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# Understanding experts' conflicting perspectives on tobacco harm reduction and e-cigarettes: An interpretive policy analysis



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# ABSTRACT

The growing use of e-cigarettes has been condemned as a significant health crisis by some and welcomed as an unprecedented opportunity to eliminate combustible tobacco by others. Seeking to better understand the contestation and range of perspectives on this issue, this article employs an interpretivist approach to identify how experts communicate their perspectives on these issues. This debate is examined through interviews with twenty one tobacco and harm reduction experts. Our findings indicated that the majority of meanings attached to tobacco harm reduction were rooted in values, ideology, politics, and opinions, rather than straightforward disagreements about the scientific evidence. Respondents had different ideological positions on the War on Drugs, the role of the private sector and the tobacco industry, social justice principles, the inevitability of nicotine use, and the acceptability of addiction. Throughout, experts struggled and disagreed with precisely where and how to define "harm reduction." Overall, this study significantly expands on past literature by delving more deeply into the broader ideological contexts in which these policy disagreements occur, and the argumentative strategies employed within them.

## 1. Introduction

In 2015, researchers warned of "the potential of harm reduction as a gateway for tobacco companies to re-enter the political arena" (p. 422). Seven years later, claims to "harm reduction" and "reduced harm products" have become standard in discussions of e-cigarettes. Yet while "harm reduction" approaches have been construed by some public health actors as potentially damaging for tobacco control, others see them as a necessary adjunct to current regulations, providing an important opportunity to reduce the health burdens of tobacco and nicotine use (Polosa et al., 2013). The tobacco control community and the wider field of public health have become increasingly polarized over the topic (Carroll et al., 2021; McKee, 2019), and regulatory approaches to e-cigarettes diverge widely among jurisdictions (Campus et al., 2021).

This paper examines the way in which different public health and tobacco policy actors – located primarily in high income countries – understand and communicate the topics of e-cigarettes and tobacco harm reduction. It thus seeks to deepen understanding of tobacco control and harm reduction scholars that have expressed opinions on the subject.

## 2. Harm reduction

Harm reduction (HR) generally refers to principles and policies that do not solely promote the abstinence of use of harmful substances as their primary objectives, while seeking to limit the substances' negative health and other impacts on users and those around them (Harm Reduction International, 2021). Harm Reduction International (2021), a leading public health and drug policy non-governmental organization, defines HR as follows:

Harm reduction refers to policies, programmes and practices that aim to minimise negative health, social and legal impacts associated with drug use, drug policies and drug laws. Harm reduction is grounded in justice and human rights - it focuses on positive change and on working with people without judgement, coercion, discrimination, or requiring that they stop using drugs as a precondition of support.

Harm reduction encompasses a range of health and social services and practices that apply to illicit and licit drugs [...]. Approaches such as these are cost-effective, evidence-based and have a positive impact on individual and community health.

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HR strategies and principles have proven particularly crucial for injection drug and opioid use, with extensive proof of their efficacy in reducing overdoses and deaths through approaches that provide safer practices and settings to use drugs (Cassels et al., 2009; Drucker et al., 2016; Kimber et al., 2010). HR strategies span a range of approaches, from reducing the risk of HIV transmission through needle exchange programs to promoting and encouraging less dangerous drinking habits to university students to lessen the potential for alcohol poisoning (Logan & Marlatt, 2010).

While the field of public health has embraced illicit drug HR policies, despite frequent public and political opposition (Inciardi & Harrison, 1999, p. 248), it remains more controversial in tobacco control.

#### 2.1. Tobacco harm reduction

Tobacco harm reduction (THR) generally refers to substituting lowerrisk nicotine and tobacco products, such as nicotine replacement therapies (e.g. gum and patches), smokeless tobacco products and e-cigarettes, for the highest risk tobacco products-cigarettes and other combusted products. These lower-risk products, it is argued, are particularly important for smokers who otherwise cannot or will not quit using nicotine, or will not do so soon (Warner, 2019). This principle has come both from those in tobacco control and from the broader harm reduction field. In the context of increasing attention towards smokeless tobacco and the lower risks associated with Swedish snus, Harm Reduction International officially included tobacco in its mandate in 2004 (Harm Reduction International, 2021). However, it was the increasing popularity of e-cigarettes that brought the topic of harm reduction onto the tobacco control agenda in the past decade (Hawkins & Ettelt, 2019). In addition, the aggressive entry of trans-national tobacco corporations into the e-cigarettes market (Mathers et al., 2019) has fuelled the controversy surrounding e-cigarettes and harm reduction approaches more generally, given tobacco companies' previous false claims to have developed reduced harm products in the form of filtered and light cigarettes' (further discussed below) (Peeters & Gilmore, 2015). This has fuelled concerns that tobacco companies may be using e-cigarettes in similar ways to support their core combustible nicotine products.

While some public health supporters have argued for stricter regulation of e-cigarettes (Maziak, 2020; Peeters & Gilmore, 2015), others – including those previously critical of the tobacco industry – have supported incorporating reduced-risk products as a form of harm reduction within tobacco control strategies (Clarke et al., 2019; Fairchild et al., 2018; Warner & Mendez, 2019).

Overall, the history of THR can be traced to both genuine public health efforts to improve health and to industry efforts to promote allegedly safer products that were marketing ploys with no discernible reduction in health risks (Brandt, 2009).

