



Public Health
England



Strategies for Encouraging Healthier 'Out of Home' Food Provision

Annexes: evidence, tools, resources,
local practice examples and guidance



About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

This document contains supporting information for *Strategies for Encouraging Healthier 'Out of Home' Food Provision: A toolkit for local councils working with small food businesses*

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D1 The evidence base

The evidence base is divided into two sections.

D1.1 Summarises the evidence on the nature of the obesogenic environment and its impact on the consumption behaviour of children, young people, and their families.

D1.2 Summarises the evidence on different types of intervention.

D1.1 The obesogenic environment

i. Current day lifestyles and eating habits

Consuming food from outside the home is now a regular feature of our increasingly busy lifestyles. An analysis of the UK National Diet and Nutrition Survey (2008-12) found that more than a quarter of adults and a fifth of children ate out once or more a week, and one fifth of adults and children ate takeaway meals at home once per week or more.(1) Snacking 'on the go' has also been increasing, with a recent Key Note report identifying that the UK snack food market had grown by 29.7% between 2010 and 2014.(2)

ii. The obesogenic nature of food eaten outside of the home

Eating out-of-home foods, and in particular fast food, is associated with higher energy and fat intakes.(3,4) The consumption of fast foods has been associated with higher Body Mass Index (BMI) scores, higher body fat scores and increased odds of being obese.(5) Over the last 20 years portion sizes have increased,(6) with a West Midlands study showing that consumers were exposed to large portion sizes and high levels of fats and salt in takeaway foods. Over 30% of samples exceeded the previously existing children's Guidelines Daily Amount (GDA) for total fat and saturated fat and 27% of salt analyses exceeded the previous salt GDA.(7) Similar analysis of chip portions from takeaways in the London Borough of Tower Hamlets found that some had levels of trans fats that were nearly 90% of GDA.(8)

Young people are exposed to unhealthier food and drink in many out-of-home environments. For example, one survey carried out in 2012 in Sheffield found that the majority of products placed at children's eye level at convenience supermarket checkouts were unhealthier food and drink options.(9) An analysis of nutritional composition of reported foods consumed by young people found that food products

sourced from specialist outlets, convenience stores and retail bakers had the highest energy density. Food from retail bakers and 'takeaway and fast food' outlets were richest in fat while vending machines and convenience stores showed the highest percentage of energy from sugar.(10). The frequency that children and families visit such outlets is therefore important. Cafes and vending machines in leisure centres, many council-owned, have been found to offer low proportions of healthier food and drinks.(11) In a study of 67 leisure centres and health clubs in London, it was found that only 0.4% of snack options on sale in public venues and 2.3 % in private venues would be permitted in the school environment.(12) In the retail sector price promotions are widespread, and these have a tendency to encourage the purchase of higher sugar foods.(13)

iii. What do children buy, where, and why?

There is particular concern about the less healthy nature of much of the food and drink that children and young people consume outside the home. Parental influence tends to diminish as children get older and adolescents exercise increasing control over their food choices.(14) Secondary school pupils often buy food from a range of outlets in the school fringe for their lunch or, on their way to and from school. A Scottish study of secondary school pupils' purchases found that some 75% brought food or drink beyond the school gate at least twice a week.(15) Sandwiches and drinks with added sugar were items most commonly purchased, followed by confectionery and low calorie or no added sugar drinks.(15) Studies elsewhere in the UK have found that young people buy food from a variety of different sources including convenience stores, retail bakeries, takeaways and fast food outlets and vending machines.(10) Many pupils make purchases on the way to or from school(16) and the food and drink items that can be purchased very cheaply within the school fringe tend to be high in energy, fat and sugar.(17) Fast food takeaway studies have noted that those near schools often target children with cheap 'kids' meal deals'. One study found outlets offering four fried chicken wings for £1, or a large portion of chicken and chips for just £1.99(18) undercutting the price of the average secondary school lunch.

Snacking and eating meals on the go can lead to poor eating habits. Children sometimes skip lunch to save money which can be spent after school at fast food outlets.(16) A large scale (n=10,645) study of secondary school children from 30 schools in one large UK city found that 2.9% reported never eating regularly and 17.2% reported daily consumption of junk food.(19)

Children and young people make deliberate choices about what to purchase and where. School meals can be unpopular and long queues in the canteen can encourage pupils that are allowed out at lunchtime to purchase snacks or fast food from local outlets.(16) Such outlets can offer 'preferred' food and drinks, which may not be for sale in

schools.(15) “Wanting to be with friends” and emulating peers has been found by a number of studies to be a key factor in purchasing decisions.(86,88)

iv. The food environment around schools

Studies show that food outlets increasingly cluster around schools providing numerous opportunities for pupils to purchase energy dense foods.(16,20). A small longitudinal study of 29 secondary schools in East London found a significant increase in the number of takeaways, grocers and convenience stores within 800m of a school, between 2001 and 2005. This had a small negative effect on adolescent diet with a decrease in average healthy and an increase in unhealthy diet scores.(21)

Proximity to schools is suggested to be a key factor in secondary school pupils decisions about where to purchase food,(15) but the evidence is equivocal.(17)92) A systematic review, of 30 studies, found very little evidence that the retail food environment around schools affected food purchases and consumption. The review noted that most of the studies did not consider the whole journey to school which the authors concluded was an important omission.(23)

v. Does greater access to food outlets lead to increased consumption and obesity?

A number of studies have looked at whether greater access to food outlets, and in particular fast food outlets, is associated with increased consumption of unhealthy food and increased risk of obesity. Findings are often conflicting, in part due to the differing methodological approaches adopted, but also as a result of the complex mix of influences involved. A study of 5,442 adults in Cambridgeshire and their exposure to takeaways at home, work and along commuting routes, found that access to outlets was positively associated with takeaway consumption,(24) which was in turn strongly associated with increased body mass index and greater odds of obesity. In contrast a recent study in Leeds, which looked at the number and proximity of supermarkets, retail food outlets and takeaways, around the home, school and on commuting routes to school, found no evidence of an association between the number of food outlets and childhood obesity.(25)

A wide range of factors, apart from the proximity of food outlets, will have an influence on consumption patterns. Living near a fast food/convenience store was just one of twelve correlates/determinants, identified by one systematic review as being associated with higher sugar sweetened beverage (SSB) consumption.(23)

vi. The links between deprivation, local food environments and health inequalities

The Marmot Review highlighted the link between health, obesity and social inequalities.(26) Obesity was shown to be linked to deprivation across all age groups. The National Child Measurement survey for 2015-16 found that obesity prevalence for children living in the most deprived areas was more than double that of those living in the least deprived areas.(27) The difference in obesity prevalence between children attending schools in the most and least deprived areas has increased over time. In 2015/16 the difference in the reception year was 6.2 percentage points compared to 4.6 percentage points in 2007/08.

PHE mapping of data on hot food takeaways and deprivation across England shows an association between the concentration of fast food outlets and areas of deprivation.(28) Similarly, a study in Newcastle of 400m buffer zones around 10 primary schools found that food outlet frequency was highest in the most deprived school fringe areas.(29)

A large English cross-sectional study quantified the association between the weight status of children aged 4-5 and 10-11, characteristics of the food environment, and area deprivation found a positive association between the density of unhealthy food outlets and the prevalence of overweight and obesity. However, the prevalence of fast food and other unhealthy food outlets only explained a small proportion of the observed associations between weight status and socioeconomic deprivation.(30)

A 2010 analysis of data on take home food and beverage purchases, from 25,674 British households, showed marked differences in eating habits between groups of different socio-economic status (SES). Lower SES groups generally purchased a greater proportion of energy from less healthy foods and beverages than those in higher SES groups.(31)

Qualitative studies of low income populations suggest that it is not just access to fast food that explains poor dietary habits. Parental accounts of feeding pre-school children in two UK low-income populations showed that the pressures of modern life, particularly lack of time and the need to manage on a restricted budget, accounted in part for children's poor eating habits.(32) In a further study, parents identified triggers which led to unhealthy dietary choices such as reliance on fast food outlets due to; shift work, lack of access to personal transport, inability to cook, their own childhood dietary experiences, peer pressure and familial relationships.(33) These factors may help explain why children living in less affluent households are more likely to eat takeaway meals at home than those from more affluent households.(1)

D1.2 Evidence on interventions designed to encourage a healthier out of home food offer

The evidence regarding the effectiveness of different types of interventions designed to encourage a healthier out of home food offer is very limited. However, a summary is provided of existing knowledge to help inform decision making.

i. Comparing the impact and cost effectiveness of different types of intervention

Interventions vary in the extent to which they encourage behaviour change. Although information and education are solid foundations for improving diet, the growing body of evidence suggests that more structural changes are needed to achieve sustained behavior change. The McKinsey Global Institute report *Overcoming obesity: An initial economic analysis* (2014) measured the impact of a variety of different interventions, using DALYs (disability-adjusted life years—saved) and their cost effectiveness. It showed that portion control could be the most cost effective type of intervention. Reducing the size of portions in packaged foods, fast food restaurants, and canteens was estimated to save more than two million DALYs over the lifetime of the 2014 population, about 4% of the total disease burden attributable to high BMI.(34) Product reformulation was also identified as being more likely to deliver change than public health campaigns alone.(35)

A systematic review of nutrition interventions targeting vending machines found that reducing price or increasing availability increased sales of healthier choices, while the results of point-of-purchase nutrition information interventions showed only small changes in purchasing.(36)

PHE's recent report *Sugar the evidence for action*(13) reviewed the evidence regarding the amount of sugar we eat, where it comes from, the health issues associated with this and the benefits in reducing our intakes. Using an analysis of the evidence, to draw conclusions about what drives our consumption it offered a number of suggested actions that could be implemented to change our sugar intakes. Those relevant to local authorities include encouraging all businesses in the out of home food sector to reduce price promotions on products with high sugar content, gradually reduce the level of sugar in everyday food and drink products, combined with reductions in portion size, and introduce a price increase of a minimum of 10-20% on high sugar products. The report also advocated the promotion of the GBSF, and the delivery of accredited training in diet and health to all of those who have opportunities to influence food choices in the catering, fitness and leisure sectors and others within local authorities.

