

# **Alcohol (Minimum Pricing) (Scotland) Act 2012: Report on the operation and effect of the minimum pricing provisions 2018 - 2023**

September 2023

## Contents

<b>Introduction</b> .....	<b>4</b>
Background.....	4
MUP Aim.....	4
Purpose of this report .....	4
Report Structure .....	5
<b>Evaluation of Minimum Unit Pricing of Alcohol in Scotland</b> .....	<b>7</b>
Background.....	7
Introduction .....	7
Evaluation questions.....	7
Evaluation approach .....	7
Evaluation governance .....	9
Stakeholder engagement.....	10
Final evaluation report methods .....	11
Evaluation strengths and limitations .....	12
Key findings of the evaluation.....	14
Findings in relation to the licensing objectives, categories of person considered appropriate and businesses, as required by the Act .....	16
Licensing objectives 1, 2 & 3: Preventing crime and disorder, securing public safety and preventing public nuisance.....	18
Licensing Objective 4: Protecting and improving public health .....	21
Licensing objective 5: Protecting children and young persons from harm .....	25
Scottish population with reference to age.....	28
Scottish population with reference to gender .....	30
Scottish population with reference to social and economic deprivation .....	32
Scottish population with reference to alcohol consumption.....	36
The alcoholic drinks industry in Scotland.....	46
Evaluation conclusions and considerations for policy decision-makers .....	53
Conclusion .....	53
Considerations for policy decision-makers .....	53
<b>Consultation with stakeholders</b> .....	<b>55</b>
Calls for evidence .....	55
Summary of Reponses .....	56
<b>Conclusions and next steps</b> .....	<b>60</b>
Next steps.....	61

Annex A – a copy of the final PHS MUP evaluation report: Evaluating the impact of minimum unit pricing for alcohol in Scotland ..... **62**  
Annex B – Stakeholders who took part in 2022 and 2023 call for evidence ..... **63**  
Annex C – Questions used in 2022 and 2023 call for evidence ..... **66**

# Introduction

## Background

The Alcohol (Minimum Pricing) (Scotland) Act 2012 (“the 2012 Act”) allows the Scottish Parliament to set a price below which alcohol cannot be sold in Scotland. The Alcohol (Minimum Price per Unit) (Scotland) Order 2018 set the minimum unit price of alcohol at 50p. The legislation came fully into force on 1 May 2018, after implementation was delayed pending the outcome of an unsuccessful legal challenge. Section 2 of the 2012 Act contains a sunset clause, stating that the minimum unit pricing of alcohol (MUP) provisions will expire after they have been in place for 6 years (30 April 2024), unless Scottish Ministers bring forward new legislation to continue their effect. Section 3 of the 2012 Act requires Scottish Ministers to lay a report on the operation and effect of MUP as soon as practicable after the first five years of MUP implementation.

## MUP Aim

The policy aims to reduce health harms caused by alcohol consumption by setting a floor price below which alcohol cannot be sold. In particular, it targets a reduction in consumption of alcohol that is considered cheap, relative to its strength. It aims to reduce both the consumption of alcohol at population level and, in particular, those who drink at hazardous and harmful levels. In doing so, it aims to reduce alcohol related health harms among hazardous and harmful drinkers, and contribute to reducing harm at a whole population level.

People who drink at hazardous and harmful levels in lower socio-economic groups suffer greater harms than those who drink at these levels in higher socio-economic groups due to the impact of multiple drivers of health inequality.<sup>1</sup> MUP is also intended to address alcohol related health inequalities by reducing consumption and therefore harm among hazardous and harmful drinkers as a whole, having a positive effect on health inequalities given the greater harms people in lower socio-economic groups experience in relation to alcohol.

## Purpose of this report

The purpose of this report is to report on the operation and effect of the minimum pricing provisions during the first five years of the provisions being in force. This report has been prepared to comply with section 3 of the 2012 Act, which states:

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<sup>1</sup> This is often cited as the ‘alcohol harm paradox’, 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 Feb 18;16\(1\):111.](#)

- (1) The Scottish Ministers must, as soon as practicable after the end of the 5 year period, lay before the Scottish Parliament a report on the operation and effect of the minimum pricing provisions during that period.
- (2) The report must, in particular, contain information about the effect that the operation of the minimum pricing provisions has had on—
  - (a) the licensing objectives specified in section 4 of the Licensing (Scotland) Act 2005 (“the 2005 Act”),
  - (b) such categories of person as the Scottish Ministers consider appropriate, and
  - (c) the businesses of—
    - (i) holders of premises licenses granted under the 2005 Act, and
    - (ii) producers of alcohol.
- (3) The categories mentioned in subsection (2)(b) may be determined by reference to characteristics including—
  - (a) age,
  - (b) gender,
  - (c) social and economic deprivation,
  - (d) alcohol consumption, and
  - (e) such other characteristics as the Scottish Ministers consider appropriate.
- (4) In preparing the report, the Scottish Ministers must consult—
  - (a) such persons as appear to them to be representative of the interests of—
    - (i) holders of premises licenses granted under the 2005 Act,
    - (ii) producers of alcohol,
  - (b) such persons as they consider appropriate having functions in relation to—
    - (i) health,
    - (ii) prevention of crime,
    - (iii) education,
    - (iv) social work,
    - (v) children and young people, and
  - (c) such other persons (if any) as they consider appropriate.
- (5) The Scottish Ministers must, as soon as practicable after the report has been laid before the Parliament, publish the report in such manner as they consider appropriate.
- (6) In this section, “the 5 year period” and “the minimum pricing provisions” have the meanings given in section 2(5).

## **Report Structure**

The remainder of this report is structured as follows:

1. Evaluation of Minimum Unit Pricing of Alcohol in Scotland - This chapter outlines the background to the PHS evaluation of MUP, summarises the key findings from the final PHS MUP evaluation report, and sets out the findings from the final evaluation report in relation to the licensing objectives, groups and appropriate categories of person identified by the Scottish Ministers, in accordance with sections 3(2) and (3) of the 2012 Act.
2. Summary of Consultation Themes – This chapter summarises the key themes from the MUP roundtable consultations held in 2022 and 2023, which were undertaken to fulfil the requirements of section 3(4) of the 2012 Act.
3. Conclusion and Next Steps – This chapter outlines Scottish Ministers’ conclusions on the operation and effect of MUP and details the next steps for the MUP policy.
4. Annex A – a copy of the final PHS MUP evaluation report
5. Annex B – Stakeholders who took part in 2022 and 2023 call for evidence
6. Annex C – Questions used in 2022 and 2023 call for evidence

# Evaluation of Minimum Unit Pricing of Alcohol in Scotland

## Background

### Introduction

In 2018, the Scottish Government commissioned NHS Health Scotland (whose functions were transferred to Public Health Scotland (PHS) in April 2020) via a Memorandum of Agreement to lead an evaluation of MUP to provide evidence for this report and inform the Scottish Parliament vote on whether MUP will continue beyond 30 April 2024.

The final evaluation report was published by PHS on 27 June 2023 and is included in Annex A.

### Evaluation questions

The overarching evaluation questions for the evaluation of MUP were:

- To what extent has implementing MUP in Scotland contributed to reducing alcohol-related health and social harms?
- Are some people and businesses more affected (positively or negatively) than others?

These questions were set by the PHS evaluation team and agreed by the Evaluation Governance Board. They were chosen because they reflect the intention to reduce alcohol harms, the importance of understanding differential impact and unintended consequences and the need for the evaluation findings to assist the Scottish Government in meeting the reporting requirements of the 2012 Act.

### Evaluation approach

#### Rationale

PHS took a theory-based approach to the evaluation of MUP. Theory-based evaluation is used in the evaluation of social or public health policy interventions where it is difficult or impossible to use traditional experimental methods to establish whether the outcomes observed were caused by the policy being evaluated and where there are many potential outcomes across a range of domains.

Taking a theory-based approach means that the evaluators would be able to conclude that MUP has contributed to the desired reduction in alcohol-attributable deaths and hospitalisations if the following conditions are met:

- There is a plausible ‘theory of change’ that shows how MUP is linked to reduced alcohol-attributable deaths and hospitalisations through a chain of short- and medium-term outcomes, namely that the price of low-cost, high-strength alcohol increases and alcohol consumption decreases.
- It can be demonstrated that MUP was implemented and complied with.
- Evidence is gathered which demonstrates that the price of high-strength, low-cost alcohol increased, consumption decreased and there was an improvement in health outcomes.
- External factors also influencing these outcomes have been assessed and, where possible, accounted for.

## Approach

At the start of the evaluation, the PHS evaluation team used existing evidence and additional suggestions from discussions with stakeholders to develop a theory of change of how MUP might impact on health and wellbeing. The theory of change shows the main expected chain of outcomes whereby implementation of MUP increases the price of low-cost, high-strength alcohol, reducing alcohol consumption and in turn reducing alcohol-related health and social harms. Further details of the theory of change can be found on pages 19 and 20 of the [PHS final evaluation report](#).

To provide the necessary evidence for the evaluation, PHS led the development of a portfolio of evaluation studies. The portfolio was designed to provide robust evidence on the outcomes described in the theory of change and to help the Scottish Government meet the reporting requirements of the legislation. The portfolio therefore comprised studies to assess compliance, price change and consumption as well as the impact of MUP on protecting and improving public health, preventing crime, disorder and public nuisance, securing public safety, protecting children and young persons from harm, and on alcohol producers and licence holders.

Twelve studies were carried out, or commissioned, by PHS with funding provided by the Scottish Government. These studies are referred to in the PHS final evaluation report as the PHS-funded studies. PHS also supported other researchers to secure research grants or other funding to undertake seven studies. These are referred to in the PHS final evaluation report as the separately funded studies. Appendix A in the PHS final evaluation report provides a list of the studies in this original portfolio and the outcome areas covered.



A strong assessment of the impact of MUP on these various outcomes and how the outcomes came about required different types of evidence. The portfolio therefore consisted of a range of quantitative, qualitative, and mixed-method study designs. The different study designs had different relative strengths and served different purposes:

- To provide quantitative estimates of impact or change. Where possible, studies used a natural experiment<sup>2</sup> method that compares the impacts of MUP in Scotland to England, England & Wales or regions of north England as a comparator area where the policy was not introduced (or introduced only latterly in the case of Wales).
- To provide qualitative understanding of mechanisms that might underpin the findings from quantitative studies, and insights into the lived experience of MUP including potential unintended negative consequences.

Where possible, studies were designed to allow assessment of whether the different groups, who had been identified by Parliament and the Scottish Ministers, were impacted. For quantitative studies this was through analysis by age, gender, deprivation and alcohol consumption as the data allowed. Qualitative studies focused on specific groups such as those drinking at harmful levels, children and young people, and those with experience of homelessness, to understand how individuals in these groups experienced MUP. These qualitative studies sought to explore both beneficial and harmful impacts of MUP in these groups.

Different studies used data from different time periods before MUP implementation (as a baseline) and up to four years after MUP implementation. Further information on this is available in Appendix D of the [PHS final evaluation report](#).

## **Evaluation governance**

The development and delivery of the PHS-funded MUP evaluation was overseen by the Governance Board for the evaluation. The Governance Board advised on the contents of the study portfolio, scientific good practice to deliver robust studies and maintain impartiality, and management of risks. Evaluation Advisory Groups<sup>3</sup> (EAGs) provided advice to individual or groups of PHS-funded studies on study design, data sources and context to assist interpretation. Membership of the Governance Board and EAGs included both relevant research skills and

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<sup>2</sup> A natural experiment method is a type of social research method that can be used where the division of the population into exposed and unexposed groups is outside of the researchers' control. This method typically exploits the timing and/or location of a change such that it occurs for some places or groups of people, creating an exposed group, but does not occur in similar places or groups of people, thus creating a control group. MUP being implemented in Scotland on 1 May 2018, but not in England & Wales, is a good example of this (PHS 2023: 9).

<sup>3</sup> There were EAGs for compliance; economic impact and price; children and young people; harmful drinking; consumption and health harm; and evidence synthesis.

experience, and understanding of strategic delivery and context. There was broad representation across the relevant EAGs including, but not limited to, stakeholders from public services (including health, social work, police, youth services and community education), nationally commissioned organisations, Scottish Government Analytical Services Divisions, the alcoholic drinks industry, and academia. EAGs overseeing a study delivered by PHS were chaired by an external (non-PHS) member. PHS staff and members of the research teams attended the EAG meetings to provide inputs and listen to advice but were not EAG members. EAGs provided comment on draft reports but the final interpretations and conclusion were determined by the relevant research team.

The memorandum of agreement between Public Health Scotland and the Scottish Government set out the expectations and ways of working for the evaluation. Public Health Scotland was responsible for decision-making and delivery of reports.

The overarching purpose of this governance structure was to ensure that the scientific rigor, impartiality and integrity of the individual studies and the evaluation as a whole were maintained, and that the resulting evaluation was transparent and credible to stakeholders. More details on the governance structure, membership and terms of references can be found in the [Technical Appendix](#) of the PHS final evaluation report.

It was also important that the research PHS carried out or commissioned met the necessary research ethics, governance and commissioning requirements. PHS procured suppliers by competition in line with government policy and the relevant procurement legislation. Contracts were awarded on the basis of scientific quality and value. Throughout delivery, all PHS's in-house and commissioned research complied with the necessary national guidance and legislation.

## **Stakeholder engagement**

The 2012 Act identifies key groups<sup>4</sup> who the Scottish Parliament anticipated could be affected by MUP. In addition to being participants in various evaluation studies, the evaluation engaged these and other key stakeholder groups through the governance processes described above.

