Expected and actual responses to minimum unit pricing (MUP) for alcohol of people drinking at harmful levels in Scotland

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Abstract

Background

This paper considers the extent to which people drinking at harmful levels responded to minimum unit pricing (MUP) in Scotland in the way they, family members and those providing services anticipated they would. It examines data taken from a larger evaluation of the impact of MUP on people who are drinking at harmful levels.

Methods

Qualitative interview data, (utilising interviews and focus groups, with individuals, treatment services and family members) was generated prior to the implementation of MUP in Scotland to provide insights into anticipated responses and comparable data generated across an extended 19 month period post-implementation provided insights into actual responses.

Results

Overall, the data showed consistency between anticipated and actual responses, with fewer differences observed. In line with anticipated responses, many drinkers switched from cheap, strong ciders to other alcohol products, notably vodka. They consistently responded to the decrease in alcohol affordability by utilising existing behaviour such as managing finances and prioritising spend on alcohol, including borrowing money, foregoing essentials and using savings. There was less evidence of anticipated harmful consequences of MUP occurring, such as increased crime, switching to other drugs or examples of acute withdrawal.

Conclusions

Drinkers and those living and working with them, have a good command of how alcohol affordability is maintained or impacts on expenditure and other choices, and how they respond to any decrease in affordability including introduction of minimum price policies.

Introduction

Increasing the price of alcohol is among the most effective and cost-effective ways to reduce alcohol consumption and the harm it causes to people's health and well-being (Babor et al, 2022; Burton et al, 2017; World Health Organisation, 2022). Increasing alcohol prices can occur through a number of mechanisms; e.g. taxation, minimum price of sale or prohibition of below cost selling. Minimum pricing has been introduced for certain alcohol products in countries such as Belarus, Moldova and Ukraine, while minimum prices based on alcohol volumes have been introduced in an Australian territory and Canadian provinces (World Health Organisation, 2022). However, only Scotland, Wales and the Republic of Ireland have introduced minimum unit pricing across their whole alcohol market (Holmes et al, 2022; Livingston et al 2021). The Scottish Government was the first to do so, introducing a minimum price of £0.50 for a unit of alcohol (1 UK unit = 10ml or 8g of pure ethanol) on 1st May 2018. This meant retailers could not sell a unit of alcohol to consumers for less than £0.50. MUP led to a marked increase in the prices paid for certain products that were regularly purchased by people drinking at harmful levels including dependency (Holmes et al, 2022). For example, the average price paid per unit in supermarkets in Scotland increased in the year MUP was introduced by 26% for cider, 13% for beer, and 7% for spirits (Ferguson et al, 2022).

The evaluation of MUP in Scotland found the introduction of the policy was associated with a reduction in pure alcohol sales of approximately 3% and a reduction in deaths wholly-attributable to alcohol of 13.4% that was concentrated in those living in more deprived areas

(Wyper et al, 2023). It also found reductions in alcohol purchasing and consumption among those consuming above low risk levels, with some studies also finding reductions among high risk drinkers, although studies of secondary outcomes including crime, drink-drinking and emergency department attendance found no significant changes (Public Health Scotland, 2023). These findings broadly align with influential modelling conducted prior to implementation and evidence from other jurisdictions with similar policies, including Wales and Australia's Northern Territory (Angus et al, 2017:; Livingston et al, 2023: Stockwell et al, 2014; Taylor, 2023; Zhao et al, 2013). A key mechanism explaining the impact of MUP is that it targets price increases on the cheaper and higher-strength products that are disproportionately purchased by those at greatest risk from their alcohol consumption, namely those of lower socioeconomic status who drink at harmful levels. (Angus et al, 2017: Black et al, 2014;; Ludbrook et al, 2012; Zhao and Stockwell, 2017).

People who drink at harmful levels are diverse and often encounter multiple interacting health and social problems, and consequently are unlikely to respond to MUP in a universal or simple way. Previous studies exploring how this population manages when alcohol becomes unaffordable suggest both positive strategies (e.g. reducing drinking, seeking treatment) and problematic ones (e.g. spending less on essentials, using illicit drugs) are commonplace (Erickson et al, 2018; Falkner et al, 2015). These responses typically reflect individuals adapting their established behavioural patterns rather than suddenly shifting to new activities (e.g. using illicit drugs for the first time) (Livingston et al, 2021). The implied suggestions from researchers and practitioners is that, while MUP policies may lead to reductions in alcohol consumption for some people, they may also lead to a range of detrimental health and social impacts (Gill et al, 2017; Livingston et al, 2021; O'May et al, 2017). The Theory of Change for MUP adopted by Public Health Scotland for its overall policy evaluation programme

identified displacement of spending, switching to different forms of alcohol or other drugs and a potential impact on demand for services as key considerations (Beeston et al, 2019).