In 2015, Scientific Advisory Committee on Nutrition (SACN) published new dietary recommendations for sugars, to reduce the amount of 'free sugars' (added sugars) consumed, so they make up no more than 5% of daily energy (calorie) intake (37) and it

is estimated that reducing sugar intake to the recommended maximum target of 5% total dietary energy, could prevent 4,700 premature deaths and save the NHS around £576m per annum.(13)

A further systematic review of a range of interventions designed to encourage healthier diets found that 'upstream' interventions, which sought to influence the prices of food (such as taxing 'unhealthy' food or subsidising 'healthier' foods), appeared most likely to decrease health inequalities. 'Downstream' interventions targeted at the individual, particularly dietary counselling, appeared most likely to increase health inequalities.(38) Interventions involving more structural changes to the environment, as opposed to those targeting individual-level behaviour change, have also been found to be more effective for lower socio-economic groups.(39) Education and information are an important foundation for interventions for improving diet. However, product labelling for example, appears to be less effective with less educated individuals who may struggle to understand the information provided.(40)

These findings highlight the importance of carefully considering the type of intervention most likely to be effective within the specific local context.

ii. Planning, leases and licences

Evidence about the effectiveness of using the planning regime and legal powers has yet to be published. There is however, a growing body of evidence on the result of appeals where planning permission has been refused for new hot food takeaways. This suggests that appeals are more likely to fail when the local authority has evidence-based local policies to promote health and wellbeing, and town centre vitality, and can demonstrate the adverse effects a new takeaway might have on these.(41)

The literature has tended to focus on what could be done rather than the impact of doing it.(27,28,109) Rather, studies have emphasised the importance of planners being involved in public health policies,(44) and have highlighted the opportunities for limiting the proliferation of new hot food takeaways.(42)

Few studies have considered the opportunities leases and licences offer to improve the healthiness of the food environment. However, a review(43) of the legal powers at local authority's disposal noted that local authorities could:

- "control" fast food vans by designating streets as requiring a 'consent' to trade under the Local Government (Miscellaneous Provisions) Act 1982 (LGMP Act) Sch. 4 Sect 2. (1) and introduce a policy refusing consent for unhealthy food vending and/or restricting location and hours of operation
- require healthy choices as a condition of a licence/consent to trade under the LGMP Act

iii. Healthier catering initiatives

The evidence on the impact of healthier catering initiatives on diet and obesity is relatively unclear. Newcastle and Durham University conducted a systematic mapping and evidence synthesis of 75 interventions in England that aimed to promoting healthier ready-to-eat meals (to eat in, to take away, or to be delivered) sold by specific food businesses. Thirty of these interventions included some form of evaluation but were generally limited in scope (many were simple assessments of acceptability), of low methodological quality, and not sufficiently robust for any clear conclusions to be drawn on the effectiveness of these types of intervention.(45)

A further, recent survey, which collected data from 23 different UK healthier catering initiatives suggested that schemes which focused on changes that businesses could easily make and which did not impact on profitability were likely to be more acceptable. (46) A key barrier to working with takeaways was their relatively limited menu which had less scope than the menus of restaurants for adopting healthier eating criteria. Targeted initiatives focused on a small number of changes, such as salt reduction and healthier frying practices, were more likely to be successful with these type of businesses.

A successful example of a targeted initiative is the CASH (Consensus Action on Salt and Health) scheme to encourage pizza outlets to reduce the salt in pizzas. This developed a toolkit including an information booklet with five simple steps to reducing salt in pizza.(47) It was piloted with 20 independent outlets and analysis of pizza samples showed that the intervention led to an average reduction of between 10.5 and 13.8 percent salt per pizza.

Other local evaluations have found that businesses operating in more affluent areas generally find it easier to adopt the healthier catering practices advocated than those trading in more deprived areas where markets are often highly competitive and price sensitive.(48)

iv. Interventions with corner shops and convenience stores

Most interventions with convenience stores, and subsequent impact evaluations have taken place in the US. A systematic review(49) of grocery store marketing initiatives suggested that key steps to success included:

- an increase in the variety of healthier foods, but not so much that consumers get confused
- increased availability – in particular more shelf space
- promotional coupons and discounts which encourage the less affluent to purchase healthier foods

- aisle management – the proximity of categories to one another can influence purchasing, that is, putting healthy food in other food areas

However, the review also noted that consumer differences and type of shopping behaviour have a significant influence on the effectiveness of any marketing strategy.

In 2008 the UK Department of Health established the Change4Life Convenience Store Programme. This aimed to increase retail access to fresh fruit and vegetables in deprived, urban areas, by providing existing convenience stores with a range of support and branded point-of sale materials and equipment. An evaluation of the scheme found that while it led to an increase in the supply and purchase of fresh fruit and vegetables the grant to cover 50% of the cost of a chiller cabinet was a major incentive; the intervention was unlikely to have a longer term effect on consumer behaviour, and the small store size meant retailers could not compete with supermarkets on the price of fresh fruit and vegetables.(50)

A variation on the Convenience Store Programme, The Buywell Scheme, ran from 2009 to 2010 with fifteen convenience stores in some of London's most deprived areas. This led to a 60% increase in fruit and vegetable sales and an increase in consumer consumption of 23% to 54%.(51) The delivery of the initiative cost £123,000, that is an average of £8,200 per store. The scheme has continued (with much reduced funding) in a number of local authority areas (including the London Boroughs of Tower Hamlets and Islington) and has been linked to the use of the NHS Healthy Start Vouchers. (See local practice example in Annexe D4.)

Evaluation of a similar scheme, the Alexandra Rose Charities Rose vouchers for fruit and veg which provides families and pregnant women with £3 worth of Rose Vouchers per week per child to spend on fresh vegetables and fruit at markets, produced similar findings.

v. Initiatives with children's centres and nurseries

A number of studies show that providing nutritional training for childcare practitioners leads to healthier menus in childcare settings and healthier consumption patterns by children. An Australian study found that parents of children at centres which had gained accreditation for complying with the government's healthy eating guidelines, reported that their children ate more healthy food choices at home, than parents of children attending non-accredited centres.(52)

In the UK, the HENRY (Health Exercise Nutrition for the Really Young) scheme involved training childcare centre staff to work more effectively with the parents of preschool children around obesity and lifestyle. An evaluation of the first 12 centres to be trained found that HENRY training was associated with considerable changes to the centre

environment. While the main focus of the programme was on training staff to work with parents on issues relating to children's eating habits, it also led to changes to centre policy and practice. This included provision of age-appropriate portion sizes, serving plates and utensils and the introduction of healthy snacks. Kitchen staff were also trained in healthier catering practices leading, for example, to a reduction in the amount of fat in meals.(53)

Evaluation of the Children's Food Trust's Eat Better, Start Better programme(54) has consistently shown that all outcomes have been achieved. Early years settings taking part significantly increase their knowledge, skills and confidence to provide healthy food for younger children and to monitor their own food provision. Audits demonstrate an improved approach to, and provision of, food in childcare settings, with a significant increase in the number of guidelines 'met' after taking part in the training. Families reached through cooking sessions make small but significant shifts away from less healthy food at home and they report feeling more confident to plan meals and cook together.

vi. Using 'nudge' strategies to influence behaviour change

The use of 'nudge' strategies in a range of government policy areas has been popularised by the highly influential book Nudge.(55) This text, and the UK's subsequent Mindspace report,(56) have promoted the idea that behaviour can be influenced by altering the environments in which people make choices (the choice architecture). The literature has particularly focused on interventions that involve altering micro environments to cue healthier behaviour. These typically require minimal conscious engagement. For example, changing the size of plates, bowls or glasses has been shown to alter the amount consumed.(55, 56, 58)

Since 2012, the government's Behavioural Insights Team has been promoting a shorter, simpler mnemonic – EAST (see Section B4.2). The EAST framework encourages the development of interventions in a way that makes achieving the desired behaviour: Easy, Attractive, Social and Timely. Examples of how this approach has been applied in practice are given in the Behavioural Insights Team guide, EAST Four simple ways to apply behavioural insights.

Evidence from trials in workplaces and college canteens, as well as a few studies undertaken in food outlets frequented by the general public,(51,121) suggests that changes to the physical layout of stores and menus, and/or size of portions plates and packaging can encourage or make it easier for consumers to opt for healthier choices.(51,52,53,57,58) Priming (through subtle cues), promotions or signage have also been shown to be effective in increasing the attractiveness of healthier options.(58,60) Stressing the popularity of products (presenting them as the norm)(67) and prompting consumers to opt for healthier choices at the point of purchase(68) has

also been shown to deliver change. Strategies that can be tried with local food outlets are summarised in section B4.2 of this toolkit.

A recent large-scale scoping review has suggested that the evidence base to support altering choice architecture as a population health strategy is currently weak. Few studies have reported the long-term durability of behavioural effects of interventions or how the effects differ between social groups.(69) Similarly, a systematic review of studies which had considered the effects of choice architecture interventions on vegetable consumption among adolescents found the results were inconclusive and the majority of studies weak or of moderate quality.(70)

Nevertheless, this body of research provides some suggestions for ways in which food outlets could make changes that might influence consumer behaviour. Many of these are not difficult to adopt and would not have an adverse effect on outlets profitability. However, further evidence from local studies with outlets in the UK suggests that the effectiveness of such strategies is highly context specific. For example, keeping the salt shakers behind the counter is more effective in pizza outlets and kebab shops compared to fish and chip shops, where people are used to sprinkling their chips with copious amounts of salt.(71)

vii. Working with schools

The compulsory standards for school food, phased in since 2006, have had a positive impact on the type of food provided, chosen and consumed, in both primary and secondary schools.(72,73) However, the latest Annual Survey of Take Up of school lunches in England, conducted in 2012, suggests that these are eaten by only 46% of primary school pupils and 40% of secondary school pupils. Most of the remaining pupils bring a packed lunch, although in some secondary schools pupils are allowed off-site at lunchtime.(74)

Children who leave school at lunchtime to purchase food are more frequently exposed to opportunities to buy high calorie, high fat and high sugar foods and or drinks, than those who remain on school premises and eat school food. The lack of school meal popularity and long queues in the canteen have been suggested as part of the reason why many pupils prefer to purchase snacks or fast food from local outlets.(16) Initiatives to improve pupils eating habits therefore need to focus on both the 'in-school' and 'out of school' food environment.(75)

In Brighton and Hove research with local schools found that the majority had developed healthier menu options and incentives to encourage pupils to choose these more often. The specific school policy influenced the numbers of pupils leaving the premises at lunchtimes. While healthy options were on offer they could only be "successful" if they

were accepted by pupils. One school surveyed felt that its canteen was no longer profitable since the introduction of its healthier menu.(76)

The Takeaways Toolkit(77) suggests that schools can adopt a number of policies to encourage pupils to purchase their lunch from the school canteen. These include:

- making the school canteen environment more attractive, with shorter lunch queues, music and improved decor
- adopting cashless systems to speed up food service and remove the need for pupils to be given cash for their lunch which may then be spent outside the school gate on less healthy alternatives
- closed gate/onsite policies
- offering meal deals or free school meals

Scottish guidance 'Beyond the School Gate' – Improving food choices in the school community,(75) provides practical advice on how local authorities and schools can work together to positively influence the food environment outside schools to better support children, young people, and the wider community, to make healthier choices. It recognises that improving the food environment in and around schools is a considerable challenge, there is no quick fix to this complex issue.

Change requires a combination of interventions, including community planning and stronger partnership working between local outlets and schools to provide healthier options for children and young people. Food outlets need to prioritise health through responsible marketing and employee development. Environmental health and public health teams need a stronger health improvement focus, linked to local authority licensing and planning decision making.

