

News media as a commercial determinant of health

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Commercial determinants of health frameworks aim to identify the features and actions of corporate entities that can influence health. This Viewpoint conceptualises the work of the news media as a set of commercial forces and provides a framework that can help researchers better understand how features and actions of the news media shape health and health equity. We discuss four key features of news media action that can shape health: agenda setting, framing, priming, and tactics of persuasion. Beyond the direct role of the media in shaping health, we also explore pathways (ie, public relation activities, advertising, and economic pressures) in which the media is used by other commercial actors to affect health. A better understanding of how news media operates can help inform efforts to improve media actions to aid in improving population health outcomes.

Introduction

Several scholarly works from the past decade have helped to organise thinking about how corporate actors shape health. One definition articulates the commercial determinants of health (CDOH) as the “strategies and approaches used by the private sector to promote products and choices that are detrimental to health”.¹ This lens has been applied to a range of industries (eg, tobacco, alcohol, food, and pharmaceutical industries²), helping health researchers identify approaches that can be applied to improve how corporate practices shape health.

Although ubiquitous in daily life, there has been relatively less consideration of how the media industry could influence health. The media sector operates as a means of communication, with the objective of disseminating information and stories to diverse and targeted audiences. News media encompasses printed, broadcasted, and online news formats and covers various domains, including local, national, global, economic, business, medicine, health, and more.³

For the purposes of this Viewpoint, the news media industry has two key components: traditional news media, including print and broadcast news media companies, groups, institutions, and conglomerates (and online news websites that developed mostly from these),³ and social media, consisting of various applications based on web technologies, offering the production, sharing, and exchange of content among users.⁴ Examples of social media include Meta platforms (eg, Facebook, Instagram, Messenger, and WhatsApp), X (formerly Twitter), YouTube, and TikTok. Traditional and new media differ in some characteristics—particularly in the one-way communication model of traditional outlets, as opposed to the two-way model of social media, which allows for interaction and immediate feedback from audiences.

This Viewpoint examines news media as a CDOH. Our discussion prioritises traditional media outlets to facilitate a clear examination of the mentioned processes. Traditional media outlets remain more popular than social media in terms of news consumption,⁵ even as they struggle for visibility, and face growing mistrust, scepticism, and challenges in the era of artificial

intelligence.^{3,5} Social media platforms can also be seen through a CDOH lens, but there are particular considerations that pertain to social media, including their engagement with advertising and reliance on sophisticated algorithms,⁶ which could propagate misinformation. However, examining traditional media could also aid in understanding social media as a CDOH, as both outlets share common attributes in reporting news.

We argue here that a CDOH lens allows researchers to better understand the mechanisms used by the traditional news media that in turn have an effect on health. Although the evidence of media influence on public opinions regarding health-related issues is quite extensive (eg, as shown by its role in improving condom use for HIV prevention and increasing flu vaccination rates),⁷ we are not aware of previous discussions of the various functions of the news media and how they affect health. Such discussion can help point to approaches that can mitigate harm and promote benefits of media coverage of health.

Throughout this Viewpoint, we consider pathways common across the traditional media, while recognising that different pathways might be more relevant to one or more of the media categories. We suggest four pathways through which the news media influences public perception, grounded in established theories or frameworks: agenda setting, framing, priming, and tactics of persuasion.

Agenda setting

Agenda-setting theory, originally formulated in 1972 in communication studies by McCombs and Shaw, posits the media as a key source of public perception regarding matters of public affairs. Agenda-setting theory explains how the media prioritises specific issues (eg, through placement or extent of coverage), thereby shaping the perception of importance of these issues among various audiences.⁸ This theory can explain how diseases and public health processes are included or excluded from the public discourse. For example, Kelly and colleagues found an increase in news coverage about the connection between the human papillomavirus (HPV) and cervical cancer in 2006 in major US newspapers and broadcast

Lancet Glob Health 2024;
12: e1365–69

Published Online
June 19, 2024
[https://doi.org/10.1016/S2214-109X\(24\)00191-8](https://doi.org/10.1016/S2214-109X(24)00191-8)

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networks, following approval of the first HPV vaccine (the first vaccine to prevent cervical cancer) by the US Food and Drug Administration.⁹

Agenda setting thus represents an important lens through which to understand the media's influence on health behaviour. For example, Fowler and colleagues linked an increase in US television coverage of the American Affordable Care Act during its initial implementation in 2013 in specific geographical areas and the likelihood of residents of those areas to favour the law.¹⁰ Young and colleagues showed how individuals who were repeatedly exposed to media messages about the severity of infectious diseases considered these diseases to be more severe than other diseases that received less media attention.¹¹

Framing

Framing theory was first introduced by English anthropologist Gregory Bateson in 1972, defining frames as "a spatial and temporal bounding of a set of interactive messages" that operate as forms of communication.¹² This concept is related to agenda setting, but expands the focus of examination beyond any particular topic. Framing as the deliberate presentation of specific themes and claims from one standpoint rather than providing a balanced narrative explains how the characterisation of an issue in news reports influences its perception by audiences.

