Appendix 1: Summary of studies

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting
1. Compliance. NHS Health Scotland.	• What are the perspectives and experiences of those working in inspection and enforcement of implementing MUP? • What are the barriers and facilitators of MUP compliance and implementation? • What is the extent of non-compliance with MUP for alcohol by licensed premises in the study areas? • What are the perspectives and experiences of those working in inspection and enforcement of any change in the sale of unlicensed alcohol in Scotland and the introduction of MUP?	Interviews with licensing practitioners. Description of published data. August and October 2018.	Qualitative understanding of licensing practitioner experience of inspection and enforcement of the implementation of MUP in Scotland. Quantitative measure (if possible) of: **1** The extent of MUP non-compliance, disaggregated over time, by trade, and by SIMD. **2** Patterns of MUP compliance within premises i.e. always compliant; one-time non-compliant; multiple visits with non-compliance. **3** Changes in the number of applications for review of premises licences.	To provide qualitative understanding of mechanism of change. To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change.	Compliance.	Published.
2. Economic impact on the alcoholic drinks industry in Scotland. Frontier Economics Ltd.	• What has been the economic impact of MUP on producers and licence holders of alcoholic drinks? • How has MUP affected the number of such business, employment, turnover, gross value added and value of output? • Has MUP had any impact on licence holders close to the border with England?	Industry engagement. Survey data. Case studies. Interviews with small retailers in the border area. Wave 1 quantitative data gathered in 2019 will cover the period 2016/17 before MUP was introduced. Wave 2 quantitative data gathered in 2022 will cover the period 2019/20.	Quantitative measures on: **1** Number of businesses. **2** Employment (headcount and/or full-time equivalent). **3** Turnover. **4** Gross Value Added (GVA). **5** Value of output. Qualitative understanding of the impacts of MUP on industry behaviours identified in the theory of change. Qualitative understanding of the experience of small retailers in the border area after the implementation of MUP in Scotland.	To provide quantitative estimate of change. To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change. To provide qualitative understanding of mechanism of change.	Economic impact on the alcoholic drinks industry.	(Interim findings) Published Final report Late 2022

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting
3. Small retailers. University of Stirling.	• What happens to the price of alcohol products sold below and above 50-pence-per-unit (ppu) prior to, and following, the implementation of MUP? • What happens to the price differential between alcohol products at different points in the price distribution? • What happens to the alcohol product range offered to consumers? • What happens to low cost, high-strength alcohol once it becomes significantly more expensive, for example is it re-branded (in glass bottles) or is it removed from shelves altogether? • What happens to the ways in which previously low-cost, high-strength alcohol is marketed?	Store audits – observations, interviews with retailers. Commercial alcohol price data. Retail trade press. **WP1: The retailer audit** Oct–Nov 2017 and Oct–Nov 2018. **WP2: Price data** August 2017–April 2018. May 2018–January 2019 **WP3: Review of five UK retail press publications** August 2017–January 2019.	**WP1:** **1** Qualitative understanding of small retailers' experiences of MUP. **2** Qualitative understanding of changes in alcohol pricing, products and promotion post MUP. **WP2:** **1** Product availability: Trends in UPCs sold, UPCs not sold, UPCs sold in multipacks, and multipacks UPCs split and sold as individual products. **2** Product characteristics**:** Trends in product ABV (%), size (ml), multipack size, number of units, and packaging type. **3** Pricing: Trends in sales price, sales-price-per-unit, RRPs, RRP-per-unit, proportion of products sold above/below £0.50-per-unit, and difference between sales price and expected sales price. **WP3:** **1** Qualitative understanding on changes how products are marketed and promoted in the Retail Press post MUP.	To provide quantitative estimate of change. To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change. To provide qualitative understanding of people's lived experience. To provide qualitative understanding of mechanism of change.	Price change. Economic impact on the alcoholic drinks industry. Reduced health and social harm (crime).	Published.
4. Alcohol price distribution. NHS Health Scotland.	• What is the effect of minimum unit pricing on the volume and proportion of off-trade alcohol sold at different prices in Scotland, overall and by drink type?	Commercial alcohol retail sales data. April 2015 to May 2019	Quantitative measures of: **1** The volume (litres per adult) of pure alcohol sold in each price band **2** The proportion (litres per adult) of pure alcohol sold in each price band. The outcome measures will be assessed overall and by drink type (beer, wine, spirits, cider, perry, ready to drink beverages (RTDs) and fortified wine).	To provide quantitative estimate of change.	Compliance. Price change.	Mid 2021.

