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## Title Page

Views on minimum unit pricing for alcohol before its introduction among people with alcohol dependence in Scotland: A qualitative interview study

Alcohol minimum unit pricing in Scotland

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JHu contributed to data collection, led the analysis and lead-authored the manuscript. WL, PB,AW and AP contributed to data collection and analysis. AJ, SL, TM and AM contributed to data collection. JHo, PB, AP and WL designed and led the study. All authors contributed to revising the manuscript.

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#### Abstract and Key words

**Introduction**: Scotland implemented a minimum price per unit of alcohol (MUP) of £0.50 in May 2018 (1 UK unit = 10ml/8g ethanol). Some stakeholders expressed concerns about the policy having potential negative consequences for people with alcohol dependence. This study aimed to investigate anticipated impacts of MUP on people presenting to alcohol treatment services in Scotland before policy implementation.

**Methods**: Qualitative interviews were conducted with 21 people with alcohol dependence accessing alcohol treatment services in Scotland between November 2017 and April 2018. Interviews examined respondents' current and anticipated patterns of drinking and spending, effects on their personal life, and their views on potential policy impact. Interview data were thematically analysed using a constant comparison method.

**Results**: Three key themes were identified: 1) Strategies used to manage the cost of alcohol and anticipated responses to MUP; 2) Broader effects of MUP and 3) Awareness and preparedness for MUP. Respondents expected to be impacted by MUP, particularly those on low incomes and those with more severe dependence symptoms. They anticipated using familiar strategies including borrowing and reprioritising spending to keep alcohol affordable. Some respondents anticipated negative consequences. Respondents were sceptical about the short-term benefits of MUP for current drinkers but felt it might prevent harm for future generations. Respondents had concerns about the capacity of treatment services to meet support needs.

**Discussion and Conclusions**: People with alcohol dependence identified immediate concerns alongside potential long-term benefits of MUP before its introduction. They also had concerns over the preparedness of service providers.

#### **Key Words**

Key words: Minimum unit pricing, Alcohol-dependence, Alcohol pricing, Evaluation, Qualitative methodology

# Key Point Summary – Perspectives

- People with alcohol dependence accessing treatment expected to be impacted by MUP, particularly those on low incomes and those with more severe dependence symptoms.
- Respondents anticipated using familiar strategies including borrowing and reprioritising spending to keep alcohol affordable in the short term.
- There was overall concern over the capacity of treatment services to meet anticipated support needs.

#### Introduction

Harmful use of alcohol is estimated to cause more than 5% of the global disease burden. [1]. During the 2000s and 2010s, there was significant concern about rising levels of alcohol-related harm in Scotland. In 2003 in Scotland, one in four people (24%) drink at hazardous or harmful levels (defined as drinking more than 14 units per week) [2]. Alcohol-related mortality also increased between 2012 and 2016, with 1,235 alcohol-related deaths in 2017 [2]. The Scottish Government has introduced a range of policies aimed at reducing alcohol consumption and related harm since 2010, including new regulations concerning the sale and promotion of alcohol in the off-trade (i.e. shops and supermarkets). However, implementation of the Alcohol Minimum Pricing (Scotland) Act 2012 [Scottish Parliament 2012], a key component of the country's alcohol strategy, was delayed for six years due to legal challenges from alcohol trade bodies [3]. The Act was eventually introduced on 1st May 2018 and set a minimum unit price (MUP) for alcohol of £0.50 per unit (1 UK unit = 10ml/8g alcohol).

The World Health Organisation (WHO) recommends pricing policies as an effective tool in reducing alcohol consumption and harms [4]. A meta-analysis of the effectiveness of raising the price of alcohol suggests a 10% price increase is associated with a 4.4% decline in alcohol consumption, with further evidence available showing price increases also lead to reductions in alcohol-related harm [5]. Minimum Unit Pricing is a specific form of pricing policy that sets a baseline below which a unit of alcohol cannot be sold to consumers. In addition to Scotland, MUP has been introduced in Wales in 2020 and in the Norther Territory of Australia in 2018. MUP is now in place in the Republic of Ireland while in England and Northern Ireland, policy debate is ongoing. Modelling studies suggest that one of the key benefits of MUP is its targeted nature. It effectively reduces consumption and related harms at the population level, with the greatest effects expected for those who drink heavily and who are on low incomes (i.e., the groups at disproportionately greater risk of alcohol-related harm) [6,7,8]. Evidence to date also suggests that moderate drinkers, including those on low incomes, would only be minimally affected by MUP [9]. Finally, there is further evidence to suggest that minimum pricing policies are likely to reduce health inequalities across income groups [10]. These largely model-based findings are supported by evaluations of Scotland's MUP as well as evaluations of minimum price policies in Canada and the Australian Northern Territory, which suggest that such measures substantially reduce overall consumption of alcohol and associated health harms, reductions in alcohol purchasing largest among the highest purchasing households [11-18].