Members of the governance groups and people with lived experience (contacted through the Scottish Recovery Consortium), were also invited by PHS to two engagement sessions on the final report. These sessions were facilitated by the Scottish Community Development Centre. At the [first session, in October 2022](#),

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<sup>4</sup> These are: premises license holders and alcohol producers as well as those with a function related to health, prevention of crime, education, social work, and children and young people. These are the same broad groups which the Scottish Ministers were required to consult while preparing this report.

participants were invited to comment on what the evaluation had looked at and the process for bringing the evidence from the different studies together. Those present considered the evaluation to be comprehensive and attempting to answer the important questions. The approach to synthesis was considered by some to be as 'good as it can be' while others felt unable to comment on that aspect. Clear and simple communication of messages was agreed to be important.

In the [second session, in March 2023](#), PHS invited comment on a high-level summary of emerging findings. Those present felt it was a good overview and appreciated that the model presented attempted to distil a diverse set of studies. Attendees made some suggestions to improve accuracy and clarity, and the PHS evaluators have taken these suggestions into account. PHS also invited comment on the alternative explanations they had identified, and participants offered thoughts which were used to inform subsequent sections in this report.

## **Final evaluation report methods**

The final PHS evaluation report drew on evidence from three key categories of research literature:

1. PHS-funded studies: MUP evaluation studies funded by Public Health Scotland (formerly NHS Health Scotland), either as studies commissioned by PHS or as studies undertaken by PHS staff with PHS and/or Scottish Government funding used to purchase any data required.
2. Separately funded studies: Relevant studies known to PHS, but not funded by PHS, that are integral to the evaluation of MUP.<sup>5</sup>
3. Additional academic and grey literature research about MUP in Scotland. These were carried out by researchers with no input from PHS.

The processes of searching for literature in category 3 and screening the search results are detailed in the [Technical Appendix](#) of the PHS final evaluation report, as well as in the [evidence synthesis protocol](#). In brief, a public health librarian searched bibliographic databases to identify relevant peer-reviewed academic, pre-print academic and grey literature relevant to MUP. Searches covered 1 January 2018 to 10 January 2023 and were designed to identify any literature related to minimum unit pricing for alcohol in Scotland. The PHS evaluation team screened search results for eligibility to ensure that only research relevant to the outcomes of MUP in Scotland was included.

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<sup>5</sup> There were originally seven separately funded studies. However, lengthy delays in providing updated approvals for access to the linked SHeS-SMR data have prevented completion of one study using the Scottish Health Survey.

PHS appraised the quality of each eligible article (and individual study components within larger publications that contained multiple distinct pieces of research).

PHS also commissioned the Evidence for Policy and Practice Information (EPPI) Centre (part of University College London) to provide an independent appraisal of the eligible papers to strengthen the integrity of the appraisal. Many of the eligible papers were produced by PHS and/or by members of the final evaluation report team in previous posts and independent validation of the ratings reduced the risk of bias.

In developing the final evaluation report, the PHS evaluation team used principles of realist synthesis<sup>6</sup> and process tracing<sup>7</sup>, as well as other theory-based methods such as contribution analysis<sup>8</sup> as appropriate. As part of this, the evaluation has considered the plausibility of a range of alternative explanations for any changes in key outcomes observed after MUP. Further details of the methods used, and alternative explanations considered can be found on pages 24-28 and 60-77 of the PHS final evaluation report.

## Evaluation strengths and limitations

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<sup>6</sup> Realist synthesis is designed to allow evaluators to understand the effects of complex interventions in complex systems. The method focuses on explaining what it is about an intervention that contributes to an outcome, why and how it does so, for whom, and in what contexts. Where typical systematic reviews aim to control all factors other than the intervention and the outcome, which is valuable in evaluating clinical effectiveness, a realist approach to synthesis acknowledges that the context-sensitive responses of individuals to a social intervention are an inextricable part of the mechanisms of that intervention, rather than something that can be controlled for when seeking to understand the adaptive and context-sensitive responses of individuals to a social intervention. The realist approach is particularly valuable in examining complex social interventions where randomised controlled trials are impractical and reviews are reliant on evidence using more diverse, less controlled research methods. (Beeston et al. 2022: 5-6)

<sup>7</sup> Process tracing is a method for tracing the causal mechanisms by which an observed outcome was produced by an intervention, and involves the use of systematic and transparent tests to establish the extent to which a set of causal mechanisms can be validated by the evidence, and the relative validity of competing causal explanations of the outcome. Process tracing is often used within a realist framework to improve evaluators' ability to test the mechanisms they identify. It helps evaluators to produce robust high-level assessments of causal mechanisms and complements the strength of realist synthesis in producing detailed, low-level understandings of specific social groups and contexts. (Beeston et al. 2022: 6)

<sup>8</sup> Contribution analysis is a method that 'explores attribution through assessing the contribution a programme is making to observed results. It sets out to verify the theory of change behind a programme and, at the same time, takes into consideration other influencing factors. Causality is inferred from the following evidence: 1. The programme is based on a reasoned theory of change: the assumptions behind why the program is expected to work are sound, are plausible, and are agreed upon by at least some of the key players. 2. The activities of the programme were implemented. 3. The theory of change is verified by evidence: the chain of expected results occurred. 4. Other factors influencing the programme were assessed and were either shown not to have made a significant contribution or, if they did, the relative contribution was recognised.' (Mayne 2008: 1)

Section 5.3 of the [PHS final evaluation report](#) sets out the strengths and limitations of the evaluation. The main strengths of the evaluation are listed as:

- The use of a theory-based approach increases confidence in the conclusions on whether changes in intended outcomes are likely to be due to MUP rather than other confounding factors.
- The portfolio approach allowed PHS to assess multiple outcomes in a variety of health, economic and social outcome areas as required by the MUP legislation.
- The deaths and hospitalisations study used a natural experiment design in which trends in Scotland were compared to trends in England where MUP was not implemented. Using England as a control in this way provides a counterfactual, an estimate of what would have happened in Scotland in the absence of MUP. Sensitivity analyses testing for (and finding no) change in outcomes at a false date different to the actual implementation date also strengthen the inference that changes observed were due to MUP. Several studies across the evaluation portfolio used a similar natural experimental approach.
- PHS developed a portfolio of studies to gather evidence on a number of outcomes, including both beneficial and potentially harmful impacts and, where possible, assessing differential impact.
- PHS developed mechanisms for ongoing wide stakeholder involvement in the governance groups which enabled a comprehensive and more nuanced understanding of context to inform the interpretation of data in individual studies.
- In preparing the final report PHS used systematic methods to find all studies on MUP in Scotland. Studies were quality assessed for inclusion by staff not previously involved with the PHS studies, and we commissioned another research organisation to validate that assessment.
- PHS developed a scoring system for the quality appraisal of studies and were able to use a consistent, double-coded system to communicate relative scientific merit and determine any exclusions.
- Engagement with the governance groups and people with lived experience on the final report provided reassurance that the evaluation was considered comprehensive, alternative explanations for the findings had been considered and the interpretations/conclusions reasonable.
- PHS has considered and explored the plausibility of alternative explanations for the relative improvements in the alcohol-related deaths and hospitalisations observed.

The main limitations of the evaluation are considered to be as follows:

- MUP has been in place for a relatively short period. Continued evaluation over time will allow the evidence base to grow and it will be important to determine any change in the effects observed so far. This is an important research area to consider for the future.
- PHS did not undertake modelling of the potential impact of future levels of the MUP, as this was beyond the remit of this evaluation.
- Employing a natural experiment design where possible is considered the gold standard for evaluation where it is not possible to randomly allocate individuals to an intervention or control group, but there are limitations. Attribution remains complex because it is difficult to isolate the intervention from the contextual confounders in which it is implemented. The possibility remains that other external factors and other differences between the area of interest and the control area might contribute to the different outcomes observed. A final step in theory-based evaluation is therefore to consider external factors and alternative possible explanations for the differences in outcomes observed. This was done in Chapter 4 of the [PHS final evaluation report](#), and the evaluation found there was little evidence to suggest these alternative explanations were likely.
- One planned study, using the Scottish Health Survey to examine the impact of MUP on alcohol consumption in different population groups, did not conclude within the evaluation time period.<sup>9</sup> In order to add to the evidence base PHS recommend that the findings of this study be considered once complete.

## Key findings of the evaluation

The PHS final evaluation report summarises the key findings of the evaluation in relation to the evaluation questions as follows:

1. To what extent has implementing MUP in Scotland contributed to reducing alcohol-related health and social harms?
- There is strong evidence that MUP reduced deaths directly caused by alcohol consumption (wholly attributable) in Scotland compared to what would have happened in the absence of MUP. The overall reduction was driven by reductions in deaths due to chronic causes, such as alcoholic liver disease. There was some indication of a small increase in deaths from acute causes, such as alcohol intoxication, but there is considerable uncertainty

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<sup>9</sup> Lengthy delays in securing updated approvals for access to the necessary linked data have delayed completion of this study. The study is still in progress, and is unable to provide a timeline for completion at this stage. The Scottish Government will consider the findings of the study when they become available.

around this finding in part due to the relatively small number of deaths due to acute causes.

- There is strong evidence that MUP reduced wholly attributable hospital admissions due to chronic causes. There is some evidence of an increase in wholly attributable admissions due to acute causes. Overall, it is likely that MUP has reduced wholly attributable hospital admissions in Scotland compared to what would have happened in the absence of MUP.
- There is no consistent evidence that MUP impacted on other alcohol-related health outcomes such as ambulance callouts, emergency department attendances and prescribing of medication for alcohol dependence.
- There is no consistent evidence of either positive or negative impacts on social outcomes, such as alcohol-related crime or illicit drug use, at a population level.
- There is some qualitative evidence of negative health and social consequences at an individual level, particularly for those with alcohol dependence who are financially vulnerable.

2. Are some people and businesses more affected (positively or negatively) than others?

- The observed reductions in wholly attributable deaths and hospital admissions were greatest among men and those living in the most deprived areas of Scotland.
- There is strong and consistent evidence of a reduction in alcohol consumption following MUP implementation. Total alcohol sales reduced by 3% driven entirely by a reduction in sales through the off-trade (supermarkets and other shops). Those households that purchased the most alcohol prior to MUP also reduced their purchasing the most after implementation.
- MUP impacted on the price of some products more than others, particularly some ciders and spirits. This was reflected in alcohol sales, with the greatest reductions in sales observed among these products.
- Retailers found that loss in sales was generally offset by an increase in price; the impact on profits overall is not clear.
- Overall, there is no consistent evidence that MUP impacted either positively or negatively on the alcoholic drinks industry as a whole.

## **Findings in relation to the licensing objectives, categories of person considered appropriate and businesses, as required by the Act**

The following sections of this report set out the findings from the PHS final evaluation report in relation to the licensing objectives, categories of person identified by the Scottish Ministers as being appropriate and businesses, in accordance with sections 3(2) and (3) of the [2012 Act](#).

In addition to the licensing objectives and businesses specified in section 3(2)(c) of that Act, the Scottish Ministers consider that it is appropriate to consider the effect of the MUP provisions on the following groups:

- the Scottish population with reference to their age,
- the Scottish population with reference to their gender,
- the Scottish population with reference to experience of social and economic deprivation<sup>10</sup>,
- the Scottish population with reference to level of alcohol consumption, particularly people consuming alcohol at hazardous and harmful levels and people with alcohol dependence.

Ministers decided it was necessary to consider each of these groups as age, gender, social and economic deprivation and alcohol consumption are all important factors in relation to how alcohol-related harms are experienced.

As highlighted previously, the evaluation drew upon a range of quantitative, qualitative, and mixed-method studies in order to undertake a robust assessment of the impact of MUP on the various outcomes outlined in the theory of change, and how the outcomes came about. The different types of evidence had different relative strengths and served different purposes:

- To provide quantitative estimates of impact or change at a population level.
- To provide qualitative understanding of mechanisms that might underpin the findings from quantitative studies, and insights into the lived experience of MUP including potential unintended negative consequences.

Each of the following sections include the quantitative evidence of impact or change and qualitative insights of mechanisms that might underpin these impacts and lived experience of MUP from the final evaluation report, which are of relevance to the objective, business, or category of person being considered in that section. Within the evaluation, some aspects of the objectives, categories, and groups specified in the 2012 Act were able to be explored robustly using both quantitative and qualitative methods. For other aspects, such as protecting children and young

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<sup>10</sup> Including those with current or previous experience of homelessness.



people from harm, robust quantitative analysis was not feasible or proportionate, therefore these were explored through qualitative research only. As a result, the balance of quantitative and qualitative evidence presented in each section varies.

## **Licensing objectives 1, 2 & 3: Preventing crime and disorder, securing public safety and preventing public nuisance**

### Licensing objective

The Scottish Government's [guidance on section 142 of the Licensing \(Scotland\) Act 2005 for Licensing Boards and Local Authorities](#) includes the objective to prevent crime and disorder as a result of the sale or supply of alcohol or irresponsible operation of licensed premises. This covers behaviour such as: drunk and disorderly conduct; breach of the peace; assault and other crimes or offences which may occur within premises, outside premises, or in other settings which may have occurred as a result of the sale or supply of alcohol.

The objective to secure public safety links to a duty to ensure that the public are kept safe in relation to the sale or supply of alcohol or operation of licensed premises.

The objective to prevent public nuisance seeks to provide comfort from nuisance (e.g. noise, littering) and anti-social behaviour.

The following section summarises the key findings on the operation and effect of MUP from [PHS's final MUP evaluation report](#) in relation to these objectives.