## 2.2. Tobacco harm reduction in research

The notion of harm reduction in tobacco research has traditionally been dated back to 1974, with the publication of an article in the Lancet by British tobacco addiction researcher, Michael Russell. Russelargued, "the goal of abstinence and the abolition of all smoking is unrealistic and doomed to fail" (Russell, 1974, p. 254). Instead, Russell argued, public health should engage in "the more realistic goal of safer smoking," with the overall objective of "the virtual elimination of cigarette smoking in favour of non-inhaled smoking of pipes or medium to large cigars" (p. 254). These claims were derived from now disproven epidemiological studies in the 1970s that found cancer risks to be half as significant for these products as cigarettes (Brandt, 2009, p. 640). Russell's oft-quoted statement – "people smoke for the nicotine, but die from the tar" – continues to be cited across tobacco harm reduction papers to date.

Since this original paper, researchers have published papers on a wide range of alternative tobacco and nicotine smokeless tobacco products, including chewing tobacco, nasal snuff, snus – an oral tobacco product popular in Scandinavia which is placed on the gums to release nicotine over time - and a plethora of other non-combustible products (Fisher et al., 2019; Polosa et al., 2013; Rodu & Godshall, 2006). A number of these papers, however, are funded by the tobacco industry, generating skepticism of their findings.

The case of Sweden is often cited as a 'natural experiment' providing evidence of the effectiveness of harm reduction approaches and the promotion of reduced-risk tobacco products. High rates of snus use has been cited as a potential reason why Swedish men have the lowest male smoking rate in Europe at 8%, (despite a total tobacco use prevalence of 25%) and by far the lowest male tobacco-related mortality risks in the European Union (Clarke et al., 2019).

## 2.3. Industry harm reduction

Previous research on corporate co-optation of the concept of "harm reduction" by the alcohol industry has noted that simplistic transfers of the term and approach from illicit drugs to commercial products has significant limitations. McCambridge et al., for instance, argued that industry-favoured definitions of harm reduction in alcohol actually damaged public health and solely served corporate interests (McCambridge et al., 2013). Similar to tobacco, the alcohol industry has largely favoured "harm reduction" strategies that allow industry involvement in policymaking and discourage population-level interventions such as tax increases or reductions in alcohol availability. These approaches are industry-favoured as they do not require aggregate level reductions in consumption, and thus do not impact sales and profits (Hawkins & Holden, 2013). The ambiguity of the term is also particularly attractive to industry, as it is malleable enough to fit most strategies that they wish to promote, while positioning themselves as socially responsible actors committed to public health (Hawkins & Holden, 2013). This has been particularly apparent with the tobacco industry.

Following the health concerns around cigarettes that arose from epidemiological findings linking smoking to lung cancer in the 1950s, the tobacco industry quickly launched filter and menthol cigarettes to tackle perceptions of harm by offering smokers a smoother smoking experience. Liggett & Myers declared that its new filter was "just what the doctor ordered." Viceroys promised "Double-Barreled Health Protection." Salem, combining both filters and menthol, announced that its new cigarette marked the "First Truly New Smoking Advance in over 40 Years!" (Brandt, 2009, p. 640). Despite this, the filters provided no actual reduction in risk (Institute of Medicine, 2001, p. 657). Moreover, filters were largely a marketing ploy, rather than conferring any actual health benefits, with a Philip Morris executive noting that "the illusion of filtration is as important as the fact of filtration" (Dunn & Johnston, 1966).

Starting in the 1970s and 80s, tobacco industry introduced low-tar and "light" cigarettes, again claiming that they reduced risk for smokers. This often came with support from public health actors and governments, both of whom were encouraging the industry to reduce tar and nicotine levels in their cigarettes (Brandt, 2009). Again, most data revealed that low-tar did not reduce the risks of smoking, and often meant that smokers smoked more because of perceived reductions in harm (Brandt, 2009, p. 640).

Taken together, these campaigns led to millions of people switching to filtered and low-tar cigarettes instead of quitting, with the campaigns likely responsible for millions of smoking-related deaths. These incidents have contributed significantly to the deep mistrust of the tobacco industry by public health actors, as Warner points out,

These experiences, and the industry's behavior more generally, have created within public health a profound hostility toward the industry, manifested for many in wanting to see the industry driven out of business .... (Warner, 2019, p. 1300).

Overall, the tobacco industry's historical claims of producing "safer"

and "healthier" products have been predominantly false and the industry has known them to be false while continuing to promote them (Peeters & Gilmore, 2015).

## 3. Interpretive policy analysis (IPA)

Interpretive theories of the policy process emphasize that each policymaking situation is unique and different and so cannot be explained through an appeal to universal causal laws (Bevir et al., 2015). Instead, the role of the policy analyst is to explain events, processes and decisions in terms of policy-makers contextualized self-interpretations of their practice and subject matter. The theory places a particular focus on meaning-making: which policy elements carry meaning, what these meanings are, who makes them, how they're communicated, and the methods through which they're analyzed. In order to understand final policy decisions, the particular context and policy actors that create and interpret meanings must be understood. Meaning is not merely about the subjective understanding of a single participant, but also includes inter-subjective, socially shared meanings which become current or dominant within a particular policy space (Scauso, 2020). Meanings are therefore not more or less "true," but rather more or less stable depending on the extent to which they are shared or challenged (Yanow, 2015). Moreover, it is not sufficient to merely understand what the meanings are, but also how those meanings have been communicated and come to be (Yanow, 2015). The ways in which policy debates - and the key terms and issues within those debates - are framed have important implications for the definition and activation of policy problems and the solutions which are proposed and enacted to address these.