Although there is increasing evidence regarding beneficial public health effects of MUP for the general population, the potential effects on people who are dependent on alcohol are less well-evidenced. Stakeholders from multiple sectors have raised concerns about potential negative consequences of MUP for this group, particularly those on lower incomes [19] These include substitution of alcohol with drugs, an increase in criminal behaviour to maintain alcohol consumption, going without essentials such as food and heating, or physical health harm through acute withdrawal. These consequences may need to be considered and mitigated by policy makers but evidence of their extent from past research is mixed. Previous studies of dependent populations found the main strategies used to manage changes in the affordability of alcohol were trading down to cheaper products, foregoing essentials, borrowing or sharing alcohol, and going without alcohol [20-26]. The number of people reporting use of drugs as a substitute for alcohol or increased criminal activity were uniformly small across all studies. This aligns with the findings of a recent study examining potential substance-switching in people presenting to alcohol services before the introduction of MUP in Wales [27,28]. However, unlike the permanent price increase caused by

MUP, much of the previous research literature is based on temporary experiences of alcohol unaffordability. It is therefore unclear to what extent people would adopt these coping strategies over the long term. This is of particular importance for MUP policies as trading down to cheaper alcohol is not an option for those already purchasing below the minimum price. In addition to these concerns, little is known about general views towards MUP among those who would be directly affected.

The aim of this study was therefore to investigate the perceptions, awareness, and anticipated impact of MUP, before its introduction, in a population of people presenting to alcohol treatment services in Scotland.

#### Method

#### Overview

This paper reports baseline findings from one component of a larger mixed methods study evaluating the effects of MUP in Scotland on harmful drinkers [18]. The study collected three waves of repeat cross-sectional data (one wave pre-MUP and two waves post-MUP) from people in Scotland and Northern England presenting to inpatient and outpatient alcohol clinics, liver units and some GP services offering specialist alcohol treatment support. Baseline recruitment took place across six health boards in Scotland and four areas in Northern England between November 2017 and April 2018, prior to the implementation of MUP on 1st May 2018. Treatment service staff determined eligibility to take part, with the main criteria being probable alcohol dependence, later confirmed by an Alcohol Use Disorders Identification Test (AUDIT) score of 16+, indicating current or recent harmful consumption. Staff excluded those they felt would be unable to provide informed consent, for example, for reasons of cognitive impairment. All participants completed a structured quantitative survey [18] and were asked if they were willing to be contacted to take part in a further, semi-structured qualitative interview. The data analysed here are taken from interviews with pre-MUP respondents in Scotland only. Full methodological details of the larger study are available in the project report [18] The remainder of this methods sections relates only to the interviews and data used in this paper.

#### Data collection

A pragmatic, purposive sampling approach was adopted to ensure a broadly representative qualitative sample of quantitative study respondents by recruitment site, gender, age and drinking behaviour (i.e. type of drink consumed and whether purchased below MUP). Most interviews were conducted face-to-face in the setting the respondent was first recruited and phone interviews were arranged where this was not feasible. Interviews were predominantly carried out by the same researcher who administered the initial quantitative survey, to build upon the pre-established relationship. A total of 21 interviews were completed with 16 male respondents and 5 female respondents, all aged between 22 and 69.

Table 1: Demographic Characteristics of Sample

Responder	Gender	Audit Score	Cheap alcohol consumption (sub 50ppu)	Economically Vulnerable	Health Problems	Substance use	Dependent Children
R1	Male	20	No	No	Yes	No	Yes
R2	Female	25	Yes	No	No	Yes	No
R3	Female	40	Yes	No	Yes	No	Yes
R4	Male	34	Yes	Yes	No	No	No
R5	Male	33	Yes	No	No	Yes	No
R6	Male	37	Yes	Yes	No	Yes	No

R7	Male	37	Yes	No	No	Yes	No
R8	Male	37	No	Yes	No	No	No
R9	Male	34	No	No	Yes	Yes	Yes
R10	Male	40	No	Yes	No	No	Yes
R11	Female	37	No	No	No	No	No
R12	Female	27	Yes	No	No	No	No
R13	Female	40	No	No	Yes	No	No
R14	Male	40	Yes	No	No	Yes	No
R15	Male	20	Yes	No	No	No	No
R16	Male	24	Yes	No	No	No	No
R17	Male	39	Yes	Yes	Yes	Yes	No
R18	Male	33	No	No	No	No	No
R19	Male	25	No	Yes	Yes	No	No
R20	Male	40	Yes	Yes	Yes	No	Yes
R21	Male	24	Yes	No	No	Yes	Yes

A semi-structured topic guide was developed to explore MUP-related policy issues identified within the literature and public debate, as well as further exploration of respondents' responses to the earlier structured questionnaire. At the start of the interview, respondents' understanding of potential price changes caused by MUP for a range of products was explored, including where necessary the use of showcards illustrating current prices for typical alcohol products and their minimum price under a £0.50 MUP. Subsequent topics covered included: drinking behaviour and patterns of alcohol purchasing and consumption, personal experience of alcohol-related harms and associated impacts on themselves, their families and others, as well as experiences with treatment support services. Interviewees were asked about their awareness of MUP and how prepared they felt for its implementation. Finally, opinions were sought on the potential impact of the policy on themselves and on others they considered to have alcohol dependence.

