NICE Programme Development Group expert testimony

The relationship between commercial interests and risk of cardiovascular disease

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1. Introduction:

This paper aims to describe the potential risk relationships between various industry sectors and cardiovascular disease (CVD) in the UK population. It is by no means an exhaustive analysis – to do this in detail would require more thorough investigation – but is an indicative analysis in which I have sought to a) identify the range of industrial sectors that may have an influence on CVD rates, b) categorise the ways in which their activities may be judged to influence CVD rates, c) map these activities and the possible causative or preventative relationships (in the matrix at appendix A), and d) point to some potential policy implications.

I have started from the basis that CVD rates are adversely affected by poor diet (high in fat, sugars and salt), physical inactivity, overweight and obesity, excess alcohol intake and smoking, and that CVD rates are ameliorated by drug treatment of risk factors such as raised blood cholesterol, raised blood pressure and diabetes.

It is important to recognise that it is a mixed picture of influences that emerges; observations made about a particular industry do not necessarily apply across the entire sector, and individual commercial operators may take positive steps in one area, and not in others.

This is a rapidly-prepared paper for the purpose of providing testimonial to the PDG. A thorough and systematic commissioned analysis of the influences and policy implications would, I suggest, be useful to the Group in developing its recommendations.

2. Scope and Evidence:

It is important that the PDG heed a ‘health warning’ about the nature of the evidence available when considering the role of industry. With the exception of the tobacco industry – which produces a uniquely health-damaging product – a direct causal relationship between an industry’s products and activities and CVD rates cannot be clearly or easily shown.

However, with this proviso, it is possible and appropriate to look at the ways in which industry products and actions directly and indirectly contribute towards an environment that affects the major modifiable risk factors of poor diet, physical inactivity, excess alcohol intake and smoking. I suggest that we are observing a number of ‘natural experiments’ in terms of changes in our diets and lifestyles, and that the lack of scientifically robust evidence of causation should not be a barrier to a reasonable attempt to reflect the role of industry in influencing CVD rates. In this paper, I have included within the analysis the following industry sectors:

- Tobacco
- Food & drink including infant formula*

- Alcohol
- Automotive
- Pharmaceutical
- Marketing, advertising and public relations
- Broadcasting and audio visual media
- Hospitality and gambling
- Domestic energy supply

**There is weak but consistent evidence linking infant formula feeding with adiposity in childhood, which in turn is associated with a raised risk of CVD in later life.*

2.a Inevitably, there will be 'unevenness' in the type of evidence available. Successful law suits against the tobacco industry in the 1990s has yielded power of disclosure over internal industry documents which shed light on tobacco companies' knowledge about their products, as well as their intentions and tactics to defend against tobacco regulation. There are currently little or no equivalent insights to the possible actions of the food or alcohol industries for example. There are also costs involved in gaining access to commercially 'sensitive' sales or advertising data which hampers independent studies by poorly-resourced non-governmental organisations (NGOs).

2.b Sources of evidence to populate this indicative analysis could include:

- National dietary and health surveys
- Internal company documents (where available)
- Commercially available production and sales data
- Commercially available marketing data (eg. AC Nielsen)
- Independent analysis of food and drink labelling
- Independent analysis of product formulations
- Freedom of information Act (for access to information about lobbying activities)
- Reports of independent academic and expert groups
- Witness testimony in court cases, committee hearings, government enquiries.

<u>3. Describing the risk relationship:</u>

For the purpose of this paper I have indicated five different ways in which commercial operators, through their activities, may be judged to influence CVD risk factors:

- Product formulation
- Consumer information*
- Marketing
- Supply**
- Lobbying

**Includes packaging, labelling, health warnings, claims, sponsored information resources or campaigns, etc.*

***Includes both legitimate supply (through pricing policy) and illegal supply (smuggling.)*

Examples of influence are shown against each of the industry sectors in turn in the matrix at Annex A.

4. Policy implications:

Commercial operators have a primary responsibility to provide returns on investment to their owners and shareholders. Public health considerations are of concern only in so far as the commercial operations should comply with public health regulations. In this paper it is assumed that no commercial operator has a direct interest in raising the levels of ill-health, with the arguable exception of the pharmaceutical industry and their marketers.

