Abstract: In Scotland alcohol-related harm follows a social gradient, meaning that deprived communities often experience more acute alcohol-related harm than affluent populations despite reporting similar levels of consumption. This research briefing will explore the ‘alcohol harm paradox’ and discuss how best to tackle health inequalities in Scotland.

Keywords: Public Health Policy, Deprivation, Alcohol, Health, Alcohol Harm Paradox

Background: Health inequalities are ‘systematic differences in health between different socio-economic groups within a society’ which are ‘socially produced’ and therefore ‘potentially avoidable.’ As health inequalities are rooted in an unequal distribution of power and societal resources, their alleviation requires ‘upstream’ policy interventions which focus on quality of life and socio-economic conditions, in conjunction with ‘downstream’ healthcare provision.

Alcohol is a cross-cutting issue which is fundamentally linked to problems which disproportionately affect the most disadvantaged communities, such as homelessness, suicide, crime, teenage pregnancy, domestic abuse and truancy. Studies have consistently identified a correlation between deprivation and alcohol-related disease and mortality in Scotland. However, there remains much debate over the exact causes and various theories have been put forward:

Deprived individuals are more likely to experience social exclusion and have increased exposure to stress, be unemployed or in low-skilled work, live in poor housing and in neighbourhoods with a higher density of alcohol sales outlets. They are also likely to experience more serious consequences for their household budget from alcohol consumption, live with or near people who also drink excessively, be in poorer general health.

Key Points:

- Health inequalities are ‘socially produced’ and therefore ‘potentially avoidable.’

- Possible explanatory factors for the alcohol harm paradox include: co-morbidities (smoking, obesity and physical inactivity), harmful consumption patterns and differential exposures to health risks.

- In order to effectively tackle health inequalities and alcohol-related harm, ‘upstream’ measures should aim to reduce poverty levels and restrict alcohol availability.

- Recommendations: licensing restrictions to reduce alcohol outlet density, more investment in prevention and early intervention - alcohol outreach services in deprived communities and bans on advertising.
and experience multiple co-morbidities such as mental health problems or substance misuse. Possible explanations therefore include both individual factors such as education, income and employment, as well as physical and socio-cultural environmental influences on health behaviours. Ultimately, health is both a determinant and a product of an individual’s socio-economic position, whilst different exposures, vulnerabilities and consequences from alcohol-related harm tend to exacerbate existing socio-economic inequality and disadvantage.

The Alcohol Harm Paradox: The alcohol harm paradox describes the phenomenon whereby disadvantaged populations have higher rates of alcohol-related death and hospitalisation than more affluent populations, despite consuming the same amount, or even a lower level of alcohol. Even after controlling for inaccurate consumption recall and lower reporting rates amongst heavy drinkers in deprived areas (including key populations such as homeless people), the social gradient of alcohol harm in Scotland remains statistically significant, particularly for men.

Co-morbidity is thought to be a key aspect of the alcohol harm paradox, as deprivation is strongly associated with other health-damaging behaviours such as poor diet, physical inactivity and smoking. The combined effects of an unhealthy lifestyle and alcohol consumption may therefore exacerbate alcohol harms amongst deprived drinkers, resulting in an increased risk of alcohol-related conditions including mouth and throat cancers. One study of Scottish men, for example, showed that heavy alcohol use combined with a high BMI raised liver disease risk, while heavy drinking and smoking increased the overall risk of death. It is therefore essential to take into account broader lifestyle factors and health challenges, particularly with regard to smoking, nutrition and exercise, when tackling health inequalities.

Although deprived individuals generally report lower levels of consumption and even abstention from alcohol, several studies have also found an association between higher levels of deprivation and more harmful consumption patterns such as binge drinking (men who consume over 8 units and women who consume over 6 units on at least one day per week). For example, according to a 2015 study by Alcohol Research UK, those living in

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<th>Key Statistics:</th>
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<td>• 84% of Scottish people believe that alcohol causes either a 'great deal' or 'quite a lot of harm in Scotland' (ScotCen 2014)</td>
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<td>• In 2015, an average of 22 people per week died in Scotland due to alcohol-related causes, which is 54% higher than in England &amp; Wales (MESAS 2017)</td>
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<td>• Health inequalities cost the UK economy approximately £32-33 billion annually through illness, lost taxes and reduced productivity (IAS 2014)</td>
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<td>• In 2015, rates of alcohol-related death were six times higher in the 10% most deprived areas in Scotland than in the 10% least deprived areas (MESAS 2017)</td>
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<td>• In Scotland there are 16 times more places to buy alcohol than there are GP practices (Alcohol Focus Scotland 2017)</td>
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<td>• The 2008 World Health Organisation’s Commission on Social Determinants of Health (CSDH) found that men living in the Calton area of Glasgow live, on average, 28 years less than men living just a few kilometres away in Lenzie</td>
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deprived neighbourhoods or possessing a lower level of education are more likely to binge drink and be implicated in alcohol-related violence. Harmful consumption patterns therefore represent an alternative explanation for the alcohol harm paradox, as deprived individuals who binge drink may be at increased risk of assault, injury or heart disease despite having low total levels of alcohol consumption.

