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Industry actor communication practices in submissions on electronic nicotine delivery system policy in Australia

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ABSTRACT

Background Commercial actor interference in public health policy is recognised as an impediment to the effective regulation of harmful products. To provide greater insights into the strategies being used to sway public policy related to electronic nicotine delivery systems (ENDS), we examined the communication practices adopted by those with a direct and indirect stake in these products in their submissions to government consultations.

Methods We conducted a content analysis of 196 submissions made by ENDS industry actors (eg, manufacturers, retailers, trade associations) to 13 public consultations conducted during a critical period in Australian ENDS legislation (2017–2023). Adapting a framework used in alcohol and tobacco control, we classified communication practices into higher-order categories (eg, misuse of evidence, logical fallacies/flawed arguments). We also coded the specific arguments used in submissions.

Results Almost all submissions featured the misuse of evidence (96%), with the use of unsupported factual assertions (92%) and the promotion of weak evidence (79%) the most common practices identified. Most submissions featured logical fallacies (88%). In terms of the arguments used, almost all submissions featured content denying the effectiveness of ENDS control strategies (95%), with (1) unsubstantiated claims about the adverse effects of ENDS restrictions (85%) and (2) the promotion of alternative regulation that favours vested interests (85%) most common.

Conclusion Those with direct and indirect financial interests in ENDS are engaging in misleading communication practices to interfere with public policy. Immediate action is required to limit the influence of these actors on policymaking and protect population health.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Despite the active involvement of the electronic nicotine delivery systems (ENDS) industry in policy discussions, the communication practices of industry representatives and other actors who stand to make a profit from the widespread availability of ENDS have not been fully explored.

WHAT THIS STUDY ADDS

⇒ This study appears to be the first to investigate a broad range of industry actor submissions to ENDS-related policy consultations, providing insights into the strategies being adopted to sway public policy.

⇒ The use of both discursive and instrumental strategies was evident, with the misuse of evidence and denial of the effectiveness of policy measures present in almost all submissions.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Protecting public policy from commercial interference requires policymakers to be vigilant to continued industry interference via third parties and to develop solutions for improved transparency in public consultation processes.

⇒ Inoculating policymakers against the influence of harmful commodity industries and arming them with tools that automatically identify industry communication practices and misinformation have the potential to reduce the impact of these practices.

INTRODUCTION

Use of electronic nicotine delivery systems (ENDS) such as e-cigarettes (ie, vapes) and heated tobacco products has increased in the last decade. Initially a highly fragmented market dominated by independent companies, transnational tobacco companies now develop and market their own ENDS as they try to secure the industry's future in a shrinking cigarette market.[1 2]

Evidence suggests tobacco companies are using ENDS to involve themselves in public health and policy discussions under the guise of creating a 'smoke free world'.[2 3] These companies have a decades-long history of delaying, undermining or weakening health-promoting policies intended to reduce tobacco consumption.[4–6] The Policy Dystopia Model of tobacco industry political activity documents this interference and details the discursive and instrumental strategies the industry uses to influence policy development.[5] Discursive (ie, argument-based) strategies include exaggerating the costs of tobacco control and denying its public health benefits. Instrumental (ie, action-based) strategies include constituency fabrication, threatened or actual legal action, and information management.[4–12]

Industry submissions to public consultations provide a unique opportunity to explore the arguments and communication practices used to undermine policy proposals. However, few studies have examined the arguments and methods used to

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undermine ENDS policies. Just one study—conducted in New Zealand—has explored tobacco and e-cigarette companies' use of evidence in submissions on the regulation of e-cigarette products.[13] A low proportion of evidence was independent or peer reviewed, and arguments (1) emphasised the benefits and ignored the costs of e-cigarettes and (2) focused on the costs of control measures.[13]

These findings are consistent with prior research investigating the tobacco industry's response to the UK's consultation on standardised packaging and the EU's tobacco product directive, where the industry argued the control measures would not benefit public health and instead would have negative consequences.[14–16] Submissions often cited industry-funded or linked research, with tobacco companies failing to disclose their association with this research in almost all instances.[15 16] There was substantial distortion of the evidence base, with tobacco companies repeatedly misquoting published studies.[17] Mimicked scientific critique was used to reject evidence in favour of tobacco control measures, and evidential landscaping was used to divert attention away from the issue addressed in the consultation and promote less relevant evidence.[17] The result was a misleading and distorted interpretation of the evidence that framed scientific norms and practices as 'substandard and corrupt'.[17]