Interviews lasted between 20 and 70 minutes in length and were audio-recorded using an encrypted device. Field notes were also kept. Interviewees were offered a £10 gift token, in appreciation of their time.

Ethical approval was obtained from the West of Scotland REC 3 Research Ethics Committee (17/WS/0167) and the University of Sheffield Ethics committee (151527).

# Data analysis

Interviews were transcribed verbatim, anonymized and then uploaded into Nvivo 12 for coding and analysis [29]. A team approach developed a coding framework using a priori themes as well as thematic categories emerging from the dataset [30]. Combining an inductive and deductive approach, transcripts were read several times and emerging themes identified. Through a process of multiple coding [31], four researchers (J.Hu, PB, WL and AW) coded the first four interviews separately and then carried out an iterative process of crosschecking coding strategies and data interpretation to establish develop an initial consensus coding frame. Coding was further refined using a constant comparative method, whereby each interpretation and finding was compared with existing findings, as more transcripts were analysed [32].

### **Results**

Three meta-themes were identified in the way interviewees anticipated the effects of MUP on their own, and others' drinking behaviour, and their overall awareness and opinions of the impending policy: 1) Strategies used to manage the cost of alcohol and anticipated responses post-MUP; 2) Broader effects of MUP; 3) Awareness of, and preparedness for MUP.

Strategies used to manage the cost of alcohol and anticipated responses post-MUP

Participants' anticipated response to MUP was highly dependent on how personally affordable they perceived alcohol to be. Changes in consumption or purchasing behaviour were only anticipated if alcohol became unaffordable. However, perceptions of what constituted affordability varied widely across the sample. Some participants did not expect MUP to affect the affordability of alcohol to them because, for example, their income levels were high enough to continue their purchasing or they already routinely consumed alcohol costing more than £0.50 per unit. Others expressed apparently contradictory views regarding affordability. For example, some respondents reported that their alcohol consumption was affordable but also said they needed to borrow money at times;

"It has been affordable, but...the amount of money I was spending on it was a stress and certainly I was overspending on it. I mean I say it was affordable, but looking back I would end up going into my overdraft at the end of every month." [R 16]

For some respondents, alcohol was affordable because they used savings or inheritances to fund purchases, although they were less clear how they would manage in the longer term, once these sources were depleted;

"I've not run out of money yet. But my savings have taken a heck of a hit." [R 19]

For many of those without savings, redundancy money or an inheritance, borrowing was already a frequently used, short-term tactic to cover the time between paydays or benefit payments. This includes individuals who considered alcohol affordable. Borrowing money included informal lending from family or friends, going into debt or using high-interest cash loan services. Participants commonly envisaged continuing to use these strategies to manage price rises caused by MUP. Others identified a possible need to find additional funds, stating they would 'find the money somehow,' but were not sure how they would manage this. Shoplifting or stealing were potential strategies for managing the shortfall in very few cases;

"Yes, I'd probably cut down, or if I couldn't afford it, I'd probably steal it." [R 4]

"But if I can't pay it and I've got to buy alcohol, that's one of the first things that I'm going to have to think about, not paying." [R 5]

The volume of alcohol they consumed meant many respondents were already highly price-sensitive and had limited scope to straightforwardly increase alcohol spending. This was particularly true for those on low incomes who discussed cutting back on heating, paying bills and food, with food spending in particular most frequently reported as somewhere they could save money;

"I would cut back on food to afford it." [R 10]

Several individuals also stated they would need to consider, or continue, using charity-supported free food schemes.

For those who were already borrowing and cutting back on essentials, changing either the type or quantity of drinks purchased pre-MUP, was the main strategy suggested. Despite MUP meaning all cheap alcohol would face substantial price increases, respondents frequently cited switching to buying cheap, high-strength ciders as an option. Several also commented that they would 'shop around for something cheaper' or 'change to a lower price to try and get the same sort of strength at a lower price' [R 10] after MUP was introduced. This suggests a lack of understanding of the policy or possibly anticipation of a lack of compliance among retailers (which did not ultimately materialise) [33]. For others, the rise in prices of the cheapest types of alcohol, to almost parity with the cost of

spirits or premium brands, meant the possibility of changing from cider, purchased mostly for 'effect' and cheapness, to preferred drinks such as vodka;

"But I certainly wouldn't go from £3 for 3 litres to £11, where you could probably go and buy vodka or something similar."  $[R\ 11]$ 

Reducing alcohol consumption was a strategy used by some interviewees who were able to temporarily either cut back or go without alcohol at times. This was however usually seen as a *'last resort'* and a short-term solution;

"If the money runs out then you make a decision either to go and borrow or to just stop." [R 15]

Those who had already used this as a strategy to manage times when alcohol was unaffordable felt they would do the same post-MUP. Others, as they were already in the process of cutting back gradually as part of their treatment, felt that MUP would be an extra incentive during treatment and recovery;

"I think that there will be people like myself who have maybe been going through the process of getting help and support ... probably will stop a lot sooner than they may have done had the price...minimum pricing not come into effect." [R 16]

Respondents who said they already used illicit drugs also stated they would consider increasing the amount of drugs they consumed if they had to reduce alcohol consumption. Conversely, for those who had not used drugs before, this was not an option they would consider. No one interviewed for this study reported drinking illicit or non-beverage alcohol pre-MUP, but one respondent felt they might purchase home brew or illicit alcohol post-MUP if they needed to. It was commonly perceived that others might resort to these measures, however. This view of 'others' being much more likely to resort to negative measures was also expressed in terms of turning to crime and drugs, with many of the interviewees feeling that unspecified others would be likely to do so, while they themselves would not.

