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The emperor has no clothes: a synthesis of findings from the Transformative Research on the Alcohol industry, Policy and Science research programme

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ABSTRACT

Background and Aims: The Transformative Research on the Alcohol industry, Policy and Science (TRAPS) programme investigates the alcohol industry, with an innovative focus on public health sciences. TRAPS adds to an under-developed literature on the study of alcohol industry influence on alcohol policy making. This paper provides a synthesis of TRAPS findings to inform future research.

Methods: We conducted an interpretive review of TRAPS research findings across its component studies, identifying and integrating the key contributions made by individual studies to the literature on alcohol policy making and science, and identifying areas where TRAPS progress was limited. This produced themes for consideration in future research agenda setting.

Results: TRAPS research explored the intervention of the alcohol industry in science and policy making using various methods, including systematic reviews, qualitative interviews, and network analysis. These studies identified the industry's political activities in several key areas, such as the debate over minimum unit pricing (MUP), cardiovascular health and alcohol research, and a long-running public relations programme developed in close connection with the tobacco industry. Collectively, the research shows that alcohol policy making has involved a contest between the research community and alcohol industry actors about whether and how science should be used to inform policy.

Conclusions: The Transformative Research on the Alcohol industry, Policy and Science (TRAPS) programme demonstrates the need for a transdisciplinary approach to understand the nature of corporate political activity; the crucial role industry involvement in science plays in the development of corporate political power; and how public health actors have successfully overcome industry opposition to evidence-based policies. Advances in alcohol policy should be underpinned by strong, reflexive public health sciences, alert to the role of industry in the alcohol harms under study, and thorough in their investigation of the alcohol industry as an object of research in itself.

Keywords: Alcohol industry, science, policy, public health, commercial determinants of health, corporate power

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INTRODUCTION

Alcohol is responsible for approximately three million deaths globally every year (1). The Transformative Research on the Alcohol industry, Policy and Science (TRAPS) research programme was established in 2016 to investigate the alcohol industry and public health sciences and policy. TRAPS had its origins in an earlier set of studies that examined alcohol industry influence on British alcohol policy (2-4). There had previously been little study of alcohol industry methods of influencing public policies in Britain (5, 6), or elsewhere (7-11).

Baggott (6) made the arresting observation that in Britain, as elsewhere, national alcohol policies typically operated directly in opposition to the research evidence; ineffective policies were the norm, and scientific evidence was largely ignored in policy making. Alcohol industry actors were highly involved in British policy making, building on deep historical connections to the Conservative Party (6), extending also to the Labour Government from 1997-2010 (12). With devolution of the hitherto highly centralised UK state, innovations in alcohol policy emerged in Scotland (4, 13). In 2008, for example, the Scottish government initiated a consultation on a new alcohol strategy and invited submissions from stakeholders, including the alcohol industry. Subsequent analysis of industry submissions showed that alcohol industry actors misused scientific evidence in highly coordinated and multi-faceted efforts to prevent the adoption of policy measures that ran counter to business interests (14).

This latter finding provided the specific stimulus for TRAPS. A preparatory study was undertaken on whether alcohol industry funding biased scientific data on alcohol's purported cardiovascular benefits, identifying evidence of possible industry influence of findings on stroke, and underscoring the need for rigorous research (15). Other preparatory studies identified the multiplicity of actors involved, including so-called 'social aspects organisations' (SAOs; corporate social responsibility (CSR) vehicles), think tanks, and charities, with the alcohol companies themselves not being particularly visible (16-19).

The key global policy context for TRAPS was the recognition by the World Health Organisation (WHO) of the need to accelerate action to reduce alcohol harms (20, 21). The World Health Assembly approved plans leading to an intensification of action (20). This followed recognition that alcohol industry interference in policy making was thwarting progress by delaying the implementation of the most effective measures (21, 22).

The TRAPS research programme was located within the Department of Health Sciences at the University of York. TRAPS comprised a multi-disciplinary team of public health and social scientists, with collaborators across the globe. It was funded by the Wellcome Trust, with support from the University of York. Between 2016 and 2022, the team conducted studies that investigated the relationship between the alcohol industry, public health science, and policy.

In this paper, we provide an interpretive synthesis of the findings from the TRAPS research programme. We identify some key implications for future research on alcohol and show why research on the alcohol industry as a dedicated object of study is vital to the

advancement of public health alcohol research.

METHODS

From the outset, TRAPS aimed to provide an empirical foundation for developing an orientation within alcohol sciences towards the alcohol *industry* as an object of study. Work was thematically organised in a series of four linked strands: the nature of the industry itself; industry involvement in science (evidence production); industry involvement in policy making; and industry activity at the science/policy interface (evidence use by industry actors and management of the use of evidence by other parties). The decision was made to build new conceptual frameworks as the work advanced. This meant avoiding affording primacy to any particular discipline. Relatedly, we eschewed scaffolding ideas within the research fields upon the analysis of any other industry (e.g., tobacco or pharmaceuticals) to enhance our capacity to identify novel practices or characteristics rooted in the observed features of alcohol industry activities. The ethos of TRAPS was thus highly empirical, conceptually eclectic and transdisciplinary, and this is reflected in the nature of this synthesis.

Through an iterative process of careful analytic engagement, we produced a new interpretive synthesis (23) and identified major themes to be considered in research agenda setting. The data set comprised every formally accepted TRAPS study published as of March 2022. The review was not a simple summary of all existing research undertaken within TRAPS although it does provide a meta-summary of a substantive body of work. Rather, it integrated TRAPS findings interpretively across its component studies (83). As such, the analysis was not pre-registered, so the results should be considered exploratory. We identified key contributions made by individual studies to the literature on alcohol policy making and science and, as a platform for thinking about future research priorities, reflected on overall TRAPS progress, identifying areas where this has been limited.