In my opinion, the very significant degree of influence over the food and living environment exerted by many of the industry sectors discussed - and in some instances by a few very large companies within those sectors - places major responsibilities on those commercial operators for the UK population's health status.

4.a Research & monitoring

In order to help identify policy opportunities – whether regulation, standard setting, best practice guidance or voluntary action – we need a fuller picture of what commercial operators do (not just what they say they do) and map how their actions impact on public health. This should be a broader-focused, but similar exercise to the systems analysis carried out by Foresight in its report on *Tackling Obesities: Future Choices*[1] which maps the pathways of influences on obesity, including those around food supply and sedentary behaviour. Such an analysis must be conducted independently of the commercial operators and should draw on the range of evidence sources listed above (2b).

To conduct such an analysis, requires researchers who are independent from commercial interests or bias with adequate resources to access commercial information sources as well as publicly available data.

4.b Internalising the social costs of commercial operations

There is a reasonable argument that public money should not be used to undo avoidable damage and that companies which have some contributory responsibility for damage to public health must accept a share of responsibility to make some reparation. The notion that 'the polluter must pay' is an established policy principle in some situations, and it has been proposed that the principle might be applied to food, drinks and tobacco companies promoting and selling unhealthy products. In economic terms, the concept is often referred to as 'internalisation' of the costs of production. Externalised costs are those created by an operation but not born by the operator, such as air pollution damage from road traffic.

Some degree of internalisation of the social costs of commercial operations have been imposed or proposed in several sectors. For example, sales taxes on specified food products such as soft drinks have been in operation in several US states (Brownell and Jacobson). Cigarette products in California carried a levy which was used specifically to promote anti-tobacco messages, and similarly, advertisements for food and beverage products in France must pay a levy or else display a health message with the advertisements. Removing the tax exemptions allowed for advertising and market research for tobacco products has been proposed in the USA (Harkin's Agriculture Bill).

[1] http://www.foresight.gov.uk/OurWork/ActiveProjects/Obesity/KeyInfo/Index.asp

Congestion charges have been levied on cars entering urban areas, first in Oslo and subsequently in many areas, notably London in the UK.

4 c Regulating and controlling commercial operators

Besides levies, taxes and other fiscal measures, including incentive and subsidy schemes to encourage health-enhancing commercial activity, non-fiscal measures can be considered. The introduction of statutory controls on commercial activities will usually be pre-empted by industry offering self-regulation under industry-agreed codes of practice. If the codes are comprehensive and are applied across an industry sector, and are firmly enforced, then self-regulation may be sufficient, but in practice the codes are weak, they may permit non-participation, they are often poorly enforced, and in some instances they are rolled back when public pressure eases and the political spotlight has moved away.

Statutory controls serve to create a uniform and clearly defined marketing environment and, cumbersome as they may be, such controls are more likely to lead to real public health protection: this is certainly the case for food safety regulations, for tobacco use, for alcohol purchases, gambling controls, car seat belt use, and a host of other protective laws and regulations. Voluntary measures and exhortations to the public to improve their behaviour are insufficient, although they can be valuable in helping generate the climate of opinion needed to introduce statutory controls.

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Annex A

Examples of the links between industry sectors and activities which affect the risk of CVD

Industry sector	Product formulation	Consumer information	Marketing	Supply	Lobbying
Tobacco manufacturers	• Smoking of tobacco is a major independent risk factor for CVD. No such thing as the 'safe cigarette'. Industry documents show that companies abandoned work to developed 'safer cigarettes' as it would expose regular cigarettes as unsafe. (ASH/ICRF 1999) • Presence of nicotine in smoked and smokeless tobacco products maintains consumption. Industry documents show companies recognize their product as a 'drug delivery device'.	• Health warnings required by UK law on cigarettes and tobacco products. • Maximum yields of tar, nicotine and CO must be declared under EU Directive 2001/37/EC. No required disclosure of ingredients or active agents to the consumer. • Use of terms such as 'light' and 'mild' now banned under EU Directive 2001/37/EC. Colours associated with these terms still persist. • Public campaigns to discourage youth smoking by the tobacco industry have been described as cynical, self-serving	• Tobacco Advertising and Promotion Act 2002 comprehensively bans the advertising and promotion of tobacco products in the UK. • Current gaps include: point of sale display in corner shops (a grace period has been granted before this is banned by UK government); promotion of tobacco accessories such as cigarette papers.	• Widely distributed in local corner shops, supermarkets etc and slot machines in pubs and hotels, and with shelf displays at sales counters. • The collusion of tobacco companies in large-scale tobacco smuggling has been documented. While largely curtailed in N America and W Europe it may persist in Africa and other developing countries.[2]	• Internal tobacco industry documents reveal that companies have lobbied on every aspect of tobacco regulation to protect their ability to market their products. • Tobacco-funded university departments, research programmes and scientific meetings.

