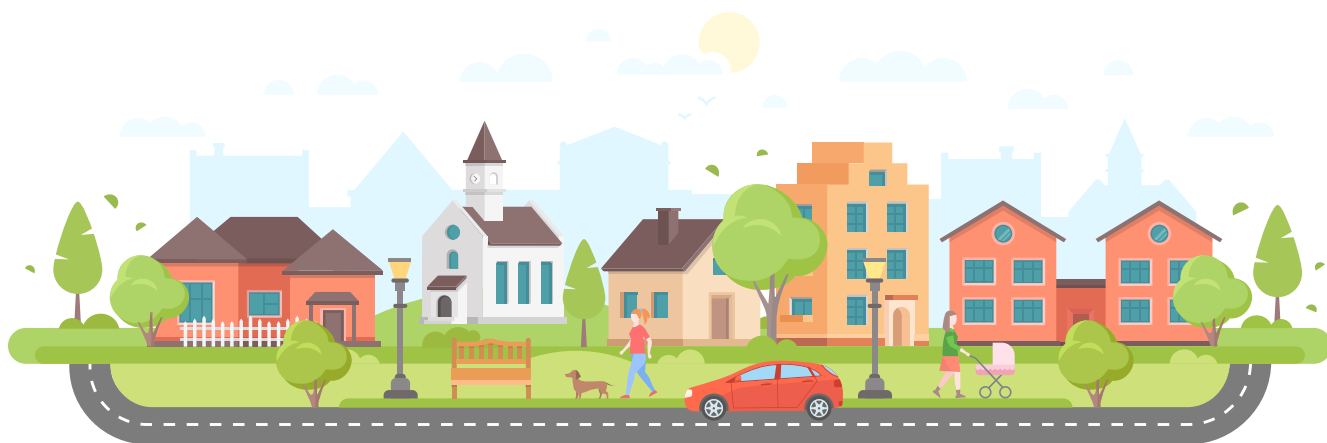# LOCAL LEVERS FOR DIET AND HEALTHY WEIGHT

TOP EVIDENCE-BACKED OPPORTUNITIES

THE UNIVERSITY of EDINBURGH

Obesity Action
Scotland
Healthy weight for all

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FOREWORD

From 2019 to 2023, Obesity Action Scotland (OAS) has been delighted to support the early adopter phase of a Whole Systems Approach (WSA) to Diet and Healthy Weight in Scotland. OAS recognise that the levers to change our food system exist at local and national level and that actions across the whole system will be required to deliver healthy weight for all in Scotland. This report is one of a series of outputs designed to share learning from the early adopter phase and inform and support future WSA work across Scotland.

In considering Local Levers for Diet and Healthy Weight, this report has reviewed the evidence in finding and recommending seven measures which can be utilised as part of a place-based approach to addressing diet and healthy weight.

Whilst individual-based interventions remain popular, it is population-level change which have the most impact on health. The various levers described in this report are those that exist at local level that are likely to have the greatest benefit on the largest number of people living in Scotland.

They should be used first and foremost in our local authorities and health boards, whose remit includes promoting the health of their populations. But some of the interventions in the report also should be considered, where relevant, by voluntary and private sector organisations who wish to support their staff, their communities and their customers.

For areas who wish to take a WSA to Diet and Healthy Weight, it is recommended that these levers are used to inform your approaches and help guide you in your action planning.

I would thank Professor Lindsay Jaacks, University of Edinburgh for her expertise in preparing this report and together we hope that this report can provide guidance and support to those working to make a difference locally. Together we can all shape our food and physical activity environments to support healthy weight and protect and improve the health of the Scottish people.

Lorraine Tulloch

Programme Lead
Obesity Action Scotland

ABBREVIATIONS

HFSS
High in fat, sugar, or salt

HRS
Healthcare Retail Standard

NEC
National Entitlement Card

NHS
National Health Service

NICE
National Institute for Health and Care Excellence

NPF4
National Planning Framework 4

OECD
Organization for Economic Co-Operation and Development

SIMD
Scottish Index of Multiple Deprivation

SYP
Scottish Youth Parliament

WHO
World Health Organization

INTRODUCTION

The circumstances and environments in which we live, work, learn, play and socialise shape our health and wellbeing. To improve health in Scotland, we must address the social and commercial determinants of health. Education and willpower are no match for the flood of unhealthy food and drink[1] options we are faced with every day.

We know environmental interventions work for other commercial determinants of health. The 2006 smoke-free legislation resulted in a 39% reduction in salivary cotinine (a marker of exposure to smoking) among both adults and children living in Scotland within just one year (1, 2). Furthermore, following implementation, support for smoke-free policies increased, including among smokers (3). Building on the success of smoke-free legislation, in 2013, the Scottish Government announced an ambitious aim for a tobacco-free generation by 2034 (4).

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As we did with tobacco, we need to focus our efforts on transforming our local environments to stem the tide of unhealthy food and drink, and put healthy food and drink options in reach.

Social determinants of health include poverty and deprivation; the built environment including food outlets, transport systems, leisure centres, and green space; cultural norms around eating and drinking as well as breastfeeding; and schools.

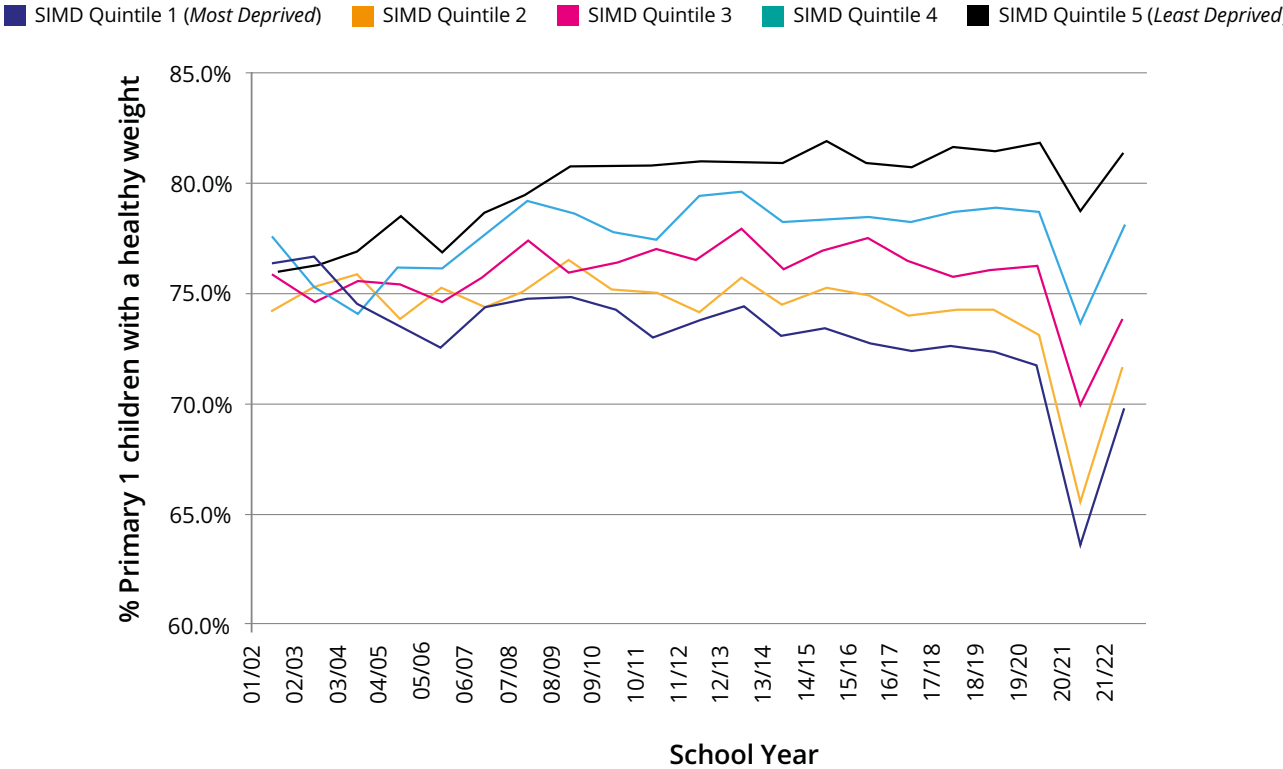**Commercial determinants** of health include the marketing and sale of unhealthy food and drink; and the marketing of infant formula.

