECD countries.[11] This gives rise to a range of harms. Research from the Health Research Board found that those who are dependent on alcohol have a greater individual risk of experiencing each harm but the majority of the harms in the population are accounted for by drinkers who were not dependent on alcohol but who binge drink regularly.[12]

More concerning still, there are also extremely high levels of youth drinking with data showing a 12% increase in consumption over the last decade.[13] Young people aged 15-24 now constitute the largest alcohol-consuming age cohort in Ireland and are simultaneously the most prevalent hazardous drinkers and binge drinkers in the country. Furthermore, consumption amongst young people is now at a rate not seen since the early 2000s when youth drinking was at crisis levels.[14]

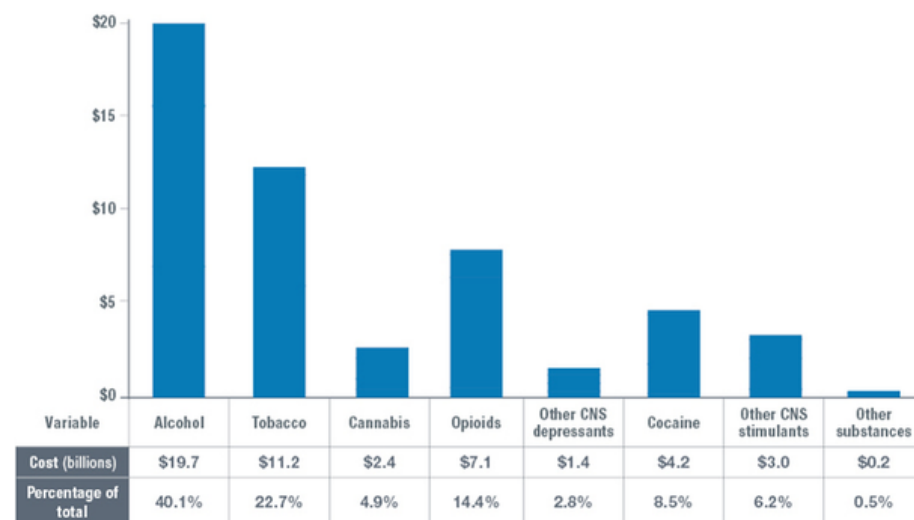


Above: Youth alcohol consumption - data from annual Healthy Ireland surveys. [15]

Alcohol harm costs more than illegal drug harm

In recent years a body of research has been emerging in relation to four harmful commodities which account for more than half of deaths in Ireland: tobacco, alcohol, fossil fuels, and unhealthy foods.[16] Alcohol is often overlooked in discussions regarding poor health, especially in comparison to tobacco, but research indicates that alcohol constitutes a much heavier financial burden on people, the health service, and the taxpayer. This research is also true in terms of the far greater economic burden of alcohol harm than that of illegal drugs.

As can be seen from Canadian research below, costs from alcohol far outstrip those of any other drug. Ireland, for its part, has similar alcohol, tobacco and drug consumption levels to Canada, so it can be hypothesised that the economic harm from alcohol diminishes those of illegal drugs.[17]



Above: Substance Use Costs in Canada in 2020 [18]

Moreover, the OECD estimates that for Ireland the costs of alcohol harm are of the order of about 1.9% of GDP[19] which tallies with research cited by the World Health Organisation that in high income countries alcohol harm amounts to up 2.5% of GDP.[20]

- Applying this research to Ireland's GDP, this amounts to an alcohol harm bill of between €10.6bn-€14bn for 2024.[21]
- Applying this research to Ireland's GNI*, this amounts to an alcohol harm bill of between €6.1bn-€8bn for 2024.[22]

These are conservative estimates and do not include a number of additional costs such as the impact of Fetal Alcohol Spectrum Disorders (FASD). Alcohol costs arise from a variety of harms, outlined below:



Impact on the health system

Alcohol is not an ordinary commodity – it is a carcinogenic, psychoactive, dependence-producing drug with severe consequences for Ireland's health system – and in 2012, 11% of the Department of Health budget was spent managing alcohol-related harms.[23]

Key statistics:

- Alcohol is the leading risk factor impacting morbidity and mortality among those aged 25-49 years.[24]
- 1 in 20 deaths in Ireland is caused by alcohol; [25]
- 177,230 hospital bed days accounted for every year due to alcohol;[26]
- Alcohol causes liver disease and is responsible for 1 in 8 breast cancers;[27]
- Alcohol is involved in half of all suicides and 1 in 3 self-harm presentations. [28]
- Alcohol is a feature in around a third of all drug and alcohol poisoning deaths.[29]

Alongside tobacco, fossil fuels, and unhealthy foods, alcohol is among four commodities responsible for over half of deaths in Ireland and at least a third of global deaths annually. [30] Moreover, as can be seen in the below table,[31] globally alcohol is the leading risk factor impacting morbidity and mortality among those aged 25-49 years and has consistently remained so since 1990.[32]