### Key findings

The evaluation concluded that there is a lack of robust evidence that MUP had a detectable impact on a range of outcomes relating to crime, public safety and public nuisance:

No increase or decrease in alcohol-related crime was detected. Evidence of substitution using non-beverage or illicitly distilled alcohol was scarce. There is some evidence that MUP may have exacerbated existing coping strategies such as begging and stealing in some homeless street drinkers. (PHS 2023: 78)

When looking at levels of crime in general, the evaluation did not find consistent evidence of a positive or negative impact after the implementation of MUP. Quantitative evidence from police crime and incident data comparing Scotland and Greater Manchester found no consistent evidence of MUP having a beneficial or detrimental impact on crime in general. Similarly, qualitative evidence gathered through interviews with licensing standards officers, Police Scotland licensing officers and trading standards officers indicated no evidence of an increase in illegal alcohol-related activity as a result of the introduction of MUP.

There is no consistent evidence on impacts of MUP implementation on drug or illicit substance use and analysis of police crime and incident data did not provide any

evidence of an increase in drug-related crime in Scotland following the implementation of MUP.

Qualitative evidence included in the final evaluation report indicated that there were anticipations of both an increase and decrease in cases of domestic violence post-MUP. Qualitative evidence from interviews conducted with families of people who drink at harmful levels provided some accounts of concerns about the impacts on household budgets and the potential for increased domestic violence as a result. The evaluation also highlighted findings in another qualitative study with professional stakeholders who anticipated there would be a beneficial impact on domestic violence post-MUP, due to a reduction in alcohol consumption.

The evaluation analysed qualitative evidence and found no reports of an increase in begging amongst those with experience of homelessness or street drinkers. Very few cases of people who drink harmfully reported stealing, those that did typically did not relate this to MUP. Qualitative evidence from interviews found that a small number of small retailers mentioned observing an increase in shoplifting, which they perceived to be due to MUP.

The evaluation found conflicting evidence around the effects of MUP on harmful road traffic accidents (RTAs). Quantitative evidence from administrative data found that MUP had no effect on RTAs. There was also quantitative evidence that MUP reduced harmful RTAs – one study found a small average decrease of between 1.52 and 1.90 daily collisions resulting in death or injury in Scotland, relative to England and Wales. However, the final evaluation report also noted findings from a pre-print paper by Manca and colleagues (2022) which reported that total RTAs in Scotland increased significantly post MUP, by 7.2%. They suggest that these results may be impacted by external factors, such as weather and road conditions, which change over time, and which were variously accounted for. As a whole, the evaluation found that the evidence for MUP affecting RTAs, and for the direction of that effect, is inconclusive.

#### Further information

Evidence relevant to the operation and effect of MUP in relation to this licensing objective can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 14, 35, 47, 49-54, 59, 68,78, 138, 161-162,

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Iconic Consulting (2020) Minimum unit pricing in Scotland: [A qualitative study of children and young people's own drinking and related behaviour](#).

2. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
3. Emslie C, Dimova E, O'Brien R et al. (2023) [The impact of alcohol minimum unit pricing on people with experience of homelessness: Qualitative study](#), *International Journal of Drug Policy*, 118.
4. Ford, J., Myers, F., Burns, J., et al (2020) [Minimum Unit Pricing \(MUP\) for alcohol evaluation: The impact of MUP on protecting children and young people from parents' and carers' harmful alcohol consumption](#). Public Health Scotland.
5. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
6. Krzemieniewska-Nandwani, K., Bannister, J., Ellison, M et al (2021) [Evaluation of the impact of alcohol minimum unit pricing \(MUP\) on crime and disorder, public safety and public nuisance](#). Public Health Scotland.
7. McCann M, Kwasnicka D, Boroujerdi M et al. (2020) [Studying individual-level factors relating to changes in alcohol and other drug use, and seeking treatment following minimum unit pricing implementation](#). Alcohol Change UK
8. PHS (2019). [Minimum Unit Pricing Evaluation - Compliance study](#), Public Health Scotland.
9. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library
10. Stead, M., Eadie, D., Purves, R. et al (2022) [Implementation of alcohol minimum unit pricing \(MUP\): a qualitative study with small retailers](#). *Drugs: Education, Prevention and Policy*.

## Licensing Objective 4: Protecting and improving public health

### Licensing objective

The Scottish Government's [guidance on section 142 of the Licensing \(Scotland\) Act 2005 for Licensing Boards and Local Authorities](#) states that the protecting and improving public health licence objective 'prompts those involved in the alcohol licensing regime to consider the impact of the sale and consumption of alcohol on health within the legislative framework provided by the 2005 Act' (Scottish Government, 2023: 2.16). The guidance highlights that 'this licensing objective encourages Licensing Boards to consider the cumulative effect of licensed premises on alcohol-related harm, within their licensing area, rather than the actions of any individual premises' (Scottish Government, 2023: 2.17).

The following section summarises the key findings on the operation and effect of MUP from [PHS's final MUP evaluation report](#) in relation to this objective.

### Key findings

In relation to protecting and improving public health, the evaluation concluded that, overall, 'MUP has had a positive impact on health outcomes, namely a reduction in alcohol-attributable deaths and hospital admissions, particularly in men and those living in the most deprived areas, and therefore contributes to addressing alcohol-related health inequalities' (PHS, 2023: 14).

The evaluation found strong evidence that MUP implementation was associated with a 13.4% reduction in deaths wholly attributable to alcohol consumption (95% confidence interval (CI) -18.4% to -8.3%,  $p < 0.001$ ) and a 4.1% statistically non-significant reduction in hospital admissions wholly attributable to alcohol consumption (95% CI -8.3% to +0.3%,  $p = 0.06$ ), relative to England. These estimated reductions were driven by reductions in deaths and hospitalisations due to chronic alcohol conditions (e.g. alcoholic liver disease). Small non-significant increases in deaths (6.6%; 95% CI: -13.7% to +31.8%,  $p = 0.55$ ) and hospitalisations (9.9%; 95% CI: -1.1% to +22.0%,  $p = 0.08$ ) due to acute conditions (e.g. alcohol intoxication) were also observed.

The evaluation found that there was no consistent evidence that MUP had impacted (either positively or negatively) on other alcohol-related health outcomes at a population level. The final evaluation report concluded that there was no evidence of MUP having had population-level positive or negative impacts on alcohol-related ambulance callouts, prescriptions for treatment of alcohol dependence, emergency department attendance, or the level of alcohol dependence or self-reported health status in drinkers recruited through alcohol treatment services in Scotland, relative to England. With the exception of a

beneficial reduction in sugar from alcohol consumption, there was no evidence that MUP had impacted on the nutritional quality of people's diets at a population level.

At an individual level, the evaluation found some qualitative evidence that MUP might have had some negative health consequences, particularly for people with alcohol dependence with limited financial or social support. The reported individual-level negative health consequences included increased withdrawal in homeless and street drinkers, increased consumption of stronger alcohol types and concern about switching from weaker to stronger alcohol drinks (e.g. cider to spirits), leading to increased intoxication. Some professionals did, however, reflect that the reduced affordability of alcohol was driving individuals to seek treatment. The evaluation noted that 'studies interviewing young binge drinkers, older heavy drinkers and professional stakeholders provided little evidence that drinkers limit their spending on food to maintain alcohol consumption' (PHS, 2023: 52). However, the evaluation also presented qualitative evidence that MUP has created increased financial hardship for some people with probable alcohol dependence. In particular, the evaluation referred to evidence from interviews with people with probable alcohol dependence in Holmes et al (2022), which highlighted that some people in this group had experienced increased financial strain after MUP was introduced, and that this led them to employ some existing strategies to maintain their alcohol consumption, such as reducing spending on food and bills, seeking help from charities, or borrowing money.

In its consideration of the potential costs and benefits of MUP to society in monetary terms, the evaluation noted that the main health and social benefits of MUP identified through the evaluation were the reductions in alcohol-attributable deaths and hospital admissions. The evaluation estimated the social value<sup>11</sup> of wholly attributable deaths averted by MUP to be around £300m per year. The social value of partially attributable deaths prevented by MUP was estimated to be approximately £215.5 million per year on average— ranging from approximately £3.6m to £428m per year, based on the lower and upper bounds of the partially attributable death figures estimated by Wyper and colleagues (2023). The evaluation estimated the net value of hospital admissions averted by MUP to be approximately £407,000 per year for causes wholly attributable to alcohol, and

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<sup>11</sup> The social value has been calculated using the average annual number of deaths averted by MUP (estimated by Wyper et al (2023)) and the value of a prevented fatality (VPF), calculated by the Department for Transport (DfT) to be just over £1.9m at 2020 prices. The evaluation noted that a 'systematic review of values of VPF recommends that a VPF from the relevant country be used if it exists. Guidance issued by UK Government HM Treasury on how to appraise policies, The HM Treasury Green book, uses the DfT VPF, and it has been used in other health economic evaluations' (PHS, 2023: 90). The evaluation also highlights that the definition of VPF is 'how much individuals are willing to pay for a very small reduction in the probability of death, paid for by forgoing the consumption of other goods and services. It is a measure of the value of reduced risks of death in the population as a whole arising from public policy decisions. It should not be interpreted as how much a (known) life is worth' (PHS, 2023: 90).

£483,000 per year for admissions partially attributable to alcohol.<sup>12</sup> The evaluation concluded that while a full economic evaluation has not been conducted, the evidence in the evaluation combined with previous theory and evidence on this topic suggests that, in monetary terms, the balance of the costs and benefits of MUP is favourable.

#### Further information

Evidence relevant to the operation and effect of MUP in relation to this licensing objective can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 11-14; 33-35; 51-54; 77-78; 82-97.

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Chaudhary S, MacKey W, Duncan K et al. (2022) [Changes in hospital discharges with alcohol-related liver disease in a gastroenterology and general medical unit following the introduction of minimum unit pricing of alcohol: The GRI Q4 study](#). *Alcohol and Alcoholism*, 57(4):477-482.
2. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
3. Emslie C, Dimova E, O'Brien R et al. (2023) [The impact of alcohol minimum unit pricing on people with experience of homelessness: Qualitative study](#), *International Journal of Drug Policy*, 118.
4. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
5. Iconic Consulting (2020) Minimum unit pricing in Scotland: [A qualitative study of children and young people's own drinking and related behaviour](#).
6. Kopasker D, Whybrow S, McKenzie L et al. (2022) [The effects of minimum unit pricing for alcohol on food purchases: Evaluation of a natural experiment](#), *SSM – Population Health*, 19.
7. Leckcivilize A, Whybrow S, Gao N et al. (2022) ['Nutritional Impacts of Minimum Unit Pricing for Alcohol: Are there unintended diet consequences?'](#) [Preprint]. *medRxiv*.

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<sup>12</sup> These values have been calculated based on an estimate of the mean total cost of an admission to hospital following attendance at the emergency department, calculated in Parkinson et al (2016), and subsequently updated by the evaluators using the Bank of England inflation calculator. This resulted in an estimated value of £990.57 per admission at 2020 prices.

8. Maharaj T, Angus C, Fitzgerald N et al. (2023) [Impact of minimum unit pricing on alcohol-related hospital outcomes: Systematic review](#). *BMJ Open*, 13(2): e065220.
9. Manca F, Lewsey J, Mackay D et al. (2022) [‘The effect of the minimum price for unit of alcohol in Scotland on alcohol-related ambulance callouts: a controlled interrupted time series analysis’](#) [Preprint]. *medRxiv*.
10. Manca F, Zhang L, Fitzgerald N et al. (2023) [The Effect of Minimum Unit Pricing for Alcohol on Prescriptions for Treatment of Alcohol Dependence: A Controlled Interrupted Time Series Analysis](#), *International Journal of Mental Health Addiction*.
11. McCann M, Kwasnicka D, Boroujerdi M et al. (2020) [Studying individual-level factors relating to changes in alcohol and other drug use, and seeking treatment following minimum unit pricing implementation](#). Alcohol Change UK
12. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library
13. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing \(MUP\) on alcohol-attributable deaths and hospital admissions in Scotland](#). Edinburgh: Public Health Scotland
14. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: A controlled interrupted time series study](#). *The Lancet*.



## Licensing objective 5: Protecting children and young persons from harm

### Licensing objective

[The Scottish Government's guidance on section 142 of the Licensing \(Scotland\) Act 2005 for Licensing Boards and Local Authorities](#) includes the objective to protect children and young persons from harm. This refers to protecting children and young persons as they are particularly vulnerable to the effects of alcohol and in a wider sense, ensuring the environment, atmosphere or premise where children or young people are to be admitted is a sensible, non-threatening one where children and young persons can be in the company of adults who are consuming alcohol.

The following section summarises the key findings on the operation and effect of MUP from [PHS's final MUP evaluation report](#) in relation to this objective.

### Key findings

The evaluation found no clear evidence of MUP having a direct impact on consumption of alcohol amongst children and young people. Professionals working with children and young people affected by the drinking of other family members did not observe any positive or negative impacts of MUP.

The evaluation found that MUP generally had not affected alcohol consumption among children and young people largely because price was a relatively minor factor in their decision to drink alcohol. Qualitative evidence from children and young people's own drinking found that one participant, out of 50, reported using more cannabis as a result of the price increase in MUP, but it was noted that the prices of only some of their preferred drinks were affected by the implementation of MUP.

In terms of young people's awareness of MUP, qualitative evidence from under 18s who purchase alcohol widely reported observing changes in product prices post-MUP, particularly in specific brands of alcopops, spirits and wine popular among young people. There was less awareness of changes in drinks that are less popular with young people (e.g. strong white ciders and beers). The evaluation found that young people noted that some of the most popular products among their age group had not increased in price (e.g. Buckfast, Dragon Soop, drinks that tended to be priced at or above £0.50 per unit pre-MUP, as verified by EPoS data).