IPA provides a means through which to understand how various HR stakeholders comprehended the role of harm reduction in tobacco; how these understandings are communicated and received; and the various beliefs, arguments, assumptions, and values that make up these meanings (Fischer and Forester, 1993; Rein & Schon, 1996; Stone, 1989). These approaches are of particular relevance in the context of frequent frustration that health policy analysts are unable to explain how and why policies are supported or dismissed, leading to amplified calls for improving understandings of the clashes of values that determine policy considerations (Berlan et al., 2014).

This analytical approach is particularly salient given the contested nature of e-cigarettes within the tobacco control community (Warner, 2019). A number of studies have examined perspectives on e-cigarettes, particularly in the UK. Hawkins and Ettelt (2015), for instance, used interviews to examine policy actors' strategic use of evidence during the UK e-cigarette debates, finding that virtually all laid claim to "evidence-based" approaches, despite different groups of actors advocating very different regulatory approaches, drawing on different bodies of evidence. In a paper with similar findings, Smith et al. conducted a citation network analysis of public health recommendation documents on e-cigarettes across the World Health Organization, UK, Australia, and USA. They also found that public health bodies drew upon similar sources of evidence, despite articulating different policy approaches to e-cigarettes (Smith et al., 2021a).

Weishaar et al. analyzed 90 policy consultation submissions and conducted 18 interviews with political actors to better understand disagreements among health-focused actors regarding the harms and benefits of e-cigarettes and appropriate approaches to regulation in Scotland (Weishaar et al., 2019). They found that these actors actually agreed on many substantive policy issues, but were in conflict around the overall harms and benefits of e-cigarettes, and regulations of vaping in public spaces.

Erku et al. analyzed the positions and policy statements published by health and medical organizations regarding e-cigarettes and consultation documents submitted to government committees regarding policy options (Erku et al., 2020). The authors found that while a majority of UK and New Zealand health and medical organizations viewed e-cigarettes as a potentially life-saving, harm-reduction tool, similar organizations in Australia emphasized the overall harms of e-cigarettes. The authors accounted for this variation principally in terms of framing differences and tolerability of risk trade-offs. In a second, related paper, Erku et al. analyzed policy consultation submissions made to an Australian government inquiry on e-cigarettes (Erku et al., 2019). The authors found that while the majority of submissions from health organization *representatives* recommended maintaining current restrictions on e-cigarettes, the majority of individual submissions from those same groups advocated for widening access to e-cigarettes.

Berridge et al. analyzed regulatory discourses on e-cigarettes in a range of Australian and UK government reports, policy statements, media coverage and parliamentary submissions (Berridge et al., 2018). They concluded that understanding differences in perspectives requires an appreciation of policy actors' competing foci and objectives. Actors focused on preventing adolescent uptake were generally critical of e-cigarettes (due to fears about potential gateway effects), while those focused on encouraging existing smokers to quit favoured more permissive regulatory approaches to e-cigarettes (to facilitate product substitution).

Smith et al. analyzed 121 submissions to two Scottish policy consultations on e-cigarettes and undertook interviews with 26 key informants in 2015–2016, following up with a sub-set in 2019–2020 (Smith et al., 2021b). Their findings emphasized that actors exhibited a relatively wide spectrum of views, with a majority of interviewees occupying a 'middle ground' that is responsive to new evidence. The authors concluded that e-cigarette debates are likely to reconcile only if a clear majority of participants in the uncertain 'middle ground' settle on a more fixed position, arguing that most actors expressed concerns that could be empirically assessed and evidence could make a significant impact on these perspectives.

Ikegwuonu et al., by contrast, analyzed *commercial* actors engagement in an e-cigarette policy consultation in Scotland, finding that commercial actors' positions on e-cigarette regulation aligned with business interests (Ikegwuonu et al., 2021). Transnational tobacco companies, independent e-cigarette manufacturers and other non-licensed commercial actors were largely opposed to most e-cigarette regulations, while licensed commercial actors, such as pharmaceutical companies, supported significantly more regulations.

Despite this range of studies, there has been little empirical examination to date of how tobacco THR experts *communicate* their arguments around harm reduction, nor has there been a significant focus on the broader ideological and/or political perspectives that inform these views. This study also provides a broader multi-country comparison of perspectives, in comparison to previous studies' more focused geographic scopes on one to three countries. With many governments in the process of implementing policy measures to regulate the sale, marketing and use of e-cigarettes, it is imperative to understand the key differences of opinion within the public health community on the topic of "harm reduction" as it relates to tobacco and e-cigarettes, and ways in which these differences are being communicated in relevant scholarly and policy debates.

In using IPA, this research seeks to shed light on how variations in interpretations and constructions of the problem have led to massively different opinions on e-cigarette research, belief in evidence, and regulatory approaches, allowing for interrogation of the key issues of tension between various factions.

