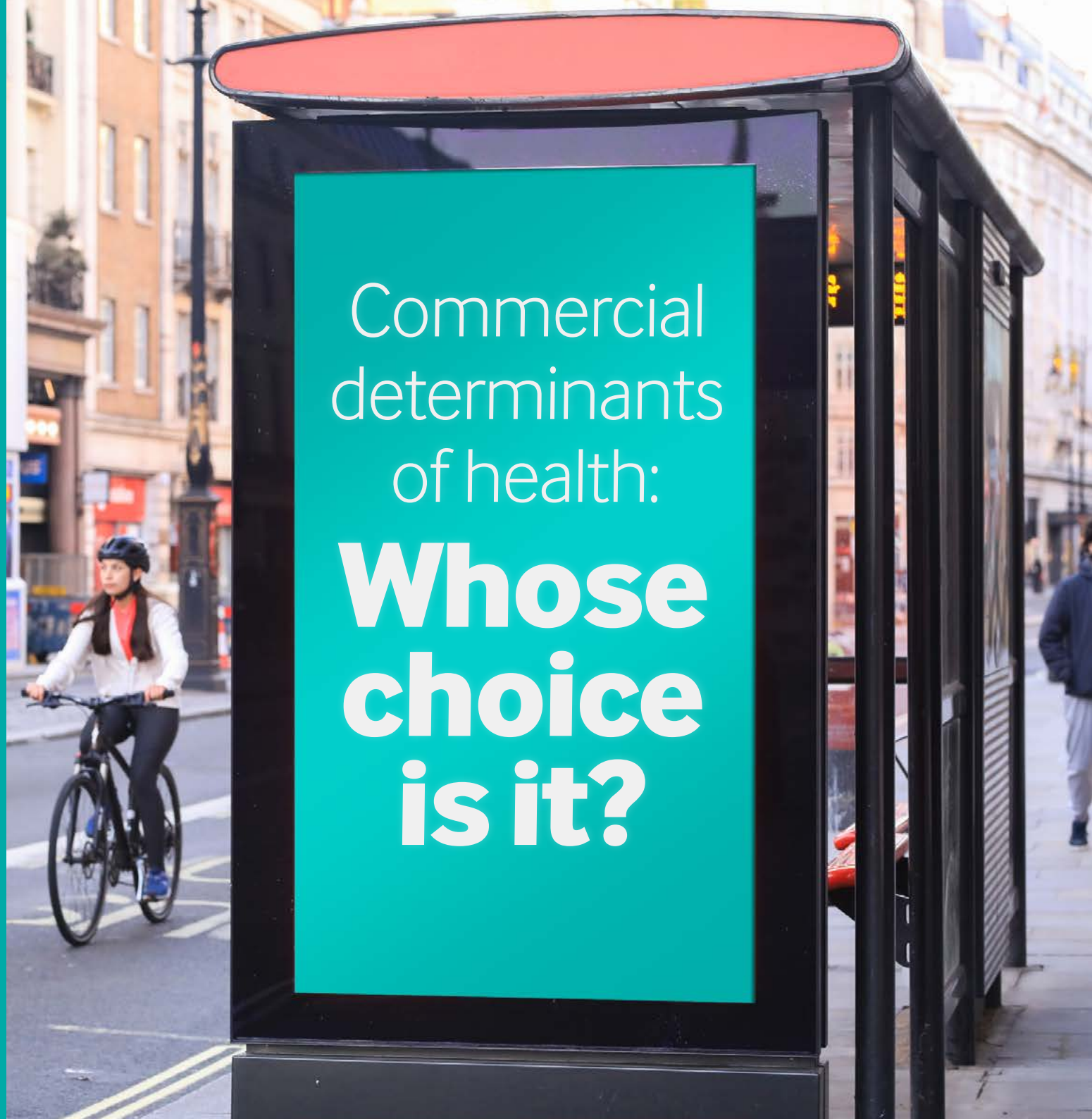
Sunderland City Council

Director of Public Health Annual Report 2022 - 2023



Contents

Foreword

Welcome to my second report as Director of Public Health for Sunderland.

The Annual Public Health Report provides me with the opportunity to present an independent report on the health of the people of Sunderland. This year I have decided to focus on commercial determinants of health – commercial activities that can influence our health both positively and negatively. In Sunderland, our healthy life expectancy is significantly worse than the England average; there are many complex reasons for this, and it is vital that we view health inequalities and health outcomes through a wide public health lens – and this includes exploring the impact of commercial determinants.

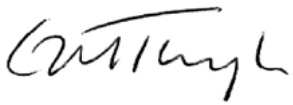
Commercial determinants of health affect everyone, but this report demonstrates that some individuals and groups have been affected more than others. We know that employment and good work for all can have a positive impact on health and wellbeing; locally we are harnessing and promoting this through the Better Health at Work Award and our Workplace Health Alliance. Regeneration is also key to ensuring we have vibrant communities, supporting developments and businesses that are health promoting. However, in my report, I highlight how working policies and practices can also impact negatively on a wide range of health outcomes including obesity, diabetes, cardiovascular health, cancer and mental health. I have focused on key areas such as tobacco, alcohol, gambling and food, but also highlight areas such as fossil fuels, air pollution, working conditions and infant formula milk.

I recognise that some of the most impactful interventions to tackle commercial determinants need to come at a national level. However, I am hopeful that my report will raise awareness of commercial determinants and start the conversation about what we can do at a more local level to mitigate the negative and promote the positive impacts that some industries have on the health and wellbeing of our local communities. Conversations around reducing industry influence on areas such as treatment programmes need to be had. We also need to consider the strategies and approaches used by the private sector to promote products and choices which impact negatively on health.

I would encourage everyone to think about the use of language and to move away from unhelpful terms such as 'problem gambler' and 'lifestyle choice' as this puts the emphasis on the individual rather than the commercial environment in which we live. I hope that this report offers an opportunity to reflect and consider how we can all play our part in rebalancing the impact of commercial determinants on our residents and I have made detailed and overarching recommendations for action.

Lastly, reflecting on public health's tenth year in local government, I do believe that councils are in the best position to build local partnerships to tackle the social or wider determinants which influence our health and wellbeing such as housing, unemployment and education. The past 10 years have shown that these can be addressed through working in partnership with colleagues from within the council as well as our vibrant voluntary and community sector and residents.

I would like to thank all of those involved in developing this report including Julie Parker-Walton, Kylie Murrell, Craig Hodgson, Stephen Potts, Janet Collins, Sheila Rundle, Louise Darby and all of those who provided valuable case studies which help to illuminate the issues and possible actions raised in this report.

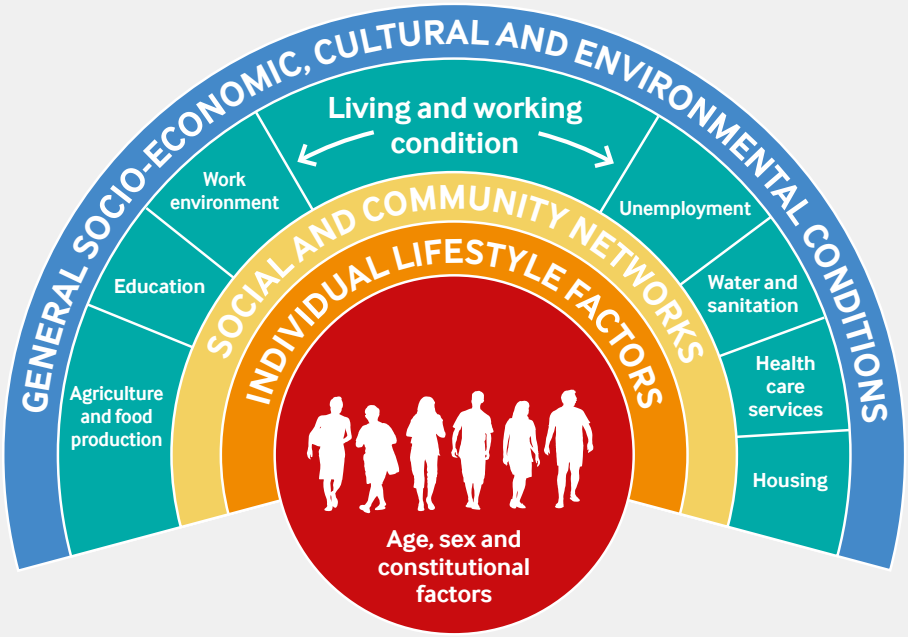


Gerry Taylor,
Executive Director of Health, Housing and Communities

Commercial determinants of health: Whose choice is it?

What shapes our health?

Our health is shaped by the circumstances in which we are born, grow, live and work. These all play a significant role in health outcomes and are often referred to as the social or wider determinants of health. These factors, alongside our health-related behaviours, play the biggest role in our health and health outcomes. Dahlgren and Whitehead's rainbow model of the social determinants is widely used throughout public health, with strategies and interventions often rooted in its principles. It helps demonstrate the complex nature of health and the need for partnership working across systems to achieve positive outcomes.



Source: Dahlgren and Whitehead, 1991

A key criticism of this model is that it does not adequately consider the impact that big corporations have on our health and wellbeing. However, there currently isn't a model which considers both the social and commercial determinants.

It is accepted within public health that there are industries around the globe that sell products that harm our health, but this has not received the same weighting or attention in our practice and research as the other social determinants such as housing, education and employment. In recent years, the actions of corporate bodies and the products that they sell have been referred to as the commercial determinants of health[1].

We need to play our part in rebalancing the impact of commercial determinants. If we don't focus on both the social and commercial determinants of health, we risk focusing too much on the individual behaviour and ignoring the industry contribution in relation to health inequalities[2].

What are commercial determinants of health?

The corporate sector influences the physical and social environments in which we live, work, play, learn and love – both positively and negatively. Commercial activities can contribute to economic growth, job creation, and improved standards of living, which can have positive impacts on health outcomes. On the other hand, commercial activities can also have negative impacts on health, such as through the promotion of unhealthy products and practices such as sugary drinks or processed foods, or through environmental degradation.

Commercial activities provide positive contributions to health, for example increasing the availability of healthy food, essential medicines and health technologies, reformulation of goods and products to reduce harm and injury such as the introduction of seat belts in cars, efforts to reduce salt content in food production, the elimination of trans fats from the global food supply, and good employment policies such as ensuring real living wages, paid parental leave, paid sick leave and access to occupational health services.

However, our exposure to unhealthy commodities and how these impact on our behaviours and 'choices' are heavily influenced by some corporate bodies and our consumption of unhealthy commodities; for example, foods high in fat, salt and sugar, tobacco, alcohol, drugs, gambling products and fossil fuels. Our usage is driven by the complex tactics of industry to promote products and choices that are harmful to health. These are known as commercial determinants of health - the private sector activities that affect people's health, directly or indirectly, positively or negatively[3].

Commercial determinants of health framework

The commercial determinants of health framework shows the three main drivers within global business. These are:

1 Consumption landscape, the way we use products/consumables.

2 The power of large companies linked with our rising demand and their increasing market coverage.

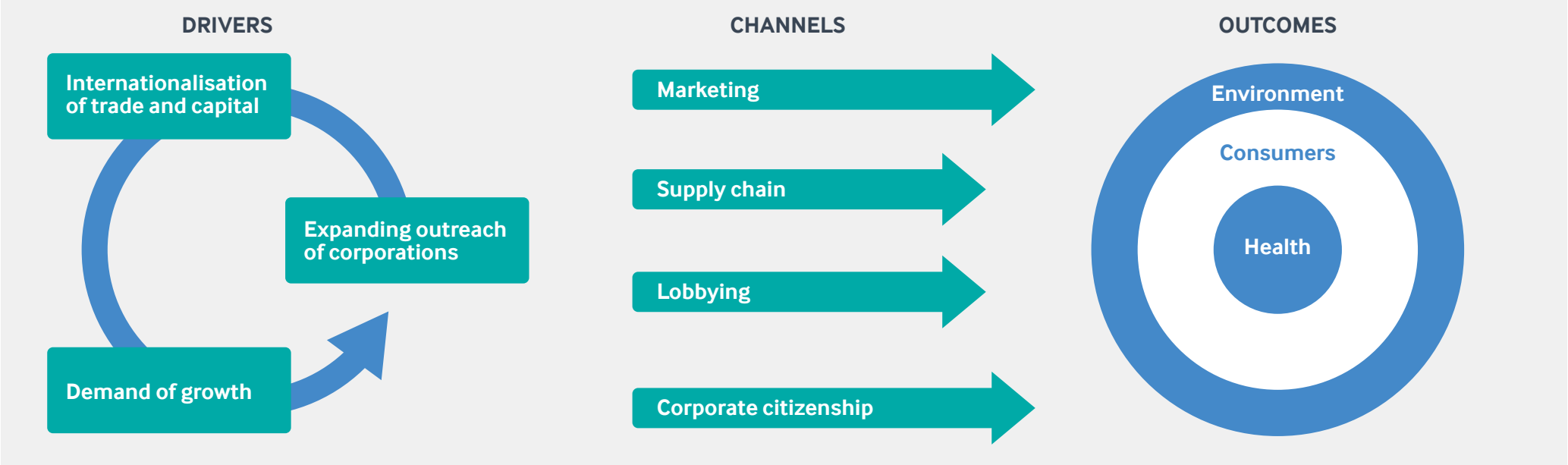
3 Continued internationalisation of trade and investment.

The framework shows that corporate influence is applied through four main channels:

1. Marketing, which enhances the appeal and acceptability of unhealthy commodities.
2. Extensive supply chains, which increase company influence around the globe reaching more people with ever more consumption choices.
3. Lobbying, which can influence policy barriers such as plain packaging and minimum drinking ages.
4. Corporate social responsibility strategies, which can deflect attention.

The actions from the drivers and channels not only impact the environment and consumer, but also increase the risk factors from the sale of products that negatively impact health. Commercial sector products and practices from four main areas; alcohol, tobacco, diet and air pollution contribute to a third of all global deaths from non-communicable diseases including obesity, diabetes, cardiovascular health, cancer.

Figure 1: Commercial determinants of health framework: dynamics that constitute the commercial determinants of health[4]



Commercial determinants of health: Whose choice is it?

Impact of commercial determinants on health

Non-communicable diseases including obesity, type 2 diabetes and cardiovascular disease are the leading cause of death. Globally, non-communicable diseases account for 74% of all deaths annually. In England it is higher, with 88.8% of all deaths in 2019 attributable to non-communicable diseases[5]. As well as the human cost of non-communicable diseases there are significant economic and healthcare costs, and clear inequalities – most notably that people living in areas of greater deprivation have a higher risk of dying from non-communicable diseases than those living in the least deprived areas.

In Sunderland, non-communicable diseases contribute significantly to the gap in life expectancy between the most and least deprived quintiles.