## Broader effects of MUP

Any potential positive effects of MUP were viewed as highly contingent on individuals' existing levels of alcohol dependency. People drinking more moderately, or perceived as having a lower dependency level, were seen as more likely to be able to change their purchasing behaviour in response to price changes;

"Oh it could do, uh-huh, if you're not addicted like an alcoholic, it could say to people 'oh well we'll need to cut down on that, I can't afford that anymore', and aye, it [i.e. MUP] could be a big help that way." [R 11]

In contrast, among those respondents who self-described as 'an alcoholic' or needing to drink every day pre-treatment, it was felt that price changes would not influence alcohol purchasing or drinking behaviour. Respondents also thought this would be the case for others, who they considered 'alcoholics' or 'heavily addicted':

"If an alcoholic is an alcoholic, they're going to pay the prices. I would. If that was me two months ago and they said Frosty Jack [sic. Frosty Jack's: a cheap and strong cider] was going to go up, I would make sure I made that money, because I need that... That's my whole life at this moment in time." [R13]

This was seen as particularly problematic for people with low incomes and high levels of dependence. These individuals were believed to manage by predominantly purchasing high-strength cider and other low cost alcohol, and were described as being 'hit hard' and 'punish[ed] unfairly':

The people that have never had [to make] the choice to buy cheap alcohol, they won't notice the difference. It's the people that buy the cheap alcohol it's going to affect the most." [R 15]

The potential negative physical consequences of experiencing sudden withdrawal, if people were unable to purchase their usual volumes of alcohol, was a concern to some respondents. It was felt that those viewed as very heavy drinkers might go into withdrawal, putting a strain on the NHS in terms of provision of beds and support staff;

"You know, and in a way you're going to force people off the drink and it's going to cause health problems for them, and it's going to put hospitals up to... with people, DTs [delirium tremens] and stuff." [R17]

Some of the respondents described experiencing withdrawal if they did not drink regularly. None of them personally expected to go into withdrawal because of MUP however, but instead outlined strategies already mentioned to avoid this, such as borrowing and going without essentials, in order to maintain alcohol consumption.

At the individual-level, for consumption reductions to occur among those with higher levels of dependence, participants felt there needed to be a stage of 'readiness to change', described as a 'contemplation phase of wanting to change,' [R 18]. Achieving this state of readiness, with associated reduced severity of dependence, was viewed as necessary for MUP to have an impact;

"See it could be good and it could be bad, it depends on people their self, if they want to change. If they're like me, I want to change and this is... a big step for people who want to change, and it's a good step." [R 21]

As a result, most participants felt that MUP would not help people who they considered dependent on alcohol in the short-term. However, many also believed that MUP would be beneficial in the longer-term. Respondents reflected on the start of their own drinking trajectories, with several suggesting that, in the past, if prices of alcohol, particularly cider and high-strength lagers, had been higher it may have changed the pattern of their drinking behaviour;

""For the young generation coming up, I think so. I think it is a good idea. But for the likes of myself and other ones that's been drinking heavily, it's a wee bit late. But it's still good. It's still a good idea. A younger man, aye, I'd have thought twice, aye." [R10]

People whose current drinking levels meant they might be negatively impacted by the policy were still able to consider how MUP may have benefitted them before they developed existing drinking patterns. In line with this, interviewees commonly felt it would help younger people who were just starting to make choices about their alcohol consumption. One respondent, previously a high-strength cider drinker, was particularly supportive of MUP;

"I think that long term, the minimum unit pricing will have a huge impact...beneficial impact in future, you know, in reducing the amount of people who are drawn into alcoholism from sometimes a very young age." [R 16]

Despite this support for the future benefits of MUP, there remained wider criticisms of the policy. Several respondents erroneously thought that MUP was a way of raising tax revenue for the

government, when the additional revenue is in fact retained by the retailer. Others, reflecting on the difficulties of being surrounded by readily available alcohol, expressed a view that the effectiveness of MUP might be limited because of this availability;

"But if somebody is suffering from the alcohol, you go to the supermarket and the drink is all facing you and it's like saying 'there you go'." [R10]

Finally, several participants saw alcohol dependence as self-medication, with some attributing their dependence to using alcohol to cope with depression and negative life experiences such as job losses, illness, and relationship breakdowns.

"My brother was murdered in 2016, May 2016... I went back on it [alcohol] again. So I was 2 years clean, completely clean with no drink, no mental health tablets or nothing, and then when the wee man passed away, that's when I hit the drink again". [R13]

These underlying issues were cited as the reason why it was felt MUP by itself would not be effective, unless placed within a range of economic, financial, and social support measures.