D 25-49 years		Leading risks 1990		Leading risks 2019		Percentage change in number of DALYs, 1990-2019		Percentage change in age-standardised DALY rate, 1990-2019	
			Percentage of DALYs 1990		Percentage of DALYs 2019				
1	Alcohol use	6.7 (5.9 to 7.5)		1	Alcohol use	6.3 (5.5 to 7.3)	26.7 (18.0 to 35.7)	-23.5 (-28.8 to -18.0)	
2	Smoking	6.6 (5.9 to 7.2)		2	High systolic blood pressure	6.0 (4.9 to 7.1)	48.4 (34.4 to 61.8)	-15.1 (-23.0 to -7.4)	
3	High systolic blood pressure	5.4 (4.4 to 6.4)		3	High body-mass index	5.9 (4.2 to 7.8)	136.1 (95.0 to 203.5)	40.5 (12.1 to 73.9)	
4	Occupational injury	3.9 (3.5 to 4.3)		4	Smoking	5.0 (4.5 to 5.6)	1.9 (-5.7 to 9.7)	-42.8 (-47.1 to -38.4)	
5	High LDL cholesterol	3.5 (3.0 to 4.1)		5	Unsafe sex	4.9 (4.1 to 6.0)	131.3 (102.8 to 171.1)	45.1 (26.9 to 67.2)	
6	Household air pollution	3.4 (2.6 to 4.3)		6	High fasting plasma glucose	4.0 (3.4 to 4.6)	90.9 (76.6 to 104.3)	10.0 (1.9 to 17.8)	
7	High body-mass index	3.3 (1.9 to 5.2)		7	High LDL cholesterol	3.8 (3.1 to 4.5)	41.4 (28.4 to 54.5)	-18.9 (-26.2 to -11.6)	
8	Unsafe sex	2.8 (2.1 to 3.7)		8	Drug use	2.9 (2.5 to 3.3)	94.4 (84.5 to 106.7)	22.9 (16.6 to 30.4)	
9	High fasting plasma glucose	2.8 (2.4 to 3.2)		9	Ambient particulate matter	2.9 (2.4 to 3.5)	120.4 (76.2 to 180.7)	29.4 (1.8 to 62.5)	
10	Drug use	2.0 (1.7 to 2.3)		10	Kidney dysfunction	2.4 (2.0 to 2.7)	62.4 (49.9 to 75.0)	-4.2 (-11.8 to 3.1)	
11	Kidney dysfunction	1.9 (1.7 to 2.2)		11	Occupational injury	2.3 (2.1 to 2.6)	-21.3 (-30.0 to -11.8)	-50.4 (-55.9 to -44.5)	
12	Ambient particulate matter	1.8 (1.2 to 2.3)		12	Household air pollution	1.7 (1.2 to 2.3)	-34.2 (-47.2 to -21.0)	-61.9 (-69.4 to -54.2)	

Impact on children

Parental Problem Alcohol Use (PPAU) is a well-established Adverse Childhood Experience (ACE) with lifelong physical and mental health consequences.[33]

The scale of the problem:

- One third of children have a parent who is a regular binge drinker or is dependent on alcohol; [34]
- More than 200,000 children are estimated to have experienced harm from a parent's drinking;[35] and,
- Up to 1 in 4 Irish adults may have grown up in a household affected by alcohol –this means that over 1.5 million people across all age ranges may have been affected by PPAU.[36][37]

Furthermore, PPAU also increases the risk of additional ACEs, including neglect, abuse, parental mental illness, domestic violence, and family breakdown.[38]

200,000

The number of children in Ireland who are estimated to be currently living with parental problem alcohol use



Impact on the justice system

Alcohol is a major driver of crime in Ireland. As District Court President Justice Paul Kelly has observed, alcohol is implicated in the vast majority of public order offences, assaults, criminal damage, family law cases, and drink driving. [39]

Key facts:

- Alcohol is a risk factor for domestic, sexual, and gender-based violence;[40]
- Between 30–65% of assaults, disorderly conduct, and public order incidents are linked to alcohol; [41]
- Department of Justice analysis indicates 29% of the costs of alcohol harm relate to crime.[42]

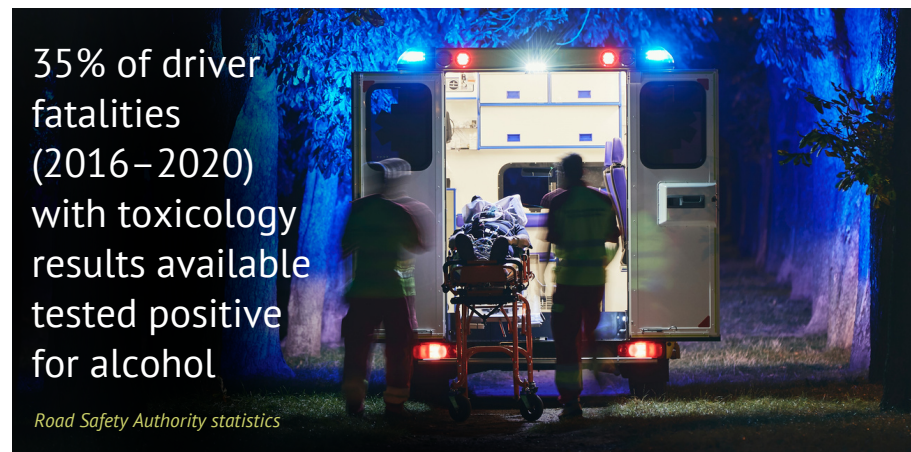
The evidence is consistent – more drinking leads to more violence. [43]

Impact on road safety

Alcohol remains a serious threat to road safety in Ireland, with 2025 marking the worst year for road fatalities since 2014.

- 35% of driver fatalities (2016–2020) with toxicology results available tested positive for alcohol; [44]
- European research shows drivers under the influence are 17.8 times more likely to cause a fatal accident; [45]
- Almost 1 in 8 (approximately 425,000) Irish drivers admitted to drink driving in 2024; [46]
- Ireland has the lowest level of roadside breath test checkpoints in the EU; [47]
- Only 5,007 people were caught drink driving in 2024; [48]

Research consistently links longer licensing hours to increased drink driving, a key reason the HSE urged against extending pub trading hours under the Sale of Alcohol Bill.



Impact on business and the economy

Alcohol can undermine a productive, healthy, thriving population, imposing significant costs on workers, employers, and the broader economy.

