

<b>Institution:</b> University of Aberdeen		
Unit of Assessment: UoA2 Public Health, Health Services and Primary Care		
Title of case study: Aberdeen research and policy engagement contributes to introduction of Minimum Unit Pricing for alcohol in Scotland.		
<b>Period when the underpinning research was undertaken:</b> 2001-2015		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Prof Anne Ludbrook	Chair in Health Economics	2001 to 2020
Edwin van Teijlingen	Senior Lecturer	2001 to 2009
Moirra Napper	Information Officer	2001 to 2006
Lynda McKenzie	Research Fellow	2001 to present
Shelley Farrar	Research Fellow	2001 to present
<b>Period when the claimed impact occurred:</b> 2013-ongoing		
<b>Is this case study continued from a case study submitted in 2014?</b> No		
<b>1. Summary of the impact</b> (indicative maximum 100 words)		
<p>At the start of the 2000s, alcohol specific death rates were three times higher in Scotland than in England and Wales. University of Aberdeen research, policy engagement and expert witness activity have contributed to the implementation in 2018 of minimum unit pricing (MUP) for alcohol in Scotland, with our involvement at all stages from initial conception to defence against legal challenges.</p> <p>Early evidence of public health impact indicates a 7.6% reduction in off-licence alcohol purchases in Scotland relative to England, predominantly affecting the heaviest purchasing households. Alcohol specific deaths fell by 10.2% in Scotland in 2019 although it is too early to make a causal link to the implementation of MUP. Wales and Jersey have followed Scotland's example, implementing MUP in March and April 2020 respectively. Other jurisdictions (Republic of Ireland, Guernsey, The Netherlands) are considering implementing MUP for alcohol.</p>		
<b>2. Underpinning research</b> (indicative maximum 500 words)		
<p>In 2001, alcohol specific death rates in Scotland were approximately three times higher than in England and Wales and had increased more than 3-fold in 20 years. Death rates were eight times higher in the most deprived areas of Scotland than in the least deprived.</p> <p>Reviews of evidence to identify effective and cost-effective interventions to reduce alcohol related harms led by Aberdeen's Prof Anne Ludbrook in 2001 [R1] and updated in 2004, [R2] informed the development of the Scottish Executive's 2002 Plan for Action on alcohol problems and its subsequent update in 2007. With the additional effect of the 2008/9 recession on the affordability of alcohol, alcohol specific death rates fell from 2003 but were still the highest in the UK when progress stalled in 2012.</p> <p>Although our research identified price-based interventions as having strong evidence for effectiveness [R1; R2], the Scottish Executive had no devolved powers to change alcohol prices through taxation. Despite a reduction in alcohol specific deaths in Scotland (at a time of increases in England and Wales), mortality remained higher than other parts of the UK; differences which increased with the economic recovery after 2009.</p> <p>Having established our expertise in the economics of alcohol policy, a small expert workshop on price interventions organised by Scottish Health Action on Alcohol Problems and involving Ludbrook, identified minimum unit pricing (MUP) of alcohol as a potential policy intervention in Scotland within devolved powers. Further research on alcohol policy at Aberdeen, led by</p>		

Ludbrook, examined the economic underpinnings of MUP [R3; R4] and investigated the impact on different income groups depending on their level of purchasing of cheap alcohol [R5; R6].

The economic analysis of MUP identified its potential to be more effective and more targeted than across-the-board price increases. The work suggested that consumers would be less likely to maintain high consumption levels by trading down to cheaper versions of the same product. Furthermore, the approach was likely to be more effective than tax increases, which would not necessarily be passed to consumers in higher prices. Our findings relating to the impact of MUP on different income groups addressed an important question regarding the fairness or equity of the policy and showed that low-income moderate drinkers would not be disproportionately affected. This finding was later independently confirmed by other researchers. Low-income households purchasing alcohol at moderate levels bought, on average, only 20 units of low cost off-trade (i.e. off-licensed premises) alcohol per fortnight. Across all income groups the main effect was on purchasing alcohol at harmful levels [R6].

These findings were placed in context by further research that provided comparisons with other price-based interventions [R7]. For example, a ban on below-cost selling would have a smaller impact as fewer purchases would be affected; the effect of alcohol taxes depends on the extent to which they are passed through to prices but would be more onerous on low-income households who purchase alcohol as it would affect all products. This comparison paper [R7] was submitted by the Scottish Government to the Court of Session Inner Division as evidence to support its case for implementing MUP in Scotland [S1 para 98].