There are a range of examples showing how framing practices of the media could be considered a CDOH. Such framing processes can be considered in portraying obesity in the media as an individual rather than a societal issue, diminishing the importance of marketing unhealthy products, such as sugar-sweetened beverages, as a catalyst. Degutis describes racial bias in the coverage of firearm violence in the news, connecting incidents involving men of colour to gangs and drugs and incidents involving White people to mental health.¹³

Priming

Priming theory, originating from cognitive psychology, suggests a temporary enhancement in the understanding of a concept that fades relatively swiftly. In contrast to the framing mechanism, which pertains to the presentation of information, priming explains how exposure to repeated content published in the media, acting as a stimulus (ie, the prime), shapes perception, judgement, and behaviour of consumers.¹⁴

This pathway has been particularly illustrated in areas concerned with political opinion but can also have implications for health. Studies showed how positive priming in the media can lead to a reduction in stigma connected to diseases. For example, Oliver and colleagues showed the influence of positive priming in reducing stigmatisation towards obesity and eating behaviours in the media.¹⁵ Likewise, exposure to violence in the media, encouraged by priming mechanisms, could increase

aggressive behaviour among populations and have implications on public and global health.

Tactics of persuasion

Tactics of persuasion used by the media can include various tools embedded in reporting that aim to persuade consumers to accept the narratives expressed, including quotations from professionals, mentioning of authorities, exemplifications, and supplying figures and images to support claims and enhance credibility. Collaborating with social influencers can also contribute to persuasion efforts.

Persuasion can also be achieved through particular practices such as repetitive and consistent reporting. Tactics of persuasion have increased over the past two decades, following the increasing use of reciprocity introduced in online traditional media platforms and further developed by social media to create interactions with consumers. These reciprocity features range from online comments to reporting and several features, such as being able to like and share content.¹⁶

These tactics have been directly, if narrowly, examined in relation to their effect on health. For example, Kessler and Bachmann showed how reading articles on online news websites in Germany, accompanied by an image that contradicts a widespread health myth, can affect attitudes regarding the myth.¹⁷ The use of experts' quotations in news articles can also be considered as a persuasive tactic to increase credibility.

How other commercial actors use the media to influence health

The four pathways described previously are often used by the news media to shape health, either via commercial media goals or as a mediated tool used by other commercial actors to distribute opinions, reach the public, and influence health. The media has also long been an arena for commercial actors wishing to influence public opinion, although empirical scholarship examining such effects on health is scarce. These actors function as drivers of the media industry, incentivising media action that in turn enables these commercial functions. This involvement of commercial actors within the media can also be considered a CDOH. We present three pathways through which other commercial actors shape health through engagement with the news media: public relations, advertising, and economic pressures. The figure shows the associations discussed in this Viewpoint.

Public relations

Media reports functioning as a CDOH can be the result of manifest or latent interests of other corporations' public relations activities. Numerous examples in the academic literature on CDOH examine the influence of companies manufacturing or distributing harmful products, such as tobacco products, alcoholic beverages,

ultraprocessed foods, and sugar-sweetened beverages.¹⁶ The facilitation of public relations via the media is also well established among pharmaceutical and health technology companies. The increasing reports on cervical cancers in the media following the approval of the HPV vaccine described previously could be part of the public relations strategy from pharmaceutical companies.⁸

Activities around public relations of corporations manifest in a range of strategies. The traditional method (ie, press releases) has long been used to influence companies' preferred narrative about their actions. Sumner and colleagues showed how press releases can include exaggerations, which later end up in news media reports.¹⁸ However, press releases are not always considered a desirable public relations tool. For example, Lee and colleagues indicated that food companies' press releases that are promotion related (rather than product related) might be received negatively, especially on social media.¹⁹

Corporations also use collaborations with sponsored spokespersons, experts, and organisations, either formally or informally, to represent their positions in media reports, acting as a means of persuasion. For example, tobacco companies influence media content through organisations such as Smokepeace in Sweden and Smokers' Rights Club in Denmark.¹⁶ This approach might also include media involvement of patient organisations on reports about health care, which improves the social and political influence of these reports, and can be considered a public relations activity given the pharmaceutical industry involvement in these organisations through fundings.