RESULTS

TRAPS began by undertaking a series of systematic reviews that summarised and evaluated the content of the peer-reviewed literature on industry involvement in science, CSR, and policy making (24-27). This identified serious longstanding concerns in the research community about the integrity of the scientific evidence base itself, despite which there was little formal study of industry funding as a source of bias or interference in the processes of undertaking research (24). Moreover, industry actors were identified as seeking to shape the evidence informing policy making by making instrumental use of alcohol science research. This review also showed that a substantial minority in the research community held opposing views to the concerns raised by the majority about the scientific activities of the industry (24).

The existing literature on alcohol industry involvement in policy making, though small, was the most developed methodologically, and provided the strongest evidence across these

systematic reviews. This found that industry actors sought to keep alcohol issues off highlevel policy agendas by framing the issues in ways which protected commercial interests and narrowed the focus of discussion when policy debates did arise (25). In tandem, alcohol industry actors invested substantially in building long-term relationships with policymakers to shape policy making norms, including the promotion of 'partnerships' between industry and government. Industry actors pragmatically used different organisational forms in particular contexts (25). Such sophisticated strategies were developed over time, and have largely been successful across the world, even in the face of setbacks, at delaying or even reversing policy initiatives to reduce alcohol harms (25).

A TRAPS systematic review of alcohol industry's CSR initiatives found these were used to influence the framing of the nature of alcohol-related issues in line with industry interests. There was no robust evidence that the industry's preferred initiatives were effective in reducing harmful drinking (26). An important study limitation was that CSR initiatives fused with marketing were excluded because marketing was not part of the TRAPS remit. This review may therefore have understated the significance of CSR in advancing industry interests. Finally, a TRAPS systematic review examined the integration of business, CSR and political strategies in public health surveillance studies of alcohol industry actors (27). This found a high degree of collaboration in political strategy development between companies, facilitated by changes in the structure of the international alcohol industry; the growing concentration of global producers operating in increasingly oligopolistic markets (27).

Alcohol policy making studies

Minimum unit pricing (MUP) has been the key alcohol policy dispute in Britain during the life of the programme (see Box 1). MUP was first discussed in Scotland in 2008 and implemented after a long delay in 2018. The UK government announced its intention to implement MUP in 2012 but then reversed these plans. In 2017, the Welsh government legislated for MUP and implemented the measure in 2020. In England, we examined how ideas about partnership were institutionalised to limit the scope for MUP and other alcohol policy innovations (28). A multiple streams approach demonstrated how a policy window opened for MUP and was then closed (29). The backdrop was the longer-running effort to adopt MUP in Scotland; there we examined industry strategies which successfully delayed implementation, including early and ongoing threats of the prospect of litigation (30). These strategies included seizing numerous opportunities to block policies within the European Union's multi-level system of governance (31). In Scotland (30), as in England in the revision of low risk drinking guidelines (32), partnership rhetoric was cast aside and an adversarial, even threatening posture was adopted when the industry's interests were compromised. Industry actors chose carefully which battles to fight, where and when (33, 34). In some countries, the alcohol industry has been shown to be highly dependent on a minority of heavier consumers for a large proportion of its revenue (82). Policy measures aimed at reducing consumption among this group of drinkers, such as MUP, are defined by industry actors as a key threat to its interests.

Drawing on expertise in political science, TRAPS developed a framework that incorporated the intersection of interests, institutions, and ideas to take forward research on how

industry actors use lobbying, framing, and institutional access in policy making (35). This required situating industry in relation to competing actors, particularly those involved in public health advocacy (36), and in specific institutional contexts (37, 38). In Wales, as was the case earlier in Scotland, limited industry organisation at the level of the devolved administration constrained the ability to impede MUP policy development (39). Unlike in Scotland, the implementation of MUP was not directly delayed by a series of legal challenges by industry (39). Instead, slow progress of the legislation in Wales was in part a consequence of governmental caution about the prospect of an industry challenge. However, in this case, industry efforts to prevent or delay MUP were muted, providing further evidence of 'venue shopping' in the context of multi-level governance.

In Ireland, MUP was just one component of a comprehensive and world-leading package of alcohol policy changes. As such, it was not the focus of industry contestation and other aspects of the legislation dominated political debate (40). As in Wales, accumulated effects of earlier policy failures helped foster the emergence of a consensus among the major political parties that alcohol needed to be dealt with as a public health issue (41, 42). Both the legacy of policy failure and innovations in the political organisation of the public health community had concomitant consequences for the tactics used by industry actors, but these adaptations had limited success in weakening the legislation (40, 43). Tactics included: using involvement in the policy making process to obstruct particular provisions; coalition-building and mobilising proxies, with the major companies barely visible; and making use of extensive political resources in commissioning lobbying (43). As seen previously in Scotland and Wales, high-level political leadership and cross-party support were needed to secure the opportunity for policy change once the window of opportunity opened (40). As a consequence of these studies, researchers now have examples of instances in which industry interests did not prevail in alcohol policy decision-making, with lessons that may be transferable to both policy research and policy advocacy elsewhere. These findings can help researchers better understand the scope of (and limits to) the alcohol industry's political power and can potentially be applied and/or adapted to the study of industry influence in other public health contexts.

