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Sir Robert Chote
UK Statistics Authority
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3 July 2023

Dear Sir Robert,

I am writing to request a review of the Public Health Scotland report 'Evaluating the impact of minimum unit pricing for alcohol in Scotland: A synthesis of the evidence' and the associated publicity and ministerial statements.

<https://publichealthscotland.scot/publications/evaluating-the-impact-of-minimum-unit-pricing-for-alcohol-in-scotland-a-synthesis-of-the-evidence/>

It purports to be "the final report from the PHS evaluation of minimum unit pricing for alcohol in Scotland".

It is likely to be used in Scottish Government decision making on whether to continue with MUP and whether to raise the minimum unit price of alcohol.

However, I am concerned the report and associated publicity and ministerial statements significantly overstate the health impact of MUP, and under-represent the significant uncertainty in the wider body of research and among the scientific community.

I will outline my concerns in turn.

THE PRESS RELEASE

On 27 June 2023 the Scottish Government distributed the following press release.

<https://www.gov.scot/news/minimum-unit-pricing-has-positive-impact-on-health/>

It states the conclusion that MUP “has saved lives, reduced hospital admissions and had a positive impact on health” was drawn from “robust, independent evaluation’ and the best-available, wide-ranging evidence drawing on 40 independent research publications”.

It also states: “This follows a study published in March by PHS and University of Glasgow showing MUP reduced alcohol consumption by 3%, deaths directly caused by alcohol consumption by 13.4% and hospital admissions by 4.1%. compared to what would have happened if MUP had not been in place.”

However, this conclusion is not drawn from 40 publications. 32 of these publications referenced in the “final report” are silent on health impacts and focus on other issues such as consumption.

Of the eight publications that do address health impacts, seven of them are inconclusive.

Only one study concluded MUP had reduced deaths — the PHS and University of Glasgow study mentioned in the press release.

This study was led by Grant MA Wyper, public health adviser to PHS.

<https://www.publichealthscotland.scot/media/18509/evaluating-the-impact-of-alcohol-minimum-unit-pricing-mup-on-alcohol-attributable-deaths-and-hospital-admissions-in-scotland-english-march2023.pdf>

This “final report” does not “follow the PHS and University of Glasgow study”. It merely restates its findings.

Furthermore, it was not “independent”. It was commissioned by PHS and led by a PHS adviser.

The PHS/Glasgow University report was itself a retread of a report that appeared in The Lancet the previous day.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)00497-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00497-X/fulltext)

These reports are presented as two distinct studies in the latest PHS “final report” as Wyper et al (2023a) and Wyper et al (2023b).

This “final report” does not build on the Wyper study. The seven other studies addressing health impacts are inconclusive.

The conclusion that MUP has reduced deaths was not robust, nor drawn from wide-ranging independent evidence. It was drawn from a single PHS report.

Also, the report itself states that the 4.1 per cent reduction in hospitalisations was not statistically significant.

Therefore, the Scottish Government cannot definitively say “MUP reduced...hospital admissions by 4.1%”.

THE LANCET STUDY

The assertion that there were 13.4% fewer deaths “compared with what would have been observed in the absence of MUP legislation” overstates the uncertainty in statistical modelling.

No statistical model can say definitively what “would have” happened, as The Lancet study acknowledges in its methodology.

Indeed, “would have” becomes “might have” in the discussion section of the study.

“Study outcomes were assessed using a controlled interrupted time series study design, allowing us to determine the difference between outcomes we observed and our best representation of what might have happened under the counterfactual situation that MUP legislation was not enacted in Scotland.”

It concludes deaths rose faster in England in the absence of MUP therefore MUP “averted...an average of 156 deaths” each year in Scotland.

An additional 156 deaths a year would be a significant acceleration of the trend seen in the preceding 20 years, which was generally downward in the first decade and plateaued in the low thousands before the pandemic.

An acceleration this size was not witnessed in any of the regions of England with a similar population and demographic to Scotland, for example North West England, which saw a post-pandemic increase of a similar magnitude to Scotland despite the cheaper alcohol.

CRITICISMS OF THE LANCET STUDY

Dr Adam Jacobs, Senior Director, Biostatistical Sciences at Premier Research, challenged the methodology behind the 13.4 per cent increase.

He said: “It is plausible that the MUP policy would bring down deaths and hospitalisations due to alcohol consumption, but I don’t think this paper shows it convincingly.”

Prof Kevin McConway, Emeritus Professor of Applied Statistics, The Open University, rightly took issue with the “causal interpretation” in The Lancet study.