The sometimes-hidden motivations of companies are also relevant to health-specific news reporting. For example, it has been shown that in Ireland, alcohol companies have encouraged messages in the media that are unsupportive of policies for alcohol warning labels.²⁰ Such approaches have the potential to be immensely formative to public perception of particular products, with attendant consequences on population health.

Advertising

Commercial actors also use the media to influence perception about their products through advertising. As early as in the 1980s, Jeffrey and colleagues described the role of television commercials in children's eating habits,²¹ contributing to the overconsumption of so-called junk food and the obesity epidemic. In 2022, Septiono and colleagues described the exposure of adolescents to tobacco advertisements on online platforms and television in Indonesia.²² Studies show how exposure to advertisements presented on various media platforms can influence public opinion on health-related issues. One classic example is the influence of marketing breastmilk substitutes on breastfeeding practices. A decrease in breastfeeding has been associated with an increase in mortality in low-income countries due to the extensive promotion of baby formula.²³

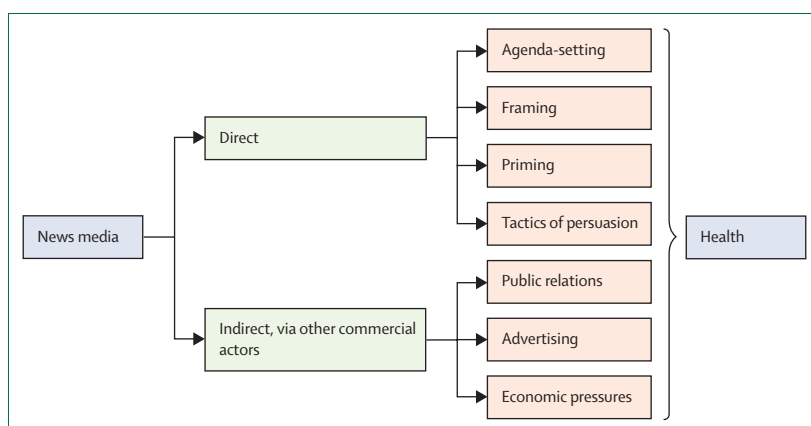


Figure: How news media influences health outcomes

Lately these two pathways of commercial actors (public relations strategies and advertising) have merged, with undisclosed and covert sponsored content in the media as the primary path of influence. This pathway, also named subliminal advertising, is funded by private corporations and often disguised as an objective piece of reporting or as an editorial. The use of hidden marketing content in the news media has been increasing in the past decade, given the economic instability of media entities. Although this trend is yet to be studied in depth, preliminary investigation provides evidence for the use of secret sponsored materials on health-related products, with misleading effects. Supran and Oreskes described how ExxonMobil, through advertisements presented in editorial-style formats in leading newspapers, sought to shape public discourse about climate change, with rhetoric similar to that of the tobacco industry to emphasise doubt and shift primary responsibility for product harms from itself onto customers.²⁴

Such merging and mixture of pathways is also expressed in a recent study on the role of advertising manipulations in social media as a CDOH.⁶

Economic pressures

Beyond the influence of advertising, some commercial actors might also be involved in efforts to keep discussions of damages to health out of public awareness by inflicting economic pressures on media groups. News media platforms are facing increasing economic pressure from commercial actors in various ways, be it through the promise of advertising investments, threats of economic sanctions, or competition from other media outlets for advertising revenues or subscriptions. As advertising revenues decline and audience fragmentation increases, these forces shape the transformation of business models of news media. Such pressures become more substantial given the consolidation of different news media into fewer and more powerful media entities and possible future restrictions to the freedom of press.

An examination by Tomaz and colleagues of the corporate structures of the media that were historically designed to separate owners and advertisers from journalists showed a decay in the separation between newsroom, ownership, and sales departments. Although some media outlets aim to reduce their reliance on individual advertisers, the majority have become increasingly vulnerable to commercial interests. Stagnation in spending on advertising and heightened competition for attention have led to a decline in the effectiveness of the advertising-based business model.²⁵

The influence of advertisers on health news content in the media has been documented since the 1970s. For example, in 1976, after a series of articles on medical negligence, pharmaceutical companies issued a threat to withdraw their advertising from the *Modern Medicine* magazine owned by *The New York Times*, compelling *The New York Times* to sell the magazine.²⁶