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[1] Throughout this report, "unhealthy food and drink" primarily refers to food and drink high in fat, sugar, or salt.

Social and economic factors like income also influence our health. Over the past decade, the association between income and health has potentially grown stronger in Scotland. A recent independent review of health inequalities in Scotland published by the Health Foundation attributed this to three underlying factors: (i) the accumulation of severe multiple disadvantage; (ii) a lack of improvement in living standards; and (iii) austerity (5). The cost-of-living crisis is likely to exacerbate these inequalities.

The recent Health Foundation review highlighted **the health and experiences of infants and children in their early years** as one of three areas of particular concern, citing widening inequalities in risk of obesity at the start of primary school (5). Twenty years ago, 76% of primary 1 children had a healthy weight in both the most and least deprived areas of Scotland (see **Figure 1**) (6). However, since then, the health of children living in these areas has diverged. Today, children living in the most deprived areas of Scotland are much less likely to have a healthy weight compared to children living the least deprived areas: 70% versus 81% (6).

Figure 1

Trends in the percentage of primary 1 children with a healthy weight in Scotland from 2001/2002 to 2021/2022. SIMD, Scottish Index of Multiple Deprivation.

SIMD Quintile 1 (*Most Deprived*) SIMD Quintile 2 SIMD Quintile 3 SIMD Quintile 4 SIMD Quintile 5 (*Least Deprived*)

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Whilst outside the scope of this report, it is important to emphasise that **actions taken to address child poverty are likely to have beneficial effects for diet and healthy weight.**

We refer to relevant Scottish Government guidance published elsewhere for local levers for tackling child poverty (see resources).

When it comes to diet and healthy weight, no one action is going to result in huge benefits. A package of synergistic actions, each having a small effect on their own, and together having a larger effect, is needed. We suggest prioritising the implementation of actions in this report, monitoring progress, celebrating successes, and adapting to strengthen what works and drop what doesn't work. Committing to an iterative process of implementation, evaluation, and adaptation is key.

Tackling Child Poverty

"Best Start, Bright Futures: tackling child poverty delivery plan 2022 to 2026"

"Developing a local child poverty action report: guidance"Policy Toolkit" Policy Toolkit"

The scientific consensus is that the rise of obesity has largely been driven by changes in food consumption rather than changes in physical activity (7). However, physical activity can help people maintain a healthy weight and has many health benefits independent of any impact on body weight. The role of place is also recognised within this document. The places where people live, work and play can have an impact on their health and are shaped by many factors including but not limited to national and local policy. If we want to create places that enable health and realise the full potential of communities, we must take action to make them health supporting, health enabling places.

In order to identify local levers for diet and healthy weight, several documents were reviewed, as summarised in the ***Appendix***. An emphasis was placed on documents published in the past 5 years with the exception of National Institute for Health and Care Excellence (NICE) guidelines for working with local communities on obesity, which were published in 2012. From this document review, a long list of effective actions for diet and healthy weight was created. From this long list, many actions were excluded because they were beyond the scope of local areas. For example, fiscal measures such as taxation. Other actions were excluded because they focused on individual behaviour change. For example, the World Health Organisation's (WHO) best buy, "Nutrition education and counselling in different settings to promote healthy diets." Ultimately, seven actions remained on the list. For each of these local levers, a separate web search was conducted to identify evidence specific to the UK / Scottish context.

Local levers for diet and healthy weight are **actions** available at the local level – for local authorities, health boards and schools, as well as the private and third sectors – to support community health by ensuring everyone can get affordable, healthy food and drink, and integrate safe and enjoyable physical activity into their daily lives.

The **seven local levers for diet and healthy weight**[2] in Scotland are:

1. Restrict food marketing

2. Utilise planning to improve food environments

3. Strengthen public food procurement and provision standards

4. Work with the out of home sector to reduce calories on the menu

5. Improve uptake of school meals

6. Promote and support physical activity

7. Protect, promote, and support breastfeeding and healthy diets for children.

In the chapters that follow, we outline how to take each local lever forward, why each lever is important in the Scottish context, and evidence of effectiveness particularly in the UK or Scottish context, when available.

There are significant opportunities to shape our food environments including the implementation of the **Good Food Nation (Scotland) Act 2022** and associated Good Food Nation plans and the **National Planning Framework 4 (NPF4)** and associated local development plans.

It is possible to halt the rise in obesity in Scotland and achieve a healthy weight for all. No one of the local levers alone will have a huge impact, but with continued evaluation and improvement, together they can.

2 Not in priority order. No one of the local levers alone will have a huge impact. As many of the levers as feasible should be considered for local implementation to maximise impact.

1

RESTRICT FOOD ADVERTISING

HOW TO TAKE THIS LOCAL LEVER FORWARD

1. Restrict advertising of products high in fat, sugar, or salt (HFSS) by local authorities themselves.

2. Restrict HFSS product advertising on transport networks owned by local authorities.[3]

3. Restrict HFSS product advertising by third parties on council-owned spaces, assets, and events.

These actions are aligned with those taken by Bristol City Council, which prohibits HFSS product[4] advertising for all advertising generated by the Council and advertising and sponsorship by third parties on council-owned spaces, assets, and events. The Bristol policy also prohibits the advertising of a food or drink brand where no food or drink product is featured directly. The policy did not apply to local sponsorship deals such as sports teams. An estimated 30% of all advertising space in Bristol is council-owned (8).

We suggest starting with HFSS food and drink, but allowing the list to expand in the future based on emerging evidence regarding the impacts of, for example, brands that sell predominantly unhealthy food and drink. Ultimately, people – especially children – should be protected from any advertising of unhealthy food and drink as well as brands that primarily sell unhealthy food and drink.

WHY IT'S IMPORTANT IN SCOTLAND

New restrictions on the advertising of HFSS food and drink will not come into effect in the UK until 1 October 2025[5.] Moreover, these new restrictions only cover TV and online; outdoor advertising is excluded. Therefore children will continue to be exposed to HFSS product advertising on buses, bus shelters, billboards, and at sporting events. Indeed, exposure to outdoor marketing is likely to increase once the new restrictions on TV and online marketing come into effect in 2025. A modelling study by Kantar

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[3] For example, Lothian Buses Ltd is owned by the City of Edinburgh Council (through Transport for Edinburgh Ltd), Midlothian Council, East Lothian Council, and the West Lothian Council. See Consolidated Financial Statements for the year ending 31 December 2019: https://www.lothianbuses.com/wp- content/uploads/mdocs/200622_Consolidated_Financial_Statements.pdf. However, further evaluation of Arm's Length External Organisations such as Lothian Buses Ltd is needed to understand the feasibility and likely impact of HFSS advertising restrictions.

[4] HFSS is based on the UK Nutrient Profiles Model. The council adopted the idea of "no brand is banned," meaning that products, rather than companies, were directly affected by the policy.

[5] These restrictions include a 9pm watershed for HFSS products and restrictions on paid-for advertising of HFSS products online.

estimated that this displacement from TV and online to outdoor marketing will be about 26% (9). This is concerning because outdoor marketing has been shown to be effective: repeated exposure on the way to school or work promotes the purchase of products from that brand.

A study by researchers at the University of Glasgow used Google Street View to identify 9,701 bus stops across the Central Belt of Scotland, 1,845 (19%) of which had advertisements, and linked this to accelerometer data from a subset of children in the Growing Up in Scotland study (10). The most commonly advertised products were fast food (15% of advertisements) and confectionary (7% of advertisements) (10). Children living in more deprived areas and in urban areas had greater exposure to unhealthy food and drink advertisements because they had greater exposure to bus stops (10). Similar results were observed in an Edinburgh-specific evaluation of bus stop advertising (11). Taken together, these findings suggest that advertising restrictions that target the transport network may help to address health inequalities.

In addition, no current or proposed advertising regulations restrict brand advertising. Some research has shown that advertising by unhealthy brands alone – regardless of the product advertised – is enough to promote unhealthy behaviour. For example, one study conducted by researchers at the University of Liverpool found "exposure to adverts for *'healthy' meal bundles did not drive healthier choices in children, but did promote liking for fast food"* (12).