## 4. Methods

This study draws on a series of semi-structured interviews conducted with academics who had previously written and/or published on the topic of tobacco control, tobacco harm reduction, and/or harm reduction outside of tobacco (defined here as 'harm reduction generalists'). Through a combination of purposive (discussed in the following paragraph) and snowball sampling, we invited a total of 73 of these experts to participate in the study. In total, 24 people responded to our request, and 21 participants agreed to be interviewed. Contact information was found

#### Table 1

## Recruitment of participants.

Participant Type	Number of Individuals That Were Contacted	Number of Individuals That Participated
Supporter	28	Nine
Opponent	30	Seven
Harm Reduction	15	Five
Generalist		

via publicly available websites and contact networks. The overall recruitment pattern is listed in Table 1.

One of the main objectives of this study was to better understand *differences* of opinion on the topics of tobacco harm reduction and ecigarettes. This meant recruiting individuals with potentially stronger and more polarized opinions on the topic that do not necessarily reflect the full spectrum of public health opinions on the topic, or the nuances between different actors. Nonetheless, speaking to those with clearly established views provided us an opportunity to examine these different positions and the ways in which they were justified by proponents.

Based on their previously published work, we categorized respondents prior to interviewing them as e-cigarette "supporters," ecigarette "opponents," and "harm reduction generalists" (HRGs). The HRG category identified those engaged with this topic from a general harm reduction perspective rather than a specific focus on tobacco, and had not necessarily previously articulated clear positions in favour of a particular approach to e-cigarettes. However, their overall expertise on harm reduction topics meant they had relevant insight on the potential for e-cigarettes to be used in this way. Supporters overwhelmingly supported the use of e-cigarettes as a harm reduction strategy; opponents were more hesitant about the use of e-cigarettes as a harm reduction strategy support; and HRGs, all coming from harm reduction work outside of tobacco control, had a wide range of opinions on the issue. After interviews, we re-assessed these categorizations based on their stated views during the interviews. No categorizations were changed between these two processes. Our final group of interviewees were as follows: Nine supporters, seven opponents, and five HRGs.

It is important to note that these categorizations are largely heuristic devices based on participants' overall perspectives and knowledge backgrounds. As discussed in the results, perspectives on tobacco harm reduction were in fact often along a relatively subtle continuum. And much of the data was difficult to categorize as "for" or "against" e-cigarettes. Notwithstanding, the categorizations served as a means to convey respondents' overall perspectives and differences of opinions.

Interviews were conducted between February and March 2021, via the Zoom video conferencing platform. Interviews were semi-structured, offering the potential for flexibility and the ability for follow up on particularly relevant answers to gain more insights. Interviews ranged from 40 min to 2 h, averaging approximately 1 h and 15 min. All interviews were audio-recorded, transcribed through Otter AI, edited for accuracy by the researcher, and then coded for framing and themes via NVIVO 12.

Countries of primary professional affiliation were as follows: Australia (Weishaar et al., 2016), Canada (McKee, 2019), New Zealand (Weishaar et al., 2016), United Kingdom (McKee, 2019), and the United States (Hawkins & Ettelt, 2019). Participants were provided the information and consent sheet ahead of time and provided consent prior to our discussion or through verbal consent on the day of the interview. Ethical approval for this study was provided by the first author's university ethics board.

## 5. Results

## 5.1. Lessons from history

Virtually all participants claimed that their perspectives on e-cigarettes came from learnt lessons of past historical failures. Supporters repeatedly analogized anti-e-cigarette efforts to the failures of past drug prohibition efforts. Their support for tobacco harm reduction strategies was repeatedly borne out of their views of abstinence-only approaches to illicit substances within the "War on Drugs":

We increasingly see that these people are aiming for ... "a nicotine free society," which is much closer to a sort of 'war on drugs' mentality ... (Supporter 3).

A majority [of leaders in tobacco control] start off saying 'we have to do as much as possible to reduce cigarette smoking.' ... and a campaign that starts off being about reducing the deaths associated with consuming nicotine in a combustible form lands up becoming a broader campaign about basically reducing all nicotine use, except maybe in the patch and gum form. It essentially becomes an effort to get rid of all forms of nicotine, that might be defined as in some form pleasurable or rewarding by the consumer. The [past] criminalization right now is focused on criminalizing - banning, basically - the flavored vapes, or sometimes all vaping (HRG 3).

So this [opposition to tobacco harm reduction] is all about prohibition. I worry about prohibition, because it doesn't work ... (Supporter 4).

This perspective drew upon the ongoing frustration of what e-cigarette supporters view as failed substance-control policies of other drugs that have not diminished overall rates of drug use and have disproportionately harmed drug users. Supporters commonly referenced the negative consequences of prohibitionist strategies, including significant incarceration rates, inequitable impacts on marginalized and racialized populations, rises in illicit and violent markets, and overall poor success in reducing rates of substance use.

Opponents, in turn, overwhelmingly understood e-cigarettes as an extension of past industry attempts to mislead the public through the development and promotion of allegedly reduced harm products, such as reduced-tar and filtered cigarettes. Participants repeatedly referred back to these past efforts by the industry to put new products forward:

There were some major changes over the years with filters and with other things they did, and all of the changes that were made for regular cigarettes by the industry actually led to more harm than good. We don't seem to learn from this (Opponent 5).

There's evidence from tobacco industry internal documents that they've been looking for something like this, that's gonna polarize the tobacco control field ... it's hard to take [the industry] seriously and it's hard not to believe that they're using harm reduction and e-cigarettes as a way to just weaken tobacco control legislation in general, and have access to policymakers (Opponent 2).