		PR for tobacco companies.[1]			
Food and drink manufacturers (also retailers and food service industry)	• CVD risk factors include total energy intake (primarily from fats and sugars), fat types (especially saturated fats, *trans* fats and protective volatile n-3 oils), sodium as common salt, and protective dietary fibre and anti-oxidants primarily from fresh fruit and vegetables. • Many decades of research emphasising long-shelf-life, easy transport and storage, 'ideal look' products for visual and taste appeal without regard to nutritional quality and at expense of providing un-processed, fresh, perishable foods with little 'added value' processing. Results have dramatically raised salt, fat (incl. saturated and *trans* fat) and sugar levels in national diet, and	• *Nutritional food labelling*: Major manufacturers and some retailers use and promote %GDA labelling to declare fats, sugars and salt per portion. Publicly available research (FSA) shows that consumers find this presentation of information difficult to interpret and to use in order to make healthier food choices. • An independent evaluation (commissioned by the FSA) of labelling schemes in the UK market is due to report in March/April 09. • *Nutrition and health claims:* Food companies use nutritional and health claims to promote a wide	• Marketing and product development creates and sustains a huge and growing market for processed ready meals, fast food, soft drinks, sweetened cereals, confectionery and snacks. • Confectionery, snacks, soft drinks, sweetened cereals and fast food are the foods most heavily promoted to children. • Statutory regulations limiting the volume and frequency of advertising for high fat, sugar, salt foods (HFSS) on TV are now fully implemented. This has partially (~50%) reduced children's exposure to TV ads for low-nutrient	• Long-shelf-life processed products have less wastage and better storage and distribution and hence lower price and much wider availability compared to fresh perishable foods. (E.g. walking distance to fresh oily fish *vs* battered white fish, fresh fruit *vs* soft drink.) • Manufacturers use price (e.g. 2-for-one) and placement (e.g. shelf display) as a marketing tool to promote their goods. • Bulk purchase prices typically over 20% lower than small item equivalent – but this discount favours storable over perishable foods. • Low-income households are especially likely to be disadvantaged by these factors[2]	• Trade bodies and individual companies make representations to government and regulatory authorities on all aspects of food industry regulation. • Almost every attempt to introduce sales taxes on soft drinks or snacks has been successfully overturned by the food & drinks industries. • There are examples where food lobbyists have tried to discredit research, and responsible organizations like WHO. (The sugar industry challenged US funding of the WHO in protest over recommendations to limit energy from sugar to no more than 10% in the 916

[2] Lobstein T, 'Food'. Chapter 1 in *Poor Choices: The limits of competitive markets in the provision of essential services to low-income consumers.* London: Energywatch, 2008.

	reduced n-3 oils, dietary fibre and range of anti-oxidants and associated bio-active compounds. • Plant and livestock breeding emphasized yields and saleable quantities over nutrient quality and nutrient density. Much agriculture devoted to production for animal products and long-shelf-life commodities (sugars, starches and oils) and reduced range and varieties of fruit and vegetables, and reduced wild fish stock. • Use of inexpensive sources of oil (such as marine and palm oils) plus hydrogenation to prevent oxidation resulted in industrially-produced *trans* fats in the food supply. • Food service industry innovates inexpensive, energy-dense fast foods: deep fat frying is a convenient, fast method of cooking. Soft drinks, confectionery,	range of products, some of which may offer little or no public health benefits. The proposed EU Nutrition and Health Claims Regulation [add ref no] aims to ensure that claims are not used in ways that are misleading.	foods. • Non-broadcast media, including internet and other new media, cinema, product placement in games, on-pack promotion and in store promotion (e.g. sweets at checkouts) are not covered.		report.)[3] • Infant formula companies recently won a court victory to delay regulations to prohibit advertising of follow-on formula in the UK • Food companies sponsor academic research, scientific conferences, learned societies, journals, other health media, and gifts to health workers.

