

Has Minimum Unit Pricing (MUP) done what it aimed to do? The evidence so far

January 2023

Summary

Minimum unit pricing for alcohol (MUP) was implemented in May 2018 at a rate of 50p per unit. The policy is subject to a sunset clause, which means it will lapse unless renewed by the Scottish Parliament by end of April 2024.

Evaluation so far provides:

- **Strong evidence that MUP has delivered on its intended aim of reducing overall population consumption in Scotland**, with a 3% decrease in alcohol sales.
- **Promising indications that it has reduced consumption by hazardous and harmful drinkers, though this is less conclusive.**
- **Limited data so far** on whether, as a consequence of reducing consumption, the policy has delivered its overall purpose of **reducing alcohol-related harm**, but **preliminary indications are encouraging.**

However, deaths from alcohol have increased by 22% increase in in the last two years,¹ likely due to the effects of the pandemic on the availability of services and on drinking patterns among those with severe alcohol problems.

Minimum pricing remains an essential component of Scotland's alcohol strategy to reduce our high levels of alcohol consumption and harm. However, as highlighted by the World Health Organization, minimum pricing policies must be **regularly reviewed and revised** to maintain and maximise their effectiveness.²

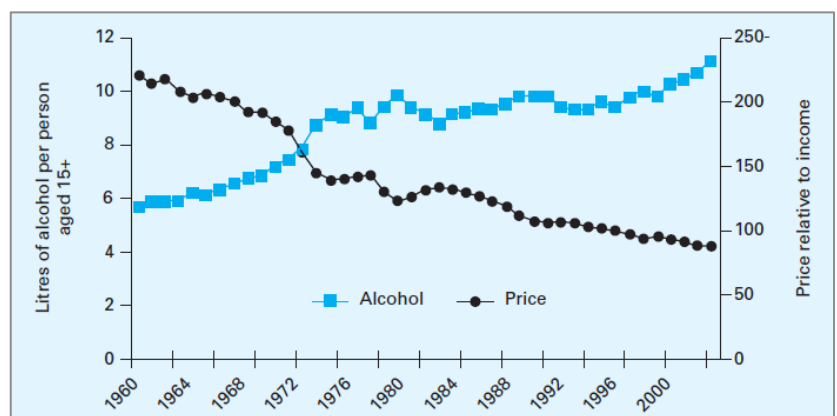
The effect of 50p per unit has been significantly eroded by inflation since the legislation was passed in 2012. AFS recommends that the MUP is **uprated to at least 65p per unit now**, and a **mechanism is introduced to automatically uprate the price in the future**, to ensure alcohol does not become more affordable. This will optimise the effectiveness of MUP in saving and improving lives.

MUP's Aims

As stated by the Scottish Government in their Business and Regulatory Impact Assessment³ for the MUP legislation:

*"The policy aim of minimum pricing is to **reduce alcohol-related harm** by acting in two ways: to **reduce**, in a targeted way, the consumption of alcohol by consumers whose consumption is **hazardous or harmful**, and also to **reduce the overall population level of consumption of alcohol**. The policy will target a reduction in consumption of cheaper alcohol relative to its strength, and evidence shows that this type of product is more favoured by hazardous and harmful drinkers."*

Pricing policies have been identified by the World Health Organization as having the strongest evidence of success in impacting on alcohol consumption and alcohol-related harm.⁴ There is extensive evidence on the relationship between price and consumption, showing that **when prices go up, consumption decreases and when prices go down, consumption goes up.**⁵ This graph shows the relationship between price and consumption in the UK.⁶