Alcohol industry involvement in science

A TRAPS bibliometric study, which assessed declared funding in articles in the Web of Science suite of databases, revealed that alcohol companies and related organisations are much more extensively involved in scientific research than previously understood (44). A TRAPS co-authorship network analysis of systematic reviews on alcohol, cardiovascular disease and industry funding (46), found that the design of studies differed between authors with histories of industry funding and those who did not. It also found the presence of distinct industry-linked sub-networks, and that all reviews with industry funding connections reported positive outcomes for low-dose alcohol consumption, in contrast to mixed findings across the wider literature (46).TRAPS conducted a detailed analysis of the controversy that arose in 2018 about the Moderate Alcohol and Cardiovascular Health (MACH) trial, which secured two-thirds of its \$100 million funding from the alcohol industry and was supported by the US National Institutes of Health (83). The MACH trial was designed to investigate the possible cardioprotective effects of alcohol and was terminated due to institutional failings that led to a biased trial design (45). The TRAPS study showed how the process of soliciting research funding from large alcohol companies had intrinsically biased the trial, for example by being designed to avoid showing negative outcomes (45).

A TRAPS interview study conducted with researchers working on alcohol policy-relevant topics, the majority of whom had worked with the alcohol industry, examined the perceived impact of receiving alcohol industry research funding. This revealed enduring effects of receiving industry funding early in careers, despite individual grants having 'no strings attached' (47). Senior researchers who collaborated with SAOs to make their research more evidence-based generally discontinued and regretted that work (48). For researchers who had chosen to avoid working with industry, the alcohol industry was nevertheless a ubiquitous presence in their scientific lives, not least through active industry surveillance of the alcohol research field (49). Those who produced work that ran contrary to industry interests were subject to interventions, including intimidation (49). Almost all interviewees viewed alcohol industry involvement in research as damaging to the field in various ways and, drawing on their own experiences, would advise junior colleagues to avoid industry research funding (50).

As with the MACH trial (45), scientific and public controversies have been fruitful sites to uncover other features of industry involvement in science. A TRAPS study showed how interventions in peer-reviewed journals by SAOs which challenged research papers critical of alcohol industry organisations, functioned to foster controversy about new evidence and bolster their appearance as legitimate scientific actors (51). Another TRAPS study showed how an anthropological report commissioned by a major alcohol company was used to influence public policy decision making on alcohol and violence - another challenging issue for industry (52). This was after the report had been exposed in this journal as being largely devoid of meaningful scientific contribution (53).

Alcohol industry engagement with science became more intensive in the mid-1990s as the major companies became global operators (54); its earlier roots remain largely understudied. TRAPS research has attempted to rectify this using the tobacco industry documents archive in several studies (55-57). It is well known that Hill and Knowlton, a public relations (PR) company, developed and managed the tobacco industry's scientific programmes from the early 1950s onwards (58). A TRAPS study found that Hill and Knowlton was working with the US distilled spirits industry before they began working with tobacco industry, and that the two industries worked closely together at key moments in the subsequent decades (56). As with tobacco, at the core of the alcohol industry approach was funding research to advance what were explicitly conceived as PR goals (56). Facing what they saw as an existential threat in the 1980s, the alcohol industry developed a global network of SAOs to counter national alcohol policies, a network which has expanded, and which continues to play an important role (56). At the heart of the PR message is the idea that it is individual (heavy) drinkers who are the problem, and they, not the product itself, should be the subject of focused intervention, a narrative that was first established in the

1950s (56).

The science-policy interface

The alcohol industry has good reason to fear that alcohol is viewed similarly to tobacco, and to hide its close connections: both sectors sell drugs that are toxic and addictive and manipulate the dose of the drug for commercial purposes (59, 60). They also recruit users when young through major investments in marketing. Both industries derive their profits from unhealthy levels of consumption (60, 61), and the rationale for regulation is basically the same (60). Arguably, the overall societal impacts of alcohol are equivalent to, or greater than, tobacco (61). Box 2 presents key TRAPS data on the relationship between the alcohol and tobacco industries.

Conflicts in alcohol policy making are, in an important sense, really all about science; in particular, whether the population-level evidence should inform the societal response. Remarkably, the norm has been that the science is largely ignored, in line with the industry PR game. There are signs, however, that the tide in alcohol policy may be turning, as exemplified by the studies undertaken in Britain and Ireland by TRAPS and others. As MUP and other national policy innovations are evaluated, and societal and public health benefits are identified (62), diffusion to other countries may be anticipated. It is also to be expected that industry will devote the resources needed to oppose such developments, including by further undermining science through research funding, and by targeting science policy (63). Box 3 offers high-level proposals for areas to be considered in research agenda setting based on TRAPS's findings.

DISCUSSION

TRAPS has made substantial contributions to the research literature on the alcohol industry, science and policy. This has come at a time when research attention has just begun to focus on alcohol policy, marketing and CSR, more so than on alcohol science itself (though see, for example, 64-65). Wider attention is also being given to transnational corporations in the commercial determinants of health agenda (66). The key contribution TRAPS makes is to demonstrate how essential a transdisciplinary approach is to understanding the nature of corporate political activity; the crucial role industry involvement in science plays in the development of corporate political power; and how public health actors have successfully overcome industry opposition to evidence-based policies. TRAPS was built on modest scientific foundations, so fulfilling a research agendasetting function may be its most important longer-term contribution.

The tobacco industry documents archive has enabled the beginnings of a historically grounded understanding of the contemporary practices of the alcohol industry (55-57). This research has revealed how the alcohol industry has been actively involved in shaping alcohol science since its contemporary foundations more than half a century ago. However, the full extent to which that intervention has biased the research agendas of alcohol science both historically and contemporarily is not known. TRAPS may have located the tip of the iceberg. More fine-grained attention to the roles of scientific and

other forms of evidence in policy making may help further expose the interests at play.