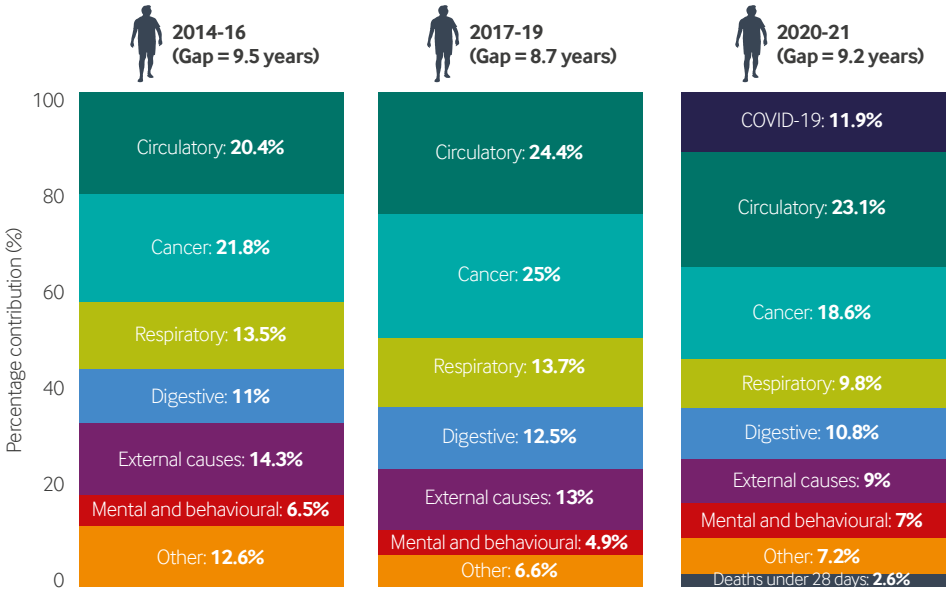
Risk factors for non-communicable diseases include smoking, gambling, consuming unhealthy food and drinks, and alcohol and substance misuse. There is a uniting element between these risk factors – industries whose success relies on producing and profiting from the sale of products that negatively impact health and wellbeing to the public.

Figure 2 and 3 both show the contributions to the higher mortality rates from the various causes of death.

In figure 2 the gap in male life expectancy between those living in the most and least deprived fifth of areas was 9.5 years in 2014 to 2016 and 8.7 years in 2017 to 2019, and in 2020 to 2021 the gap was 9.2 years.

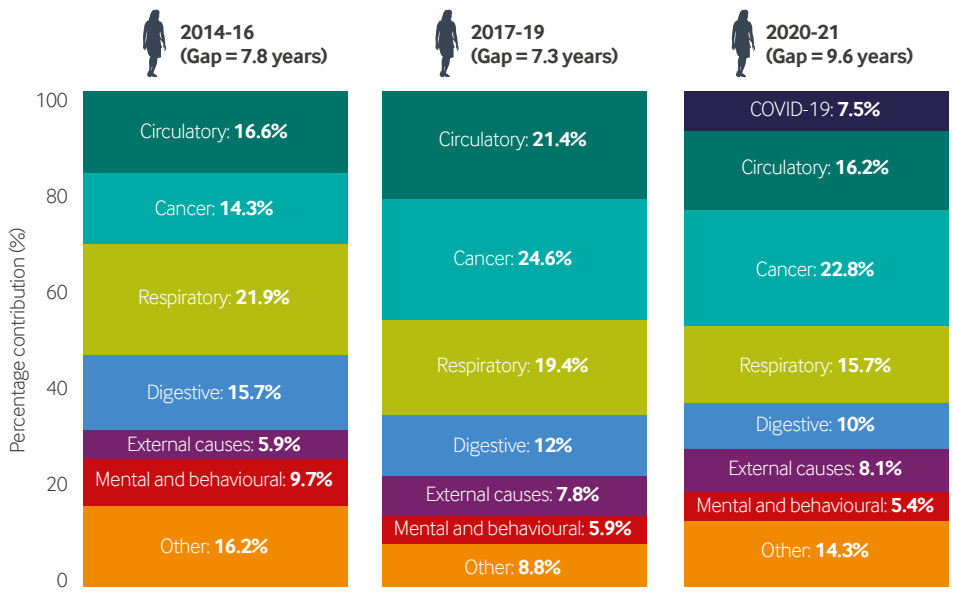
In figure 3 the gap in female life expectancy between those living in the most and least deprived fifth of areas was 7.8 years in 2014 to 2016 and 7.3 years in 2017 to 2019, and in 2020 to 2021 the gap was 9.6 years.

Figure 2: Breakdown of the life expectancy gap between the most and least deprived quintiles of Sunderland by cause of death, Males[6]



Source: Office for Health Improvement & Disparities (2023) Segment Tool Data

Figure 3: Breakdown of the life expectancy gap between the most and least deprived quintiles of Sunderland by cause of death, Females[6]



Source: Office for Health Improvement & Disparities (2023) Segment Tool Data

CASE STUDY: Sheffield City Council – Starting the conversation around tackling the commercial determinants of health

The burden of non-communicable disease in Sheffield's local populations continues to grow and remains preventable in the vast majority of cases. Despite this, effective solutions to the problem still largely evade most public health teams. Many solutions have been traditionally framed within individual-risk taking behaviours in relation to unhealthy products, and national and local level strategy and policy has conventionally tackled the problem in this way. Whilst that framing is showing signs of change, moving further upstream away from the individual behaviour approaches, with a wider acknowledgement of environment and commercial determinants of health, public health approaches often remain linear, usually by individual commodity or behaviour topic, e.g. gambling, tobacco, alcohol, active travel etc.

Whilst a topic approach to organising strategies, services and interventions remains relevant, in Sheffield the council is attempting to build upon this in relation to commercial determinants of health as an umbrella topic approach in its own right.

The intention is to develop a broad framework for tackling the commercial determinants of health, ensuring strategies collectively take a whole systems approach with greater emphasis on the environment, framing away from individual behaviour change, highlighting the commonality of corporate strategies across unhealthy commodity industries, and advocating greater use of local authority powers to impact on reach of those corporate strategies as a whole. Essentially developing a "public health playbook" to counter the unhealthy commodity industries playbook.

Work began with a discussion at Sheffield's Health and Wellbeing Board which covered;

Individual responsibility: The limited impact of focusing on education and awareness and highlighting the role of agency within the environment, and role of corporate choice architecture on behaviour and health inequalities.

The "Industry Playbook": Highlighting the commonality of market and non-market tactics used by the unhealthy commodity industries to protect profits, including but not limited to; sponsorships and advertising, population targeting, education packages, positive alignment and 'corporate social responsibility', as well as lobbying and undermining/clouding unfavourable scientific evidence.

Case studies: Telling the story and bringing to life, e.g. how the alcohol industry utilises male bodies only in education packages on effects of alcohol to avoid addressing drinking in pregnancy and associations of alcohol with breast cancer.

Local authority powers: A set of proposals for tackling the commercial determinants of health, potentially including but not limited to; developing a conflict-of-interest policy on industry influence, guidelines on school education packages, language change away from 'individual choices', advertising and sponsorship policies, local authority planning powers and advocate cumulative impact policy on proliferation of unhealthy commodity retail and exposure, lobbying awareness training.

Sheffield sought the backing of the Health and Wellbeing Board to develop this as an approach and draw up a set of proposals into a broader framework for action. The report and presentation were strongly and unanimously supported by all, paving the way to begin developing a stronger upstream approach across Sheffield to tackling commercial practices that exacerbate health inequalities.

Commercial determinants of health: Whose choice is it?

Common industry tactics

There are a number of common tactics used by unhealthy commodity industries globally to ensure that their products remain profitable. These tactics are used to delay and undermine evidence and Public Health policy and are known as the 'Industry Playbook'[7]. It includes lobbying, creating doubt about the science and undermining of evidence, reframing discussion to a narrow focus on individual choice, undermining critics, marketing aggressively and fostering a positive image through corporate social responsibility.

Examples of unhealthy industry tactics are:

- **Sports washing** is a term used to describe the practice of individuals, groups, corporations, or governments using sports to improve reputations tarnished by wrongdoing.
- **Green washing** is a term used to describe a false, misleading or untrue action or set of claims made by an organisation about the positive impact that a company, product or service has on the environment.
- **Use of language** around 'individuals making healthier choices' rather than focusing on the environment in which those individuals are expected to make those choices.
- **Product placement** in films as well as on TV when people are being interviewed.
- **Merchandise** such as greeting cards wishing us a 'gin-tastic' day or an 'un-beer-lievable birthday'.
- **Marketing** for example encouraging us to reward ourselves and enjoy 'wine o'clock' after a hard day.

Source: Commercial Determinants of Health: A Call for Action (gsu.edu)

Lobbying

The 'Industry Playbook' includes lobbying which can be powerful tool and can speak with a single (well-funded) voice. There is evidence of industries having lobbied and/or made donations to political parties around the world[8,9,10]. The power is unequal, particularly with wealthy global corporate industries.

The World Health Organisation Framework on Tobacco Control demonstrates what is possible when we choose to use our powers collectively in a positive way around the conflict of interest between the tobacco industry and health policy making. The World Health Organisation Framework (entered in force in 2005) has largely controlled tobacco advertising, promotion and sponsorship.

Manufacturing doubt and shifting blame

When the goal of an industry (to make profit) is at odds with social good, the industry has a tendency to create a narrative that better suits their needs. Three overarching strategies are used: denial/omission; distortion of evidence; and distraction/alternative causation.

Strategy	Explanation	Example
Denial/omission	Disputing links between unhealthy commodities and disease	Fossil fuel industry denial of links to climate change – promotion of false experts, cherry-picking of data, funding biased research[11]
Distortion of evidence	Misrepresenting the size of the risk	Alcohol industry submissions to Scottish Government's 2008 consultation on Changing Scotland's relationship with alcohol – described scientific evidence base as weak/flawed without providing details, and presented their own weak research as fact[12]
Distraction/ alternative causation	Moving the discussion away to other issues	Tobacco industry's claims that cancer is also caused by stress, air pollution and even gardening[13]

Utilising these methods creates space for industries to reinforce the 'personal responsibility' narrative – essentially that they will provide information and warnings, but it is down to individuals to know how to use their products in ways that don't contribute to poorer health. People who cannot consume responsibly are at fault – and labels such as 'problem drinker' and 'problem gambler' are used. This language serves to individualise and frame issues driven by industry and society as issues of personal responsibility.

This can also occur with research and evidence. Randomised controlled trials (RCTs) are seen by many as the gold standard of clinical trials but are often not feasible or appropriate for public health issues. This can be used to support claims that the evidence is weak or does not support a causal link and counter-studies may also be funded to create doubt. However, different methods of scientific investigation are acceptable in public health.

Aggressive marketing and sponsorship

Gambling, alcohol and food industries ask us to consume their products with care in the small print but aggressively advertise at every potential opportunity – in print, online, sponsorship, television, radio, celebrity endorsements and product placement. It is estimated that TV viewers alone are exposed to 41 adverts per day in the UK, when other forms of advertising are included it will be much higher. Social media enables companies to target their marketing based on algorithms.

Research has shown that the more people see adverts for unhealthy products, the more they use them. Advertising for unhealthy foods is known to be linked to poorer diets and obesity[14]. Billboards, buses and other outdoor public spaces are thought to be seen by 98% of the UK population at least once a week[15]. People in more disadvantaged communities are more exposed to advertising for unhealthy food and drink[16].

Evidence from the London School of Hygiene and Tropical Medicine's evaluation of the Transport for London policy[17] has shown that the restrictions led to a 20% reduction in sugary products, and a 1,000 calorie decrease per week per household from unhealthy foods and drinks. Transport for London have confirmed that their advertising revenues have been unaffected by the restrictions since implementation in 2019[18]. After the Mayor of London first brought in the Healthier Food Advertising policy across the Transport for London network in 2019, seven other local authorities across the UK have brought in a policy: Tower Hamlets, Haringey, Southwark, Merton, Greenwich, Bristol and Barnsley[18].

Commercial determinants of health: Whose choice is it?

Research shows that advertising drives harmful consumption of alcohol, tobacco and foods high in fat, salt and sugar[19], and increases the risk of childhood obesity[20].

Olsen et al's 2021 study revealed that Scottish children living in more deprived areas had greater exposure to unhealthy food and drink advertising, compared to children living in less deprived areas – potentially as a result of their greater use of the transport system. Such targeted marketing therefore increases health inequalities.

Nudge theory is used within public health, shaping environments to influence behaviour. Dark nudges are nudges but with harmful or unhealthy purposes; these are frequently used by unhealthy commodity industries to drive consumption of their products. Examples include disguising losses as minor wins in gambling (celebratory messages on machines when you win a minor amount but have actually lost more) and social norming (messages telling us that the majority of people don't complete Dry January). The use of certain words, images and even branding can also prime people to drink; research suggests that the branding, positioning and design of alcohol-free drinks send stimuli that remind the drinker of drinking alcohol[21].

CASE STUDY: Transport for London - Advertising ban linked to lower purchases of unhealthy food and drink

In 2019, the Mayor of London, Sadiq Khan, introduced restrictions on advertising of unhealthy food and drinks across the Transport for London network.

Researchers wanted to see whether the advertising ban was followed by changes in household take-home purchases of unhealthy food and drink.

The researchers estimated what household food purchases would have been without the ban. They compared these estimates with actual purchases after the ban. The study included all products classified as high in fat, salt or sugar. More than 5 million household food and drink purchases were recorded by 1,970 households (977 households in London, and 993 households in the North of England).

10 months after the introduction of the advertising ban:

- The average weekly household purchase of energy from unhealthy products was 7% or 1,000 kcal lower than predicted; this corresponds to a reduction of 385 kcal (roughly 1.5 bars, or 72g of milk chocolate) per person per week.
- Reductions were seen in weekly household purchases of fat (57.9 g), saturated fat (26.4 g) and sugar (80.7 g).
- The largest reductions were seen for energy from chocolate and sweets (19.4%, 317.9 kcal).
- There were no changes in purchases of other (non- high in fat, salt or sugar) products.

Over the 10 months of the study, there was a general trend towards increased purchases of unhealthy food. The advertising ban was therefore associated with a smaller increase in purchases (relative reduction), rather than a drop in purchases (absolute reduction).

The results suggested that bigger reductions in purchasing occurred in less well-off households, households where the main food shopper was living with overweight or obesity, and in shoppers who used public transport more frequently. However, these analyses were on a small number of people, and the researchers say the observations should be considered with caution.

Further work is needed to track the impact of the policy over the long-term. More information can be found at: https://content.tfl.gov.uk/advertising-report-2018-20-acc.pdf

CASE STUDY: Bristol City Council - Advertising and sponsorship policy

Bristol City Council has an Advertising and Sponsorship policy[i] which provides a framework for any advertising generated by the council itself and advertising and sponsorship by third parties on council-owned spaces, assets and events. This includes bus shelters, billboards and digital screens it owns. The policy prevents advertising of the following:

- Gambling products and services (except for the National Lottery, small or large society lotteries and local authority lotteries, as defined in the Gambling Act 2005).
- Alcoholic drinks.
- Promotion of foods or drinks that are high in fat, salt and/or sugar as defined by the Department of Health and Social Care's nutrient profiling model.