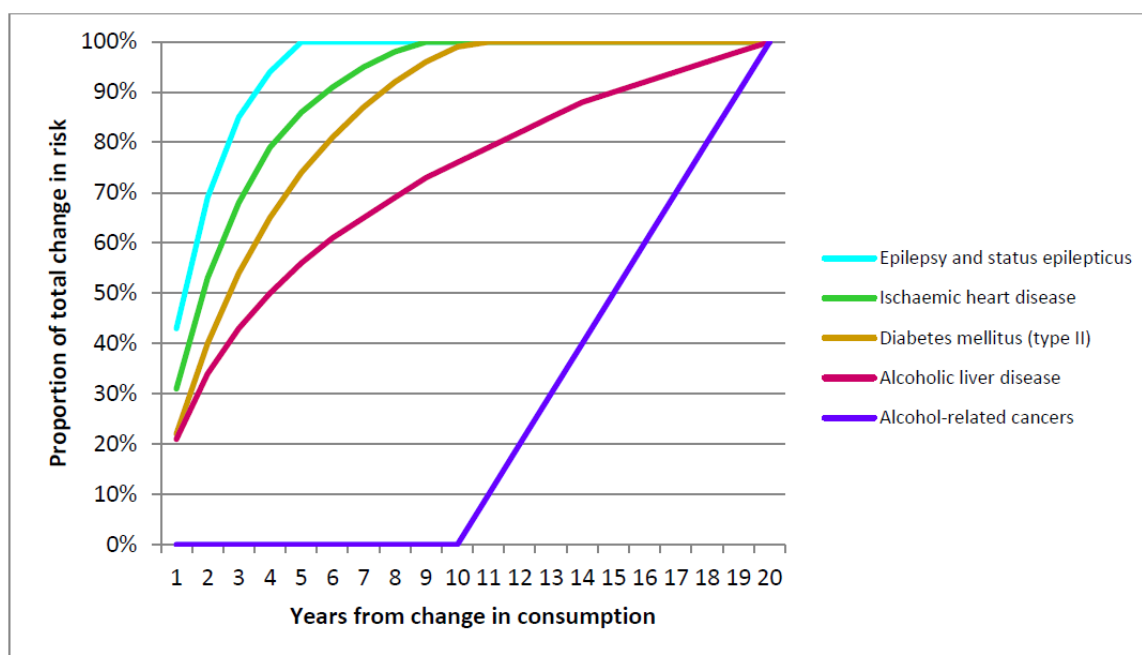
Reducing overall population consumption is important because how much we drink as a population is closely linked to the rates of health and social harms we experience.⁷ In Scotland, around **a quarter of adults drink at levels that put their health at risk**.⁸ It is estimated that **alcohol causes the deaths of over 3,700 people each year** (nearly 1 in 15 of all deaths), many of these due to cancer, heart disease and stroke, and other non-communicable diseases.⁹

MUP **targets cheap, high-strength products favoured by those drinking at hazardous and harmful levels**.^{10 11}

¹² Modelling studies undertaken to inform the Scottish Parliament's decision suggest that MUP would **be effective in reducing alcohol consumption and alcohol-related harms, particularly among heavy drinkers**.^{13 14} Even small changes in consumption by heavy drinkers can have a significant impact on their health and well-being.

It should be noted however, that even among very heavy drinkers, some individuals will not be affected by a minimum unit price, such as those who were already purchasing their alcohol at a higher price, either because of the products they consume or because they drink in pubs rather than solely at home.¹⁵

MUP's effect in reducing consumption is expected, in turn, to reduce alcohol-related harm. Although some health benefits would be expected immediately, **the modelling suggested the full effects of the policy would not be realised for 20 years**. This is because it takes years for changes in consumption to impact on the development of chronic diseases. For example, for alcohol-related cancers - the single biggest killer due to alcohol - the impacts on cancer death rates may not be seen for at least 10 years after an increase in alcohol consumption, as demonstrated in the graph below.¹⁶



Minimum unit pricing was never intended to tackle Scotland's unhealthy relationship with alcohol on its own, however it is a **vital cornerstone** of the Scottish Government's alcohol strategy which contains forty actions to reduce alcohol consumption and related harm in Scotland.

Has MUP reduced overall population consumption?