In response to these concerns the Scottish Government committed to specific evaluations of the impact of MUP on those drinking at harmful levels including those with dependence (Holmes, 2023: Holmes et al, 2022). This paper presents evidence from the Scottish evaluation and focuses on how individuals, those providing treatment services and family members expected drinkers to respond to the policy, and contrasts these expectations with actual accounts of changes made.

Methods

This paper presents qualitative findings from two work packages (WP) within a wider study; *Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels*, commissioned by NHS Health Scotland (now part of Public Health Scotland) (Holmes et al, 2022). The wider study involved three WP with a mixture of quantitative and qualitative elements using a cross-sectional design (repeat use of same data collection method, but with different cohorts) to illicit changes over time (pre and post implementation) (Holmes et al, 2022). This paper draws upon qualitative interviews and group conversations with people drinking at harmful levels, their family members and those providing services to this group that were conducted within two of the WP. The first (WP1) was a sequence of treatment service-based interviews, across six Scottish NHS Boards and the second (WP2) a series of individual and group interviews via recovery communities. We provide a brief summary of the methods below

WP1 treatment service based interviews

WP1 recruited people within alcohol treatment services to undertake a structured quantitative interview. Respondents were asked by the interviewer if they would be willing to participate

in a follow-up qualitative interview and some of those who agreed were subsequently purposively invited to return to an interview, usually with the same researcher who had undertaken the original interview. Interviews were conducted in three waves, with different cohorts of drinkers. The first was prior to implementation of MUP (November 2017- April 2018; n=21) and the remainder were during two windows at 3-9 months (August 2018-February 2019; n=17) and 18-22[1] months (November 2019 – March 2020; n=11) post implementation. This provided a total of 49 interviews.

The inclusion criteria for those in WP1 was being aged at least 18 years old and scoring 16 or more on the Alcohol Use Disorders Identification Test (AUDIT) (Reinert and Allen, 2007). An AUDIT score of 16 to 19 out of a possible 40 is considered indicative of 'harmful drinking and/or mild dependence' and a score more than 20 is considered indicative of 'probable dependence'. The respondents included those drawn from five target populations of those drinking cheap alcohol, using illicit substances, in poor health, who were economically vulnerable or who had dependent children. The interviews explored topics including respondents' understanding of the potential or actual price changes caused by MUP, their alcohol purchasing and consumption patterns, experiences of alcohol-related harm and the associated impact on themselves, their families and others around them.

In each wave of WP1, staff providing services at our recruited sites (i.e. clinicians, counsellors, other hospital or treatment centre staff), were also interviewed. We undertook a total of 35 staff interviews (individual or group); 12 (pre-implementation), 15 (wave 2) and 8 (wave 3) – see table 1below for summary of all qualitative data. As we used the same recruitment sites at each wave, a snumber of staff were interviewed across two or three waves, others just once. The staff interviews explored the level and nature of demand for treatment services before and after

[1] Data collection ceased earlier than the planned 24 months due to COVID-19 restrictions.

the introduction of MUP, how service providers and the wider sector sought to assist clients in preparing for and adjusting to MUP, and interviewees' perspectives on how their clients responded to the effects of MUP.

WP2 recovery community-based interviews

The second dataset (WP2), was centred around those people drinking at harmful levels and their family members or carers, in remote, rural and urban areas of Scotland. The initial design of WP2 anticipated using the same three wave structure as WP1, although collecting data from individuals repeatedly across the study to record the impact over time. It additionally involved peer interviewing by using Privileged Access Interviewers (PAIs). These were individuals with lived experience of alcohol and drug use and strong active network connections with the drinking community (Livingston & Perkins, 2018).

However, the methods for WP2 changed substantially across the course of the study due to a range of contextual challenges, for example difficulties in recruitment within the rural context and retention of active dependent drinkers. The final methods became a collection of two waves of data in a before-and-after implementation design that compared the months leading up to the introduction of MUP (broadly aligned with Wave 1 in WP1) to an extended period after the introduction of the policy (broadly aligned with Wave 2 in WP1 but extending beyond this). In the end data was mainly cross-sectional, with only some individuals participating in the study at both waves. It did involve interviews by PAIs, which was supplemented by researcher team interviewing. Data collection occurred across seven different communities both urban and rural.

The final WP2 dataset comprised of 14 individual and 7 group interviews. This involved 26 individuals identifying as drinkers, 6 as family members, and 3 as both drinkers and family members. 15 individual and 2 group interviews were facilitated PAIs. (see table 1). Drinkers

were identified by their peers, rather than through treatment providers and the use of any clinical assessment tool such as audit. Interviews explored recent and past alcohol and other drug use, changes in the price, type and location of alcohol purchases, the availability of alcohol products, changes in drinking patterns, wider impacts of MUP, minimising harm from MUP, and other related topics the interviewees wanted to address.