He said: “This is an observational study, and no matter how well other factors are controlled for, it can never prove conclusively that the changes observed in deaths were due to the minimum unit pricing policy. In my view there hasn’t been enough caution given around assuming this relationship is causal...”

“We can’t say that MUP definitely led to a 13.4% reduction in deaths, though that does clearly remain an important possibility...”

“While it’s possible that the deaths or hospitalisations would have decreased enough to be detectable in the follow-up period here of 32 months after MUP, it’s also possible...that they aren’t clearly detectable on that time scale, though (if they really exist) the effect should show up, and indeed be much larger, later. And given what the time lag specifications look like in the Holmes paper, in another 7 or 8 years the reductions in deaths would be immense, implausibly immense indeed, given the size of the estimate after just over 2.5 years.

“Or it’s possible that what is being picked up in the new study is an effect of a change in alcohol consumption that occurred considerably earlier than MUP, so couldn’t have been caused directly by MUP...”

“So overall, in my view, there remains some doubt about whether MUP definitely caused the alcohol consumption change and therefore whether it is responsible for reductions in deaths.”

<https://www.sciencemediacentre.org/expert-reaction-to-study-looking-at-alcohol-related-deaths-and-hospitalisations-in-scotland-since-the-minimum-unit-pricing-for-alcohol-policy-was-brought-in/>

THE “FINAL REPORT” AT A GLANCE

<https://publichealthscotland.scot/media/20493/minimum-unit-pricing-mup-for-alcohol-evaluation-findings-at-a-glance.pdf>

The at a glance conclusion states:

“Overall, the evidence supports that MUP has had a positive impact on health outcomes, including alcohol-related health inequalities.”

However, the finding for health above states:

“MUP reduced deaths directly caused by alcohol consumption by 13.4% and hospital admissions by 4.1%.

“Reductions were greatest for men and those living in the most deprived areas of Scotland.

“There is no consistent evidence of impact, positive or negative, on other health outcomes.”

This is not “overall” evidence. It’s a single study.

The conclusion should have stated:

“One study supports that MUP has had a positive impact on deaths and there is no consistent evidence of impact, positive or negative, on other health outcomes.”

THE “FINAL REPORT” BRIEFING

<https://publichealthscotland.scot/media/20333/evaluating-the-impact-of-minimum-unit-pricing-for-alcohol-in-scotland-briefing.pdf>

The briefing concludes:

“Taken together, the evidence supports that MUP has had a positive impact on health outcomes.”

Taken together, the evidence does not support this. A single questionable study estimated the reductions of deaths. The rest of the evidence was inconclusive.

THE “FINAL REPORT”

<https://publichealthscotland.scot/media/20366/evaluating-the-impact-of-minimum-unit-pricing-for-alcohol-in-scotland-final-report.pdf>

Section 3.3 on page 33 confirms evidence relating to alcohol-related health outcomes was drawn from eight papers, not the 40 papers that the press release suggests.

It confirms the 13.4 per cent death reduction figure was drawn solely from the Wyper paper (Item 25 in the bibliography) and confirms the 4.1 per cent reduction in hospitalisations in Wyper was “non-significant”.

It cites Wyper at length but gives short shrift to the other inconclusive papers.

It states: “The five other papers that contributed relevant quantitative evidence found no evidence of impacts in alcohol-related health outcomes, either positive or negative: there appears to have been no effect at a population level on alcohol-related ambulance callouts, (Manca 2022) prescriptions for treatment of alcohol dependence (Manca 2023) emergency department attendance (So 2021) or the level of alcohol dependence or self-reported health status in drinkers recruited through alcohol treatment services in Scotland, relative to England. (Holmes 2022).”

MINISTERIAL STATEMENTS

On June 27, Humza Yousaf, Scotland's first minister tweeted:

"When @ScotGov proposed Minimum Unit Pricing over a decade ago, it was a pioneering approach to tackling alcohol harm and some had their doubts.

"Increasing evidence is now vindicating our approach. It's saving over 150 lives a year."

<https://twitter.com/HumzaYousaf/status/1673654526887313408?s=20>

ANALYSIS: There is no increasing evidence. There is one consistently rehashed and questionable PHS paper and about half a dozen inconclusive papers.

On June 27, The SNP tweeted MUP has led to "a major reduction in alcohol related deaths"

<https://twitter.com/theSNP/status/1673688813518966786?s=20>

ANALYSIS: Alcohol related deaths have risen since MUP was imposed. The SNP omitted the crucial caveat that the reduction was based on a hypothetical model.

Please investigate the matters raised in this correspondence and advise.

Yours faithfully,



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Shadow Cabinet Secretary for Health and Social Care
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