Yes - evidence indicates that MUP has reduced overall population consumption by 3%, driven by a 3.6% reduction in off-trade sales.

Alcohol sales data are widely accepted as the most robust indicator of population level consumption.¹⁷ **Public Health Scotland** have published several studies comparing alcohol sales data in Scotland to England and Wales. These studies have consistently reported that off-trade alcohol sales decreased in Scotland following the introduction of MUP while increasing in England and Wales, resulting in an overall reduction in population consumption in Scotland.^{18 19 20 21}

- The most recent study reported the impact of MUP three years after implementation to be a **3% reduction in alcohol sales per adult**, when accounting for sales in England and Wales.¹⁸
- The reduction in total sales was driven by a **3.6% reduction in sales of alcohol in the off trade**.¹⁸
- Earlier studies suggested a **similar reduction (3.5%-3.6%)** in off-trade sales during the first year of the policy.^{19 20}
- There is **no evidence to suggest that MUP affected on-trade sales**.¹⁸ This is because the average price in the on trade is around four times the current MUP of 50p per unit.²²

Market research data from Kantar's World Panel (a household shopping panel where people record what they buy) and Kantar's Alcovision survey (where people record what they drink), have been analysed to reveal a reduction in consumption due to the policy, finding:

- An **immediate 7.6% (1.2 UK units) reduction in purchases of alcohol per adult per household per week due to MUP**,²³ with these effects maintained in 2020.²⁴
- A **6.2% (0.7 UK units) drop** in reported weekly total alcohol consumption.²⁵
- A **smaller increase in off-trade purchasing observed during the COVID-19 pandemic** in 2020 in Scotland as compared to England.²⁶

Qualitative studies also contribute to the evidence on the effect on consumption:

- Of young people identified as part of a group likely to experience alcohol issues, a few with a limited budget reported that **price increases had contributed to them drinking less**.²⁷
- Convenience and speciality retailers reported observing a **decrease in sales volumes of alcoholic drinks in absolute terms**, noting that many consumers were **switching to smaller multi-packs** or smaller bottle/can sizes as a result of MUP.²⁸

Evidence from other countries on different minimum pricing policies show similar reductions:

- In Wales, the introduction of minimum unit price (at 50p per unit, the same as in Scotland), led to an **8.6% decrease in purchases**.²⁴
- Several studies have reported a reduction in total alcohol consumption in **Northern Territory, Australia** following the introduction of their minimum pricing policy.^{29 30 31} One such study found a **6.8% drop**, as measured by wholesale alcohol supply data.²⁹
- In estimating the impact of adjustments in the minimum alcohol prices in British Columbia, Canada, researchers concluded that a **10% increase in minimum prices reduced consumption of all alcoholic drinks by 3.4%**.³²

Has MUP reduced hazardous and harmful drinking?

Yes, to some extent. The proportion of people drinking at hazardous levels has decreased by 3.5%. The evidence around harmful drinking is more mixed, but some drinkers have reported cutting down their consumption due to MUP.

Hazardous and harmful drinking is defined as consuming more than the Chief Medical Officers' low risk drinking guidelines of 14 units per week. Hazardous drinking is consuming over 14 and up to 35 units per week for women and over 14 and up to 50 units per week for men. Harmful drinking is consuming over 35 units per week for women and over 50 units per week for men.

Market research data analysis suggest reductions in consumption among hazardous and harmful drinkers, finding that:

- There was a **3.5% reduction** in the proportion of drinkers consuming at **hazardous levels**.³³
- MUP **targeted households that bought the most alcohol**, with the drops in alcohol purchases largely confined to the largest purchasing group.^{23 24} These groups were mostly hazardous and harmful drinkers.
- **Reductions in household purchasing were typically larger among heavier drinkers** than lighter drinkers.²⁵

Studies vary on whether the very heaviest drinkers have responded in the same way. One study suggested that the heaviest drinking groups either increased or did not change consumption,²⁵ with another finding no significant change in the proportion of people consuming at harmful levels.³⁴