With regards to the scale of local authority owned and/or controlled outdoor advertising spaces, a 2021 report by Obesity Action Scotland and East of Scotland Partnership and funded by Scottish Government evaluated this for four local authorities: The City of Edinburgh Council, Scottish Borders Council, Fife Council, and West Lothian Council (13). The scale varied widely across local authorities, though many unknowns remained, particularly with regards to phone boxes, wayfinders, fleet advertising, and real time passenger transport information (see Table 5 in the report adapted below in Table 1). All local authorities planned to expand the scale of their current advertising and expressed some concern regarding restricting the content of their owned outdoor advertising spaces due to potential revenue losses.

Table1
Scale of local authority owned and/or controlled outdoor advertising spaces across four local authorities in Scotland (13).

	Billboards	Bus shelters	Taxis	Public transport	Events / sponsorship
City of Edinburgh	2 large hoardings, 4 digital screens coming soon	29 digital 6-sheets	Licensing agreements	Controlled by Arm's Length External Organisations	Roundabouts, parks and green spaces, events: Oktoberfest, Christmas and Hogmanay, Edinburgh Festival
Fife	None	6 owned by Fife, 153 owned by Clear Channel	Only signage relating to taxi business is allowed	None	Roundabouts - mainly for local business sponsorship
West Lothian	Unknown	69 owned by Clear Channel 431 without advertising	Licensing agreements	None	Unknown
Scottish Borders	Insignificant outdoor advertising, owned by local authority or otherwise. Planned expansion to refuse vehicles and possibly bins, primarily for signposting and local business promotion.				

EVIDENCE OF EFFECTIVENESS

The Transport for London restrictions on advertising of HFSS products came into effect in February 2019. Restrictions covered the London Underground[6]; rail network; some buses, trains, taxis; bus stops and land outside train stations. Researchers at the London School of Hygiene & Tropical Medicine looked at trends in household HFSS purchases for 36 pre-restriction weeks and 44 post-restriction weeks in London and, for comparison, North of England (where such a restriction had not been implemented) (14). They found a relative reduction in average weekly household energy purchased from HFSS products of 1,001 kcal (7%) in London compared to North of England (14). Significant relative reductions in average weekly household purchases of fat (58 g), saturated fat (26 g), and sugar (81 g) were also observed (14). It is important to point out that these relative reductions were in the context of increasing HFSS purchases. This means that the restrictions were associated with a reduced rate of growth of HFSS purchases in London compared to North of England rather than an absolute reduction in purchases.

Changes were largely driven by reductions in chocolate and confectionery and puddings and biscuits rather than sugary drinks, sugary cereals, or savoury snacks (14). This could be because sugary drinks, sugary cereals, and savoury snacks have non-HFSS substitutes (e.g., low or zero calorie drinks). No differences were observed across population subgroups, but given the small sample size (977 households in London and 993 households in North of England), subgroup results should be interpreted with caution (14).

[6] The London Underground was also among the first public places to ban smoking, in 1987, decades before it was banned in all workplaces. See "Smoking in Public Places Investigative Committee. Scrutiny of Smoking in Public Places in London." London: Greater London Authority; 2002.

These reported changes are larger than those reported following the implementation of the UK Soft Drinks Industry Levy (average weekly household purchases of sugar declined by 30 g) (15). This suggests that restrictions on the marketing of HFSS products across transport networks has the potential to be a highly effective intervention. A modelling study estimated that the policy likely resulted in ~95,000 fewer individuals with obesity (16). And, the good news for local authorities is that advertising revenue was shown to increase by £1 million in the first quarter following the restrictions, not decrease (17).

The Bristol City Council HFSS advertising restrictions did not come into effect until April 2022, and so only results of the baseline, pre-implementation survey (conducted between January and March 2022) are currently available for Bristol and the comparator area of South Gloucestershire (8). In the week prior to baseline survey completion, 41% of respondents (53% in Bristol and 31% in South Gloucestershire) reported noticing advertisements for HFSS products (8). Younger respondents were more likely to report noticing advertisements for HFSS products than older respondents: 73% in 11-34 year-olds versus 42% in 65+ year-olds in Bristol; 45% in 11-34 year-olds versus 27% in 65+ year-olds in South Gloucestershire (8). In Bristol, respondents living in less deprived areas were less likely to see advertising for HFSS products, but this area patterning was less consistent in South Gloucestershire (8). Of the 836 advertisements on display in Bristol, 21% were on foods and 4% on non-alcoholic drinks. Thirteen percent of advertisements would be subject to the new Advertising and Sponsorship Policy (which restricts not only HFSS but also alcohol, gambling, and pay-day loans – though no current advertisements were on alcohol or pay-day loans and just 0.1% were on gambling, so most of the advertisements affected would be HFSS foods) (8).

What does this mean for Scotland? The results are likely to be smaller than those observed in London considering that 68% of London participants in the above-mentioned study typically used public transport (14) whereas just 26% of workers in Edinburgh report taking the bus to work (the highest proportion in Scotland), according to the 2011 Census (18). However, those walking to work or school may also be exposed to outdoor HFSS advertisements including on bus shelters; in 2021, 16% of working adults in Scotland travelled to work by walking and 56% of children travelled to school by walking (19).

2

UTILISE PLANNING[7] TO IMPROVE FOOD ENVIRONMENTS

HOW TO TAKE THIS LOCAL LEVER FORWARD

Apply the National Planning Framework 4 (NPF4) approach to the food environment, which includes food growing, retail and non-retail outlets, promoting a town centre first approach and consideration of clusters of outlets that may be affecting community wellbeing.

Box 2 - Resources

Scottish Government commissioned research project, "To Explore the Relationship Between the Food Environment and the Planning System"

"National Planning Framework 4"

Local Development Planning Guidance

NPF4 was adopted in 2023, and alongside local development plans, forms the development plan for the area. Local development plans will be reviewed in light of NPF4 within 5 years of its adoption. Local development planning guidance has been published to support the implementation of NPF4 and should be referred to in the preparation of local development plans. The following table (continued on the next page) summarises relevant principles from NPF4.

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[7] This local lever focuses on planning given existing evidence has largely related to planning. Local Authorities also have licensing powers covering some aspects of food premises, e.g. late hours catering and mobile street traders. There is potential for an improved licensing system to be part of the solution to improve local food environments but more work is required to understand this lever and how it could be used.

Table 2:
Relevant Principles from NPF4

For local development plan preparation	**Policy 23**	**'Health and safety'**	• Spatial strategies to seek to tackle health inequalities particularly in places experiencing the most disadvantage • Create healthier places including through opportunities for healthier lifestyles, land for food growing and allotments
	Policy 27	**'City, town, local and commercial centres'**	• Support sustainable futures for city, town and local centres • Consider where clusters of non- retail outlets may be adversely affecting community wellbeing • Consider where drive-through facilities may be acceptable in relation to local living principles and sustainable travel
	Policy 28	**'Retail'**	• Consider where there may be need for further retail provision • Identify areas where healthy food and drink outlets can be supported
	Policy 14	**'Design, quality and place'**	Development proposals will be supported where they are consistent with the six qualities of successful places, including 'healthy'
For decision making on proposed developments	**Policy 15**	**'Local living and 20 minute neighbourhoods'**	Consider the level and quality of interconnectivity including local access to opportunities for food growth and allotments
	Policy 23	**'Health and safety'**	Supporting development proposals likely to have positive effects on health and not supporting those that are likely to have a significant adverse effect on health
	Policy 27	**'City, town, local and commercial centres'**	• Supporting proposals that enhance and improve the viability of city, town and local centres • Not supporting further provision of non-retail development proposals where that would undermine the health and wellbeing of communities, particularly in disadvantaged areas, and including takeaways (which can include permanently sited vans)
	Policy 28	**'Retail'**	Support development proposals for retail in existing city, town and local centres or edge of centre areas or commercial centres if allocated for new retail development in the local development plan

WHY IT'S IMPORTANT IN SCOTLAND

One in six adults in Scotland eat out at least once a week according to a survey conducted by Food Standards Scotland in January 2023 (1,764 respondents 16+ years of age) (20). However, the food environment encompasses more than just the out of home sector.[8] The food environment is all food available to people in their surroundings. Limited data have been published on the built food environment across Scotland, which includes the number and density of all places where people can access food in their community.[9] An unpublished systematic review of studies of the UK food environment found only 21 recent (i.e., past decade) studies in Scotland that described the local food environment or evaluated the association of local food environments with diets, overweight and obesity. Nearly all studies have focused on Glasgow.