With the increasing dependence of media outlets on advertising revenues, various examples of economic pressures within the industry on news media have emerged, harming the independence of news. For example, in 2021 in Israel, a television channel was criticised for inappropriately covering a government initiative to raise taxes on sweet drinks, while the channel's board was controlled by shareholders in the Israeli branch of an international producer of soft drinks.²⁷

It is also becoming increasingly common for advertising companies to boycott as a means to advance their own agendas or express dissent against opposing viewpoints within media organisations. For example, in the USA there was a documented advertiser boycott against a show on Fox News due to comments made by its host regarding former President Barack Obama and the implementation of the Affordable Care Act initiative.²⁸

Economic pressures have several implications for the effective functioning of the news media. Alongside the economic burdens newspapers have been dealing with,

these pressures can lead to a decline in media industry employment, which further reduces the media's capacity for comprehensive coverage of key issues. In addition, economic pressures on the media through advertising can be implemented by governmental agencies, as in Türkiye, causing media repression and fear.²⁹

Conclusion

The examples in this Viewpoint illustrate how the role of the news media extends well beyond that of a neutral conduit transmitting objective information to becoming a CDOH itself, often driven by commercial incentives and strongly influenced by other commercial actors. This finding suggests that media actions can also harm or improve health in direct and indirect ways. This perspective could advance the discussion regarding the potential role of the media in promoting or discouraging healthy behaviours.

Alongside our analysis, we should note that traditional and social media platforms serve other functions for consumers besides their defined goal of delivering information. For example, these platforms can serve as an entertainment tool and for some people they also serve as a tool for health purposes, such as treating depression.³⁰ A wider discussion on these operations can expand our analysis on the media as a CDOH.

Recognising how actions of the news media can influence health can guide health organisations and regulators to encourage the development of approaches to mitigate health hazards, such as risk factors for diseases and high-risk behaviours, and to incentivise health-promoting activities. This understanding also highlights the importance of integrating the fundamentals of media studies within public health education, with the goal to train health professionals and medical professionals to better understand the importance of working with the media towards enhancing public and global health.

Contributors

DE and SG conceptualised the Viewpoint, did the literature review, and developed the first draft. The commentary was later reviewed and developed with input from SMA and NM. All authors contributed to subsequent drafts and approved the final manuscript.

Declaration of interests

We declare no competing interests.

References

- 1 Kickbusch I, Allen L, Franz C. The commercial determinants of health. *Lancet Glob Health* 2016; 4: e895–96.
- 2 Maani N, Petticrew M, Galea S. Commercial determinants of health: an introduction. In: Maani N, Petticrew M, Galea S, eds. *Commercial determinants of health*. New York, NY: Oxford University Press, 2022: 3–6.
- 3 Fotopoulos S. Traditional media versus new media: between trust and use. *Eur View* 2023; 22: 277–86.
- 4 Tyson W. Pitch perfect: communicating with traditional and social media for scholars, researchers, and academic leaders. New York, NY: Routledge, 2010.
- 5 Newman N. Journalism, media, and technology trends and predictions 2024. Jan 9, 2024. <https://reutersinstitute.politics.ox.ac.uk/journalism-media-and-technology-trends-and-predictions-2024> (accessed March 4, 2024).

Search strategy and selection criteria

We searched EBSCOhost, PubMed, and Google Scholar from Jan 25, 2023, to Sept 12, 2023 from database inception. Additional searches in databases were done while revising the manuscript from Feb 29, 2024, to March 7, 2024. This literature review included English articles from the scientific literature, comprising full-length papers and abstracts. It is based on keywords derived from key concepts and meaningful topics discussed in the commentary: agenda-setting in media and healthcare; framing in media and healthcare; priming in media and healthcare; persuasion techniques in media and healthcare; press releases and their health impacts or effects; advertising in newspapers and on television and their health impacts; economic pressures in media and health.