MUP **targeted a reduction in consumption of cheap, strong products**, which are disproportionately consumed by hazardous and harmful drinkers.¹² Evidence shows that this has been successful:

- The categories of alcohol that **increased the most in price** (ciders, perries and spirits)^{21 24} saw **the largest reductions in sales**.^{18 19 20 21 24}
- **Cider sales reduced by 21.8% and perries by 41.9%** in the first year of the policy,¹⁹ with reductions still observed three years following implementation.¹⁸

Strong ciders have been particularly affected, with a clear shift away from their consumption:

- Prices for strong ciders increased dramatically due to MUP, with Frosty Jack's **more than doubling in price**, for example.²¹
- Many small shops **stopped selling** strong, cheap ciders.^{28 33}
- Reductions in **strong ciders** sales were particularly high **in convenience stores**,^{21 35} with drops in the sales volume for some products of **more than 90%**.²¹
- Retailers reported that consumers of strong cider were most likely to switch to other alcoholic drinks.²⁸ Examples provided included **switching to lower-strength cider cans**, and **small spirits bottles**.

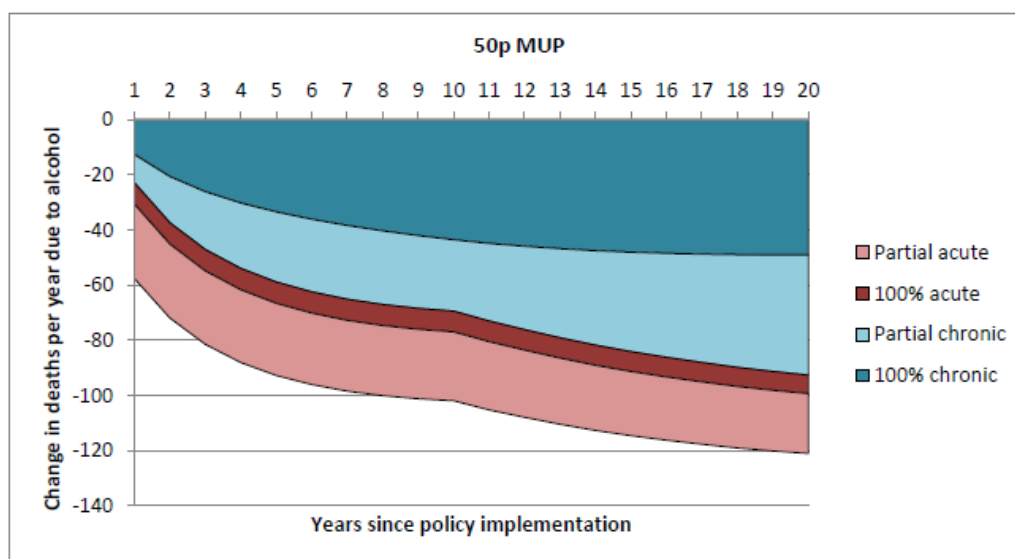
This change in drinking behaviour has been shown for **harmful drinkers**, with drinkers often switching from strong cider to different types of alcohol, lower-strength products, and to smaller pack sizes.³⁶ **Some harmful drinkers who were dependent on alcohol** reported similar behaviour changes.³⁷ It is likely that these changes have resulted in **reductions in overall alcohol intake**, as recognised by drinkers themselves, especially where the amount spent on the alcohol stayed the same.³³

Has MUP reduced alcohol-related harm?

Yes – it is likely that MUP has reduced alcohol-related harm, with a 10% reduction in alcohol-specific deaths in the first full year after MUP was introduced. However, the full effects on alcohol-related harm will not be seen for 20 years.

An analysis of MUP's short-term impact on alcohol-related health outcomes, namely hospital admissions and deaths, is part of the Public Health Scotland (PHS) evaluation programme. This study is expected to publish in March 2023. In the absence of this data, the following information, from routinely published harms statistics, can provide only an indication of the likely impact of the policy.