One study mapped all food outlets in Viewpark, east Glasgow in 2009 (21). They found very high availability of fast food (18 fast food outlets in an area of 11.69 sq km) as well as high availability of fresh fruits and vegetables (a majority of the nine stores in the area sold apples, oranges, bananas, onions, potatoes and tomatoes) (21). In a convenience survey of 94 residents of Viewpark, 91% reported that their main supermarket was a large supermarket outside Viewpark (21). More recently (data collected in 2018 and 2019), a University of Edinburgh PhD student thesis mapped the food environment in Whitewood, Glasgow, finding one-third of outlets were takeaways, fast food outlets and convenience stores (22).

Another study in Glasgow found clustering of quick service restaurants in more deprived areas looking at data from 2012 (23), but a fourth study in Glasgow did not find clustering of these outlets looking at data from 2003 (24). An analysis of all of Scotland using data on the locations of four popular quick service restaurants in 2005 found evidence of clustering of these outlets in more deprived areas (25). We were not able to identify more recent published data on this topic.

EVIDENCE OF EFFECTIVENESS

Given its recent publication (in February 2023), the implementation and impact of NPF4 has yet to be evaluated. Nonetheless, it is well recognised that the built food environment influences people's access to both healthy and unhealthy food (26, 27), and that planning is an upstream tool that can be used to influence the built food environment over the long-term (28, 29).

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[8] The out of home sector typically includes quick service restaurants, full service restaurants, cafes and coffee shops, pubs and bars, and bakery and sandwich shops.
[9] The Food environment assessment tool (Feat) allows for detailed exploration of the geography of food retail access in Scotland but is currently offline.

3 STRENGTHEN PUBLIC FOOD PROCUREMENT AND PROVISION STANDARDS

HOW TO TAKE THIS LOCAL LEVER FORWARD

The following should be considered in all facilities owned and/or operated by local authorities and health boards including, for example, leisure centres and National Health Service (NHS) premises providing non-patient food and drink.

1. Increase the proportion of healthy food and drink on offer to at least 75%.[10]

2. Offer price promotions on healthier options.

3. Reduce the calorie content of foods on offer – either through reformulation or smaller portions. Consider a mandatory calorie cap per item sold.[11]

4. Provide free drinking water.

It is important to take into consideration the taste of healthy food and drink on offer to ensure that the above-mentioned actions do not negatively impact uptake of meals in these settings.

This local lever is closely linked with local lever #4, *Work with the out of home sector to reduce calories on the menu*, and actions mentioned for that local lever should also be considered by facilities owned and/or operated by local authorities and health boards.

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[10] Further research is needed to confirm 75%. This number comes from a small online choice experiment of 159 Scottish adults that found when 75% of product options were healthy, 58% of participants selected a healthy option compared to just 41% of participants selecting a healthy option when only 50% of product options were healthy. See Allan et al. Nutr Health. 2021;27(3):321-7.

WHY IT'S IMPORTANT IN SCOTLAND

Annual public sector expenditure on food and drink in Scotland is nearly £150 million (30). With the passing of the Good Food Nation (Scotland) Act in 2022, local authorities and health boards have a significant opportunity to use this public spend to promote healthy diets and support healthy weights.

The health and social care workforce in particular represents one of the most important opportunities to lead by example when it comes to diet and healthy weights. Over 400,000 people across Scotland are employed in NHS, Social Care and Social Work (31) and can both benefit from healthier workplace food environments and play an import role in demonstrating the benefits of healthier food environments in general.

Significant progress has been made in recent years in Scotland towards implementing positive changes on NHS premises that improve the healthfulness of food and drink on offer. In 2015, the Healthcare Retail Standard (HRS) was introduced in Scotland and sets mandatory requirements for all retail outlets in NHS premises, including that at least 50% of available foods meet nutritional standards (32).

EVIDENCE OF EFFECTIVENESS

An observational audit of 13 outlets immediately before HRS implementation (July to November 2016) and after (July to November 2017) found that the mean number of chocolate confectionery products on offer declined, as did the number of promotions for these products (33). All hospital retail sites are required under the terms of their contract to adhere to the HRS criteria and sites are assessed by Scottish Grocer's Federation Healthy Living Programme.

It is important to not just increase healthier options, but to tackle the abundance of less healthy options. Changes in the availability of less healthy options may have a greater effect on choice than comparable changes in healthy options (34). Making healthy food the easier, more obvious option, is critical. If 50% of food options are healthy and 50% are less healthy, people will tend to choose the less healthy option. In contrast, if 75% of options are healthy, and just 25% are less healthy, they may tend to choose the healthy option. A small online choice experiment of 159 Scottish adults found that when 75% of product options were healthy, 58% of participants selected a healthy option compared to just 41% of participants selecting a healthy option when only 50% of product options were healthy (35). An audit of HRS adoption across NHS Scotland

[11] George Eliot Hospital in England has set a calorie cap of 250 kcal for confectionery and sweets and 400 kcal for pre-packed sandwiches and other savoury pre-packed meals (wraps, salads, and pasta salads).

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found that only three outlets had more than 70% of food on offer meeting HRS nutritional standards (36). This may help explain why a majority of purchased snack items between January and May 2017 in Aberdeen hospital food outlets were not healthy options (35). As stated by the authors of that study, *"Despite equivalence in the number of healthy and unhealthy (individual) products available across each retail unit as a whole, within the single-serve snack category, only 30% of unique product lines were healthy options. This indicates that consumers intending to purchase just a snack are not presented with equivalent numbers of healthy and unhealthy options; rather, they must select from a range where there is a greater variety of unhealthy options."* Many customers continue to purchase less healthy items, even when healthy alternatives are available, suggesting further interventions may be required to tip the balance towards healthier options as the norm.

A systematic review of food environment interventions to improve the healthfulness of diets of healthcare staff published before May 2017, commissioned by the behavioural insights team at Public Health England, concluded (37):

» Labelling is unlikely to be effective on its own.

» Offering a smaller size of the main meal of the day is effective – no compensatory purchasing was observed or decline in sales of the smaller-sized meal.

» Making healthier options more accessible than unhealthy options is effective. For example, putting healthier options at eye-level and putting lower-calorie options at the front in the most accessible positions.

4

WORK WITH THE OUT OF HOME SECTOR TO REDUCE CALORIES ON THE MENU

HOW TO TAKE THIS LOCAL LEVER FORWARD

Box 4 - Resources

Food Standard Scotland's Healthier Catering Guidance covering seven specific sectors: children's menus, Chinese, chip shops, Indian and South Asian, Italian, Pizza, and sandwich shops (available in multiple languages)

Scottish Government's Out of Home Action Plan and forthcoming voluntary Eating Out, Eating Well Framework which will include a Code of Practice for Children's Menus

Food Standard Scotland's MenuCal – a free tool for food businesses to provide information about the calories and allergens in their dishes

Guidance for local authorities, schools, retailers, caterers and other partners on what they can do to influence the food environment around schools: "Beyond the School Gate - Improving Food Choices in the School Community"

1. Work with the out of home sector to calculate and display the calories of menu items.

2. Encourage the out of home sector to reduce the default portion size offered.[12]

3. Work with the out of home sector to encourage the use of lower-calorie versions of standard ingredients such as lower fat mayonnaise and tinned tuna in water instead of oil.[13]

4. Work with the out of home sector to encourage the adoption of healthier cooking practices such as "shake bang and hang technique" for fried food and draining food on kitchen roll before service.

5. Work with wholesalers to enable supply of smaller portion sizes (e.g., smaller takeaway boxes and smaller fish fillets or beef burgers).

Efforts to reduce calories should be careful not to increase salt in order to increase consumer acceptability. Interventions should not have a noticeable impact on palatability, should not reduce sales, and, where possible, should try to minimise the need for special skills / training /equipment or more time than current practices. A Takeaway Masterclass offered to the out of home sector including both takeaways and restaurants is one approach of working with these stakeholders that has been shown to be acceptable in northern England (38).