Consequences of alcohol on businesses and productivity are:

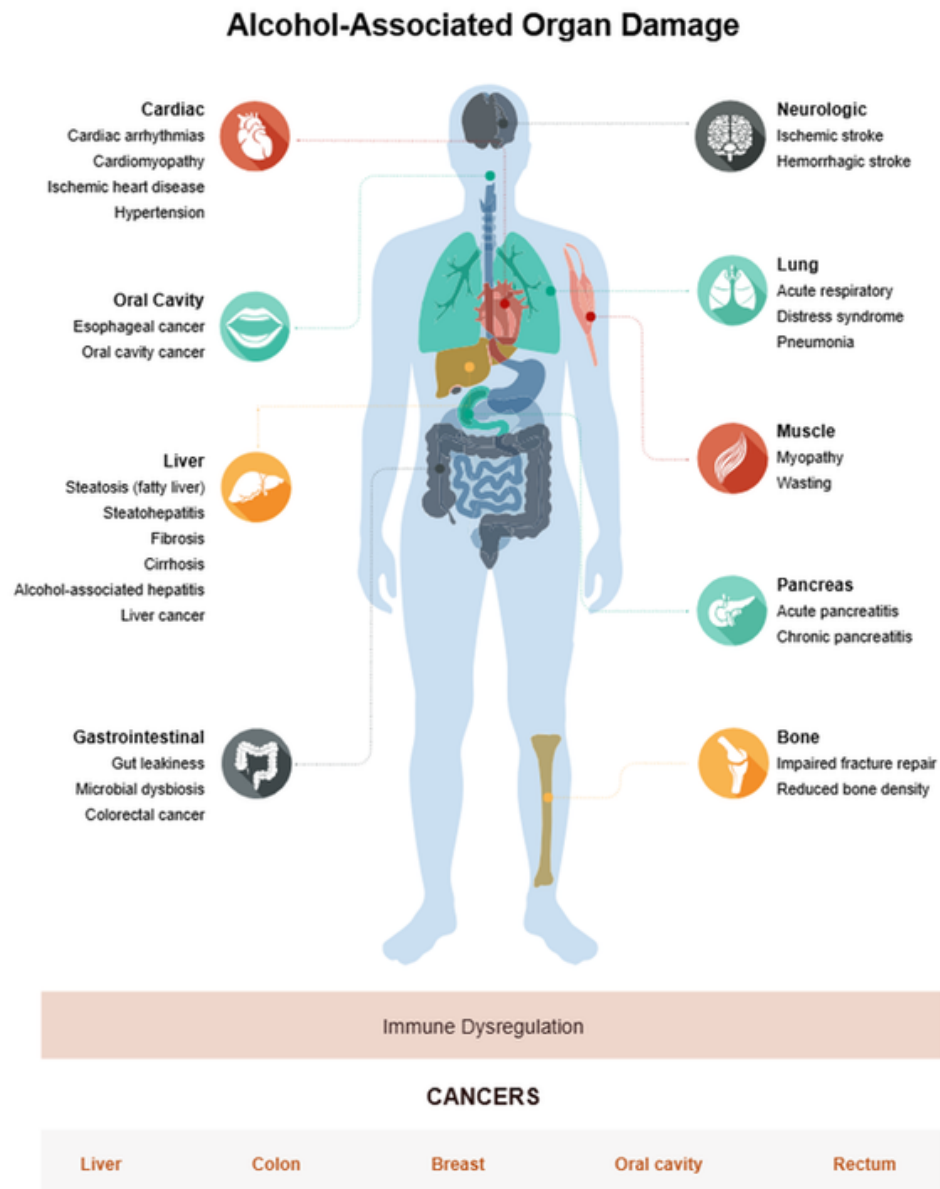
- Presenteeism, working below capacity due to hangovers or intoxication, accounts for 77% of total alcohol-related productivity loss; [49]
- Absenteeism, alcohol-related absences, cost an estimated €1.5 billion per year in Ireland according to an Ibec study from the early 2000s; [50]
- Increased tardiness, early leaving, theft, and reduced workplace morale, amongst others; [51]
- A cyclical relationship between alcohol use and unemployment, each reinforcing the other; [52] and,
- Premature death and chronic disease disproportionately affecting working-age people, with peak alcohol-related mortality occurring during peak productive years. [53][54]

Alcohol contributes to over 200 health conditions and ranks as the fifth leading global risk factor for disease and disability. [55] The resulting impact on the workforce imposes substantial, preventable financial burdens on the State and wider economy.

What are the risks and harms from alcohol?

Physical health

Alcohol use is the seventh leading risk factor for both deaths and disability-adjusted life years globally, and the leading risk factor among those aged 15-49 years.[56] Yet alcohol is a modifiable risk factor; reductions in alcohol consumption would lead to an associated reduction in the burden of disease, not only from conditions such as alcohol dependence and alcohol-related liver disease, but also from commonly reported health conditions including obesity, cardiovascular disease, and cancer.[57] Moreover, alcohol also contributes toxic effects on several organs, as well as poisoning, injuries, and impairments in behaviour.[58]



Above: Alcohol-associated organ damage – US National Institute on Alcohol Abuse [59]

As outlined previously, Ireland has a high level of alcohol consumption, and many Irish people engage in harmful drinking patterns. With such high levels of use, there is an equally high health impact because most alcohol-attributable conditions show a dose-response relationship with volume of alcohol use – the more alcohol consumed, the higher the risk of disease and harm.

