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ADDRESSING COMMERCIAL DETERMINANTS OF HEALTH TO PROMOTE HEALTH FOR ALL

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I. Commercial Determinants of Health

The field of public health has long recognised the complex and multifaceted nature of health determinants. While traditional public health education predominantly addresses biological, environmental, and social determinants of health, there is a vital often overlooked aspect known as the commercial determinants of health (CDoH), which is continuously evolving. Several researchers argue that CDoH should receive equal consideration to social determinants of health (SDoH) in disease prevention and research efforts (Hastings 2012; Kickbusch 2012). These determinants include the influence of profit-driven industries, such as tobacco, alcohol, ultra-processed food, and pharmaceuticals, on health behaviours and outcomes. These unhealthy commodity industries (UCIs) have been the significant drivers behind some of the most critical health issues worldwide. These commercial actors span from small, locally owned enterprises to large corporations or financial institutions and influence social, physical, cultural, and political environments within communities (World Health Organisation (WHO)).

Most simply, CDoH were termed as '*factors that influence health, which stems from the profit motive*' by West and Marteau (West 2013). The WHO defines CDoH as '*the conditions, action and omission by corporate actors that affect health. Commercial determinants arise in the context of the provision of goods or services for payment and include commercial activities, as well as the environment in which commerce takes place. They can have beneficial or detrimental impacts on health*' (WHO 2023a). Gilmore *et al*. define CDoH as '*systems, practices, and pathways through which commercial actors drive health and equity*' (Gilmore 2023). This

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definition includes all commercial entities, recognises both their positive and negative impacts, and focuses on both human and plenary health and equity as the primary concerns. The *Lancet* Series on CDoH delves into the expanding influence of 'commercial actors' and their complex impact on exerting a diverse and intricate influence on the health and well-being of the public (Lacy-Nichols 2023).

CDoH is a relatively new topic in public health, and by understanding them, we can effectively address the negative health impacts of corporate practices and implement policies to protect and promote public health. CDoH have a syndemic relationship not only with various diseases but also with climate change (Swinburn 2019). Industries driven by the 'profit motives' of CDoH include tobacco, alcohol, food & beverage, gambling, textile, and pharmaceutical. However, for this chapter, we focused on traditionally harmful industries like tobacco, alcohol, and unhealthy foods, which are major contributors to non-communicable diseases (NCDs), including cancers, cardiovascular diseases (CVDs), diabetes, and mental health issues. These products pose significant health risks, especially in low- and middle-income countries (LMICs). The drivers of these three risk factors, and the solutions to address them, are also common.

II. The Impact of CDoH on Public Health and Equity

There is mounting evidence indicating that commercial entities increasingly have adverse impacts on human health, overall well-being, and social and health inequities (Chang 2012; Krippner 2005; Lacy-Nichols 2023; Smith, Bambra and Hill 2015; White, Pfister and Mauelshagen 2018; Whitmee 2015). Widespread promotion of products and increasing exposure to advertisements, coupled with a lack of supply chain transparency, characterise the current commercial landscape. Additionally, privatisation of services, influencing governments towards deregulation, seeking regulatory advantage through lobbying, employment conditions, compensations, marketing strategies, tax evasion, preferential shaping of products, services, corporate tax contribution, and research funding are some other strategies being observed to be used, allowing harmful influence on health (Baum 2023). Commercial entities strive to maintain the existing system that favours their profitability over public health, influence policy and regulatory environments to suit their interests, and increase their profit margins. They exert their structural power and influence through strategies like marketing, investment, production, and employment. Public health advocates vehemently opposed the engagement of these harmful product industries in the COVID response on the grounds of a clear conflict of interest (Collin 2020).

CDoH can perpetuate social inequalities by influencing the availability and affordability of health-promoting resources. Health inequities are systematic

disparities in the health outcomes of various population groups. These inequities have substantial social and economic impacts on both individuals and societies (WHO 2018b). CDoH significantly contributes to health inequities by exploiting social, economic, and environmental vulnerabilities and by hindering efforts to promote health equity through policy and action. This can result in weakened regulations, inadequate labelling, and limited access to healthier alternatives while being flooded with advertisements for unhealthy options, further widening the gap in health equity. Hitherto, after an extensive study of these associations within tobacco and alcohol industries, evidence on other health-harming industries is now being built. Studying the strategies of these CDoH is crucial to understanding their pathways of influence and design of appropriate monitoring. Implementing effective public health actions to address these commercial determinants is crucial to building back better after COVID-19.

Just four industries – tobacco, alcohol, ultra-processed foods, and fossil fuels – are responsible for 19 million deaths globally each year, accounting for one-third of all preventable deaths worldwide (Health Policy Watch, 2024). These include the escalating burden of NCDs, communicable diseases, injuries, mental health issues, and the global threat of climate change (Stuckler 2012; Swinburn 2019). A systematic review of defining CDoH revealed that tobacco, alcohol, and unhealthy foods were the most frequently cited, appearing together in 28 out of 32 papers or 87.5% of the total (de Lacy-Vawdon 2020). The WHO and other international health bodies have identified the reduction of tobacco use, harmful alcohol consumption, and unhealthy diets as key priorities in their NCD prevention and control strategies. The strategies employed by the tobacco, alcohol, and food industries often intersect, creating synergistic effects that compound their impact on public health. For example, marketing strategies for tobacco, alcohol, and unhealthy foods often target similar demographic groups, such as adolescents and youth.