The guidance poses key questions to local authorities and schools including:

- how local authorities involve local schools, outlets and the wider community in the review of the local development plan?
- to what extent do schools work with partners (such as local food outlets) to support children and young people to make healthier food choices outside of school?
- to what extent do schools engage with local retailers and caterers in relation to healthier food provision?
- do retailers engage with local schools and what form does this engagement take?
- what healthier options do retailers provide as part of any meal deals aimed at pupils?
- how do retailers promote the purchase of healthier foods to children?

viii Working with the supply chain to assist healthier procurement

Several studies have found that outlets find some healthier changes difficult to make because of the nature of their supply chain. Outlets are often restricted by having to choose their supplies from the content of a wholesalers' catalogues.(78) Suppliers can charge more for healthier products or do not stock them, for example, low fat spreads and dressings in the smaller sizes required.(79) Fast food outlets have also been found to rely on free chiller cabinets from drinks manufacturers, but in return they are expected to keep the drinks cabinet 75-85% stocked with branded drinks.(71) Similarly, the choice of food supplied by the private companies stocking vending machines in leisure centres has been found to be very limited.(11)

Suppliers are themselves constrained by the nature and price of goods in the global commodities market. Selling healthier foods may be unprofitable in the short-term, but research with food service suppliers, in recreational facilities in Canada, found that those supplying healthier products saw the potential for long-term gain. They were willing to sacrifice short-term profits to remain on the leading edge of market trends. However low demand for nutritional guideline compliant products, and competitive pressures were seen as a significant barriers to change.(80)

In England the public sector spends £1.2bn a year on food and drink. Local councils could require their suppliers to adhere to healthier food and catering guidelines such as the Government Buying Standards for Food and Catering Services (GBSF).(81) The GBSF are mandatory for central government departments and their agencies but also recommended more widely across the public sector and could be written in to contracts and/or used to monitor and hold providers to account. For example, a collective public sector procurement initiative led by the London Borough of Havering ensures that contracts deliver meals that exceed the mandatory national food and nutrition standards for schools. All milk is semi-skimmed and 50% of hard, yellow cheese has a maximum total fat content of 25g/100g and suppliers should deliver lower saturated fat and lower salt products across a wide range of food categories wherever possible.(82)

viii. Whole systems approaches

The Foresight report in 2007 first drew attention to the complex multifaceted system which encourages obesity and highlighted the need for a wide range of actions to be taken to tackle it. Since then an increasing body of evidence has added weight to the argument for a whole systems approach to be taken.(127,128,73) The most recent Cochrane review of obesity prevention initiatives(86) and the McKinsey Global Institute(34) analysis of interventions both concluded that no single solution creates sufficient impact to reverse obesity; only a comprehensive, systematic program of multiple interventions is likely to be effective.

The Town and Country Planning Association (TCPA) has also argued that systems-wide leadership is vital to tackling obesity and suggested that local councils should aim to achieve a consistent approach to tackling obesity across all their strategies and policies.(87) The PHE website www.noo.org.uk/LA/tackling provides advice on action that different departments within the local authority can take to help tackle obesity.

The recent Local Government Association (LGA) local practice example analysis of ways in which local council public health departments are working in partnership to add value emphasises the need for a shared vision and for integration across council departments.(88) Similarly the LGA report Health in all policies(89) emphasises the importance of looking at the health impact of the whole of a council's functions. A joint approach to commissioning, pooling budgets and resources can be very effective. This is likely to be critical in maintaining and growing an effective public health offer at a time of increasing financial constraint. Good examples of this are local authorities which have launched sugar campaigns across different local groupings including health, schools, outlets and leisure to promote sugar reduction in food and drinks.

The EPODE community model, developed in France in 2003 and currently operating in over 40 areas around the world, provides one example of an approach that has attempted to incorporate whole systems thinking. See <http://epode-international-network.com/>

Early evaluation of the EPODE methodology suggests encouraging results. Data collected in French and Belgian towns suggests that children from schools in the participating areas show a significant decrease in obesity levels compared to those in control group schools.(90)

Other approaches include Healthier Together Victoria in Australia. This multi-faceted intervention is taking a population-level systems approach to reducing chronic disease and specifically obesity. This involves improving associated determinants (physical inactivity, poor diet quality, smoking and harmful alcohol use among children and adults in the specific communities where they "live, learn, work and play". The initiative brings together three levels of government, plus a range of partners including NGOs and community health organisations, and involves childcare centres, schools, workplaces, food outlets, sporting clubs, outlets, local governments, health professionals and more "to create healthier environments for all".

To help develop and evaluate whole systems approaches in England PHE, working with the LGA and ADPH, has commissioned Leeds Beckett University (LBU) to develop a transferable and locally driven whole systems framework to support local authorities to achieve a healthy weight across their populations. See the programme website and Section B8 of the toolkit for further details. LBU's work will be informed by an evidence review , including a systematic review and information gathering at local authority level.

D2 National and local government policies

This section identifies the central and local government policy levers that can be used in arguing the case for action.

National government

Document	Recommendations relevant to local authorities
<p>Childhood Obesity: a plan for action, HM Government 2016</p>	<p>Commitments relevant to this toolkit include:</p> <ul style="list-style-type: none"> • a soft drinks industry levy with proceeds to be invested in programmes to reduce obesity • a 20% reduction of sugar in products • supporting innovation to help businesses to make their products healthier • making healthy options available in the public sector, particularly through promotion of the GBSF. • re-committing to the Healthy Start scheme • encouraging all schools to commit to the School Food Standards • clearer food labelling • voluntary guidelines for early years settings to help meet Government dietary recommendations
<p>Sugar Reduction the evidence for action, Public Health England 2016</p>	<p>Suggests that there is clear evidence to show that a universal programme of reformulation to reduce the levels of sugar in all contributing food and drinks available would significantly lower sugar intakes, particularly if accompanied by reductions in portion size.</p> <p>Relevant recommendations:</p> <ul style="list-style-type: none"> • reduce and rebalance the number and type of price promotions in all retail outlets including supermarkets and convenience and the out of home sector (including restaurants, cafes and takeaway stores) • introduce a broad, structured and transparently monitored programme of gradual sugar reduction in everyday food and drink products, combined with reductions in portion size
<p>Report of the Commission on Ending Childhood Obesity, World Health Organization 2016</p>	<p>Suggests that governments should:</p> <ul style="list-style-type: none"> • require settings such as schools, child-care settings, children's sports facilities and events to create healthy food environments. • increase access to healthy foods in disadvantaged areas

<p><i>National Obesity Framework: a report by the all party parliamentary group on a fit and healthy childhood, 2016</i></p>	<p>Argues that the only way real progress in addressing child (and thence adult) obesity across the UK will be realised is by investing in all relevant aspects of every child's life from the portion sizes of the food and drink that they consume to the design of the physical environment and opportunities for physical exercise.</p>
<p><u>Childhood obesity- brave and bold action.</u> House of Commons Health Committee, 2015</p>	<p>Makes recommendations in nine different areas. Including:</p> <ul style="list-style-type: none"> • greater powers for local authorities to tackle the environment leading to obesity • early intervention to offer help to families of children affected by obesity, and further research into the most effective interventions
<p><u>From evidence into action: opportunities to protect and improve the nation's health.</u> Public Health England, 2014</p>	<p>Identifies tackling obesity particularly among children as one of seven key public health priorities and sets the following key goals:</p> <ul style="list-style-type: none"> • an increase in the proportion of children leaving primary school with a healthy weight, accompanied by a reduction in levels of excess weight in adults • to sustain action to tackle inequalities related to obesity • to support local authorities to deliver whole systems approaches to tackle obesity, including through supporting healthier and more sustainable food procurement
<p><u>National Planning Policy Framework.</u> Department for Communities and Local Government, 2012</p>	<p>The National Planning Policy Framework provides a framework within which local councils can produce their own distinctive local plans. The framework includes clear objectives for planning and health. Core planning principle (p6 paragraph 17) states that: "planning should take account of and support local strategies to improve health, social and cultural wellbeing for all."</p>
<p><u>Healthy Lives Healthy People: A call to action on obesity in England.</u> Department of Health, 2011</p>	<p>Emphasises that it is local government that is best placed to influence many of the broader environmental factors that affect health and wellbeing. Local authorities are advised to:</p> <ul style="list-style-type: none"> • use existing planning levers to limit the growth of hot food takeaways, for example by developing supplementary planning policies. • work with local outlets and partners to increase access to healthy food choices <p>Effective local action on obesity includes a wide coalition of partners to work together in order to create an environment that supports and facilitates healthier choices.</p> <p>Favours interventions that equip people to make the best possible choices for themselves, rather than removing choice or compelling change.</p> <p>Action on obesity should seek to reduce health inequalities.</p>

<p><u>Fair Society Healthy Lives: Marmot Review of Health Inequalities</u>, University College London, 2010</p>	<p>Noted that obesity has been found to be associated with social and economic deprivation across all age groups</p>
<p><u>Tackling obesity: future choices: (The Foresight Report)</u>, Department of Health and Government Office for Science, 2007</p>	<p>Identified a complex web of societal and biological factors that have, in recent decades, exposed our inherent human vulnerability to weight gain.</p> <p>Seven cross-cutting themes identified: biology, activity environment, physical activity, societal influences, individual psychology, food environment, and food consumption.</p> <p>Tackling obesity effectively requires a whole systems approach where a range of measures focus on individuals, social and other systems.</p>

Local government

<p><u>Local Plans</u></p>	<p>Local Plans set out a vision and a framework for the future development of the area, addressing needs and opportunities in relation to housing, the economy, community facilities and infrastructure – as well as a basis for safeguarding the environment, adapting to climate change and securing good design. They are also a critical tool in guiding decisions about individual development proposals, as Local Plans (together with any neighbourhood plans that have been made) are the starting-point for considering whether applications can be approved.</p> <p>They provide opportunities to include clauses on the health impacts of food outlets that can be referred to when considering new planning applications. Clauses might cover matters such as healthy environments, such as planning for environments that support people of all ages in making healthy choices, environments that help promote active travel and physical activity, and those that promote access to healthier food.</p> <p><u>For further guidance: Local Plans – Key Issues</u></p>
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<p>Joint Strategic Needs Assessment, (JSNA)</p>	<p>JSNAs are assessments of the current and future health and social care needs of the local community. – These are needs that could be met by the local authority, clinical commissioning groups (CCGs), or the NHS Commissioning Board. JSNAs are produced by Health and Wellbeing Boards and are unique to each local area.</p> <p>JSNAs can be used to highlight the demographic profile of the area and local issues of obesity and describe problem ‘hot spots’ in relation to takeaways.</p> <p>For further guidance see sections A4 and B1.1</p>
<p>Joint Health and Well-Being Strategy, (JHWS)</p>	<p>JHWSs are strategies for meeting the needs identified in JSNAs. As with JSNAs, they are produced by Health and Wellbeing Boards and are unique to each local area.</p> <p>JHWSs can provide the context for an overall approach to health and planning.</p> <p>For further guidance see sections A4 and B1.1</p>
<p>Supplementary Planning Documents, (SPDs)</p>	<p>SPDs can be used to provide guidance on areas where planning permission for new hot food takeaways or other types of outlets will not be granted or will be restricted.</p> <p>See Section B1 for examples</p>
<p>Sustainability and Transformation Plans (STPs)</p>	<p>STPs are designed to help ensure that health and care services are built around the needs of local populations.</p> <p>STPs will help drive genuine and sustainable transformation in patient experience and health outcomes of the longer term.</p>
<p>Health in all policies: a manual for local government (HiAP)</p>	<p>HiAP is an approach to policies that systematically and explicitly takes into account the health implications of the decisions we make; targets the key social determinants of health; looks for synergies between health and other core objectives and the work we do with partners; and tries to avoid causing harm with the aim of improving the health of the population and reducing inequity.</p>
<p>Local wellbeing, local growth: adopting Health in All Policies</p>	<p>PHE have published a range of documents that bring together the arguments for a Health in All Policies approach with a set of practical examples of implementation from the UK and around the world.</p> <p>These resources are to help local government improve local wellbeing and growth through its multiple functions, service areas and partnership working; aimed at local authority leaders, chief executives, other senior officers and councillors and directors of public health</p>

D3. Healthier catering guidance for different types of businesses

PHE's (2017) Healthier catering guidance for different types of businesses provides tips on providing and promoting healthier food and drink for children and families.