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting
5. Alcohol products and prices. NHS Health Scotland.	• What is the effect of MUP on the weighted average sales price of alcohol products sold in Scotland after the implementation of MUP? • How does the range of alcohol products change (Strength measured by Alcohol by volume (ABV), volume, multipack size, packaging, discontinuation/introduction of products) following the implementation of MUP? • Do the total volume and value of selected products change following MUP implementation?	Commercial off-trade alcohol retail sales data. Commercial wholesale alcohol sales data. **WP1: Off-trade** April 2015 to May 2019. **WP2: Wholesale** April 2017 to May 2019.	Quantitative measures of: **1** Average price per unit. **2** Weighted average sales price. **3** Total number of products sold per week. **4** Introduction/loss of brand variant. **5** Alcohol by volume (ABV). **6** Volume and multipack size. **7** Total volume (pure alcohol) sales, expressed per adult. In work package 1 (off-trade retail sector) we anticipate outcome measures will be analysed by market sector: grocery multiples, impulse stores and combined.	To provide quantitative estimate of change.	Price change. Economic impact on the alcohol industry.	Late 2021.
6. Sales-based consumption. NHS Health Scotland.	• What is the impact of the introduction of MUP on the volume of pure alcohol sold in Scotland? • What is the impact of the introduction of MUP on the volume of pure alcohol sold by off-trade retailers in Scotland? • What is the impact of the introduction of MUP on the volume of pure alcohol sold by on-trade retailers in Scotland? • To what extent does any impact of the introduction of MUP on the volume of pure alcohol sold in Scotland vary by drink type?	Commercial alcohol sales data. Off-trade/on-trade/combined January 2013 to April 2021.	We will have three main outcome measures in this study: **1** Volume (litres) of pure alcohol sold per adult. **2** Volume (litres) of pure alcohol sold per adult in the off-trade. **3** Volume (litres) of pure alcohol sold per adult in the on-trade. These will be considered overall and for individual drink categories (i.e. beer, cider/perry, wine, spirits and RTDs).	To provide quantitative estimate of change.	Reduced purchasing. Reduced consumption.	Published. Mid 2022.

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting
7. Drinking at harmful levels. University of Sheffield & Figure 8 Consulting.	**WP1: Treatment population** • In what ways does self-reported alcohol consumption by people with alcohol dependence entering specialist treatment services or liver clinics change post-MUP, including level, products drunk and prices paid • What strategies do these service users employ to deal with the reduced availability of cheap alcohol? • How does the level and nature of demand for treatment services change post-MUP? • What strategies have or could be put in place to minimise unintended harms arising from increased alcohol prices for people who are alcohol dependent? **WP2: Non-treatment population** • How does self-reported alcohol consumption by those drinking at harmful levels change, including level, products drunk and prices paid? • Do those drinking at harmful levels in remote and rural areas face additional challenges post-MUP and employ alternative strategies to those seen in other areas to deal with the reduced availability of cheap alcohol? • Do those drinking at harmful levels living close to the border with England engage in cross-border purchasing and is this direct or indirect? • How are the lives of family members or carers of those drinking at harmful levels affected by this drinking, how does this change post-MUP and what impact does any observed behaviour change have on the lives of family members or carers? • What strategies have been or could be used by policy makers to minimise the unintended harms of MUP for those drinking at harmful levels, their families or their carers	**WP1: Treatment population** Survey of service users. Interviews with users and staff. November 2017 to March 2018. August to November 2018. November 2019 to March 2020. **WP2: Non-treatment population** Interviews with those drinking at harmful levels (not in services) and family members. November 2017–April 2020. **WP3: General population** Market research data 2001–2019. **WP4: Impact of MUP on hospitalisation and mortality rates among those drinking at harmful levels** Descriptive analysis of the data will be carried out, reporting time trends in hospital admissions and mortality for harmful drinkers. Primary statistical analyses – a series of individual logistic regression models which will model each outcome's likelihood as a function of individual characteristics and intervention effect. Secondary analysis – Interrupted Time Series (ITS) models for each cohort of those drinking at harmful levels to test for a significant intervention effect.	**WP1:** Quantitative measures of changes in: **1** Self-reported alcohol consumption, including level, products drunk and prices paid. Qualitative understanding of strategies (positive and negative) employed to deal with the reduced availability of cheap alcohol, and of the impact of MUP on demand for treatment services. **WP2:** Qualitative understanding of strategies (positive and negative) employed to deal with the reduced availability of cheap alcohol, and of the impact of MUP on those drinking at harmful levels and their families. **WP3:** **1** Frequency of consumption stratified by Individual-level socio demographics, household characteristics, geographic location and frequency of consuming different on-trade and off-trade beverage types. **2** Change in when, where, why, with whom and alongside what other activities drinking took place. **3** Change in the amount consumed (including weekly alcohol consumption for the specific population groups (moderate, hazardous and those drinking at harmful levels, by age, sex and sociodemographic characteristics) and the types of beverages drunk. **WP4:** 1 Primary analyses of mortality and hospital admission rates for alcohol-specific conditions) 2 Secondary analyses of both mortality and hospital admission rates for the following condition definitions: • All alcohol-related causes • All causes • All acute alcohol-related causes	To provide quantitative estimate of change. To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change. To provide qualitative understanding of people's lived experience.	Reduced consumption. Reduced health and social harm. Impact on demand for services.	Interim findings Mid 2021. Mid 2022.