This local lever is closely linked with local lever #3, *Strengthen public food procurement and provision standards*, and actions mentioned for that local lever could also be considered in the private sector.

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[12] In a survey by Food Standards Scotland conducted in January 2023 (1,764 respondents 16+ years of age), 74% of adults agreed slightly (42%) or strongly (32%) that "food establishments should offer the option of smaller portion sizes." In that same survey, half of respondents agreed that "food businesses have a responsibility to encourage people to eat more healthily" and that they would be more likely to choose a food establishment that offered healthier choices.

[13] The emphasis is on reducing fat given the higher energy density of fat compared to carbohydrates and protein. A modelling study found that a 20% reduction in fat across both manufactured and out of home food in the UK could reduce average calorie intake by 67.6 kcal/d/person, resulting in a reduction in average body weight of 2.7 kg over 5 years. See Roberta Alessandrini et al. Am J Clin Nutr 2021;113:1312-1321.

WHY IT'S IMPORTANT IN SCOTLAND

In 2021, people in Scotland, on average, took three out of home food[14] trips per week (39). Quick service restaurants, particularly fish and chip shops and Chinese takeaways, make up a large proportion of these trips (39). The taste, ease, and quickness of eating out of home are the main motivators (39). However, out of home food tends to have larger portion sizes, resulting in greater caloric intake when eating out of home more frequently as compared to in the home (40). Even for the same brand, portion sizes are larger in out of home settings versus at the grocery store (41).

An analysis of the National Diet and Nutrition Survey, combining years 2008-2014, found that food outlets[15] accounted for 26% of calories in adults 19-34 years, 24% of calories in adults 34-49 years, and 23% in adults 50-64 years (42). Since the start of the pandemic, the percent share of out of home trips that were takeaways (including deliveries) has more than tripled, with burgers, chicken meals, Chinese, fish, and pizza the top five purchased products from takeaways (39). Thus, the proportion of calories coming from these outlets is likely to be even higher today.

In an evaluation of major UK restaurant chains, the average calorie content of a fast food restaurant meal was 751 kcal and the average calorie content of meals at full service restaurants was 1,033 kcal, both higher than the recommended 600 kcal per meal for lunch and dinner (43). A more recent study found that there has been a very slight, non-significant downward trend in calorie content of restaurant meals, but, on average, calorie content remains too high (44). Thus, both takeaways and full service restaurants have lots of scope for reducing calories and helping communities achieve a healthy weight.

EVIDENCE OF EFFECTIVENESS

Evidence suggests that menu labelling can support food businesses in reformulating their products or reducing the portion size sold in order to reduce the calorie content (45). In addition, FSS has reviewed the global evidence of the impact of calorie labelling on the number of calories purchased or consumed (46). Whilst the evidence base is mixed, overall it shows a reduction in the number of calories purchased or consumed when calorie information is present (46). The Scottish Government published a consultation on mandatory calorie labelling in the out of home sector in April 2022 (47). In England, from April 2022, businesses with over 250 employees are required to display the calorie information of all items prepared and sold for immediate consumption.

[14] This includes all food and drink consumed outside the home and from takeaways consumed inside the home.
[15] Included restaurant/pub/night club, fast food outlet, coffee shop/cafe/deli/sandwich bar.

Many takeaway owners currently offer a large portion size out of a desire to offer customers "value-for-money" but there is a higher profit margin for smaller portion sizes offered at the same price. One study worked with a fish and chip shop wholesaler supplying more than 2,500 shops across northern England and Scotland to offer a smaller portion size option (48). The impact evaluation was limited, but data from seven of eleven shops that provided sales information showed that the proportion of all meals sold which were a smaller portion increased from 14% to 21% over six weeks' intervention (48). Importantly, the wholesale supplier and shop owners were broadly willing to introduce – and promote using posters (see below) – a smaller portion size option (48).
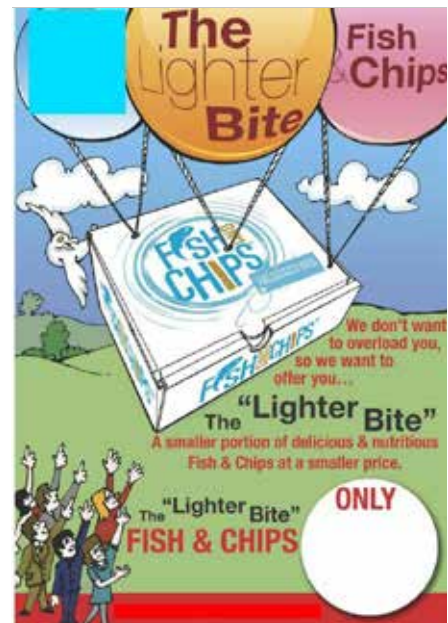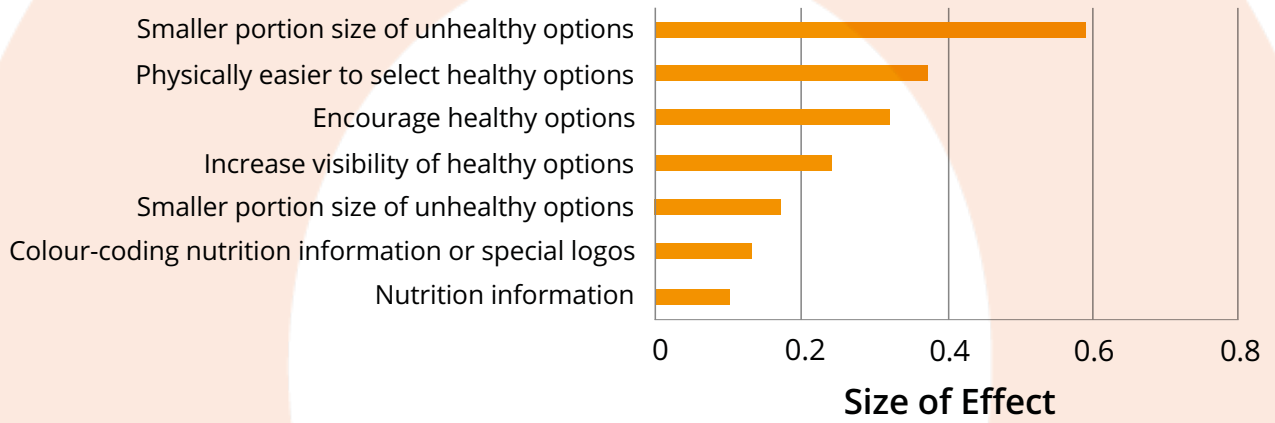

Examples of promotional posters for smaller portion sizes offered at select fish and chips shops in northern England. Reproduced without modification from (48). Licensed under CC- BY by Louis Goffe et al.

The following figure, showing data from Cadario and Chandon (49), compares the size of effect[16] on selection or consumption of a given food or drink according to different types of interventions (299 effect sizes were included). It clearly shows that providing nutrition information is less effective than physical changes – for example, providing pre-sliced fruit, placing healthier options in the "grab and go" section, using smaller takeaway boxes, or making a smaller portion the default option. To put the effect sizes in perspective, cognitive-oriented nudges like providing nutrition information result in, on average, a reduction of calories of 64 kcal whereas behaviour-oriented nudges like making the default option a smaller portion result in, on average, a reduction of calories of 209 kcal (49).

[16] Values are standardised mean difference, which is the size of the intervention effect relative to the variability in that effect.

Figure 2
Size of effect of varying intervention types (49)

Intervention	Size of Effect
Smaller portion size of unhealthy options	
Physically easier to select healthy options	
Encourage healthy options	
Increase visibility of healthy options	
Smaller portion size of unhealthy options	
Colour-coding nutrition information or special logos	
Nutrition information	

Size of Effect

5

IMPROVE UPTAKE OF SCHOOL MEALS

HOW TO TAKE THIS LOCAL LEVER FORWARD

1. Continue to provide free school lunches to children in primary 1 to 5 (P1-5).[17]

2. Continue to provide and encourage uptake of free school lunches to eligible pupils in Primary 6 to Secondary 6.

3. Remove barriers to uptake, for example, reduce queuing times.

For a flavour of what is working to improve uptake of school meals across Scotland, readers are referred to the 2021 report for the Poverty and Inequality Commission, "Tackling Food Insecurity in Scottish Schools: Case Studies of Strengthening Free School Meal Provision In Scotland."