The healthier catering advice describes simple practical changes that different types of businesses can make when procuring, preparing, cooking, serving and promoting food. The tips have been updated to reflect recent Government dietary recommendations for sugars, the Eatwell Guide and 5 A Day advice.

Local authorities are encouraged to disseminate this information to local independent food businesses and use these tips and the wider aspects of the Eatwell Guide and 5 A Day alongside the Government Buying Standards for Food and Catering (GBSF) as a basis for developing local guidance on healthy catering, and frameworks for food award schemes. Local authorities should encourage businesses to undertake as many tips as possible in the advice relevant to their setting.

In Childhood Obesity; A Plan for Action (2016), government committed to driving the food industry – from retailers, pubs, family restaurants, food service, cafes, contract caterers and food manufacturers to reduce the sugar in nine categories of food products by 2020. These categories include; breakfast cereals, confectionary (sweets and chocolate), ice cream, yogurt and fromage frais, morning goods, spreads, biscuits, cakes and desserts. These are the nine categories of food that contribute the most sugar to children's intakes. The target for all of the food industry is a 20% sugar reduction by 2020; with a 5% reduction delivered by August 2017, and progress will be open, transparent and carefully monitored.

For more details see www.gov.uk/government/publications/childhood-obesity-plan-phes-role-in-implementation/childhood-obesity-plan-phes-role-in-implementation

As part of this process PHE has developed sugar reduction and calorie or portion size guidelines to support industry with this. More details can be found at www.gov.uk/government/collections/sugar-reduction.

Healthier catering guidance is available for different types of food business:

- chip shops or outlets that sell a lot of fried foods
- sandwich shops
- Chinese restaurants or takeaways
- Indian restaurants or takeaways
- Italian restaurants or takeaways
- pizza restaurants or takeaways
- restaurants or takeaways not covered by sector specific guidance eg cafes, pubs, Mexican restaurants

The key guiding principles for all food outlets are to:

- reduce portion size
- reduce fats and change frying practices
- reduce sugar
- reduce salt
- increase fruit, vegetables and fibre
- promote healthier options
- procuring healthier ingredients and food products from suppliers

By gradually making the simple changes covered in these tips, businesses can help their customers make healthier choices. Good staff training is essential to getting these key guiding principles right.

D4 Local practice examples

The local practice examples were chosen to illustrate current local authority practice across England, in the different intervention areas covered by the toolkit.

1. Gateshead's Supplementary Planning Document (SPD) to limit the proliferation of takeaways

1) Why important?

Demonstrates how a SPD, supported by an integrated public health policy, and primary research can successfully be used to control the proliferation of takeaways.

2) Aim

To limit the number of new hot food takeaways opening in the area.

3) Local context and target outlets

Council members were concerned about the high levels of child obesity (setting a target that all wards should have an average childhood obesity level of less than 10%), and the proliferation of takeaways (A5 outlets).

4) What strategy and action was taken?

The Gateshead and Newcastle core strategy and urban core plan (2015) set out an expressed intention to improve access to healthier food and control the location of and access to unhealthy food outlets. The Gateshead Approach to Healthy Weight (2014) emphasized there was 'no one action', and that a number of levers could be used to influence the local environment. It set a target to reduce childhood obesity to no more than 10% among Year 6 children in every ward. This measure was chosen because it can be monitored using the National Child Measurement Programme (NCMP) ward level data.

The SPD developed states that planning permission will not be granted in the following locations, where:

- children and young people congregate
- high levels of obesity (using NCMP data) are observed
- over-proliferation of hot food takeaways

- clustering of hot food takeaways will have a negative impact on the vitality of the local area

All future hot food takeaway applications would need to be accompanied by a health impact assessment.

To make a robust case for determining planning permission for new A5 outlets the council collected the following evidence.

- 374 food samples from 187 takeaway outlets were collected and tested for nutritional quality and portion size
- the concentration of hot food takeaway outlets within each ward was measured by checking of the local Food Premises Register
- academic evidence on the link between obesity and exposure to takeaway outlets was reviewed
- ward level prevalence of obesity among Year 6 children was obtained from the NCMP

5) What resources were deployed?

Staff time to review academic evidence, undertake research and draft the policies, plus the cost of collecting and laboratory analysis of food (£90 per sample) to provide evidence of the poor nutritional quality of takeaway food.

6) What were the outcomes of the intervention?

The conditions set out in the SPD mean that there are currently no locations where opening a new hot food takeaway would be within the policy, as all wards have Year 6 obesity levels above 10%. As a result no new A5s have been granted planning permission since the SPD was implemented and the number of applications has dropped. The number of successful appeals has also decreased from 5/9 in 2013 to 0/5 in 2016. In ruling in their favour the Planning Inspector pointed to the robustness of the local evidence that Gateshead Council was able to present.

Contact: ldf@gateshead.gov.uk

2. Warrington Borough Council' Street Vendors Policy

1) Why important?

An example of how local councils can use their licencing powers to encourage food vendors to provide healthier food.

2) Aim

To encourage street traders to make healthier changes to the food and drinks they sell as well as drive up hygiene standards in local food outlets.

3) Local context and target outlets

Warrington Borough Council was concerned about the high prevalence of adult overweight and obesity and the proliferation of mobile food vendors selling unhealthy food. The initiative is targeted at all mobile food vendors who require a street traders licence to operate. Ice cream vans are not included in the scheme due to the type of products they sell.

4) What strategy and action was taken?

A local councillor, whose portfolio included public health, suggested that the local authority could use its licencing powers to encourage street traders to sell healthier food. The council agreed that street traders applying for or renewing a licence would be offered £100 discount on the standard licence fee of £542. To secure the discount the traders have to complete a Nutritional Discount questionnaire which forms part of the Warrington Street Trading Policy. This asks a number of questions about their use of salt, fat and sugar, and portion control, and is designed to measure the healthiness of the food they sell. If the outlet meets the criteria the discount is applied. The outlet is inspected by one of the council's public protection officers to ensure that it is complying with the specified nutritional standards.

The street trading policy also incorporates a 100m exclusion zone around schools in which street traders are not allowed to trade between the hours of 12noon and 2pm, and 3pm to 5pm on any school day during term time.

The strategy makes it financially advantageous for traders to make these healthier changes. Since traders also have to have a Food Hygiene Rating Score (FHRS) of 4 or 5 the initiative is also encouraging (nudging) outlets to improve their hygiene standards.

5) What resources were deployed?

This initiative involved a public protection officer's time to develop the Nutritional Discount questionnaire. The promotion of the initiative, analysis of the questionnaire, and outlet inspections are incorporated into the relevant council officers' roles and responsibilities.

6) What were the outcomes of the intervention?

The initiative is not monitored, but the outlets are inspected when they apply for the renewal of their licence. There has been no formal evaluation, however anecdotal evidence suggests that there has been a change in the types of the food now offered by the outlets. For example they now routinely sell semi-skimmed as opposed to full-fat milk.

Contact: environmental.health@warrington.gov.uk

3. Buckinghamshire and Surrey Primary Authority Agreement with Sports and Leisure Management Limited for the Eat Out Eat Well Healthier Catering Award

1) Why important?

Illustrates how primary authority agreements can be used to extend the reach of a healthier catering award across different local authority areas.

2) Aim

To improve the nutritional quality of food sold by catering outlets in leisure centres.

3) Local context and target outlets

Sport and Leisure Management Ltd (SLM Ltd) operates over 115 leisure and cultural facilities across 36 local authorities in the UK. In November 2011 one of its leisure centres in Surrey signed up to the Eat Out Eat Well (EOEW) healthier catering scheme with the support of Buckinghamshire and Surrey Trading Standards (BSTS). The EOEW scheme encourages food outlets to adopt healthier catering practices, increasing fruit, vegetables, and starchy carbohydrates, and decreasing fat, sugar and salt. It also recognises provision of healthy options for children, and rewards staff training and promotion of healthier options. A scoring scheme measures outlets compliance with these factors and leads to a bronze, silver, or gold award depending on the total score obtained.

SLM Ltd was keen to expand the promotion of healthier options to other premises it runs across the UK, but EOEW membership had previously only been available in areas where the individual local authority had already signed up to the award scheme.

4) What strategy and action was taken?

In 2015 BSTS and SLM decided to form a Primary Authority Partnership and applied to the government's Better Regulation Delivery Office for this to be endorsed. The Primary Authority scheme enables a business operating across council boundaries to deal with a single local council in relation to regulatory compliance. It enabled BSTS to deal with applications for EOEW membership from all applicable SLMs leisure centres across the UK.

To reduce the burden to SLM Ltd and increase efficiency of the assessment process EOEW self-assessment forms were used to enable each SLM Ltd catering outlet to assess themselves against the award scheme criteria. The catering managers at each leisure centre were sent an EOEW self-assessment form, without the score markings. This enabled the caterer to honestly indicate what cooking methods and ingredients are used without being influenced by the level of scores available for each section. The completed assessment forms were returned to BSTS along with a copy of their menus. The central food ordering list was also submitted as evidence of the ingredients procured. The assessment forms, menus, and ingredients list were compared against the award scheme criteria, and scored independently.

Most sites received the silver award as the managers had no nutrition training. To enable them to move to the gold level BSTS liaised with colleagues in neighbouring councils, and Slough Borough Council organised a one day bespoke training course (based on the CIEH Healthier Foods and Special Diets course) for 20 of SLM's catering managers.

5) What resources were deployed?

Resources included staff time for meeting with SLM Ltd, completing the application for primary authority status and reviewing the EOEW self-assessment forms completed by each leisure centre. A nutritional advisor from Slough Borough Council carried out the training course. This was funded by SLM Ltd.

6) What were the outcomes of the intervention?

Thirty of the 33 catering outlets operating out of SLM managed leisure centres have signed up to EOEW. The primary authority partnership has enabled the scheme's reach to be extended more efficiently.