Both WPs covered a huge area of Scotland including the major urban arears, those areas bordering on England and northern and western highland communities. The drinkers in both WPs were in an approx. ratio of 2:1 male to female and across all ages over 18, but with a heavier preponderance of those aged 40-60. The family members in WP were more often female than male.

In total, the dataset comprised 105 transcripts from 119 individuals.

[Insert table 1]

Analysis

We adopted a thematic analysis approach in our enquiries of the data (Braun and Clarke, 2006; Bryman 2018). For WP1, interviews at each wave were blind coded by 2-4 team members who then met and explored consistencies and anomalies in initial coding, before one member then led in coding the remainder of any given element. This multiple coding, team-based approach identified the key themes in the data. Each wave formed the core propositional coding framework for the subsequent one, to which emergent codes/themes were added. Thus we compared findings across each wave of data to enable a consideration of pre implementation behaviour and expectations and then how these materialised or not over the post implementation period. Researchers utilised NVivo 12 software to support the data analysis process.. WP2 data followed a broadly similar approach. Early interviews were coded

separately by two team members and then comparative analysis led to a core coding/thematic framework of analysis.

Additional methodological information

Ethical approval for WP1 was received from the NHS Scotland West of Scotland Research Ethics Committee 3 (01/09/2017) and the University of Sheffield Ethics committee (151527), with additional local approval received from the NHS Board for each of the regions in which recruitment occurred. For WP2 ethical approval was provided by Glyndŵr University (08/01/2017).

The quotes provided in the findings below are attributed to one of four groups within the data set as follows WP1-D (Drinker), WP1-SP (Service Provider), WP2-D (Drinker) and WP2-FM (Family member).

Findings

The analysis identified four core messages regarding the *anticipated* impacts of MUP. Firstly, the sense that for many drinkers their dependency was sufficiently severe that they would prioritise alcohol over other expenditure, including essential expenditure such as food, reht and other household bills. As a consequence the price increases caused by MUP would not make any difference to their drinking. Secondly, that behavioural change caused by MUP would mostly involve changing drink types rather than levels of drinking. Thirdly, that maintaining affordability was most likely to occur through a range of responses, which were often framed as an adaption to existing coping strategies (i.e. less spending on food, heating, rent or borrowing), but with some regard for potential increase in negative responses like shoplifting. Finally, that some of these impacts were expected to fall on particular groups of drinkers, e.g. those who drank cheap cider.

The extent to which these expected impacts were *actually* realised varied. In essence, the core outcomes were as anticipated. Many drinkers, staff and family members saw few changes in drinking behaviours, with the exception of a reduced consumption of strong ciders and an increase in consumption of vodka. There was also a definite sense of increased financial pressures for many as a consequence of the reduction in alcohol affordability. However, within this picture was some nuance and variation, with some suggestions of greater reductions in consumption than was anticipated and less evidence than anticipated of negative responses to MUP, including increased criminality, switching to illicit drugs, or experiencing acute withdrawal.

1. Anticipated responses

Drinking behaviour

Before the introduction of MUP, there was an overall sense that most interviewees did not expect MUP to lead to a significant change in overall levels of drinking, and that people would extend the existing strategies they used to make drinking affordable, and that these strategies would result in increased financial pressures for many. Typically, manyinterviewees suggested that those drinking at very high levels were already adept at finding ways to make alcohol affordable, and would continue to do so. They viewed other strategies, notably changing purchasing or consumption behaviour or illicit activity, as only likely to be adopted once alcohol became acutely unaffordable.

The dominant sense that most people with probable dependence would drink the same as before was frequently accompanied by an understanding that many experienced an overwhelming compulsion or need to drink (i.e. a belief in addiction and prioritising of consumption):

'As I said before, I don't think price makes any difference…..an addiction they'll find any way to get it…I don't think it will affect anyone's drinking, I think they'll just switch alcohol.' (WP1-D)

Although awareness and understanding of the policy prior to implementation was mixed (Hughes et al 2023, Livingston et al, 2021), a good number of drinkers were clear that the higher price of their product of choice would remain unaffected at 50ppu or their income was sufficient to mean their drinking would remain affordable.