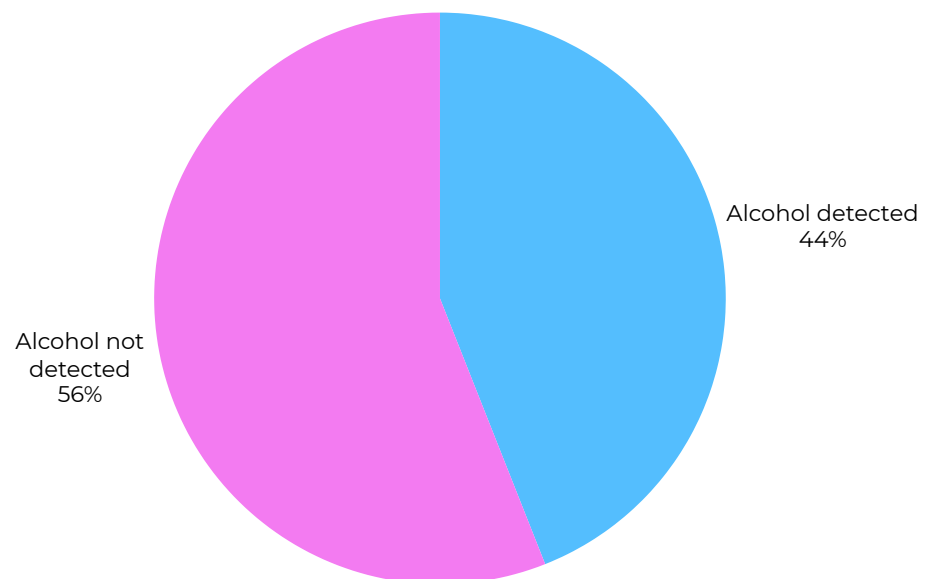
Mental health

Alcohol is a significant risk factor for suicide, as recognised by the World Health Organisation.[60] A psychotropic depressant of the central nervous system, alcohol promotes simultaneous changes in several neuronal pathways, exerting a profound neurological impact that leads to various behavioural and biological alterations.[61]

Alcohol has long been linked with poor mental health, including both self-harm and suicide. [62] Research has shown that alcohol consumption can affect mental health in multiple ways: it can be a contributory factor to mental health distress, an exacerbator of existing mental health difficulties, and mental health difficulties can in turn become a maintaining factor for continued alcohol consumption.

Globally, alcohol was associated with 27% of suicides and self-harm incidents in 2019,[63] while in Ireland alcohol was found to be a factor in nearly half of suicide cases[64] and one-third of self-harm hospital presentations in 2020.[65]

Recorded suicide cases in Cork from September 2008 to June 2012



Source: <https://www.drugsandalcohol.ie/28375/>

Alcohol and drug use

Polydrug use, the use of two or more drugs (including alcohol) either on the same occasion or within a specified period of time can be a dangerous practice but has become increasingly common, especially among young people.[66]

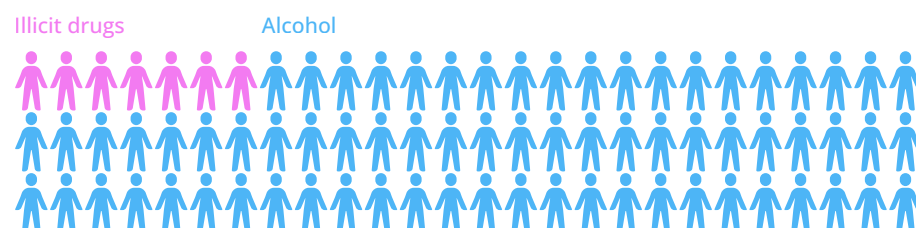
In 2025, the number of cases treated for problem alcohol use in Ireland increased to 8,798 cases, the highest annual total reported over the nine-year period analysed by the Health Research Board (2017-2025).[67] Of those cases, almost one in three also reported problem use of more than one substance – polydrug use.[68] In addition, 61.8% of cases of treatment for illegal drug use reported problem use of more than one drug; of these cases alcohol was the additional problem drug for 35.2%.[69] Concerningly, among new cases with polydrug use, alcohol (50.2%) was the most common additional substance.[70]

For alcohol, cocaine (72.1%) was the most common additional drug used, followed by cannabis (50.4%), benzodiazepines (17.5%) and opioids (9.8%).[71] Cocaine was the main drug reported alongside alcohol among those aged 20-49 years, while cannabis was the main drug reported alongside alcohol in other age groups. Moreover, a number of studies have investigated polydrug use including one that examined a sample of Irish festivalgoers. This report found that the majority reported polydrug use, most commonly an average of three substances (with a minimum of two and a maximum of eight); combinations involving alcohol, cocaine, ketamine, and ecstasy were the most commonly cited.[72]

Drug-related harm is a significant issue in Ireland, but there has been a recent tendency for media commentators and the alcohol industry to overstate the use of drugs to the deliberate exclusion of alcohol use and harm, rather than treating alcohol and illegal drugs with the seriousness they deserve.

Indeed, findings from Healthy Ireland survey revealed 7.3% of the adult population used illicit drugs in the past year,[73] but almost ten times more, 71%, used alcohol – Ireland's most widely consumed drug.[74] Such levels of consumption have obvious harms, and approximately 15% of the population has an Alcohol Use Disorder (AUD), 570,000 people, with 90,000 at a severe level. [75]

Nevertheless, as will be shown, alcohol use is exacerbated when co-used with other drugs, and vice-versa, as comorbid consumption places individuals at an increased risk of more severe and problematic outcomes than consuming any of these substances individually.



7.3% of the adult population used illicit drugs in the past year, but almost ten times more, 71%, used alcohol – Ireland's most widely consumed drug

Alcohol plus cocaine

Polydrug use has risen sharply in recent years, and among treatment cases with polydrug use, the most common drugs used together are alcohol plus cocaine. According to Healthy Ireland data (2022-2023) 8% of a nationally representative sample reported lifetime cocaine use, with 2% reporting use of cocaine in the last year, and 1% of the population reporting use in the last month.[76]

Among treatment cases where alcohol was the main problem drug, cocaine was the drug used alongside it in 72.1% of cases, according to the National Drug Treatment Reporting System (NDTRS).[77] Moreover, cocaine was also the most common additional drug reported by both new alcohol treatment cases (77.3%) and previously alcohol treated cases (69%).[78]

The pattern also holds in reverse as across nine years of NDTRS data, alcohol was the most common additional drug where cocaine was the main problem drug (51.9%).[79] The overlap is concentrated in adults aged 20-49, for whom cocaine was the drug most often reported alongside alcohol. The reason alcohol and cocaine are such bedfellows in terms of polydrug use is because rigorous academic evidence has proven that alcohol consumption drives cocaine use.[80][81][82][83][84]