NCDs make the largest contribution to mortality both worldwide and in LMICs. These nations bear the largest burden, with 80% (28 million) of the NCD burden, underscoring their significant impact on poverty and highlighting their urgency as a development issue. The South-East Asia region (SEAR) countries are anticipated to experience the highest absolute number of NCD-related deaths (NCD Alliance). The roots of NCD-related behaviours lie in physical inactivity, dietary habits, alcohol consumption, and tobacco use. Nonetheless, there is growing acknowledgement that these behaviours are socially shaped choices heavily impacted by commercial agendas (Freudenberg 2008). Some refer to NCDs as 'industrial epidemics' or 'profit' or 'corporate-driven diseases' because of the substantial involvement of commercial interests, entities, and products (Gilmore 2011; Buse 2017; Kickbusch 2015). In 2017, the WHO introduced its 'best buys' initiative to counter the rise of

NCDs and the influence of UCIs. Their recommendations largely emphasised taxation, advertisement bans, restriction on sales, and standardised packaging as crucial measures to tackle the growing burden of NCDs like CVDs, diabetes, and cancers.

The growing consumption of ready-to-eat foods has a significant impact on children's nutritional status, often raising their lifetime risks of weight gain, overweight, obesity, and NCDs (Sadeghirad *et al.* 2016). These foods are typically high in calories, sugars, unhealthy fats, and salt, while being low in essential nutrients such as vitamins, minerals, and fibre. The influence of CDoH extends across all demographics but has a profound effect on the health and well-being of children and adolescents. This is because the industry employs various innovative strategies and marketing promotions to broaden its reach and introduce a new generation of consumers to its products (Pitt 2024). Understanding fully well that behaviours get etched at an early age, these UCIs target young children through aggressive and at times misleading advertisements to ensure long-term customers for their products.

III. How Do Industries Influence Individual Behaviours?

Industries employ a diverse array of tactics to shape individual and public behaviours, including advertising, marketing, sponsorships, product placements, pricing strategies, engaging packaging, and leveraging social media trends. They employ these strategies to expand their market reach. To optimise their impact, industries work in parallel to influence 1) policymakers (Michaels 2008) and 2) the public, often downplaying the adverse effects of their products (Maani, Petticrew and Galea 2023; Supran 2017). Sectors such as the alcohol and the food & beverage industry have adopted these behaviour-altering tactics, originally identified in the tobacco industry. A central element of these strategies is the normalisation of consuming harmful products like tobacco, alcohol, and unhealthy foods from a young age.

Tobacco

In 1929, the American Tobacco Company launched a media campaign to attract a new demographic – women. Edward Bernays orchestrated the 'Torches of Freedom' march to promote smoking as a symbol of women's equality, showcasing women smoking during New York City's Easter Day Parade (Amos 2000). Anti-smoking education materials funded by the tobacco industry often present mixed messages and intelligently encourage smoking (Landman 2002). This is the only industry which kills its 8 million loyal customers every year and needs to advertise aggressively to replenish these consumers every year to stay in business (WHO 2023c).

Alcohol

The alcohol industry similarly utilises strategic tactics, emphasising peer pressure in its educational materials rather than overt advertising to drive youth consumption (Petticrew 2016). In the UK, educational campaigns from alcohol industry-backed organisations encourage children to view alcohol as an adult product to be 'consumed responsibly' (van Schalkwyk 2022). The pervasive depiction of alcohol in television and film contributes to its normalisation, particularly among youth who often celebrate reaching the legal drinking age by purchasing and consuming alcohol (Public Health Foundation of India 2013).

Unhealthy Food

Global giants like PepsiCo, Coca-Cola, McDonald's, and Kraft Foods operate in at least a quarter of all countries worldwide (Kraak 2012). These companies tailor their marketing to different cultures, using mascots to promote unhealthy foods to children (Kraak 2015). These mascots help establish brand relationships with children, fostering brand loyalty that extends into adulthood (Connell 2014; Garretson 2004), focusing particularly on capturing the youth market for sustained sales. The food industry produces and promotes foods with high fat, salt, and sugar (HFSS) because of affordability, convenience in storage, extended shelf-life, and frequent consumption as snacks (World Health Organization India 2023). Sponsorship agreements with organisations like FIFA, the International Olympic Committee, and the International Cricket Council strategically position products to influence consumer behaviour through product placement.

IV. Commercial Products and Their Prevalence

The WHO classifies substances such as tobacco, alcohol, and processed meat as Group 1 carcinogens, meaning there is sufficient evidence to prove they cause cancer in humans (WHO 2023b). A study in the UK evaluating drugs' overall harm found alcohol to be more harmful than heroin and crack cocaine, with tobacco exhibiting similar harmful effects. Both alcohol and tobacco also impose substantial economic costs (Nutt 2010). Therefore, one must scrutinise the widespread availability, acceptance, and use of these Group 1 carcinogens.