I normally drink a small Glen's [Vodka]and the price is not changing…that much…. 'I don't think it is really going to affect me, I don't drink cider, mostly beers and [good] whiskey [Bourbon].' (WP1-D)

Where changes in drinking were anticipated, many interviewees believed these would involve switching the alcohol type purchased and consumed in order to maintain levels of drinking. This was often an acknowledgement that the attraction in some cheaper products was their price

"But I certainly wouldn't go from £3 for 3 litres [of cider] to £11, where you could probably go and buy vodka or something similar." [WP1-D]

The most common anticipated response amongst those drinking strong cider, was a change to drinking other products, notably spirits and in particular, vodka. The prominence prior to MUP implementation of high-strength ciders, vodka and other cheap alcohol products being drunk amongst those presenting for treatment was noted by service providers.

"We hear a lot about cheap cider, 9 litres of white cider, cheap vodka." (WP1-SP)

"They're much more likely to drink the strong ciders and the vodka." (WP1-SP)

There was also some limited expectation, of some individuals turning towards home brewing as a way of maintaining affordability.

> *'I'd just have to make my own…maybe it's the way forward….Probably make my own, I do not really want to drink less'. (WP2-D)*

Similarly there was also very little expectation of any switch towards non-beverage alcohol

> *'Honestly, I could not imagine anyone drinking mouthwash.' (WP2-D)*

A small number of interviewees expected that higher prices would lead to some enforced short-term reduction in consumption. This is reflected by this drinker;

> *"Well there was tap money, aye [yes]. There was always somebody. Don't get me wrong, there was times I couldn't get the money and then I just had to rough it out and didn't go out for a drink". [WP1-D)*

In addition, there was a sense from some that MUP might, while not stopping those with a need to drink, lead to a small reduction in overall volumes of alcohol consumption or a slight harm reduction effect

> '*Oh aye, I think it would, uh-huh. If they were really determined that they have to cut back and they want to stop, yeah, I could see it 'well I'm not paying that amount of money for that anymore'. I'm going to reduce it' [WP1-D]*

Coping Mechanisms

Increases in price, and corresponding decreases in affordability for some, were assumed to have the greatest impact on individuals' financial circumstances and their related behaviours, rather than on their alcohol use. For several interviewees, their anticipated responses to MUP included continuing to use up their savings or inheritance monies.

"I've not run out of money yet. But my savings have taken a heck of a hit." [WP1-D)

However, for many who did not have savings, MUP was expected to have the hardest financial impact on a specific set of drinkers who were usually described as a combination of those drinking the cheaper products, notably cider, and those who already had very low levels of income and were struggling financially, e.g. they were on benefits or homeless. It was expected that the need to maintain drinking levels would result in these groups spending less money on other things, particularly food, household bills and items such as clothing or toiletries. This was quite simply put by these three drinkers, including two who had dependent children;

"I would cut back on food to afford it." [WP1-D)

"So food would go out the window very easily for me." [WP1-D]

"I'd definitely stop buying food, because I don't eat when I'm drinking." (WP1-D)

In turn it was felt that this would also lead to an increase in the use of food banks, borrowing from families and increased familial strain.

There were also some specific expectations about potential changes in purchasing behaviour. Prior to implementation there remained a belief that it would still be possible to find bargains or cheap products.

'shop[ping] around for something cheaper…[or] chang[ing] to a lower price to try and get the same sort of strength at a lower price' [WP1-D].

In addition to this, where we interviewed in areas close to the Scotland-England border there was a strong expectation that individuals would switch their purchasing to England, i.e. Carlisle, Berwick or Newcastle.

'They'll go across the border, some of them. If you go to…it used to be on a Sunday in Scotland, the Scottish laws was that on a Sunday you could only get drink in hotels after a certain time…'[WP1-D]

There was also some expectation that of an increase in purchasing of illicit alcohol through 'under the counter' shop sales or from those already selling illegal tobacco.

A small number of interviewees, in particular those who already had prior experience of using other drugs (prescription and illegal), felt that an increase in the price of alcohol would lead to them increasing their other drug use.

Other considerations

There was some expectation that the lack of affordability might lead to criminal behaviour. It was felt that for some, that higher alcohol process would result in an increase in theft, and in particular shoplifting.

"Yes, I'd probably cut down, or if I couldn't afford it, I'd probably steal it." [WP1-D]

There was also some expectation that the introduction of MUP would contribute to increases in seeking help for alcohol problems or support to stop drinking, as well as increased presentations for acute withdrawal. The latter conversations also included speculation about a possible increase in the risk of death. There was an overall sense that MUP would lead to an increase in demand for alcohol treatment services, notably detoxification, .