The evaluation did not find evidence of MUP having an impact on parenting outcomes or on the family environment. Evidence from qualitative interviews with practitioners working with families affected by alcohol expressed concerns about the ability of those with probable alcohol dependence to absorb the price increase without affecting the family budget, but recognised MUP was just one of many factors at play in the complex lives of these families. Overall, the evaluation found that practitioners working with families affected by alcohol felt unable to determine if

MUP had positive or negative impacts on lives of children and young people affected by others' drinking. Similarly, evidence from Holmes et al's study (2022) into the impact of MUP on children and families found no evidence of change in any parenting outcomes after introduction of MUP. The evaluation noted that this study found evidence of concern around anticipated impacts on household budgets and potential for increased domestic violence during interviews with families of people who drink at harmful levels. However, analysis of survey data from the same study suggested that sharing a home with a partner or children had no impact on the consumption of people who drink at harmful levels. Additionally, interviews with drinkers under 18 years old did not indicate any increase in social harms linked to MUP.

Protecting children and young people from the unintended consequences of their parent or carer's harmful drinking applies to this licensing objective which states "Young people are particularly vulnerable to the effects of alcohol, whether they are drinking themselves or being affected by other people drinking in their lives." This may include impacts on household budgets. The evaluation concluded there was no strong evidence of a positive or negative impact on individual or household spend, such as fuel, food and housing due to MUP. One paper found there was little or no increase in expenditure on alcohol in households that generally bought small amounts of alcohol. There was some evidence of a non-significant decrease in volume of fruit and vegetables and an increase in crisps and snacks in Scotland post-MUP. However, the final evaluation report noted another study which analysed the impact of MUP on actual diet quality and found no impact on overall diet quality or nutrients except for sugar. The researchers concluded that MUP had little significant effect on nutrition from food purchased to eat at home, except for a beneficial effect on sugar consumption, which was driven by reductions in sugar from alcohol so less likely to directly impact diets of children and young people. The final evaluation also found that studies interviewing young binge drinkers, older heavy drinkers and professional stakeholders provided little evidence that drinkers limit their spending on food to maintain alcohol consumption.

#### Further information

Evidence relevant to the operation and effect of MUP in relation to this licensing objective can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 14, 35, 47, 50-52, 54, 78, 145-146.

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Iconic Consulting (2020) Minimum unit pricing in Scotland: [A qualitative study of children and young people's own drinking and related behaviour](#).

2. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
3. Ford, J., Myers, F., Burns, J., et al (2020) [Minimum Unit Pricing \(MUP\) for alcohol evaluation: The impact of MUP on protecting children and young people from parents' and carers' harmful alcohol consumption](#). Public Health Scotland.
4. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
5. Kopasker D, Whybrow S, McKenzie L et al. (2022) [The effects of minimum unit pricing for alcohol on food purchases: Evaluation of a natural experiment](#), *SSM – Population Health*, 19
6. Leckcivilize A, Whybrow S, Gao N et al. (2022) ['Nutritional Impacts of Minimum Unit Pricing for Alcohol: Are there unintended diet consequences?'](#) [Preprint]. *medRxiv*.
7. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library

## Scottish population with reference to age

### Key findings

This section summarises the key findings from [PHS's final MUP evaluation report](#) on the operation and effect of MUP in relation to age in Scotland's population. Further detail on evidence around children and young people can be found in the Licensing objective 5: Protecting children and young people from harm section of this report.

The evaluation reported on statistically significant estimated reductions in deaths wholly attributable to alcohol consumption amongst specific social groups including males, females, people aged 35-65, people aged 65 and older and the four most socioeconomically deprived deciles. These estimated reductions in deaths wholly attributable to alcohol consumption were largest amongst men, those aged 65 years and older, and those living in the 40% most deprived areas in Scotland.

The final evaluation report noted analysis of Kantar Alcovision data<sup>13</sup> which found reductions in consumption were greater in the older age groups, particularly for men, and for those living in less deprived areas.

In terms of younger age groups, the evaluation found no clear evidence overall of change in amount, pattern or type of drinking amongst self-reported drinkers under 18 in response to MUP. This was largely because price was a relatively minor factor in their decision to drink alcohol. Similarly, the final evaluation report noted evidence from a survey with attendees at sexual health clinics (a sample heavily weighted to younger people with 65-70% below 30 years old in both Scotland and England) which found that the odds of binge drinking<sup>14</sup> among current drinkers did not change in Scotland relative to the change seen in England post-MUP. However, this study also found that there was an increase in the risk of alcohol misuse<sup>15</sup> among drinkers in Scotland compared to England, driven by both an increase in Scotland and a decrease in England.

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<sup>13</sup> Kantar Alcovision data is self-reported consumption survey data. The final evaluation report notes the following in relation to this type of data: 'Self-report surveys may be subject to biases as a result of sampling, incorrect recall or social desirability, and reaching the heaviest drinkers to take part in surveys may be particularly challenging. All the surveys described below are cross sectional, which means that different people are surveyed at each wave. Sampling errors that result in systematic differences between samples are a particular issue for cross-sectional surveys. However, survey data does allow disaggregate analysis by characteristics at an individual level.' (PHS 2023: 45)

<sup>14</sup> A heavy drinking session in which someone drinks a lot of alcohol in a short period of time, raising their risk of harm on that occasion. Typically, this is defined as those who drink at least weekly, consuming 6 or more units for women, and 8 or more units for men, on a single occasion.

<sup>15</sup> Alcohol misuse was defined as a score exceeding 2 on the Fast Alcohol use Screening Test (FAST). (Hodgson R, Alwyn T, John B et al. [The FAST Alcohol Screening Test. Alcohol. 2002 Feb; 37\(1\): 61-66.](#))

The evaluation found quantitative evidence that older people and those living in the least deprived areas were more supportive of MUP than young people and those living in the most deprived areas. Reasons for support were generally related to a belief that MUP would reduce consumption in some groups and address the harms associated with alcohol. Reasons for an unfavourable attitude to MUP were more varied although most related to doubts that the intervention would work.

Qualitative evidence from focus groups presented in the final evaluation report found that heavy drinkers and young people were more consistently aware of MUP, although they exhibited misunderstandings about some elements of the policy.

### Further information

Evidence relevant to the operation and effect of MUP in relation to this category can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 14, 33, 35, 46-47, 58-59, 77

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
2. Ferguson K, Beeston C and Giles L. (2020) [Public attitudes to Minimum Unit Pricing \(MUP\) for alcohol in Scotland](#). Public Health Scotland.
3. Public Health Scotland (2023) [Evaluating the impact of minimum unit pricing for alcohol in Scotland: Final report](#).
4. Rehm J, O'Donnell A, Kaner EFS 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): e504161.
5. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library
6. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing \(MUP\) on alcohol-attributable deaths and hospital admissions in Scotland](#). Edinburgh: Public Health Scotland
7. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: A controlled interrupted time series study](#). *The Lancet*.

## Scottish population with reference to gender

### Key findings

This section summarises the key findings from [PHS's final MUP evaluation report](#) on the operation and effect of MUP in relation to gender in Scotland's population.

The evaluation concluded that in the two and a half years following MUP implementation, there was an estimated reduction of 13.4% in wholly attributable alcohol deaths in Scotland compared to England, as a control area. This was driven by reductions in chronic alcohol deaths with the largest declines in men, in comparison to women. Statistically significant reductions in deaths wholly attributable to alcohol consumption were identified for males and females.

The evaluation also presented findings which estimated that MUP was associated with relative increases in deaths due to acute conditions, driven by males with little evidence of any change for females. However, there was considerable uncertainty around this finding – whilst results were not statistically significant, the final evaluation report advised that these differences were observed within different subgroups and had been reported on the basis that they could be clinically important. According to the final evaluation report, the authors of this study suggest that any potential increase in acute deaths could be driven by a reduction in food intake due to displacement of spending from food to alcoholic drinks, or switching to products that have a higher alcohol by volume (ABV) (e.g. spirits instead of ciders) as evidenced by other studies in the evaluation. The evaluation noted that these findings are less certain than the reductions in chronic deaths and that acute outcomes make up a small portion of alcohol-specific deaths in Scotland.

Whilst the evaluation concluded that there is strong evidence that MUP reduced wholly attributable hospital admissions due to chronic causes, by 7.3%, compared to what would have happened in the absence of MUP (95% CI: -9.5% to -4.9%,  $p < .0001$ ), there was also evidence to suggest that MUP was associated with a non-significant 9.9% increase (95% CI: -1.1% to 22.0%,  $p = 0.076$ ) in hospital admissions due to acute conditions and that this was most likely to be driven by females rather than males. However, these findings were not statistically significant and less certain than the reductions in hospital admissions due to chronic conditions, which were statistically significant.

In terms of alcohol consumption, the evaluation reported on quantitative evidence from self-reported consumption data which found a drop in total consumption (number of grams of alcohol consumed per week) in Scotland relative to the North of England. Reductions in consumption were greater for women, while MUP was associated with an increase in consumption in the 5% of men who drink the most. Reductions in consumption were greater in the older age groups, particularly for men and those in less deprived areas.

## Further information

Evidence relevant to the operation and effect of MUP in relation to this category can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 14, 33, 35, 46-47, 58-59, 77

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Rehm J, O'Donnell A, Kaner EFS 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): e504161.
2. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing \(MUP\) on alcohol-attributable deaths and hospital admissions in Scotland](#). Edinburgh: Public Health Scotland
3. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: A controlled interrupted time series study](#). *The Lancet*.

## Scottish population with reference to social and economic deprivation

### Key findings

This section summarises the key findings from [PHS's final MUP evaluation report](#) on the operation and effect of MUP in relation to social and economic deprivation in Scotland's population.

The evaluation concluded that overall, 'MUP has had a positive impact on health outcomes, namely a reduction in alcohol-attributable deaths and hospital admissions, particularly in men and those living in the most deprived areas, and therefore contributes to addressing alcohol-related health inequalities' (PHS, 2023: 97).

As noted previously, the evaluation estimated that at a population level MUP implementation was associated with a 13.4% statistically significant reduction in alcohol-specific deaths and a 4.1% statistically non-significant reduction in hospital admissions wholly attributable to alcohol consumption, compared to what would have happened if MUP had not been introduced. The evaluation also found that these estimated reductions in alcohol-attributable deaths and hospital admissions were largest in the 40% most deprived areas in Scotland. The evaluation therefore concluded that MUP had a positive impact on deprivation-based health inequalities in relation to alcohol-attributable health harms.

In relation to alcohol consumption, the final evaluation report noted that an analysis of Kantar Alcovision survey data identified a drop in total self-reported alcohol consumption in Scotland relative to England, and that the reported reductions in consumption were larger in older age groups, particularly for men and those living in less deprived areas. Evidence from analysis of alcohol purchasing data included in the final evaluation report found that changes in expenditure on alcohol were not systematically associated with household income. The final evaluation report also refers to a study by Leckcivilize and colleagues (2022), which analysed the impacts of MUP on actual diet quality. The study found that MUP was associated with a statistically significant 1.6% reduction in total sugar consumption (CIs not reported), driven by a 16.6% reduction in sugar consumption from alcohol. It noted that households from the 60% most deprived areas reduced their purchase of sugar from alcohol more than the least deprived 40%.

In terms of attitudes towards MUP, the evaluation found that:

In 2019, support for MUP was greater than opposition in each subgroup (deprivation quintile, sex, age). Older people and those living in the least deprived areas were more supportive than younger people and those living in the most deprived areas. Reasons for support were generally related to a belief that MUP would reduce consumption in some groups and address the harms associated with alcohol. Reasons for an unfavourable attitude to MUP were more varied although the majority related to doubts that the intervention



would work, especially for those with alcohol dependence, and concern about the impact on the financially vulnerable (PHS, 2023: 58).

At an individual level, the evaluation found some qualitative evidence that MUP may have exacerbated existing social harms, particularly those relating to financial pressures, for some people with probable alcohol dependence who were also financially vulnerable. In particular the evaluation noted qualitative evidence from a study by Holmes and colleagues (2022), which found that MUP had resulted in increased financial strain for some economically vulnerable individuals with probable alcohol dependence, and that this led them to employ some existing strategies to maintain their alcohol consumption, such as reducing spending on food and bills, seeking help from charities, or borrowing money. The evaluation noted, however, that there was 'no evidence of these experiences being prevalent or typical' (PHS, 2023: 55).

The final evaluation report includes some qualitative evidence of the impact of MUP on people who consume alcohol and have current or previous experience of homelessness. In particular the evaluation noted that, following MUP implementation, people in this group were 'typically aware of the introduction of MUP and its impact on the price of certain products, but typically did not consider it to be a priority in comparison to other challenges they were facing' (PHS, 2023: 59). The final evaluation report noted that in research with professionals providing services to people experiencing homelessness, the professionals had typically reported that they had not observed any changes in their service users' consumption of alcohol. The evaluation presented some qualitative evidence from professionals working with homeless and street drinkers that MUP was associated with increased withdrawal, and/or an increase in the consumption of spirits, potentially leading to health harms for this group. The evaluation also noted that MUP may have exacerbated some homeless and street drinkers' use of existing coping strategies for maintaining their alcohol consumption, such as begging and stealing.

The evaluation referenced findings from one study of people with current or previous experience of homelessness where two out of 46 interviewees had reported reducing their alcohol consumption (primarily of 'cheap' cider) and increasing their use of cheap benzodiazepines. The evaluation noted, however, that other participants in the study had indicated that cost was not necessarily the most important driver of consumption choices. The evaluation reported evidence from a study by Dimova and colleagues (2022), where some stakeholders working in homelessness services had reported instances of non-beverage alcohol use post-MUP implementation. It was suggested that these instances might be more likely among people who were homeless with no access to welfare benefits. However, the evaluation also noted that 'qualitative studies with people who drink harmfully and people with current or recent experience of homelessness found no evidence

for increased use of non-beverage or illicit alcohol use after MUP' (PHS, 2023: 54). The evaluation also noted the difficulty of disentangling the impacts of Covid-19 and MUP for this group – some participants in their research felt that accommodation provided to homeless people during the Covid-19 pandemic mitigated the effect of MUP, since homeless people had more disposable income, others thought Covid-19 reduced access to alcohol, making it more likely that people would seek treatment.