The graph below shows the estimated impact of a 50p MUP on alcohol-related deaths, as modelled by Sheffield University in 2016.¹⁴ The policy was expected to result in a reduction of around 120 deaths per year caused by alcohol, by year 20 of the policy.



There are some **preliminary indications that MUP may be having an impact** on alcohol-related harms: **alcohol-specific deaths (equivalent to the 100% attributable deaths on the above graph) reduced by 10%** in the first full year after MUP was introduced (the lowest level since 2013),³⁸ and there was a **small reduction in hospital admissions from liver disease** in each of the first two years of the policy.³⁹

Although we do not yet know the full impact of the pandemic on people's drinking and alcohol-related health problems, there was a **tragic 22% rise in alcohol-specific deaths** in Scotland between 2019 and 2021.¹ Indications from across the UK are that there has been an increase in the prevalence of risky drinking and increased consumption among risky drinkers during this time.^{40 41} Deaths rates in Scotland have increased less than in England which may suggest that MUP has mitigated the effects of the pandemic on alcohol harm and that without it deaths may have been even higher.

Evidence from other countries suggests that minimum pricing policies are effective in reducing alcohol-related harm:

- In British Columbia, Canada, studies report a **32% reduction in alcohol deaths**⁴² and a **9% reduction in alcohol-attributable hospital admissions**⁴³ due to increases in the minimum price of alcohol.
- Two studies reported a **fall in the number of admissions to intensive care units associated with hazardous and harmful drinking in Northern Territory, Australia** in the year following the introduction of MUP and police auxiliary liquor inspectors.^{44 45}

Minimum Unit Pricing in Scotland

Scotland was the first country in the world to legislate for minimum unit pricing for alcohol (MUP), through the Alcohol (Minimum Pricing) (Scotland) Act 2012. Following a five-year legal battle with alcohol producers, MUP was deemed lawful and proportionate by the UK Supreme Court. Secondary legislation set the price at 50p per unit of alcohol, bringing the legislation into force on 1 May 2018.⁴⁶

MUP was introduced with a 'sunset clause', meaning that it will expire by 30th April 2024 unless the Scottish Parliament votes in favour of the policy remaining in place. MUP is being thoroughly evaluated by Public Health Scotland (PHS) who will publish a final report in June 2023. This will inform the Scottish Government's review report which will be laid in Parliament and published in 2023.

As the effect of MUP depends on what level the unit price is set at, the Scottish Government is reviewing the level as part of the overall evaluation. If the Scottish Government's overall evaluation supports a continuation of MUP, it will lay Orders in Parliament in late 2023 to continue MUP beyond the initial six-year period and if the evidence supports a change in price, to set a new unit price. If Parliament approves those Orders, it is intended that any new price would take effect from 1 May 2024.