"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." [WP1-D]

"Aye, it's…well for me personally, like for somebody who drinks heavily, it's bad to stop suddenly, and so people like me that are trying to slowly come off it, it's going to affect people like us." [WP1-D]

2. *Evidence supporting the realisation of anticipated effects*

Drinking Behaviour

The anticipated continued maintenance of pre-MUP drinking and likely dependence levels post-implementation was highlighted in the second and third waves of data collection by all groups of interviewees. This family member's view was typical:

'It's in the nature of addiction that you will get it one way or another, or if you can't get your chosen tipple or hit, or whatever you want to call it, you get the nearest equivalent. And certainly judging by the bottles and cans that I pick up on a daily basis, it's not made any difference.' (WP2-FM)

The sense of continuing to drink as before and for many was just heading straight for their preferred drink or brand, as noted by this drinker

'I never really noticed at all … not particularly. As long as my half bottle was on the shelf I wouldnae [would not] take notice.' (WP2-D)

For many service providers this was expressed as 'business as usual'.

"The short answer is no obvious changes, I don't think you would expect to see big changes in the numbers at the stage." (WP1-SP)

There was confirmation that for some drinkers the increase in price did not really impact on its affordability for them

I didn't really notice a massive difference in the price, because vodka was always…you know, say you could get it for what, £11 or £12, now it's gone up by, to me, £1 really, so it wasn't a big thing. [WP1-D]

A core response to MUP, and consistent with pre-implementation expectation was a move away from cheap ciders, and in particular, to vodka.

"I mean, as I said, you know, the alcohol of choice is seen as sort of vodka and the sort of unbranded sort of stuff, super lagers. The strong cider, I think, has sort of slipped down kind of with…I mean you just don't hear as much of the white sort of cider being sort of the drink of choice, as it was six months ago." (WP1-SP)

"The only real change I've seen is the strong cider, the three-litre bottles of cheap cider, has disappeared." (WP1-SP)

"The brands that I drink, there was literally no change, apart from the offers that you would get from supermarkets, that had all stopped, you know, because it was less than 50p a unit. But other than that, no, not at all*" [WP1-D]*

The switching to other alcohol away from previously cheap products, highlighted a sense of individuals trying to maintain a consistent level of alcohol intake on different products.

'[My friends] they drink all the time - they're always steaming, on the cheapest booze…Obviously the ones that drank cider and that, it's quite poor cider, it's never seen an apple in its life – they now buy Strongbow [a cheaper but standard-strength cider] and all sorts because it's only £5.50 a bottle [2 litres].' (WP1-D)

Or, for some, the affordability was maintained by embracing post implementation changes in product size or alcohol strength .

"It only costs me £9.38 to get a 50cl bottle, whereas if I wanted to get a 70cl bottle or a normal full bottle, that would cost me nearly £14." [WP1-D)

While vodka, and Glens Vodka in particular, dominated many narratives, other alternatives to cider were also noted:

Eldorado is another one that I wouldn't want to switch to. Eldorado is … the Scottish version of Buckfast [tonic wine]. A lot of them have been drinking that, Eldorado because it's a wee [little] bit cheaper.' (WP2-D and FM)

There is a subtlety in the above accounts, which while showing drinkers trying to maintain dependent drinking, also contains actual reductions in overall volumes or percentage proof of the different products. This slight reduction through change but without stopping was commonly evidenced post MUP.

"I think it's actually less. Some days I'll drink three bottles [of wine], some days I'll drink one bottle. But if I add up the units, or the percentage and stuff, it would be a lot more horrendous on the vodka [that I drank previously]." [WP1-D)

Thus, after the introduction of MUP, some interviewees reported that, while they had not stopped drinking, there was some sort of harm reduction impact with a reduction in overall volume of alcohol consumption or periods of consumption.

"It makes you buy less and drink less, which is what I started doing." [WP1-D]

This was explicitly commented on by a number of service providers and this was in line with the changes in products purchased described above.

"So they are still drinking the same they have always drunk, but they are drinking less of it …….There was a young guy drinking less because he said he couldn't afford it." (WP1-SP)

"One patient did say to me, they were drinking half bottles instead of whole bottles as they couldn't afford whole bottles." (WP1-SP)

Prior to implementation we heard only a few references to the potential of individuals taking up home-brewing as a means of maintaining affordability, and similar the post implementation accounting of such was there, but rarely

'I know two or three [name of profession] who have made their own brew. That's something that we didnae [did not] hear often, but we hear it more now, and a couple of the young yins [ones] are into it. One of the shops has got an actual home brew kit for sale…It's interesting as they didn't have them before." (WP2-D and FM)

We also only heard rarely (two instances) of non-beverage (hand sanitizer) alcohol use. This was amongst a single group of homeless/street drinkers in one large urban area, and one second hand account of consuming hand-sanitiser in a hospital. It was not clear the extent to which either was attributable to MUP.