	in both remote and rural populations and the general population? **WP3: General population** • Do fewer drinkers consume alcohol at harmful levels? • Is this reduction seen in key population groups of interest, namely those living with a partner, living with children or in lower socioeconomic groups? • Do the drinking practices of those drinking at harmful levels change, including the alcoholic products that they drink, the location, days and timing of drinking, and the type of occasion? **WP4:** • What has the impact of MUP been on hospitalisation and mortality rates among those drinking at harmful levels? • Does this impact vary by condition type or by patient characteristics? • What effect has this impact had on NHS costs?	Hospital cost data will be analysed to estimate any change in NHS costs associated with MUP, including hospital admissions for alcohol-related as well as all other health conditions. Data source: primary care records for 200 General Practices, selected to be broadly representative across Scotland. The data will be extracted by Albasoft and then passed to eDRIS, who will link each individual record to hospital admissions (including estimated costs) and mortality data. The source of English primary care data is CPRD.	• All acute alcohol-specific causes • All chronic alcohol-related causes • All chronic alcohol-specific causes			
8. Children and young people: Own drinking and related behavior. Iconic Consulting.	• Have children and young people observed any changes in product availability or price recently? • Has MUP influenced children and young people's consumption and acquisition decisions? If so, how? • What are children and young people's strategies with dealing with any price increases observed in their favoured drink? • Is there evidence that harms from children and young people's own consumption have changed following MUP? • What factors other than the introduction of MUP might be influencing children and young people's alcohol use? (E.g. external factors, cultural changes or changes in consumption of significant others (e.g. parental, peers)).	Interview/focus group with children and young people Interviews with staff November 2018–March 2019.	Qualitative understanding of how children and young people respond to MUP in terms of drinking and related behaviour such as acquisition.	To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change. To provide qualitative understanding where quantitative not appropriate (for feasibility, methodological, ethical or practical reasons). To provide qualitative understanding of people's lived experience. To provide qualitative understanding of mechanism of change.	Reduced consumption. Reduced health and social harm.	Published.

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting
9. Hospital admissions and deaths. NHS Health Scotland.	• What is the impact of the introduction of MUP on alcohol-attributable hospital admissions in Scotland? • What is the impact of the introduction of MUP on alcohol-attributable deaths in Scotland? • To what extent does any impact of the introduction of MUP on alcohol-attributable hospital admissions and deaths vary by sex, age group and socioeconomic deprivation?	Routine administrative time series data. January 2012–April 2021.	Quantitative assessment of changes in: **1** All wholly alcohol-attributable deaths/admissions. **2** Acute wholly alcohol-attributable deaths/admissions. **3** Chronic wholly alcohol-attributable deaths/admissions. **4** All alcohol-attributable deaths/admissions (those wholly and partially caused by alcohol). **5** All acute alcohol-attributable deaths/admissions. **6** All chronic alcohol-attributable deaths/admissions. **7** A selection of condition-specific outcomes (these will be specified in the analysis plan and will likely include alcoholic liver disease and acute withdrawal).	To provide quantitative estimate of change.	Reduced health and social harm.	Early 2023.
10. Crime and disorder, public safety and public nuisance Manchester Metropolitan University Crime and well-being Big Data Centre	• What impact has MUP had on alcohol related crime and disorder, public nuisance & public safety? • How have any MUP-related changes in crimes and offences varied by type of crime and offence? • To what extent have any MUP-related impacts on crime and disorder, public safety and public nuisance varied by sex, age group, geographic location and socio-economic position (if feasible)? • What are the spatial and temporal impacts of MUP around alcohol outlets (specifically convenience stores)? • What are the cost savings to Police Scotland of the introduction of MUP?	• Survey • Analysis of routine data • Stakeholder engagement	**1** Reduction in alcohol related crime and disorder. **2** Fewer people becoming victims of alcohol-related crime. **3** Reduction in alcohol related public nuisance. **4** Increased public safety and perceptions of public safety.	Reduced consumption following the introduction of MUP is hypothesised to lead to a reduction in alcohol-related crime and disorder, reduction in alcohol-related nuisance and an increase in public safety.	Reduced consumption. Reduced health and social harm.	Late 2021.