# Awareness of and preparedness for MUP

Although interviews were conducted shortly prior to policy implementation, there was an overall consensus amongst respondents that there had been very little awareness-raising and information provision by government agencies, specifically for people with dependence and what it would mean for them. Respondents felt this left little opportunity to prepare for and manage the changes;

"So the word is not on the street. Your guys that are standing up the high street drinking cans of beer, they don't know yet." [R 1]

News stories were mentioned as an information source, but these were felt to be brief and general;

"I've just heard about it in the news once or twice but they never went into depth about it?" [R 17]

While there was generally little reporting of public agencies raising awareness, there was some evidence of informal awareness-raising by licensees. Two respondents, who purchased predominantly low-priced cider, were made aware of an anticipated large increase in the price of Frosty Jack's by shop staff. One shopkeeper was letting customers know he was planning to stop selling it;

"He's not going to stock it anymore. He says 'I don't expect anybody to pay that for that', you know?" [R 14]

There was also evidence of some awareness-raising and support from treatment services. One service provided leaflets detailing the date of implementation of MUP along with a list of anticipated new prices [R 10].

Respondents also discussed their difficulty in understanding the policy once they were aware of it. This reflects the confusion some felt over MUP, in terms of understanding how a unit related to volume of liquid, alcoholic strength and price. So even for those who were aware of MUP, understanding of what this meant for their personal budget was mixed;

"And they've worked it out as in per unit. It was a wee bit complicated for me! I don't bother with units, I'm just bothered about the volume." [R 14]

Provision of support services was viewed by many as key to preparing and supporting people in treatment to adapt to post-MUP changes. Respondents expressed concern about existing levels of service provision, particularly for in-patient detoxification treatment, and had reservations about how any increased demand on treatment services would be met;

"It's sad that it takes weeks, even months, to actually get seen when you're crying out for help, and then they're so swamped or understaffed ..., you get that 7 day assessment, and then you wait for 2 months for anything else to happen." [R 8]

Overall, respondents identified treatment support as crucial in both their own recovery and also to support the effectiveness of wider policies such as MUP.

#### Discussion

This study investigated how people presenting to specialist alcohol services in Scotland anticipated responding to MUP. Those consuming cheap alcohol anticipated continuing their previous methods for managing alcohol affordability, which included borrowing money, drawing on savings and redirecting household spending. This aligns with two previous studies in Scotland that examined alcohol affordability in heavy drinkers and cider drinking populations finding similarly that respondents predicted that in most cases they would continue previous consumption patterns, at least in the short term. [23, 24]. Our findings reflected a broader perspective on affordability that often involves greater financial hardship than is implied by usual understandings of the term, as also seen in prior research [20-26]. Participants also anticipated reducing alcohol consumption at times, although this was typically only foreseen if other responses were unavailable. Although some respondents, including those in treatment and no longer drinking, suggested that MUP would not have caused them to reduce their consumption, it was commonly predicted that MUP might reduce the development of alcohol dependence for others in the future. However, respondents were also concerned that those with more severe alcohol dependence, low incomes and, possibly, those with family responsibilities, may experience some negative consequence from the policy. In contrast, only a small number of respondents discussed use of illicit or non-beverage alcohol, increased criminality or illicit drug use. Finally, respondents also expressed concerns around the lack of awareness-raising prior to implementing MUP and that funding and access constraints mean alcohol treatment services would lack capacity to meet potential additional support needs arising immediately after implementation.

#### Strengths and limitations

There is little evidence to date regarding the effect of population-level pricing policies, such as MUP, on people with alcohol dependence. Our study is thus able to offer new insights into how this group may be affected and how they might respond. The research was carried out between one and six months prior to the implementation of MUP in Scotland, therefore at a timely point to capture levels of knowledge and preparedness for the policy. The qualitative semi-structured interviews enabled an open dialogue between the interviewee and interviewer, with whom they had established a relationship during the previous structured interview.

Our findings should be interpreted cautiously however, as participants' anticipated responses to MUP may not match their actual behaviour. Nonetheless, their responses provide insight into the potential problems that may need addressing prior to introducing policies such as MUP and the possible mechanisms that should be explored when understanding the policies effects. Other key

limitations include people accessing treatment in relation to their alcohol use potentially having a different perspective on MUP to the larger group of those who are alcohol dependent but not accessing treatment. In 2012, it was estimated that only 25% of Scottish adults with possible alcohol dependence had ever accessed treatment services [34]. People with particularly complex vulnerabilities, such as the homeless and other marginalized groups may also have different experiences and perspectives it would be important to understand, although previous studies, including within the MUP evaluation programme, have specifically targeted these populations [20-28, 35].

# Implications for policy and practice

Overall, those presenting to specialist alcohol services viewed MUP as a potentially effective policy to reduce alcohol consumption and related harm. However, they also expressed a number of concerns that policy makers and practitioners internationally should attend to.