#### Further information

Evidence relevant to the operation and effect of MUP in relation to this category can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 12; 33-35; 46-59; 77-82; 96-97.

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Anderson P, O'Donnell A, Kaner E et al. (2021) [Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: Controlled interrupted time series analyses](#). *Lancet Public Health*, 6(8), pp. e557-e565.
2. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
3. Emslie C, Dimova E, O'Brien R et al. (2023) [The impact of alcohol minimum unit pricing on people with experience of homelessness: Qualitative study](#), *International Journal of Drug Policy*, 118.
4. Ferguson K, Beeston C, Giles L. (2020) [Public attitudes to Minimum Unit Pricing \(MUP\) for alcohol in Scotland](#). Public Health Scotland.
5. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
6. Kopasker D, Whybrow S, McKenzie L et al. (2022) [The effects of minimum unit pricing for alcohol on food purchases: Evaluation of a natural experiment](#), *SSM – Population Health*, 19.
7. Leckcivilize A, Whybrow S, Gao N et al. (2022) ['Nutritional Impacts of Minimum Unit Pricing for Alcohol: Are there unintended diet consequences?'](#) [Preprint]. *medRxiv*.
8. O'Donnell A, Anderson P, Jané-Llopis E 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.

9. Rehm J, O'Donnell A, Kaner EFS 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.
10. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing \(MUP\) on alcohol-attributable deaths and hospital admissions in Scotland](#). Edinburgh: Public Health Scotland
11. Wyper G, Mackay D, Fraser C et al. (2023) [Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: A controlled interrupted time series study](#). *The Lancet*.

## Scottish population with reference to alcohol consumption

### Key findings

This section summarises the key findings from [PHS's final MUP evaluation report](#) on the operation and effect of MUP in relation to alcohol consumption at a population level and among specific population groups, particularly people consuming alcohol at hazardous and harmful levels and people with alcohol dependence.

In relation to alcohol consumption, the evaluation found that:

There is strong and consistent evidence of a reduction in alcohol consumption following MUP implementation. Total alcohol sales reduced by 3% driven entirely by a reduction in sales through the off-trade (supermarkets and other shops). Those households that purchased the most alcohol prior to MUP also reduced their purchasing the most after implementation (PHS 2023: 12).

The evidence on population-level alcohol consumption in the final evaluation report includes studies that use alcohol sales and purchasing data as proxy measures for consumption and studies analysing self-report measures of alcohol consumption in survey data. The final evaluation report noted that 'Alcohol sales data are the gold standard for measuring population-level alcohol consumption, when alcohol duty data are not available for individual countries within the UK' (PHS 2023: 42).

In terms of evidence from alcohol sales data, the evaluation drew upon strong evidence from two studies by the same research team, which found that MUP was associated with population-level reductions in alcohol consumption at one- and three-years post MUP implementation. The final evaluation report stated that:

When controlling for England & Wales and adjusting for changes in disposable income and substitution between drink types, there was strong evidence that MUP was associated with a net reduction of 3.5% (-4.9% to -2.2%,  $p < 0.001$ ) in total off-trade alcohol sales in Scotland. Results from the analysis at three years post-implementation were very similar (PHS 2023: 42).

In terms of alcohol purchasing data, the final evaluation report included evidence from three studies by two different teams that used alcohol purchasing data from Kantar Worldpanel to estimate the impact of MUP on household alcohol purchases. The final evaluation report noted that, post MUP implementation, 'while the magnitude of the changes vary depending on the time period and analytical technique used, all found a reduction in alcohol purchases in Scotland when using England/northern England as a control' (PHS 2023: 45). The evaluation noted that the largest reductions in alcohol purchases were observed in the households that purchased the most alcohol. It also noted that one of the studies found there was

‘little or no increase in expenditure on alcohol’ in households that typically purchased small quantities of alcohol (PHS 2023: 51). The final evaluation report also highlighted that ‘changes in expenditure on alcohol were not systematically associated with household income, but were greater for those households that purchased the largest quantity of alcohol’ (PHS 2023: 51).

In terms of evidence of MUP’s impact on alcohol consumption from self-report data, the evaluation noted the following:

A number of studies analysed self-report survey data from different sources. Self-report surveys may be subject to biases as a result of sampling, incorrect recall or social desirability, and reaching the heaviest drinkers to take part in surveys may be particularly challenging. All the surveys described below are cross sectional, which means that different people are surveyed at each wave. Sampling errors that result in systematic differences between samples are a particular issue for cross-sectional surveys. However, survey data does allow disaggregate analysis by characteristics at an individual level. (PHS 2023: 45)

The final evaluation report highlighted the following findings from its synthesis of evidence from studies based on self-report data:

Analysis of national population survey data on self-reported consumption found decreases in a number of measurements on consumption<sup>16</sup> in Scotland relative to Wales for those drinking at harmful levels, with little evidence of impact on those drinking at hazardous levels. Analysis of Kantar Alcovision data found a drop in total consumption in Scotland relative to the north of England. Reductions were greater for heavier drinkers and women, while MUP was associated with an increase in consumption in the 5% of men who drink the most. Reductions in consumption were greater in the older age groups, particularly for men, and for those living in less deprived areas. Also using Kantar Alcovision data, a separate study found the prevalence of drinking at harmful and moderate levels did not change, but there was a reduction in the prevalence of drinking at hazardous levels. A different survey with attendees at sexual health clinics (a sample heavily weighted to the younger end of the age spectrum with 65–70% below 30 years in both Scotland and England), found the odds of binge drinking among current drinkers recruited did not change in Scotland relative to the change seen in England post-MUP. However, there was an increase in the risk of alcohol misuse<sup>17</sup> among drinkers in Scotland compared with England, driven by both

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<sup>16</sup> These were: prevalence of drinking in the last seven days; number of drinking days; number of units consumed and the prevalence of exceeding the daily limit on the heaviest drinking day.

<sup>17</sup> Alcohol misuse was defined as a score exceeding 2 on the Fast Alcohol use Screening Test (FAST). (Hodgson R, Alwyn T, John B et al. (2002) The FAST Alcohol Screening Test. *Alcohol*, 37(1):61–66. <https://doi.org/10.1093/alcalc/37.1.61>)

increase in Scotland and a decrease in England. Surveying those with probable alcohol dependence recruited through alcohol services found limited evidence of any changes in consumption compared to similar drinkers in England. (PHS 2023: 45-46)

The evaluation also analysed qualitative evidence on the impact of MUP on alcohol consumption in relation to individuals in various social groups. The final evaluation report summarised the key findings from this evidence as follows:

In general, participants described varied impacts on quantity and/or types of alcohol consumed: some reduced consumption, some were unaffected and some switched drinks. Overall, there was no clear evidence of change in the amount, pattern or type of drinking self-reported by drinkers under 18 in response to MUP, adults who engage in binge or harmful drinking, people with probable alcohol dependence recruited through alcohol services or the community and people with current or recent experience of homelessness. While some drinkers reported reduced consumption, some described being unaffected because they already drank alcohol above the MUP threshold, some did not view price as a major contributor to purchasing and consumption decisions, and others reported that they managed the price increase by cutting back spending on other products, switching drink category or borrowing money. (PHS 2023: 47)

### Hazardous and Harmful Drinking

The final evaluation report defines hazardous drinking as:

A pattern of alcohol consumption that increases an individual's risk of harm. Generally indicated by alcohol consumption at a level of more than 14 units a week, but fewer than 35 units a week for women. For men, alcohol consumption at a level of more than 14 units a week, but fewer than 50 units a week. (PHS 2023, 8-9)

Harmful drinking is defined as follows in the final evaluation report:

A pattern of alcohol consumption that is causing mental and/or physical harm to health. Generally indicated by alcohol consumption at a level of 35 or more units per week for women, and 50 or more units per week for men. (PHS 2023: 8)

The conclusion of the final evaluation report stated the following in relation to the operation and effect of MUP on hazardous and harmful drinking:

Purchasing data suggest that the reduction in [alcohol] consumption was driven by the heaviest purchasing households, and the majority of households were not affected, meaning MUP was well targeted. The fact that

MUP resulted in a decrease in alcohol-attributable deaths and hospital admissions related to chronic conditions also suggests that MUP has, by definition, reduced consumption in those that drink at hazardous and harmful levels. (PHS 2023: 97)

Analysis of alcohol purchasing data included in the final evaluation report noted that the greatest reductions in alcohol purchasing (and by proxy alcohol consumption) post MUP implementation were observed in the households that purchased the most alcohol pre-MUP. The final evaluation report refers to findings from Griffith and colleagues (2022) as an example, noting that this study found no change in alcohol purchasing in the lowest 70% of households and a 14.8% reduction (CIs not reported) in the 5% highest purchasing households. The final evaluation report notes that ‘Heavy drinkers reduced their purchases of cheap products considerably, with only limited switching towards more expensive products, leading Griffith and colleagues to conclude that MUP is well targeted at heavier drinkers.’ (PHS 2023: 45)

In terms of findings from self-reported consumption survey data related to MUP’s effect on people drinking at hazardous and harmful levels, the final evaluation report noted that:

- ‘Analysis of national population survey data on self-reported consumption found decreases in a number of measurements on consumption<sup>18</sup> in Scotland relative to Wales for those drinking at harmful levels, with little evidence of impact on those drinking at hazardous levels.’ (PHS 2023: 45).
- ‘Analysis of Kantar Alcovision data found a drop in total consumption in Scotland relative to the north of England. Reductions were greater for heavier drinkers and women, while MUP was associated with an increase in consumption in the 5% of men who drink the most.’ (PHS 2023: 46)
- A separate study using Kantar Alcovision data found ‘the prevalence of drinking at harmful and moderate levels did not change, but there was a reduction in the prevalence of drinking at hazardous levels.’ (PHS 2023: 46)
- In the same study, analysis of self-report data from those drinking at harmful levels found that ‘the proportion taking illicit drugs declined after MUP, although the effect was neither large nor statistically significant.’ (PHS 2023: 49)
- A different survey with attendees at sexual health clinics<sup>19</sup> found that ‘the odds of binge drinking among current drinkers recruited did not change in

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<sup>18</sup> These were: prevalence of drinking in the last seven days; number of drinking days; number of units consumed and the prevalence of exceeding the daily limit on the heaviest drinking day.

<sup>19</sup> This survey sample was heavily weighted to the younger end of the age spectrum with 65–70% of respondents below 30 years in both Scotland and England,

Scotland relative to the change seen in England post MUP. However, there was an increase in the risk of alcohol misuse<sup>20</sup> among drinkers in Scotland compared with England, driven by both [an] increase in Scotland and a decrease in England.’ (PHS 2023: 46)

The final evaluation report presents quantitative evidence on MUP’s impact on the nutritional quality of people’s diets, which found that the ‘only category of nutrients that exhibited a statistically significant change due to MUP was a reduction in sugar from alcohol consumption, particularly in deprived areas and higher-alcohol-purchasing households’ (PHS 2023: 80).

The final evaluation report also included qualitative evidence on the impact of MUP on people drinking at hazardous and harmful levels. The evaluation presented qualitative evidence from one focus group study which found that heavy drinkers and young people were ‘more consistently aware of MUP, although they exhibited misunderstandings about some elements of the policy’ (PHS 2023: 59). The final evaluation report also highlights findings from one study where professionals working with families affected by alcohol reported that ‘they thought MUP helped reduce consumption in those drinking at hazardous or harmful levels but not those with alcohol dependence’ (PHS 2023: 47-48). The final evaluation report also presents findings from another study where concerns about the impact of MUP’s introduction on household budgets and the potential for increased domestic violence were raised by some participants in qualitative interviews with the families of people who drink at harmful levels. The final evaluation report notes that analysis of survey data in the same study suggested that sharing a home with a partner or children had no impact on the consumption of people who drink at harmful levels. It also notes that, in the same study, evidence from interviews with people drinking at harmful levels highlighted that:

- Some people in this group viewed cross-border purchasing as ‘an established means to mitigate the impact of MUP’ (PHS 2023: 48). Some interview participants in this study, who lived near the border, reported that they had participated in or had observed others undertaking cross-border purchasing. They acknowledged, however, that ‘the benefit of cross-border shopping was contingent on sufficient income and ability to travel’ (PHS 2023: 48).
- ‘Very few interviewees who drink harmfully reported stealing, and those that did typically did not link it to MUP’ (PHS 2023: 53).

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<sup>20</sup> Alcohol misuse was defined as a score exceeding 2 on the Fast Alcohol use Screening Test (FAST). (Hodgson R, Alwyn T, John B et al. (2002) [The FAST Alcohol Screening Test](#), 37(1):61–66.



- There were a small number of reports of increased illicit drug use by some participants; however, these findings were 'generally less robust and less clearly connected to MUP' (PHS 2023: 50).

According to the final evaluation report, interviews with practitioners working with people drinking at harmful levels in the community in the same study found that 'increased illicit drug use was anticipated prior to implementation, but that few related instances were thought to have been observed post-implementation' (PHS 2023: 50). The final evaluation report also notes that 'studies interviewing young binge drinkers, older heavy drinkers and professional stakeholders provided little evidence that drinkers limit their spending on food to maintain alcohol consumption' (PHS 2023: 52).