Present study

Identifying industry strategies is key to pre-empting industry interference in policymaking and informing effective counterarguments.[8] It can also increase awareness of interference, potentially assisting policymakers in meeting their obligations under Article 5.3 of the WHO Framework Convention on Tobacco Control.[18 19] Given scant research exploring the arguments and evidence used in submissions on ENDS policy, further research is warranted. This research should expand the definition of 'industry' to include all those with a vested interest in ENDS policy, not just tobacco companies. Industry actors with a stake in ENDS policy are diverse, defined by their financial dependence on (1) the sale of ENDS (direct interest; eg, ENDS manufacturers, distributors and retailers) or (2) those involved in the sale of ENDS (indirect interest). The latter includes (1) trade associations representing commercial actors, (2) legal and consulting firms commissioned by commercial actors (eg, to produce purportedly independent reports sympathetic to industry interests) and (3) organisations, think tanks and individuals funded by commercial actors. The narratives used by these associated actors who stand to profit from the widespread availability of ENDS have not been explored despite their active involvement in policy discussions.

Accordingly, we examined the communication practices of actors with a direct and indirect financial stake in ENDS products to provide greater insights into the strategies industry actors use to sway public policy. Specifically, we explored (1) how ENDS industry actors present research evidence in their responses to ENDS-related policy consultations and (2) the specific arguments made by these vested interests. The study context is Australia, a country that has recently held multiple government consultations and inquiries relating to ENDS, thus providing fertile ground for assessing how vested interests attempt to influence public health policy via policy submissions.

METHOD

A content analysis of submissions to Australian ENDS policy consultations was conducted. This methodological approach allowed us to (1) quantify the extent to which ENDS industry actors used various misleading communication practices in their submissions and (2) identify the most frequently used arguments. Quantitative analysis of qualitatively coded data also provided consistency with similar prior work conducted on tobacco and alcohol policy.[14 15 20 21]

Sample

Inclusion criteria for the consultations and submissions are presented in online supplemental table S1. In total, 13 consultations matching the inclusion criteria were identified. These consultations are listed in table 1. The consultations occurred at different government levels and broadly attempted to explore (1) the use of ENDS in Australia, (2) the risks and benefits associated with ENDS use, (3) ENDS product marketing and (4) appropriate regulatory frameworks. In some cases, the consultations sought views on proposed reforms and legislation. These culminated in new laws prohibiting the retail sale of e-cigarettes and related products from July 2024.[22]

The included consultations attracted 6198 submissions. To identify industry actor submissions, two members of the research team (RA and MIJ) reviewed (1) the conflict of interest statement made by each submitter in the consultation declaration (where it was present) or in any publications authored by the submitter (sourced from academic databases), (2) any websites of the submitters, (3) investigative news articles and (4) the Tobacco Tactics website,[23] a comprehensive, evidence-based catalogue of

Table 1 Included consultations

Consultation name	Government level	Year
Use and Marketing of E-Cigarettes and Vapes	Federal	2017
Vapourised Nicotine Products Bill	Federal	2017
Personal Choice and Community Safety Committee	State (Western Australia)	2018
Tobacco Control Legislation Amendment	Territory (Northern Territory)	2018
Review of Tobacco Control Legislation	Federal	2019
Scheduling Matters Referred to the ACMS #29, ACCS #27 and Joint ACMS-ACCS #24 Meetings	Federal	2020
Proposed Amendments to the Poisons Standard - ACMS and Joint ACMS/ACCS Meetings, June 2020	Federal	2020
Proposed Amendments to the Poisons Standard in Relation to Nicotine	Federal	2020
Senate Committee on Tobacco Harm Reduction	Federal	2020
TGO 110 – Standard for Vaporiser Nicotine	Federal	2021
National Tobacco Strategy	Federal	2022
Vaping – An Inquiry into Reducing Rates of E-Cigarette Use in Queensland	State (Queensland)	2023
Proposed Reforms to the Regulation of Nicotine Vaping Products	Federal	2023

Table 2 Characteristics of analysed submissions (n=196)

	Consultations N	Submissions N (%)
Year		
2017	2	45 (23)
2018	2	16 (8)
2019	1	6 (3)
2020	4	65 (33)
2021	1	4 (2)
2022	1	15 (8)
2023	2	44 (22)
Industry actor interest and type		
Direct	–	108 (55)
Retailers or distributors	–	85 (43)
Manufacturers	–	23 (12)
Indirect	–	80 (41)
Advocacy organisations	–	32 (16)
Industry or trade associations	–	22 (11)
Legal/consulting firms, think tanks and individuals	–	20 (10)
Other	–	6 (3)
Unspecified	–	8 (4)

Unspecified=those who identified as being associated with or having a vested interest in the electronic nicotine delivery systems industry but did not explicitly state the nature of this association.

tobacco company affiliations. The list of identified actors was subsequently checked and verified by a third member of the team (MJ). Where reviews were inconclusive, it was assumed the submitter was not an industry actor.