- 6 Rodrigues L, Newell R, Rathnaiah Babu G, Chatterjee T, Sandhu NK, Gupta L. The social media infodemic of health-related misinformation and technical solutions. *Health Policy Technol* 2024; **13**: 100846.
- 7 Weinstein D, Jung K, Jauriqui V, Rosenthal EL, Van Valkenburgh S. Media coverage of health issues and impact on audiences: analysis of the research landscape. Los Angeles, CA: USC Annenberg Norman Lear Center, 2020.
- 8 McCombs M, Reynolds A. News influence on our pictures of the world. In: Bryant J, Zillmann D, eds. *Media effects: advances in theory and research*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers, 2002: 1–18.
- 9 Kelly BJ, Leader AE, Mittermaier DJ, Hornik RC, Cappella JN. The HPV vaccine and the media: how has the topic been covered and what are the effects on knowledge about the virus and cervical cancer? *Patient Educ Couns* 2009; **77**: 308–13.
- 10 Fowler EF, Baum LM, Barry CL, Niederdeppe J, Gollust SE. Media messages and perceptions of the Affordable Care Act during the early phase of implementation. *J Health Polit Policy Law* 2017; **42**: 167–95.
- 11 Young ME, Norman GR, Humphreys KR. Medicine in the popular press: the influence of the media on perceptions of disease. *PLoS One* 2018; **3**: e3552.
- 12 Bateson G. *Steps to an ecology of mind: collected essays in anthropology, psychiatry, evolution and epistemology*. Northvale, NJ: Jason Aronson INC, 1972.
- 13 Degutis LC. Communication, terminology, and the role of the media. In: Degutis LC, Spivak HR, eds. *Gun violence prevention, a public health approach*. Washington, DC: APHA Press, 2021: 109–16.
- 14 Ewoldsen D, Roskos B, Carpentier F. Media priming: a synthesis. In: Bryant J, Zillman D, eds. *Media effects: advances in theory and research*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers, 2002: 97–120.
- 15 Oliver MD, Datta S, Baldwin DR. A sympathetic nervous system evaluation of obesity stigma. *PLoS One* 2017; **12**: e0185703.
- 16 Hilton S. The influence of commercial industries on public discourse. In: Maani N, Petticrew M, Galea S, eds. *Commercial determinants of health*. New York, NY: Oxford University Press, 2022: 274–82.
- 17 Kessler SH, Bachmann E. Debunking health myths on the internet: the persuasive effect of (visual) online communication. *J Public Health* 2022; **30**: 1823–35.
- 18 Sumner P, Vivian-Griffiths S, Boivin J, et al. Exaggerations and caveats in press releases and health-related science news. *PLoS One* 2016; **11**: e0168217.
- 19 Lee H-HM, Van Dolen W, Kolk A. On the role of social media in the 'responsible' food business: blogger buzz on health and obesity issues. *J Bus Ethics* 2013; **118**: 695–707.
- 20 Vallance K, Vincent A, Schoueri-Mychasiw N, et al. News media and the influence of the alcohol industry: an analysis of media coverage of alcohol warning labels with a cancer message in Canada and Ireland. *J Stud Alcohol Drugs* 2020; **81**: 273–83.
- 21 Jeffrey DB, McLellarn RW, Fox DT. The development of children's eating habits: the role of television commercials. *Health Educ Q* 1982; **9**: 174–89.
- 22 Septiono W, Kuipers MAG, Ng N, Kunst AE. Self-reported exposure of Indonesian adolescents to online and offline tobacco advertising, promotion and sponsorship (TAPS). *Tob Control* 2022; **31**: 98–105.
- 23 Brady JP. Marketing breast milk substitutes: problems and perils throughout the world. *Arch Dis Child* 2012; **97**: 529–32.
- 24 Supran G, Oreskes N. Rhetoric and frame analysis of ExxonMobil's climate change communications. *One Earth* 2021; **4**: 696–719.
- 25 Tomaz T, Fidalgo J, Grönvall J, Trappel J. Commercial influence in newsrooms: comparing strategies to resist pressure from owners and advertisers. In: Trappel J, Tomaz T, eds. *Success and failure in news media performance: comparative analysis in the Media for Democracy Monitor* 2021. 2022; 165–186. Gothenburg: Nordicom, 165–186.
- 26 Bagdikian BH. *The media monopoly*, 2nd edn. Boston, MA: Beacon Press, 1987.
- 27 Perisco O. In the service of the landlords, News 12 declared war on the tax on sugary drinks. Aug 4, 2021. <https://www.the7eye.org.il/425253> (accessed Oct 20, 2023).
- 28 Edgecliffe-Johnson A. Advertisers desert TV show after Obama label. *Financial Times*. Aug 14, 2019. <https://www.ft.com/content/06fa8e3a-885f-11de-82e4-00144feabdc0> (accessed Oct 20, 2023).
- 29 Akser M, Baybars B. Repressed media and illiberal politics in Turkey: the persistence of fear. *Southeast Eur Black Sea Stud* 2023; **23**: 159–77.
- 30 Obiechina CK. The mental health benefit of social media: the use of social media skits for depression treatment among women in Nigeria. *Ianna J Interdiscip Stud* 2023; **5**: 1–10.

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