Tobacco consumption has globally declined since the 1990s, especially after the WHO Framework Convention on Tobacco Control (FCTC). However, LMICs still face significant health burdens from tobacco use. In SEAR, high consumption of tobacco remains a public health challenge, with India, Pakistan, and Bangladesh seeing high rates of chewable tobacco use contributing to oral cancers (Bryazka 2022; Murray 2020). The Global Adult Tobacco

Survey (GATS) reported a decrease in tobacco use in India from 34.6 to 28.6% between 2009–2010 and 2016–2017, although certain states, particularly in the Northeast, have higher prevalence rates. While smoking rates have dropped significantly, the decline in smokeless tobacco use is modest (GATS Collaborative Group 2022; Chugh 2023). Tobacco causes 25% of all cancer cases worldwide (Action on Smoking and Health 2023a), with LMICs bearing a higher burden, accounting for 50% of cases and 65% of related deaths (Lee 2014; Torre 2015). The International Agency for Research on Cancer (IARC) established the causal link between tobacco and cancer in 2004 (Louis 2018). Tobacco also increases diabetes risk by 15–30% (Pan 2015; Sun 2020), exacerbates vascular disease when combined with high blood glucose, triples the risk of CVD mortality among smokers (Thun 2013), and reduces life expectancy by over 5 years (Mons 2015). Smoking is linked to mental health issues, with higher prevalence among individuals with mental health conditions, and is used as a coping mechanism for stress and anxiety, further associated with higher depression rates (Klungsøyr 2006; Royal College of Physicians of London 2013; Williams 2004).

Alcohol consumption is widespread, with about 43% of the global population aged 15 and over as active consumers. Europe, the Americas, and the Western Pacific region have the highest consumption rates. Over the past two decades, per capita alcohol consumption has risen globally, particularly in India and China. Spirits are the most consumed alcoholic beverage globally, followed by beer, which is prevalent in SEAR. In India, alcohol consumption has significantly increased, with per capita consumption doubling from 2.4 litres (in 2000) to 5.7 litres (in 2016). Men consume more alcohol than women, spirits and country liquor being the most popular. Health risks from alcohol vary by beverage type, with spirit drinkers facing the highest risks (Jani 2021; Money Control; WHO 2018b). There is a concerning rise in alcohol consumption among adolescents and young adults globally and in India (Afshin 2019; Murray 2020; Bryazka 2022). Alcohol consumption contributes significantly to NCDs, various cancers, liver cirrhosis, CVDs, diabetes, depression, cognitive impairments, and violence (American Psychiatric Association 2013; Bagnardi 2015; Peterson 1990; Rehm 2017; Sullivan 2005; WHO 2011, 2018a).

Dietary patterns show an imbalance, with a low intake of essential foods like fruits, whole grains, and vegetables, and a high intake of unhealthy foods like sugar-sweetened beverages (SSBs) and processed meat. Men and young adults, aged 25–49, consume more unhealthy foods, a trend decreasing with age. In SEAR, dietary habits reflect global trends, with high consumption of processed meats and trans-fats and a low intake of healthier foods. These patterns contribute to diet-related health issues, particularly in India, where dietary trends mirror those of SEAR, contributing to high rates of diabetes, making India the ‘diabetes capital’ of the world (Afshin 2019; O’Hearn Meghan 2023).

Unhealthy dietary habits exacerbate NCDs, particularly in LMICs, where dietary factors contribute to premature deaths and disability-adjusted life years lost (DALYs) (Mozaffarian 2014; Renata 2017; Singh 2015a, 2015b; Wang 2016). Diets high in sugar, salt, sodium, and trans-fats, and low in fruits, vegetables, legumes, fish, and healthy fats increase the risk of CVDs and diabetes (Renata 2017). High sodium intake is linked to a significant percentage of CVD deaths, particularly in LMICs (Mozaffarian 2014). SSBs contributed to 0.4% of all BMI-related CVD deaths in 2010, with nearly half of all DALYs attributed to CVDs (Singh 2015a, 2015b). Saturated fatty acids contribute to coronary artery disease, while low yoghurt intake and high processed meat consumption increase diabetes risk. Diets high in glycaemic load and SSBs also contribute to diabetes, with SSB consumption linked to 5.3% of diabetes-related deaths, predominantly in women and LMICs, affecting young adults aged 20–44 years (Singh 2015a, 2015b).

V. Commercial Products and Inequities

The consumption of tobacco and alcohol is closely associated with socio-economic status, with lower-income and less-educated individuals exhibiting higher rates of use and experiencing greater health impacts. The LMICs observed the same trend, with men generally having higher use rates than women with the gender gap narrowing among youth (Rani 2003; Warren 2006; WHO 2007). Tobacco companies exploit gender-specific marketing strategies, targeting women by promoting smoking as a symbol of independence. Furthermore, the economic burden of tobacco use is profound, with low-income households spending a larger portion of their budget on tobacco. Those from disadvantaged backgrounds face more difficulties in quitting (Graham 1999; WHO 2007).

Alcohol consumption also exhibits the same pattern of individuals from lower socio-economic strata suffering extreme health consequences – men drinking more and experiencing higher rates of alcohol-related deaths (Fillmore 1997; Mäkelä 2003). Binge drinking is more prevalent among less-educated and lower-income groups, further exacerbating health inequities (Bloomfield 2006; Mäkelä 2002).

