Evaluation of the impact of minimum unit pricing in Scotland on those drinking at a harmful level: an analysis plan for work package one (WP1)

Aim of the evaluation

The aim of the evaluation is to investigate the impact of implementing minimum unit pricing (MUP) on people who are alcohol dependent, in terms of consumption, expenditure, treatment-seeking and unintended consequences.

Background

The analytical approach for the quantitative aspects of WP1 of this evaluation will be based on the MESAS theory of change (Figure 1). Analyses will be informed by economic and behavioural theory, based on a rational choice model, but will also draw on psychological and sociological perspectives.

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FIGURE 8
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Figure 1: Theory of Change for MUP (MESAS)
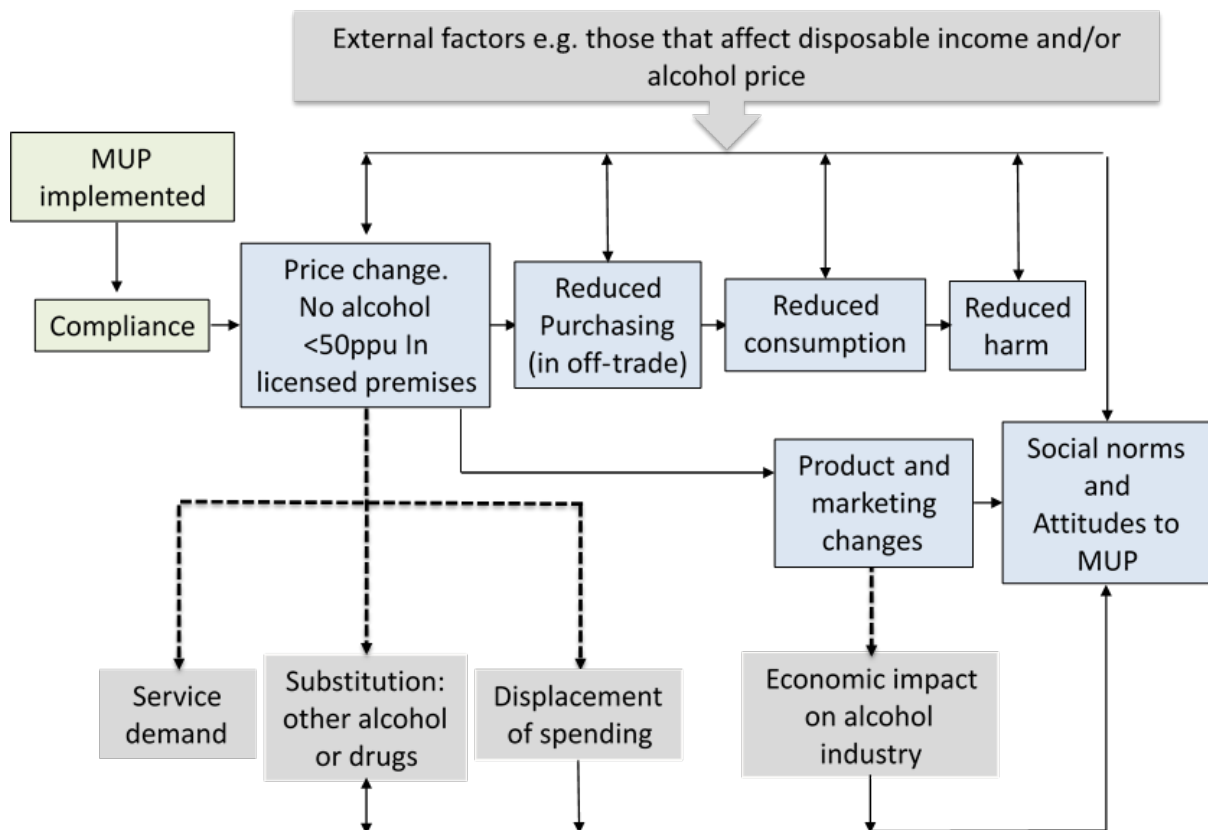
Evidence from a range of studies suggests that those dependent on alcohol or experiencing severe alcohol-related health problems often purchase large quantities of alcohol for less than the Scottish MUP threshold of £0.50 per unit (Sheron et al, 2014; Black et al, 2011, 2014.) As a result, we anticipate members of this group will, by necessity, enact significant behavioural changes in response to MUP. These may include a diverse range of strategies, which may be implemented in the short-term or long-term. Some of these strategies are likely to promote long-term health benefits, while others may entail short- or long-term risks of harm to the individual, those around them or wider society (SHAAP, 2018; O'May et al, 2016, Stockwell et al, 2012.)