Contact: tradingstandards@bucksandsurreytradingstandards.gov.uk

4. London Borough of Islington Healthier Catering Commitment (HCC) work with schools and youth groups

1) Why important?

Illustrates how work with schools and youth groups can help promote a healthier catering scheme.

2) Aim

To help food outlets improve the nutritional quality of the food they sell and to encourage young people to adopt healthier eating habits.

3) Local context and target outlets

Islington has a high rate of mortality from cardiovascular disease (CVD). In 2006-8, 28% of all deaths were from CVD, and 58% of these were caused by coronary heart disease (CHD). Since obesity is known to be a major risk factor for CHD the council was keen to improve the healthiness of food sold by local outlets.

4) What strategy and action was taken?

The Healthier Catering Commitment (HCC) initially formed part of Hearty Lives Islington (HLI), a three year British Heart Foundation (BHF) funded project to reduce levels of CVD in the borough. From April 2015, it has been delivered as part of the standard Islington environmental health – commercial service.

The team promote the scheme to all catering premises that meet the strict hygiene criteria (FHRS 3*+) during programmed food hygiene inspections. To gain the HCC award outlets need to meet a minimum of eight criteria (from a list of 22) that include conditions in relation to the use of fats and oils, salt, sugar, milk and spreads, fruit and vegetables, portion size and promotion of healthier options. Continuing compliance with the HCC criteria is checked during routine food hygiene inspections, every 12-18 months.

Regular monitoring and evaluation of the scheme has prompted the targeting of under-represented groups of outlets. For example special hygiene workshops were set up for fried chicken shops to enable them to boost their hygiene ratings and thus become eligible to apply for the HCC.

The mid-term evaluation noted that the existing communication strategy was not reaching young people. So in 2013 the HLI team decided to work with the Islington Youth Health Forum. The team attended bi-monthly meetings and delivered presentations and workshops on heart health, healthy eating and the HCC. Young

people were asked to act as ambassadors for the scheme and to help encourage local outlets to sign up to it.

The HLI team also linked up with the local Healthy Schools team to introduce BHF tools and discussion of the HCC into local schools. These tools (the Big Food Challenge and the BHF pizza box challenge, aimed at 6 to 11 and 11 to 14-year-olds, respectively) are designed to bring an understanding of food into the classroom and are now incorporated into the PSHE curriculum toolkit. A workshop on the HCC was also delivered at a training day for all Islington secondary school food technology teachers.

The council is also using its procurement powers to promote take up of the HCC. Children's centres with cafes are now contractually required to have the award. Similarly, adventure playgrounds that serve food and greenspace concessions are expected to work towards it. A new supplementary planning document (SPD) stipulates: "All permitted applications involving A5 uses will be conditioned to require the operator to achieve, and operate in compliance with, the Healthy Catering Commitment standard."

5) What resources were deployed?

The BHF provided £100,000 for three years from 2011 to 2014; this included work around Healthy Catering Commitment, work place health and social marketing. The direct cost of promoting HCC and coaching outlets to attainment of the HCC was calculated as approximately £125 per outlet plus the associated administration, monitoring and evaluation costs. This work was supported by the other youth and promotional activities.

6) What were the outcomes of the intervention?

As of June 2016, 240 (16%) catering outlets, serving an estimated 26,600 meals a day, were signed up to the HCC.

An evaluation which included interviews with 10% of outlets gaining the HCC, and testing of food samples from 20 HCC outlets and 20 control group outlets, indicated reduced levels of salt and saturated fats in some HCC outlets, but revealed that more work is needed, particularly in relation to portion size and saturated fat.

Contact: commercial.envh@islington.gov.uk

5. Kirklees master classes for hot food takeaway outlets

1) Why important?

A good example of a training initiative for takeaways which incorporates behavioural goal setting approaches.

2) Aim

To improve the nutritional quality of food sold by takeaways.

3) Local context and target outlets

Targeted all hot food takeaways (A5) with a hygiene rating of 3 or above on local food premises register as take-up for the local healthier catering scheme had been low among this sector.

4) What strategy and action was taken?

In 2012 Kirklees Public Health department commissioned Kirklees Food and Nutrition Education (FINE) to extend their community healthy eating and nutrition education work to include takeaways. The FINE team are based in the environmental health department and also responsible for delivering nutrition education to a wide range of food outlets and care centres. In addition FINE manages the **Kirklees Healthy Choice Award (HCA)**.

FINE adapted a community nutrition course that they ran in other settings to make it more specific to fast food takeaways and have recently been involved in developing some additional behaviour change approaches in partnership with Newcastle University.

Three sets of materials were developed for the pilot.

- 1) A goal-setting booklet in which outlets are asked to set out what they want to change, how they can reach their goals, and identify any barriers.
- 2) Tip sheets designed to inspire the outlets to change their catering practices.
- 3) A pledge – a type of behavioural contract in which the outlets set out what they want to do. In total seven behaviour changes are encouraged.

A course flyer is posted to outlets and environmental health officers promote the training during their routine hygiene inspections. The three-hour course includes key healthy eating messages and real life local practice examples of changes takeaways have successfully made both nationally and locally. This is followed by a presentation on healthier frying techniques and tips delivered by the National Federation of Fish Fryers.

The local Healthy Choice Award scheme is promoted and expressions of interest to participate in a mock assessment are encouraged.

At the end of the course outlets are asked to publically commit to making at least one healthier change. These are usually small manageable changes such as reducing the salt in their pizzas, or offering water with a meal deal.

The outlets receive a certificate for attending. FINE make a follow-up phone call after four to six weeks to enquire what changes the outlets have managed to make and sustain, or any barriers that prevented them implementing changes.

5) What resources were deployed?

The training initially involved FINE team's staff time: (two trainers/nutritionists and the project co-ordinator) and the cost of marketing and course materials. The presentation from the National Federation of Fish Fryers cost £300+VAT.

6) What were the outcomes of the intervention?

Approximately a quarter (120) of all eligible takeaways in the area, (including managers from different ethnic backgrounds offering a diversity of cuisines) have now attended a training session.

Contact: fine.project@kirklees.gov.uk

6. London Borough of Tower Hamlets Healthy Start Vouchers Buywell Market Project

1) Why important?

Illustrates how financial incentives and an award scheme can be used to encourage local market stall-holders to increase sales of fruit and vegetables within a deprived area, leading to revitalised local markets.

2) Aim

To alleviate food poverty by increasing low income families access to fresh fruit and vegetables via extending the acceptance of Healthy Start Vouchers by market traders.

3) Local context and target outlets

The project focuses on fruit and vegetable stall traders in Chrisp Street Market, which is one of four Buywell markets across the borough located in a deprived area of Tower Hamlets, who have been struggling to survive financially.

4) What strategy and action was taken?

The project builds on a number of existing initiatives including the local Food for Health Award healthier catering scheme, the Buywell project which has been working with convenience stores to increase sales of fruit and vegetables, and a Portas-funded initiative, designed to help regenerate local markets.

The Buywell Food for Health project supports market traders to increase their fruit and vegetable sales. The scheme is delivered by a retail and marketing expert who provides the participating traders with advice to help grow their business and boost their sales by improving the quality, range and freshness of their produce, displays, pricing and promotions. Sales of fruit and vegetables in the markets have increased by over £1,492,500 a year through the Buywell Food for Health project. A free one-day workshop and free publicity is also provided.

Traders can then be assessed for a Food for Health Buywell Award. This is an adaptation of the council's Food For Health Award healthier catering initiative and has three tiers – a bronze, silver or gold award. To secure the bronze award sales of fresh fruit and vegetable must increase by 30% compared to sales prior to joining the scheme, for the silver they must also have developed a partnership with the local community – perhaps by supplying the local school tuck shop. Gold winners have to demonstrate outlets innovation and have attended a training course.

In late 2015 the Borough decided to pilot a scheme to help low-income families buy more fresh fruit and vegetables from the local market traders who agreed to accept the government's Healthy Start Vouchers in exchange for their produce. These vouchers provide low income families with financial support worth £3.10 per week which can be spent on specific types of healthier produce.

5) What resources were deployed?

The project is funded by the Mayor of London's High Street Fund. The £3,440 budget covers specialist retail advice work with traders, and communications to support outreach work with traders and families.

6) What were the outcomes of the intervention?

The pilot is still in progress and due to complete at the end of June 2016. The two traders involved in the recent pilot in Chrisp Street market have received an average 25 vouchers a week in total from families using them to buy fruit and vegetables over an eight-week period.

The project is encouraging residents to shop locally helping to revitalise the market. More outreach work with parents, children's centres, and traders is planned to increase awareness and take up of the scheme, which if successful will be rolled out across the Borough.

Contact: foodsafety@towerhamlets.gov.uk

7. JJs Food Services and the London Healthier Catering Commitment

1) Why important?

Illustrates how partnership working and a high-profile champion of a regional healthier catering scheme can work with suppliers to "nudge" local outlets into purchasing healthier products.

2) Aim

To work with one of the biggest suppliers to the fast food sector in London to encourage them to make changes that would make it easier for food outlets to purchase healthier products.

3) Local context and target outlets

The initiative involved working with JJ Food Services Limited who are one of the largest independent food service companies in the U.K with eight distribution centres and an annual turnover of £200m. JJs supplies most of the products needed by a typical local takeaway outlet including chicken, burgers, chips, oil, soft drinks and packaging.

4) What strategy and action was taken?

JJs participated in a project designed to identify how outlets operating in deprived areas could be encouraged to adopt healthier catering practices. Research identified that one of the barriers outlets faced was the higher price of healthier products, and lack of availability of some healthier alternatives. The project team (London Metropolitan University, the Association of London Environmental Health Managers, the Chartered

Institute for Environmental Health, the Greater London Authority (GLA) and the network of boroughs involved in the London Healthier Catering Commitment (HCC) persuaded Boris Johnson, then Mayor of London, to give his support via the London Food Board. His involvement, as a high-profile figure, helped to persuade JJs to get involved.

A steering group worked with JJ's on their offer and a nutritionist from Greenwich Co-operative Development Agency (GCDA) helped JJs select which products should be labelled as healthier. These included products known to be commonly used and those which would facilitate compliance with the HCC criteria, for example low fat spread, thicker chips and low calorie or no added sugar drinks. JJs also agreed to reduce the price differential between the healthier rapeseed oil and the less healthy vegetable oil typically used by takeaways, and to increase the variety of fruit and vegetables offered. JJs offered to give an initial 10% discount on these healthier products to outlets that had been awarded the HCC.

5) What resources were deployed?

JJ's costs included staff time analysing the nutritional content of their products, and printing and distributing a special marketing brochure. The GLA hosted a launch event to promote JJ's offer at City Hall in March 2016, JJs paid for the refreshments. Representatives from the London Boroughs environmental health departments spent time organising the launch and giving advice, as well as promoting the launch.

6) What were the outcomes of the intervention?

JJ's sales of rapeseed oil have increased 23% in three months since the launch, and the company has received excellent PR. The launch received high-level press coverage (20 press titles), which has helped to create interest from potential new customers. Brighton & Hove City Council has negotiated a similar 10% discount for outlets signing up to their Healthy Choice Award. JJs is now exploring competitively pricing smaller chip trays, and product reformulation – reducing the salt in its fried chicken batter.