The policy aims to benefit the city by reducing potential public harm caused by exposure to advertising of harmful goods and services, to improve physical health, mental health and wellbeing and reduce inequalities. This is part of the whole systems approach to tackle the issue of people living with overweight and obesity. A health in all policies approach is embedded in the One City priorities, recognising the wider determinants of health. Other programmes of work include working with food businesses across the city to recognise and encourage a healthier and more sustainable food offering through a Bristol Eating Better Award[ii] and Gold Sustainable Food City status[iii].

Bristol became the first city outside of London to introduce a similar policy to the Transport for London restrictions on advertising of unhealthy food and drinks when it was approved by Cabinet members in March 2021.

Research is ongoing to evaluate the impact of the policy on food purchasing in Bristol by the NIHR Applied Research Collaboration (ARC) West[iv].

[i]https://democracy.bristol.gov.uk/documents/s58004/Appendix%20Ai%20-%20Advertising%20and%20Sponsorship%20Policy.pdf
[ii]www.bristol.gov.uk/bristol-eating-better-award
[iii]www.goingforgoldbristol.co.uk/
[iv]https://arc-w.nihr.ac.uk/

Self-regulation, partnership and corporate social responsibility

Corporate Social Responsibility is, broadly speaking, business' efforts to act responsibly for their communities and the environment and to contribute to social good. Paichadze et al (2022)[22] set out the activities typically used by industries to demonstrate their commitment to Corporate Social Responsibility:

- Support for good causes, such as breast cancer awareness (focusing on awareness raising of disease rather than causes of disease).
- Charitable giving.
- Grants and sponsorships.
- Environmental sustainability.
- Self-regulation.

In many cases industries promote self-regulation rather than government regulation. Insights from the tobacco industry revealed that this was a commonly used tactic[23]. However, research demonstrates that self-regulation initiatives rarely lead to positive outcomes from a public health perspective[24,25]. A recent review of the Department of Health's Responsibility Deal showed that the initial aims of the programme to work with industry to make progress in key public health areas were reframed as personal responsibility for lifestyle behaviours[26].

Some industries fund education and awareness raising through third parties, often with charitable status, such as GambleAware and DrinkAware. Analysis of the DrinkAware website has found ambiguous statements about health impacts and misinformation (alongside information approved by health agencies)[27]. Programmes in schools are also often funded by industry; a review of industry-funded alcohol youth education programmes found that they serve industry interests, promote moderate consumption and place responsibility on individuals[28]. Additionally, a recent review[29] of industry-funded education programmes in the UK found that the content focused on the personal responsibility narrative, encouraging young people to control their own impulses, rather than focusing on the industry and its products.

One steadfast argument from industry (and others) is that everyone should have freedom of choice and the 'nanny state' should not be allowed to dictate people's lives. The counter argument to this is that industries themselves influence people's choices through their tactics, and the harm caused by their products and practices is indeed a challenge to people's freedom in itself[30].

Commercial determinants of health: Whose choice is it?

Unhealthy commodity industry

This focuses on the unhealthy commodity industries of tobacco, alcohol, gambling and food, but it also covers a wider range of issues – including fossil fuels, air pollution working conditions and infant formula milk. Additionally, the working policies and practices of companies and industries can have an impact on workforces, both positively and negatively.

Food and drink

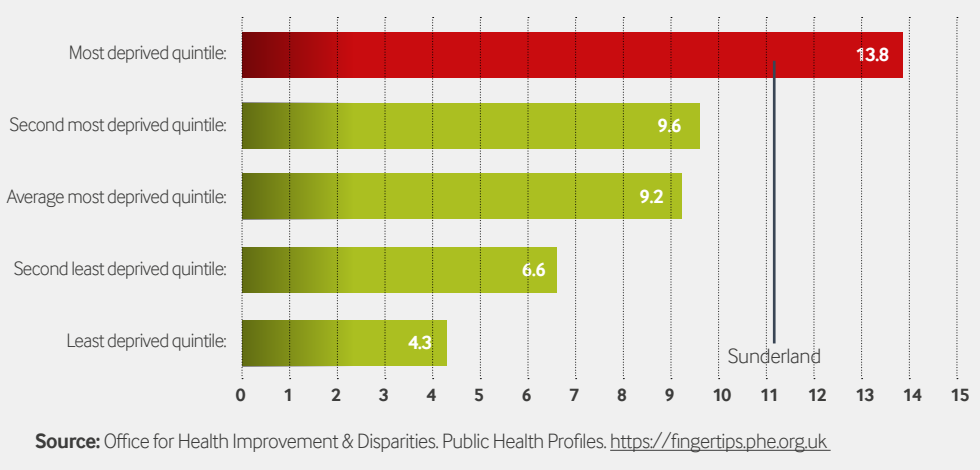
Raised body mass index (BMI) is a significant risk factor for a number of non-communicable diseases, including cardiovascular diseases (the leading cause of death worldwide), diabetes, musculoskeletal disorders and some cancers.

Internationally, over 1.9 billion adults had high BMI in 2016 and worldwide living with obesity has tripled since 1975[31]. In Sunderland in 2020/21, 69.1% of adults were living with overweight or obesity and 29.9% with obesity[32]. Both indicators are significantly worse in Sunderland than the England average.

The gap in rates between children with a healthy weight from the least and most affluent families in the UK is larger than any EU country (26 points compared to the EU average of 8 percentage points)[33], demonstrating clear inequalities. A similar pattern can be seen in Sunderland. Children in Reception and Year 6 living in the most deprived neighbourhoods are more likely to be living with obesity than those from the least deprived. A similar socio-economic gradient is seen in adults.

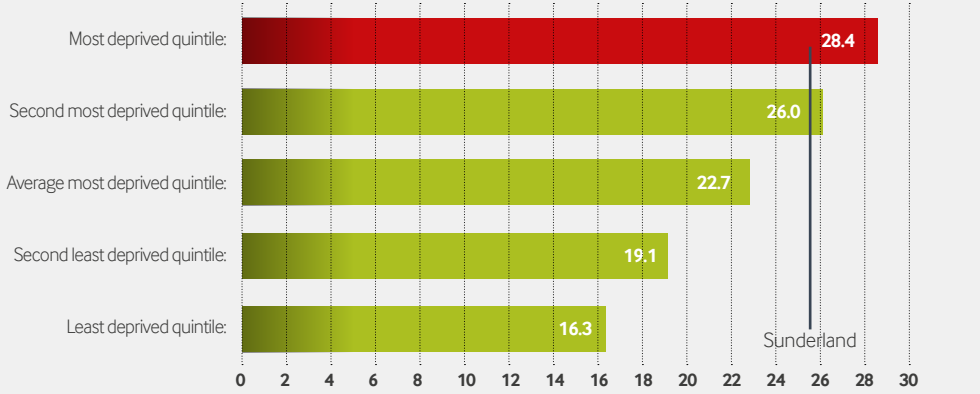
The causes of obesity are complex but are often reduced to the premise of eating too much and moving too little. However, research has identified an association between ultra-processed foods and overweight/obesity, as well as other health outcomes[34]. The availability and desirability of highly processed products and excessive marketing and food manufacturing processes can determine the quality of the products we consume. Ultra-processed foods and drinks tend to taste good, are often cheaper and more convenient, and last longer in our fridges and cupboards.

Figure 4: Reception: Prevalence of obesity (including severe obesity) 5 years data combined 2017/18 to 21/22 proportion % in Sunderland.



Source: Office for Health Improvement & Disparities. Public Health Profiles. https://fingertips.phe.org.uk

Figure 5: Year 6: Prevalence of obesity (including severe obesity) 5 years data combined 2017/18 to 21/22 proportion % in Sunderland



Source: Office for Health Improvement & Disparities. Public Health Profiles. https://fingertips.phe.org.uk

CASE STUDY: Sunderland City Council — Signing of the Healthy Weight Declaration

Sunderland City Council

In February 2022 Sunderland City Council signed the Healthy Weight Declaration, underlining a commitment to supporting residents to live full and healthy lives.

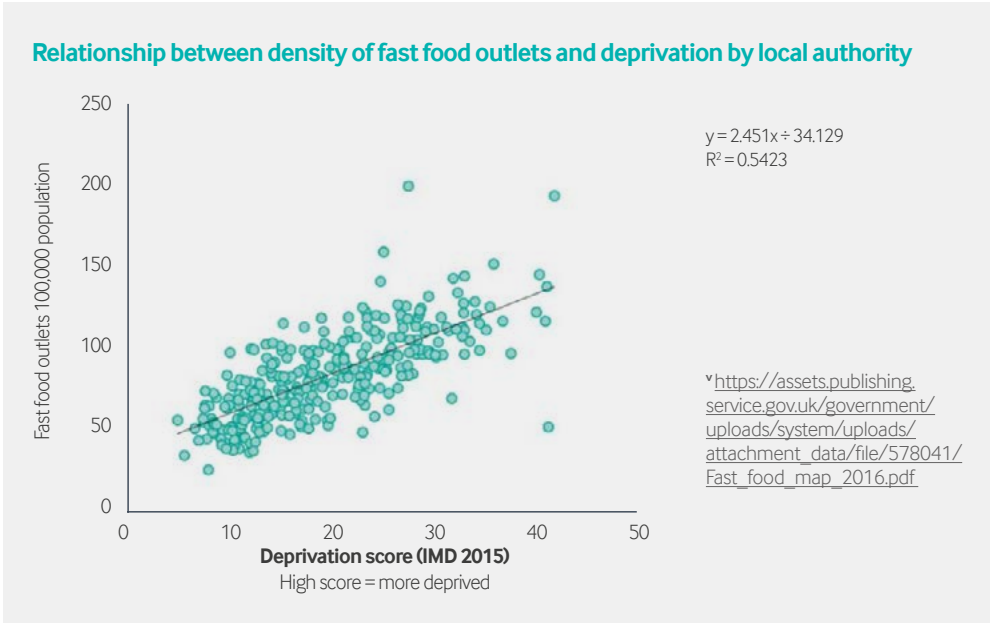
Signing the declaration signaled the council's commitment to delivering practical measures to help create a healthier environment. This includes ensuring health is front of mind when planning events and projects such as new buildings, roads or parks.

A virtual event was held to mark the signing of the declaration which was attended by partners across the city who are working together to support the Healthy Weight agenda in Sunderland and actions developed as part of our Healthy Weight Strategy.

Further information about the Healthy Weight Declaration is available at: https://foodactive.org.uk/what-we-do/influence-policy/local-authority-declaration-on-healthy-weight/

A relatively small number of companies own multiple brands and research suggests that they can easily and efficiently flood markets with the highly processed foods that they produce and sell[35]. This leads to a lack of competition and increased food prices. The global confectionary market was valued at $210.3 billion in 2019 whilst the fast food market was valued at $647.7 billion (with both projected to grow in the next decade). Research in 2016 demonstrated a clear association between fast food outlet density and area level deprivation[36].

Figure 6: Relationship between density of fast food outlets and deprivation by local authority˅



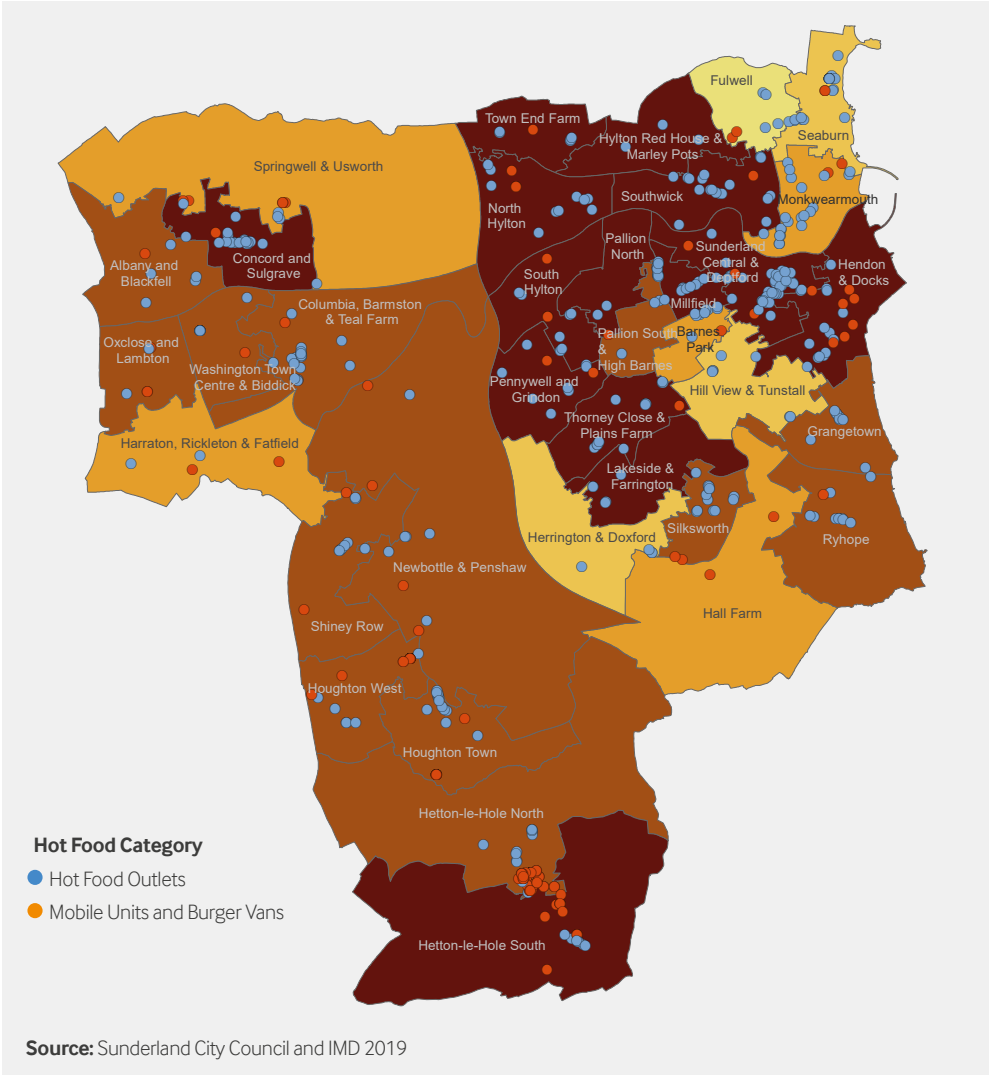
˅https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/578041/Fast_food_map_2016.pdf

Figure 6 illustrates the association between density of fast food outlets and area level deprivation. The local authorities with a higher deprivation score (i.e. more deprived) have a greater density of fast food outlets.

In 2017, Sunderland was in the top (worst) 10% of local authorities for fast food outlet density in England with a rate of 137.8 outlets per 100,000 people[37]. As you can see from the Figure 7 the darker areas, which are the more deprived wards, have the most hot food and mobile units selling food.