References

- ¹ National Records of Scotland (2022). [Alcohol-specific deaths 2021](#).
- ² World Health Organization (2022). [No place for cheap alcohol: the potential value of minimum pricing for protecting lives](#).
- ³ Scottish Government (2018). [Final Business and Regulatory Impact Assessment. Alcohol \(Minimum Pricing\) \(Scotland\) Act 2012. The Alcohol \(Minimum Price per Unit\) \(Scotland\) Order 2018](#).
- ⁴ World Health Organization (2018). The SAFER initiative: Pricing policies. *World Health Organization*. <https://www.who.int/initiatives/SAFER/pricing-policies>
- ⁵ Babor, T. F. et al. (2022). *Alcohol: No Ordinary Commodity: Research and Public Policy. Third Edition*. Oxford University Press.
- ⁶ Verrill, C., & Sheron, N. (2005). [Alcohol-related harm—a growing crisis: time for action](#). *Clinical Medicine*, 5(2), 154.
- ⁷ Rossow, I., & Mäkelä, P. (2021). [Public health thinking around alcohol-related harm: why does per capita consumption matter?](#). *Journal of studies on alcohol and drugs*, 82(1), 9-17.
- ⁸ Hinchliffe, S. et al. (2022). [The Scottish Health Survey 2021 edition. Volume 1, Main Report](#). Scottish Government.
- ⁹ Tod, E. et al. (2018). [Hospital admissions, deaths and overall burden of disease attributable to alcohol consumption in Scotland](#). NHS Health Scotland.
- ¹⁰ Black, H. et al. (2014). [White cider consumption and heavy drinkers: a low-cost option but an unknown price](#). *Alcohol and Alcoholism*, 49(6), 675-680.
- ¹¹ Ludbrook, A. et al. (2012). [Tackling alcohol misuse. Purchasing patterns affected by minimum pricing for alcohol](#). *Applied Health Economics and Health Policy*, 10(1), 51-63.
- ¹² Booth, A. et al. (2008). [Independent Review of the Effects of Alcohol Pricing and Promotion Part A: Systematic Reviews](#). University of Sheffield.
- ¹³ Meng, Y. et al. (2012). [Model-based appraisal of alcohol minimum pricing and off-licensed trade discount bans in Scotland using the Sheffield Alcohol Policy Model \(v. 2\): Second update based on newly available data](#). ScHARR, University of Sheffield.
- ¹⁴ Angus, C. et al (2016). [Model-based appraisal of the comparative impact of Minimum Unit Pricing and taxation policies in Scotland. An adaptation of the Sheffield Alcohol Policy Model version 3](#). ScHARR, University of Sheffield.
- ¹⁵ Gill, J. et al. (2017). [Heavy drinkers and the potential impact of minimum unit pricing—no single or simple effect?](#). *Alcohol and Alcoholism*, 52(6), 722-729.
- ¹⁶ Holmes, J. et al. (2012) cited in Angus, C. et al (2016). [Model-based appraisal of the comparative impact of Minimum Unit Pricing and taxation policies in Scotland. An adaptation of the Sheffield Alcohol Policy Model version 3](#). ScHARR, University of Sheffield.
- ¹⁷ World Health Organization (2000). [International guide for monitoring alcohol consumption and related harm](#). WHO Department of Mental Health and Substance Dependence.
- ¹⁸ Giles, L. et al. (2022). [Evaluating the impact of Minimum Unit Pricing \(MUP\) on sales-based alcohol consumption in Scotland at three years post-implementation](#). Public Health Scotland.
- ¹⁹ Giles, L. et al. (2021). [Using alcohol retail sales data to estimate population alcohol consumption in Scotland: an update of previously published estimates](#). Public Health Scotland.
- ²⁰ Giles, L. et al. (2020). [Minimum Unit Pricing \(MUP\) for alcohol evaluation. Sales-based consumption: a descriptive analysis of one year post-MUP off-trade alcohol sales data](#). NHS Health Scotland.
- ²¹ Ferguson, K. et al. (2022). [Evaluating the impact of MUP on alcohol products and prices](#). Public Health Scotland.
- ²² Ponce Hardy, V. et al. (2022). [MESAS monitoring report 2022 - alcohol sales](#). Public Health Scotland.
- ²³ O'Donnell, A. et al. (2019). [Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-18](#). *BMJ*, 366 :l5274.
- ²⁴ Anderson, P. et al. (2021). [Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses](#). *The Lancet Public Health*, 6(8), e557-e565.
- ²⁵ Rehm, J. et al. (2022). [Differential impact of minimum unit pricing on alcohol consumption between Scottish men and women: controlled interrupted time series analysis](#). *BMJ open*, 12(7), e054161.
- ²⁶ Anderson, P. et al. (2022). [The COVID-19 alcohol paradox: British household purchases during 2020 compared with 2015-2019](#). *Plos One*, 17(1), e0261609.
- ²⁷ Iconic Consulting (2020). [Minimum Unit Pricing in Scotland: Qualitative study of children and young people's own drinking and related behaviour \(2017/18 RE003\)](#). Iconic Consulting.
- ²⁸ Frontier Economics (2019). [Minimum Unit Alcohol Pricing. Evaluating the impacts on the alcoholic drinks industry in Scotland: baseline evidence and initial impacts](#). Frontier Economics.
- ²⁹ Taylor, N. et al. (2021). The impact of a minimum unit price on wholesale alcohol supply trends in the Northern Territory, Australia. *Australian and New Zealand Journal of Public Health*, 45(1), 26-33.
- ³⁰ Coomber, K. et al. (2020). [Investigating the introduction of the alcohol minimum unit price in the Northern Territory. Summary report](#). Deakin University.