Contact: terry.larkin@jjfoodservice.com

D5 Useful guidance and tools

Developing a strategy

<p>Obesity Data and Tools, Obesity Risk Factors Intelligence, PHE 2016</p>	<p>An online resource to support local councils to: identify and assess obesity and related issues in their locality. Includes information on the social, economic and health impacts of obesity; working together by outlining how local authority departments and services can work synergistically to tackle obesity, take action on obesity in their areas via health and wellbeing boards and joint health and wellbeing strategies. Provides links to the NCMP Local Authority Child Data Profile, Fast food outlets by local authority, and Data tables for Electoral Ward and MSOA NCMP child obesity prevalence.</p>
<p>Making the case for tackling obesity. Why invest? PHE, 2015</p>	<p>Provides evidence to support the case for taking action on tackling obesity.</p>
<p>Baseline assessment tool for NICE public health guidance on Obesity (PH42), NICE, 2012</p>	<p>Provides a framework for monitoring NICE recommendations on working with local communities to tackle obesity.</p>
<p>Guide to resources to help health and wellbeing boards consider obesity, NICE, 2012</p>	<p>This guide is designed to help signpost Health and Wellbeing Boards to resources produced by a range of organisations that may help users implement NICE evidence-based recommendations for local action to prevent obesity.</p>
<p>Healthy Weight, Healthy Lives: A Toolkit for Developing Local Strategies, Cross Government Obesity Unit, 2008</p>	<p>Helps those working at a local level to plan and coordinate strategies to prevent and manage overweight and obesity. Section C highlights things to consider when developing a local overweight and obesity strategy. Although published in 2008, principles may be drawn from this to inform joint health and wellbeing strategies. There are useful tools in the appendices for gathering evidence, and choosing an intervention.</p>
<p>Evaluation of weight management, physical activity and dietary interventions: an introductory guide, PHE Obesity Risk Factors, Knowledge and Intelligence, PHE, 2015</p>	<p>Provides an introduction to the evaluation of public health programmes and interventions. It is primarily written for practitioners interested in the evaluation of weight management, physical activity and dietary programmes. However, it contains many general principles that may be applied to other public health areas.</p>

Planning, leases and licenses

<p>Tipping the scales: Case studies on the use of planning powers to limit hot food takeaways. LGA, 2016</p>	<p>This document contains case studies of seven local councils which have developed policies and supplementary planning documents developed to limit hot food takeaways.</p>
<p>Building the foundations: Tackling obesity through planning and development, Town and Country Planning Association/Public Health England/Local Government Association, 2016</p>	<p>This report is aimed at councils, specifically people working in planning and environment teams and public health teams. Councillors, clinical commissioning groups (CCGs) and health and wellbeing boards (HWBs) should also find it useful. It sets out the insights gained from a series of workshops held with planners and public health officers. It includes seven possible areas for local action which councils might consider taking forward.</p>
<p>Planning Healthy Weight Environments – a PHE/TCPA Reuniting Health with Planning project, Public Health England/Town and Country Planning Association, 2014</p>	<p>Part 1 of this document is a practical resource for practitioners to use when working together to enable the creation of healthy-weight environments through the English planning system. Part 2 sets out key findings from a series of seven healthy-weight environment workshops held in 2014 with local authority partners.</p>
<p>Obesity and the environment: Regulating the Growth of Fast Food Outlets, Public Health England/Chartered Institute of Environmental Health/LGA, 2014</p>	<p>Guidance for local authorities on using the planning system to control the growth in the number of outlets.</p>
<p>Using the planning system to control hot food takeaways: a good practice guide, London Healthy Urban Development Unit, 2013</p>	<p>Reviews policy approaches taken and recommends a coordinated approach using planning policies together with other initiatives.</p>
<p>Obesity in adults: prevention and lifestyle weight management programmes Guidance and guidelines. NICE, 2016</p>	<p>Includes a quality statement (adults using vending machines in local authority and NHS venues can buy healthy food and drink options) to help local authorities ensure that any vending machines in their venues offer healthy food and drink options.</p>

Healthier catering advice and toolkits

<p>Encouraging Healthier Takeaways in Low-income Communities: Tools to support those working to encourage healthier catering among fast food takeaways, Cities Institute, 2014</p>	<p>Outlines strategies for working with takeaways in deprived areas, particularly focusing on the outlets perspective and drawing on behavioural insights. Provides case studies and video clips of best practice initiatives and outlets.</p>
<p>Healthier and more sustainable catering guidance and supporting tools', PHE, 2017</p>	<p>Provides advice for those serving food to adults. It summarises government dietary recommendations for achieving a healthy diet and supports Government Buying Standards for Food and Catering Services. These could be used to advise outlets wishing to tender for the delivery of public sector catering contracts.</p>
<p>A Quick Guide to the Government's Healthy Eating Recommendations, Public Health England</p>	<p>Provides a concise summary of government's healthy eating recommendations and the dietary reference values upon which they are based.</p>
<p>Government Buying Standards for Food & Catering Services Nutrition Criteria (GBSF), Defra, 2015</p>	<p>Includes a set of minimum mandatory standards for inclusion in tender specifications and contract performance conditions. It also includes some best practice standards which are recommended but not required.</p>
<p>Guidance and tools to support schools to meet Government Buying Standards for Food and Catering Services, Children's Food Trust and Public Health England, 2014</p>	<p>Designed to be used alongside the School Food Standards to help schools comply with government buying standards for food and catering services.</p>
<p>Healthier Catering: Guidance for Caterers, Food Standards Agency Scotland, 2015</p>	<p>Developed to help meet the demand for healthier menus for children between two and 12 years-old. It covers key areas where changes could be made to give children healthier options, and includes advice for different types of outlets and cuisines.</p>
<p>Workforce Competence Model in Nutrition for Health and Social Care, Association for Nutrition (AfN), 2015</p>	<p>Provides a framework which benchmarks competences and underpins standards for upskilling the nutrition workforce. It covers the knowledge and skills essential to delivery of sound nutrition information and standards for evidence-based nutrition training at levels 3, 4 and 5+ on the PHSCF.</p>

<p>Simple Step by Step online Courses in Catering for Health, British Nutrition Foundation</p>	<p>Offers a range of online courses in nutrition.</p>
<p>Eat Better Start Better: Voluntary Food and Drink Guidelines for Early Years Settings in England = A Practical Guide, Children's Food Trust, 2012</p>	<p>A source of practical advice for all early years settings in England. Provides age appropriate advice on how to meet the nutritional requirements of young children. Supports settings to meet the Early Years Foundation Stage welfare requirement to provide healthy balanced and nutritious, meals, snacks and drinks.</p>
<p>Food for Life Early Years Award, Soil Association</p>	<p>Provide award packages that are designed to support early years settings in making changes with regards to healthy food and a good food culture.</p>
<p>Snack Pack, British Heart Foundation, 2011</p>	<p>Downloadable recipes, project workbooks, discussions cards and a set of food experiments to help respond to the challenge of unhealthier food.</p>
<p>5 Simple steps to reduce salt in pizza, CASH (Consensus Action on Salt and Health), 2009.</p>	<p>Provides simple guidance on how pizza outlets can make gradual reductions in salt that will not affect sales.</p>
<p>Example Menus for Early Years Settings in England (it is anticipated these will be published at www.gov.uk in 2017)</p>	<p>To support early years settings to provide meals and snacks in line with current government dietary recommendations for infants and children aged six months to four years, example menus and guidance have been developed. These documents include two sets of three-week seasonal menus and recipes, additional recipes and useful information to help settings meet the Early Years Foundation Stage welfare requirements for food and drink.'</p>

Using 'nudge' strategies

<p>Key Discoveries, Food and Brand Lab Cornell University</p>	<p>Provides examples and evidence of some healthier behaviour changes that can be encouraged by altering the environment.</p>
<p>Smarter Lunchrooms, Cornell Center for Behavioral Economics in Child Nutrition Program</p>	<p>Provides evidence-based, lunchroom-focused principles that promote healthful eating in school children. Many of these ideas could be applied to other out of home food settings.</p>
<p>EAST. 4 simple ways to apply behavioural insights, The Behavioural Insights Team, 2014</p>	<p>Provides a simple way to apply behavioural insights to a programmes and policies. EAST stands for Easy, Attractive, Social and Timely.</p>

<p>Changing behaviours in public health To nudge or to shove? Local Government Association, 2013</p>	<p>This briefing for councillors and officers explains how behavioural change interventions – or nudge theory as it is dubbed – can help local councils fulfil their public health responsibilities.</p>
<p><u>Behavioural Economics and the Psychology of Fruit and Vegetable Consumption</u>, Harvard University: Macrothink Institute, 2012</p>	<p>Provides a behavioural economic toolkit to increase consumption of fruit and vegetables. Includes tools for displays, settings, incentives, prices, planning and habits.</p>
<p>Understanding the Behavioural Drivers of Organisational Decision-Making, Cabinet Office, 2016</p>	<p>Provides a summary of evidence regarding the behavioural factors which explain organisational behaviours and influence organisational decision-making.</p>

Working with local schools

<p>The Takeaways Toolkit, CIEH and GLA, 2012</p>	<p>Outlines policies schools can adopt to encourage pupils to stay on site and eat lunch in the school canteen.</p>
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Working with local communities

<p><u>Obesity: working with local communities</u>, NICE, 2012</p>	<p>Aims to support effective, sustainable and community-wide action to prevent overweight and obesity in adults and overweight and obesity in children. It sets out how local communities, with support from local organisations and networks, can achieve this.</p>
<p>A guide to community-centred approaches for health and wellbeing, PHE, 2015</p>	<p>Outlines community-centred approaches for health and well-being and tried and tested sources of evidence.</p>

Working with the supply chain

<p><u>Government Buying Standards for Food & Catering Services Nutrition Criteria (GBSF)</u>, Defra, 2015</p>	<p>Includes a set of minimum mandatory standards for inclusion in tender specifications and contract performance conditions. It also includes some best practice standards which are recommended but not required. The guidance also supports those who must, or choose to adopt, GBSF and goes further too. Also contains local practice examples.</p>
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<p>Healthier Food Procurement, LGA, 2016</p>	<p>Provides several useful case studies of local councils that have built requirements for healthier food and drink provision into catering contracts.</p>
<p>Food for Life Catering Mark Standards, Soil Association</p>	<p>Provides independent endorsement that settings are adhering to mandatory/best practice national nutrition standards for settings, while ensuring that 75% of meals are freshly prepared, use seasonal ingredients, and are more sustainable.</p>

Whole systems approaches

<p>Obesity: working with local communities, NICE, 2012</p>	<p>Aims to support effective, sustainable and community-wide action to prevent overweight and obesity in adults and children. It sets out how local communities, with support from local organisations and networks, can achieve this.</p>
<p>Cardiovascular disease prevention, NICE, 2010</p>	<p>Guidance on preventing cardiovascular disease (CVD) at a population level. It recommends a wide range of policy legislative, regulatory and voluntary change – effectively making the case for a whole-systems approach to tackling the disease.</p>