Box 5 - Resources

Existing school food regulations: "Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations 2020"

Statutory guidance supporting the implementation of the Nutritional Requirements: "Healthy eating in schools: guidance 2020"

WHY IT'S IMPORTANT IN SCOTLAND

Overall, only 50% of pupils in Scotland eat meals (free or paid for) provided by their school, and this percent continues to decline year on year (50). The percent is substantially higher in primary school pupils (60%) compared to secondary school pupils (36%) (50). There is also substantial variability between schools, ranging from 0-100% of pupils eating meals (free or paid for) provided by their school, and between local authorities **(Figure 2)** (50).

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[17] And continue the planned roll out of free school meals to P6 and P7 as soon as local and/or national resources allow

Figure 3.

Percentage of P1-7 pupils taking school meals (free or paid for) by local authority in 2022. Data are from the Healthy Living Survey, Supplementary Table 9.
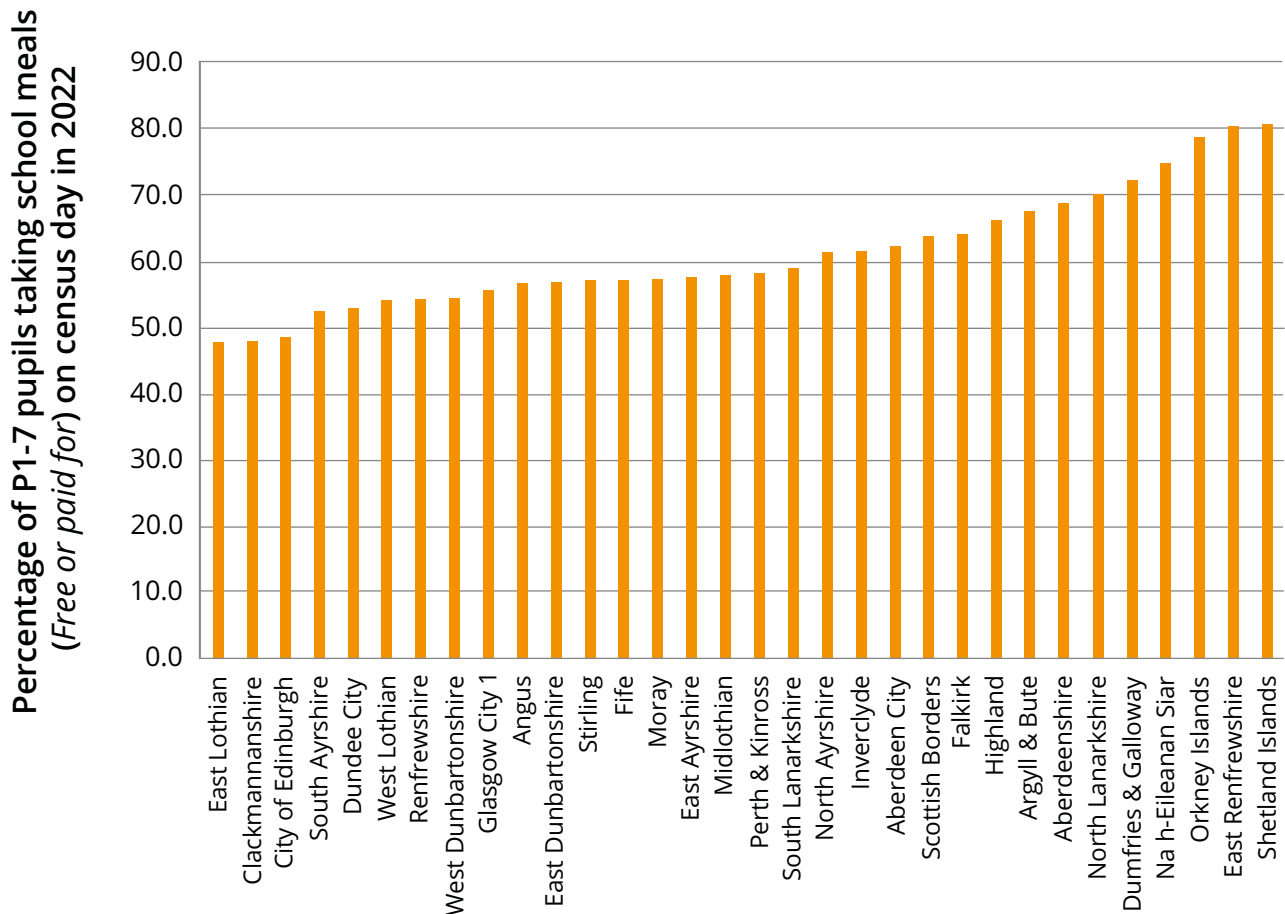
Promoting uptake of school meals is important because analyses of UK-wide data (Scotland- specific data are not yet available)18 show that children and young people who consume school lunches are more likely to meet minimum recommendations for vegetables, protein- rich foods, and fibre compared to those consuming packed lunches (51). They are also less likely to exceed recommendations for salt and savoury and sweet snacks (51). Ongoing work to assess the diets of children and young people aged 2-15 years living in Scotland will provide up-to-date information on diet quality of school lunches versus packed lunches specifically in the Scottish context.

While recent evidence (i.e., post-COVID19) is not available, before the pandemic, the purchase of unhealthy food at lunchtime "beyond the school gate" was common among pupils in Scotland (52, 53).

EVIDENCE OF EFFECTIVENESS

Research in Scotland suggests that long queuing times, poor food quality, an unwelcoming dining environment, staffing (i.e., presence of teachers in the dining area), and set dining times for each year group are some of the barriers to school meal uptake (54, 55). "Fuelled in School? A nation-wide survey of secondary school pupils' opinion on school meals in Scotland," published in 2022,[19] confirmed that these continue to be barriers to uptake in secondary schools across Scotland, particularly the long queuing times and short lunch breaks.

A briefing by NHS Health Scotland on interventions to prevent childhood overweight and obesity within schools found that improving the aesthetics of school dining areas and encouraging positive social interactions in school dining areas may encourage uptake of school meals (56). However, what interventions are effective at improving the aesthetics and social interactions in school dining areas remains unclear.

A Food Active report, "Free School Meals: What are the barriers to uptake among primary and secondary school children?" (57), cited many of the barriers to uptake mentioned above and gave the following recommendations for schools:

1. Create a pleasant dining environment.

2. Protect time for lunch.

3. Implement a staggered lunch time system to avoid long queues.

4. Involve pupils in the development of menus.

5. Adopt a system that enables pupils to obtain free school meals in a dignified and discrete way.

Several evaluations in Scotland have demonstrated that making free school meals universal increases uptake (58, 59). An evaluation of universal free school meals for P1-3 pupils in Scotland following their introduction in January 2015 found an increase of overall school-meal uptake (both free and paid) among primary pupils from 53% in 2014 to 65% in 2015 (59). The author of the evaluation concluded this overall increase was due to increased uptake of free school meals among P1-3 pupils: 79% of P1-3 pupils took a free school meal compared with 53% of P4-7 pupils (both free and paid) (59).

[19] The survey was completed by 15,582 pupils in more than 200 secondary schools in November- December 2021.

[20] A total of 846 young people aged 12-26 years (93% were aged 12-17 years) responded to the survey across 26 local authorities. The question asked: "If every secondary school pupil in Scotland was given a free school meal at lunchtime in school, would you use it? If you have left school, think back to what you would have done."

A study conducted in Scotland of the 2007-08 free school meal pilot (P1-P3) suggested that peer-group take-up of school meals reduced non-participation by 29-35%, by reducing stigma and signalling that the school meal is a desirable option (58). This remains important today because while the Education (Scotland) Act 1980 states that educational authorities must take reasonable steps to ensure that the fact that a pupil receives school lunches free of charge remains private, stigma remains a barrier to uptake among young people in Scotland according to a survey conducted by the Scottish Youth Parliament (SYP) in October and November 2022 (60). More than 80% of respondents to the SYP survey said that if universal free school meals were extended to secondary schools, they would make use of it on a regular basis (41%) or sometimes (42%)[20] (60). Around three-quarters (76%) of young people who responded to the SYP survey said free school meals would make them more likely to eat lunch at school (60).