Commercial determinants of health: Whose choice is it?

Figure 7: Hot food takeaways and deprivation quintiles in Sunderland (February 2023) - darker is more deprived.



Source: Sunderland City Council and IMD 2019

CASE STUDY: Sunderland City Council – Developing a hot food takeaway policy within the Core Strategy and Development Plan

Sunderland City Council

Healthy weight is one of the most significant and complex challenges, for individual and family health and wellbeing, impacting on business and education, and contributing to significant costs across health, social care and a wide range of services. Obesity is the result of a very large number of determinants with many of the drivers beyond the scope of individuals to influence.

The increasing consumption of out-of-home meals has been identified as an important factor contributing to rising levels of people living with obesity. The National Planning Policy Framework makes it clear that the planning system can play an important role in creating healthy, inclusive communities.

Acknowledging this, Sunderland City Council implemented a Hot Food Takeaway policy following an evidenced based report in 2020. Hot food takeaway restrictions also feature in the council's Core Strategy and Development Plan (2015-2033).

To promote healthier communities, the council is committed to:

- Preventing the development of hot food takeaways within a 400m radius of entry points to all primary and secondary schools.
- Preventing the development of hot food takeaways in wards where the prevalence of obesity is more than 21% for Year 6 pupils or 10% for Reception pupils.

Since the implementation of the policy the council has refused a number of planning applications for hot food takeaways on these grounds.

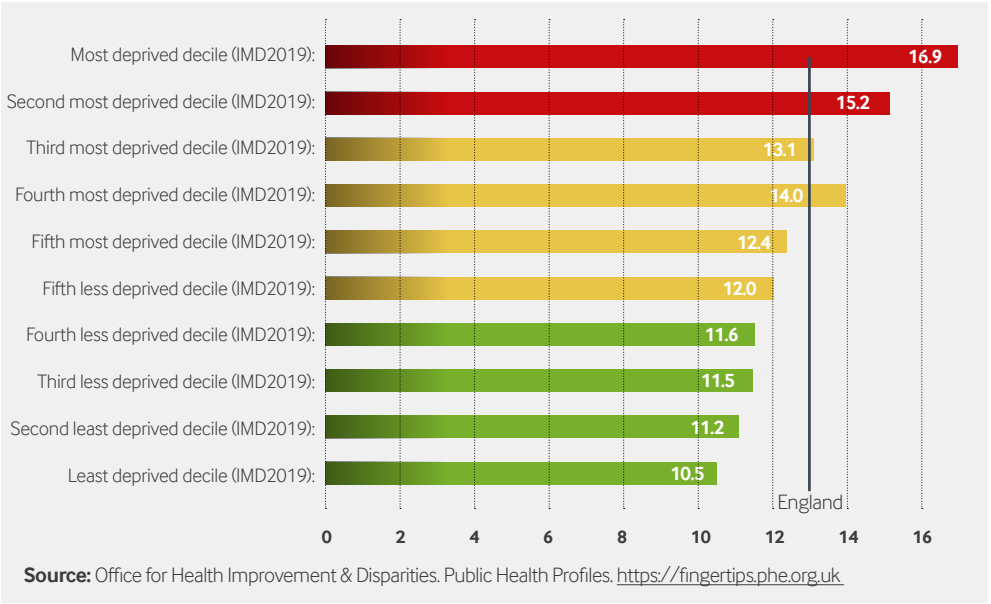
The council is continuing to work with local takeaways to develop a scheme to support them to offer healthier alternatives.

Food and drink recommendations

- Through further developing the Integrated Impact Assessment approach, consider how commercial partnerships with the food and drink industry may impact on the messages communicated around healthy weight to our local communities.
- Further develop local policies to protect our children from inappropriate marketing by the food and drink industry such as advertising and marketing in close proximity to schools; 'giveaways' and promotions within schools or at events on local authority controlled sites.
- Review Sunderland City Council's advertising policy and explore local opportunities to introduction of a healthier advertising policy which limits advertising around unhealthy commodities such as alcohol, fast food, and gambling in publicly funded spaces.
- To reference and adopt the addendum to the Public Health England's guidance[vi] on using the planning system to promote healthy weight environments.

[vi] https://www.gov.uk/government/publications/healthy-weight-environments-using-the-planning-system/addendum-hot-food-takeaways-use-in-the-new-use-class-order

Figure 8: This graph shows smoking prevalence in adult (18+) current smokers as % 2021 in England



Source: Office for Health Improvement & Disparities. Public Health Profiles. https://fingertips.phe.org.uk

Tobacco

Smoking and secondhand smoke cause a range of illnesses including various cancers, COPD, heart disease, stroke and diabetes – and tobacco is a leading cause of preventable death. In England, it is estimated that there were 74,600 deaths attributed to smoking in 2019[38] and 25% of all hospital admissions were attributable to smoking.

Inequalities in smoking prevalence are clear. Males smoke more than females and people living in the most deprived neighbourhoods are more likely to smoke than those living in the least deprived.

Whilst smoking rates have reduced significantly in England over the past 10 years from 19.8% to 13% in 2021, North East rates are still the highest in the country at 14.8%. The latest data for Sunderland shows that prevalence of smoking amongst adults is 15.2%, however this percentage increases to 28.9% for adults in routine and manual occupations.

Prior to the England-wide smoking in public places legislation in 2007, a Lancet review of tobacco industry marketing tactics[39] highlighted the key ways in which the industry drew customers in and catered to needs within different sub-groups. These included offering products at different price points (for example, premium and economy level products), tailored messaging and advertisements, highly visible and widespread placement in retail premises and sponsorship of high profile events.

Commercial determinants of health: Whose choice is it?

Whilst some advertising strategies were curtailed due to the smoking legislation, other tactics have prevailed. Evidence suggests that tobacco companies now use other marketing techniques, this typically includes packaging, public relations, sales promotions and trade discounts for the promotion of particular brands. The latter technique, known as 'push promotion', involves advertising to sellers and wholesalers, giving retailers financial incentives and offering competitions and prizes around specific products[40].

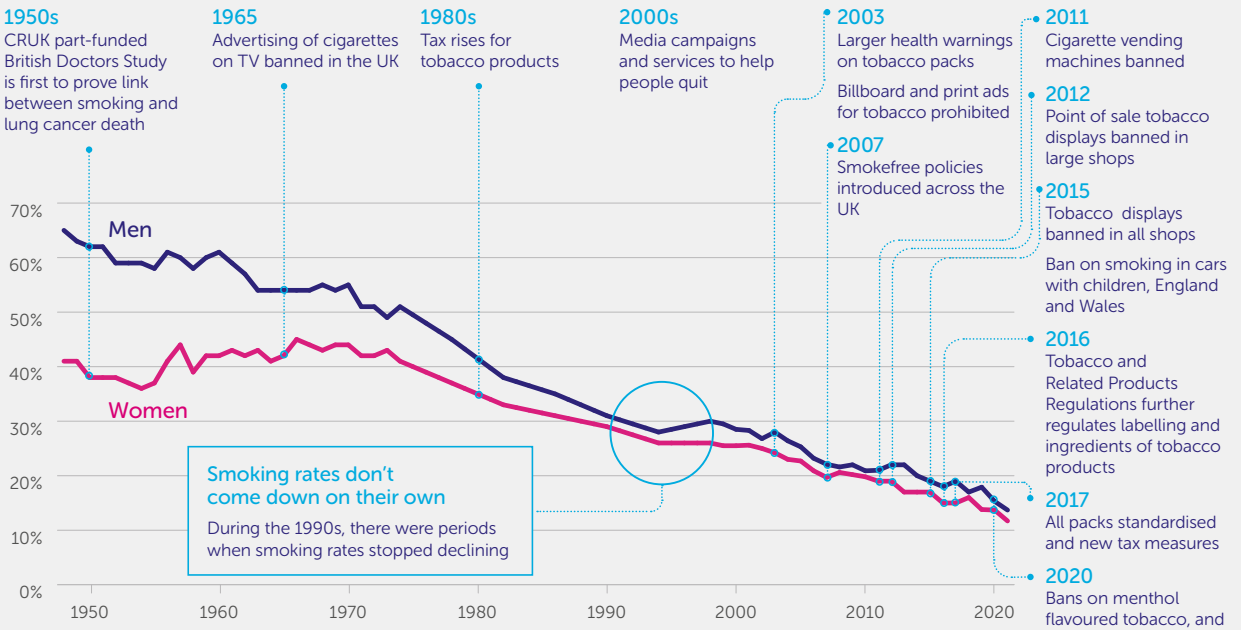
Since 2007 and the smoking ban in public places, there has been further legislation aimed at de-normalising cigarette use and curtailing tobacco advertising tactics. These include the Menthol Ban in 2020, which made it an offence for manufacturers to produce and retailers to sell menthol cigarettes, standardised packaging (2016) which required packaging to be a standard colour with a required size for health warning and tobacco display ban (2015) making it illegal to display tobacco products in shops, they must be 'hidden' in a gantry or similar.

Targeting children and young people has always been key, as long-term addiction to tobacco products was and is highly profitable to the industry. There is extensive evidence that children and young people are highly receptive to tobacco advertising and that young people exposed to tobacco advertising and promotion are more likely to take up smoking[41]. In response to an increasing number of smoking bans in Western countries, the tobacco industry expanded into other parts of the world; more than 80% of tobacco users now live in low and middle-income countries[42].

The Framework Convention on Tobacco Control (FCTC) was adopted by the World Health Assembly on 21 May 2003 and came into force on 27 February 2005. The FCTC is an international treaty focussed upon the health impacts of tobacco. As the UK Government has ratified and become a Party to the FCTC, HMRC is bound by the FCTC to meet legal obligations. Article 5.3 states that: "In setting and implementing their public health policies with respect to tobacco control, parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law." A recent BMJ paper found that no country or region was spared from industry involvement in shaping policy[43].

With the increase of public health intervention, the infographic illustrates how a public health issue can be addressed. Smoking prevalence has decreased in the UK over the past 70 years with public health action, including a ban on TV advertising cigarettes in the 1960s and the start of tax rises on tobacco products in the 1980s. Over recent years we have seen the introduction of policies that have reduced the way industry can market and promote harmful products as well as specialist support services to help people quit. We have had the introduction of national policy around public and workplaces being smoke-free, banning of point of sale tobacco display stands and the introduction of plain packaging with graphic health warnings. As a result of all these changes and many more, over the past 70 years we have seen a decrease in smoking rates for both men and women in the UK.

Smoking rates decline with action



Sources: Data for 1948-1973: PN Lee Statistics and Computing Ltd. International Smoking Web Edition. Available from **http://www.pnlee.co.uk/ISS.htm**. Accessed December 2022. Data for 1974 onwards: Office for National Statistics. Adult smoking habits in Great Britain. Accessed December 2022.

cruk.org
Together we will beat cancer

CANCER RESEARCH UK

Tobacco recommendations

- Building on the progress made to date, advocate for further tobacco policy measures, these include the recommendations within The Khan Review:
  - Making smoking obsolete[44] around reducing the appeal of smoking by radically rethinking how cigarette sticks and packets look.
  - Closing regulatory gaps.
  - Tackling portrayals of smoking in the media and for smokefree places to de-normalise smoking to protect young people from second-hand smoke to help to achieve the Smokefree 2030 ambition of 95% people smokefree by 2030.
- Continue to support the regional and local approach to tackle illicit products through influencing policy development and advocating for effective regulation through the introduction of a tobacco licence for retailers to limit where tobacco is available.
- Support a smokefree environment and develop local schemes and regulations such as smokefree pavement licences and public space protection orders to support businesses.

CASE STUDY: Fresh and Balance North East – A regional approach to addressing tobacco and alcohol harms

In 1946 a leading tobacco company launched a major advertising campaign claiming, "more doctors smoke Camels". It launched because they were worried about emerging evidence that smoking causes lung cancer. Rather than withdraw the product until more research could be done, or at least warn the public, their reaction was to advertise more, simply because profit was the priority. We may now have numerous regulations on tobacco and fewer people smoking in the UK than ever - but tobacco manufacturers in the UK will still make about £1billion profit this year whilst their product will prematurely kill at least half of its long term users when used exactly as directed by its manufacturer.

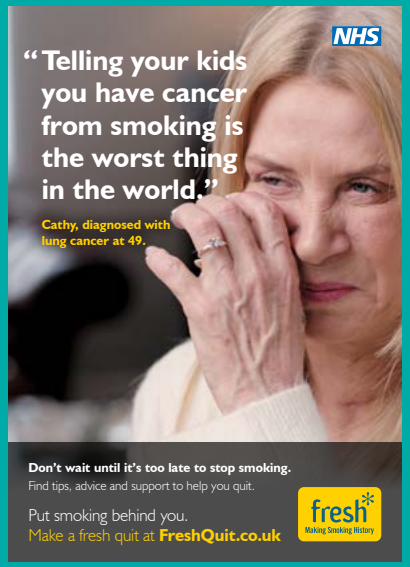
Fast forward the clock to the 21st century and our relationship with alcohol. Research is now clear alcohol causes at least seven types of cancer and liver disease. Half of our population in the North East are drinking above the Chief Medical Officer's low risk guidelines. But we are still sold the myth that alcohol makes us happier, more popular and more attractive and is an integral part of friendship, sport and music.

Sunderland City Council is one of the local authorities which commissions and funds the regional Fresh and Balance Programme. This is a long established programme addressing the commercial determinants of heath by working for a societal shift around both tobacco and alcohol use. At the core of the Programme is the recognition that the tobacco and alcohol industries' marketing and promotional practices to recruit and maintain high levels of use and their attacks on effective policy must be exposed and countered.

The Programme delivers year-round focus on news, ensuring that a wide variety of topics are covered by the media as well as world leading media campaigns including over the last year: Don't Wait and Keep it Out (Fresh), Alcohol Causes Cancer and What's the Harm? (Balance). This builds public and stakeholder awareness and support around key advocacy asks, including a statutory levy on tobacco manufacturers to help fund a new national tobacco plan to achieve a Smokefree 2030, and the need for an independent review to inform a new national alcohol strategy.

Collectively the Programme is working on building greater understanding of the harm of the products amongst public and decision makers. A vital platform for key policy levers and prioritisation of these issues which cause ill health, fuel inequalities and harm our public purse.

For more information visit: http://freshne.com/ or www.balancenortheast.co.uk/



Commercial determinants of health: Whose choice is it?