Sadly, I was talking to someone recently and they were in hospital for alcohol issues and the nurses were not happy because they were drinking hand cleaner, so you're always going to find something.' (WP2-D)

<u>*Coping Mechanisms*</u>

The expected increases in financial pressures and associated responses, were readily evidenced in the post implementation interviews. For some, quite simply alcohol had become more expensive, and when assumed as a need, this translated into a financial pressure.

Well basically I was used to getting a bottle at £10, and now I'm having to actually find an extra £5, and that caused massive problems because…if you say you're sitting

[begging] *there from 8.30am and sometimes you're not finishing until 7pm, that's just to get £10 right? (WP1-D)*

The coping mechanisms adopted post implementation to these pressures were very much as anticipated in the pre MUP interviews, and were as such often an extension of interviewees' existing ways of maintaining affordability i.e. reduced spending on food and utility bills; increased borrowing from family, friends or pawnbrokers; running down savings or other capital; and using foodbanks or other forms of charity.

"The price is the biggest deal because it's really expensive. If I don't buy everything I need…because I've done it before, if I get drunk before I start buying everything in my house, I can go two weeks, and I'm back and forward to the foodbank more than I should. I'm causing that myself with my drinking." [WP1-D]

'I cannae [cannot]afford the drink so I do not pay the bills.' (WP2-D)

'I'll go and get a half bottle instead of getting something to eat.' (WP2-D)

"I've got myself in debt over gas and electric and everything, and rent. Yeah". (WP1-D)

There was also some evidence of an intensification of the way in which groups of drinkers would club together, taking it in turns to have income and buy the booze.

'They always seem to borrow money from somebody, not necessarily a friend whose got money, but somewhere… their own kind. He's got his benefits two days before him, and he'll fork out £20 for him to get his drink, and that gets paid back and it's the other way round the next week. They've got a system that they're supporting each other. Again, food's the last thing they think of' (WP2-D)

The extent of financial distress was also reported by service providers

"Historically what it was, and what we've always seen is people…they've always had the payday loans, they've always had the money lenders, they've always gone without certain other things, yeah they just cut their cloth accordingly". (WP1-SP)

"It's very hand-to-mouth. So, they'll come in, they'll get a food parcel, and then they'll go to the shop and buy their cans……They rely heavily on food parcels. (WP1-SP)

It is important to recognise that these responses were often an intensification of strategies drinkers had already used from previous periods when alcohol was unaffordable for them. This is reflected in many of the quotes above, which discuss general patterns of behaviour rather than specific impacts of MUP. It is also worth noting that while the introduction of the new Universal Credit, a social welfare benefit that merged several pre-existing benefits, was still being rolled out during the pre-implementation window for MUP, and was thus not a factor in the predicted responses, increasing numbers of our interviewees received it during the post implementation period. Universal Credit saw some reductions in payments and also a move from weekly or bi-weekly to monthly welfare payments, and was therefore also considered a factor by many in the overall increased financial difficulties they experienced post MUP.

"You can't just live with…you can't balance anything whatsoever, and I mean it like…for food-wise, for clothing-wise, and just everyday general living. It's ridiculous. When I was on ESA [Employment Support Allowance], right, when I was on ESA I was getting £236 per fortnight, right, do you know I now only get £206 per month, which is.. It's put me in rent arrears, debt. I've went days without any electricity". [WP1-D]

Despite high levels of retailer compliance with the minimum pricing policy overall (Dickie *et al* 2019), we did hear a small number of accounts that supported expectations that cheap alcohol, bargains or illicit purchasing would be available and utilised post MUP

'Price doesnae [does not]make a difference. There's always offers on in the [name of shop]. I paid £16 a bottle at the [name of shop].' (WP2-D)

'You can go really early [to the local shop], before 10:00…you can get cheap tobacco and things, and you can also get cheap alcohol.' (WP2-D)

The expectation that a limited number of drinkers with the opportunity and means would buy alcohol in England to maintain affordability was also borne out in the interviews. However, as anticipated, this was only evident in the two recruitment areas (Dumfries and Galloway, and Scottish Borders) close to the English Border.

'It was not too bad for me because I drunk beer, but for my wife it was mostly cider she drunk and that just shot up, you noticed the big increase, from £3 to £11, so eventually she encouraged us to do the shopping across in Berwick just over the border because it was cheaper in the long run for her to get drunk and I have heard others are making trips to Berwick to get cheaper alcohol.' (WP2-D)

In addition, one or two individuals from further into Scotland, who were making regular trips to England, also made use of this opportunity.

"Go down to England; you still get it. So…you just buy all the beer down there! Yeah I work a lot down in England." [WP1-D]

There was little evidence post-implementation of drinkers switching from alcohol to other drug use**.** Typical of the responses was this from a Community Consultant,

"I haven't heard of people drinking more or changing to anything else, I haven't heard of people particularly using more of another substance, maybe I am just not hearing it but from what I have heard [MUP] has [had] little chinks of positive impact." (WP1-SP)

However, a small number of drinkers and services providers reported a post implementation increase in the use of Valium or 'street benzo's' among those already using illicit drugs.