Socio-economic status significantly influences dietary choices. Those from higher income and education levels generally have healthier diets. Individuals who can cook meals at home and have access to fresh ingredients tend to maintain better diets (Larson 2014). However, affordability remains a major barrier for lower socio-economic groups, leading to a higher consumption of processed foods due to cost and accessibility issues (Donkin 2000; Irala-Estevez *et al.* 2000). Neighbourhood characteristics, including access to supermarkets, impact food choices with better access linked to healthier eating patterns (Ball 2006). Availability of nutritional

knowledge does not always translate into healthier eating habits, particularly in lower socio-economic settings (Kearney 2000; de Almeida 1997). Gender disparities in food consumption are evident among men who, especially in urban areas, are more likely to consume unhealthy foods contributing to higher fat intake and increased Body Mass Index (French 2001; Trapp 2015). Adolescents in urban LMICs also prefer unhealthy foods, indicating poor dietary patterns from a young age (Jena 2023; Veena 2018).

VI. Strategies Employed by the Commercial Actors

The strategies employed by the UCIs focus on maximising profits and fulfilling operational needs, often disregarding individual and overall public health concerns. These tactful strategies enhance industry credibility and influence policy-making, agenda-setting, public choices, and behaviours (Lacy-Nichols 2021). They range from upstream approaches, like targeting policies to downstream tactics aimed at influencing individual choices and behaviours. This section highlights the commercial sector's practices and adopted strategies in India across industries, including tobacco, alcohol, and HFSS foods.

1. Political Practices

Commercial actors engage in practices that influence laws and public policies at all levels of governance for commercial interests. These include practices to secure preferential treatment from those in power and ameliorate regulatory obstacles. These practices include lobbying and disseminating misleading information to undermine policies often as 'expert' opinions (Fooks 2013; Lauber 2021; Legg 2021; Lima 2018a). This also takes the form of influencing policymakers through offering donations to government-run activities. Documentation of such activities exists for tobacco, alcohol, and the SSB industries in India.

Although India is a party to the FCTC, there have been reports of the state governments, senior officials, and police joining trainings organised by FICCI CASCADE, a lobbying body headed by the head of Corporate Affairs of a prominent Indian tobacco industry (Federation of Indian Chambers of Commerce and Industry 2021).

In India, the tobacco tax rate for all tobacco products falls below the WHO recommended levels (of at least 75%) primarily because of tobacco industry interference (Lo 2023).

During the COVID-19 pandemic, government's relief fund received significant donations from leading industry players in India, who benefitted from tax exemptions, illustrating a practice of corporate influence on political decisions and processes (India Tobacco Company 2020). Efforts to enhance tobacco productivity through agricultural research projects reveal another

facet of industry influence (Ministry of Agriculture 2020). The recruitment of retired IAS officials as independent directors and board members highlights a practice of industry influence extending into governance structures (Gupta 2022; India Tobacco Company Limited 2019).

2. Reputational Management Practices

These are aimed at enhancing a commercial actor's legitimacy and credibility (Fooks 2013; Legg 2021; Ulucanlar 2023). Section 135 of the Companies Act, 2013, requires that every company with a net worth of at least INR 500 crores (~$65 million), or turnover of INR 1,000 crores (~$131 million) or more, must allocate 2% of its average net profits to corporate social responsibility (CSR) activities. Commercial actors, especially those engaged in unhealthy commodities, often use CSR activities to legitimise their operational activities in the public eye and project themselves as a responsible industry.

In recent years, India has witnessed an increase in CSR activities conducted by the tobacco industry (Assunta 2021). While the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act (COTPA 2003) prohibits the advertisement, sponsorship, and promotion of tobacco products (Article 5, COTPA), the industry promotes its brand name through CSR activities (Government of India 2003). Research conducted in eight LMICs, including India, Bangladesh, and Sri Lanka, found that the tobacco industry, through their CSR, conducted activities in the health, education, and environment, in addition to sponsoring local sports teams and providing support to their tobacco farmers (Matthes 2021).

Tobacco companies in India committed US$ 37 million in donations to various government funds as part of the COVID-19 relief activities (Yadav 2022). During the same time, they engaged local NGOs to initiate livelihood programmes for farmers and daily earners under the Mahatma Gandhi National Rural Employment Guarantee Act 2005 (MGNREGA), the government of India's flagship employment programme (Sally 2020).

During the pandemic, the alcohol industry also provided direct financial contributions to support relief funds while also advocating for the resumption of alcohol sales to help states provide minimum subsistence allowances, free food, and healthcare during a resource-constrained time (WHO 2022a). Activities of both the tobacco and alcohol industries during the pandemic have set out concerning precedents, as their products have a direct and grave conflict of interest with health outcomes and their funds supported health relief operations.

CSR activities also act as an entry point for commercial actors to build public–private partnerships, e.g., tree plantation programmes to support

environmental causes (India Tobacco Company Limited 2022), with leading academic institutes to support research in science, technology, engineering, and mathematics (STEM) areas (Verma 2022).

3. Advertising and Marketing Practices

Commercial actors focus their marketing and advertising practices on increasing demand and consumption of products and services by enhancing the desirability of these products. Marketing tactics often aim to interfere with people's ability to make healthy choices. Consumers are subjected to aggressive marketing that alters their behaviour to consume ultra-processed foods (BPNI and NAPi 2023; Pandav 2021). The industry typically presents food marketing as an issue of 'choice'.

HFSS food industry often focuses its marketing on the younger population. An analysis of advertisements on Indian television showed that advertisements of unhealthy food items (chocolates, biscuits, and potato chips) were significantly higher on children's channels as compared to mainstream channels (Bassi 2021; Vijayapushpam 2014).