We have outlined a theory of change for this evaluation (see Figure 2 below) which illustrates the range of potential outcomes for the dependent population. This draws on the literature and theoretical perspectives referenced above, baseline interview data from this study and our engagement in the wider MUP debate before and after implementation of the policy.

Figure 2: Theory of Change for this work stream

Analysis plan

We propose a three-part plan of analysis outlined below. This will draw on data collected from repeated cross-sectional samples of approximately 200 drinkers in Scotland and approximately 80 drinkers in Northern England presenting to specialist

alcohol treatment services or liver disease wards 0-3 months pre-intervention, 4-8 months post-implementation and 12-18 months post-implementation.

Part 1

We will use descriptive analyses to characterise levels and trends within the sample in the key indicators summarised in Table 1 and compare these between Northern England and Scotland.

Table 1: Key indicators and measures

Key indicator	Measures
Alcohol consumption	1. Number of units consumed per week in total and by beverage type. 2. Proportion of units purchased for less than 50p (pre-MUP) 3. Severity of Alcohol Dependence Score (SADQ) score.
Socio-economic status	4. Household income. 5. Highest level of education. 6. Receipt of benefits. 7. Housing tenure.
Deprivation	8. In lowest three household income bands. 9. In unstable accommodation. 10. Scottish Index of Multiple Deprivation score. 11. Low score on 'how well managing'. 12. Use of foodbank in last three months
Illicit substance use	13. Use of any illicit substance.
Negative parenting outcome	14. Dependent children under 18 15. Negative impact reported
Health status	16. EQ-5D score (standardized instrument for measuring generic health status). 17. Self-rated health score. 18. Receipt of disability benefits

We will conduct basic subgroup analyses by sex and age with more detailed subgroup analyses in Part 2. Analyses in Part 1 will provide a high-level overview of the changing characteristics and behaviours of those presenting for treatment,

providing evidence of both positive and potential harmful responses to MUP in the short- and long-term.

Part 2

Using the theory of change in Figure 2 and our knowledge of the wider policy debate and evaluation programme, we have selected five key population groups whose response to MUP is of particular interest (Table 2). The groups are not designed to be mutually-exclusive as characteristics of major interest can overlap (e.g. economic vulnerability and presence of dependent children).

On completion of data entry for wave one, we will examine a range of measures and cut-off points that could potentially be used in isolation or combination to define the groups. In doing so, we will seek to ensure that the chosen definitions produce groups that are meaningful for analytical purposes. Analysis in Part 2 will identify the proportion of the population in each group and how this changes across the three time points in Scotland and Northern England. This will allow us to assess whether and how the composition of the treatment population is changing following implementation of MUP.

Table 2: Groups for analysis

Group	Potential measures for defining group
Drinkers of white cider and other very cheap alcohol	1. Consumption of white cider. 2. Proportion of consumed alcohol purchased for less than, for example, 30p and 50p per unit.
Economically vulnerable drinkers	1. Household income. 2. Scottish Index of Multiple Deprivation score. 3. Unstable housing situation. 4. Use of foodbank/charity 5. Receipt of out of work benefits.

Group	Potential measures for defining group
Drinkers with dependent children	1. Respondent has dependent children. 2. Dependent children in respondent's household. 3. Score on negative parenting outcome measure.
Illicit substance users	1. Use of any illicit substance.
Drinkers in poor health	1. Low total and domain-specific EQ-5D scores. 2. Low self-rated health score.

Part 3

Within the groups of interest in Table 2, we will measure the levels and trends in the key indicators from Part 1 (where these are not part of the definition of the group). This will enable us to identify whether any of the groups of interest are at particular risk of, or are experiencing, either positive or problematic responses to MUP.

References

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