Opponents consistently identified the commercialization of tobacco harm reduction as a key factor that they believed distinguished THR efforts from those in other areas. They consistently cited consumers and public health actors being duped in the past by tobacco industry's claims to harm reduction.

## 5.2. The role of the market

Supporters argued that market innovation is key to solving longstanding and apparently intractable health crises like the global tobacco pandemic. Many acknowledged being skeptical of the e-cigarette and tobacco industries, but believed that properly incentivizing them to diversify away from combustible cigarettes towards new forms of nicotine delivery system was the best option for reducing smoking rates and associated harms. Indeed, many supporters viewed the profit motive of tobacco and nicotine companies as inevitable:

No one is more probably cynical than I am about [the e-cigarette industry's] potential motives ... But I don't have the problem now that

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I once upon a time did when I was earlier in my career with the profit motive ... If it's done in a way that's going to serve our consumers best and prevent the most illness, save the most lives, even if it's just hardcore capitalism on the part of those who are making the money, well, okay ... (Supporter 2).

I don't have a problem with companies making money, they're gonna make money ... don't be waiting on the government ... But you can create regulatory strategies that incentivize industry to make their money not killing their customers (Supporter 4).

E-cigarette supporters often expressed grudging acceptance of the companies as partners for public health. While they often expressed discomfort with allowing the industry to continue to profit from nicotine addiction, they viewed industry profits as far more palatable when being done with less harmful products. The profit motive was overall understood as inevitable for corporations, and something that government should divert, rather than attempt to eliminate. Moreover, many experts rejected the notion that supporting e-cigarette industry was the same as supporting the tobacco industry, noting the heterogeneity of the overall industry:

Industry isn't a single entity. It's a huge number of different players with very different vested interests, that are very willing to kill each other in order to get a competitive advantage (Supporter 6).

Supporters frequently differentiated the tobacco industry from the ecigarette industry. They often argued that conflating the industry into a single entity was unfair to companies that had genuine interests in switching combustible users to less harmful products. Others viewed both tobacco and e-cigarette industries as simply amoral, with profit motives that simply had to be redirected. Almost universally, supporters understood industry's desire for profits as something to channel towards the promotion of less harmful products, rather than as something to entirely eliminate. Notwithstanding, most researchers were wary of working too closely with the e-cigarette industry. While a select few of the supporters believed it was acceptable, most experts across the spectrum expressed discomfort with becoming too closely intertwined with THR industry players.

## 5.3. The inevitability of nicotine use

A key theme throughout conversations was the inevitability of nicotine use. Supporters argued that the current tobacco control strategy of focussing on cessation and the main goals of tobacco control policy is unrealistic, arguing that there is an inevitability of nicotine use – and drug use more generally - among a segment of the population, noting than many residual smokers are simply unable or unwilling to quit:

Remember, it's not about the people who can quit. It's about the people who cannot or will not quit today ... the closer you get to the ultimate objective of 0%, often the harder it gets. The more you encounter populations that are deeply committed to smoking, or that have fewer incentives to stop smoking (HRG 3).

People will always prefer people to become abstinent. And they would like to make more virtuous people who don't take any substances at all, except the ones that they like - caffeine, alcohol. And every tobacco control conference is awash with caffeine and alcohol (Supporter 1).

I don't see the huge population health benefit that getting people off nicotine completely would achieve. However, some people that I've interviewed, really, really do want to give up nicotine. So for those people, if that's that goal, I think definitely working with them towards achieving that would be important (Supporter 4).

People will use drugs, you know. It's part of what we do as human beings ... (Supporter 6).

Supporters argued that tobacco control needs to provide options for people that do not simply involve cessation. Overall, while many expressed some concern with addiction, they argued that a distinction needed to be made between "benign" addictions and more serious ones. More generally, supporters argued that it is impossible to eradicate smoking and that there will never be total population abstinence from nicotine, nor drugs more generally.

Opponents, by contrast, often posed addiction to any product as itself something to fight:

Addiction is a disease in and of itself. Even if there's not physical health consequences ... Having new generations addicted to anything, especially unknown long term health, is really hard ... (Opponent 7).

While supporters argued that nicotine can be a benign addiction (as noted above), opponents voiced their discomfort with the loss of autonomy that comes with addiction, as well as addiction to a product that they felt has not been properly tested for a sufficient time. Moreover, opponents pointed to the significant declines in smoking that have arisen from standard tobacco control measures that did not include reduced risk products. Many believe that simply continuing to make combustible cigarettes less attractive would reach the remaining smokers:

[I've heard that] there's this irreducible hardcore, that if you don't give them a tobacco product, they're gonna to just keep smoking cigarettes ... As the smoking prevalence has come down, the remaining smokers are quitting more and smoking less. And so the "hardcore" is melting away (Opponent 1).

The industry has done their best to muddy the waters ... We don't need tobacco products (Opponent 5).

While supporters focused on current smokers and the inevitability of nicotine use, opponents argued that there was no inherent need for or inevitability of the use of nicotine or tobacco products. They also expressed skepticism at the idea of a "hardcore" of smokers, believing that existing tobacco control measures could assist those that had not yet quit. Simply continuing or enhancing existing tobacco control efforts, they argued, would assist the final group of people still smoking to quit.

## 5.4. Speaking for the less powerful

Virtually all participants claimed to be speaking for the less powerful. For e-cigarette supporters, the less powerful constituted the smokers that they feel have largely been ignored and stigmatized by tobacco control to date. Moreover, smokers are disproportionately from marginalized groups, further emphasizing supporters' sense that they are speaking for the powerless.