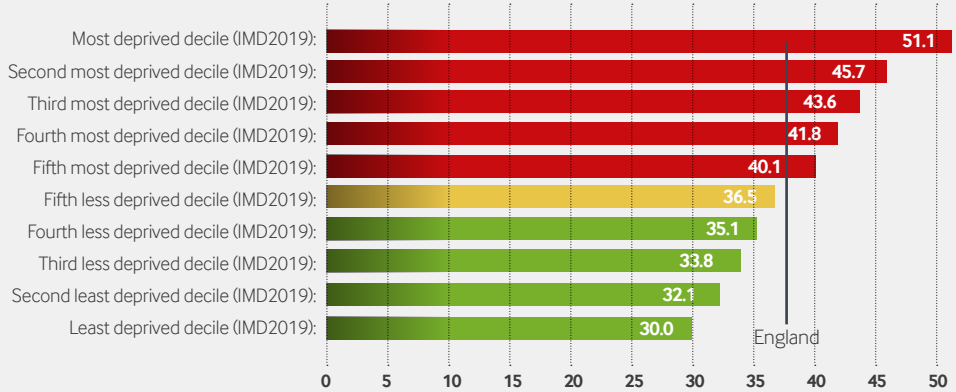
Alcohol

Alcohol is widely available in England and promoted in pubs, restaurants, shops and supermarkets. The alcohol industry is estimated to be worth almost $1.5 trillion USD worldwide[45]. Although it might be appropriate to engage with elements of the alcohol industry around the management of the night-time economy, the alcohol industry should have no role in the development of alcohol policy or strategy.

Alcohol is a causal factor in more than 200 disease and injury conditions and, worldwide, 3 million deaths every year result from harmful use of alcohol (5.3% of all deaths)[46]. It is associated with a number of non-communicable diseases, mental and behavioural disorders, and injuries. In addition to the direct health impacts on individuals, there are also harms to others, including children and wider communities. Alcohol-related harm is estimated to cost the NHS £3.5 billion every year[47]. In Sunderland, alcohol-related mortality rate was 52.1 per 100,000 population, significantly worse than the England average of 37.8 per 100,000.

Inequalities in alcohol-related harm exist. A 2017 study revealed that alcohol outlet density was higher in the most deprived neighbourhoods of England[48] and national data reveals a socio-economic gradient in alcohol-related mortality.

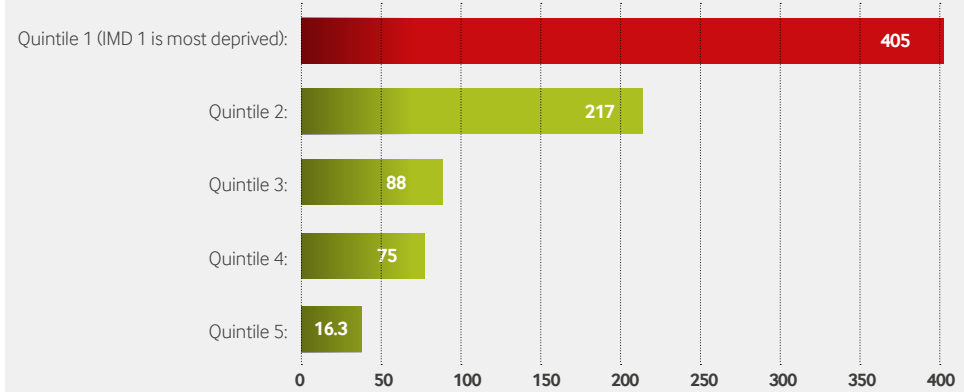
Figure 9: Alcohol-related mortality by deprivation decile in England.



Source: Office for Health Improvement & Disparities. Public Health Profiles. https://fingertips.phe.org.uk

This pattern is the same in Sunderland; the alcohol outlet density is higher in the most deprived neighbourhoods.

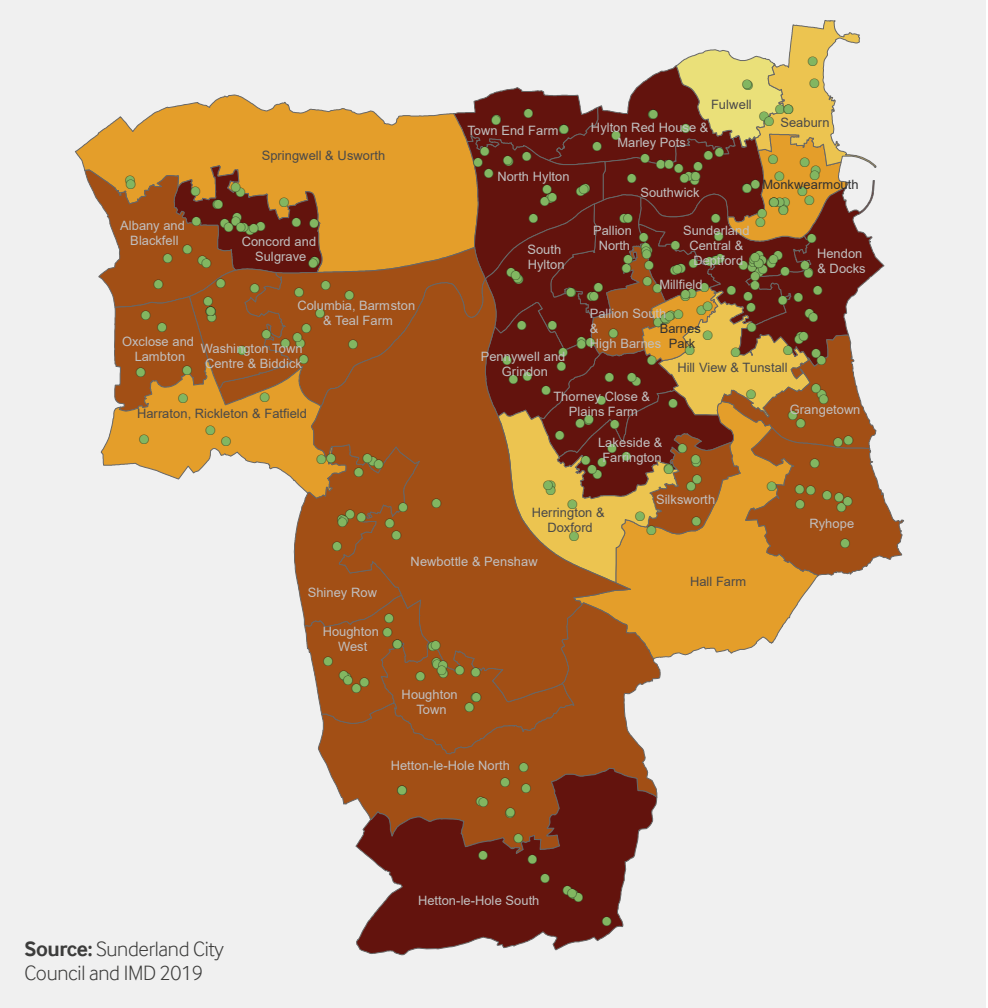
Figure 10: Number of alcohol licensed premises in each quintile of deprivation in Sunderland



Source: Sunderland City Council and IMD 2019

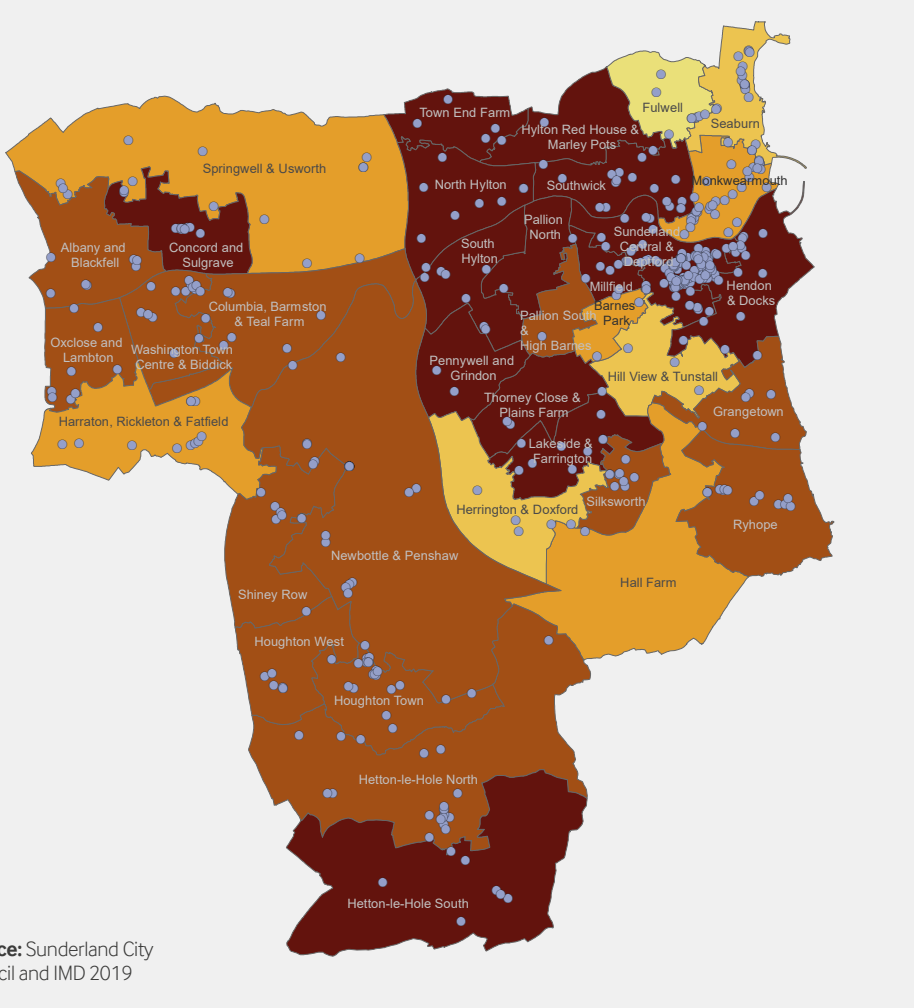
The maps below show on and off licensed premises in Sunderland by corresponding levels of deprivation (IMD). A higher concentration of licensed alcohol premises in more deprived areas can be seen.

Figure 11: Alcohol (off trade) licensed premises and deprivation quintiles in Sunderland (February 2023) - darker is more deprived.



Source: Sunderland City Council and IMD 2019

Figure 12: Alcohol (on trade) licensed premises and deprivation quintiles in Sunderland (February 2023) - darker is more deprived.



Source: Sunderland City Council and IMD 2019

Commercial determinants of health: Whose choice is it?

Alcohol marketing helps to normalise and often glamourise drinking and creates a culture where alcohol is seen as an 'essential part' of everyday life. Evidence shows that alcohol marketing directly increases the consumption of alcohol, including among children and young people. Exposure to alcohol marketing increases the likelihood that children will start to drink alcohol at an earlier age and drink more than they otherwise would[49].

One of the biggest changes in recent years to alcohol marketing is the use of online marketing. Bans or comprehensive restrictions on alcohol advertising across multiple types of media are listed by the World Health Organisation (WHO) as one of the 'best buy' policies to reduce alcohol harm. A new report from WHO highlights the increasing use of sophisticated online marketing techniques for alcohol and the need for more effective regulation. It shows that young people and heavy drinkers are increasingly targeted by alcohol advertising, often to the detriment of their health[50].

With the use of online marketing, the global Internet has created new and growing opportunities for alcohol marketers to target messages to specific groups. Targeted advertising on social media is especially effective at using such data, with its impact strengthened by social influencers and sharing of posts between social media users.

Sponsorship of major sporting events at global, regional and national levels is another key strategy used by alcohol companies. Such sponsorship can significantly increase awareness of their brands to new audiences. In addition, alcohol producers engage in partnership with sports leagues and clubs to reach viewers and potential consumers in different parts of the world. The increasing market of e-sports, including competitive gaming events, is another opportunity to sponsor events.

Minimum unit pricing does what the name suggests: sets a minimum price, per UK unit, below which alcohol cannot be sold. Where MUP has the most impact is on the cheapest, strongest alcohol available in some off-licences. Since May 2018, every alcoholic drink sold in Scotland has had minimum unit pricing (MUP) of £0·50 per unit. A new report suggests the introduction of minimum unit pricing (MUP) in Scotland has led to fewer alcohol-related deaths compared to England[51].

Alcohol recommendations

- The Responsible Authorities Group will continue to work with licensing and regeneration so they have the relevant insight and intelligence to consider the impact of alcohol in the design and regeneration of our city centre.

Sunderland City Council should continue to:

- Work with colleagues across the North East to develop a local alcohol harm reduction educational offer to ensure a consistent approach is being used within educational settings and isn't influenced by industry.
- Work with Balance North East to support regional approaches to advocate change and encourage the Government to prioritise the interventions which decrease the affordability of alcohol – such as Minimum Unit Price (MUP).
- Work with Balance North East to support regional approaches to advocate change and encourage the Government to introduce restrictions on alcohol marketing to protect children and vulnerable people and should be aligned with the restrictions proposed for 'unhealthy food and drink' in the Health and Care Bill, including a 9pm watershed on TV and on-demand services.

Gambling

It is becoming increasingly recognised that gambling is a public health issue, with significant harms affecting more than just those who have an addiction. In 2021, Public Health England (PHE) carried out a national review of gambling-related harms[52] and found that key harms relate to mental health, finances, relationships, reduced performance at work and, in some cases, criminal behaviour. There is also an association with suicidal ideation and around 5% of suicides in this country are thought to be linked to gambling – that is over 400 people per year.

The people who are most likely to take part in gambling have higher academic qualifications, people who are employed and from relatively less deprived groups. However, gambling harm is associated with people who are unemployed and living in more deprived areas, suggesting a link to inequalities. It affects whole families and communities and can become a lifelong struggle to avoid relapse.

Online gambling presents a difficult challenge for local policymakers; councils' statutory role in gambling licensing applies to physical premises only. Data from the Gambling Commission[53] suggests levels of online gambling participation were 27% in the most recent quarterly survey (December 2022). However, they reported that in-person gambling had seen a significant increase in that same time period compared with the previous year (28% compared to 25%). Therefore, action relating to physical premises and non-remote gambling is still pertinent.

Sunderland-level data is not available for gambling prevalence. However, data provided nationally can be used to calculate estimates. In the North East, it is estimated that 4.9% of the population (aged 16+) are at-risk from gambling (experiencing some level of negative consequences due to their gambling); this is the highest regional prevalence of people at-risk from gambling in England.

CASE STUDY: Knowsley Council – Planning application for new adult gaming centre

Knowsley, in Merseyside, is a place that is acutely aware of the dangers that gambling can present to its residents. As a result, the council is proactively taking decisive action, wherever it is able, to protect its communities from this, sometimes overlooked, public health risk.

In 2021, Knowsley Council received a planning application for a new adult gaming centre in a prominent position in one of its town centres. In line with usual planning procedures, the application was publicised, and several objections were made predominantly by locally elected Councillors who highlighted:

- The already high concentration of betting shops and other gambling venues in the area.
- The risk of increasing gambling addiction in the local population.
- The risk that gambling poses to children and vulnerable groups.
- Plans to redevelop the local area as a vibrant, social area for families with a focus on retail units that support this vision.
- The lack of benefit a gaming centre would bring to the local area and its residents.