Commercial actors also employ strategic marketing, including surrogate advertisement and use of social media. This kind of practice is more evident where there is a restriction on marketing. For instance, while there is a prohibition on advertisement, sponsorship, and promotion (TAPS) of tobacco products in entertainment media (such as television and radio) and other platforms like billboards, the tobacco industry is strategically using digital and social media, including social networking sites (SNS) for TAPS (WHO). The industry utilises SNS to normalise the use of tobacco through innovative strategies such as paid influencers, posting images of celebrities using or promoting tobacco, and leveraging popular hashtags (Kirkham 2019). Social media is becoming increasingly popular as a marketing platform, largely because of its extensive utilisation by the youth and limited enforcement restrictions (Soneji 2018; Hébert 2017). Evidence indicates that exposure to tobacco use in Bollywood movies is independently associated with every tobacco use among adolescent girls, aged 12–16 years in India (Arora 2012). A similar correlation might also exist for social media (Bahl 2023).

There has been an increased display of tobacco use, including tobacco imagery and brand placement in on-demand web series on streaming platforms like Netflix and Amazon Prime Video, with 70% of series depicting tobacco use popular among young adults (Arora 2021).

While there is a complete ban on the advertising of alcohol brands, the industry is resorting to surrogate advertising (Public Health Foundation of India 2013; WHO 2022b). This form of advertising involves advertising for products (non-alcoholic) that use the same brand name as the alcohol products. For example, advertising for packaged drinking water, merchandise,

and other items under the same brand name as their alcohol product. The alcohol industry also often sponsors major sports events including cricket, which is the most popular sport in the country and is widely watched across all age groups (Public Health Foundation of India 2013). Viewing the lockdown as an opportunity, the Confederation of Indian Alcoholic Beverage Companies urged various government bodies to permit online alcohol sales.

4. Practices Impacting Health-Enabling Legal Environments

These practices aim to undermine legal and regulatory environments that go against commercial profit-making objectives. There has been extensive litigation in India by the tobacco industry against regulations, including pictorial health warnings, the prohibition of smoking in public places, the ban on TAPS, the sale of smokeless tobacco in plastic sachets, and *gutka* (smokeless tobacco) (Yadav 2018). Despite a ban on gutka in India since 2012, gutka remains widely used and available. The industry has found ways to circumvent the existing regulations. It circumvented the ban by producing pan masala (a non-tobacco product) under the same brand name hence, leaving it for users to prepare their gutka by mixing the two packets (Welding 2022). Trade Representatives of Electronic Nicotine Delivery System (TRENDS) opposed all government-led efforts right from issuing an advisory to making an ordinance and passing 'The Prohibition of Electronic Cigarettes (Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement)' 2019 Act. TRENDS wrote to all state chief ministers demanding the state governments conduct an independent study to evaluate the effects of these e-cigarettes (Sabari 2019; The Wire 2019).

5. Supply Chain, Waste Practices, and Environment Degradation

Commercial actors, particularly multinational and transnational corporations, have extensive supply chains and engage in practices that adversely impact the environment. In Kerala, India, the establishment of an SSB industry bottling plant in 2000 resulted in groundwater contamination and the release of toxic waste (Bijoy 2006). States where '*tendu*' harvesting takes place frequently reported uncontrolled forest fires leading to wildlife destruction, increased carbon emission, increased soil erosion, and reduced water-capturing potential (Lal 2012). In March 2021, a petition was filed before the National Green Tribunal urging the Maharashtra government to uphold its 2012 commitment to prevent forest fires and enforce a complete ban on the harmful practice of extracting tendu leaves followed by forest burning (Singalkar 2021).

6. Scientific Practices

The tobacco industry has actively engaged in funding research studies to discredit proven science that adversely impacts their interests (Goel 2023). They sponsor and promote research that produces results in favour of their products. Discrediting scientific evidence misguides consumers on the harms of their products and discourages them from quitting (Goel 2021).

The International Life Sciences Institute (ILSI), an alliance of leading food and drinks industries, organised workshops, symposia, conferences, training programmes, research projects, and publications on public health, including nutrition and health. These were aimed at influencing the setting of food standards. In 2006, WHO restricted the ILSI from taking part in activities related to food standards. In 2000, the Indian Council for Medical Research (ICMR) released a report on health costs and the immense health burden of tobacco use in India. The tobacco industry, along with the head of the Tobacco Institute of India, made significant efforts to discredit the report and hinder its wider dissemination by the MoHFW (WHO 2022b).

VII. Existing Policy Measures to Counteract Commercial Determinants

The government of India has enforced COTPA, 2003, in line with WHO FCTC (WHO 2003). Article 5 of COTPA prohibits the advertisement, promotion, and sponsorship of tobacco products (Government of India 2003). To protect public health policies from the vested interests of the tobacco industry, several Indian states have issued protocols and guidelines to implement Article 5.3 concerning industry interference and engagement of the industry with government policy and programmes. At the national level, in 2020, to comply with Article 5.3 of WHO FCTC, the MoHFW issued a code of conduct for public officials to prevent any interference from the tobacco industry and avoid conflicts of interest. The code of conduct applies to all officials of the MoHFW, its departments, and all autonomous institutions and offices under its jurisdiction, as well as any individual acting on their behalf. These guidelines aim to protect tobacco control policies and programmes from interference from the tobacco industry, and commercial and other vested interests of the tobacco industry (MoHFW 2020). The Cable Television Network (Amendment) Rules 2021 read with the Cable Television Networks (Amendment) Act 1995 regulate the content of programmes and advertisements broadcasted through cable television and impose penalties for violations of the code. The code requires cable service providers to adhere to provisions that prohibit the direct and indirect advertisement of cigarettes, tobacco, wine, and other similar products.

