Response to Sim et al.

Dark nudges and sludge from alcohol industry-funded organizations: We still need to "Be Aware of Drinkaware"

We thank Dr. Sim and colleagues for their reply. Industry funding of research and health information campaigns, including through intermediary bodies, is an area of growing research and we welcome this opportunity for discussion about the issue. In the interest of transparency, we wish to emphasise the ideas and evidence that inform our research, as these considerations can too quickly be overlooked when the debate is narrowed down to a particular issue about any given manuscript. As a research group constituted of public health researchers and medical doctors we are first and foremost dedicated to contributing to addressing the harms of alcohol use, a major global health problem that continues to be a leading cause of morbidity and mortality in high, middle and low income countries.[1] We also believe that the provision of health information is a form of public health intervention, and as such it must be based on robust independent evidence, overseen by strong systems of governance not compromised by conflicts of interests, and held to high standards - including being subjected to external independent review.

Our research is also informed by decades of evidence detailing how industries, particularly those which profit from the production, marketing and sale of harmful products, expend considerable resources carefully monitoring, influencing, and managing what is known about the harms of their products. [2] They also seek to counter evidence that threatens their profits and power. This influence is exerted through many diverse channels and employs elaborate strategies.[2,3] It is within this context that we conduct our research, and advocate for the importance of ensuring that any information that is provided in the interest of promoting public health maintains evidential integrity along the entire path from initial development to final publication. This understanding must lead those who take part in the dissemination of such information to ensure that this path is transparent and open to scrutiny. It also requires that health professionals acknowledge the threat that harmful industry influence poses to health information, and take action to protect the integrity of that information - including recognition that these biases, distortions and misinformation may be subtle and sometimes even unconsciously introduced by those involved.

In this context we find it disappointing that, as independent medical advisors, they do not engage with any of the substantive findings nor with the evidence we cited supporting the need for this study, nor with the implications of our findings.[4] Instead, their response appears to be largely confined to defending the reputation of Drinkaware, with whom they have previously been co- authors.[5]

Even if Drinkaware is formally independent of the alcohol industry that funds it, its messaging and information materials consistently align closely with the misinformation and framings used by other alcohol industry (AI)-funded organizations, and by alcohol industry companies themselves.[6,7] This includes strategically ambiguous messaging, omissions and mixed messages over alcohol-related cancers, particular breast cancer, as shown

previously.[8,9] [10] Drinkaware's misinformation on pregnancy-related alcohol harms is also consistent with misinformation from other AI-funded organisations, as noted previously. [11,12]

The use of marketing-style messages from AI Corporate Social Responsibility bodies has also been shown before, and Drinkaware uses similar mixed messages.[13] Given Sim et al.'s interest in comparative studies, we refer them to our analysis of the Twitter feeds of Drinkaware and other AI-funded bodies, in which we compared non-AI-funded bodies with AI funded bodies, including Drinkware.[13] The study found that AI-funded bodies are significantly less likely to tweet about alcohol harms, about the influence of marketing and advertising, about cancers, and about regulatory measures addressing pricing and advertising restrictions, among others (See Table 2 below, reproduced from the paper). AI-funded organizations were also, like Drinkaware, less likely to tweet about the impact of drinking on the emergency services. We note again however that in analysing misinformation there is no logical need for comparison with other organisations. Analyses of tobacco industry documents, or other misinformation, do not logically require such approaches. Our current analysis is not an epidemiological study but a documentary analysis. We explain this in detail in our paper.

Why might it be, then, that AI-funded charities spread misinformation about serious alcohol harms, and are surprisingly coy about certain key topics, including the role of alcohol advertising and marketing? It comes down, of course, to conflicts of interest, the importance of which Sim et al. dispute. The alcohol industry is reliant on levels of sales that are consistent with drinking at harmful levels for a significant proportion of its overall revenue.[14] [15] It therefore has a clear conflict of interest with respect to reducing consumption levels, and there is substantial evidence that such conflicts guide both corporate political activity and corporate social responsibility activities, such as funding charities.[16] [17]

Sim et al. also cite Gray et al.'s comments on conflicts of interest, in support of their argument. They have omitted a key part of the context. Our commentary on Gray et al.'s paper [18] pointed out that they had misrepresented their own conflicts of interest, particularly their alcohol industry funding, and had placed the relevant statements in the supplement where readers are unlikely to see them, despite the journal guidelines.[18] It is remarkable that Sim et al. seem to agree that alcohol industry funding does not represent an important conflict of interest when writing about alcohol – particularly the harms and how to address these.

Table below reproduced from "Alcohol Industry CSR Organisations: What Can Their Twitter Activity Tell Us about Their Independence and Their Priorities? A Comparative Analysis" *Int. J. Environ. Res. Public Health* **2019**, *16*(13), 2421." available at https://www.mdpi.com/1660-4601/16/5/892

Table 2. Twenty most common topics tweeted about in 2016 by alcohol industry-funded and non-industry-funded bodies (non-industry bodies shaded in grey) *n* (%).