The application was refused by Knowsley Council's Planning Committee and ultimately rejected on appeal on the grounds that it would potentially damage the future vitality of the town centre. The public health concerns which were raised as a separate refusal reason, however, were not deemed to be of enough significance to be upheld by the Planning Inspectorate at that time.

This decision, and the concern over future similar proposals and their potential impact, led the council to review and amend its own planning policy statements. Specifically, its town centre uses Supplementary Planning Document (SPD) that sets out an acceptable threshold for the amount of gambling outlets within a town centre area. As a result, the SPD was amended to restrict new gambling-related uses and reduce the acceptable threshold from 10% to a maximum of 5% in town centres. This policy was adopted in September 2022.

This important change meant that when a subsequent application for a 24 hour gaming centre (from the same provider under a new name) was made, the council was in a much stronger position to refuse the planning application and protect more members of the community from gambling related harm.

The council's work highlighted important public health considerations and also gave a strong and clear message to the wider gambling industry.

Commercial determinants of health: Whose choice is it?

Estimated prevalence of gambling-related harms in Sunderland

Type	Estimated number of individuals – Sunderland
Those experiencing gambling harm [vii]	1,130 (aged 16+)
At-risk from gambling	11,083 (aged 16+)
Affected others	19,194 (all ages)

Public Health England (PHE) estimated that the North East has the highest rates of people experiencing problems from gambling in the country at 1%. Beyond those who experience gambling harm directly, there is also a significant impact on their friends, families and communities. It's estimated that 7% of the population has been negatively affected by someone else's gambling.

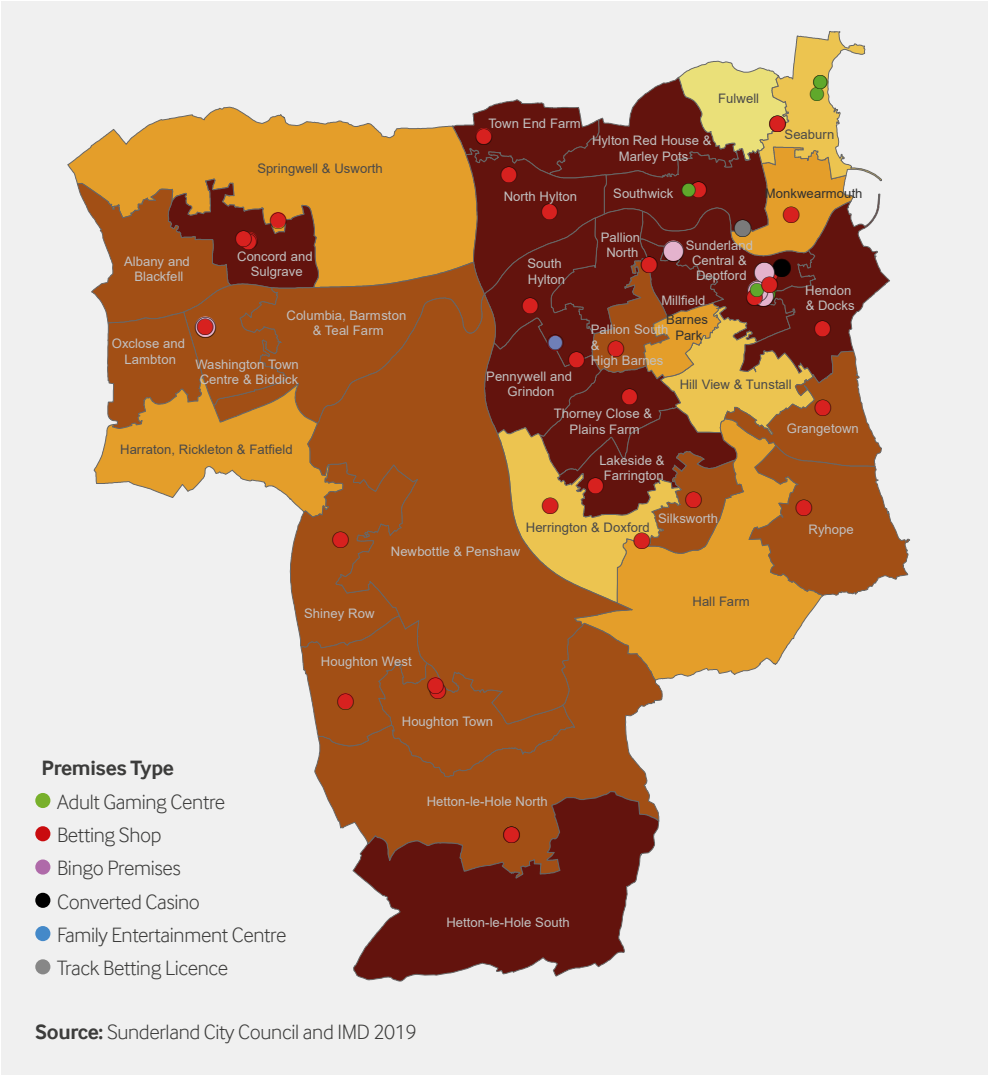
There are also financial implications. The Office Health Improvement Disparities (OHID) provided an updated estimate of economic and social costs associated with gambling-related harms in 2023. It estimated the total annual costs (to both government and wider society) were between £1.05-£1.77 billion. OHID acknowledges that this is likely to be an underestimate due to a lack of robust data in some areas (such as the impact on affected others).

Gambling has been understudied as a public health issue and it is important to ensure that a lack of evidence does not become justification for inaction. The complexity of the relationship between gambling and its associated harms, together with the shortage of strong evidence, could be used as a rationale to oppose or delay policy interventions. The gambling industry will strongly resist and argue against proposals to introduce interventions that might regulate or restrict their commercial activities. Gambling is a highly profitable industry, but policy makers should not ignore the substantial threats to health and wellbeing that exist.

Figure 13 shows all gambling premises in Sunderland by middle layer super output area (MSOA) and corresponding levels of deprivation (IMD). A higher concentration of gambling premises in more deprived areas can be seen.

[vii] Please note - to move away from stigmatising language the term 'those who experience gambling harms' is being used in the table instead of the term 'problem gambler', however we recognise that the clinical literature does still refer to the term 'problem gambler.' In the Public Health England (PHE) national review of gambling-related harms, the term 'problem gambler' is used to define a specific category, this is based it on the Problem Gambling Severity Index which has set definitions.

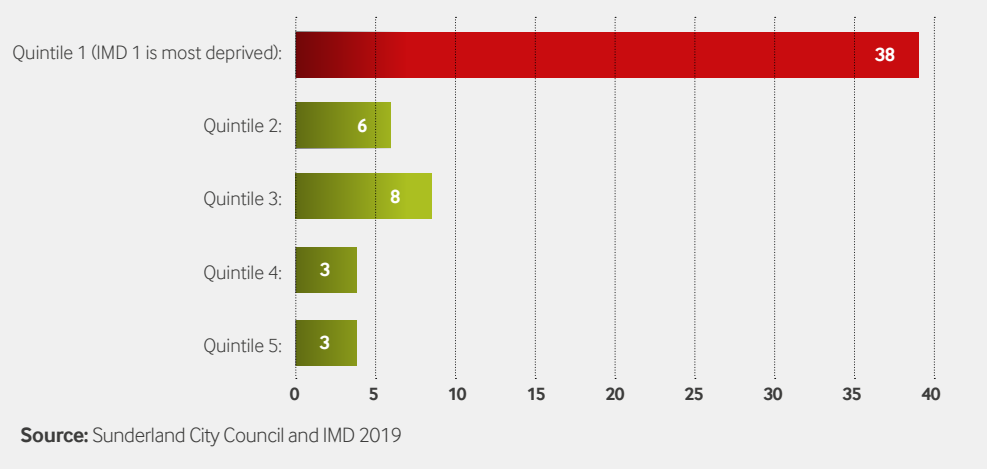
Figure 13: Gambling premises and deprivation quintile in Sunderland (February 2023) - darker is more deprived.



Source: Sunderland City Council and IMD 2019

This is further highlighted when viewed graphically; 66% of all gambling premises in Sunderland are in the most deprived quintile. This follows a national trend of gambling premises being clustered in areas where people can least afford to gamble[54]. As detailed above, risk from gambling is more prevalent in areas of greater deprivation, representing an inequality.

Figure 14: Number of gambling sites in each quintile of deprivation in Sunderland



Source: Sunderland City Council and IMD 2019

Alcohol use is strongly associated with gambling participation and gambling at elevated levels of risk; 1.6% of non-drinkers are at risk from gambling at compared to 10.0% of people who consume over 50 units per week[55]. Substance use is also a risk factor for gambling harm in children and young people.

Many forms of gambling are legal in this country under the Gambling Act 2005. The Great Britain gambling industry was worth £12.7 billion in 2020/21, with 2,442 operators in the market[56]. A report in 2018 estimated that the industry spends approximately £1.5 billion per year on marketing, with 80% of this being online[57].

A number of local authorities in England have recently taken action to address the number of gambling premises in their area by refusing planning permission, including Bradford City Council[58], Southend Borough Council[59] and Hastings Borough Council[60].

The primary reasons for these refusals have been connected to negative impacts on the surrounding area, including noise, but health impacts have also been cited. It is anticipated that some of these recent decisions will be overturned at appeal, but Knowsley Council has successfully upheld its decision to refuse planning permission for a gaming centre.

Gambling recommendations

The council will:

- Conduct a health needs assessment to better understand the scale of gambling-related harms in Sunderland.
- Work with partners to strengthen measures that protect communities from gambling harm – such as reviewing Local Plan policies as part of Local Plan Review (commencing late 2024) and the potential for implementing a threshold for gambling-related premises in town centres.
- Continue to work with regional colleagues to raise awareness of industry tactics and harmful products, shifting the narrative from that of 'problem gamblers'.
- Support regional work to develop and pilot a screening tool to increase the impact of early intervention.

Commercial determinants of health: Whose choice is it?

Environment

Fossil fuels - Eighty percent of the world's energy needs are met through fossil fuels (burning coal, oil, and natural gas) but this practice is also the source of two-thirds of the world's emissions of greenhouse gases[61]. This is causing increasing global temperatures which in turn is leading to rising sea levels, extreme weather and forest fires. The subsequent impacts on clean air and water, food sources and shelter have clear consequences for our health. The spread of infectious disease is being affected by rising temperatures, with coastal waters becoming more suitable for the transmission of certain pathogens, and the number of months suitable for malaria transmission increasing in some areas[62].

WHO estimates that, between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress[63].

There are considerable inequalities associated with climate change as the people most likely to be affected are those in low-income countries and Oxfam estimates that 20 million people per year are displaced from their homes due to climate-fuelled disasters[64].

In 2018, the combined fossil fuel industry was estimated to be worth $4.65 trillion. As well as the readily identifiable fossil fuel organisations, a number of organisations and industries play a more discreet, but still significant, role in climate change. For example, since the 2015 Paris Climate Agreement, the world's 60 biggest banks have continued to invest $4.6 trillion into the fossil fuel industry.

Air pollution - Common sources of air pollution include motor vehicles, factories and forest fires. Air pollution can cause and exacerbate respiratory disease, heart disease and lung cancer, as well as causing considerable damage to the environment. The car industry for example is estimated to be worth $2 trillion worldwide and a 2010 study concluded it was the greatest contributor to atmospheric warming[65].

Particulate matter refers to particles suspended in the atmosphere and includes dust, smoke and soot, as well as pollen and soil particles[66]. The size of particles is important, with fine particulate matter more closely associated with adverse health outcomes. In Sunderland, the concentrations of fine particulate matter are estimated to be lower (better) than the England average, but slightly higher than the regional average[67].

CASE STUDY: Sunderland City Council – Low Carbon Framework

Sunderland City Council

Sunderland City Council is on a mission to reduce emissions. Partners across the city developed and signed up to a Sunderland Low Carbon Framework in December 2020 that will drive down emissions and seek to make the city carbon neutral by 2040.

A significant amount of work is taking place across the city including:

- The BREEZ programme - Business Renewables Energy Efficiency Sunderland - gives eligible small or medium-sized enterprises a flexible approach to cutting their energy bills and their carbon emissions. The programme aims to reduce energy consumption and enable carbon reduction by measures such as upgrading old, inefficient systems, with new, energy-efficiency upgrades.
- Development of a new Local Cycling and Walking Infrastructure Plan (LCWIP) which sets out how barriers to active travel can be overcome. This includes plans to provide safe, continuous, direct routes for cycling, increasing the number of cargo bike journeys and increasing the number of cycle parking facilities.
- The council has launched a Refill scheme for Sunderland, helping the city, including businesses, to reduce single-use plastic waste. Refill provides a platform to connect residents and their communities to places they can eat, drink and shop without single-use plastic packaging. There are now over 100 Refill stations across the city.
- Electrifying Sunderland City Council's Fleet – the council operates a diverse fleet consisting of 550 vehicles including heavy goods, light goods, small vans, cars and plant vehicles. To support the council's aim to become carbon neutral by 2030, the council commissioned Zero Carbon Future to undertake a study to analyse the charging requirements to replace the existing fleet with electric vehicles or hybrid alternatives. As a result of the study the roll-out of electric vehicles will be phased and the study will ensure the sites are future-proofed as Sunderland's fleet grows.

Environment recommendations

- Maximise engagement of businesses in tackling climate change to support achievement of the city's carbon reduction targets.
- Encourage and facilitate business leadership to support delivery against city-wide carbon reduction targets including through corporate social responsibility activity including volunteering opportunities.
- Identify and progress opportunities to enhance green infrastructure and increase urban greening to facilitate climate adaptation and carbon offsetting.
- Identify and develop active travel and micro-mobility initiatives, and promote these to increase take-up by partners, people and businesses across the city.
- Support the transition to ultra-low/zero emission vehicles across the city by residents, partner organisations and businesses.

Formula milk

Breastmilk provides vital nutrition, contains all the antibodies a baby needs and protects against illnesses, and it is estimated that 823,000 worldwide child deaths could be prevented each year by near universal breastfeeding[68]. However, only 44% of babies globally were exclusively breastfed in 2020[69]. Baby's first feed breastmilk rates in Sunderland are low and are statistically significantly lower than the England average. The latest available data for 2020/21 shows 48.6% of women initiating breastfeeding in Sunderland compared to an England average of 71.7% and a North East average of 63.9%.

The reasons why some parents do not breastfeed are multiple and complex, including inadequate support, health reasons/complications, being unable to breastfeed, insufficient parental leave policies and lack of workplace support, but the role of aggressive marketing by industry cannot be overlooked. Formula milk is expensive. The global formula milk industry is valued at $55 billion (a five-fold increase in 20 years) and the six major infant formula companies spend approximately $5 billion per year on marketing – this is 30 times more than the WHO estimates it needs in order to raise breastfeeding rates and save over half a million infant lives per year.