The political power of the alcohol industry is now much better understood in the research literature, and recognition of the illusory nature of its key arguments has paved the way for the policy changes we have seen to date. It is important to give attention to two key limitations of the TRAPS programme: firstly, the lack of focus on low- and middle-income countries, which is a limitation of the existing literature as a whole. Secondly, the lack of inclusion of the study of marketing, for which the research literature has expanded enormously in recent years and overlaps considerably with CSR (e.g., 67-70). These limitations are not separate, however, suggesting the importance of studying the fusion of political, CSR and marketing strategies and how they shape media and public understanding. For instance, making 'knowledge claims' about alcohol and alcohol harms outside scientific fora is increasingly well recognised within the research community (67, 71-75).

There are further limitations of this paper to consider. The aspiration here is to briefly appraise the contribution of the component studies within the context of the programme as a whole, and the understanding of the alcohol industry this permits. We have also reflected on the boundaries of this endeavour in constructing the synthesis, and this has afforded us the space to consider future horizons. The interpretive synthesis is content rather than methodology focused, and as such does not critically evaluate the methodological quality of the TRAPS studies included. Studies are interpreted and integrated only within the TRAPS programme and not across the wider literature. The review does not systematically explore how the alcohol literature has developed since the initial stages of TRAPS. Relevant studies in the years following the publication of our systematic reviews are not included, nor are older studies which were excluded from these by their study designs.

The original ambition of TRAPS was to help define the alcohol industry as an object of study, and this has been fulfilled to the extent of identifying implications in seemingly distant parts of the alcohol research literature (76). In various respects, all research on alcohol consumption and its consequences, including policies for responding to such impacts, is alcohol industry research. The actions of the industry producing, marketing, and selling this commodity will have some influence on what is being studied (77). Therefore, to a greater or lesser extent, attention should be paid to industry within the analysis.

We have begun to consider the possibilities for embracing the investigation of alcohol marketing within the kind of frame articulated here (78). Since corporate communications strategies seek to thoroughly integrate consumer marketing with CSR content and political strategies, alcohol advertising has political functions, and may also subtly bias scientific thinking (73, 78). In common with other key technological developments in contemporary capitalism, the goal is to persuade people without them being aware their thinking and actions are being scrutinised and influenced (78). Claims to be operating in the public interest serve to undermine rather than promote the professed causes, thus conforming to recent definitions of propaganda (79).

Big thinking and ambitious cross-national research investments (80) are now required to further develop the science base. Importantly, cross-industry studies are essential for building findings about the alcohol, tobacco, and other harmful consumption industries' science and policy shared 'playbook.' This may permit more substantial benefits to accrue as high-quality science informs the societal response. The scientific evidence production processes that inform policy developments may thus become mutually reinforcing where they help policy makers to enhance the integrity and effectiveness of policy making in the public interest (77). Yet we know that industry intervenes and influences science, and its contribution to policy, at multiple levels and is increasingly well-resourced to do so.

The research implications clearly extend far beyond a narrow focus on the industry itself. Beyond the conduct of specific research studies, there is a need to engage with the public and with policy makers. For reasons which should now be clear, both are extraordinarily complex undertakings which require long term commitments. The situation in which we now find ourselves could well get worse unless we embrace the many challenges that are now more clearly identifiable than when TRAPS began.

The alcohol industry's 'scientific' alcohol policy arguments are a PR sham; this emperor can now be seen to be wearing no clothes. The largest alcohol companies have globally attempted to – and have often been successful at – thwarting social and political responses to alcohol and the damage to health and welfare it causes. These successes have occurred, in part, by penetrating the institutions of alcohol policy making where they exist or preventing them from being developed. The possible effects on science funding are important to consider.

The alcohol industry cannot be regarded in simplistic terms merely as a bad actor but as a powerful set of corporate forces acting in their interests that continue to do enormous damage to population health and society. Just as the industry has been strengthened by consolidation into a small number of global companies (81), and the problems that are a consequence of its commercial activities have grown, so too has the willingness of some national governments to use existing evidence to take action to protect population health and well-being. The challenges posed by globalised marketing cannot be managed at the national level alone, and hence have been a key priority for WHO (20, 21). Policy making will be helped by science that is clear about three things: First, the nature of the industry and its practices, including its relationships with the tobacco industry (it would be a grave error to ignore the longstanding inter-dependencies between these industries). Second, the identification of false claims and distracting ideas perpetuated by the industry. Finally, the importance of exposing attempts to shape science and policy in the interests of powerful actors.

The thematic research agenda-setting material generated here is not in itself prescriptive in nature. Rather it draws attention to areas that can be seen as requiring development based on the findings of the TRAPS research programme. These are directions in research that have been slow to develop, in part due to industry involvement both directly, and in the shadow it casts over alcohol research, but also for many other reasons. It is for the alcohol research community and its stakeholders to reconsider history, present circumstances, and possible futures.

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Box 1: The experience with Minimum Unit Pricing (MUP) in Britain

What is it? MUP is a mechanism that establishes a floor price for a dose of alcohol, with retailers prevented from selling below it. MUP seeks to drive down demand for low-cost, high-alcohol products through price increases.

Who does MUP affect? Alcohol retailers, particularly supermarkets and off-license retailers, alcohol producers through these constraints, and consumers that regularly purchase and drink low-cost, high-alcohol products.

Where was MUP implemented? Scotland introduced a minimum price of 50p per unit of alcohol on May 1, 2018. Wales adopted similar legislation on March 2, 2020. England earlier decided to adopt MUP, then decided not to implement it.

What were the main arguments for policy change? Pricing interventions have long been recognised as among the most effective tools for reducing alcohol-related harm within society. Where easy access to cheap alcohol is a significant driver of harm, increasing the cost of alcohol holds particular appeal. In both Scotland and Wales, increasing taxes on alcohol was not possible due to limits on government decision-making authority. MUP was instead promoted and adopted.