[3] Reported in The Guardian. April 21, 2003

	crisps etc formulated as single-portion between meals snack foods. • Food additives widely used to promote foods of poor nutritional quality: colouring, texturing, sweetening and flavour-boosting agents designed to aid sales of highly processed foods and drinks.				
Alcohol manufacturers	• Ethanol has some CVD protective effects in small quantities but raises CVD risk in larger quantities. Alcohol companies manipulate the alcoholic strength of products. • Innovation of sweet-tasting ready-mixed 'alcopops' which are popular with youth drinkers. • Producers now sell wine and beer with higher alcohol content than in previous years.[4]	• Industry-backed information campaigns focus on personal responsibility – 'know your limits' and 'don't do drunk'. • Alcohol units declared on some not all on all products. • Calories not declared on products. • Limited published evidence on public health promotions (counter-advertising) suggests marginal or	• Advertising of alcoholic drinks (>1.2% alcohol) in UK is regulated by mix of statutory and voluntary codes which prohibit advertising that is directed at or appeals to children and young people (under 18) or which condones excessive drinking. • Breaches of the advertising codes are well-documented. (Eg. ASA adjudication against Coors beer TV ad for using	Pricing: As prices increase, alcohol-attributable hospital admissions and deaths are estimated to reduce. Prevented deaths occur dis-proportionately in harmful drinkers. On balance, the health harm reductions mostly relate to chronic diseases rather than acute conditions such as injuries. (Ref.3) • Growing trend in supermarkets selling cut-price alcohol, sometimes as a loss leader to entice	• Industry-sponsored social concern organizations eg. the Amsterdam Group (Europe) and the Portman Group (UK) to advance drinks industry interests with policy makers by commissioning and publicising favourable research, critiquing unfavourable research and resist regulation.

[4] Alcohol Statistics Scotland 2005. NHS National Services Scotland. Edinburgh 2005. Cited in Institute for Alcohol Studies Factsheet – Drinking in Great Britain. 2008.

		insignificant effects on consumption.[5]	themes likely to appeal strongly to young people. Oct 2008.[6]) • There is disagreement in the academic research literature concerning whether advertising bans (in the absence of other legislation) reduce alcohol consumption, or increase it (by having the unintended side-effect of increased price competition between competitors). (Ref. 3)	customers into store.	
Motor vehicle and transport infrastructure	• Designed for ease of use and on-demand use, reduces desire to walk or use cycle. Power-assisted features (steering, windows etc) reduce effort and activity level. • Road traffic design in urban areas and loss of open spaces to roads and motorways reduce		• Cars portrayed as desirable, environmentally sympathetic, youthful, playful and safe in all weather. • Car marketing budget far exceeds train and cycle marketing budgets.	• Opportunities for active travel – walking and cycling – are heavily influenced by decisions taken by local authorities and transport planners. • Government funding of major road projects 'underwrites' industry	• Motorists lobby (not always representative of all motorists' interests) strong and influential on MPs. Lobbied against measures intended to increase road safety and encourage walking and cycling. Eg. Against 20mph

[5] University of Sheffield: Modelling alcohol pricing and promotion effects on consumption and harm. December 2008.
[6] http://www.asa.org.uk/asa/adjudications/Public/TF_ADJ_45145.htm

	the available safe amenities for play and active leisure.			investment. Very low level of funding or incentives for active transport facilities. • Car parking replaces open spaces (including children's play areas at school).	urban speed restrictions and congestion charging.
Pharmaceutical companies	• Pharmaceutical products treat the risk factors for CVD as secondary and tertiary prevention to reduce the burden of disease and prolong life. • Nicotine-replacement and smoking cessation aids assist smokers to quit, weight-loss products may help reduce obesity risks.	• As part of their CSR activities, some drug companies sponsor public health information campaigns or initiatives. The impact of such initiatives is difficult to assess, but likely to be limited and short-term.	• Pharmaceutical advertising direct to patients is not permitted in the UK, but marketing to health professionals is a multi-million pound industry with the aim of influencing prescribing practice. Whether as a result, doctors are persuaded to medicate in favour of offering patients lifestyle advice is difficult to assess. • Some statutory regulation on weight-loss product claims.	• Many pharmaceutical companies also have interests in food and infant formula sectors.	• Pharmaceutical companies involve themselves in health-focused organizations and academic expert groups (Eg. Novo Nordisk is a major sponsor of the Oxford Health Alliance – along with PepsiCo). • Companies sponsor scientific research, conferences and meetings, journals, other health media and gifts to health workers.
Marketing, PR & advertising	• Nature of advertising self-regulated through the ASA. Little or no control on frequency and repetition of ads, or combination effects of	• Small efforts made at 'media literacy' promotion among children, but these are non-critical regarding	• Working on behalf of food, drink, alcohol and tobacco industries, this sector influences the		• The advertising industry through trade bodies like the Advertising Association and Incorporated Society