Alcohol is known to precipitate, and increase, cravings for cocaine, therefore creating a cycle of use of both.[85] Indeed, alcohol is also a known antecedent to cocaine relapse, with 62% of people who relapse to cocaine within six months of treatment reporting they drank alcohol the same day.[86] Therefore, the specific and worrying public health concern here is that alcohol doesn't just co-occur with cocaine use, it actually drives consumption. Analysis of data from the 'Growing Up in Ireland' study indicates that early onset alcohol use is the most prominent predictor of cocaine use by 20-year-olds.[87]

Previous Irish research had highlighted the relationship between early drinking and cocaine use by young adults.[88] An Irish study of teenagers attending addiction treatment revealed 70% of those who had used cocaine were drunk on the occasion of first use.[89] Taken together, this research suggests that alcohol may well act as a gateway drug on the journey to cocaine use.



Evidence of this can be seen from the NDAS which found that in Ireland 84.9% of lifetime users of cocaine also used alcohol on the occasion of first use.[90] As mentioned, this is reinforced by the NDTRS which shows that the most common additional drug alongside alcohol is cocaine (72.1%).[91] This tallies with international research which indicates that 60-85% of problematic users of cocaine are also concurrent problematic users of alcohol, and that simultaneous consumption is common.[92]

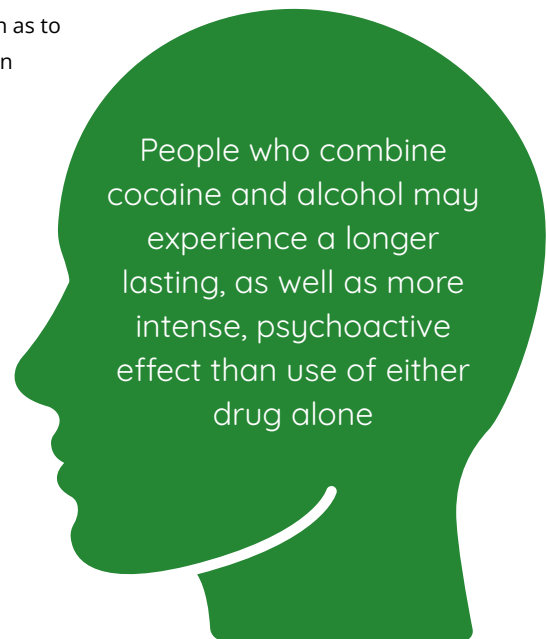
Indeed, further research shows that a diagnosis of alcohol dependence may be made in 50%-90% of cocaine-dependent subjects,[93] while a qualitative, in-depth study from Britain found that alcohol was used by almost 100% of cocaine users interviewed.[94] This aligns with research which revealed that when consuming cocaine alongside alcohol, drinkers often drank more heavily than usual, with consumption often being twice as much as when they weren't co-using.[95] In the European Union Drugs Agency Web Survey on Drugs, 30% of people who used cocaine reported that their use was driven by a desire "to reduce the effect of alcohol".[96]

The comorbid use of these drugs increases euphoria and enhances the perception of overall state of well-being, and these psychological effects encourage ingestion of larger amounts of alcohol and cocaine.[97] The reason is that cocaine produces its psychoactive and addictive effects primarily by acting on the brain's limbic system, a set of interconnected regions that regulate pleasure and motivation. It rapidly enters the bloodstream and penetrates the brain, and the drug achieves its main immediate psychological effect – the high – by causing a buildup of the neurochemical dopamine which gives rise to euphoria and a desire to take the drug again.[98][99] However, the high from consuming the drug may only last 15 to 30 minutes, therefore, further use is necessitated to maintain its euphoric effects.[100] Therefore, alcohol consumption and repeated cocaine intake are known to increase over the course of a use period.

There is, however, a pharmacological reason as to why alcohol drives cocaine use. What is often unknown to those co-using these drugs is that the compound produced in the body from the interaction between cocaine and alcohol is a psychoactive metabolite called cocaethylene.[101] This substance has similar properties to alcohol and cocaine but its effects may be more intense and cardiotoxic. Cocaethylene has a longer half-life than cocaine, so people who combine cocaine and alcohol may experience a longer lasting, as well as more intense, psychoactive effect than use of either drug alone. [102]

Cocaethylene is the only known instance where a new psychoactive substance is formed entirely within the body.[103] Hence, the combination of alcohol and cocaine can encourage heavier consumption, therefore increasing the toxic risk to the user. [104] Therefore, it is little wonder that cocaine (56.0%) was one of the most common drugs used in drug poisonings and was implicated in 33.5% poisoning deaths in Ireland in 2022, while it was also a contributory factor in 263 (5.9%) cases of non-fatal overdose discharges from Irish hospitals in 2022.[105]

Moreover, combined dependence on alcohol and cocaine causes greater structural brain damage than use of either substance alone.[106] Co-use particularly harms white matter in the frontal cortices, impairing decision-making, impulse control and judgement, and grey matter in the temporal lobe, affecting memory and emotional processing.[107] This compounded harm reflects the toxicity of cocaethylene, a more damaging compound the body produces when both substances are used together.



Furthermore, when co-use occurs many individuals increase consumption of alcohol to offset the short-term psychological effects of anxiety, paranoia, and insomnia. This is also true for after-effects during the day following cocaine use.[108] During the 'come down' period research has shown that users often increase alcohol to "cope" with feelings of irritability, fatigue, feeling low or depressed, and being withdrawn. [109] Another drug, however, which studies indicate is also co-used alongside alcohol in such instances is cannabis.