India still lacks a comprehensive national policy on alcohol, but instead, individual states are responsible for drafting and implementing their own alcohol policies, including setting the legal drinking age, imposing restrictions on places of sale, and excise taxes on alcohol products (WHO 2018a).

Marketing of HFSS foods negatively affects consumption patterns, especially among young children, leading to increased lifetime risks of weight gain, overweight, obesity, and NCDs. In India, various guidelines and directives have been issued to limit the availability and accessibility of HFSS foods. 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements 2022' were introduced by the Central Consumer Protection Authority (CCPA) under the Ministry of Consumer Affairs in the exercise of powers conferred by the Consumer Protection Act 2019 (35 of 2019). These guidelines apply across all forms, formats, and media. As per the guidelines, an advertisement targeting children should not suggest that certain goods, products, or services are superior to natural or traditional foods typically consumed by children. Additionally, the guidelines discourage any advertisements that offer promotional gifts to persuade children to buy goods, products, or services without necessity or that promote illogical consumerism.

The Food Safety and Standard (Advertising and Claims) Regulation 2018 aims to ensure fairness in the claims and advertisements of food products and holds food businesses accountable for such claims and advertisements to protect consumer interests. The regulation includes various sections detailing definitions – general principles for claims and advertisements. It sets the criteria for nutrition claims (nutrient content or nutrient comparative claims), non-addition claims (non-addition of sugar and sodium salts), health claims (reduction of disease risk), claims related to dietary guidelines or healthy diets, and conditional claims (e.g., naturally low sugar food). It also specifically prohibits certain claims (e.g., recommended by health professionals). Additionally, it outlines procedures for the approval of claims and the redressal of non-compliance under this regulation.

The Food Safety and Standards (Safe Food and Balanced Diets for Children in School) Regulation 2020, introduced by the Food Safety and Standards Authority of India (FSSAI), ensures that school children have access to safe and balanced diets. The regulation covers various aspects to protect and conserve the school food environment, including the promotion of a safe and balanced diet in and around the school campus. It also imposes restrictions on advertisements, marketing, and selling of HFSS foods and beverages on the school campus or to schoolchildren in an area within 50 metres from the school gate (in any direction). Additionally, the regulation mandates regular monitoring and surveillance through designated authorities, corporations, and committees.

TABLE 16.1 Summary of Existing Policies Regulating the Industry in India

Policy Regulation	*Tobacco*	*Alcohol*	*Unhealthy Foods*
Taxation	WHO-FCTC	State Excise Policies	N/A
Advertisement	Section 5, The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act – Cigarettes and Other Tobacco Products (COPTA), 2003	State Excise Policies	Food Safety and Standards (Advertising and Claims) Regulation, 2018 The Food Safety and Standards (Safe Food and Balanced Diets for Children in Schools) Regulation, FSSAI 2020
	Guidelines for Influences Advertising in Digital Media, ASCI 2021	Guidelines for Influencers Advertising in Digital Media, ASCI 2021Cable Television Networks (Regulation) Act, 1995	Guidelines for Influencers Advertising in Digital Media, ASCI 2021
	Cable Television Networks (Regulation) Act, 1995		Guidelines for Prevention of Misleading Advertisement and Endorsement for Misleading Advertisement CCPA, 2022
Sponsorship	Section 5, The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act – COPTA, 2003	State Excise Policies	N/A
Sale restrictions	Section 5, The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act – COPTA, 2003	State Excise Policies	The Food Safety and Standards (Safe food and balanced diets for children in school) Regulation, 2020
Age restrictions	WHO-FCTC, WHO 2003	State Excise Policies	N/A
Industry interference	Protocols and guidelines to implement Article 5.3 of WHO-FCTC at the state level, 2020	N/A	N/A

Source: Authors

As digital media becomes increasingly pervasive and engages with advertising on various digital platforms, it is crucial to understand the peculiarities of these advertisements and how consumers perceive them. As the distinction between content and advertisements becomes increasingly blurred, consumers need to recognise when something is being promoted to influence their opinions or behaviour for immediate or future commercial gain. Consumers may encounter such messages without recognising the commercial intent of these, making them inherently misleading, violating clauses 1.4 (misleading by omission) and 1.5 (abusing consumers' trust or exploiting their lack of experience or knowledge). According to the 2021 Guidelines for Influencers Advertising in Digital Media, issued by the Advertising Standards Council of India (ASCI), all advertisements published by social media influencers or their representatives on such influencers' accounts must include a disclosure label that identifies it as an advertisement. As the marketing landscape evolves and influencer marketing becomes mainstream, consumers must have a right to know which content has been sponsored by brands. These guidelines aim to ensure transparency in influencer marketing.