Respondents regard services as lacking additional capacity to respond to any increase in support needs arising from the policy. Treatment services in many countries operate under significant financial constraints that may constrain their ability to respond to any new or increased needs following the introduction of major interventions affecting people with alcohol dependence [37-41]. For example, direct funding to Scottish Alcohol and Drug Partnerships, set up to provide strategic direction to reduce the level of drug and alcohol problems, was cut by 22% in 2016/7 [36]. Similarly, a recent analysis of the impact of disinvestment on alcohol and drug addiction services in England [37] concluded that local authority spending cuts to alcohol and drug treatment services in England were associated with fewer people accessing and successfully completing alcohol and drug treatment. Our finding suggests that such pressures may significantly hinder attempts to mitigate any negative consequences of policies such as MUP.

Furthermore, in both our interviews in Scotland and also in research interviews pre-MUP implementation in Wales, participants noted they lacked necessary information to prepare for MUP, including when the policy would be introduced and what it would mean for them [27,28]. Greater awareness of the policy impact may give people with alcohol dependence a chance to prepare and avoid unplanned problematic responses to maintain affordability or respond to failures to do so. In Scotland, this was difficult because of the political imperative to introduce the policy quickly after a six-year legal challenge [42]. However, policy makers in other jurisdictions should be able to support preparation and planning for policy change more comprehensively. This might include a communication campaign targeting higher risk drinkers and tailored information and support around the financial impact of price changes, particularly for those on low incomes. Other support measures identified as important are outreach by specialist treatment services and, of particular value to our participants, awareness-raising via staff of local retailers and other similar local stakeholders with whom target populations have contact.

# Future research

More research is needed to investigate whether these findings apply to the wider population of people with dependence not presenting to treatment services. This is necessary to understand the longer-term consequences of the policy for different groups. Research into this population group is part of a larger project, of which these results are part, and that study has also examined actual responses to MUP post-implementation in groups such as homeless and street drinkers [18,35]. More research should be considered for the people with dependence who may be at the highest risk of negative outcomes, such as homeless drinkers, people with substance dependence and acute

financial problems. Future research may also be beneficial in terms of comparing impacts between other socio-demographic groups in terms of categories such as gender, age and rural-urban context. It is also important to consider whether the findings can be applied in other geographical areas where MUP has been introduced or is being considered.

#### Conclusion

People presenting to alcohol services in Scotland in the months prior to implementation of MUP identified short-term limitations to the policy and often did not believe it would affect their own behaviour. This was due to a range of factors such as physical dependence on alcohol, already paying more than fifty pence per unit or being able to absorb the increase in price. Many, however anticipated long-term benefits to future generations at risk of harmful drinking. Their views were particularly shaped by experiences of taking significant steps to maintain the affordability of alcohol, with few referring to negative responses such as criminality or substitution for illicit drugs.

#### References

- [1.] World Health Organization. (2018). Global strategy to reduce the harmful use of alcohol. In WorldHealthOrganization Global status report on alcohol and health 2018 (who.int)
- [2]. Scottish Government. Scottish Health Survey; 2017 Scottish Health Survey 2017: Volume 1: Main Report . Available at: <a href="https://www.gov.scot/publications/scottish-health-survey-2017-volume-1-main-report/">https://www.gov.scot/publications/scottish-health-survey-2017-volume-1-main-report/</a>
- [3]. Scottish Government. Changing Scotland's Relationship with Alcohol: A Framework for Action. Edinburgh: Scottish Government; 2009. Available at: http://www.gov.scot/Resource/Doc/262905/0078610.pdf.
- [4]. World Health Organization. (2014). Global status report on alcohol and health (2014). World Health Organization. <a href="https://apps.who.int/iris/handle/10665/112736">https://apps.who.int/iris/handle/10665/112736</a>
- [5]. Wagenaar AC, Tobler AL, Komro KA. Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. Am J Public Health. 2010 Nov;100 (11):2270-8. doi: 10.2105/AJPH.2009.186007. Epub 2010 Sep 23. PMID: 20864710; PMCID: PMC2951962.
- [6]. Holmes J., Meng Y., Meier P. S., Brennan A., Angus C., Campbell-Burton C. A. et al. Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. Lancet 2014; 383: 1655–64.
- [7]. Brennan, A., Meng, Y., Holmes, J., Hill-McManus, D., & Meier, P. S. (2014). Potential benefits of minimum unit pricing for alcohol versus a ban on below cost selling in England 2014: Modelling study. BMJ (Online). https://doi.org/10.1136/bmj.g5452
- [8]. Sharma, A., Sinha, K., & Vandenberg, B. (2017). Pricing as a means of controlling alcohol consumption. British Medical Bulletin, Vol. 123, pp. 149–158. <a href="https://doi.org/10.1093/bmb/ldx020">https://doi.org/10.1093/bmb/ldx020</a>
- [9]. Coomber K, Miller P, Taylor N, Livingston M, Smith J, Buykx P, Clifford R, Scott D, Clifford S, Chikritzhs T, Nambiar D, Moayeri F (2020) Investigating the introduction of the alcohol minimum unit price in the Northern Territory. Final Report (February 2020).
- [10] Meier PS, Holmes J, Angus C, Ally AK, Meng Y and Brennan A. (2016). Estimated Effects of Different Alcohol Taxation and Price Policies on Health Inequalities: A Mathematical Modelling Study. PLoS Medicine.
- [11]. Stockwell T., Zhao J., Martin G., Macdonald S., Vallance K., Treno A. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: estimated impacts on alcohol-attributable hospital admissions. American Journal of Public Health.
- [12]. Zhao, J., Stockwell, T., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki W,R., Tu, A., Buxton, J. (2013). The relationship between minimum alcohol prices, outlet densities and alcoholattributable deaths in British Columbia, 2002-09. Addiction, 108(6), 1059–1069. https://doi.org/10.1111/add.12139
- [13]. Secombe P, Campbell L, Brown A, Bailey M, Pilcher D. (2021). Hazardous and harmful alcohol use in the Northern Territory, Australia: the impact of alcohol policy on critical care admissions using an extended sampling period. Addiction. 2021 Apr 23. doi: 10.1111/add.15432. Epub ahead of print. PMID: 33891373.