Study name and research team	Research questions	Methods, data source and data period	Outcome measures	Rationale	Theory of Change outcomes	Reporting

11. Children and young people: Harm from others.
 	
NHS Health Scotland.
	• What are the perceptions and understanding of participants on:
	  ○ the extent to which parental/carer/sibling drinking impacts on children and young people?
	  ○ the role of alcohol and children's experiences of harms from others?
	  ○ the potential role of alcohol price in mitigating harms to children associated with parental/carers/sibling drinking?
	• Have participants observed any changes in alcohol consumption and related behaviour in their work with families post-MUP?
	• Have participants observed any recent changes in parental/carer/sibling alcohol consumption and related behaviour post-MUP expressed by the children and young people they work with or observed by participants in their work with families?
	• What are the perceptions of participants of the main factors that may have contributed to any changes observed across their existing caseload?
	• Have there been any observed changes in participating organisations of their alcohol related service provision for parents/carers/sibling and families post-MUP (e.g. any changes in the care of children and young people by families or changes in family relationships, and how this potentially impacts on what participants do as practitioners in response to these families)?
		Focus groups with staff.
		
		January 2019 and March 2019.
			Qualitative understanding on the potential role of MUP in protecting children and young people from harms from others' alcohol consumption, in the context of complex family lives.	To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change.
				
				To provide qualitative understanding where quantitative not appropriate (for feasibility, methodological, ethical or practical reasons).
					Reduced health and social harm.	Published.

12. Public attitudes to MUP. NHS Health Scotland.	• To what extent does the public support the policy of MUP? • What are the reasons for agreement/disagreement? • How has agreement/disagreement changed over time?	Questions added to existing surveys 2013, 2015, 2019.	The percentage of the population who agree/disagree with MUP. The reasons for agreement/disagreement.	To provide quantitative estimate of change.	Attitudes to MUP.	Published.

Study name, research team and funding body	Research questions	Methods, data source and data period	Outcomes	Rationale	Theory of Change outcomes	Reporting
S1. Consumption and health service impacts of MUP. Led by MRC/CSO SPHSU,[1] University of Glasgow and University of Stirling. Funded by National Institute of Health Research (NIHR).[2]	**WP1 Emergency departments (EDs):** • What are the impacts of MUP for alcohol on alcohol-related harms and drinking patterns (using the Fast Alcohol Screening Test (FAST) for Emergency Department (ED) attendees and by subgroups of interest (age, sex and deprivation)? • Does the effect of MUP vary dependent on the type of alcohol-related harm: o Acute alcohol-related harms vs chronic alcohol-related harms? o Broad diagnostic groups (based on coding systems used in EDs? • Does MUP affect alcohol consumption (on the basis of the FAST score) and alcohol misuse over the reporting period among people attending EDs (FAST ≥3)? • Does the MUP intervention effect size (assessed on a variety of measures including FAST) vary at the second and third time points? **WP2 Sexual health clinics (SHCs):** Among a population at high-risk of alcohol and drug-related problems: • Does alcohol misuse among people attending SHCs change following MUP (on the basis of the FAST score) (FAST ≥3)? • Does source of alcohol change following MUP? • Does MUP impact on the use of psychoactive substances apart from alcohol? • Does effect differ across age group, gender, highest educational attainment, and employment status? • Do any observed intervention effects vary at the second and third time points? **WP3: Communities** • How is MUP affecting key subgroups within the Scottish population? • What are participant's expectations and experiences of MUPs impact,	**WP1:** Survey among emergency department attendees. February and October 2018, February 2019. **WP2:** Survey with sexual health clinic users. February and October 2018, February 2019. **WP3:** Focus groups with heavy drinkers and interviews with stakeholders. January–April 2018. September–November 2018.	**WP1:** Quantitative changes in: **1** Absolute numbers of alcohol-related attendances as defined by any one of: o patient self-reports attendance is alcohol-related o patient reports alcohol consumption in past 24 hours of >=8units in men or >=6 units in women o patient not approached because too intoxicated with alcohol. **2** Absolute number of alcohol-related attendances by age/sex/deprivation. **3** Problematic alcohol use (as defined by the Fast Alcohol Screening Test (FAST)). **4** Mean FAST score. **5** Prevalence of binge drinking in the past week. **6** Reason for attendance (coded by ICD10). **WP2:** **1** Proportion of patients self-reporting recent use of illicit psychoactive substances other than alcohol (i.e. within the last month). **2** Source of alcohol for consumption. **3** Recent use of all psychoactive substances other than alcohol, including novel psychoactive substances. **4** Problematic alcohol use (as defined by the Fast Alcohol Screening Test (FAST). **5** Mean FAST score. **6** Prevalence of binge drinking in the past week. **7** Differential trends in the above outcomes by age group, gender and socioeconomic position.	To provide quantitative estimates of change. To provide qualitative understanding of people's lived experience.	*Compliance.* *Reduced consumption.* *Reduced health and social harm.* Impact on demand for services.	Mid 2021.