An international systematic review[21] identified 47 studies that evaluated universal free school meals (61). Nearly all studies found positive effects on school meal uptake and that the increases in uptake tended to be largest among students who previously did not qualify for free school meals (61). Most studies also found improvements in pupils' diet quality, particularly when mandatory nutritional standards for school food and drink were present (61). Of the small number of studies that evaluated associations with body mass index, results were mixed with some finding that universal free school meals reduced the risk of obesity and others finding no significant effect (61).

Space limitations in secondary schools make logistics of increasing uptake of school meals a major challenge in some parts of Scotland. This is why a linked-up, long-term approach is needed, including utilising planning to improve food environments (local lever #2) and working with the out of home sector to reduce calories on the menu (local lever #4).

6

PROMOTE AND SUPPORT PHYSICAL ACTIVITY

HOW TO TAKE THIS LOCAL LEVER FORWARD

In 2022, Public Health Scotland published a report, "A systems-based approach to physical activity in Scotland. A framework for action at a national and local level," which presents a seven-stage evidence-based process *"designed to enable practitioners and policy makers to take forward a systems-based approach to physical activity in Scotland"* (62). In order to ensure alignment with this existing guidance, here we present verbatim the strategic delivery outcomes and associated actions from that report (see Figure 5b on pages 20 & 21) (62). Those interested in adopting this local lever should refer to that document for all other elements associated with delivery.

Strategic delivery outcomes	Associated
Active travel	• Upskill transport and planning to enhance active travel infrastructure. • Walking, wheeling and cycling infrastructure. • Engage communities in transport planning. • Road safety and traffic restrictions. • Strengthen walking data.
Active places and spaces	• Integrate urban design, transport and land use policies. • Design guidelines for public amenities. • Workforce development for planners, transport engineers and architects. • Develop guidance for National Planning Framework 4 (NPF4). • Access to quality green and open space, green networks, blue space, active recreational space, play spaces and sports amenities.

Active workplace	• Seek opportunities through health board workplace teams to provide leadership for workplace policies. • Develop national standards for workplace physical activity.
Active place of learning	• Health promoting universities framework. • Accessible activities in schools, colleges and universities. • Physical education. • Initial teacher training and in-service training. • Active classrooms and outdoor learning.
Sport and active recreation	• Enable authorities to fulfil their statutory duties, in the 'adequate' provision of active recreation and sport. • Prioritise public funds to target the least active, as well as to retain existing and returning participants. • Strengthen access to community assets – places, spaces, facilities and services across the public sector. • Maximise the public health contribution of community sport clubs. • Enhance the knowledge, skills and competencies of the sport and active recreation workforce.
Active systems	• Research, evidence and evaluation. • Data and intelligence. • Local delivery plans. • National delivery plans • Capacity. • Systems-based approach. • Financial mechanisms. • Accountability. • Leadership. • Physical activity as a human right.

Active health and social care	• Physical activity established as a core component of a world class public health system. • Apply learning from Care About Physical Activity. • Integrate physical activity into pre-service and in-service training of medics, nurses, allied health professionals and social care workers. • Engage and support the Movement for Health. • Integrate NHS Physical Activity pathway into routine care and clinical pathways. • Partnerships between NHS and physical activity providers.
Communications and public education	• National physical activity communications subgroup to coordinate targeted campaigns. • Adopt best practice principles for communications and public messaging. • Integrate communications and public education into the Active Scotland Delivery Plan.

WHY IT'S IMPORTANT IN SCOTLAND

In 2021, 69% of Scottish adults self-reported meeting physical activity guidelines,[22] continuing an upward trend since 2012 (63). The percent is similar for children with 71% meeting the physical activity guidelines (again, according to self-report).[23] Adults living in the most deprived areas of Scotland are least likely to meet the recommendations – 57% versus 77% among adults living in the least deprived areas (63).

Box 6 - Resources

Public Health Scotland: A systems-based approach to physical activity in Scotland. A framework for action at a national and local level

EVIDENCE OF EFFECTIVENESS

The evidence to support each of the eight strategic delivery outcomes in the table above is summarised in Appendix 2 of the report, "A systems-based approach to physical activity in Scotland. A framework for action at a national and local level" (62).

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[22] At least 150 minutes of moderately intensive physical activity or 75 minutes vigorous activity per week or an equivalent combination of both.
[23] At least 60 minutes of activity on average per day.

7 PROTECT, PROMOTE, AND SUPPORT BREASTFEEDING AND HEALTHY DIETS FOR CHILDREN

HOW TO TAKE THIS LOCAL LEVER FORWARD

Improving nutrition of infants and in early childhood is key for ensuring a healthy weight as they grow into adults. This involves (i) protection, promotion, and support for breastfeeding, as well as (ii) the appropriate and timely introduction of complementary foods, and (iii) ensuring a wide and varied healthy diet throughout early childhood.[24]

With regards to (i) breastfeeding, "Becoming Breastfeeding Friendly Scotland: report," published by the Scottish Government in 2019, includes a priority list of eight recommendations, almost all of which have relevance to local areas (pasted verbatim from the report):

1. *Develop and implement a breastfeeding advocacy and promotion strategy which brings together and builds upon activity happening at local, regional and national levels, in order to build awareness of and support for breastfeeding at multiple levels from community to government. This will include building a cohesive network of Scottish advocates and developing a coordinated events calendar building on existing activity.* (page 11)

2. *To gain and maintain support from policy officials as well as other influential officials (for example, councils and the relevant Royal Colleges) in order to collaborate and formalise efforts for legislative change and advocacy for breastfeeding.* (page 17)

3. *Provide guidance to employers and inform mothers and families about their rights.* (page 27)

4. *Scottish Government Ministers, officials, and all public sectors employees should adopt the International Code of Marketing of Breastmilk Substitutes and subsequent relevant WHA resolutions principles within their work place and in dealings with the public and private sector through a Code of Conduct.* (page 32)

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[24] This local lever covers children up to their third birthday in order to align with the Framework for Improving Maternal and Infant Nutrition. Scottish Government advice is that there are nutritional benefits for infants to be breastfed for up to 2 years of age and so the scope should go beyond infants (which is up to 1 year). Moreover, as discussed in the Framework, nutritional requirements of children vary between 1-3 years and 4-6 years, and so a practical decision was made to limit the scope to up to 3 years.

5. *There are nationally coordinated, consistent learning outcomes for all groups who care for mothers and babies, both in service and pre-registration, and also volunteers and lay supporters. These outcomes are based on a competency framework for each group and underpinned by training and mentorship, supervision and monitoring; together these will ensure consistency for each group and appropriate, quality assured and standardised provision.* (page 35)

6. *Women have equitable access to high quality, evidence-based models of care through sufficient coverage, spread and awareness of audited and registered core, peer and specialist support providers. Well developed and maintained referral structures are in place to ensure women receive the right information and support where and when they need it.* (page 41)

Box 7 - Resources

Scottish Government's recommendations for actions which can be taken by NHS Boards, local authorities, and others to improve the nutrition of pregnant women, babies, and young children: "Improving maternal and infant nutrition: a framework for action"

Scottish Government's recommendations for the continued protection, promotion, and support for breastfeeding: "Becoming Breastfeeding Friendly Scotland: report"

Best Start Foods payments that can be used to buy healthy food and drink like milk or fruit

Public Health Scotland's nutritional guidance and food standards for early years childcare providers: "Setting the Table"

Public Health Scotland's "Fun first foods: An easy guide to introducing solid foods" (available in multiple languages)

First Steps Nutrition Trust's "Eating Well Sources"

Parent Club Resources

The "Improving Maternal and Infant Nutrition: A Framework for Action," published in 2011, highlighted that although there has been a national and international focus on breastfeeding, there has not been the same focus on nutrition of young children beyond milk feeding. A review published in 2019 by NHS Greater Glasgow and Clyde provided an update on any new and relevant studies published since 2011, and came to a similar conclusion regarding the lack of evidence on effective interventions to promote nutrition of young children beyond milk feeding (64).