In total, 406 submissions met the inclusion criteria. Of these, a random sample of 196 (representing 139 unique actors) was selected for analysis (to produce 95% CIs for a difference in proportions of 0.05[24]). Retailers or distributors of ENDS products were represented most in the sample (43%; see table 2 for further submission characteristics). A total of 1959 pages of content was analysed, with a median submission length of 7 pages (minimum: 1, maximum: 43). Submission attachments not written by the submitter were excluded from analyses.

Codebook development

We adapted and extended a comprehensive coding framework developed by Stafford *et al*[20] in their critical analysis of industry actor use of research evidence in Australian alcohol policy submissions. This framework was based on research exploring the use and misuse of evidence by various unhealthy industry actors (tobacco, alcohol, ultra-processed food, sugary drinks) in submissions to government consultations.[17 25 26] The framework comprises two higher-order categories (ie, parent nodes): 'Denying the effectiveness of strategies' and 'Misusing evidence'. Lower-order categories (ie, child nodes) appear within each of these parent nodes. These lower-order categories were specified further, with Stafford *et al*[20] creating child sub-nodes. We used these higher-order and lower-order categories for the present study. We also used any relevant child sub-nodes and discarded those specifically related to alcohol. Given the use of ostensibly logical but invalid or faulty reasoning has been identified in prior work analysing a tobacco industry mass media campaign opposing standardised packaging legislation in New Zealand,[7] we expanded the higher-order categories to include a 'Logical fallacies or flawed arguments' parent node. We also expanded the lower-order categories to include practices and arguments identified in prior work exploring the tobacco industry's political activity.[5 14–17] As we could not locate any coding frameworks used to examine arguments adopted in ENDS debates, we expanded the codebook during coding as we identified child sub-nodes that specifically related to ENDS.

Data extraction and coding

Submissions were downloaded from the relevant government or parliamentary website, converted to text files and uploaded to NVivo for coding. The coding approach was both deductive and inductive. Deductive coding was guided by the comprehensive coding framework described above.[20] An inductive approach to coding was used to identify sub-nodes related specifically to ENDS. Online supplemental material outlines the deductive and inductive codes used (online supplemental table S2).

Two coders (RA and MIJ) discussed the coding framework to build a shared understanding of each code's conceptual meaning. They then independently coded a randomly selected subsample of submissions (n=32). Inter-coder reliability was high (70%–100% agreement per code). Differences in coding were discussed and resolved before RA coded the remaining submissions. Where a submitter cited a specific source of evidence (eg, a journal article), the coders located this evidence to verify the submitter's assertions. A conservative approach was taken if a source could not be accessed or located, with the submitter's assertions assumed to be accurate.

RESULTS

Overall findings

The communication practices and arguments identified in submissions are presented in table 3 (see online supplemental table S3 for results that have been stratified by industry actor type). Almost all submissions misused evidence (96%) and the vast majority featured logical fallacies or flawed arguments (88%). Almost all submissions featured arguments that denied the effectiveness of ENDS control strategies (95%).

Communication practices adopted in submissions

Misuse of evidence

Unsupported factual assertions

Almost all submissions (92%) featured unsupported factual assertions, frequently presenting statements of fact without supporting citations to document the claims' legitimacy. Examples include submitters (1) arguing that ENDS were safe, (2) claiming that smoking rates in Australia have stalled because of the country's flawed approach to ENDS or (3) claiming that vape stores have helped millions of people and saved the community millions of dollars each year. No evidence was cited to support these arguments.

Promotion of weak evidence

Submissions often promoted weak evidence (79%), such as anecdotal claims (51%). For example, submitters cited individual cases of ENDS being used to successfully quit smoking or save money. Almost half of all submissions (48%) cited industry-funded research or work where authors had a conflict of interest (eg, the conflict of interest statement associated with the cited work indicated the presence of industry involvement). We also identified the use of blog posts or work that had not been peer-reviewed as supporting evidence (34%).