- ³¹ O'Brien, J. W. et al. (2022). [A wastewater-based assessment of the impact of a minimum unit price \(MUP\) on population alcohol consumption in the Northern Territory, Australia](#). *Addiction*, 117(1), 243-249.
- ³² Stockwell, T. et al. (2012). [Does minimum pricing reduce alcohol consumption? The experience of a Canadian province](#). *Addiction*, 107(5), 912-920.
- ³³ Holmes, J. et al. (2022). [Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels](#). The University of Newcastle Australia, The University of Sheffield, and Figure 8 Consultancy Services.
- ³⁴ 'WP3: The impact of MUP on harmful drinking in the general population: An interrupted time series analysis' in Holmes, J. et al. (2022). [Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels](#). The University of Newcastle Australia, The University of Sheffield, and Figure 8 Consultancy Services.
- ³⁵ Stead, M. et al. (2020). [Evaluating the impact of alcohol minimum unit pricing in Scotland: Observational study of small retailers](#). University of Stirling and University of Sheffield.
- ³⁶ 'WP2: The impact of MUP on people with and without alcohol dependence drinking at harmful levels in the community' in Holmes, J. et al. (2022). [Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels](#). The University of Newcastle Australia, The University of Sheffield, and Figure 8 Consultancy Services.
- ³⁷ 'WP1: The impact of MUP on people who use alcohol treatment services' in Holmes, J. et al. (2022). [Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels](#). The University of Newcastle Australia, The University of Sheffield, and Figure 8 Consultancy Services.
- ³⁸ National Records of Scotland (2020). [Alcohol-specific deaths \(new National Statistics definition\) registered in Scotland, 1979 to 2019](#).
- ³⁹ Public Health Scotland (2020). [Alcohol related hospital statistics](#).
- ⁴⁰ Angus, C. et al. (2022). [Modelling the impact of changes in alcohol consumption during the COVID-19 pandemic on future alcohol-related harm in England](#). SchARR, University of Sheffield.
- ⁴¹ Alcohol Focus Scotland (23 July 2020). Survey shows Scots lockdown drinking rise caused by stress. *Alcohol Focus Scotland*. <https://www.alcohol-focus-scotland.org.uk/news/survey-shows-scots-lockdown-drinking-rise-caused-by-stress/>
- ⁴² Zhao, J. et al. (2013). [The relationship between minimum alcohol prices, outlet densities and alcohol-attributable deaths in British Columbia, 2002–09](#). *Addiction*, 108(6), 1059-1069.
- ⁴³ Stockwell, T. et al. (2013). [Minimum alcohol prices and outlet densities in British Columbia, Canada: estimated impacts on alcohol-attributable hospital admissions](#). *American Journal of Public Health*, 103(11), 2014-2020.
- ⁴⁴ Wright, C. et al. (2021). [The effect of alcohol policy on intensive care unit admission patterns in Central Australia: a before–after cross-sectional study](#). *Anaesthesia and Intensive Care*, 49(1), 35-43.
- ⁴⁵ Secombe, P. et al. (2021). [Hazardous and harmful alcohol use in the Northern Territory, Australia: the impact of alcohol policy on critical care admissions using an extended sampling period](#). *Addiction*, 116(10), 2653-2662.