## Alcohol Dependence

The final evaluation report defines alcohol dependence as follows:

Alcohol dependence is characterised by craving, tolerance, a preoccupation with alcohol, and continued drinking in spite of harmful consequences (for example, liver disease or depression caused by drinking). (PHS 2023: 6)

The evaluation found that:

There is limited evidence to suggest that MUP was effective in reducing consumption for those people with alcohol dependence. Those with alcohol dependence are a particular subgroup of those who drink at harmful levels and have specific needs. People with alcohol dependence need timely and evidence-based treatment and wider support that addresses the root cause of their dependence. (PHS 2023: 13)

At a population level, the evaluation found that MUP appeared to have had no effect on prescriptions for treatment of alcohol dependence, or the level of alcohol dependence or self-reported health status in drinkers recruited through alcohol treatment services in Scotland, relative to England.

The evaluation presented qualitative evidence that pre-implementation awareness of MUP was low among individuals using alcohol treatment services. The final evaluation report notes that in the qualitative evidence on attitudes to MUP:

Across all subgroups studied, participants expressed doubts about whether MUP was able to reduce consumption in those considered to have alcohol dependence. Participants who drink heavily, or have alcohol dependence, and those who provide services for them, expressed specific concerns about potential detrimental effects of MUP on the most deprived dependent drinkers. Views were typically more positive about the likely impact for those

that were not dependent and/or the potential to reduce alcohol dependence in the future (PHS 2023: 59)

The final evaluation report reviewed evidence on price and affordability of alcohol for people with alcohol dependence. It drew upon strong quantitative evidence from structured interviews with people with alcohol dependence accessing treatment services and found that ‘the proportion of participants in Scotland reporting that their first drink purchased and consumed in the last typical drinking week before treatment<sup>21</sup> cost less than £0.50 per unit, decreased from 59.2% pre-MUP to 13.9% 18–22 months post-implementation ( $p=0.008^{22}$ ; CIs not reported)’ (PHS 2023: 37). The final evaluation report notes that ‘while 13.9% is a considerable proportion, the researchers conclude that the majority of reports of purchasing alcohol for cheaper than the minimum price were due to reporting errors, as the reported price was typically very close to the MUP (e.g. £0.49 per unit)’ (PHS 2023: 37).

The evaluation presented qualitative evidence from interviews with people with probable alcohol dependence, which found that ‘many reported that MUP had not affected the prices of the products that they prefer, and that awareness of price depended on the extent to which their preferred category of drink was affected by MUP’ (PHS 2023: 41). However, the evaluation also presented qualitative evidence that MUP has created increased financial hardship for some people with probable alcohol dependence. In particular, the final evaluation report referred to evidence from interviews with people with probable alcohol dependence in Holmes et al (2022), which highlighted that some people in this group had experienced increased financial strain after MUP was introduced, and that this led them to employ some existing strategies to maintain their alcohol consumption, such as reducing spending on food and bills, seeking help from charities, or borrowing money.

Other findings from the evaluation in relation to outcomes of MUP for people with alcohol dependence include:

- There were a small number of reports of increased illicit drug use. The evaluation report noted that some professionals working with families affected by alcohol use had reported that they had observed an increase in illicit drug use after MUP; however they explicitly said that they did not think MUP was the cause, and some argued that MUP would affect the type of alcohol that people would drink, rather than cause a switch to different substances. The evaluation also reported that ‘one study that used a daily survey method to collect numerous repeated measures from a small group of dependent or recovering drinkers and found that, of the five participants who

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<sup>21</sup> As part of the interview, participants were asked to complete a retrospective diary recalling the alcohol they had purchased and consumed in the last typical drinking week before treatment, using a method called Time Line Follow Back (TLFB).

<sup>22</sup> Adjusted significance threshold after sample weighting of  $p=0.0004630$ .

took drugs before MUP, one reported increased use after MUP was implemented. Among the participants who reported not having taken drugs before MUP, none reported starting after implementation' (PHS 2023: 49).

- There was no evidence of change in any parenting outcomes after the introduction of MUP.
- There was no clear evidence found of any change in severity of dependence.

#### Further information

Evidence relevant to the operation and effect of MUP in relation to this category can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 12-14; 34-54; 58-59; 80-82; 93-94; 97

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Anderson P, Kokole D, Jané Llopis E. (2022) [Impact of minimum unit pricing on shifting purchases from higher- to lower-strength beers in Scotland: Controlled interrupted time series analyses, 2015-2020](#). *Drug and Alcohol Review*, 41(3), pp. 646-656.
2. Anderson P, O'Donnell A, Kaner E et al. (2021) [Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: Controlled interrupted time series analyses](#). *Lancet Public Health*, 6(8), pp. e557-e565.
3. Dickie E, Mellor R, Myers F, Beeston C. (2019) [Minimum Unit Pricing \(MUP\) for alcohol evaluation: Compliance \(licensing\) study](#). Edinburgh: Public Health Scotland.
4. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
5. Emslie C, Dimova E, O'Brien R et al. (2023) [The impact of alcohol minimum unit pricing on people with experience of homelessness: Qualitative study](#), *International Journal of Drug Policy*, 118.
6. Ferguson K, Beeston C, Giles L. (2020) [Public attitudes to Minimum Unit Pricing \(MUP\) for alcohol in Scotland](#). Public Health Scotland
7. Ford J, Myers F, Burns J, Beeston C. (2020) [Minimum unit pricing \(MUP\) for alcohol evaluation: The impact of MUP on protecting children and young people from parents' and carers' harmful alcohol consumption: A study of practitioners' views](#). Public Health Scotland.

8. Giles L, Mackay D, Richardson E et al. (2022) [Evaluating the impact of Minimum Unit Pricing \(MUP\) on sales-based alcohol consumption in Scotland at three years post-implementation](#). Edinburgh: Public Health Scotland.
9. Griffith R, O'Connell M, Smith K. (2022) [Price floors and externality correction\\*](#). *The Economic Journal*. doi: [Price floors and externality correction](#)
10. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
11. Iconic Consulting (2020) [Minimum unit pricing in Scotland: A qualitative study of children and young people's own drinking and related behaviour](#). Iconic Consulting.
12. Llopis EJ, O'Donnell A, Anderson P. (2021) [Impact of price promotion, price, and minimum unit price on household purchases of low and no alcohol beers and ciders: Descriptive analyses and interrupted time series analysis of purchase data from 70,303 British households, 2015–2018 and first half of 2020](#). *Social Science & Medicine*, 270: 113690.
13. Manca F, Zhang L, Fitzgerald N et al. (2023) [The Effect of Minimum Unit Pricing for Alcohol on Prescriptions for Treatment of Alcohol Dependence: A Controlled Interrupted Time Series Analysis](#), *International Journal of Mental Health Addiction*.
14. McCann M, Kwasnicka D, Boroujerdi M et al. (2020) [Studying individual-level factors relating to changes in alcohol and other drug use, and seeking treatment following minimum unit pricing implementation](#). Alcohol Change UK
15. O'Donnell A, Anderson P, Jané-Llopis E 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.
16. Rehm J, O'Donnell A, Kaner EFS 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.
17. Robinson M, Mackay D, Giles L et al. (2021) [Evaluating the impact of minimum unit pricing \(MUP\) on off-trade alcohol sales in Scotland: an interrupted time-series study](#). *Addiction*, 116(10), pp. 2697-2707.
18. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library
19. WHO. (2000) [International guide for monitoring alcohol consumption and related harm](#). Geneva: WHO Department of Mental Health and Substance Dependence

20. Xhurxhi IP. (2020) [Essays on the short-term impact of minimum unit pricing policy in Scotland](#) [Doctoral thesis]. City University of New York ProQuest Dissertations Publishing.

## The alcoholic drinks industry in Scotland

### Key findings

This section summarises the key findings from [PHS's final MUP evaluation report](#) on the operation and effect of MUP in relation to the businesses of:

- Holders of premises licenses granted under the 2005 Act, and
- Producers of alcohol.

The evaluation defined the alcoholic drinks industry as 'producers, wholesalers and retailers of alcoholic drink products' (PHS 2023: 6).

The evaluation found that:

Overall, there is no consistent evidence that MUP impacted either positively or negatively on the alcoholic drinks industry as a whole. Sales data identified that an overall increase in the value of off-trade alcohol sales was seen, with increases in retail price offsetting declines in volume sales. While a reduction in producers' revenues was observed, this was considered in qualitative interviews to be minor. Little evidence was found of MUP having had an impact on key business performance metrics. There is some evidence that the industry responded to MUP by introducing new formats and packaging sizes. (PHS 2023: 58)

In terms of attitudes to MUP, the evaluation found that pre-implementation awareness of MUP was varied among small retailers, and there was some concern among professional stakeholders (e.g. licensing officers, police, and health service providers) that retailers rather than the government stood to profit from the increased revenue from MUP. The final evaluation report reported that analysis of coverage of MUP in retail trade publications by Stead and colleagues (2020) found that various voices in the alcoholic drinks industry questioned the evidence underpinning MUP and suggested that the policy was an example of excessive government intervention and would likely lead to further interventions of this nature. It was noted, however, that not all industry voices in the retail press were uniformly opposed to MUP - some industry stakeholders predicted that the policy would have positive impacts, and there were reports that many operators of bars and nightclubs had called for the minimum price to be raised. The final evaluation report includes evidence from case studies with retailers and producers of alcoholic drinks, conducted by Frontier Economics post MUP implementation, which found that 'participants had come to consider MUP as business as usual, but were concerned that increasing the minimum price would cause disruption, and about the potential

for new policies such as Scotland's Deposit Return Scheme (DRS)<sup>23</sup> to interact with MUP.' (PHS 2023: 60)

In relation to compliance with MUP legislation, the evaluation presented both qualitative and quantitative evidence that industry compliance with MUP was high. The final evaluation report includes evidence from three analyses of Kantar Worldpanel data<sup>24</sup>, using England and the north of England as controls, which showed that sales of alcohol at less than £0.50 per unit were effectively immediately eliminated following MUP's introduction. According to the final evaluation report, this finding was supported by analyses of electronic point of sales (EPoS) data from a representative sample of 200 small retailers across Scotland, which showed that 97.6% of products sold had a nominal average sales price of at least £0.50 per unit post MUP implementation<sup>25</sup>. The final evaluation report also included qualitative evidence from interviews with retailers and professionals involved in licensing enforcement checks which reported that compliance with MUP was high. The final evaluation report also stated that 'When interviewed in 2021, participants from the alcoholic drinks industry typically reported that compliance had become standard practice' (PHS 2023: 37). The final evaluation report noted that there was some qualitative evidence of individual instances of alcohol being available below £0.50 per unit post MUP implementation, but that these reports were atypical.

In relation to the price of alcohol post MUP implementation, the evaluation found that:

There is strong and consistent quantitative evidence, from a range of sources, of an immediate increase in the average price per unit of alcohol sold through the off-trade in Scotland, relative to other areas in Great Britain, following the implementation of MUP. Changes in price driven by MUP differed by drink type, with those products sold below the MUP prior to implementation, such as cider, perry and own-brand spirits, seeing the

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<sup>23</sup> The final evaluation report states that: 'The DRS as it is currently proposed would add a deposit of £0.20 on to every single-use drinks container, including each single item within a multipack and regardless of item size. The deposit would be refunded when the container is returned for recycling through an approved channel. DRS thus has the potential to interact with the MUP pricing structure at point of purchase. Lower-strength alcohol, such as beer and cider, are more likely to be sold in multipacks while higher-strength alcohol, such as spirits and wine, tend to be sold in single containers. There is a risk that DRS incentivises a move towards larger, single containers and higher-strength alcoholic products. The extent to which this will influence consumers' purchasing decisions and industry packaging is unknown.' (PHS 2023: 60)

<sup>24</sup> The final evaluation report notes that 'Shopping panel data are self-reported, and therefore less reliable than automatically collected EPoS data, but do not rely on retrospective recall in the same way that surveys do.' (PHS 2023: 36)

<sup>25</sup> The final evaluation report notes that 'while the price of alcohol purchased is not strictly the same as the price of alcohol available, it provides a proxy for compliance, and these analyses can be taken as strong evidence that retailer compliance with MUP was high, with no time lag.' (PHS 2023: 37)

greatest price increases. Following MUP implementation, prices tended to be clustered at between £0.50 to £0.649 per unit; approximately double the volume of alcohol was sold in this price range in Scotland compared to England & Wales in the year following implementation. There was little evidence of impact on the price of products at or above £0.65 per unit. (PHS 2023: 41)

The final evaluation report highlighted that MUP was not expected to impact the price of alcohol sold in the on-trade and noted that in 2017 the average price of a unit of alcohol in the on-trade in Scotland was £1.08, as such, all the studies on price included in the evaluation refer to prices in the off-trade. The evaluation found that changes in the price of alcohol products driven by MUP varied for different price points and categories of alcoholic drinks. The final evaluation report notes that 'as expected, price changes were greatest for the products that were high-strength, low-cost pre-MUP, with some such products doubling in price per unit in Scotland, while there was little change in the price per unit of products that were already priced above the price floor' (PHS 2023: 39). The final evaluation report refers to a study by Ferguson and colleagues (2022), which found that, overall, all categories of alcoholic drinks in the off-trade increased in price following MUP implementation, and that very few of the top 50 products sold in convenience stores decreased in price. The largest decrease in price noted was in the price of Buckfast Tonic Wine (-3.1% in Scotland in the first year of MUP, and -1.8% in England & Wales), which also drove an overall reduction in the price of fortified wine in convenience stores.