Table 3 Communication practices and industry arguments identified in submissions

Practice	Submissions n (%)
Misuse of evidence	189* (96)
Making unsupported factual assertions	181 (92)
Promotion of weak evidence	155* (79)
Use of anecdotal evidence	99 (51)
Citing studies or authors with a conflict of interest or industry funding	94 (48)
Citing dubious sources	67 (34)
Presenting qualitative research as hypothesis-testing	18 (9)
Presenting editorials or opinions as evidence	15 (8)
Modelling or simulation studies	16 (8)
Secondary citations	14 (7)
Citing market research	6 (3)
Other	2 (1)
Evidential landscaping	115* (59)
Excluding relevant evidence	99* (51)
Claiming there is more evidence to support a point than is cited	97 (49)
Presenting positive evidence only	7 (4)
Citing evidence for an irrelevant point	39 (20)
Promoting alternative evidence	25 (13)
Mimicked scientific critique	103* (53)
Adopting the litigation (vs scientific) model	72* (37)
Inaccurately reporting funding or affiliations	31 (16)
Stating support for evidence-based approaches	59 (30)
Claiming authorities are ignoring evidence	43 (22)
Seeking methodological perfection	15 (8)
Lack of rigour	7 (4)
Stating lack of evidence	5 (3)
Claiming studies were flawed without specifying how	4 (2)
Misleading citation of evidence	95* (48)
Misquoting	76 (39)
Selective quoting	63 (32)
Misleading inferences	50 (26)
Misinterpretation	23 (12)
Denying evidence	66 (34)
Misrepresentation of strong evidence	6 (3)
Logical fallacies, flawed arguments	172* (88)
Bandwagon fallacy	129 (66)
Appeal to hypocrisy	89 (45)
False equivalence	67 (34)
Ad hominem or attribution of motives	65 (33)
Diversion	49 (25)
Straw man	40 (20)
Self-contradiction	23 (12)
Arguments	
Denying the effectiveness of strategies	187* (95)
Making unsubstantiated claims about the adverse effects of ENDS control	166* (85)
Increase or shift risk of problems	102* (52)
Will make it harder for people who are currently smoking to quit	71 (36)
Will drive people back to smoking	46 (23)
Benefits the tobacco or pharmaceutical industries	28 (14)
Increase uptake of cigarettes	6 (3)
Other	5 (3)
Black market	86 (44)
Increased risk of harm	85 (43)
Encroachment on human/business rights, freedom of choice	63 (32)
Hardship for businesses	50 (26)
Other	44 (22)
Excessive regulatory burden	40 (20)
Economy (negative impact)	36 (18)
Punishing smokers or ignoring the needs of smokers	29 (15)
People will be driven to purchase unregulated or dangerous ENDS	22 (11)
Exacerbate social inequity	20 (10)
Closure of businesses	18 (9)
Imposition on those using vaping 'responsibly'	13 (7)
Job loss	14 (7)
Criminalising ENDS users or vendors	11 (6)
ENDS users will be financially disadvantaged	11 (6)
Loss of tourism appeal	1 (1)
Promoting alternative approaches that favour vested interests	166* (85)
Targeted approaches	120* (61)
Responsible sales	82 (42)
Compulsory product safety standards	71 (36)
Design factors	35 (18)
Education	29 (15)
Law enforcement	28 (14)
Treatment services or interventions	1 (1)
Other	106 (54)
Retailers as experts (instead of medical/pharmaceutical professionals)	55 (28)
Risk-proportionate regulation	52 (27)
Industry self-regulation or co-regulation	50 (26)
Monitoring	46 (23)
Advertising and marketing regulations	44 (22)
Equivalent restrictions to combustible cigarettes	24 (12)
Promoting taxation	6 (3)
Promoting personal responsibility	4 (2)
Making unsubstantiated claims about the benefits of a consumer model	117* (60)
Save lives or reduce harm	65 (33)
Reduce smoking or cigarette sales	65 (33)
Economy, small business	50 (26)
Drive down organised crime	29 (15)
Increase quality or safety of devices	24 (12)
Job creation	16 (8)
Save users of ENDS money	7 (4)
Reduce illicit tobacco use	4 (2)
Better for tobacco control than currently supported measures	4 (2)
De-criminalise users of ENDS	2 (1)
Making unsubstantiated claims about the ineffectiveness of policy proposals	38* (19)
Other	24 (12)
People will just buy from overseas or the internet	9 (5)
Young people will do what they want either way	5 (3)
Control will make ENDS more appealing to youth	2 (1)
Emphasising complexity	2 (1)

*Aggregate of the node and subnodes.
ENDS, electronic nicotine delivery systems.

Evidential landscaping

The third most common practice in the 'misuse of evidence' category was evidential landscaping (59%), which included practices such as (1) excluding relevant evidence (51%) and (2) using evidence that was irrelevant to the point being made (20%). For example, industry actors claimed there was an 'overwhelming' amount of evidence and 'countless

studies' supporting their arguments but failed to cite this evidence or used examples where the weight of the evidence was not commensurate with their claim. Examples of irrelevant evidence included claims that because nicotine replacement therapy was a low-risk option for smoking cessation, ENDS were low risk and unlikely to cause dependence.