What have been the key barriers to policy implementation? MUP legislation was opposed by the alcohol industry in Scotland. Led by the Scottish Whisky Association, the industry challenged the legality of the legislation at Scottish, UK and European levels. The legal challenges delayed MUP's implementation in Scotland by approximately 6 years. In England, well-positioned industry lobbying was prominent in a reversal of the decision to implement MUP. Wales proceeded slowly and carefully in anticipation of industry opposition.

Why does this matter? Well-resourced industry opposition can seek to maintain the status quo by keeping alcohol issues off policy agendas. When a government considers making evidence-informed alcohol policy decisions, they have reason to expect opposition from industry, however modest the measures. In some circumstances opposition will continue after the formal decision making appears to have been concluded, both when industry has influence within government and when it does not.

Box 2: Observations on relationships between the alcohol and tobacco industries over the past 70 years

- 1. The major strategic threat that population health protection poses to business interests has been recognised by both to be highly similar and deemed prohibitionist in nature (57).
- 2. From the 1950s onwards both used research funding to mould how key issues were defined, studied and thought about among scientists, the public and policy makers, with close connections in how the strategies were developed (56).
- 3. Alcohol problems were framed in individual rather than in population terms, and the cause of the problem was seen as lying in the consumer and not the product, in ways with strong parallels e.g., to the use of genetics as an explanation for lung cancer (25).
- 4. At key moments and the two industries have worked together in closely guarded ways, e.g., in monitoring WHO and other international agencies in the mid-1980s (56).
- 5. Tobacco interests had key roles in the formation of the global alcohol industry strategy in the mid-1990s, and in U.S. national trade associations (57).
- 6. Inter-relationships in ownership, control and strategic collaborations continue to this day (57).
- 7. Public health policy is not the only public policy target for collaborations between the two industries, e.g., they have recently worked together in trying to influence science policy (63).
- 8. Although the WHO Framework Convention on Tobacco Control has sought to exclude the tobacco industry from public health policy making, the alcohol industry enjoys close partnerships with national governments (28) and within the U.N. intergovernmental system.
- 9. Alcohol industry CSR innovations such as the proliferation of 'social aspects' organisations in recent decades have parallels with the use of front groups and astroturfing by tobacco (26).
- 10. At different junctures in political strategy development, tobacco has been led by alcohol and vice versa; the alcohol industry has not simply been manipulated by the tobacco industry, even if it appears that the latter has been more influential.
- 11. Much more is currently known about the tobacco industry than the alcohol industry, which should be considered when interpreting these observations (61).

Box 3: Major themes to be considered in research agenda setting

- 1. How are strategies developed in major alcohol companies? For example, what are the specific mechanisms linking the tobacco and alcohol industries at strategic levels, including the roles of scientists and senior executive relationships and crosssectoral movements, both contemporaneously and historically?
- 2. What lessons can be drawn from the experience with the tobacco industry? How can these insights be used to inform more in-depth study of the political economy, marketing and related activities of the major alcohol companies (and related corporate sectors)?
- There are few countries in which studies of alcohol policy making have been conducted. Retrospective studies can make use of public domain documents and key informant interviews to elucidate the roles of ideas and institutional characteristics.
- 4. Particular attention is warranted to low- and middle-income countries where the alcohol industry is expanding, and to global institutions. There are no studies with analytic foci that are inherently cross-national in nature, such as the receptivity of policy actors to ideas on alcohol policy options or the malleability of institutional features to industry influence.
- 5. Policy making studies also need to be undertaken prospectively, as policy debates unfold, so that research may contribute evidence that can be acted upon in a timely manner, for example in countering misinformation in the guise of CSR.
- 6. There is a need to recover alcohol science from the consequences of the long-term project of the alcohol industry. In developing ideas for future directions, we need to develop an appreciation of the nature and magnitude of problems that are deeprooted.
- 7. Public health should give more prominent consideration to the issue of alcohol and its commercial determinants, and how it can contribute toward the renewal of the alcohol research field.
- 8. Society needs to determine what it wants from alcohol research and how it should be funded.