Supporters frequently brought up the disproportionate number of smokers in marginalized communities, particularly socioeconomically disadvantaged groups. They argued that focuses on total cessation disproportionately impacted those that are already underprivileged:

There will be kids trying those products ... We know the abstinenceonly approach has many failures. And many of those failures are the high risk kids, to get back to the social justice issues ... The social justice issue with respect to cigarette smoking is the most poignant with low income adults, adults with mental illness adults who are abusing other drugs, alcoholics, and so on ... (Supporter 7).

I absolutely think that those products have a particularly important role to play with poor and more marginalized groups. Not all of those groups, but some of the groups for whom the traditional offer just hasn't worked (Supporter 9).

Opponents, by contrast, argued that they were speaking up against powerful corporate interests, as noted above, and thus speaking for the less powerful on their own terms. Public health, from their perspective, is significantly out-resourced and outspent by industry. Moreover, they argued, smokers are being duped by industry to believe that e-cigarettes are both less harmful and more effective for cessation than the evidence indicates. Opponents were therefore protecting an already marginalized group – smokers – from being further exploited by industry.

## 5.5. The precautionary principle

While there was some disagreement over the differences in dangers between e-cigarettes and combustible cigarettes, most of the disagreements came over *how* to measure them. Supporters argued that most evidence showed that e-cigarettes were significantly less dangerous than combustible tobacco, and the known benefits of switching over from combustible cigarettes to e-cigarettes massively outweighed the potential new evidence of the risks of nicotine. Proceeding overly cautiously with e-cigarettes, they argued, would deny too many current smokers access to less harmful products:

The public health person in me would invoke a principle of caution here. People sometimes say, 'Well, what would you tell somebody close to you, would you advise they use e-cigarettes if they were trying to smoke trying to quit smoking? And I say, 'Yeah, I probably would.' Now at this point in time, say 'sure, use vaping.' But five years from now, I might have a different piece of advice for you (HRG 1).

I've always been a little skeptical of the Public Health England statement that [vaping] is no more than 5% as bad if smoking. I know a lot of people believe that ... I don't know that you can put a number on it. But everybody who's truly knowledgeable about this and not overly biased will say it's clearly far or substantially less dangerous. That's the terminology usually here - substantially less dangerous (Supporter 5).

Opponents argued that the burden of proof falls on e-cigarette supporters to prove these products are safe, as well as noting the harms of ecigarettes that they felt are underreported. Until their safety has been definitively established, they argue, scientific uncertainty must be resolved in favour of the precautionary principle, and e-cigarette harms should not solely be compared to combustible cigarettes:

There's a whole body of research on nicotine that people conveniently ignore. There's still people saying nicotine is perfectly safe, and there's no way ... (Opponent 5).

The more we learn, every month, we find out more bad things about it. And the cancer evidence is just beginning to appear ... (Opponent 1).

You're not seeing adults switching at the numbers promised, you are seeing new people use. That's the evidence - until we see otherwise, we are not pursuing policies that are more lenient for e-cigarettes ... (Opponent 7).

Opponents also argued that there was growing evidence around different harms of e-cigarettes. While they acknowledged that there were less severe risks around many cancers, many noted the cardiovascular and respiratory risks that e-cigarettes pose. They argued that tobacco control should be concerned with addiction to nicotine itself, regardless of what form it came in.

#### 5.6. Argument by metaphor/Analogy

Communicating and understanding perspectives on policy issues via metaphor is a key component of interpretive policy analysis. Indeed, across the themes, experts used a range of metaphors and analogies to argue their stances, often comparing nicotine and the tobacco industry to other substances and corporate entities. Examples of each of these are listed in Table 2.

#### 6. Discussion

As the analysis above demonstrates, tobacco harm reduction remains a highly contested topic. There are several implications of the results presented: First, the majority of meanings attached to tobacco harm reduction were rooted in values, ideology, politics, and opinion. Rather than simply disagreeing about the scientific evidence, respondents had different ideological positions on the War on Drugs, the private sector, the tobacco industry, social justice principles, the inevitability of nicotine use, and the acceptability of addiction. This is consistent with Stone's (2001) notes on the "policy paradox," through which she illustrates that policy contestations are never solved through objective, scientific methods because they fail to account for the inherently emotional and subjective process of policy formation and decision-making (Stone, 2001, p. 428). Participants were more likely to use analogies, emotional pleas, and moral arguments than to bring up scientific evidence. These findings also build on and supplement Hawkins and Ettelt's findings on tobacco actors' use of evidence in THR debates by adding the meanings and frames that actors attach to their understandings of the subject, as well as adding an international lens that was absent in the former article (Hawkins & Ettelt, 2019).

Second, by most experts asserting that they were speaking for the "less powerful," they sought to lend themselves a credibility in the debate and position their opposition as less caring. These arguments often lent themselves to respondents across the spectrum making the case that their perspectives were the more "progressive" opinions. These differences may partially explain the difficulty of resolving THR debates; while much of public health policy moves towards a more "progressive" or liberal approach, it is unclear what actually *constitutes* progressivism and liberalism in this case. Opposition to the recent dominance of big corporations in the neoliberal era and opposition to the War on Drugs in the prohibitionists are two tenets of liberalism (Brown, 2006; Hathaway, 2002). Yet it may prove difficult to simultaneously hold these two perspectives in forming opinions on THR.