Monitoring and evaluation

<p>Evaluation of weight management, physical activity and dietary interventions: an introductory guide, PHE Obesity Risk Factors, Knowledge and Intelligence, PHE, 2015</p>	<p>Provides an introduction to the evaluation of public health programmes and interventions. It is primarily written for practitioners interested in the evaluation of weight management, physical activity and dietary programmes. However, it contains many general principles that may be applied to other public health areas.</p>
<p>Introduction to Evaluation for Local Authorities, Food Standards Agency, 2015</p>	<p>Introduces the principles of good evaluation, explains some key concepts, and outlines some things to bear in mind when planning to self-evaluate at local authority level.</p>
<p>Standard Evaluation Framework for dietary interventions, National Obesity Observatory, 2012</p>	<p>This describes and explains the information that should be collected in any evaluation of an intervention that aims to improve dietary intake or associated behaviour. It is aimed at interventions that work at individual or group level, not at population level.</p>

<p>Obesity: working with local communities, NICE, 2012</p>	<p>This guidance aims to support effective, sustainable and community-wide action to prevent overweight and obesity in adults and children. Recommendation 10: <i>Planning systems for monitoring and evaluation</i> provides guidance on how evaluations should be conducted.</p>
<p>Guidance on Evaluating the Impact of Interventions on Business, Department for Business Innovation and Skills (BiS), 2011</p>	<p>Provides a practical guide to impact evaluation, where the business community is the target group or beneficiary. Introduces the main concepts that need to be considered and which methods to use.</p>
<p>Logic Model Development Guide, WK Kellogg Foundation, 2006</p>	<p>Provides a guide to the underlying principles of 'logic modelling' to enable organisations to enhance their program planning, implementation, and dissemination activities.</p>

Appendix 1: Toolkit development methodology

The development of the toolkit builds on a review and summary of existing evidence from academic and grey literature research, policy documents and existing toolkits. It also draws on primary research and engagement activities with a diverse range of stakeholders (including public health policy makers and practitioners, environmental health officers, local government planners, and independent food outlets working in the field).

Secondary evidence: literature research

The literature search aimed to address the following key research questions.

1. How do independent food outlets contribute to the obesogenic environment particularly in relation to the consumption patterns of children and families?
2. What interventions have been tried, particularly in the UK, to improve the nature of the out of home food environment? What has worked, with whom, where and why?
3. What are the national and local government levers that could be used to support this work?
4. What promising local practice is emerging?

Since work in this area is developing rapidly, the literature search concentrated on texts published since 2010. The academic literature search included a search of the following bibliographic databases: ASSIA, Google scholar, Scopus, London Metropolitan University's Academic Search Complete, PubMed, and PsycINFO.

Searches were conducted using a combination of the key words listed in the table below. The grey literature search included searching the Prevention Information and Evidence (PIE) eLibrary and the websites of key organisations including:

- **government departments and associations/organisations** – Department of Health, Food Standards Agency, Public Health England, National Obesity Observatory, British Heart Foundation, Local Government Association, and National Institute for Clinical Excellence
- **professional bodies** – Chartered Institute of Environmental Health and the Town and Country Planning Association
- **voluntary organisations and campaigning groups** – Children's Food Trust, Focus on Food Campaign, Food for Life, Obesity Learning Centre, Sustain, and the UK Health Forum

These searches were supplemented with additional academic papers, project evaluations, policy documents and toolkits, suggested by those interviewed during the course of the primary research activities

Search profile adopted

Subject		Theory/Intervention			Setting		Target group
"Healthier choices" OR "Food access" OR "Healthier consumption" OR Nutrition OR Diet OR "Obesity prevention" OR "Consumer behaviour"	And	Attitude OR "Behaviour change" OR Likeability OR "Food selection" OR Intervention OR Perception OR Nudge* OR "Choice architecture" OR "local authority" OR "local government" OR "public sector" OR Programme OR Project OR Training OR Advice		And	"Food environment" OR "Convenience store" OR "Corner shop" OR "Retail outlet" OR "Retail food environment" OR "Local shop" OR "Local store" OR "out of home" OR "takeaway" OR "fast food outlet" OR "leisure cent*" OR "sports cent*" OR "café" OR "restaurant" OR "mobile v*" OR "children's cent*"	And	"Young people" OR Youth OR Adolescent OR Teen OR Pupil OR Student OR Famil*

Primary research

Consultation activities

An expert advisory panel was established at the start of the project and telephone interviews were held with the members to seek advice on the focus and format of the toolkit. Members were also asked to provide examples of emerging local authority practice that was achieving positive outcomes and was therefore worthy of further investigation. Panel members were selected based on their known expertise in the field as academic researchers, practitioners or policy makers, and to ensure a mix of agencies from across the country. For membership of the panel, see Appendix 2.

Information on emerging innovative practice in working with the out of home food sector was also sought from local authority practitioners. They were contacted via email, using PHE's regional contacts and CIEH's membership networks.

Two engagements events were held on 11th March 2016. The first, held in Durham, involved a discussion with 11 directors or acting directors of public health from the North East. The second, held in London, was organised through the London Food Board's Borough Implementation Group and was attended by environmental health and public health practitioners from the majority of the London boroughs as well as a number of London based NGOs with knowledge of healthy eating interventions. These events were designed to gather further information on current practice, use of existing toolkits, further need for support, and preferred structure of the new toolkit.

Local practice example research

The primary research activities were used to produce a long list of emerging innovative practice from which the final selection for more detailed local practice example development was made. The selection criteria sought to ensure that as far as possible the chosen local practice examples:

- provided a balanced mix of programmes, initiatives and approaches to targeting the different types of independent outlets in the out of home food sector
- recognised and exemplified the different local or regional organisations that may be involved
- originated from different geographical areas in England
- provided illustrative examples of interventions in practice

And offered opportunities for learning and/or potential for transferability by:

- demonstrating the value and benefits of the practice adopted
- providing practical ideas that might be replicated elsewhere in appropriate contexts
- providing (some) evidence of impact

NB. In reality, very few initiatives have been fully evaluated and, as a result, clear measures or evidence of impact are limited. Building in robust evaluation into any intervention will provide a valuable and stronger evidence base for the future.

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References

1. Adams J, Goffe L, Brown T, Lake AA, Summerbell C, White M, et al. Frequency and socio-demographic correlates of eating meals out and take-away meals at home: cross-sectional analysis of the UK national diet and nutrition survey, waves 1–4 (2008–12). *Int J Behav Nutr Phys Act*. 2015 Apr 16;12(1):51.
2. Key Note. *Snack Foods Market Update 2015*. 2015.
3. Lachat C, Nago E, Verstraeten R, Roberfroid D, Van Camp J, Kolsteren P. Eating out of home and its association with dietary intake: a systematic review of the evidence. *Obes Rev Off J Int Assoc Study Obes*. 2012 Apr;13(4):329–46.
4. Jaworowska A, Blackham T, Davies IG, Stevenson L. Nutritional challenges and health implications of takeaway and fast food. *Nutr Rev*. 2013 May 1;71(5):310–8.
5. Fraser LK, Clarke GP, Cade JE, Edwards KL. Fast food and obesity: a spatial analysis in a large United Kingdom population of children aged 13-15. *Am J Prev Med*. 2012 May;42(5):e77-85.
6. British Heart Foundation. *Portion Distortion Report 2013* [Internet]. [cited 2016 Mar 14]. Available from: <https://www.bhf.org.uk/publications/policy-documents/portion-distortion-report-2013>
7. Saunders P, Saunders A, Middleton J. Living in a 'fat swamp': exposure to multiple sources of accessible, cheap, energy-dense fast foods in a deprived community. *Br J Nutr*. 2015;113(34):1828–18.
8. Sandelson, M. Summary of the results of an investigation into the use of partially hydrogenated vegetable oil as a frying medium in fast food outlets and potential impact on consumer's health. London Borough of Tower Hamlets; 2012.
9. Horsley JA, Absalom KA, Akiens EM, Dunk RJ, Ferguson AM. The proportion of unhealthy foodstuffs children are exposed to at the checkout of convenience supermarkets. *Public Health Nutr*. 2014 Nov;17(11):2453–8.
10. Tyrrell RL, Greenhalgh F, Hodgson S, Wills WJ, Mathers JC, Adamson AJ, et al. Food environments of young people: linking individual behaviour to environmental context. *J Public Health*. 2016 Mar 8;fdw019.
11. Nowak M, Jeanes Y, Reeves S. The food environment in leisure centres and health clubs: how appropriate is it for children? *Nutr Food Sci*. 2012 Sep 5;42(5):307–14.
12. Magdalena Nowak, Yvonne Jeanes, Sue Reeves. The food environment in leisure centres and health clubs: how appropriate is it for children? *Nutr Food Sci*. 2012 Sep 5;42(5):307–14.
13. Public Health England. *Sugar Reduction The evidence for action* [Internet]. 2015. Available from: <https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action>
14. Fitzgerald A, Heary C, Nixon E, Kelly C. Factors influencing the food choices of Irish children and adolescents: a qualitative investigation. *Health Promot Int*. 2010 Sep;25(3):289–98.

15. Wills W, Kapetanaki A, Danesi G, Martin A, Hamilton L, Bygrave A. The influence of Deprivation and the Food Environment on Food and Drink Purchased by Secondary School Pupils Beyond the School Gate - See more at: <http://www.foodstandards.gov.scot/food-and-drink-purchasing-secondary-school-pupils-beyond-school-gate#sthash.no9gLbt.dpuf>. Univ Herts [Internet]. 2015; Available from: <http://uhra.herts.ac.uk/handle/2299/16072>
16. Caraher M, Lloyd S, Madelin T. The 'School Foodshed': schools and fast-food outlets in a London borough. *Br Food J*. 2014 Feb 25;116(3):472–93.
17. Cowburn G, Matthews A, Doherty A, Hamilton A, Kelly P, Williams J, et al. Exploring the opportunities for food and drink purchasing and consumption by teenagers during their journeys between home and school: a feasibility study using a novel method. *Public Health Nutr*. 2016 Jan;19(1):93–103.
18. Bagwell S. The Role of Independent Fast-Food Outlets in Obesogenic Environments: A Case Study of East London in the UK. *Environ Plan A*. 2011 Sep 1;43(9):2217–36.
19. Zahra J, Ford T, Jodrell D. Cross-sectional survey of daily junk food consumption, irregular eating, mental and physical health and parenting style of British secondary school children. *Child Care Health Dev*. 2014 Jul;40(4):481–91.
20. Ellaway A, Macdonald L, Lamb K, Thornton L, Day P, Pearce J. Do obesity-promoting food environments cluster around socially disadvantaged schools in Glasgow, Scotland? *Health Place*. 2012 Nov;18(6):1335–40.
21. Smith D, Cummins S, Clark C, Stansfeld S. Does the local food environment around schools affect diet? Longitudinal associations in adolescents attending secondary schools in East London. *BMC Public Health*. 2013;13:70.
22. Moorhouse J, Kapetanaki A, Wills W. Within Arm's Reach: School Neighbourhoods and Young People's Food Choices [Internet]. University of Hertfordshire; 2016. Available from: <http://foodresearch.org.uk/within-arms-reach-school-neighbourhoods-and-young-peoples-food-choices/>
23. Williams J, Scarborough P, Matthews A, Cowburn G, Foster C, Roberts N, et al. A systematic review of the influence of the retail food environment around schools on obesity-related outcomes. *Obes Rev*. 2014 May 1;15(5):359–74.
24. Burgoine T, Forouhi NG, Griffin SJ, Wareham NJ, Monsivais P. Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study. *BMJ*. 2014 Mar 13;348:g1464.
25. Griffiths C, Frearson A, Taylor A, Radley D, Cooke C. A cross sectional study investigating the association between exposure to food outlets and childhood obesity in Leeds, UK. *Int J Behav Nutr Phys Act*. 2014;11:138.
26. Marmot, M. 'Fair Society Healthy Lives' (The Marmot Review) - IHE [Internet]. University College London; 2016 Feb [cited 2016 Feb 26]. Available from: <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