References

- 1. GRISWOLD M. G., FULLMAN N., HAWLEY C., ARIAN N., ZIMSEN S. R. M., TYMESON H. D. et al. Alcohol
 - use and burden for 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016, Lancet 2018: 392: 1015-1035.
- 2. HAWKINS B., HOLDEN, C., MCCAMBRIDGE, J. . Alcohol industry influence on UK alcohol policy: a new research agenda for public health, Critical Public Health 2012: 22: 297-305.
- HOLDEN C., HAWKINS B., MCCAMBRIDGE J. Cleavages and co-operation in the UK alcohol industry: a qualitative study, BMC Public Health 2012: 12: 483.
- 4. MCCAMBRIDGE J., HAWKINS B., HOLDEN C. Vested interests in addiction research and policy: The challenge corporate lobbying poses to reducing society's alcohol problems: insights from UK evidence on minimum unit pricing, Addiction 2014: 109: 199-205.
- 5. BAGGOTT R. Alcohol, Politics and Social-Policy, J Soc Policy 1986: 15: 467-488.
- 6. BAGGOTT R. Alcohol, Politics and Social Policy Aldershot: Avebury; 1990.
- 7. GREENFIELD T. K., GIESBRECHT N., KASKUTAS L. A., JOHNSON S., KAVANAGH L., ANGLIN L. A study of the
 - alcohol policy development process in the United States: Theory, goals, and methods, Contemporary Drug Problems: An Interdisciplinary Quarterly 2004: 31: 591-626.
- 8. GREENFIELD T. K., JOHNSON, S.P., GIESBRECHT, N. The alcohol policy development process: Policymakers speak, Contemporary Drug Problems 2004: 31: 627-654.
- 9. GIESBRECHT N., JOHNSON, S., ANGLIN, L., GREENFIELD, T.K., KAVANAGH, L. Alcohol advertising
 - policies in the United States: national promotion and control initiatives, Contemporary Drug Problems 2004: 31: 673-710.
- 10. GIESBRECHT N. Roles of commercial interests in alcohol policies: recent developments in North America, Addiction 2000: 95 Suppl 4: S581-595.
- 11. GIESBRECHT N. Alcohol policy in Canada: Reflections on the role of the alcohol industry, Nordic Studies on Alcohol and Drugs 2006: 23: 445-466.
- 12. BAGGOTT R. A modern approach to an old problem? Alcohol policy and New Labour, Policy Polit 2010: 38: 135-152.
- 13. HOLDEN C., HAWKINS, B. 'Whisky gloss': The alcohol industry, devolution and policy communities in Scotland, Public Policy & Administration 2012: 28: 253-273.
- 14. MCCAMBRIDGE J., HAWKINS B., HOLDEN C. Industry use of evidence to influence alcohol policy: a case study of submissions to the 2008 Scottish government consultation, PLoS Med 2013: 10: e1001431.
- 15. MCCAMBRIDGE J., HARTWELL G. Has industry funding biased studies of the protective effects of alcohol on cardiovascular disease? A preliminary investigation of prospective cohort studies, Drug & Alcohol Review 2015: 34: 58-66.
- 16. MCCAMBRIDGE J., KYPRI K., MILLER P., HAWKINS B., HASTINGS G. Be aware of Drinkaware,

Addiction 2014: 109: 519-524.

- 17. LYNESS S. M., MCCAMBRIDGE, J. The alcohol industry, charities and policy influence in the UK, Eur J Public Health 2014: 24: 557-561.
- 18. HAWKINS B., MCCAMBRIDGE, J. Industry actors, think tanks and UK alcohol policy, American Journal of Public Health 2014: 104: 1363-1369.
- 19. MCCAMBRIDGE J., KYPRI K., DRUMMOND C., STRANG J. Alcohol harm reduction: corporate capture of a key concept, PLoS Med 2014: 11: e1001767.
- 20. WORLD HEALTH ORGANIZATION. Working document towards an action plan on alcohol, Geneva <u>https://www.who.int/publications/m/item/working-document-towards-an-action-plan-on-alcohol</u>; 2020.
- 21. WORLD HEALTH ORGANIZATION. Global alcohol action plan: First draft (July version): Document for consultation, Geneva: World Health Organization; 2021.
- 22. WORLD HEALTH ORGANIZATION. Global status report on alcohol and health 2018, Geneva: World Health Organization; 2018.

Accepted A

- 23. THOMAS J., HARDEN A. Methods for the thematic synthesis of qualitative research in systematic reviews, BMC Med Res Methodol 2008: 8: 45.
- 24. MCCAMBRIDGE J., MIALON, M. Alcohol industry involvement in science: A systematic review of the perspectives of the alcohol research community, Drug Alcohol Rev 2018: 37: 565-579.
- 25. MCCAMBRIDGE J., MIALON M., HAWKINS B. Alcohol industry involvement in policymaking: a systematic review, Addiction 2018: 113: 1571-1584.
- 26. MIALON M., MCCAMBRIDGE J. Alcohol industry corporate social responsibility initiatives and harmful drinking: a systematic review, Eur J Public Health 2018: 28: 664-673.
- 27. MCCAMBRIDGE J., COLEMAN R., MCEACHERN J. Public Health Surveillance Studies of Alcohol Industry Market and Political Strategies: A Systematic Review, J Stud Alcohol Drugs 2019: 80: 149-157.
- 28. HAWKINS B., MCCAMBRIDGE J. Public-private partnerships and the politics of alcohol policy in England: the Coalition Government's Public Health 'Responsibility Deal', BMC Public Health 2019: 19: 1477.
- 29. HAWKINS B., MCCAMBRIDGE J. Policy windows and multiple streams: an analysis of alcohol pricing policy in England, Policy Polit 2020: 48: 315-333.
- HAWKINS B., MCCAMBRIDGE, J. 'Tied up in a legal mess': The alcohol industry's use of litigation to oppose minimum alcohol pricing in Scotland, Scott Aff 2020: 29: 3-23.
- 31. HAWKINS B., MCCAMBRIDGE J. Alcohol policy, multi-level governance and corporate political strategy: The campaign for Scotland's minimum unit pricing in Edinburgh, London and Brussels, Br J Polit Int Relat 2021: 23: 391-409.
- 32. HAWKINS B. R., MCCAMBRIDGE J. Partners or Opponents? Alcohol Industry Strategy and the 2016 Revision of the U.K. Low-Risk Drinking Guidelines, J Stud Alcohol Drugs 2021: 82: 84-92.
- 33. ASTILL WRIGHT L., GOLDER S., BALKHAM A., MCCAMBRIDGE J. Understanding public opinion to the introduction of minimum unit pricing in Scotland: a qualitative study using Twitter, BMJ Open 2019: 9: e029690.
- 34. LESCH M., MCCAMBRIDGE J. Policy communities, devolution and policy transfer: The case of alcohol pricing in Wales, Reg Fed Stud 2021.
- 35. LESCH M., MCCAMBRIDGE J. Reconceptualising the study of alcohol policy decision-making: the contribution of political science, Addiction Research & Theory 2020.
- LESCH M., MCCAMBRIDGE J. Coordination, framing and innovation: the political sophistication of public health advocates in Ireland, Addiction 2021: 116: 3252-3260.
- ROSSOW I., MCCAMBRIDGE J. The handling of evidence in national and local policy making: a case study of alcohol industry actor strategies regarding data on on-premise trading hours and violence in Norway, BMC Public Health 2019: 19: 44.
- 38. KYPRI K., MCCAMBRIDGE J., ROBERTSON N., MARTINO F., DAUBE M., ADAMS P. et al. 'If someone

donates \$1000, they support you. If they donate \$100 000, they have bought you'. Mixed methods study of tobacco, alcohol and gambling industry donations

to Australian political parties, Drug Alcohol Rev 2019: 38: 226-233.