VIII. Call to Action: Approaches and Strategies for Mitigating the Harmful Health Effects of CDoH

As evidenced by the above discussion, commercial industries impose a significant burden on public health, ranging from encouragement to unhealthy behaviours among the population to the global surge of NCDs. From the data presented above, it is evident that CDoH significantly contribute to the prevalence, incidence, morbidity, and mortality of NCDs. How can we address these challenges effectively? What strategies can we implement to better address the needs of the population and reduce the NCD burden? These questions are complex and multifaceted, requiring a comprehensive and multi-sectoral response. The first step is to acknowledge the influence of commercial interests on health outcomes and health inequities among individuals and populations. Then it needs to be strengthened by collaborations between governments, civil societies, and the private sectors, united by a common goal and mutual understanding. As outlined below, by implementing policies to mitigate their impacts, we can promote healthier environments and enhance public health outcomes for all.

Defining CDoH and Monitoring

In public health, the importance of understanding CDoH and its impact on health has grown rapidly over the past decade (Global Burden of Disease 2024). There is a necessity to establish a universally acceptable definition of CDoH and their multifaceted components. Equally important is the widespread adoption of CDoH terminology in describing industry influence and

practices towards health and NCDs. Adopting an approach like the Global Burden of Disease (GBD) study is essential in understanding the long-term trends, with an emphasis on LMICs and densely populous nations, notably India, where the NCD burden is disproportionately high and healthcare resources are scarce, particularly in remote, rural areas.

Policies Resembling the FCTC

Policies and regulations promoting health and, simultaneously, regulating commercial interests are essential for mitigating the impact of these determinants on public health outcomes. This may include implementing measures, such as proportionate taxation on unhealthy products, strict restrictions on marketing, and promoting sustainable and healthy food ecosystems with healthier choices. For instance, measures such as standardised labelling (like in the WHO FCTC), reducing access to alcohol and unhealthy foods, increasing taxes on these items, and making fruits and vegetables more accessible will be effective in reducing the burden of CDoH and NCD. Additionally, graphic health warnings on tobacco products have proven effective in decreasing tobacco use prevalence. The global success story of the FCTC underscores the potential efficacy of such approaches in curbing the prevalence of harmful tobacco products. Similar models are required in the domain of alcohol and unhealthy foods as well. Given the WHO classification of these substances as a Group 1 carcinogen, governments and policymakers must enforce stringent regulations, including, but not limited to, restrictions on advertisements and sponsorships, taxation, implementation of standardised packaging bearing health warnings, and even contemplating a ban on the access of the public to Froup 1 carcinogens.

Governance

The whole of government and not just the Ministry of Health should address industry interference and related practices. Thus, the whole of government and a multi-sectoral response is needed to adequately address the adverse impact of CDoH. India's NCD multi-sectoral action plan can be effectively implemented and monitored in consideration of CDoH by integrating robust regulatory frameworks, fostering intersectoral collaboration, and conducting regular evaluations to mitigate industry influence and ensure public health priorities (Arora 2011).

Research Advancement

The past decade has witnessed a surge in CDoH research and its ramifications on public health. In this vein, systematic reviews and meta-analyses will be vital for informed decision-making, particularly concerning CDoH and NCDs. To achieve this, embracing the CDoH and Evidence Synthesis (CODES) approach represents an important initial step (Petticrew 2023).

Furthermore, expanding funding for CDoH and NCD research is crucial to keep pace with evolving insights into disease burden.

Research endeavours should prioritise health promotion and impact assessments, while also delving into the economic ramifications of CDoH, including healthcare and productivity costs. Evaluating the efficacy of existing policies, alongside understanding CDoH's impact on social and environmental determinants, is important in reducing health disparities prevalent in different regions of the global population.

Health Impact Assessments

Health impact assessments (HIAs) serve as an invaluable tool for evaluating the potential health repercussions of policies and programmes. By providing credible insights into the ramifications of decisions, HIAs facilitate the development of policies aimed at easing the burden of CDoH and NCDs, potentially enhancing social and economic determinants of health. By engaging closely with the public, HIAs enable constructive feedback on public concerns. Regular HIA evaluations are also essential to gauge compliance and industry improvements.

Increase the Level of Health Literacy and Encourage Behaviour Change

Raising the awareness of the population about the detrimental effects of products, such as tobacco, nicotine, alcohol, and unhealthy foods, by targeted educational campaigns in schools and among parents is of utmost importance. This approach is also required for healthcare professionals and caregivers, a significant number of whom themselves may also be ill-informed on causative agents and contents, and the real health issues associated with such behaviours. The level of motivation is understandably suboptimal among healthcare providers. Changing this situation requires extending capacity-building programmes to educational institutions and healthcare facilities, targeting cessation among adults, as well as fostering abstinence and behaviour modification among adolescents and children. Raising awareness regarding NCDs and their economic ramifications is pivotal to the effective installation of comprehensive information. Establishing incentivised programmes to reward behaviour modification and abstinence could expedite the transition towards healthier lifestyles, in both rural and urban areas.

Civil Society Activism

Civil society activism offers invaluable lessons in effecting change. For instance, Revant Himatsingka utilised social media to scrutinise and raise

awareness about deceptive advertising practices by a leading health drink brand in India, highlighting the influence of grassroots movements (Javaid 2023). Similarly, documentaries like 'Super-Size Me' by Morgan Spurlock have encouraged industry reform (Veltman 2004). In the wake of the 74th World Health Assembly, WHO is working on an innovative tool to assist member states in deciding on engaging with private sector entities for the prevention and control of NCDs (WHO). The adoption of this tool will help manage the significant influence of CDoH on NCDs.