Working conditions and benefits

Across all sectors, working conditions can have a considerable impact on health and wellbeing. WHO[70] estimates that 1.9 million deaths in 2016 were caused by work-related disease and injuries. Risk factors include long working hours and exposures such as air pollution and carcinogens (long working hours was the biggest factor). Benefits such as paid parental leave have been linked with improved mental and physical health outcomes for mothers and children, as well as increased breastfeeding rates[71].

Pay gaps drive inequalities, whether they are gender, disability or ethnicity related. Contracts such as zero-hours offer some flexibility, but research also shows that the mental health of workers on such contracts is worse than other workers[72].

Recommendations

- Sunderland Workplace Health Alliance will continue to support local employers to provide healthy working conditions, including long working hours and environments.
- As an employer, the council will share how it is taking meaningful action to address the gender pay gap and will also commit to publishing its disability and ethnicity pay gaps.
- The council should review its internal financial operations to understand whether our banking partners are funding the fossil fuel crisis.
- Workplaces should be breastfeeding-friendly with up to date, accessible, written breastfeeding and returning to work policies in place and have accessible/private rooms with a refrigerator on site.

Conclusion

It is clear that industries and employers play a significant role in the health and wellbeing of populations, whether related to their products or employment practices.

The commercial determinants of health overlap with the social determinants and it is vital that public health professionals view their work through both lenses; not to do so would risk mis-framing the issues and allowing lifestyle drift. This is the way some public health strategies and interventions focus on individual rather than the most effective interventions which are at on a larger scale.

Given that non-communicable diseases such as circulatory, cancer and respiratory diseases make the largest contribution to the morbidity and mortality burden in Sunderland[73], the benefits of taking action on the root causes will be felt across the whole system, including health and social care.

Partnerships with industries should be treated with caution. Where product reformulation can be agreed, this should be welcomed but it must be noted that voluntary regulation has not proven to be successful amongst unhealthy commodity industries and dark nudges are seen; government legislation has been the key to positive public health outcomes in areas such as smoking.

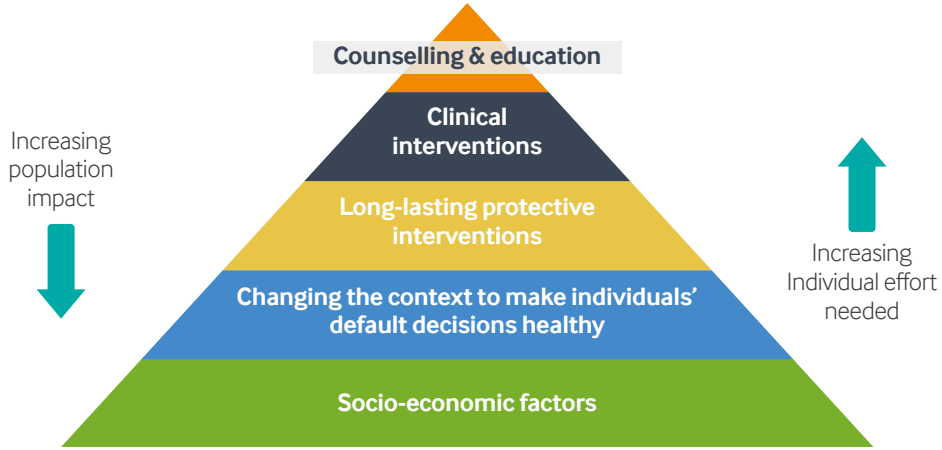
Business growth is vital to the success of Sunderland but prioritising the type of growth that supports our ambitions in the City Plan is key, and this includes our vision for a healthy city.

A public health approach to commercial determinants

Research[74,75], has found that interventions that are focused at the individual level or that are 'superficial' (for example encouraging people to change their own behaviour) can widen health inequalities as people have unequal opportunities to make changes.

The Health Impact Triangle provides a useful framework for public health action. It demonstrates that the interventions with the potential for most impact are those at the socio-economic or context levels. Interventions focused on education and counselling are centred on individuals rather than populations and have the least impact because of their dependence on long-term individual behaviour change[76].

Figure 15: Health impact triangle



A public health approach centres on the premise that we cannot only focus on the harm caused by commercial determinants on the individual, we must also work further upstream and across the system. If we only focus our interventions to help individuals rather than populations, we overlook those who are at increased risk, as well as their close communities who will also be affected. Interventions focusing on lower levels of the pyramid tend to be more effective because they reach broader segments of society, however implementing interventions at each of the levels can achieve the maximum possible sustained public health benefit.

Commercial determinants: moving towards action

It is clear that some of the most impactful interventions to tackle commercial determinants need to come at a national and even international level working with business and investors to have better corporate governance and encourage better corporate practices.

Regulation of industries, the banning of harmful practices and lessening the influence of industry, would bring tangible gains to public health. However, there are things we can do at a more localised level to mitigate the impact that industries have on the health and wellbeing of our local communities.

For a local authority there are some key considerations.

- How can we lead by example as an employer? This could involve ensuring that our employee policies are conducive to good health and wellbeing and do not widen inequalities; taking meaningful action to address all pay gaps (gender, disability, ethnicity); reviewing financial operations to ensure that we are not inadvertently funding the climate crisis.
- How can we reduce industry influence where it impacts negatively on health? Do we need regional discussions to understand where industry is currently involved in funding treatment programmes and how this might be resolved?
- How can we ensure that any plan to reduce health inequalities / support health and wellbeing considers the commercial determinants of health? Raising awareness and understanding will be important. Our language matters too – can we commit to moving away from unhelpful terms such as 'problem gambler' and 'lifestyle choices'?

Commercial determinants of health: Whose choice is it?

Key recommendations

The council should develop an approach to commercial determinants of health by:

Focusing on a geographical area in the city that has high number of unhealthy commodities and high levels of non-communicable diseases, work with residents and businesses to develop a partnership approach to reduce the number of unhealthy commodity retail and exposure in the area.

Working with local authorities across the North East and other partners across the system, identify opportunities for treatment services to become independent of industry funding or influence and to ensure that treatment is evidence-based.

Using the learning from the tobacco control experience in terms of the role of regulation, legislation and advocacy for approaches to mitigate the negative and promote the positive impacts that industries have on the health and wellbeing.

Leading on the development of a framework for local action which will take a comprehensive approach to rebalancing the impact of commercial determinants on our residents, embedding strategies into the City Plan to address demand and supply of both healthy and unhealthy commodities and incorporating into the Integrated Impact Assessment toolkit.

Working with business across the city to enhance the positive contributions to health and wellbeing through policies such as the 'Real Living Wage', Low Carbon Framework and through good employment practices and programmes such as Better Health at Work Award and the Workplace Health Alliance.

Committing ourselves and encouraging partners to move away from stigmatising language such as 'problem drinker', 'problem gambler' and 'lifestyle choices' in all our communications, discussions and interventions.

Working with public health colleagues to seek to develop a regional approach to the commercial determinants of health across the North East.

Ensuring commercial determinants are considered within our current Local Plan as well as when reviewing, for the potential to implement existing powers to restrict the number of unhealthy commodity retail units and support the vision of vibrant, healthy communities.

Working with retailers locally to promote harm reduction alternatives to smoking such as e-cigarettes or alternatives to junk food such as low sugar options. We should also encourage businesses not to stock high strength alcohol.

Commissioning and procurement teams across Sunderland should consider an ethical procurement financing model where investment is directed to source cost-effective supplies from socially responsible vendors.

We will continue to improve understanding of the commercial determinants of health, and industry tactics, with our partners across the city.

Appendix one

Update on recommendations from 2021/22 Director of Public Health Report: Same Storm, Different Boats

RECOMMENDATION 1 - Deliver the Healthy City Plan with a focus on reducing inequalities, particularly where they have widened due to the Covid-19 pandemic.

Reducing Inequalities Delivery Plan developed with governance arrangement via the Living Well Delivery Board to ensure progress against the four priority areas; (1) better understanding our population, (2) asset based community development, (3) economic activity, skills, aspiration and community wealth and (4) health in all policies approach.

Examples of progress includes:

- Deep-dive review into multiple complexity within the domestic abuse safer accommodation offer to shape an inequality-proofing approach to domestic abuse housing provision, ensuring our safer accommodation offer does not create structural barriers to access and actively promotes equitable housing, and specialist support to better meets the needs of domestic abuse survivors
- Alcohol Strategy developed by the Drug and Alcohol Partnership and endorsed by the Health and Wellbeing Board.
- Food Partnership established. Work is underway to develop a city-wide approach to reducing food insecurity.
- Range of programmes and activities delivered to children, young people and families to support access to nutrition information and physical activity opportunities. These included learn to swim, pre and post-natal activities, early years offer, 'Roots and Shoots' and extending the Holiday Activity and Food programme.

RECOMMENDATION 2 - Embed a Health in All Policies approach across the council and partners, supported by an Integrated Impact Assessment approach that incorporates health, equality, socio-economic and sustainability considerations.

- Integrated Impact Assessment (IIA) tool has been developed to support decision makers to consider health inequalities alongside other potential impacts when developing or reviewing strategies and plans.
- Health in all policies event was held with council officers to increase the understanding of the role that other services can play in improving health and reducing health inequalities.

RECOMMENDATION 3 - Build on the community response to the pandemic in order to engage the population and ensure diverse and under-represented groups' voices and experiences are heard, that the overlapping dimensions of health inequalities are understood, and needs are acted upon, strengthening engagement routes built upon during the pandemic**.**

- An Impact of Covid Survey (0-3 year olds) was completed with families and early years practitioners. Recommendations are actioned through the Best Start in Life Partnership and Family Hubs.
- Dedicated team to support our residents through the cost of living crisis. Through the creation of warms spaces across Sunderland, we have engaged with residents to understand lived experience to inform future plans such as our social prescribing model which will be centred around building the capacity of our community services and developing our warm hubs into community hubs.
- Sunderland Health Champions programme relaunched to include Covid Champions. The programme has expanded the breadth of messages to include financial wellbeing, cancer awareness, gambling and cost of living.

Appendix one

RECOMMENDATION 4 - Continue to develop, promote and widen uptake of local welfare schemes in recognition that more people are now living in poverty.

Agreed a Financial Wellbeing strategy and delivered actions including:

- Build our support to Sunderland foodbanks, advice providers and other key stakeholders. We have mapped food activity and improved awareness and access to appropriate food offers. Personal hygiene products are now provided in our 'more than food' offer.
- Implemented the Local Welfare Provision (LWP) food support including out of hours and emergency food boxes.
- Worked with partners to understand the different needs and offers for those in food crisis compared to those facing food insecurity – with the former being mainly supported by foodbanks and the latter via community pantries and stores. Funded five hubs across Sunderland to deliver The Bread and Butter Thing, so affordable food is more accessible.
- Delivering training around Making Every Contact Count (MECC) and financial wellbeing targeted at frontline workers.

RECOMMENDATION 5 - Work with local employers who can provide employment and apprenticeship opportunities, especially to our vulnerable people and people from disadvantaged backgrounds.

- Sunderland is a Real Living Wage City, this includes all commissioned services.
- Social Value requirements within contracted services have included measures to employ local people, those from more disadvantaged backgrounds and vulnerable groups, and enable apprenticeship opportunities and vocational training.
- Introduced Individual Placement Support (IPS) which connects people in structured drug and alcohol treatment with employment opportunities. Since January IPS have worked with 25 people and found six employment.

RECOMMENDATION 6 - Continue to embed programmes which support the development of speech, language and communication skills in children so they are able to flourish and achieve their full potential .

- Joint training regarding speech, language and communication for all staff incorporating Early Language Identification Measure and Launchpad to Literacy has been delivered, ensuring a connection between the two interventions to support families.
- Speech and Language Therapy pathway and referral process been reviewed to enable a collaborative approach to tackling developmental delays and early help before Special Educational Needs referral.
- Developmental Review Clinic Pilot was successful, with positive feedback from parents and practitioners. This links with the Family Hub priority of Early Language and Home Learning through the Best Start in Life action plan.

RECOMMENDATION 7 - Ensure key findings from the Health Related Behaviour Survey are used to influence and shape local programme delivery to meet the needs identified by children and young people.

We have continued to engage with our primary and secondary schools through the Health Related Behaviour Survey (HRBS). This survey now includes questions relating to the impact of Covid 19. Key findings are used to inform a whole systems approach including:

- Maintaining a healthy weight for children, young people and families through working with a range of providers and using different activities.
- Findings around the levels of smoking and vaping were used in the Health Equity Audit and in the development the service specification of the Specialist Stop Smoking service.

Appendix two - Glossary

RECOMMENDATION 8 - Carry out further research to improve our understanding of inequalities in access to health services and excess deaths.

- The council and University of Sunderland have recruited a joint embedded researcher post which will work in the council to promote a research environment.
- Worked with the Voluntary and Community Sector to understand lived experience and further develop area resident engagement groups.
- An interactive data and intelligence tool is available on the council website. This tool has provided information on the causes of death and age groups that are driving inequalities in life expectancy.

RECOMMENDATION 9 - Ensure we are responding to employee health and wellbeing needs following the intense effort of responding to the Covid-19 pandemic.

- The Sunderland Workplace Health Alliance has now over 147 organisations involved with 52 of these businesses engaged with the Better Health at Work Award. Webinars have been delivered around mental wellbeing and work life balance to support employees within these businesses.
- Making Every Contact Counts (MECC) is being embedded within workplaces via a Train the Trainer model and one to one training courses.
- The council has signed up to the Healthy Weight Declaration and partners from across the city are working together as part of a Healthy Weight Alliance on a range of projects.

Commercial actors	Commercial actors can contribute positively to health and society, and many do, providing essential products and services.
Commercial determinants of health	Commercial determinants of health are the private sector activities that affect people's health, directly or indirectly, positively or negatively.
Index of multiple deprivation	The index of multiple deprivation is a way of summarising how deprived people are within an area, based on a set of factors that includes their levels of income, employment, education and local levels of crime.
Indices of multiple deprivation (IMD)	A measure of relative deprivation for small, fixed geographic areas of the UK. IMD classifies these areas into five quintiles based on relative disadvantage, with quintile 1 being the most deprived and quintile 5 being the least deprived.
Lifestyle drift	'Lifestyle drift' refers to the way in which some public health strategies and interventions focus on individual responsibility and action, despite knowing that the most effective interventions are at a larger scale.
Quintile	Any of five equal groups into which a population can be divided according to the distribution of values of a particular variable.
Wider or social determinants of health	Wider determinants, also known as social determinants, are a diverse range of social, economic and environmental factors which impact on people's health. Such factors are influenced by the local, national and international distribution of power and resources which shape the conditions of daily life.

References

Key sources:

1 **Sheffield Director Public Health (blog):** https://gregfellpublichealth.wordpress.com/

2 **Spectrum webinar:** https://editorial.health.org.uk/about-the-health-foundation/get-involved/events/webinar-commercial-determinants-of-health-and-health-inequalities

1 World Health Organisation (2021) *Commercial determinants of health*. Available at: www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health.