- 39. LESCH M., MCCAMBRIDGE, J. Policy Communities, Devolution and Policy
 Transfer: The Case of Alcohol Pricing in Wales, Regional & Federal Studies 2021.
- 40. LESCH M., MCCAMBRIDGE J. Waiting for the wave: Political leadership, policy windows, and alcohol policy change in Ireland, Soc Sci Med 2021: 282: 114116.
- 41. LESCH M., MCCAMBRIDGE J. A long-brewing crisis: The historical antecedents of major alcohol policy change in Ireland, Drug and Alcohol Review 2021: doi: 10.1111/dar.13331.
- 42. LESCH M., MCCAMBRIDGE J. Coordination, Framing and Innovation: The Political Sophistication of Public Health Advocates in Ireland, Addiction 2021.

43. LESCH M., MCCAMBRIDGE, J. Understanding the Political Organisation and Tactics of the Alcohol Industry in Ireland 2009-18, Journal Studies on Alcohol & Drugs 2022: in press.

Accepted A

- 44. GOLDER S., GARRY J., MCCAMBRIDGE J. Declared funding and authorship by alcohol industry actors in the scientific literature: a bibliometric study, Eur J Public Health 2020: 30: 1193-1200.
- 45. MITCHELL G., LESCH M., MCCAMBRIDGE J. Alcohol Industry Involvement in the Moderate Alcohol and Cardiovascular Health Trial, Am J Public Health 2020: 110: 485-488.
- 46. GOLDER S., MCCAMBRIDGE J. Alcohol, cardiovascular disease and industry funding: A co-authorship network analysis of systematic reviews, Soc Sci Med 2021: 289: 114450.
- 47. MITCHELL G., MCCAMBRIDGE, J. The 'snowball effect': short and long-term consequences of early career alcohol industry research funding, Addiction Research & Theory 2022: 30: 119-125.
- 48. MITCHELL G., MCCAMBRIDGE J. Recruitment, risks, rewards and regrets: Senior researcher reflections on working with alcohol industry social aspects organisations, Drug Alcohol Rev 2022: 41: 27-35.
- 49. MITCHELL G., MCCAMBRIDGE J. The Ubiquitous Experience of Alcohol Industry Involvement in Science: Findings From a Qualitative Interview Study, J Stud Alcohol Drugs 2022: 83: 260-266.
- 50. MCCAMBRIDGE J. M. G. The views of researchers on the alcohol industry's involvement in science: findings from an interview study, Eur Addict Res 2022: 10.1159/000522603.
- 51. BARTLETT A., MCCAMBRIDGE J. Appropriating the Literature: Alcohol Industry Actors' Interventions in Scientific Journals, J Stud Alcohol Drugs 2021: 82: 595-601.
- 52. JACKSON N., KYPRI K. A critique of Fox's industry-funded report into the drivers of anti-social behaviour in the night-time economies of Australia and New Zealand, Addiction 2016: 111: 552-557.
- 53. BARTLETT A., MCCAMBRIDGE, J. Doing violence to evidence on violence? How the alcohol industry created doubt in order to influence policy, Drug & Alcohol Review 2021: doi: 10.1111/dar.13354.
- 54. JERNIGAN D. H. Global alcohol producers, science, and policy: the case of the international center for alcohol policies, Am J Public Health 2012: 102: 80-89.
- 55. HAWKINS B., MCCAMBRIDGE J. Can internal tobacco industry documents be useful for studying the UK alcohol industry?, BMC Public Health 2018: 18: 808.
- 56. MCCAMBRIDGE J., GARRY J., ROOM R. The Origins and Purposes of Alcohol Industry Social Aspects Organizations: Insights From the Tobacco Industry Documents, J Stud Alcohol Drugs 2021: 82: 740-751.
- 57. MCCAMBRIDGE J., GARRY, J., KYPRI, K., HASTINGS, G. "Using information to shape perception": Tobacco industry documents study of the evolution of Corporate Affairs in the Miller Brewing Company., Globalization & Health 2022.
- 58. PROCTOR R. N. Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition Berkeley: University of California Press; 2012.
- 59. KYPRI K., HARRISON S., MCCAMBRIDGE J. Ethanol Content in Australian and New Zealand Beer Markets: Exploratory Study Examining Public Health Implications of Official Data and Market Intelligence Reports, J Stud Alcohol Drugs 2020: 81: 320-330.

- 3600433, ja, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/202]. See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 b
- 60. KYPRI K., MCCAMBRIDGE J. Alcohol must be recognised as a drug, BMJ 2018: 362: k3944.
- 61. MCCAMBRIDGE J., MORRIS S. Comparing alcohol with tobacco indicates that it is time to move beyond tobacco exceptionalism, Eur J Public Health 2019: 29: 200-201.
- 62. ANDERSON P., O'DONNELL A., KANER E., LLOPIS E. J., MANTHEY J., REHM J. Impact of minimum unit

pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses, Lancet Public Health 2021.