Mimicked scientific critique

Just over half of all submissions (53%) mimicked scientific critique, with industry actors (1) discrediting research that favoured ENDS control and/or (2) elevating research in favour of their position. They privileged the testimony of purported experts over the balance of the evidence, despite some of the 'experts' receiving direct or indirect industry funding. Submitters also stated that they supported rigorous, evidence-based approaches but denied the effectiveness of evidence-based public health strategies.

Misleading citation of evidence

The inaccurate use of scientific evidence was identified in almost half of the submissions (48%). Submitters frequently misquoted evidence (39%); for example, they inaccurately claimed that the sources they cited stated ENDS were safe. Selective quoting was also identified (32%), with submitters partially quoting a source, quoting a source out of context, or omitting important or qualifying information contained within that source. Misleading inferences were frequently made (26%); for example, submitters claimed that the uptake of ENDS in certain countries coincided with reduced smoking prevalence in youth, making it seem as though the latter was solely due to the former.

Logical fallacies and flawed arguments

Logical fallacies and flawed arguments were observed in most submissions (88%). The most common was the *bandwagon fallacy* (66%), with purported norms used to give the impression of widespread support for ENDS and pressure policymakers to conform. For example, submitters claimed that Australian legislation should reflect legislation in other countries and the wishes of purportedly large numbers of Australians who use ENDS.

Appeal to hypocrisy featured in almost half of the submissions (45%), with submitters typically noting that it was hypocritical for combustible cigarettes and/or nicotine replacement therapies to be more freely available than ENDS. Just over one-third (34%) of submissions featured *false equivalence arguments*. These arguments typically promoted less restrictive ENDS legislation by equating ENDS with substances such as coffee, or likening ENDS to other forms of harm reduction, such as seatbelts. One-third of submissions (33%) featured *ad hominem* arguments, with submitters criticising people or organisations that did not support liberalised access to ENDS rather than addressing the argument being made by these groups. For example, submitters claimed researchers, policymakers and the public health community were deliberately providing misinformation about ENDS or using ENDS as a 'tax grab'. *Diversion* featured in one-quarter of submissions (25%), with submitters downplaying ENDS-related issues (eg, youth uptake) by positioning alternative issues (eg, illicit tobacco, disposable ENDS) as the 'real problem'. When diverting attention, it was common for industry actors to position themselves as part of the solution.

Specific arguments used in submissions

Making unsubstantiated claims about the adverse effects of ENDS restrictions

Unsubstantiated claims about the disadvantages of ENDS restrictions were commonly made by industry actors (85%). For example, submitters claimed that ENDS restrictions would (1) drive people back to smoking or make it difficult to quit smoking, (2) lead to a black market or an increase in illegal activity, (3) pose a risk to people's health, (4) encroach on human/business rights and freedom of choice and (5) create hardship for businesses.

Promoting alternative approaches that favour vested interests

Most submissions (85%) promoted alternative approaches that favoured commercial interests. These alternatives were typically presented without any evidence demonstrating their effectiveness. Common alternatives included targeted (vs population) approaches (55%), such as focusing on 'responsible sales', changing product design features, introducing compulsory product standards and educating the population on the harms of ENDS use. A substantial minority of submitters recommended legalising the sale of ENDS via specialised retailers (28%), positioning such retailers as experts who were better placed to manage and advise on ENDS use than policy, medical or pharmaceutical specialists. 'Risk proportionate' regulation was also suggested (27%), with submitters claiming that ENDS were a reduced-risk product compared with combustible cigarettes and that their regulation should be proportionate to this relative risk. This argument took a reductionist approach, ignoring the complex historical and political landscape in which tobacco control legislation is situated and the contemporary goal of increasing restrictions on tobacco products. Industry self- or co-regulation was also proposed (26%).

Making unsubstantiated claims about the benefits of permissive regulation

A majority of submissions (60%) made unsubstantiated claims about the benefits of liberalising access to ENDS. For example, submitters argued that permissive ENDS legislation would benefit public health by (1) saving lives or reducing harm from smoking (33%), (2) reducing smoking rates (33%) and (3) increasing the quality or safety of ENDS (12%). Other arguments were based on economic grounds, with claims that permissive legislation would increase tax revenue and benefit small businesses (26%).