> *'The drugs on the streets are even more rife now, and it's the cheaper street Valium's and stuff that everybody's buying and people that were heavy drinkers are actually going on to buy a cheaper fix… I've seen a lot of friends… actually, sadly they're not here now… mixing and taking drugs. So, their drinking has went from drinking, to heavier drug use, or just from drinking to drug use…because it's cheaper.' (WP2- D and FM)*

> *"I think there is a bit of where you do hear people, more so now, going, 'I couldn't get a drink so I got cheap Vallies and'… Everything's interchangeable." (WP2-SP)*

Other considerations

While adapting existing mechanisms was the common coping strategy in response to MUP, we only heard a few examples of more limited accounts of use of crime such as shoplifting and stealing (Holmes et al 2022).

> *"They're borrowing or stealing or whatever, and then they would get it again, pay all that money back, and then it's obviously just like a credit card." (WP2-D)*

The post-implementation interviews did identify some evidence that MUP was making a limited contribution to decisions to stop drinking/seek treatment for a small number of drinkers. However, there was no strong sense of MUP being a primary trigger for such decisions, but rather another extra factor in an often reluctant decision to change drinking behaviour.

> *"Well I was needing help anyway, so I think it was just the final straw really." [WP1-D]*

> *"It was a factor that helped, yeah…much to my dismay." [WP1-D}*

"I'd say it's…it's been a good thing…in a way, but not so good in some ways, know what I mean, because in some ways for me, it's not been good for me financially! But I suppose it's a good thing to help me try and stop." [WP1-D]

In contrast, we heard no examples of the anticipated increase in sudden or unplanned alcohol withdrawals.

There was some limited evidence that supported the expectation that the switch from cider to spirits would lead to greater levels of intoxication

"Oh aye [yes]. It's had an impact, but it's changed the way I drink. Before [MUP], my 3-day bender wouldn't have been so severe. I'm buying stuff [now] that's making me black out, I never used to black out as much as that." [WP1-D)

They're all on the vodka and the gin now and you see them stoating [tottering] about and you and you never saw them stoating [tottering] as much as they are now.' (WP2-D)

Discussion

The findings above suggest that amongst those people drinking at harmful levels and those supporting them, the dominant expectation was that MUP would not change the overall perceived necessity to drink, the severity of dependence or levels of alcohol consumption, but it would lead to some changes in other aspects of drinking behaviour and the financial behaviours used to afford alcohol. Similar expectations were also noted pre-implementation of MUP in Wales (Livingston et al, 2021). These two changes were largely what most interviewees reported post-implementation, with some switching alcohol product type and a heightened sense of financial pressure that was mitigated by borrowing, running down savings and cutting back on essentials. The anticipated switching from strong cider, and in particular to spirits, is borne out of the first-year sales data to emerge from Scotland (Giles et al, 2019,

O'Donnell et al. 2019). There was less evidence post-implementation that some of the anticipated negative consequences such as increased crime, acute alcohol withdrawals, or a switch from alcohol to illicit drug use actually happened and this echoes findings from the wider MUP evaluation programme (Dimova, 2022; Stead et al, 2022). However, one study identified an increase in deaths and hospitalisations for acute alcohol-attributable conditions and hospitalisations for alcohol dependence syndrome underlying a much larger decrease in overall alcohol-attributable deaths and hospitalisations (Wyper et al, 2023). The lack of any mass switch from alcohol to other drug use is consistent with other evaluations of expected and post implementation behaviour (Holloway et al, 2022; Livingston et al, 2021). In line with expectations pre-implementation, many of the choices or responses reported by interviewees were adaptations of those behaviours [coping strategies] they had already developed and used previously to manage the affordability of alcohol.

Although anticipated and actual impact of MUP largely aligned, the instances where they did not often reflected the extent to which many interviewees discussed how unspecified 'others' would respond to the policy. While individuals often suggested they or the drinkers they knew would not necessarily change or stop drinking as a consequence of MUP, they were often keen to suggest that others might do so or would be more adversely affected. This was frequently a reference to another group of drinkers beyond themselves or their circle who were usually characterised as being cheap cider drinkers and/or street/homeless drinkers. In other words, most interviewees often drew on an archetypal, and somewhat stereotypical, problem drinker when assessing the likely impact of MUP rather than considering people like themselves (Rogers *et al*, 2019) . There was a palpable sense that, even among those drinking at dependent or harmful levels, many interviewees expected MUP to impact most on a distinct group fitting this archetype and their perspectives on the policy were often shaped by this expectation.