### 3. References to the research (indicative maximum of six references)

The quality of the research is deemed to be at least of 2\* quality as corroborated by the following government reports and peer-reviewed, international publications (with Google Scholar citations)

**R1. Ludbrook A**, Godfrey C, Wyness L, Parrott S, Haw S, **Napper M**, van Teijlingen E. (2001) Effective and cost-effective measures to reduce alcohol misuse in Scotland: a literature review. Central Research Unit. Scottish Executive. (60)

**R2. Ludbrook A** (2004) Effective and cost-effective measures to reduce alcohol misuse in Scotland: an update. Edinburgh. Scottish Executive.  
<https://www.webarchive.org.uk/wayback/archive/20180516222859/http://www.gov.scot/Publications/2005/01/20542/50228>

**R3. Ludbrook A** (2008) Alcohol and taxation *Significance* June pp70-73 (1)  
<https://doi.org/10.1111/j.1740-9713.2008.00290.x>

**R4. Ludbrook A** (2009) Minimum Pricing of Alcohol (editorial) *Health Economics* Volume 18 Issue 12 p1357-1360 <https://doi.org/10.1002/hec.1558> (15)

**R5. Ludbrook A** (2010) Purchasing patterns for low price off sales alcohol : evidence from the Expenditure and Food Survey. Commissioned report for Scottish Health Action on Alcohol Problems (6)  
<http://www.shaap.org.uk/images/UserFiles/File/Reports%20and%20Briefings/Briefing%20-%20Purchase%20of%20low-price%20alcohol%20analysis.pdf>

**R6. Ludbrook A**, Petrie D, **McKenzie L** and **Farrar S** (2012) Tackling Alcohol Misuse Purchasing Patterns Affected by Minimum Pricing for Alcohol. *Applied Health Economics and Health Policy* 10(1) 51-63 <https://link.springer.com/article/10.2165/11594840-000000000-00000> (40)

**R7. Ludbrook A** (2015) How does minimum unit pricing for alcohol affect different types of drinkers. In F Sassi ed (2015) *Tackling Harmful Alcohol Use: Economics and Public Health Policy* pp127-132 OECD Publishing <https://doi.org/10.1787/9789264181069-en>

#### Funding:

Ludbrook; Scottish Executive Central Research Unit; 'Cost effective measures to reduce alcohol misuse in Scotland'; Jan 2001 – July 2001; GBP32,556.

Ludbrook; Scottish Executive; 'Effective and cost-effective measures to reduce alcohol misuse in Scotland' April 2005 – Aug 2005; GBP5,000.

Ludbrook; Scottish Health Action on Alcohol Problems; 'Alcohol Price Modelling Study'; June 2008; GBP1000.

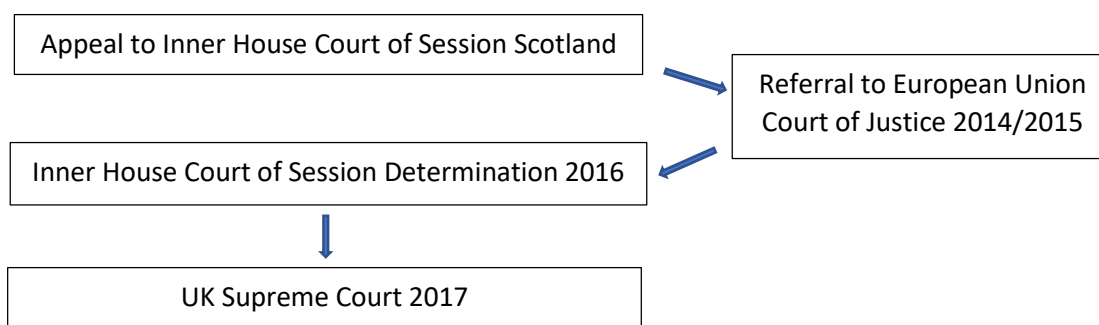
#### 4. Details of the impact (indicative maximum 750 words)

Research from the health economics team at the University of Aberdeen has directly contributed to tackling the health and social challenges in Scotland caused by excessive alcohol consumption. The research findings have informed Scottish regulation related to the minimum unit pricing (MUP) for alcohol and contributed to the Scottish Government's defence against legal challenges by demonstrating the proportionality of the proposed legislation. The implementation of MUP has led to a 7.6% reduction in off-trade (i.e. off-license) alcohol purchasing concentrated in the heaviest purchasing households. Similar policy changes have been implemented in Wales and Jersey and are being considered in Ireland, Guernsey and The Netherlands.

##### Influencing Scottish legislation related to MUP for alcohol

MUP for alcohol set at 50p per unit became law in Scotland on 1<sup>st</sup> May 2018. Our research, together with its presentation by Prof Anne Ludbrook as an expert witness at Scottish Parliament committees, was central to both the passage of the legislation and, thereafter, to the rejection of a series of legal challenges to that legislation brought by the Scotch Whisky Association and others.