63. MCCAMBRIDGE J., DAUBE M., MCKEE M. Brussels Declaration: a vehicle for the advancement of tobacco and alcohol industry interests at the science/policy interface?, Tob Control 2019: 28: 7-12.

- 3600443, ja, Downloaded from https://onlineLibrary.wiley.com/doi/10.1111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022], See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022], See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022], See the Terms and Conditions (https://onlinelibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from thttps://onlineLibrary.wiley.com/doi/10.111/add.16058 by Sri Lanka National Access, Wiley Online Library on the provided from the provided fro
- 64. STOCKWELL T., SOLOMON R., O'BRIEN P., VALLANCE K., HOBIN E. Cancer Warning Labels on Alcohol Containers: A Consumer's Right to Know, a Government's Responsibility to Inform, and an Industry's Power to Thwart, J Stud Alcohol Drugs 2020: 81: 284-292. HOBIN E., WEERASINGHE A., VALLANCE K., HAMMOND D., MCGAVOCK J., 65. GREENFIELD T. K. et al. Testing Alcohol Labels as a Tool to Communicate Cancer Risk to Drinkers: A Real-World Quasi-Experimental Study, J Stud Alcohol Drugs 2020: 81: 249-261. 66. MAANI N., COLLIN J., FRIEL S., GILMORE A. B., MCCAMBRIDGE J., ROBERTSON L. et al. Bringing the commercial determinants of health out of the shadows: a review of how the commercial determinants are represented in conceptual frameworks, Eur J Public Health 2020: 30: 660-664. MAANI HESSARI N., BERTSCHER A., CRITCHLOW N., FITZGERALD N., KNAI C., STEAD 67. M. et al. Recruiting the "Heavy-Using Loyalists of Tomorrow": An Analysis of the Aims, Effects and Mechanisms of Alcohol Advertising, Based on Advertising Industry Evaluations, Int J Environ Res Public Health 2019: 16. 68. NOEL J. K., BABOR T. F., ROBAINA K. Industry self-regulation of alcohol marketing: a systematic review of content and exposure research, Addiction 2017: 112 Suppl 1: 28-50. 69. JERNIGAN D., NOEL J., LANDON J., THORNTON N., LOBSTEIN T. Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008, Addiction 2017: 112: 7-20. CASSWELL S., CALLINAN S., CHAIYASONG S., CUONG P. V., KAZANTSEVA E., 70. BAYANDORJ T. et al. How the alcohol industry relies on harmful use of alcohol and works to protect its profits, Drug Alcohol Rev 2016: 35: 661-664. 71. VALLANCE K., VINCENT A., SCHOUERI-MYCHASIW N., STOCKWELL T., HAMMOND D., GREENFIELD T. K. et al. News Media and the Influence of the Alcohol Industry: An Analysis of Media Coverage of Alcohol Warning Labels With a Cancer Message in Canada and Ireland, J Stud Alcohol Drugs 2020: 81: 273-283. CONDE K., PELTZER R. I., PANTANI D., PINSKY I., CREMONTE M. Alcohol 72. industry, corporate social responsibility and country features in Latin America, Drug Alcohol Rev 2021: 40: 423-430. CRITCHLOW N., MOODIE C. Understanding the Broader Impacts Of Alcohol 73. Marketing: Time For a Research Agenda Which Includes Adults, Alcohol Alcohol 2021. 74. MAANI HESSARI N., VAN SCHALKWYK M. C., THOMAS S., PETTICREW M. 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. PETTICREW M., MAANI HESSARI N., KNAI C., WEIDERPASS E. How alcohol 75. industry organisations mislead the public about alcohol and cancer, Drug

3600443, ja, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/add.16058 by Sri Lanka National Access, Wiley Online Library on [19/10/2022]. See the Terms and Conditions (https://onlinelibrary.wiley.com/termsand-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Alcohol Rev 2018: 37: 293-303.

- 76. MCCAMBRIDGE J. Reimagining brief interventions for alcohol: towards a paradigm fit for the twenty first century?, Addict Sci Clin Pract 2021: 16: 41.
- 77. MCCAMBRIDGE J., KYPRI, K., SHELDON, T. A., MADDEN, M., BABOR, T. F. Advancing public health
 - policy making through research on the political strategies of alcohol industry actors, J Public Health (Oxf) 2020: 42: 262-269.
- 78. MADDEN M., MCCAMBRIDGE J. Alcohol marketing versus public health: David and Goliath?, Globalization and health 2021: 17: 45.
- 79. STANLEY J. How Propaganda Works Princeton: Princeton University Press; 2016.
- 80. MCCAMBRIDGE J., MADDEN M. Think big about developing the science, Addiction 2021.
- 81. JERNIGAN D., ROSS C. S. The Alcohol Marketing Landscape: Alcohol Industry Size, Structure, Strategies, and Public Health Responses, Journal of Studies on Alcohol and Drugs 2020: Suppl. S19: 13-25.
- 82. BHATTACHARYA A., ANGUS C., PRYCE R., HOLMES J., BRENNAN A., MEIER PS. How dependent is the alcohol industry on heavy drinking in England?. Addiction. 2018: 113: 2225-32.
- 83. NATIONAL INSTITUTES OF HEALTH ADVISORY COMMITTEE TO THE DIRECTOR. Working Group for Review of the Moderate Alcohol and Cardiovascular Health Trial. June 2018 report.

https://acd.od.nih.gov/documents/presentations/06152018Tabak-B.pdf.

84. BARNETT-PAGE E., THOMAS J. Methods for the synthesis of qualitative research: a critical review. BMC Med Res Methodol. 2009 Aug 11;9:59. doi: 10.1186/1471-2288-9-59