[1] MRC/CSO Social and Public Health Science Unit
[2] National Institute of Health Research

Study name, research team and funding body	Research questions	Methods, data source and data period	Outcomes	Rationale	Theory of Change outcomes	Reporting
	including unintended consequences, both personally and on family, friends and wider community • How do narratives compare between the different sample groups: age, gender and socioeconomic position? • From different professional perspectives, was the implementation process adequate? Were any difficulties experienced?		**WP3:** **1** Qualitative understanding of the lived experience of those exposed to MUP in relation to social norms, attitudes and any perceived changes in drinking patterns and purchasing habits. **2** Qualitative understanding of the implementation process within each study community, perceived impacts and any difficulties in implementation.			
S2. Self-reported consumption. Correcting survey estimates of self-reported consumption for non-response bias. Led by MRC/CSO SPHSU, University of Glasgow. Funded by MRC/CSO core funds for SPHSU.	• How do bias-corrected estimates compare with uncorrected estimates? • Using the corrected data, how does the social pattern of consumption change following the introduction of MUP? • How do alternative methods of bias correction compare?	Scottish Health Survey and SMR1 Hospitalisation Records, 1995–2019.	Distribution of per capita consumption for all consumption and health service impacts of MUP for adults, and for subgroups defined by sex and deprivation.	To provide quantitative estimates of change.	Reduced consumption. Reduced health and social harm (health).	Late 2021.
S3. Daily survey (N of 1). Led by MRC/CSO SPHSU, University of Glasgow. Funded by ACUK. [3]	• What are the individual and social determinants of within-person change in: o Alcohol use o Other drug use o Contacting treatment and support services. • What contextual and environmental factors are related to Q1 outcomes: o Minimum Unit Pricing; implementation. o Social networks and social support. • How feasible is an N of 1 study design to conduct research with heavy alcohol using populations?	Data collection from harmful drinkers. Text messaging survey. Three waves, each for a 12-week period. Wave 1: Feb–Apr. Wave 2: Apr–Jun. Wave 3: Jul–Sept.	Quantitative outcomes. **1** Number and type of drinks (reported daily). **2** Type and self-rated intensity of other drug use. **3** Contact with alcohol and drug treatment service. Qualitative outcomes. Qualitative understanding of social networks and support during the study, attitudes, opinions and experience of purchasing alcohol during study participation.	To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change. To provide qualitative understanding of people's lived experience of MUP.	Reduced consumption. Reduced health and social harm.	Published.
S4. Homeless drinkers. Glasgow Caledonian University in collaboration with Queen Margaret University, NHS Greater Glasgow and Clyde, University of Victoria	• How does MUP affect the health of homeless and street drinkers including their mental health, physical health, and alcohol and drug use? • What, if any, are the social, financial and legal consequences of MUP for homeless and street drinkers?	Data collection from homeless drinkers and street drinkers, and service providers on experiences. Interviews with homeless and street drinkers.	**1** Qualitative understanding of both positive and negative responses to MUP, and any unintended consequences in homeless drinkers. Key topics include: change or stasis in alcohol consumption, type of alcohol consumed, substitution e.g. drug	To provide qualitative understanding of people's lived experience of MUP.	Reduced consumption. Reduced health and social harm.	Mid 2021.