DISCUSSION

This study explored a broad range of industry actor submissions to ENDS-related policy consultations, providing insights into the strategies being adopted to sway public policy. Substantial distortion of the evidence base was identified, with industry-funded or linked research frequently cited. Most submitters engaged in evidential landscaping and mimicked scientific critique. The misleading use of evidence was observed in almost half of the submissions, with submitters selectively quoting from or misquoting published studies. We also observed the use of logical fallacies and flawed arguments, with frequently adopted fallacies including the bandwagon fallacy, appeal to hypocrisy, false equivalence, *ad hominem* and diversion.

Submitters denied the effectiveness of ENDS control measures, claiming these would not benefit public health and would instead have several negative consequences (eg, increase illicit trade, cause economic harm). They promoted alternative approaches that favoured their interests and made several claims about the benefits of widespread ENDS availability. These claims

often focused on the negative consequences of ENDS restrictions to those who smoke and the number of lives that could be saved by liberalising product access. This narrative is consistent with tobacco company discourse that they are trusted, legitimate partners in pursuit of a goal to eradicate smoking and whose interests therefore align with public health.[9]

Overall, results indicate that the communication practices and arguments used by the tobacco industry to undermine tobacco control legislation[5 7 14–17] are being adopted by commercial actors in the ENDS space. Several of the instrumental and discursive strategies documented in the Policy Dystopia Model[3] were identified in submissions, with submitters engaging in information management, exaggerating the costs of control measures and denying the public health benefits of restrictions. The communication practices and narratives identified in the present study are also similar to those identified in prior work documenting the strategies of the alcohol, ultra-processed food, sugary drinks and gambling industries.[20 27–34] The present study thus provides yet another case example of corporate political activity, indicating that efforts to minimise the influence of industry communication practices may be more effective and efficient if applied across harmful commodity industries. Consistency was also observed with work conducted internationally,[7 29 34–36] indicating that attempts to reduce industry interference require a global approach that addresses corporate power across political and economic systems.[37]

Implications

The findings of the present study have several implications. First, of the industry actor submissions analysed, only a small proportion (approximately 12%) were made by tobacco or ENDS manufacturers. The remaining majority were submitted by ENDS retailers, trade associations and lobbyists. Many of these submitters inaccurately reported or failed to report their funding and affiliations, making it difficult to identify where a conflict of interest was present. This is problematic, as consistent messaging from diverse sources rather than a single source with transparent vested interests is likely to be more persuasive to policymakers.[5 20 38] Protecting public policy from commercial interference thus requires policymakers to be vigilant to industry interference in policymaking via third parties and to mandate and enforce transparent and accurate conflicts of interest disclosures. Such disclosures would assist with ensuring policymakers are meeting their obligations under Article 5.3 of the WHO Framework Convention on Tobacco Control.

Second, while some communication practices were easily identifiable, others were considerably more opaque. Each statement made in a submission required strong scrutiny, with the deconstruction process necessitating (1) knowledge of scientific principles, (2) research skills and (3) access to resources that may not be provided in government settings. Deconstructing every assertion and source in a submission and assessing these for veracity, fidelity, conflict of interest and appropriate use of evidence is thus a prohibitively time- and resource-intensive process.[5 20] It is neither reasonable nor realistic to expect policymakers to verify every assertion and reference used in a submission. Content that features manipulated or inaccurately cited sources may be taken at face value, especially if references are cited. Unsupported factual assertions and anecdotal evidence, particularly when delivered by a purported expert, may be considered acceptable to a time-poor policymaker. Evidence from industry funded or linked research may inadvertently be given the same weight as evidence from independent research, especially if the conflict of interest is undeclared. These issues are exacerbated when submissions are numerous, lengthy and contain large numbers of assertions and/or references (lending the content and submitter ostensible credibility and increasing the burden of verification).

Measures that protect public policy from industry influence, misinformation and disinformation are urgently needed. Immediate measures that could be implemented include (1) structuring government consultations in ways that reduce the ability of submitters to engage in misleading practices (eg, word or character limits in response fields, closed-ended questions), (2) requiring that submitters complete a conflict of interest statement as part of the submission process for consultations held at all levels of government, (3) introducing penalties for inaccurate conflict of interest disclosures, (4) employing independent experts to investigate submitters' relationships with industry and (5) using artificial intelligence to assess similarities across submissions, which may help to identify astroturfing campaigns (as identified by Jongenelis *et al*[11]). The development of a framework that provides policymakers with a structure for classifying evidence according to relevance and independence may also assist with ensuring high-quality, independent and policy-focused evidence is systematically prioritised.[15] However, to truly protect tobacco control policies from commercial and other vested interests in line with Article 5.3, submissions from such actors should not be accepted.