Third, our study revealed that many experts struggled with precisely where and how to define "harm reduction" and a far more subtle continuum along which the term might be considered. Given that there was a wide range of definitions of "harm reduction" and that the majority of experts agreed with regulatory approaches that do not solely promote abstinence, "harm reduction" often served as a largely ill-defined term that served little purpose. Indeed, while two respondents were strongly supportive of largely deregulating the e-cigarette market entirely, and one other expert leaned towards prohibition, the remaining 18 respondents fell along a spectrum of support for regulations that balanced the need to protect non-smokers with the need to get smokers to switch over to e-cigarettes if they are unwilling to quit or use less harmful NRT products. Indeed, most experts agreed that a clinician or doctor that has a close and long relationship with a patient who has been unable to quit cigarettes for many years could recommend that patient use an e-cigarette. The majority of experts also favoured continuing to make combustible cigarettes increasingly unappealing, while making a range of reduced risk products a part of a broader tobacco control strategy.

Fourth, notwithstanding these areas of agreement, and that every expert in our study claimed to support harm reduction strategies, it was the details of these beliefs that proved divisive. For instance, many opponents viewed prescription-only e-cigarette policies as constituting "harm reduction," while many supporters viewed a largely unregulated market as "harm reduction." There remained differences of opinion on the extent to which the products should be regulated, which smokers should be encouraged to quit rather than use e-cigarettes, working with the e-cigarette industry, the risks of e-cigarettes, and the potential for ecigarettes as both a cessation device and a gateway to smoking. Many opponents were uncomfortable with the idea of e-cigarettes being widely advertised to the public, while supporters made the case that e-cigarettes should be *more* promoted to combustible cigarette smokers.

#### Table 2

Arguments via Analogy.

Theme	Argument	Analogy	Sample Quote
The Inevitability of Nicotine Use	Low levels of alcohol use are acceptable, low levels of nicotine should be as well	Alcohol Use – Nicotine Use	So even though from a counselor's perspective, no level of alcohol is safe, you can see from all the studies that people who drink at moderate levels, the risks to health are pretty low. And so you can see a harm reduction model there - that's acceptable, even though for some people, abstinence is the only alternative (Supporter 9).
The Inevitability of Nicotine Use	If e-cigarettes are similar to methadone, they should be regulated as such	Opioid Users Taking Methadone – Combustible Users Using E- Cigarettes	And I realized, you know, buprenorphine and methadone are among the most highly regulated drugs in societies today, certainly in the United States, and there were so many restrictions on providing them. And meanwhile, the FDA was really lagging in regulating [e-cigarettes], an incredibly complicated chemical delivery system that we didn't really know what the harms were (Opponent 6).
The Role of the Market	The private sector needs to be channeled, rather than shunned	Climate Change Industry – E- Cigarette Industry	Government policies to solve climate change are not going to do it [alone] they're not even get to get as close to what we need to do. So don't be waiting on the government the only path is to let people make money. Do innovation that might, you know, make it so we're not all underwater in the next 10–20 years or whatever (Supporter 4).
The Role of the Market	Combustible users should be channeled to better options, rather than only told to quit	Combustible Tobacco Users – Car Drivers	We constrain your ability to engage in various sorts of investments So you know, if, if we value being able to go out walking more than driving a pickup truck, then maybe the tax on buying and maintaining pickup trucks should be higher than the tax on running shoes. Maybe we should be making walking paths free, and freeways something you'll have to pay for (Supporter 6).
The Role of the Market	Progress comes through working with industry, as was done with automobile safety, rather than simply opposing the private sector	E-Cigarette Industry – Automobile/Food Industries	Moving from unsanitary to sanitary food, automobiles that killed at any speed to far safer automobiles you create an incentive that somebody either does it or they go out of business. They're in business because people will buy their product, or they go out of business because it's a regulated business because they've got unsafe products, so they go out of business and somebody sues them. And you can't make unreasonably hazardous products and get away with it (HRG 6).
Speaking for the Less Powerful	Comparing e-cigarettes to safe injection sites is a poor comparison because safe injection sites do not have a vested profit interest in their users	Tobacco Industry – Heroin Dealers	It would make no sense to have heroin companies running a needle exchange giving out candy flavored needles it's not being done by the people who are selling the heroin, so it's a fundamentally different situation (Opponent 1).
Speaking for the Less Powerful	Opposition to e-cigarettes is similar to past prohibitionist efforts that are now widely considered outdated	Anti-Tobacco Industry – Prohibitionists/Anti- Communists/Anti-LGBTQ+	The Inquisition, commie hunting, gay baiting. there's just so many things where you can say, 'this is what we've identified is evil, who's on board to go against it?' And saying that we're just going to try to prevent it. It's like trying to say we're going to prevent people from being gay, we're going to prevent people from drinking alcohol, we're going to prevent people from having left wing political views, etc. We're going to prevent women from having reproductive choice. We've had all these sorts of campaigns - they do not work (Supporter 6).