[3] Alcohol Change UK (formerly Alcohol Research UK)

Study name, research team and funding body	Research questions	Methods, data source and data period	Outcomes	Rationale	Theory of Change outcomes	Reporting
(Canada), University of Stirling and Herriot Watt University. Funded by CSO[4]	How are health and social services for homeless and street drinkers affected by MUP?	Focus groups with service providers. June 2019–Jan 2021.	use or industrial/bootleg alcohol products; antisocial behaviour or crime (as perpetrator or victim), involvement in begging or change in housing; daily/weekly expenditure e.g. on alcohol and essential items such as food, electricity, gas and transport; and impact on and from social networks. **2** Qualitative understanding of stakeholders' views and experiences of the impact of MUP on the homeless/street drinker population, and the extent to which MUP has had an impact on services and/or clinical practice.		Impact on demand for services.	

S5. Ambulance call-outs.
 	
Institute of Social Marketing, University of Stirling.
 	
University of Glasgow.
 	
University of Sheffield.
 	
Funded by CSO.
	• Did MUP in Scotland, lead to changes in:
	  ○ alcohol-related ambulance call-out numbers
	  ○ alcohol-related ambulance call-outs in patients of different sex, age or socioeconomic status (SES)
	  ○ overall ambulance call-outs?
	• What are the direct costs or cost-savings arising from changes in numbers of call-outs found to be due to MUP?
	• How are alcohol-related ambulance call-outs identified, experienced, recorded and managed by ambulance service staff?
		Quantitative examination of the impact of MUP on ambulance call outs in Scotland.
		
		Qualitative exploration of the impact of alcohol on, and management of alcohol-related call-outs by SAS.
		
		May 2015–October 2020.
			1 Novel, more complete estimates of alcohol-related ambulance call-outs in Scotland and related costs.
			2 Number of alcohol-related ambulance call-outs, and overall ambulance-call-outs prior to and after the introduction of MUP, and related trends, with alcohol-related call-outs also analysed for population subgroups.
			3 Qualitative accounts of how alcohol-related ambulance call-outs are identified, experienced, recorded and managed by ambulance service staff.
				To provide quantitative estimate of change.
				
				To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change.
					Reduced health and social harm.
					
					Impact on demand for services.
						Late 2021.

S6. Prescribing. University of Glasgow. Funded by ACUK.	• Has MUP led to an increase in prescribing levels for alcohol dependence? • Has MUP led to an increase in prescribing levels for management of harmful drinking? • Are any intervention effects in 1) and 2) modified by socioeconomic deprivation?	Quantify any changes in alcohol prescribing levels during the first 6 months of MUP. May 2018–May 2019.	Weekly counts of prescriptions.	To provide quantitative estimate of change. To provide qualitative understanding of mechanisms that underpin (MESAS or other) quantitative estimates of change.	Reduced health and social harm. Impact on demand for services.	Mid 2021.

[4] Chief Scientist Office

Study name, research team and funding body	Research questions	Methods, data source and data period	Outcomes	Rationale	Theory of Change outcomes	Reporting
S7. Household expenditure. University of Aberdeen. Funded by CSO.	• What effect does the introduction of MUP have on the pattern of household food purchases? • What effect does the introduction of MUP have on diet quality? • What are the health consequences of any changes in diet quality?	Natural experiment comparing households in England and Scotland before and after MUP using difference – indifference analysis. Kantar Worldpanel data. May 2017–April 2019. Modelling of health effects.	**1** Total spending on food brought home. **2** Spending by categories of food Expenditure share. **3** Volume of food purchased by categories. Household level purchases of energy (total calories) and nutrients (macronutrients, free-sugar, fibre, and sodium). **4** Quality Adjusted Life Years.	MUP is predicted to reduce alcohol sales but increase spending because the reduction in quantity purchased is less than proportionate to the price increase. This would reduce the amount of money that households have to spend on other goods**,** including food. This might affect diet quality and the effect of poorer diet on health has the potential to partially offset health gains from reduced alcohol consumption. This study is assessing the extent of these unintended consequences.	Reduced health and social harm.	Mid 2022.