Limitations and future directions

There were some limitations to this study. First, where a source cited in a submission could not be located (eg, improperly cited or expired hyperlink), assertions were assumed to be a true account of the evidence. This conservative approach may have resulted in an underestimate of the true incidence of evidence misuse. Similarly, the conservative approach adopted in the identification of industry actors may have resulted in some eligible submissions being excluded from analyses. Second, as we were reliant on publicly available submissions, we are unable to offer insights into the communication practices adopted in private submissions or in face-to-face lobbying activity that occurs behind closed doors. Finally, we did not assess whether industry actors were able to successfully influence the outcome of a consultation. Future research should seek to determine the extent to which the identified communication practices influence the decisions made by policymakers. Future research could also seek to conduct finer-grained analyses that explore whether actors' arguments and practices differ based on the degree of their vested interest and connections with the tobacco industry.

CONCLUSION

Findings from the present study indicate that persuasive and misleading communication practices are being widely used by commercial actors and those with indirect interests in ENDS products to undermine the development of public policy that threatens industry profits. To ensure Australia meets its obligations as a signatory to the WHO Framework Convention on Tobacco Control, immediate action is required to limit the influence of these actors on policymaking processes. Inoculating policymakers against actor influence, arming policymakers with tools that automatically identify misleading communication practices and misinformation and improving transparency in public consultation processes is critical.

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Contributors RA: data curation, formal analysis, investigation, methodology, writing – original draft. MJ: investigation, writing – review and editing. MIJ: conceptualisation, formal analysis, funding acquisition, investigation, methodology, project administration, supervision, writing – review and editing. MIJ is the guarantor.