A petition for judicial review was dismissed by the Outer House Court of Session in 2013. An appeal to the Inner House, Court of Session was made on two aspects of the initial legal challenge and the central argument was not whether the legislation was in breach of EU regulations but whether such a breach was justified as a proportionate response to the public health challenge of reducing the harms of alcohol misuse. There was a referral to the European Union Court of Justice which left the decision on proportionality with the Court of Session. The legal challenge was rejected by the Court of Session and a subsequent appeal to the UK Supreme Court also failed.



In relation to the legal challenge, Prof Ludbrook's evidence, drawing directly on the body of research described in section 2, was used to demonstrate that MUP was the most effective and straightforward way of achieving a reduction in alcohol consumption in the heaviest purchasing households, the key objective of the legislation.

The Court of Session appeal ruling upholding the introduction of MUP was issued on 21<sup>st</sup> Oct 2016. Paragraph 190 of the Court of Session appeal ruling [S1] stated '*Only if minimum pricing is the more effective way of achieving the objective will the interference with the market be necessary and therefore proportionate under Article 36.*' The judgement cited the University of Aberdeen evidence given to the Scottish Parliament Health and Sport Committee in 2012, and a more recent (2015) paper submitted to the court in evidence by the Scottish Government, [R7] as supporting the position of the Scottish Government on proportionality [S1]:

*'[Paragraph 46] First, there was the evidence of Anne Ludbrook, professor of health economics at Aberdeen University, at the session on 10 January. She said that minimum pricing would have some effect across all income groups, but it would have the most effect on those purchasing the most alcohol, where the impact was desirable. There were difficulties with other pricing interventions. Taxation was not necessarily passed on into prices. It affected all products, whatever price they were at the moment.'*

*'[Paragraph 98] 'There were new articles from, amongst others, Prof Ludbrook (supra).'* [R7 mentioned in 'Underpinning research']

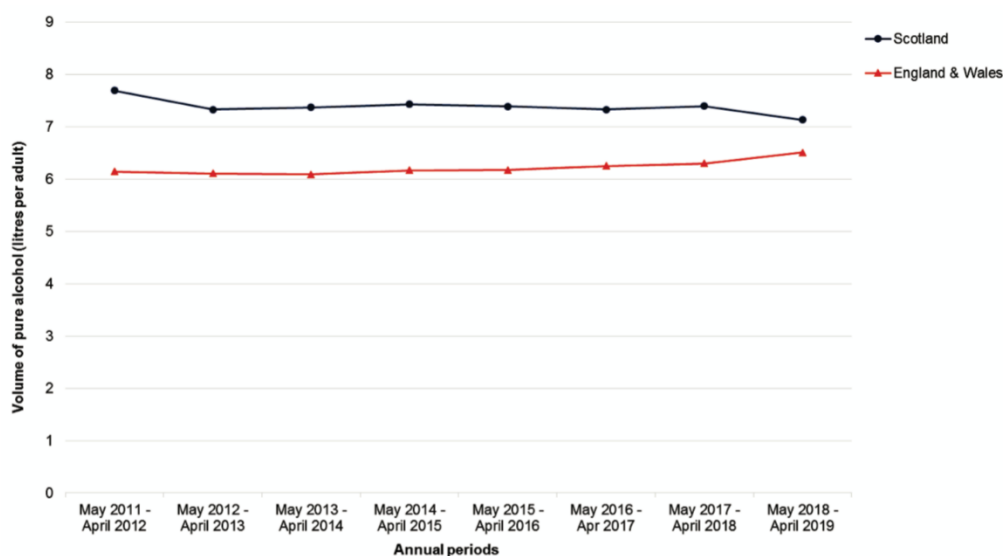
*'[Paragraph 197] The manner in which the supermarkets operate was described by Prof Ludbrook and Ms Gillan in their evidence to the Parliamentary Committee. The scope, as with increased tax, for variation, manipulation and cross-subsidisation (absorption) far exceeds that which is possible in a minimum pricing context. Of course, it would be possible to impose a ban on sales at below the cost levels of each product and then levy increased tax upon that. Such a model would be complex and difficult to enforce, when set against one of straightforward minimum pricing.'*

The Court of Session ruling was upheld by the UK Supreme Court in Nov 2017.