Alcohol plus cannabis

According to Healthy Ireland data (2022-2023) one in five people in Ireland reported using cannabis at least once in their lifetime. While 6% of respondents of a nationally representative sample reported using cannabis in the last year, with 3% using cannabis in the last month.[110] In addition, NDTRS data reveals that cannabis is the second most common drugs co-used alongside alcohol. Where polydrug use was identified in problem alcohol use cases, cannabis was the additional problem drug in 50.4% of cases.[111]

The scale of the problem is also evidenced in the prevalence of alcohol and cannabis in new and previously treated problem alcohol use cases – 49% and 51.8% respectively.[112]

Among those aged 19 years or under and among those aged 50 years and older, cannabis was the main problem drug reported alongside alcohol.[113]

Such information tallies with a broad spectrum of research which reveals a complementary hypothesis of substance co-use between cannabis and alcohol, including research showing increased use of alcohol on days when marijuana/cannabis is also used.[114] A deep analysis of

American research of alcohol and cannabis use found a significant time by cannabis interaction on alcohol use, suggesting that as time went on, users were increasingly more likely to drink more on cannabis use days, suggesting positive reinforcement from co-use. [115]

The study also found that increased cannabis use resulted in an increase in the number of negative alcohol consequences experienced by users, which confirmed a positive relationship between weekly cannabis use and negative alcohol consequences.[116] This aligns with other studies which indicate that up to 75% of samples analysed indicated co-use of alcohol and cannabis.[117]



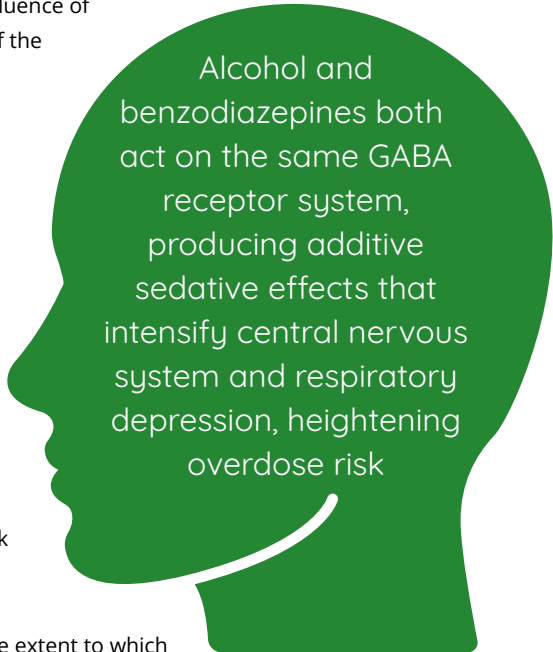
Worryingly research also revealed that binge drinking and daily cannabis use co-occur,[118] [119] and a recent Irish study demonstrated a very strong correlation between alcohol and cannabis use among 16 year olds.[120]

While there is ongoing debate about substitution or complementation, there is recent evidence which indicates that cannabis complements alcohol, thereby increasing drinking. [121] Research from America highlighted that cannabis and alcohol behave as complements among over 700 surveyed adult users.[122] In a cross-commodity purchase-task study of co-using adults, raising the price of either cannabis or alcohol reduced consumption of both together, revealing direct experimental-economic evidence that the two substances function as complements, not substitutes. [123] While a 30-day diary study of young adults found that on days of co-use, participants drank about 0.84 more standard drinks and were roughly twice as likely to binge drink than on days when they consumed only alcohol. [124]

Moreover, studies also reveal that alcohol and cannabis co-use is a valuable indicator for identifying individuals at risk for continued use as well as further substance use disorders. [125] A comprehensive literature review on alcohol and cannabis co-use has outlined how this specific polydrug use is associated with additive performance impairment effects, higher and more frequent consumption levels, increased social and behavioural consequences such as driving under the influence of both substances, and a greater likelihood of the experiencing comorbid substance use and mental health disorders.[126][127]

This points to the broader harms which are of concern in relation to alcohol and cannabis co-use. Consumption of alcohol and cannabis is associated with a higher prevalence of health-related, psychiatric, and psychosocial impairments.[128] Research has revealed that co-use not only increases intoxication as alcohol amplifies the cannabis dose reaching the brain,[129] but it also exacerbates negative experiences, which can lead to a greater risk for adverse outcomes.[130]

Moreover, findings have also shown that the extent to which an individual becomes more intoxicated while co-using cannabis and alcohol, the greater the risk for hazardous cannabis use six months and one year later.[131] Furthermore, comprehensive research has also revealed that co-using these substances place individuals at an increased risk for more severe and problematic outcomes such as altered brain function, decreased academic performance, poorer mental health and cognition, driving under the influence, and greater likelihood of developing a substance use disorder.[132]



Alcohol and benzodiazepines both act on the same GABA receptor system, producing additive sedative effects that intensify central nervous system and respiratory depression, heightening overdose risk

Alcohol plus benzodiazepines

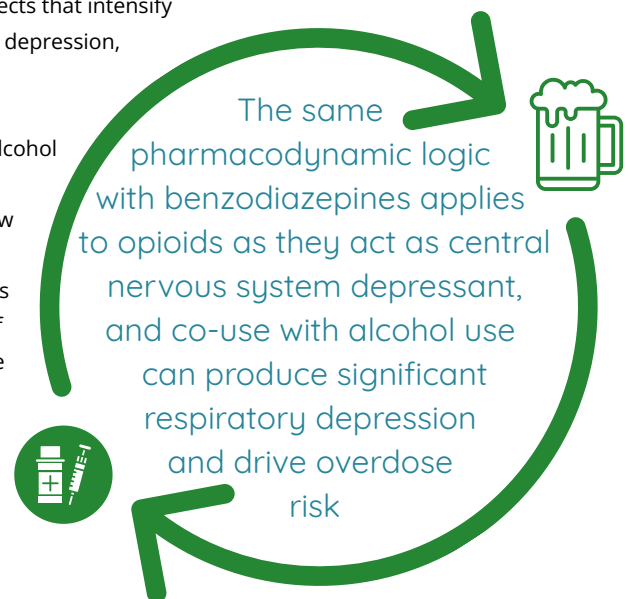
According to Healthy Ireland data (2022-2023), 13% of people in Ireland reported using sedatives or tranquilisers, such as benzodiazepines, at least once in their lifetime,[133] while 7% of respondents of a nationally representative sample reported using benzodiazepines in the last year, with 4% using in the last month.[134] NDTRS data indicates that alcohol and benzodiazepine co-use is a significant problem, and the third

most common substance to be co-used by those undergoing treatment for problem alcohol use (17.5%).^[135] Among new treatment cases, alcohol and benzodiazepines accounted for 12.4% of cases, and among previously treated cases that figure was 22.1%.^[136] The seriousness of alcohol plus benzodiazepine polydrug use is heightened by the fact that both drugs can be legally obtained. However, research into co-use has shown that benzodiazepines are commonly obtained through irregular means, such as from friends or family, rather than legally via medical prescription.^[137]