	ads (e.g. four different fast food companies in one ad break).	effects of advertising on creating demand.	appeal and consumption of tobacco (below the line), alcohol, and food and drink. Marketing for processed foods far outstrips marketing for fruit and vegetables.		of British Advertisers are active in promoting advertising freedoms. The AA's Food Advertising Unit commissioned research (Young 2003) to 'counter' the systematic review into the effects of food promotion to children commissioned by the FSA. (Hastings 2003)

The following industry sectors may be expected to influence CVD risk but the evidence base is less well researched and documented.

Industry sector	Product formulation	Consumer information	Marketing	Supply	Lobbying
Broadcasting companies and audiovisual media (including film industry)	• Visual entertainment generally encourages sedentary behaviour. • TV and video watching may also be accompanied by snacking and by the watching of advertising associated with other risk factors such as fast food, soft drinks. • Programmes and films may influence popular perceptions about diet and lifestyle. For example, films glamorise smoking and soap operas may normalize the frequent consumption of alcohol and fast food. • Product placement in UK-made programmes is not currently permitted, but revisions to the EU Audiovisual Media Services Directive mean this is	• Programmes may help raise awareness of health messages and generate public pressure for improved controls of CVD risk factors.	• Broadcasters use programme breaks to promote other programmes, increasing demand for further sedentary behaviour etc.	• Very widespread supply of TV, video and internet entertainment. UK average consumption of TV programmes by 4-15 year olds is over 2hrs per day (Ofcom 2008)[7]	• Broadcasters lobbied to resist restrictions on HFSS advertising on TV arguing that loss of ad revenues would threaten production of children's programming. (So far, dire warnings have not been borne out in the UK market). • Many broadcasters are pressing government and Ofcom for greater freedoms to use product placement in programmes as an additional source of revenue (on top of spot advertising and sponsorship fees.)

[7] http://www.ofcom.org.uk/research/tv/reports/hfssdec08/hfssdec08.pdf

	now derogated to Member States to permit/regulate. (Currently under review in UK).				
Hospitality & Gambling sector	• Facilities variously designed for the consumption of alcohol, fast food, soft drinks etc. Consumption of tobacco reduced by recent legislation.	• Display of alcoholic strengths required by law. A few fast food companies now volunteering a limited display of calorie content.	• Widespread promotion of leisure industry and fast food chains.	• Pubs and bars influence volume and speed of alcohol consumption via cut price promotions, 'happy hours', 'ladies' nights' etc. • Catering chains offer toys etc to incentivise child interest. Menus with children's special items, usually limited to products high in fat, salt and sugar. [8]	• Lobbied to resist smoke free regulations in UK arguing that it would threaten trade. • Lobbied in support of 24 hour licensing (it is not yet known what effect, if any, 24 hour licensing has on CVD rates).
Energy companies	• Widespread distribution of energy services. Potential CVD risks from under-consumption (cold) and over-consumption (sedentary behaviour in centrally heated areas).	• Some health promotion campaigns on dangers of cold.	• Some competitive pricing policies and some excessive door-stepping reported to obtain consumer switch-overs.	• Pricing policies influence affordability of heating for vulnerable consumers. Excess winter deaths from CVD can be reduced with adequate, affordable heating and insulation during colder months.	• Avoidance of negative PR relating to withdrawal of services for non-payment.

[8] http://www.foodmagazine.org.uk/press/kids_restaurant_meals/

[1] Danger! PR in the Playground. Tobacco industry initiatives on smoking. ASH 2000.

[2] Marina Walker Guervara October 2008 published on The Centre for Public Integrity website: http://www.publicintegrity.org/investigations/tobacco/pages/introduction/