Topic	Drinkaware	Drinkaware.ie	DrinkWise	AAI[1]	Alcohol Concern	FARE[2]	Total
Drinking too much	101 (12.1%)	14 (6.0%)	3 (3.4%)	17 (3.6%)	13 (1.8%)	40 (9.0%)	188 (6.7%)
Marketing, advertising, sponsorship or restrictions	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (7.6%)	42 (5.8%)	88 (19.8%)	166 (5.9%)
Drink driving	36 (4.3%)	41 (17.7%)	4 (4.5%)	64 (13.5%)	18 (2.5%)	1 (0.2%)	164 (5.8%)
Cancer	27 (3.2%)	11 (4.7%)	0 (0.0%)	34 (7.2%)	54 (7.4%)	2 (0.5%)	128 (4.6%)
Cutting down/cutting back	88 (10.6%)	16 (6.9%)	10 (11.2%)	7 (1.5%)	4 (0.5%)	0 (0.0%)	125 (4.5%)
Children/underage drinking	57 (6.8%)	7 (3.0%)	7 (7.9%)	9 (1.9%)	7 (1.0%)	27 (6.1%)	114 (4.1%)
Alcohol harms incl. dementia, diabetes, asthma, heart	23 (2.8%)	2 (0.9%)	0 (0.0%)	32 (6.7%)	29 (4.0%)	16 (3.6%)	102 (3.6%)
Calories/Obesity	89 (10.7%)	4 (1.7%)	0 (0.0%)	2 (0.4%)	3 (0.4%)	0 (0.0%)	98 (3.5%)
Teens/Parents	11 (1.3%)	65 (28.0%)	6 (6.7%)	5 (1.1%)	0 (0.0%)	0 (0.0%)	87 (3.1%)
Mental health	39 (4.7%)	3 (1.3%)	0 (0.0%)	22 (4.6%)	18 (2.5%)	0 (0.0%)	82 (2.9%)
Alcohol Pricing or Taxation or MUP[3]	0 (0.0%)	0 (0.0%)	0 (0.0%)	37 (7.8%0	34 (4.7%)	9 (2.0%)	80 (2.9%)
Staying safe	55 (6.6%)	13 (5.6%)	8 (9.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	76 (2.7%)
Pregnancy or fertility	10 (1.2%)	0 (0.0%)	1 (1.1%)	10 (2.1%)	9 (1.2%)	27 (6.1%)	57 (2.0%)
Alcohol guidelines	25 (3.0%)	12 (5.2%)	1 (1.1%0	4 (0.8%)	7 (1.0%)	0 (0.0%)	49 (1.7%)
Anger/Aggression	8 (1.0%)	0 (0.0%)	0 (0.0%)	6 (1.3%)	0 (0.0%)	26 (5.9%)	40 (1.4%)
Other peoples drinking	19 (2.3%)	0 (0.0%)	0 (0.0%)	18 (3.8%)	1 (0.1%)	1 (0.2%)	39 (1.4%)
Definition of units of alcohol	24 (2.9%)	11 (4.7%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	36 (1.3%)
Alcohol-free or low alcohol drinks	19 (2.3%)	1 (0.4%)	0 (0.0%)	0 (0.0%)	11 (1.5%)	0 (0.0%)	31 (1.1%)
Impact on emergency services	2 (0.2%)	5 (2.2%)	0 (0.0%)	5 (1.1%)	10 (1.4%)	9 (2.0%)	31 (1.1%)
Other	75 (9.0%)	23 (9.9%)	25 (28.1%)	51 (10.7%)	223 (30.5%)	89 (20.0%)	486 (17.3%)
Total	835						

[1] Alcohol Action Ireland; [2] Foundation for Alcohol Research & Education; [3] Minimum Unit Pricing.

We stand by our statement that *"…in the case of AI misinformation or disinformation we also need to consider the role of clinicians and others involved in advising these organizations, and whether this is consistent with their professional codes of ethics"*. This is one of many lessons which public health has learned from the history of the tobacco industry. It is well-documented that the tobacco industry were and are dependent on clinical and other experts to provide cover for their disinformation, as part of "healthwashing" campaigns.[19] Other harmful industries, including parts of the food and beverage industries, and the fossil fuel industry, have done the same.[2,20] To reduce the risk to public health it is therefore crucial to consider how industry-funded structures, and strategic partnerships with legitimate experts, may enable the propagation of misinformation. The evidence of the tobacco and other harmful industries shows us clearly that these structures include industry-funded consultants and advisors, who may themselves be unaware of the extent of the supporting role they play.[21] [19]

We therefore again encourage Sim et al. to consider where the misinformation and industry-friendly framings are introduced, despite their involvement as expert advisors.[6] [8,9] [12] They may also wish to consider whether their advice is sufficient, as opposed to independent and transparent scrutiny of Drinkaware's materials and processes.

In short, repeated analyses have shown that alcohol industry-funded charities are a vector of industry-friendly misinformation. These are not 'allegations' as Sim et al. call them. These are consistent, replicated peer-reviewed scientific findings. Sim and colleagues' reply ignores the fundamental problem of Drinkaware's misinformation. In the words of a previous analysis, we still need to "Be Aware of Drinkaware". [6]

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