With regard to sales and purchases of alcohol, the evaluation found that there was strong evidence that MUP was associated with reductions in the total volume of pure alcohol sold per adult in the off-trade in Scotland, and very little evidence of any change to per-adult sales of alcohol through the on-trade. According to the final evaluation report, 'decreases in purchasing following MUP were greater in the off-trade than the on-trade, with little or no significant change in on-trade sales and producers reporting no change in the market share of the on-trade in response to MUP' (PHS 2023: 57).

The evaluation reported evidence from two studies of alcohol sales data, one at one year and one at three years post MUP implementation, which estimated reductions in off-trade sales of spirits, cider and perry and increases in off-trade sales of wine and fortified wine. A significant increase in off-trade ready-to-drink (RTD) sales was also estimated after one year. A smaller increase in RTDs was reported after three years, but this estimate had a greater degree of uncertainty than the findings after one year. The final evaluation report reported that the authors of the two studies noted that 'the proportion of each drink category sold through the off-trade was not equal, with beer, wine and spirits making up just under 90% of all sales. Thus, smaller relative changes in these categories will have a greater absolute impact on total alcohol sales than equivalent relative changes in



drink categories where absolute volume sales are lower, such as cider and perry' (PHS 2023: 43). The evaluation found that alcoholic drink categories that had the greatest price increases following MUP's introduction (namely cider, perry and own-brand spirits) tended to see greater reductions in sales; whereas it appeared that alcoholic drink categories that exhibited smaller price increases or maintained their price were more likely to maintain or slightly increase their sales.

The evaluation found some evidence of cross-border trade of alcohol, but reported that this was only on a small-scale, with cross-border purchasing most likely to be conducted by the small proportion of people in Scotland living near the border with England. The evaluation therefore concluded that 'cross-border purchasing is unlikely to have had a substantial impact on population-level consumption, but it may be the case that the price floor had less of an impact on consumption for those living nearest to (e.g. within 52km of) the border' (PHS 2023: 46). The final evaluation report reported that research conducted by Frontier Economics based on interviews with retailers on either side of the Scotland–England border found 'no evidence of a substantial impact on profitability, turnover or employment of retailers in Scotland close to the border' (PHS 2023:57). The final evaluation report notes that this finding was supported by findings from So and colleagues' qualitative interviews with representatives of Police Scotland and Patterson and colleagues' quantitative analysis of turnover of off-trade licenses, which found 'no evidence of either systematic closures along the Scottish side of the border or openings along the English side' (PHS 2023: 57).

In relation to alcoholic drink products and product ranges, the evaluation found little evidence of producers reformulating products to reduce their ABV, and noted that the extent to which any observed reformulations could be attributed to MUP was unclear. Alcohol industry interviewees reported that changes were more likely to be a result of consumer preference for lower alcohol products. According to the final evaluation report, there is quantitative evidence that 'MUP was associated with an increase in purchasing of low- and no-alcohol beer and cider, relative to higher-strength beer and cider with a lower alcohol content, while purchases of the high-alcohol-content versions decreased' (PHS 2023: 57). The evaluation noted that changes to products 'may have been limited by the relatively small size of the Scottish market for UK and multi-national firms' (PHS 2023: 57). The evaluation found qualitative evidence that smaller container and multipack sizes were introduced in some drink categories. The final evaluation report noted that while there was no evidence of all the variants of any product or brand disappearing completely, there was some evidence that some retailers delisted larger sizes of brands that had experienced the greatest price increases post MUP implementation. The evaluation found evidence that sales of larger sizes of containers and multipacks of alcohol products reduced after MUP was introduced.

These decreases were particularly noticeable for sales of cider in containers of 1000ml or larger (-61.3%), and sales of multipacks with 12 or more items (-68.4%).

The evaluation concluded that the evidence on the impact of the post MUP changes in price and sales on revenues of retailers and producers is mixed.

According to the final evaluation report:

Quantitative analysis of sales data shows an overall increase in the monetary value of off-trade alcohol sales, with increases in sale price compensating for declines in sale volumes for retailers, while the effect on producers' revenues was negative, but was considered by some, but not all, interviewees to be small. While no participants in the qualitative interviews reported any changes in employment or facilities owing to MUP some reported that individual retailers had been affected adversely, with at least some of the variation likely to be due to the extent to which the products made/sold were affected by MUP. Large retailers did not report any change in revenue or profits due to MUP, but convenience stores were more likely to have noted a decrease in revenue and profits, particularly if they previously relied on high-strength, low-cost alcohol products. There was limited evidence that any potential increase in revenue for retailers had been passed on to producers. While the sales data show an overall increase in revenue from alcohol, it was not possible to determine the impact on profit. Analysis of quantitative data finds little evidence of MUP having material impacts on five key metrics of business performance<sup>26</sup> on any of the main sectors of the industry in Scotland. (PHS 2023: 56)

Further information

Evidence relevant to the operation and effect of MUP in relation to this category can be found on the following pages of [PHS's final MUP evaluation report](#): pp. 13-14; 36-48; 55-60; 78-82; 93-97.

Further evidence can also be found in the following studies included in PHS's final MUP evaluation report:

1. Anderson P, Kokole D, Jané Llopis E. (2022) [Impact of minimum unit pricing on shifting purchases from higher- to lower-strength beers in Scotland: Controlled interrupted time series analyses, 2015-2020](#). *Drug and Alcohol Review*, 41(3), pp. 646-656.

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<sup>26</sup> The five key performance metrics are: the number of enterprises and business units; employment; turnover; gross value added (GVA); and output value.

2. Anderson P, O'Donnell A, Kaner E et al. (2021) [Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: Controlled interrupted time series analyses](#). *Lancet Public Health*, 6(8), pp. e557-e565.
3. Dickie E, Mellor R, Myers F, Beeston C. (2019) [Minimum Unit Pricing \(MUP\) for alcohol evaluation: Compliance \(licensing\) study](#). Edinburgh: Public Health Scotland.
4. Dimova ED, Strachan H, Johnsen S et al. (2022) [Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences](#). *Drug and Alcohol Review*, 42(1), pp. 81-93.
5. Duffy J, Snowdon C, Tovey M. (2022) [The hangover: The cost of minimum alcohol pricing in Scotland](#). Institute of Economic Affairs.
6. Ferguson K, Giles L, Beeston C. (2021) [Evaluating the impact of Minimum Unit Pricing \(MUP\) on the price distribution of off-trade alcohol in Scotland](#). Edinburgh: Public Health Scotland.
7. Ferguson K, Giles L, Beeston C. (2022) [Evaluating the impact of MUP on alcohol products and prices](#). Edinburgh: Public Health Scotland
8. Ford J, Myers F, Burns J, Beeston C. (2020) [Minimum unit pricing \(MUP\) for alcohol evaluation: The impact of MUP on protecting children and young people from parents' and carers' harmful alcohol consumption: A study of practitioners' views](#). Public Health Scotland.
9. Frontier Economics (2019) [Minimum unit alcohol pricing: Evaluating the impacts on the alcoholic drinks industry in Scotland: Baseline evidence and initial impacts](#). Frontier Economics.
10. Frontier Economics (2023) [Minimum unit pricing: Impacts on the alcoholic drinks industry in Scotland](#). Edinburgh: Public Health Scotland.
11. Giles L, Mackay D, Richardson E et al. (2022) [Evaluating the impact of Minimum Unit Pricing \(MUP\) on sales-based alcohol consumption in Scotland at three years post-implementation](#). Edinburgh: Public Health Scotland.
12. Griffith R, O'Connell M, Smith K. (2022) [Price floors and externality correction\\*](#). *The Economic Journal*. doi: [Price floors and externality correction](#)
13. Holmes J, Buykx P, Perkins A et al. (2022) [Evaluating the impact of minimum unit pricing in Scotland on people who are drinking at harmful levels](#). Public Health Scotland.
14. Iconic Consulting (2020) [Minimum unit pricing in Scotland: A qualitative study of children and young people's own drinking and related behaviour](#). Iconic Consulting.

15. Leon DA, Yom-Tov E, Johnson AM et al. (2021) [What online searches tell us about public interest and potential impact on behaviour in response to minimum unit pricing of alcohol in Scotland](#). *Addiction*, 116(8), pp. 2008-2015.
16. Llopis EJ, O'Donnell A, Anderson P. (2021) [Impact of price promotion, price, and minimum unit price on household purchases of low and no alcohol beers and ciders: Descriptive analyses and interrupted time series analysis of purchase data from 70,303 British households, 2015–2018 and first half of 2020](#). *Social Science & Medicine*, 270: 113690.
17. McCann M, Kwasnicka D, Boroujerdi M et al. (2020) [Studying individual-level factors relating to changes in alcohol and other drug use, and seeking treatment following minimum unit pricing implementation](#). Alcohol Change UK
18. O'Donnell A, Anderson P, Jané-Llopis E 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.
19. Patterson HC, Beeston C, McQueenie R et al. (2022) [Evaluating the impact of minimum unit pricing \(MUP\) of alcohol in Scotland on cross-border purchasing](#). Public Health Scotland.
20. Patterson HC. (2023) [Addendum \(You Gov, 2023\) to 'Evaluating the impact of minimum unit pricing \(MUP\) of alcohol in Scotland on cross-border purchasing'](#). Edinburgh: Public Health Scotland.
21. Robinson M, Mackay D, Giles L et al. (2021) [Evaluating the impact of minimum unit pricing \(MUP\) on off-trade alcohol sales in Scotland: an interrupted time-series study](#). *Addiction*, 116(10), pp. 2697-2707.
22. So V, Millard AD, Katikireddi SV et al. (2021) [Intended and unintended consequences of the implementation of minimum unit pricing of alcohol in Scotland: A natural experiment](#). Southampton (UK): NIHR Journals Library
23. Stead M, Critchlow N, Eadie D et al. (2020) [Evaluating the impact of alcohol minimum unit pricing in Scotland: Observational study of small retailers](#). University of Stirling.
24. Stead M, Eadie D, Purves RI et al. (2022) [Implementation of alcohol minimum unit pricing \(MUP\): a qualitative study with small retailers](#). *Drugs: Education, Prevention and Policy*, pp. 1-8.
25. Xhurxhi IP. (2020) [The early impact of Scotland's minimum unit pricing policy on alcohol prices and sales](#). *Health Economics*, 29(12) pp. 1637-1656.

## **Evaluation conclusions and considerations for policy decision-makers**

### **Conclusion**

The final evaluation report concluded that:

- Overall, the evidence supports that MUP has had a positive impact on health outcomes, namely a reduction in alcohol-attributable deaths and hospital admissions, particularly in men and those living in the most deprived areas, and therefore contributes to addressing alcohol-related health inequalities. There was no clear evidence of substantial negative impacts on the alcoholic drinks industry or of social harms at the population level. (PHS 2023: 14)

The full conclusion of the evaluation can be found on pages 96-97 of the PHS final evaluation report.

### **Considerations for policy decision-makers**

The final evaluation report presents the following considerations for policy decision-makers:

- The evaluation of MUP was conducted with MUP set at a consistent rate of £0.50 per unit of alcohol. It is likely that any beneficial impacts of MUP realised to date will only continue if the value of MUP compared to other prices and incomes is maintained. Increasing the value of MUP would potentially increase the positive impact on alcohol consumption and related harms, but any negative or harmful impacts might also increase.
- There is limited evidence to suggest that MUP was effective in reducing consumption for those people with alcohol dependence. Those with alcohol dependence are a particular subgroup of those who drink at harmful levels and have specific needs. People with alcohol dependence need timely and evidence-based treatment and wider support that addresses the root cause of their dependence.
- The evaluation has demonstrated that some people with alcohol dependence who have limited financial support may experience increased financial pressure as a result of MUP. Consideration needs to be given on how best to monitor the needs and provide services for those in this group to minimise the negative impacts of MUP. This would be particularly important if increases to the level of MUP are introduced. Strategies to do this should be informed by the evidence.
- Those under 18 years of age generally reported that MUP had not affected their alcohol consumption, largely because price was a relatively minor factor in their decision to drink alcohol. Alternative evidence-based approaches

should be considered to reach drinkers below the legal age for purchasing alcohol.

- Policy-makers should consider how new policies, such as the proposed Deposit Return Scheme, might interact with the MUP pricing structure.

# Consultation with stakeholders

The 2012 Act requires that, in preparing this report, Scottish Ministers must consult with such persons as appear to them to be representative of the interests of—

- (i) holders of premises licences granted under the 2005 Act, and
- (ii) producers of alcohol,

It also sets out that Scottish Ministers must consult with such persons as they consider appropriate having functions in relation to—

- (i) health,
- (ii) prevention of crime,
- (iii) education,
- (iv) social work, and
- (v) children and young people.

Scottish Ministers must also consult any other persons they considered appropriate.

In preparing this report, Ministers considered it appropriate to consult with people, and organisations who represent them, with lived experience of harmful or hazardous drinking. Ministers considered that the voices of those with lived experience provide a unique perspective on alcohol harm reduction which would complement and add to the insights generated by the other groups noted above. Ministers also considered it appropriate to seek views on young people's and the general public's impression of the MUP policy.

## Calls for evidence

A call for evidence was issued in summer 2022 to representatives of the groups mentioned above. Over the course of summer 2022, nine roundtables and seven individual meetings were held and six written responses were received.

A further call for evidence was issued in July 2023. By this point, MUP had been in place for over five years and the PHS final evaluation report had been published. The Minister for Drugs and Alcohol Policy hosted six roundtables and officials held three individual meetings and a focus group with five young people aged 18-24.

It should be noted that whilst a number of different organisations who have relevant functions in relation to the relevant categories as identified in the Act were invited to take part in the call for evidence, not all responded. A list of the stakeholders who responded to the calls for evidence is available in Annex B.