[14]. Taylor N, Miller P, Coomber, Livingston M, Scott D, Buykx, P, Chikritzhs T. (2021) The impact of a minimum unit price on wholesale alcohol supply trends in the Northern Territory, Australia. Australian and New Zealand Journal of Public Health.

https://onlinelibrary.wiley.com/doi/full/10.1111/1753-6405.13055

- [15]. Anderson P, O'Donnell A, Kaner E, Jane-Llopis E, Manthey J, Rehm J. Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses. The Lancet Public Health. (6:8: Aug 2021; pp5570565). https://doi.org/10.1016/S2468-2667(21)00052-9
- [16]. Robinson, M, Mackay D, Giles L, Lewsey J, Richardson E, and Beeston C. (2021) Evaluating the impact of minimum unit pricing (MUP) on off-trade alcohol sales in Scotland: a controlled interrupted time series study. Addiction, (doi: 10.1111/add.15478) (PMID:33723866) (Early Online Publication)
- [17]. O'Donnell A, Anderson P, Jané-Llopis E, Manthey J, Kaner E, Rehm J. (2021) Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-18 BMJ 2019; 366 doi: https://doi.org/10.1136/bmj.l5274 (Published 25 September 2019): BMJ 2019;366:l5274
- [18]. Holmes J, Buykx P, Perkins A, Hughes J, Livingston W, Boyd J, Johnston A, McCarthy T, McClean A, Wright A, Little S, Brennan A, Gardiner K, Peddie L, Yannoulis Y, Stevely A, Mackay D, Hernández Alava M, Meier P, Sasso A, Angus C (2022) <u>Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels, Sheffield: University of Sheffield.</u>
- [19]. Department of Health (2010); National archives; <a href="https://webarchive.nationalarchives.gov.uk/20120503093413/http://www.dh.gov.uk/en/MediaCent">https://webarchive.nationalarchives.gov.uk/20120503093413/http://www.dh.gov.uk/en/MediaCent re/Statements/DH\_116534</a>
- [20]. Erickson, R. A., Stockwell, T., Pauly, B. B., Chow, C., Roemer, A., Zhao, J., Wettlaufer, A. (2018). How do people with homelessness and alcohol dependence cope when alcohol is unaffordable? A comparison of residents of Canadian managed alcohol programs and locally recruited controls. Drug Alcohol Rev, 37 Suppl 1, S174-s183. doi:10.1111/dar.12649
- [21] Falkner, C., Christie, G., & Zhou, L. (2016). The effect of alcohol price on dependent drinkers' alcohol consumption. New Zealand Medical Journal (Vol. 128).
- [22] Black, H., Gill, J., & Chick, J. (2011). The price of a drink: Levels of consumption and price paid per unit of alcohol by Edinburgh's ill drinkers with a comparison to wider alcohol sales in Scotland. Addiction, 106(4), 729–736. https://doi.org/10.1111/j.1360-0443.2010.03225.x
- [23] Black, H., Michalova, L., Gill, J., Rees, C., Chick, J., O'May, F., McPake, B. (2014). White cider consumption and heavy drinkers: A low-cost option but an unknown price. Alcohol and Alcoholism, 49(6), 675–680. https://doi.org/10.1093/alcalc/agu068
- [24]. O'May, F., Gill, J., Black, H., Rees, C., Chick, J., & McPake, B. (2016). Heavy Drinkers' Perspectives on Minimum Unit Pricing for Alcohol in Scotland: A Qualitative Interview Study. SAGE Open, 6(3). https://doi.org/10.1177/2158244016657141
- [25]. O'May, F., Whittaker, A., Black, H., & Gill, J. (2017). The families and friends of heavy drinkers: Caught in the cross-fire of policy change? Drug and Alcohol Review. https://doi.org/10.1111/dar.12403