Therefore, with regards to (ii) the appropriate and timely introduction of complementary foods and (iii) ensuring a wide and varied healthy diet throughout early childhood, local areas should:

1. Continue activities under the Framework to encourage the introduction of healthy complementary foods at around six months of age and to gradually increase the amount and variety of foods such that by 12 months, food rather than milk is the main part of an infant's diet.

**2.** Continue to promote Best Start Foods.[25]

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[25] Over the period April 2020 to June 2021, 23% of eligible people had not claimed the benefit.

WHY IT'S IMPORTANT IN SCOTLAND

The percentage of babies born in Scotland who are breastfed has increased steadily over the past 20 years (65). In 2021/22, 65% of babies were breastfed for at least some time after their birth (65). However, there are important disparities in breastfeeding rates: babies born into the most deprived areas of Scotland are substantially less likely to be breastfed (40%) compared to babies born into the least deprived areas of Scotland (73%) (65).

With regards to appropriate and timely introduction of complementary foods, Scottish Government policy recommends that complementary foods should be

Figure 4.

Disparities in Breastfeeding Rates in Scotland

Percent of babies in Scotland 2021/22
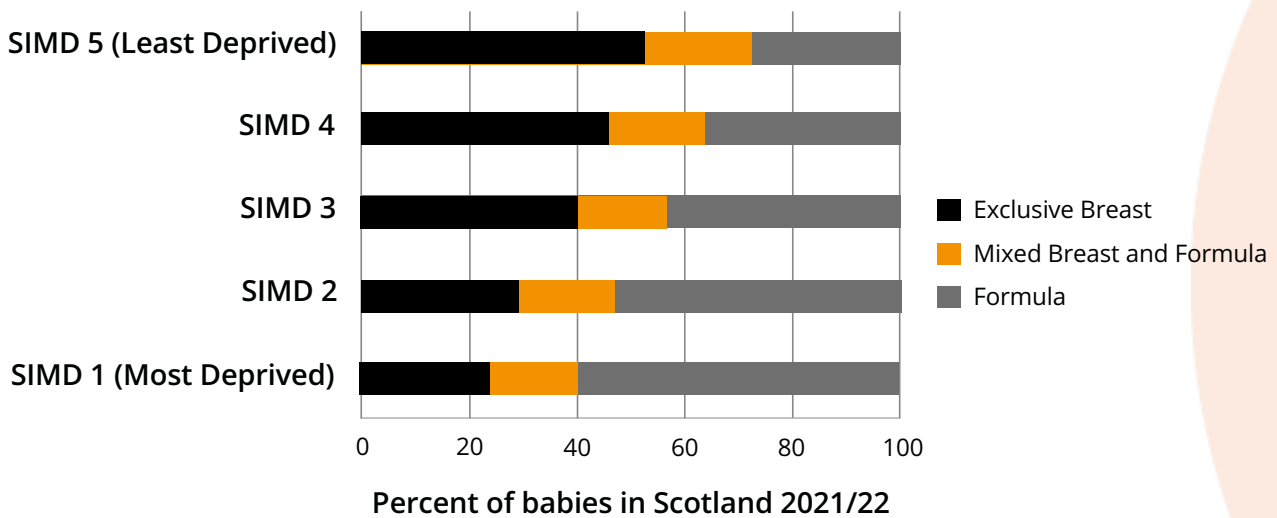
introduced to infants around six months of age (66). Some infants may be introduced to complementary foods earlier than six months for a variety of reasons, however, current recommendations state that this should never happen before four months (66). The 2017 Scottish Maternal and Infant Survey (67) found that 96% of respondents reporting waiting until four months to introduce complementary foods and 46% reporting waiting until six months or later. Respondents who lived in the most deprived areas were less likely to wait until six months or later (44%) than respondents who lived in the least deprived areas (50%). The use of commercial baby foods (for example, pouches, snacks, jars, tubs, bars, etc.) is common in Scotland: 41% of respondents reported giving these items to their infant five days or more per week. Respondents

who lived in the most deprived areas were more likely to give commercial baby foods to their infant on a daily basis (38% versus 25% in the least deprived areas) and less likely to give fruit (61% versus 76%, respectively), vegetables (44% versus 61%, respectively), and dairy (33% versus 44%, respectively). Treats (for example, chocolate buttons, ice cream, crisps, or cheese puffs) were given to their infant on a daily basis by 29% of respondents. Respondents who lived in the most deprived areas were more likely to report giving treats to their infant on a daily basis (39%) than those who lived in the least deprived areas (18%).

EVIDENCE OF EFFECTIVENESS

Studies, including in the UK, have shown that children who are breastfed have a slightly lower risk of developing obesity in childhood. For example, an analysis by the Office for Health Improvement & Disparities found a small inverse association between the percent of children breastfed in a local area and the prevalence of children living with obesity and overweight at ages 4-5 years (68). This was independent of other factors such as deprivation, maternal age, and health behaviours during pregnancy (68). These findings are consistent with 26 previous studies, which together found that one month of breastfeeding was associated with a 4.0% decrease in risk of obesity among children aged 2-6 years (69).

Evidence from the Millennium Cohort Study also suggests that infants who receive complementary foods before four months are more likely to be overweight at 3 years of age (70). In addition to the timing of introducing food, the type of foods and drinks given to infants is also important for later health and establishing eating habits.

A Cochrane review published in 2017 identified 73 trials of breastfeeding support (71). They concluded that providing extra organised breastfeeding support to women significantly increases the duration and exclusivity of breastfeeding (71). The effectiveness of programmes is higher in places with high initiation rates (71). Characteristics of effective support included: offered as standard by trained professionals or lay/peer supporters or a combination of both during antenatal or postnatal care, ongoing scheduled visits so women can predict when support will be available, face-to-face support, and tailored to the needs of the population group (71). The aforementioned 2019 review by NHS Greater Glasgow and Clyde concluded *"Evidence from the literature and learning from local models suggest that the most effective, evidence-based strategy is a combination of health professional and trained volunteer delivering support to women from the antenatal period through hospital stay and into the postnatal weeks at home"* (64).

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¹ Throughout this report, "unhealthy food and drink" primarily refers to food and drink high in fat, sugar, or salt.

The effectiveness of interventions to improve infant and young child feeding practices has been mixed. Two recent systematic reviews evaluated the evidence for interventions to improve diets and prevent overweight and obesity in children under 2 years of age (72, 73). They concluded, *"Improving dietary intake at this age appears challenging based on a relatively limited number of studies"* (72) and that early benefits on child's body mass index are not sustained (73).

This stage of life is a good opportunity to promote whole family healthy eating habits (64). Evidence from the Southampton Women's Study suggests that the quality of an infant's diet at six and 12 months is determined by the quality of the mother's diet (74), thus interventions that improve mothers' diets could have an impact on infant diets. However, more research is needed to understand "what works."

Best Start Foods, which replaced the UK Healthy Start Vouchers in Scotland from August 2019 with the transition complete by March 2020, was designed to provide financial support for low income families with young children to access nutritious food. It is one of a range of Scottish Government policies set out in the Tackling Child Poverty Delivery Plan. An evaluation involving 33 in-depth interviews with Best Start Foods recipients across Scotland conducted between December 2021 and February 2022 found that the programme has enabled mothers and children to eat more healthy foods (75).[26] *"For example, recipients purchase healthier snacks for their children, instead of processed foods like crisps, and some use payments to experiment with new healthy recipes. Recipients also say the benefit gives them more freedom to let their children try a greater range of healthy foods without worrying about wasting money or food"* (75). Continued evaluation of Best Start Foods will help establish its impact on infant and young child diets and healthy weight.

[26] It should be noted that given the nature of the data collected, findings are based on the participants' perceptions of impact, rather than objective measures of impact and may not be generalisable to all Best Start Foods recipients.

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APPENDIX

LIST OF DOCUMENTS REVIEWED FOR INITIAL LOCAL LEVER LIST

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In addition to the above-mentioned documents, we reviewed Food Active position statements and whole-systems approach to obesity case studies from England and Scotland published by the Local Government Association, Public Health England, Obesity Action Scotland, Public Health Scotland, and the National Children's Bureau.