The roundtables were structured to learn more about stakeholders' experiences and views on the operation and effect of MUP to inform the Scottish Government's consideration of the impact which MUP has had over the first five years since implementation and whether it should continue beyond the sunset date.

The questions used to facilitate the roundtables are available in Annex C.

The Scottish Government also commissioned Ipsos Mori to carry out public attitudes research through an omnibus survey, which asked a nationally representative sample of 1,029 adults across Scotland whether they were in favour of or against MUP, in order to gain an understanding of the general public's impression of MUP. Respondents were also asked the main and secondary reason for why they were in favour of or against MUP. A full report on this is available at <https://www.gov.scot/isbn/9781835213285>

## **Summary of Responses**

The key themes relevant to the preparation of this report are summarised below.

- Participants at the Health professionals roundtable felt that MUP had helped reduce the number of alcohol-related harms and deaths and that without MUP these could have been higher. They also discussed their belief that MUP helped mitigate against the harmful effect of the Covid-19 pandemic in relation to drinking habits, which they believed would have been even greater if MUP hadn't been in place.
- Those with lived experience of harmful or hazardous drinking felt that when MUP was first introduced it had an impact on the type of alcohol consumed by individuals drinking at those levels and on their ability to afford alcohol. However, it was also felt that this has lessened over time – partly due to the level remaining at 50ppu and partly due to the impact of the pandemic on drinking behaviour.
- Some participants in each of the roundtables shared examples of unintended consequences of MUP, for example, switching from alcohol to illicit drug use, driving to England to buy alcohol, a higher prevalence of crime or negative impact on the alcohol industry (excluding high strength white cider). However, it was also discussed that this was anecdotal evidence and had to be interpreted with care. One concern discussed at a number of the roundtables was that dependent drinkers, and potentially those drinking at harmful and hazardous levels, may prioritise alcohol over essentials such as food and heating. Although they did acknowledge that the cost-of-living crisis and other factors could also have an influence here.



- Young people participating in the focus group had some concerns that younger people could substitute drugs for alcohol and buy less nutritious food if alcohol prices increase. The majority of the focus group participants, however, said that they were not aware of their household budgets being impacted by MUP.
- The shift in young people's drinking habits was discussed in the crime prevention roundtable with general agreement that alcohol consumption among young people had declined – however, this was not thought to be fully attributable to MUP. Young people who participated in the focus group felt MUP might have an impact on underage drinking as a higher price of alcohol may discourage underage children from asking older young people to buy them alcohol. One organisation who work with children and young people highlighted in the 2022 roundtable that youth work is slightly more removed from alcohol harm prevention policy and they would find it difficult to attribute any changes in alcohol consumption to anything in particular.
- Most of the roundtables talked specifically about the impact of MUP on those who drink at harmful and hazardous levels, including people with alcohol dependence. Health professionals and social workers raised some examples of positive impact on the alcohol consumption of those drinking above the weekly guidelines. However, there was a prevalent view that MUP had not had much impact on the alcohol consumption of those with alcohol dependence. This led to discussion of what was needed to support those with alcohol dependence, with all stakeholders in agreement that increased investment in alcohol treatment services was needed. Those in the social work roundtable highlighted that MUP cannot work on its own and needs to work with other preventative strategies such as alcohol brief interventions and outreach programmes in order to fully support those drinking at harmful levels, and their complex needs.
- There was an overall impression within the alcohol industry that MUP was now “business as usual”. However, participants were critical of the timeline for implementing MUP in 2018 and described the very short lead-in time as challenging.
- Retailers present at the roundtables discussed the impact of MUP on their business. It was reported that MUP has added a layer of complexity when working out the price of alcohol products and it can act as an administrative burden, particularly for smaller stores. Some retailers, which also operate in England, discussed the challenges of having to do things differently in different places. Smaller convenience stores were reported to have seen a slight increase in their alcohol sales as MUP made them more competitive with larger

supermarkets. It was also felt that MUP had brought a better balance between on and off trade prices and stopped 'irresponsible' pricing practices.

- Among producers, there was general discussion about the risk of Scotland being too different to other countries and the more divergent the market is, the less attractive Scotland is to trade in. This was not seen to be an issue solely to do with MUP but also the proposed Deposit Return Scheme. Producers also discussed how MUP had created an artificial floor price which had distorted the market. This led to 'own label' product sales decreasing despite these products having lower ABV in comparison to different mainstream branded products.
- Producers of alcohol were unanimous in their view that MUP had not resulted in increased revenue for producers. They felt that any increase in revenue would be felt by retailers who had a huge amount of power in their ability to set price. However, retailers reported that they also did not see an increase in revenue from MUP.
- There was also discussion of changing consumer habits. Producers discussed that people's relationship with alcohol had not been impacted by MUP, but that they had merely switched products. It was felt that consumers switched from white cider and perry to other products including ready to drink beverages. However, it was also acknowledged that it is not clear that this is entirely due to MUP. Retailers similarly felt there had been a shift away from products such as high strength white cider and super strength lagers.
- Some producers questioned MUP's whole population approach because "most people drink within sensible amounts". They discussed the need of a person-centred approach by offering more support services to people drinking at hazardous levels and engaging in proactive intervention campaigns because much of the choice in drinking happens before people reach the store.
- When asked about the impact of removing MUP, participants in the health professionals, crime prevention, lived experience and social work roundtables felt that MUP should not be removed. Reasons for this included the likely return of increased consumption of low cost high strength products such as white cider, the continuing high level of alcohol-related deaths in Scotland, the negative message that it would send regarding the priority of reducing alcohol harms, and increased costs for the NHS. Those representing the alcohol industry felt there would be limited to no impact to businesses of removing MUP but large retailers noted that the removal of MUP may make Scotland easier to operate in for multi-national businesses as it could mean there is a same price point across the UK.

- The findings from the public attitudes survey suggested that, overall, people were slightly more likely to be in favour of MUP (43%) than against it (38%). Almost a fifth of respondents (18%) were neutral and a small number did not know (1%). The most common main reason for being in favour of MUP was to help tackle problems caused by alcohol in general (34% of respondents in favour of MUP), followed by to help tackle health problems from drinking (20% of respondents in favour of MUP). The most common main reason for opposing MUP was feeling it punishes everyone for what some drinkers do (29% of respondents who were against MUP), followed by feeling that if people want to drink they will whatever the price (22% of respondents against MUP).

## Conclusions and next steps

This report has considered evidence on the operation and effect of MUP over the five years between its implementation in May 2018 up to end April 2023. It contains information on the impact of the policy, including detail on the extent to which MUP has, to date, met its intended aim of reducing alcohol related harm. This information is drawn from the evaluation of the policy led by Public Health Scotland and from the findings of a call for evidence which included Ministerial roundtable events, and engagement with relevant stakeholders and expert groups including public health and business sectors.

The overall conclusion in the PHS final evaluation report on MUP is that the evidence supports that MUP has had a positive impact on health outcomes – MUP was estimated to have reduced deaths directly caused by alcohol consumption by 13.4% and likely to have reduced hospital admissions by 4.1% compared to what would have happened if MUP had not been in place.

The evaluation also concluded that MUP has contributed to reducing health inequalities, as the largest estimated reductions in deaths and hospital admissions wholly attributable to alcohol consumption were seen in those living in the 40% most deprived areas.

There was also strong and consistent evidence of a reduction in alcohol consumption following MUP implementation. The evaluation found that the reduction in consumption was driven by the heaviest purchasing households, and the majority of households were not affected, leading to the conclusion that MUP was well targeted. It was estimated that MUP resulted in decreases in alcohol-attributable deaths and hospital admissions related to chronic conditions, which the evaluation took as further evidence that MUP has reduced consumption in those that drink at hazardous and harmful levels.

The evaluation noted that there was limited evidence to suggest that MUP was effective in reducing consumption for people with alcohol dependence. People with alcohol dependence are a particular subgroup of those who drink at harmful levels and have specific needs. People with alcohol dependence need timely and evidence-based treatment and wider support that addresses the root cause of their dependence.

Overall, there was no consistent evidence that MUP impacted either positively or negatively on the alcoholic drinks industry as a whole.

The evaluation concluded that compliance with the legislation was high and that sales of alcohol below £0.50 per unit largely disappeared following the implementation of MUP. There was also strong evidence of an immediate increase

in the average price per unit of alcohol sold through the off-trade in Scotland, relative to other areas in Great Britain, following the implementation of MUP.

Roundtable events provided an opportunity for relevant stakeholders and expert groups across including health and business sectors to consider their own experiences of MUP which generated additional insight and perspective for Ministers to reflect upon.

Scottish Ministers have considered all the information presented in this report and conclude that there is sufficient evidence that Minimum Unit Pricing has achieved its policy aim.

## **Next steps**

MUP is one of a range of population and individual level interventions set out in the 2018 Alcohol Framework that together are intended to improve the prevention and treatment of alcohol-related harm in Scotland. MUP was not designed to work in isolation and work will continue in this wide area to further reduce alcohol-related harm.

Alcohol-related harm continues to be high in Scotland. For example, the most recent data on alcohol-specific deaths (deaths wholly attributable to alcohol) was published by National Records of Scotland in August 2023. There were 1,276 alcohol-specific deaths registered in Scotland in 2022, an increase of 2% (31 deaths) on the previous year and the highest number of alcohol-specific deaths in Scotland since 2008.

Evidence for the evaluation period of MUP suggests that alcohol-specific mortality would have been worse in the absence of the MUP policy.

The effectiveness of MUP is directly linked to the price point that MUP is set at, it is impossible to distinguish the next steps for MUP without also considering the level at which it is set.

For this reason Ministers intend to launch a public consultation seeking views on the proposal to continue the effect of the MUP provisions, and amend the minimum price per unit.

# Annex A – a copy of the final PHS MUP evaluation report: Evaluating the impact of minimum unit pricing for alcohol in Scotland



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[Evaluating the impact of minimum unit pricing for alcohol in Scotland: Final report \(publichealthscotland.scot\)](https://publichealthscotland.scot)

# **Annex B – Stakeholders who took part in 2022 and 2023 call for evidence**

## **Holders of premises licences granted under the 2005 Act**

Asda  
Association of Convenience Stores  
Iceland  
One O One Retail  
National Federation of Regional Newsagents  
Scotmid  
Scottish Grocers Federation  
Scottish Hospitality Group  
Scottish Licensed Trade Association  
Scottish Retail Consortium  
Scottish Wholesale Association  
Tesco  
Waitrose

## **Producers of alcohol**

ABinBev  
Aston Manor  
Beer and Pubs Cross Party Group  
C&C Group  
Diageo  
Edrington  
Heineken  
National Association of Cider Makers  
Molsoon Coors  
Portman Group  
Scotch Whisky Association  
Scottish Alcohol Industry Partnership  
Scottish Beer and Pub Association  
Treasury Wine Estates  
Whyte & MacKay  
Wine & Spirits Trade Association

## **Health**

Alcohol Focus Scotland

Academy of Medical Royal Colleges and Faculties of Scotland  
Association of Nurses in Substance Misuse in Scotland  
British Liver Trust  
Deep End Group  
NCD Alliance  
NHS Borders  
NHS Grampian  
NHS Lanarkshire  
NHS Lothian  
NHS Tayside  
Public Health Scotland  
Scottish Health Action on Alcohol Problems

### **Prevention of crime**

Community Justice Scotland  
National LSO network  
Police Scotland  
Scottish Community Safety Network  
Scottish Prison Service

### **Education**

NHS Grampian  
Scottish Borders – Education department

### **Social work**

COSLA Health and Social Care  
Glasgow Alcohol & Drug Partnership  
NHS Greater Glasgow & Clyde  
Scottish Borders Council  
Social Work Scotland

### **Children and young people**

Youthlink Scotland

### **Lived experience**

Corra Foundation  
Edinburgh & Lothian Council on Alcohol  
Family Addiction Support Service



Glasgow Council on Alcohol  
Scottish Drugs Forum  
Scottish Families affected by Drugs and Alcohol  
Scottish Recovery Consortium  
Simon Community Scotland  
South Ayrshire Alcohol and Drug Partnership

# **Annex C – Questions used in 2022 and 2023 call for evidence**

## **Holders of premises licences granted under the 2005 Act and producers of alcohol**

1. How has minimum unit pricing impacted your business?
2. Do you think businesses have seen increased revenue from the introduction of minimum unit pricing?
3. Do you have any evidence to support your view?
4. How has minimum unit pricing affected your supply chain?
5. What impact do you think removing minimum unit pricing would have on your work?
6. Is there anything else about minimum unit pricing you'd like to tell us?

## **Health, prevention of crime, education, social work**

1. How has minimum unit pricing impacted your day to day work?
2. Has minimum unit pricing changed how you do your work?
3. How has minimum unit pricing impacted your overall workload?
4. What impact has minimum unit pricing had on the people you work with?
5. What impact do you think removing minimum unit pricing would have on your work?
6. Is there anything else about minimum unit pricing you'd like to tell us?

## **People with lived experience**

1. How has minimum unit pricing impacted your/people you work with day to day life?
2. What have the negative impacts of minimum unit pricing been for you, if any?
3. What have the positive impacts of minimum unit pricing been for you, if any?

4. What impact do you think removing minimum unit pricing would have for you?
5. What impact do you think increasing the minimum unit price would have for you?
6. Is there anything else about minimum unit pricing you'd like to tell us?

**Children and young people focus group questions**

1. What is your understanding of MUP?
2. How has MUP impacted you and your family?
3. How has MUP impacted your friends?
4. How much does price affect your alcohol choice?
5. What impact do you think removing minimum unit pricing would have for you?
6. What impact do you think increasing minimum unit pricing would have for you?
7. Do you have anything else to share?



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