CDoH as a Part of a Political Party's Agenda

Highlighting the impact of CDoH and NCDs is crucial. This issue should be a priority for everyone, especially policymakers. Therefore, it is essential to integrate CDoH into the manifestos of all elections or political parties.

Establishing a Monitoring Framework

Developing a robust monitoring system with well-defined, robust parameters is indispensable for quantifying the negative impacts of CDoH, thereby providing policymakers with empirical evidence to drive regulatory reforms where needed. A standardised framework is imperative to assess industries' effects on public health, ensuring global applicability and facilitating health impact assessments.

Capacity Building

Integrating CDoH into public health curricula at medical, public health and nursing schools, and universities, alongside targeted training for healthcare professionals, represents a crucial step towards holistic disease management. Long-term capacity-building initiatives, underpinned by sustained funding and collaborative partnerships, are essential to address the NCD burden comprehensively and strengthen capacity-building initiatives to effectively leverage legal frameworks to protect public health against industry challenges.

Enforcement of Compliance and Accountability

Ensuring industries adhere to regulatory frameworks is imperative in safeguarding public health. Therefore, it is important to hold them accountable for any breaches of legislation and misleading practices such as imposing monetary fines, revoking licenses, or imposing sanctions to uphold the integrity of regulatory policies and protect the welfare of the population.

IX. Case Studies

Chile's Food Labelling and Advertising Law

The Chilean food labelling and advertising law was implemented in three progressively strict phases starting in 2016. The law mandated warning labels on unhealthy pre-packaged products, comprehensive restrictions on food marketing directed to children (<14 years), and prohibited in schools sales and promotion of foods and beverages high in sugar, sodium, saturated fat, or calories. The study evaluated the changes in calorie, sugar, sodium, and saturated fat content of food and beverage purchases following the first phase of the law's implementation. It found that overall calories purchased decreased by 16.4 kcal/capita/day (95% CI –27.3 to –5.6; p = 0.0031). Sugar intake dropped by 11·5 kcal/capita/day (–14·6 to – 8·4; p < 0·0001) or 10·2%, while saturated fat declined by 2·2 kcal/capita/day (–3·8 to – 0·5; p = 0·0097) or 3·9%. Sodium content in overall purchases fell by 27.7 mg/capita/day (– 46.3 to – 9.1; p = 0.0035) or 4.7% (Taillie *et al.* 2021).

Ban on E-Cigarettes in India

The rising use of e-cigarettes among the youth poses a significant public health concern, given the extent of potentially harmful effects beyond the demonstrated nicotine addiction. Based on the available scientific research, the Indian Council of Medical Research (ICMR) released a white paper that recommended a total ban on Electronic Nicotine Delivery Systems (ENDS) or e-cigarettes in India. This recommendation follows a precautionary principle of preventing public harm from a noxious agent to protect public health (Indian Council of Medical Research 2019). India is among the countries that have implemented a comprehensive e-cigarette ban aimed at protecting youth from vaping-related harm by enforcing the 'Prohibition of Electronic Cigarettes (production, manufacture, import, export, transport, sale, distribution, storage, and advertisement) (PECA) Act by the MoHFW, government of India, in 2019 following continuous industry interference (The Wire 2019; Sabari 2019). However, the supply continued despite opposition from the TRENDS against all government-led efforts right from issuing an advisory to making an ordinance and passing the PECA 2019. The Act encompasses all forms of electronic cigarettes, including 'Electronic Nicotine Delivery Systems, Heat Not Burn Products, and e-Hookah'. It prohibits all forms of advertisement and sale of e-cigarettes across all media, including electronic media, the Internet, websites, or social media, with violations subject to penalties (Ministry of Law and Justice 2019).

Implementation of Larger Pictorial Health Warnings on All Tobacco Packages in India

Despite several legal and administrative challenges from multi-national tobacco companies, smokeless tobacco companies, and local '*bidi*' producers, India enforced the rule requiring larger pictorial health warnings (PHWs), covering 85% of both the front and back of tobacco packages starting from 1 April 2016. This was followed by the mandate to print the National Tobacco Quitline number on all tobacco packages, including bidis starting from 1 September 2018. A scoping review assessing the impact of graphic warnings on tobacco consumers revealed that these warnings are an effective way to raise awareness about the risks associated with smoking (Mudey 2023). The Global Adult Tobacco Survey–2 (2016–2017) also reported that 62% of cigarette smokers and 54% of bidi smokers considered quitting because of warning labels on tobacco packets (GATS Collaborative Group 2022).

X. Conclusion

It is critical to delve into and analyse the diverse sources of corporate influences and their manifestations globally with emphasis on LMICs, including India, to understand how various commercial entities influence health outcomes and equity. This may help eliminate industry interference in policy-making and their deceptive engagement in promoting health and well-being.

Addressing CDoH in India requires a multifaceted approach. This entails strengthening regulatory mechanisms, fostering stakeholder engagements, and advancing research on the legal landscape to address CDoH and capacity-building initiatives. This approach will provide multi-sectoral government officials, healthcare professionals, and CSOs to better comprehend, identify, assess, act, and monitor the effects of CDoH.

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