Finally, deprived populations may experience more severe consequences or greater exposure to health risks as a result of alcohol consumption, compared to more affluent groups. This could include violence, imprisonment, unsafe sexual behaviour or household impoverishment, which in turn may exacerbate existing social exclusion and psychosocial stresses. Deprived individuals are also more likely to live in poor quality housing, making them less resilient to disease, as well as being more likely to drink in public places, heightening the risk of injury and crime. Alcohol consumption has a disproportionate impact on deprived communities, who bear the socio-economic burden of long-term disability and unemployment resulting from alcohol-related illness. Arguably, public service cuts, job insecurity and long-term unemployment aggravate health inequalities by fuelling a cycle of poverty and poor health.

Tackling Health Inequalities: Due to the existence of universal healthcare in Scotland, in the form of the NHS, there is no direct, financial barrier to accessing alcohol treatment services. Yet, informal barriers such as stigma or the cost and inconvenience of travel can often deter already marginalised groups such as young people, homeless people and ethnic minority populations, entrenching health inequalities. Alcohol outreach services based in deprived communities may therefore help to make treatment more accessible, whilst reducing stigma and contributing to prevention and early intervention strategies. According to the World Health Organisation, ‘upstream’ prevention measures which restrict alcohol availability and advertising are the most effective means to reduce alcohol-related harm amongst deprived communities. The increasing affordability of alcohol, particularly in off-licence trade, has been associated with escalating alcohol-related harm in Scotland and raising alcohol prices has therefore been highlighted as a simple, cost-effective solution.

Research conducted by the University of Sheffield suggests that policies such as alcohol Minimum Unit Pricing (MUP) effectively target hazardous and harmful drinkers, without placing a disproportionate financial burden on moderate drinkers. Statistical modelling predicts that Minimum Unit Pricing would significantly reduce alcohol-related deaths and hospital admissions and that approximately 80% of the lives saved would be from low socio-economic groups. In 2012 the Scottish Parliament successfully passed legislation to set a minimum price (50p per unit) below which a unit of alcohol cannot be sold, however 5 years later the policy has still not been implemented, as it is subject to legal challenges from the alcohol industry.

There is some evidence to suggest that higher densities of alcohol outlets are associated with increased consumption and alcohol-related harm. For example, one study found that Scottish neighbourhoods with the most alcohol outlets have double the alcohol-related death rate compared to those with the fewest outlets. Deprived areas often have greater concentrations of alcohol outlets, which has been linked to higher
levels of violence and crime, as well as alcohol-related hospital stays. Public health has been a 5th licensing objective in Scotland since 2005, however stricter licensing regulations which further restrict access to off-license alcohol are increasingly important due to the rise in home drinking which is much harder to regulate.13

Finally, increased welfare spending and policies to reduce poverty and promote equality of opportunity would have broader socio-economic benefits and help to reduce health inequalities in the long term. Early intervention, additional support, training and skills development would improve employability and help to reduce social exclusion in deprived communities. Long term benefits could therefore include reduced alcohol-related harm, improved mental health, reduced household poverty and reduced food insecurity and childhood obesity.14 In order to effectively tackle health inequalities, deprivation and alcohol-related harm it is therefore essential to consider broader poverty-reduction strategies, as well as public health initiatives.

**Recommendations:** Scotland has been at the forefront of alcohol harm prevention strategies, having introduced legislation to restrict the hours during which alcohol can be sold, enforcing restrictions on drinks promotions and reducing the drink-drive limit.15 However, the rise in home drinking means that a lot of alcohol consumption is now taking place in a much less controlled and less regulated environment, there is therefore an increased risk of ‘harm to others’ including the impact of parental drinking on children and domestic abuse.

Alcohol advertising, marketing and promotion should be restricted and compulsory, early intervention education campaigns conducted in Scottish schools. However, arguably voluntary, educational approaches to alcohol harm prevention are no longer sufficient and radical prevention measures to make alcohol less accessible and affordable, such as minimum unit pricing and licensing restrictions, are desperately needed in order to break the cycle of alcohol-related harm in Scotland.16

**Conclusion:** Overall, alcohol represents a ‘very real and lethal epidemic’ in Scotland, with the most deprived communities suffering most, as they are forced to bear the economic and human cost of alcohol-related harm. ‘Upstream,’ preventative policies and a long-term strategy to tackle binge drinking in Scotland is morally and economically imperative; minimum alcohol pricing, bans on advertising, tighter licensing regulations and alcohol outreach in deprived communities are all cost-effective measures which could help to reduce the growing burden of alcohol harm on the NHS and other public services. However, ultimately a cultural change in attitudes towards alcohol is needed, which would be an extremely long, slow process, as well as being difficult to promote and implement in Scotland, where alcohol is so deeply socially and culturally entrenched.

**Limitations:** This research briefing only considered English-language sources published in the last 10 years which focus on the UK; therefore there may be additional, relevant data that has not been included. This briefing sought to summarise the main theories and debates, but as this is a rapidly evolving policy area there is a lack of published data and more research is needed in order to analyse how public health interventions impact different social groups and to establish the exact mechanisms through which alcohol consumption leads to health inequalities.
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