2 Maani N, Collin J, Friel S, Gilmore AB, McCambridge J, Robertson L, Petticrew MP. (2020) *Bringing the commercial determinants of health out of the shadows: a review of how the commercial determinants are represented in conceptual frameworks.* Available at https://pubmed.ncbi.nlm.nih.gov/31953933/

3 World Health Organization (2023) *Commercial determinants of health*. Available from: www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health

4 Kickbusch I, Allen L, Franz C (2016) The commercial determinants of health. Available at: www.thelancet.com/action/showPdf?pii=S2214-109X%2816%2930217-0

5 Office for Health Improvement and Disparities (2021) Annex C: data on the distribution, determinants and burden of non-communicable diseases in England. Available at: www.gov.uk/government/publications/nhs-health-check-programme-review/annex-c-data-on-the-distribution-determinants-and-burden-of-non-communicable-diseases-in-england#the-burden-of-non-communicable-disease

6 Office for Health Improvement & Disparities (2023) *Segment tool data*. Available at: https://analytics.phe.gov.uk/apps/segment-tool/

7 Lacy-Nichols (2022) www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00185-1/fulltext

8 i (2021) *Gambling companies hire MPs and flood politicians with donations ahead of crucial changes to betting laws*. Available at: https://inews.co.uk/news/politics/gambling-companies-hire-mps-and-flood-politicians-with-donations-ahead-of-crucial-changes-to-betting-laws-1294361

9 ABC News *How the gambling industry cashed in on political donations*. Available at: www.abc.net.au/news/2021-10-14/how-the-gambling-industry-cashed-in-on-political-donations/100509026

10 The Guardian (2018) *Tobacco, gambling and alcohol donations 'rise during critical debates'*. Available at: www.theguardian.com/australia-news/2018/nov/26/tobacco-gambling-and-alcohol-donations-rise-during-critical-debates

11 van Schalkwyk, M., Maani, N., & Petticrew, M. (2022) 'The Fossil Fuel Industry: Fueling Doubt and Navigating Contradiction', in Maani, N., Pettigrew, M., and Galea, S. (eds.) *The Commercial Determinants of Health*. New York. Oxford University Press.

12 McCambridge, J., Hawkins, B. & Holden, C. (2013) *Industry Use of Evidence to Influence Alcohol Policy: A Case Study of Submissions to the 2008 Scottish Government Consultation*. Available at: https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001431

13 Maani, N., van Schalkwyk, M., Filippidis, FT., Knai, C. & Petticrew, M. (2022) *Manufacturing doubt: Assessing the effects of independent vs industry-sponsored messaging about the harms of fossil fuels, smoking, alcohol, and sugar sweetened beverages*. Available at: www.sciencedirect.com/science/article/pii/S2352827321002846?s=03

14 https://evidence.nihr.ac.uk/alert/advertising-ban-was-linked-to-lower-purchases-of-unhealthy-food-and-drink

15 https://www.outsmart.org.uk/who-sees-ooh

16 https://content.tfl.gov.uk/advertising-report-2018-20-acc.pdf

17 https://www.sustainweb.org/news/feb22-success-tfl-advertising-policy/

18 https://www.sustainweb.org/news/may23-tower-hamlet-advertising-policy/#:~:text=Tower%20Hamlets%20in%20East%20London,all%20of%20their%20advertising%20estate

19 Olsen, J., Patterson, C., Caryl, FM., Robertson, T., Mooney, SJ., Rundle, AG., Mitchell, R. & Hilton, S. (2021) *Exposure to unhealthy product advertising: Spatial proximity analysis to schools and socio-economic inequalities in daily exposure measured using Scottish Children's individual-level GPS data.* Available at: www.sciencedirect.com/science/article/pii/S1353829221000319

20 Smith, R., Kelly, B., Yeatman, H., Boyland, E. (2019) Food Marketing Influences Children's Attitudes, Preferences and Consumption: A Systematic Critical Review. Nutrients 11:4. Available at: www.mdpi.com/2072-6643/11/4/875/htm

21 Pettigrew, M., Maani, N., Pettigrew, L., Rutter, H. & van Schalkwyk, M. (2020) *Dark Nudges and Sludge in Big Alcohol: Behavioral Economics, Cognitive Biases, and Alcohol Industry Corporate Social Responsibility.* Available at: https://onlinelibrary.wiley.com/doi/full/10.1111/1468-0009.12475

22 Paichadze, N., Ilakkuvan, V., Gizaw, M. & Hyder, AA. (2022) 'Corporate Social Responsibility: Past, Present, and Future', in Maani, N., Pettigrew, M., and Galea, S. (eds.) *The Commercial Determinants of Health.* New York. Oxford University Press.

23 Savell, E., Gilmore, A. & Fooks, G. (2014) *How does the tobacco industry attempt to influence marketing regulations? A systematic review.* Available at: https://pubmed.ncbi.nlm.nih.gov/24505286/

24 Seferidi, P., Millett, C. & Laverty, AA. (2021) Industry self-regulation fails to deliver healthier diets, again. BMJ; 372. Available at: https://doi.org/10.1136/bmj.m4762

25 European Public Health Alliance (2016) *Self-regulation: a false promise for public health?* Available at: https://epha.org/wp-content/uploads/2016/12/Self-Regulation-a-False-Promise-for-Public-Health_EPHA_12.2016.pdf

26 Ralston, R. (2021) *The informal governance of public-private partnerships in UK obesity policy: Collaborating on calorie reduction or reducing effectiveness?* Social Science & Medicine 289. Available at: https://doi.org/10.1016/j.socscimed.2021.114451

27 Lim A.W.Y., van Schalkwyk M.C.I., Maani Hessari N. & Petticrew M.P. (2019) *Pregnancy, Fertility, Breastfeeding, and Alcohol Consumption: An Analysis of Framing and Completeness of Information Disseminated by Alcohol Industry-Funded Organizations.* Available at: https://pubmed.ncbi.nlm.nih.gov/31603753/

28 van Schalkwyk, M., Pettigrew, M., Maani, N., Hawkins, B., Bonell, C., Vittal Katikireddi, S. & Knai, C. (2022) *Distilling the curriculum: An analysis of alcohol industry-funded school-based youth education programmes.* Available at: https://doi.org/10.1371/journal.pone.0259560.

29 van Schalkwyk, M., Hawkins, B. & Pettigrew, M. (2022) *The politics and fantasy of the gambling education discourse: An analysis of gambling industry-funded youth education programmes in the United Kingdom.* Available at: www.sciencedirect.com/science/article/pii/S235282732200101X

30 Fell, G. (2022) *Tackling Health Behaviours – helping people change or shifting the context in which people make choices.* Available at: https://gregfellpublichealth.wordpress.com/2022/11/02/tackling-health-behaviours-helping-people-change-or-shifting-the-context-in-which-people-make-choices/

31 World Health Organization (2021) *Overweight and obesity: key facts.* Available at: www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

32 Office for Health Improvement & Disparities (2022) *Obesity profile.* Available at: https://fingertips.phe.org.uk/

33 The King's Fund (2021) *New analysis reveals stark inequalities in obesity rates across England.* Available at: www.kingsfund.org.uk/press/press-releases/new-analysis-stark-inequalities-obesity-england

34 Elizabeth, L., Machado, P., Zinocker, M., Baker, P. & Lawrence, M. (2020) *Ultra-Processed Foods and Health Outcomes: A Narrative Review.* Available at: https://pubmed.ncbi.nlm.nih.gov/32630022/

35 Chung, A., Westerman, L., Martin, J., Friel, S. (2022) *The commercial determinants of unhealthy diets. Public Health Research and Practice 32:3.* Available at: www.phrp.com.au/issues/october-2022-volume-32-issue-3/commercial-determinants-of-unhealthy-diets/

References

36 UKHSA (2016) *Obesity and the environment – the impact of fast food.* Available at: https://ukhsa.blog.gov.uk/2016/10/21/obesity-and-the-environment-the-impact-of-fast-food/

37 Public Health England (2018) *Fast food outlets: density by local authority in England.* Available at: www.gov.uk/government/publications/fast-food-outlets-density-by-local-authority-in-england

38 NHS Digital (2020) *Statistics on Smoking, England 2020.* Available at: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-smoking/statistics-on-smoking-england-2020

39 Anderson, S., Hastings, G. & MacFadyen, L. (2002) *Strategic marketing in the UK tobacco industry. The Lancet Oncology 3:8*, pp481-486. Available at: www.sciencedirect.com/science/article/pii/S1470204502008173

40 ASH UK Tobacco Advertising and Promotion February 2019. Available at: https://ash.org.uk/uploads/Tobacco-Advertising-and-Promotion-download.pdf?v=1650643965

41 ASH UK Tobacco Advertising and Promotion February 2019. Available at: https://ash.org.uk/uploads/Tobacco-Advertising-and-Promotion-download.pdf?v=1650643965

42 World Health Organization (2022) *Tobacco.* Available at: www.who.int/news-room/fact-sheets/detail/tobacco

43 Baker J (2021) *WHO FCTC Article 5.3* – A vaccine for curbing the tobacco pandemic. Available at: https://blogs.bmj.com/tc/2021/11/03/who-fctc-article-5-3-a-vaccine-for-curbing-the-tobacco-pandemic/

44 Making smoking obsolete: summary - GOV.UK (www.gov.uk)

45 Greenseed (2022) *Alcohol Drinks Market – Size, Trends, RTD Alcohol & New Drinks (2021/2022).* Available at: https://greenseedgroup.com/alcohol-drinks-market-size-trends/

46 World Health Organization (2022) ***Alcohol.*** Available at: www.who.int/news-room/fact-sheets/detail/alcohol

47 NHS England (2019) *NHS Long Term Plan will help problem drinkers and smokers.* Available at: www.england.nhs.uk/2019/01/nhs-long-term-plan-will-help-problem-drinkers-and-smokers/

48 Angus, C., Holmes, J., Maheswaran, R., Green, MA., Meier, P. & Brennan, A. (2017) *Mapping Patterns and Trends in the Spatial Availability of Alcohol Using Low-Level Geographic Data: A Case Study in England 2003–2013.* Available at: www.mdpi.com/1660-4601/14/4/406

49 Anderson et al. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies - PubMed (nih.gov)

50 WHO highlights glaring gaps in regulation of alcohol marketing across borders

51 Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: a controlled interrupted time series study - The Lancet

52 Gambling-related harms evidence review: summary (updated 2023) www.gov.uk/government/publications/gambling-related-harms-evidence-review/gambling-related-harms-evidence-review-summary--2

53 Gambling Commission (2023) Gambling behaviour in 2022: Findings from the quarterly telephone survey. Available at: www.gamblingcommission.gov.uk/statistics-and-research/publication/gambling-behaviour-in-2022-findings-from-the-quarterly-telephone-survey

54 Evans, J & Cross, K (2021) *The geography of gambling premises in Britain.* Available at: financialfairness.org.uk/docs?editionId=c8d6f9b5-1c8b-4b97-9bb4-c3099938f737

55 Public Health England (2021) *Gambling-related harms: evidence review.* Available at: www.gov.uk/government/news/landmark-report-reveals-harms-associated-with-gambling-estimated-to-cost-society-at-least-1-27-billion-a-year

56 Gambling commission (2022) *Industry statistics – July 2022 revision.* Available at: www.gamblingcommission.gov.uk/statistics-and-research/publication/industry-statistics-july-2022-revision

57 GambleAware (2018) *Spend on Gambling Marketing.* Available at: www.begambleaware.org/news/spend-on-gambling-marketing

58 Telegraph and Argus (2022) *Public health concerns lead to city centre gambling plans being refused*. Available at: www.thetelegraphandargus.co.uk/news/20778484.public-health-concerns-lead-city-centre-gambling-plans-refused/

59 Essex Live (222) *Plans to transform former RBS bank into casino refused by Southend Borough Council*. Available at: www.essexlive.news/news/essex-news/plans-transform-former-rbs-bank-6622560

60 Sussex World (2022) *Permission for Hastings gambling arcade turned down*. Available at: www.sussexexpress.co.uk/news/politics/permission-for-hastings-gambling-arcade-turned-down-3591184

61 Krane, J. (2017). *Climate change and fossil fuel: An examination of risks for the energy industry and producer states. MRS Energy & Sustainability,* 4, E2. doi:10.1557/mre.2017.3

62 Romanello, M. et al (2022) *The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels*. Available at: www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01540-9/fulltext

63 World Health Organization (2021) *Climate change and health*. Available at: www.who.int/news-room/fact-sheets/detail/climate-change-and-health

64 Oxfam (2019) *Forced from home: climate-fuelled displacement*. Available at: www.oxfam.org/en/research/forced-home-climate-fuelled-displacement

65 NASA (2010) *Road Transportation Emerges as Key Driver of Warming*. Available at: www.giss.nasa.gov/research/news/20100218a/

66 Air Quality Expert Group (2012) *Fine Particulate Matter (PM2.5) in the United Kingdom*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69635/pb13837-aqeg-fine-particle-matter-20121220.pdf

67 Office for Health Improvement and Disparities (2023) *Public Health Profiles*. Available at: https://fingertips.phe.org.uk/search/air%20pollution

68 Save the Children (2018) *Don't push it*. Available at: www.savethechildren.org.uk/content/dam/gb/reports/health/dont-push-it.pdf

69 World Cancer Research Fund (2022) *Breastfeeding across the world in 2022*. Available at: www.wcrf.org/breastfeeding-across-the-world-in-2022/

70 World Health Organization (2021) *WHO/ILO: Almost 2 million people die from work-related causes each year*. Available at: www.who.int/news/item/16-09-2021-who-ilo-almost-2-million-people-die-from-work-related-causes-each-year

71 van Niel, M. et al (2020) *The Impact of Paid Maternity Leave on the Mental and Physical Health of Mothers and Children: A Review of the Literature and Policy Implications*. Available at: doi: 10.1097/HRP.0000000000000246.

72 Keely, T. (2021) *Zeroed down: the effects of zero-hours contracts on mental health and the mechanisms behind them*. Available at: https://abdn.pure.elsevier.com/en/publications/zeroed-down-the-effects-of-zero-hours-contracts-on-mental-health-

73 Segment Tool OHID. Available at: https://analytics.phe.gov.uk/apps/segment-tool/

74 McGill R, Anwar E, Orton L, Bromley H, Lloyd-Williams F, O'Flaherty M, Taylor-Robinson D, Guzman-Castillo M, Gillespie D, Moreira P, et al. (2015) *Are interventions to promote healthy eating equally effective for all?* Systematic review of socioeconomic inequalities in impact. Available from: https://dx.doi.org/10.1186/s12889-015-1781-7

75 McLaren L, McIntyre L, Kirkpatrick S. (2010) *Rose's population strategy of prevention need not increase social inequalities in health*. Available from: https://dx.doi.org/10.1093/ije/dyp315

76 Frieden, TR. (2010) *A Framework for Public Health Action: The Health Impact Pyramid*. Available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/

Sunderland City Council

Director of Public Health Annual Report 2022 - 2023