- [26]]. Stockwell, T., Williams, N., & Pauly, B. (2012). Working and waiting: Homeless drinkers responses to less affordable alcohol. Drug and Alcohol Review. <a href="https://doi.org/10.1111/j.1465-3362.2012.00422.x">https://doi.org/10.1111/j.1465-3362.2012.00422.x</a>
- [27] Holloway, K.; May, T.; Buhociu, M.; Livingston, W.; Perkins, A. and Madoc-Jones. I. (2019) Research into the potential for substance switching following the introduction of minimum pricing for alcohol in Wales: Final Report Cardiff: Welsh Government GSR report number 48. /2019. <a href="https://gov.wales/sites/default/files/statistics-and-research/2019-10/research-potential-substance-switching-introduction-minimum-pricing-alcohol.pdf">https://gov.wales/sites/default/files/statistics-and-research/2019-10/research-potential-substance-switching-introduction-minimum-pricing-alcohol.pdf</a>
- [28] Livingston, W.; Holloway, K., May, T., Buhociu, M., Madoc-Jones, I and Perkins, A. (2021) Adapting existing behaviour: perceptions of substance switching and implementation of minimum pricing for alcohol in Wales. Nordic Studies on Alcohol and Drugs. 38(1):22-34
- [29]. Gibbs, G. (2002) Qualitative data analysis: explorations with NVivo, Buckingham, Open University.
- [30]. Bingham, A.J., & Witkowsky, P. (2022). Deductive and inductive approaches to qualitative data analysis. In C. Vanover, P. Mihas, & J. Saldaña (Eds.), *Analyzing and interpreting qualitative data: After the interview* (pp. 133-146). SAGE Publications.
- [31]. Berends, L., & Johnston, J. (2005). Using multiple coders to enhance qualitative analysis: The case of interviews with consumers of drug treatment. Addiction Research and Theory. https://doi.org/10.1080/16066350500102237
- [32]. Silverman, D. (2013). Doing Qualitative Research: A Practical Handbook. Fourth ed. In Sage, Thousand Oaks, CA. https://doi.org/10.1017/CBO9781107415324.004
- [33] Dickie E, Mellor R, Beeston C. Minimum unit price for alcohol evaluation research protocol: Compliance (licensing) study. Edinburgh: NHS Health Scotland; 2019. Minimum Unit Pricing Evaluation Compliance study Publications Public Health Scotland
- [34]. Beeston C, Geddes R, Craig N, Gordon R, Graham L, McAuley A, McCartney G, Reid G, Robinson M, Van Heelsum A (on behalf of the MESAS project team). Monitoring and Evaluating Scotland's Alcohol Strategy. Fourth Annual Report. Edinburgh: NHS Health Scotland; 2014
- [35] Dimova ED, Strachan H, Johnsen S, Emslie C, Whiteford M, Rush R, et al. Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences. DrugAlcohol Rev. 2022.https://doi.org/10.1111/dar.13548MUP AND PEOPLE EXPERIENCING HOMELESSNESS13
- [36]. Audit Scotland (2016), NHS in Scotland 2016, Audit Scotland. [P11] <a href="https://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr">https://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr</a> 161027 nhs overview.pdf
- [37]. Roscoe S, Pryce R, Buykx P, Gavens L, Meier P. Is disinvestment from alcohol and drug treatment services associated with treatment access, completions and related harm? An analysis of English expenditure and outcomes data (2021). Drug and Alcohol Review: <a href="https://onlinelibrary.wiley.com/doi/full/10.1111/dar.13307">https://onlinelibrary.wiley.com/doi/full/10.1111/dar.13307</a>
- [38]. Drummond C. (2017).The BMJ Opinion. Cuts to addiction services are a false economy. https://blogs.bmj.com/bmj/2017/05/25/colin-drummond-cuts-to-addiction-services-in-england-are-a-false-economy

- [39]. Buck, D (2017). Local public health budgets: a time for turning. Kings Fund Blog; https://www.kingsfund.org.uk/blog/2016/08/local-government-public-health-budgets
- [40]. Alcohol Change UK (2020). Local alcohol treatment and recovery service commissioning practices and their perceived outcomes for service provision: an in-depth exploration. Buykx P.,Irving A., Gavens L. (2020). Accessed at; <a href="https://alcoholchange.org.uk/publication/local-alcohol-treatment-and-recovery-service-commissioning-practices-and-their-perceived-outcomes-for-service-provision-an-in-depth-exploration">https://alcoholchange.org.uk/publication/local-alcohol-treatment-and-recovery-service-commissioning-practices-and-their-perceived-outcomes-for-service-provision-an-in-depth-exploration</a>
- [41]. The Hardest Hit. Addressing the crisis in Alcohol treatment. Alcohol Change UK (2018) <a href="https://s3.eu-west-2.amazonaws.com/files.alcoholchange.org.uk/documents/The-hardest-hit.pdf?mtime=20181116174247&focal=none">https://s3.eu-west-2.amazonaws.com/files.alcoholchange.org.uk/documents/The-hardest-hit.pdf?mtime=20181116174247&focal=none</a> [accessed 14.09.2020]
- [42]. House of Commons Library. Minimum Unit Pricing BRIEFING PAPER. J Woodhouse. Number 5021, 11 March 2020. https://commonslibrary.parliament.uk/research-briefings/sn05021/