### A reduction in alcohol purchasing for the heaviest purchasing households

Implementing MUP on 1<sup>st</sup> May 2018 has resulted in reduced off-trade alcohol sales, which are the target of MUP. Controlling for sales in northern England, a 7.6% reduction in volume of alcohol purchased has been reported; greater than predicted. The impact on weekly spending on alcohol was not significantly affected overall [S2]. Importantly, changes in weekly expenditure were not systematically related to household income but rather increased with increasing household purchases of alcohol. This finding, that the policy impacted harmful drinkers rather than low-income households, was consistent with the Aberdeen research that contributed to the introduction of the law. More recent sales data, for a full year of follow up, also show a reduction in alcohol sales in Scotland, compared with an increase in England & Wales [S3].

**Figure 1** Annual (May to April) off-license alcohol sales (litres of pure alcohol per adult), Scotland and England & Wales, May 2011 to April 2019 [S3].



### Alcohol specific deaths

The number of alcohol specific deaths in Scotland in 2019 was 1,020 which was a reduction of 116 (10.2%) compared with 2018.

“Since our records began in 1979, there have only been three other occasions where we have seen a reduction in the number of alcohol-specific deaths of around 10% or more in a single year.” [S4].

This reduction has not yet reached statistical significance, according to the UK Office of National Statistics:

“It is too early to measure the impact of this policy\* on mortality using the alcohol-specific definition; however, this will remain a point of interest in the future” [S5] [\*MUP introduced 1/5/2018].

### Impact outside Scotland

The impact of Aberdeen’s research is being felt beyond Scotland. Other jurisdictions have closely followed the progress of legislation in Scotland before introducing their own measures. MUP legislation has been passed in Wales and was implemented on 2nd March 2020. Aberdeen’s research was cited in the documentation underpinning the passage of the legislation [S6]. MUP has also been introduced in Jersey. Legislation has been passed in the Republic of Ireland and Guernsey but not yet implemented. The case for MUP is being explored in the Netherlands and a report for their Ministry of Health references Aberdeen research [S7].

## 5. Sources to corroborate the impact (indicative maximum of 10 references)

- S1.** FIRST DIVISION, INNER HOUSE, COURT OF SESSION [2016] CSIH 77 P762/12 Lord President Lord Menzies Lord Brodie OPINION OF THE COURT delivered by LORD CARLOWAY, the LORD PRESIDENT in the reclaiming motion THE SCOTCH WHISKY ASSOCIATION AND OTHERS Petitioners and Reclaimers; against THE LORD ADVOCATE First respondent; and THE ADVOCATE GENERAL Second respondent: Paragraphs 46, 98 and 197 <https://www.scotcourts.gov.uk/search-judgments/judgment?id=9a1821a7-8980-69d2-b500-ff0000d74aa7>
- S2.** O’Donnell A, Anderson P, Jané-Llopis E, Manthey J, Kaner E, Rehm J. Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-18 BMJ 2019; 366 :l5274 <https://www.bmj.com/content/366/bmj.l5274>
- S3.** Evaluating the impact of Minimum Unit Pricing (MUP) on sales-based consumption in Scotland: a descriptive analysis of one year post-MUP off-trade alcohol sales data. NHS Health Scotland 28<sup>th</sup> Jan 2020. <http://www.healthscotland.scot/publications/evaluating-the-impact-of-minimum-unit-pricing-mup-on-sales-based-consumption-in-scotland-a-descriptive-analysis-of-one-year-post-mup-off-trade-alcohol-sales-data> [Accessed 12/2/2020].
- S4.** Alcohol deaths decrease. National Records of Scotland November 2020 [www.nrscotland.gov.uk/news/2020/alcohol-deaths-decrease#:~:text=The%20number%20of%20alcohol-specific,by%20National%20Records%20of%20Scotland.](http://www.nrscotland.gov.uk/news/2020/alcohol-deaths-decrease#:~:text=The%20number%20of%20alcohol-specific,by%20National%20Records%20of%20Scotland.)
- S5.** Office for National Statistics. Alcohol-specific deaths in the UK: registered in 2019. [www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2019](http://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2019)
- S6.** Welsh Government Public Health (Minimum Price for Alcohol (Wales) Bill Explanatory Memorandum incorporating the Regulatory Impact Assessment and Explanatory Notes October 2017 <https://senedd.wales/laid%20documents/pri-ld11246-em/pri-ld11246-em-e.pdf>
- S7.** G.A. de Wit et al. (2020) Minimum Unit Pricing voor alcohol – Verkenning van effectiviteit, implementatieaspecten en scenario’s voor prijsbeleid in Nederland. RIVM-rapport 2020-0063. Rijksinstituut voor Volksgezondheid en Milieu. Ministerie van Volksgezondheid, Welzijn en Sport <https://www.rivm.nl/bibliotheek/rapporten/2020-0063.pdf>