The evidence of increased financial strain arising from MUP suggests policy-makers and practitioners should give greater attention to supporting people with alcohol dependence when introducing interventions that substantially affect the affordability of alcohol. Although such strain may be a necessary impact of implementing price-based interventions that can reduce alcohol consumption and harm in the general population, there may be opportunities to mitigate any negative effects. This might include working with treatment providers, recovery groups and other key stakeholders to develop family-level and peer-based strategies to support management of finances by people with alcohol dependence. It may also involve recognising the important role played by foodbanks and similar services in support families of people with dependence around the implementation period. Effective sign-posting and support for these services may be appropriate.

Strengths, Limitations and implications

We have reported from data collected within the largest study to date exploring the perspectives of people with drinking at harmful levels on the impact of alcohol pricing policies (Holmes et al 2022). The study is the one of only two to directly evaluate the impact of MUP on this population using qualitative methods, with the other focusing on people experiencing homelessness, many of whom were also experiencing alcohol dependence (Dimova et al 2022). The findings above also capture perspectives from three distinct groups; drinkers, family members and service providers, all able to clearly comment in this specific context. The use of multiple sites, groups of individuals and waves of data collection increases the reliability of our findings by allowing comparative analyses of data from a range of interviewees exposed to the policy and also the Scottish population's emerging responses to the policy at different points in time.

The key limitations of this study are the use of a repeat cross-sectional design rather than a longitudinal panel design. As noted above, we did retain some service providers in WP1 across waves and two of the PAIs in WP2 were active in both waves, but data is mainly cross-sectional rather than longitudinal. The latter would have permitted more direct insights into how individuals responded to the policy over time but recruiting drinkers in treatment settings made longitudinal methods challenging as it is difficult to separate the effects of treatment from the effects of MUP.. More broadly, WP2 faced challenges in recruiting fully to the intended sample (see Holmes et al 2022 for details). Finally, as noted at times, some interviewees did not always focus on the time period of interest and mixed personal or direct experiences with second-hand experiences and speculation. This reflects the complex nature of both alcohol dependence and the system of interacting factors into which MUP is introduced for this population, and consequently made it difficult to always explicitly identify effects of MUP.

MUP is a whole population measure, however it is worth policy makers noting that it can impact on those drinking at harmful levels, including dependent drinkers The impacts as outlined above are not necessarily those of reduced consumption, but through desires to maintain affordability may have some harmful or unintended consequences. To better understand this longitudinal and longer-term studies across different price levels are needed. It might also important to understand whether the respondents' tendencies to focus on archetypal problem drinkers is typical when this population consider policy effects or whether its particular to MUP, given its impact on the lowest price alcohol.

Conclusions

For people drinking at harmful levels in Scotland it was anticipated MUP would have few impacts on drinking problems or levels of alcohol consumption, but may cause increased financial strain and lead to increased illicit drug use and criminality. Many of the actual

impacts of MUP largely aligned with the expectations, i.e. limited change in consumption, some switching from cider, increased financial pressures and use of existing behavioir, coping mechanisms or responses. For some of the anticipated impacts there was less evidence, i.e. negative consequences of crime and illegal drug use were confined to specific groups. The findings inevitably reflect that the sample of this study predominantly focused on archetypal problem drinkers rather than the more diverse wider population of people with drinking at harmful levels.

Disclosure

The research from which this article is drawn was commissioned and funded by NHS Health Scotland (now part of Public Health Scotland [PHS). A draft of this manuscript was shared with the PHS team for comment, the manuscript does not represent the views of PHS or the Scottish Government. None of the authors have received any funding from the alcoholic drinks industry, alcohol retailers, or affiliated bodies.

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Table 1 Summary of Interview Data

Work package	Timing	Participant type	Interview Type	Total number of transcripts
WP1	Wave 1 (Pre implementation)	21 drinkers 15 service providers[2]	Individual n= 30 Group* n=3	33
WP1	Wave 2 (3-9 months post implantation)	17 drinkers 19 service providers (6 new)	Individual n=29 Group n=3	32
WP1	Wave 3 (18-22 months post implementation)	11 drinkers 10 service providers (4 (new)	Individual n=14 Group n=2	19
WP2	Pre implementation	11 drinkers 1 family member	Individual n= 12	12
WP2	Post Implementation	15 drinkers 15 family members 3 family and drinker	Individual n=2 Group Interview n=7	9
Total		75 drinkers 25 service providers (some interviewed in multiple waves) 16 family member 3 family member and drinker Total =119		105
**Groups in WP! Are with service providers rather than drinkers*				

[2] 8 staff interviewed at more than one wave