Benzodiazepines, sometimes known as “benzos”, are a class of prescription sedative medicines, including common brands like Valium (diazepam), Xanax (alprazolam), Ativan (lorazepam),^[138] as well as individual drugs such as Zopiclone, Diazepam, and Flurazepam.^[139] The drug acts by telling the brain to release a neurotransmitter, gamma-aminobutyric acid (GABA), which has a specific job – to make your nervous system less active.^[140] Essentially, benzodiazepines slow down brain activity and are mainly used to treat anxiety, panic-attacks, seizures, and sleep problems.^[141]

The co-use of these drugs poses a significant health risk because alcohol and benzodiazepines have similar properties and act on the brain in overlapping ways, thereby creating a dangerous combination.^[142] Both substances act on the same GABA receptor system, producing additive sedative effects that intensify central nervous system and respiratory depression, heightening overdose risk.^[143]

Research has shown that people with alcohol use disorder are more likely to misuse benzodiazepines.^[144] A systemic review of alcohol and benzodiazepine co-use found that 88% of benzodiazepine users reported the additional consumption of alcohol,^[145] while a US study of people receiving inpatient treatment for AUD found that 19% had misused a benzodiazepine in the past 30 days, and 30% has indicated lifetime misuse.^[146]



As outlined, concurrent alcohol and benzodiazepine use poses serious health risks. Both substances act on the same GABA receptor system, substantially heightening the risk of overdose and death.^[147] Because co-use is common, this compounds dependence and complicates treatment. Indeed, the use of any benzodiazepine was implicated in 48.1% of drug poisoning deaths in Ireland in 2022.^[148] Furthermore, emerging evidence also links combined use to significant cognitive and psychomotor impairment, often unrecognised by users themselves.^[149] Moreover, research has outlined further concerning implications in how co-use alcohol is also associated with significant impairments in driving-related neurocognitive skills.^[150]

Alcohol plus opioids

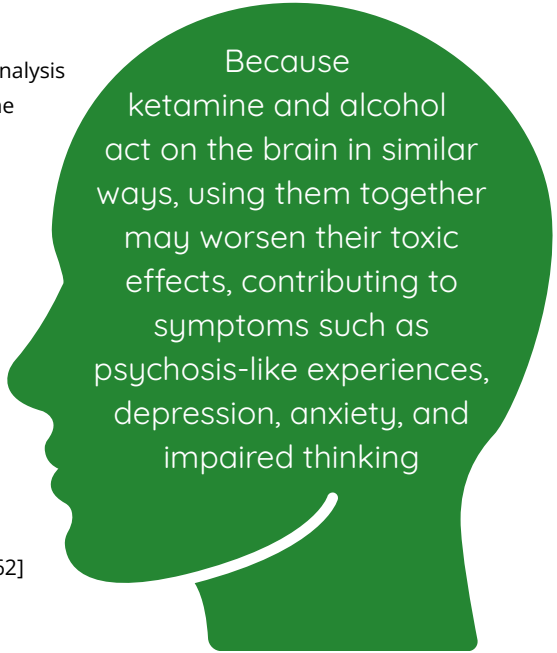
Opioids are natural, synthetic, or semi-synthetic chemicals that interact with opioid receptors on nerve cells in the body and brain and reduce the intensity of pain signals and feelings of pain.^[151] This class of drugs includes the semisynthetic drug heroin, synthetic opioids such as fentanyl, and pain medications available legally by prescription.^[152] Therefore, as with benzodiazepines, opioids can also be legally and illegally obtained.

Prescription opioid and alcohol co-use exists as an idiosyncratic problem; however, another problem exists in terms of alcohol and heroin and street-opioid use. A 2025 study, *Prevalence of problematic opioid use in Ireland, 2020– 2022*, found that there were an estimated 19,460 problematic opioid users in Ireland in 2022, which equates to a prevalence rate of 5.79 per 1,000 population.[153] Worryingly, opioids, often in combination with other substances, were present in 7 out of 10 cases of fatal overdose in 2023 for which toxicological information is available.[154]

This co-use is reflected in 2025 NDTRS data which showed that 9.8% of cases undergoing treatment for problem alcohol use had a problem with opioids.[155] Among new cases and previously treated cases opioids were the fourth most treated substance at 5.4% and 12.6% respectively.[156] Moreover, between 2017 and 2025 the number of polydrug cases reporting use, alongside alcohol, opioids increased by 33.3%.[157]

The same pharmacodynamic logic with benzodiazepines applies to opioids as they act as central nervous system depressant, and co-use with alcohol use can produce significant respiratory depression and drive overdose risk.[158] Therefore, it is little wonder that American research revealed that opioid and alcohol co-use produces significantly higher odds of serious negative outcomes compared to when the drugs are used independently. [159] This research aligns with a British study which found comorbid alcohol use disorder among patients with opioid use disorder significantly increases all-cause mortality, fatal overdose, and liver-related deaths.[160]