Finally, the findings support some previous assertions of e-cigarette supporters' and opponents' differences. Our study's findings in particular supported those of Warner, Erku et al., and Berridge et al. on the areas of difference between those supportive of, and those more reticent about, the potential public health benefits of e-cigarette (Berridge et al., 2018; Erku et al., 2020; Warner, 2019). These include disagreements over e-cigarettes' degree of risk reduction, the acceptability of long-term nicotine addiction, working with cigarette and e-cigarette companies, and the utility of a free market. Our research also reaffirms Smith et al.'s finding that public health actors hold a wide spectrum of views on e-cigarettes, with clear areas of consensus, despite many differences of opinions between those more supporting of, and more cautious about, their promotion as harm reduction tools. However, our findings lead us to be less optimistic that Smith et al.'s (Smith et al., 2021b) assertion that appeals to research evidence will be able to resolve the ongoing, and often deeply entrenched, differences of opinion on e-cigarette policy. It was evident from the respondents that many perspectives on e-cigarettes were associated with deeper political and ideological perspectives. This reflects Deborah Stone's maxim that, in public policy, debates about values often masquerade as disputes over facts (Stone, 2001, p. 428). We concur though that 'boundary work' between competing paradigms, or processes of 'frame reflection,' may succeed in establishing an expanded policy consensus, particularly amongst those in the 'middle ground' of the current debates, as Hawkins and Ettelt argue (Hawkins & Ettelt, 2019).

Finally, our research also expands on past literature by delving more deeply into the broader ideological contexts in which these policy disagreements occurred, and argumentative strategies employed within them. The use of semi-structured interviews across policy contexts allowed for conversations to be more wide-ranging, in-depth and therefore provide more space for underlying values and perspectives to emerge.

## 6.1. Strengths and limitations

By using semi-structured interviews, we were able to probe at the underlying beliefs and assumptions of participants that are key to understanding their differences in perspectives. An interpretive policy theoretical foundation allowed us to delve deeper into the policy contestation, moving beyond mere positivistic research on the health benefits and harms of reduced-risk products. Furthermore, our research came at a time of intense policy debates, potentially encouraging a relatively strong rate of responses and participation.

Notwithstanding these strengths, there are a number of limitations to this study. First, we used a non-random sampling strategy in recruitment for our interviews. As there was no known list of our target population

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(academic experts in tobacco and harm reduction), we were dependent on existing contact lists, public databases, and snowball sampling. There are many more academic experts on e-cigarettes than we contacted. Notwithstanding, we believe this sample provides a strong representation of academic experts' perspectives on the subject.

Second, those willing to participate were likely to be the most "passionate" about the issue, potentially leading to an appearance of more polarization than may actually exist within tobacco control.

Third, despite sending out about the same number of interview requests to experts that had expressed support and opposition to e-cigarettes, we received more responses from e-cigarette supporters than opponents (see Table 1). We theorize that this may be due to a general skepticism of studies on "harm reduction" that legitimize the e-cigarette industry. Indeed, many interviewees asked about the funding of this project and the ideological leanings of Author 1 and Physicians for Smoke-Free Canada (the organization through which Health Canada funding for this project was provided).

Fourth, the authors' own perspectives on e-cigarettes, the tobacco industry, and harm reduction likely had an impact on the data collection and analysis. While the authors were careful to be reflexive of our positionality throughout the study, our background in studying tobacco control and the corporate determinants of health inevitably impacted the research process. Notwithstanding, the three authors did not have uniform views on e-cigarettes or e-cigarette policy. Thus, the study was informed by a range of opinions on the subject within the research team itself.

Fifth, the focus of this study was on experts from a relatively small number of largely Anglophone countries in the Global North. Basic tobacco control strategies are generally far more comprehensive in the Global North, and lessons learned here may not be applicable to the Global South.

Finally, this article sets out to present perspectives across the spectrum, rather than evaluate them. While this provides the opportunity to showcase different viewpoints, the approach also leaves many arguments unaddressed and unevaluated. Notwithstanding, this article is about the politics of the debate, rather than the validity and/or support evidence for the positions advocated. Evaluating these claims is therefore well beyond the scope of this article, however this may be a point for future research or commentaries.

## 7. Conclusion

This article examines the various arguments promoted by policy actors around tobacco harm reduction, emphasizing the meanings attached to respondents' perspectives and their underlying values and assumptions. By elucidating different conceptions of "tobacco harm reduction" and the meanings that respondents attach to it, this study allows for a clearer understanding of why the issue has so often polarized tobacco control. It also makes an important contribution to ongoing policy debates by distilling the key ideological differences between tobacco harm reduction supporters and opponents.

Insufficient attention has been paid to the complexities of applying harm reduction approaches to tobacco, as well as the various ideologies and belief systems that impact perspectives on the issue. The areas in which harm reduction approaches have entered the policy mainstream, such as illegal narcotics, have not had to account for the role of industry actors and their co-option of "harm reduction" in the way that tobacco policy actors and health professionals must. Given these specificities and complexities, it is incumbent on actors in the field of tobacco control to proceed with caution, acknowledging the potential contribution of harm reduction approaches while remaining cognizant of the possible dangers and trade-offs involved in embracing tobacco harm reduction strategies, and to better understand the roots of the differences of opinion on the topic. By failing to do so, we risk leaving it to other actors – including industry – to define harm reduction on their own terms.

#### **Data Access Statement**

Because of the sensitive nature of the research, interviewees did not consent to the retention or sharing of their data.

## Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Daniel Eisenkraft Klein reports financial support was provided by Health Canada's Substance Use and Addictions Program.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ssmqr.2022.100197.

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