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REFERENCES

1 Tobacco Tactics, University of Bath. E-cigarettes. 2023. Available: https://www.tobaccotactics.org/article/e-cigarettes/
2 Watts C, Jones M, Lindorff K, *et al*. How tobacco companies use the revolving door between government and industry to influence policymaking: an Australian case study. *Public Health Res Pract* 2023;33:33122305.
3 Peeters S, Gilmore AB. Understanding the emergence of the tobacco industry's use of the term tobacco harm reduction in order to inform public health policy. *Tob Control* 2015;24:182–9.
4 Lee Y, Kim S, Kim MK, *et al*. Association between Tobacco Industry Interference Index (TIII) and MPOWER measures and adult daily smoking prevalence rate in 30 countries. *Global Health* 2024;20:6.
5 Ulucanlar S, Fooks GJ, Gilmore AB. The Policy Dystopia Model: An Interpretive Analysis of Tobacco Industry Political Activity. *PLoS Med* 2016;13:e1002125.
6 Gilmore AB, Fooks G, Drope J, *et al*. Exposing and addressing tobacco industry conduct in low-income and middle-income countries. *Lancet* 2015;385:1029–43.
7 Waa AM, Hoek J, Edwards R, *et al*. Analysis of the logic and framing of a tobacco industry campaign opposing standardised packaging legislation in New Zealand. *Tob Control* 2017;26:629–33.
8 Weishaar H, Collin J, Smith K, *et al*. Global health governance and the commercial sector: a documentary analysis of tobacco company strategies to influence the WHO framework convention on tobacco control. *PLoS Med* 2012;9:e1001249.
9 Hird TR, Gallagher AWA, Evans-Reeves K, *et al*. Understanding the long-term policy influence strategies of the tobacco industry: two contemporary case studies. *Tob Control* 2022;31:297–307.
10 Amul GGH, Tan GPP, van der Eijk Y. A Systematic Review of Tobacco Industry Tactics in Southeast Asia: Lessons for Other Low- And MiddleIncome Regions. *Int J Health Policy Manag* 2020;10:324–37.
11 Jongenelis MI, Robinson A, Hughes A, *et al*. Perceptions of a prescription model for accessing nicotine vaping products: an examination of submissions made by self-reported e-cigarette users to an Australian consultation. *Health Promot Int* 2023;38:daad080.
12 World Health Organization. Tobacco industry interference: a global brief. Geneva World Health Organization; 2012.
13 Hardie L, McCool J, Freeman B. Use of supporting evidence by health and industry organisations in the consultation on e-cigarette regulations in New Zealand. *PLoS ONE* 2022;17:e0275053.
14 Hiilamo H, Glantz SA. Old wine in new bottles: tobacco industry's submission to European Commission tobacco product directive public consultation. *Health Policy* 2015;119:57–65.
15 Hatchard JL, Fooks GJ, Evans-Reeves KA, *et al*. A critical evaluation of the volume, relevance and quality of evidence submitted by the tobacco industry to oppose standardised packaging of tobacco products. *BMJ Open* 2014;4:e003757.
16 Evans-Reeves KA, Hatchard JL, Gilmore AB. "It will harm business and increase illicit trade": an evaluation of the relevance, quality and transparency of evidence submitted by transnational tobacco companies to the UK consultation on standardised packaging 2012. *Tob Control* 2015;24:e168–77.
17 Ulucanlar S, Fooks GJ, Hatchard JL, *et al*. Representation and misrepresentation of scientific evidence in contemporary tobacco regulation: a review of tobacco industry submissions to the UK Government consultation on standardised packaging. *PLoS Med* 2014;11:e1001629.
18 World Health Organization. Guidelines for implementation of article 5.3. Geneva WHO; 2008.
19 Australian Government Department of Health and Aged Care. Guidance for public officials on interacting with the tobacco industry. 2019. Available: https://www.health.gov.au/resources/publications/guidance-for-public-officials-on-interacting-with-the-tobacco-industry?language=en
20 Stafford J, Kypri K, Pettigrew S. Industry Actor Use of Research Evidence: Critical Analysis of Australian Alcohol Policy Submissions. *J Stud Alcohol Drugs* 2020;81:710–8.
21 Maani Hessari N, Knai C, Gallopel-Morvan K, *et al*. Stakeholder Framing of Advertising Legislation: An Analysis of Media and Parliamentary Representations of the Loi Évin in the United Kingdom. *J Stud Alcohol Drugs* 2018;79:532–8.
22 Australian Government Department of Health and Aged Care. About vaping and e-cigarettes. 2024. Available: https://www.health.gov.au/topics/smoking-vaping-and-tobacco/about-vaping
23 Department of Health, University of Bath. Tobacco tactics. n.d. Available: https://tobaccotactics.org
24 Australian Bureau of Statistics. Sample size calculator. 2024. Available: https://www.abs.gov.au/websitedbs/d3310114.nsf/home/sample+size+calculator
25 Petticrew M, Katikireddi SV, Knai C, *et al*. "Nothing can be done until everything is done": the use of complexity arguments by food, beverage, alcohol and gambling industries. *J Epidemiol Community Health* 2017;71:1078–83.
26 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.
27 Hancock L, Ralph N, Martino FP. Applying Corporate Political Activity (CPA) analysis to Australian gambling industry submissions against regulation of television sports betting advertising. *PLoS One* 2018;13:e0205654.
28 Ojeda E, Torres C, Carriedo Á, *et al*. The influence of the sugar-sweetened beverage industry on public policies in Mexico. *Int J Public Health* 2020;65:1037–44.
29 Abdool Karim S, Kruger P, Hofman K. Industry strategies in the parliamentary process of adopting a sugar-sweetened beverage tax in South Africa: a systematic mapping. *Global Health* 2020;16:116.
30 Vandenbrink D, Pauzé E, Potvin Kent M. Strategies used by the Canadian food and beverage industry to influence food and nutrition policies. *Int J Behav Nutr Phys Act* 2020;17:3.
31 Mialon M, Gaitan Charry DA, Cediel G, *et al*. "The architecture of the state was transformed in favour of the interests of companies": corporate political activity of the food industry in Colombia. *Global Health* 2020;16:97.
32 Moodie R, Bennett E, Kwong EJL, *et al*. Ultra-Processed Profits: The Political Economy of Countering the Global Spread of Ultra-Processed Foods - A Synthesis Review on the Market and Political Practices of Transnational Food Corporations and Strategic Public Health Responses. *Int J Health Policy Manag* 2021;10:968–82.
33 Lauber K, McGee D, Gilmore AB. Commercial use of evidence in public health policy: a critical assessment of food industry submissions to global-level consultations on non-communicable disease prevention. *BMJ Glob Health* 2021;6:e006176.
34 Scott C, Hawkins B, Knai C. Food and beverage product reformulation as a corporate political strategy. *Soc Sci Med* 2017;172:37–45.
35 Jaichuen N, Phulkerd S, Certthkrikul N, *et al*. Corporate political activity of major food companies in Thailand: an assessment and policy recommendations. *Global Health* 2018;14:115.
36 Oliveira da Silva AL, Bialous SA, Albertassi PGD, *et al*. The taste of smoke: tobacco industry strategies to prevent the prohibition of additives in tobacco products in Brazil. *Tob Control* 2019;28:e92–101.
37 Wood B, Baker P, Sacks G. Conceptualising the Commercial Determinants of Health Using a Power Lens: A Review and Synthesis of Existing Frameworks. *Int J Health Policy Manag* 2022;11:1251–61.
38 Ulucanlar S, Lauber K, Fabbri A, *et al*. Corporate Political Activity: Taxonomies and Model of Corporate Influence on Public Policy. *Int J Health Policy Manag* 2023;12:7292.