Worryingly, a systematic review and meta-analysis found that alcohol use disorder is among the most common comorbid substance use disorders among people with opioid use disorder.[161] Moreover, the same research found more than half of people with opioid use disorder were likely to have experienced alcohol use disorder in their lifetime. This aligns with American research which reveals that alcohol plays a significant role in opioid abuse, including being involved in 18.5% of opioid pain reliever drug abuse-related emergency department visits and 22.1% of opioid-related drug deaths.[162]



Because ketamine and alcohol act on the brain in similar ways, using them together may worsen their toxic effects, contributing to symptoms such as psychosis-like experiences, depression, anxiety, and impaired thinking

Because both alcohol and opioids act as central nervous system depressants, their simultaneous use can produce significant respiratory depression and heightened overdose risk; an additive effect well characterised across alcohol's combination with other depressant drugs.[163][164]

Alcohol plus ketamine

There are several other substance co-use combinations which are worth mentioning from a public health perspective. The use of ketamine, a psychedelic substance, has been on the rise for several years and in January 2024, addiction services warned of a concerning increase in the use of ketamine in Ireland.[165] Research from Britain has found an acceleration in deaths following illicit ketamine use in recent years, which are increasingly featuring complex patterns of polydrug use.[166] Indeed, co-use with alcohol is frequently

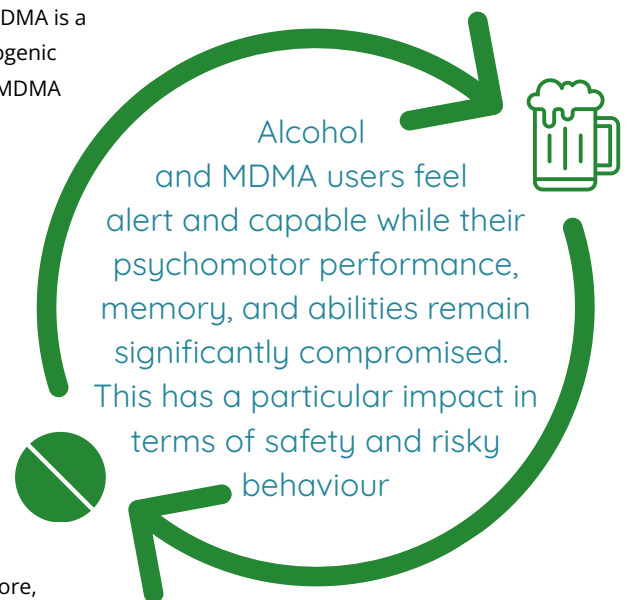
identified among ketamine users.[167] With alcohol and ketamine there is strong co-occurrence as both drugs are often used in the same settings and sessions.[168]

As with alcohol and the drugs previously mentioned, there are significant health risks to co-use. Research has found mechanistic evidence that alcohol and ketamine may cause serious neurotoxicity[169] and taxological damage, such as cardiotoxicity and respiratory depression, which can culminate in fatal outcomes.[170] Studies have also found alcohol and ketamine can damage the urinary system in terms of renal dysfunction.[171] Moreover, because ketamine and alcohol act on the brain in similar ways, using them together may worsen their toxic effects, contributing to symptoms such as psychosis-like experiences, depression, anxiety, and impaired thinking.[172]

Alcohol plus MDMA

As with ketamine, alcohol and Methylenedioxymethamphetamine (MDMA, ecstasy) are often used in combination in similar settings and sessions.[173] According to the National Drug and Alcohol Survey, 8.5% of the population has used MDAM/ecstasy in their lifetime, with 2% and 1% of respondents to a nationally representative survey reporting use in the last year and the last month respectively.[174] As we have seen, alcohol is a general central nervous system depressant, whereas MDMA is a stimulant which also produces hallucinogenic effects.[175] The co-use of alcohol and MDMA carries distinct risks beyond those of either substance alone.

Controlled human studies consistently show that MDMA masks the subjective feeling of alcohol-induced sedation without reversing the underlying impairment. Resultantly, alcohol and MDMA users feel alert and capable while their psychomotor performance, memory, and abilities remain significantly compromised. This has a particular impact in terms of safety and risky behaviour. Furthermore, preclinical evidence indicates co-use also intensifies toxic harm, including accumulation of acetaldehyde and markers of liver damage, compounding the hyperthermia and dehydration risks already associated with MDMA.[176] This is of significant concern because alcohol and MDMA are commonly co-used, with research show that up to 70% of MDMA users co-use alcohol and evidence indicates that this combination increases the risk of cell and organ damage.[177]



Conclusion

The evidence is consistent across every substance examined: co-use with alcohol intensifies harm, whether through the toxicity of cocaethylene, additive respiratory depression, or the masking of impairment that emboldens risk-taking. Yet amid growing attention to illegal drugs, alcohol, Ireland's most prevalent and most damaging drug, remains persistently overlooked.

Alcohol is not a marginal factor in polydrug use but frequently its foundation, driving consumption and compounding negative health, social, and economic outcomes. Crucially, the strong association between early alcohol use and later drug use points to a clear policy lever – reducing and delaying alcohol consumption, particularly among young people, offers a means of addressing both alcohol and illegal drug harm.[178].

As the State pursues a health-led approach to illegal drug use in Ireland, it is essential that government policy and messaging unequivocally states that alcohol carries significant risks and that combining alcohol and illegal drugs is even more dangerous, with multiple negative health implications beyond the consumption of a substance individually.

Acknowledging these realities and implementing the cross-departmental policies which are proven to work will ultimately save lives, improve Ireland's health and ensure a safer environment for all.



In my work with people who are struggling with drug addiction, their difficulties can often be traced back to an earlier alcohol problem. Society is rightly concerned about the growth of the cocaine problem. It is inextricably linked with alcohol. The majority of young users of cocaine in addiction treatment were drunk on the occasion of their first cocaine use. Alcohol is the main gateway drug to cocaine addiction.

Prof Bobby Smyth, Consultant Child & Adolescent Psychiatrist



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