27. NHS. National Child Measurement Programme - England, 2015-16 [Internet]. NHS; 2016. Available from: <http://www.content.digital.nhs.uk/catalogue/PUB22269>
28. PHE. Obesity Data and Tools :: Public Health England Obesity Knowledge and Intelligence team [Internet]. [cited 2016 Sep 1]. Available from: <http://www.noo.org.uk/visualisation>
29. Gallo R, Barrett L, Lake A. The food environment within the primary school fringe. *Br Food J*. 2014 Jul 29;116(8):1259–75.
30. Cetateanu A, Jones A. Understanding the relationship between food environments, deprivation and childhood overweight and obesity: Evidence from a cross sectional England-wide study. *Health Place*. 2014 May;27:68–76.
31. Pechey R, Jebb SA, Kelly MP, Almiron-Roig E, Conde S, Nakamura R, et al. Socioeconomic differences in purchases of more vs. less healthy foods and beverages: Analysis of over 25,000 British households in 2010. *Soc Sci Med* 1982. 2013 Sep;92(100):22–6.
32. Hayter AKM, Draper AK, Ohly HR, Rees GA, Pettinger C, McGlone P, et al. A qualitative study exploring parental accounts of feeding pre-school children in two low-income populations in the UK. *Matern Child Nutr*. 2015 Jul;11(3):371–84.
33. Khanom A, Hill RA, Morgan K, Rapport FL, Lyons RA, Brophy S. Parental recommendations for population level interventions to support infant and family dietary choices: a qualitative study from the Growing Up in Wales, Environments for Healthy Living (EHL) study. *Bmc Public Health*. 2015 Mar 11;15:234.
34. McKinsey Global Institute. Overcoming obesity: An initial economic analysis. 2014.
35. Griffith R, O'Connell M, Smith K. The importance of product reformulation versus consumer choice in improving diet quality [Internet]. Institute for Fiscal Studies; 2014 Jul [cited 2016 Feb 23]. Report No.: W14/15. Available from: http://econpapers.repec.org/paper/ifsifsewp/14_2f15.htm
36. Grech A, Allman-Farinelli M. A systematic literature review of nutrition interventions in vending machines that encourage consumers to make healthier choices. *Obes Rev Off J Int Assoc Study Obes*. 2015 Dec;16(12):1030–41.
37. The Scientific Advisory Committee. SACN Carbohydrates and Health Report - Publications - GOV.UK [Internet]. [cited 2016 Aug 31]. Available from: <https://www.gov.uk/government/publications/sacn-carbohydrates-and-health-report>
38. McGill R, Anwar E, Orton L, Bromley H, Lloyd-Williams F, O'Flaherty M, et al. Are interventions to promote healthy eating equally effective for all? Systematic review of socioeconomic inequalities in impact. *BMC Public Health*. 2015;15:457.
39. Beauchamp A, Backholer K, Magliano D, Peeters A. The effect of obesity prevention interventions according to socioeconomic position: a systematic review. *Obes Rev Off J Int Assoc Study Obes*. 2014 Jul;15(7):541–54.
40. Hawkes C, Smith TG, Jewell J, Wardle J, Hammond RA, Friel S, et al. Smart food policies for obesity prevention. *The Lancet*. 2015 Jun;385(9985):2410–21.
41. Dr Foster Intelligence and Land Use Consultants. Tackling the Takeaways: A new policy to address fast-food outlets in Tower Hamlets [Internet]. London; [cited 2016

- Jul 18]. Available from: <http://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Local-Plan/Evidence-base/A5-Takeaways.pdf>
42. Caraher M, O'Keefe E, Lloyd S, Madelin T. The planning system and fast food outlets in London: lessons for health promotion practice. *Rev Port Saúde Pública*. 2013 Jan;31(1):49–57.
43. Mitchell C, Cowburn G, Foster C. Assessing the options for local government to use legal approaches to combat obesity in the UK: putting theory into practice. *Obes Rev Off J Int Assoc Study Obes*. 2011 Aug;12(8):660–7.
44. May Goodwin D, Mapp F, Sautkina E, Jones A, Ogilvie D, White M, et al. How can planning add value to obesity prevention programmes? A qualitative study of planning and planners in the Healthy Towns programme in England. *Health Place*. 2014 Nov;30:120–6.
45. Hillier-Brown FC, Moore HJ, Summerbell CD, Adams J, Adamson A, White M, et al. A description of interventions promoting healthier ready-to-eat meals (to eat in, to take away, or to be delivered) sold by specific food outlets in England: a systematic mapping and evidence synthesis. *BMC Public Health*. 2015;
46. Bagwell S. Designing healthier catering interventions for takeaways in deprived areas. *J Environ Health Res*. 2015;15(1).
47. CASH. Pilot Project – Salt in Pizza Final Report December 2009 [Internet]. 2009. Available from: <http://www.actiononsalt.org.uk/Docs/33357.pdf>
48. Bagwell S, Doff S. Evaluation of the Healthier Catering Commitment : West London Tri-Borough Pilot. 2012.
49. Glanz K, Bader MDM, Iyer S. Retail grocery store marketing strategies and obesity: an integrative review. *Am J Prev Med*. 2012 May;42(5):503–12.
50. Adams J, Halligan J, Burges Watson D, Ryan V, Penn L, Adamson AJ, et al. The Change4Life Convenience Store Programme to Increase Retail Access to Fresh Fruit and Vegetables: A Mixed Methods Process Evaluation. *PLoS ONE*. 2012 Jun 27;7(6):e39431.
51. Sustain. Buywell Retail Project Final Report [Internet]. 2010. Available from: http://www.sustainweb.org/buywell/buywell_shops/
52. Tysoe J, Wilson C. Influences of the Family and Childcare Food Environments on Preschoolers' Healthy Eating. *Australas J Early Child*. 2010 Sep;35(3):105.
53. Willis TA, Potrata B, Hunt C, Rudolf MCJ. Training community practitioners to work more effectively with parents to prevent childhood obesity: the impact of HENRY upon Children's Centres and their staff. *J Hum Nutr Diet*. 2012 Oct;25(5):460–8.
54. Mucavele P, Sharp L, Wall C, Pryde E, Wood S. Eat Better, Start Better programme Phase 2 (2012-2013) Evaluation report: impact and recommendations [Internet]. Sheffield; Available from: <http://media.childrensfoodtrust.org.uk/2015/06/EatBetterStartBetterEvaluationJan2014.pdf>
55. Sunstein CR, Thaler RH. *Nudge: Improving Decisions About Health, Wealth and Happiness*. Penguin; 2009. 320 p.

56. Dolan P, Hallsworth M, Halpern D, King D, Metcalfe R, Vlaev I. Influencing behaviour: The mindspace way. *J Econ Psychol.* 2012 Feb;33(1):264–77.
57. Wansink B, van Ittersum K. Portion size me: plate-size induced consumption norms and win-win solutions for reducing food intake and waste. *J Exp Psychol Appl.* 2013 Dec;19(4):320–32.
58. Hollands GJ, Shemilt I, Marteau TM, Jebb SA, Lewis HB, Wei Y, et al. Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco [Internet]. *Cochrane Database of Systematic Reviews*; 2015 Sep [cited 2016 Feb 3]. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011045.pub2/abstract>
59. Wansink B, Payne CR, Shimizu M. The 100-calorie semi-solution: sub-packaging most reduces intake among the heaviest. *Obes Silver Spring Md.* 2011 May;19(5):1098–100.
60. Kroese FM, Marchiori DR, de Ridder DTD. Nudging healthy food choices: a field experiment at the train station. *J Public Health Oxf Engl.* 2015 Jul 17;
61. Olstad DL, Goonewardene LA, McCargar LJ, Raine KD. Choosing healthier foods in recreational sports settings: a mixed methods investigation of the impact of nudging and an economic incentive. *Int J Behav Nutr Phys Act.* 2014;11:6.
62. Papies EK, Veling H. Healthy dining. Subtle diet reminders at the point of purchase increase low-calorie food choices among both chronic and current dieters. *Appetite.* 2013 Feb;61(1):1–7.
63. Cohen JFW, Richardson SA, Cluggish SA, Parker E, Catalano PJ, Rimm EB. Effects of choice architecture and chef-enhanced meals on the selection and consumption of healthier school foods: a randomized clinical trial. *JAMA Pediatr.* 2015 May;169(5):431–7.
64. Hanks AS, Just DR, Smith LE, Wansink B. Healthy convenience: nudging students toward healthier choices in the lunchroom. *J Public Health Oxf Engl.* 2012 Aug;34(3):370–6.
65. Papies EK, Potjes I, Keesman M, Schwinghammer S, van Koningsbruggen GM. Using health primes to reduce unhealthy snack purchases among overweight consumers in a grocery store. *Int J Obes 2005.* 2014 Apr;38(4):597–602.
66. Stöckli S, Stämpfli AE, Messner C, Brunner TA. An (un)healthy poster: When environmental cues affect consumers' food choices at vending machines. *Appetite.* 2016 Jan 1;96:368–74.
67. van Kleef E, Otten K, van Trijp H. Healthy snacks at the checkout counter: a lab and field study on the impact of shelf arrangement and assortment structure on consumer choices. *BMC Public Health.* 2012;12:1072.
68. Salmon SJ, De Vet E, Adriaanse MA, Fennis BM, Veltkamp M, De Ridder DTD. Social proof in the supermarket: Promoting healthy choices under low self-control conditions. *Food Qual Prefer.* 2015 Oct;45:113–20.
69. Hollands GJ, Shemilt I, Marteau TM, Jebb SA, Kelly MP, Nakamura R, et al. Altering micro-environments to change population health behaviour: towards an evidence base for choice architecture interventions. *BMC Public Health.* 2013;13:1218.

70. Nørnberg TR, Houlby L, Skov LR, Pérez-Cueto FJA. Choice architecture interventions for increased vegetable intake and behaviour change in a school setting: a systematic review. *Perspect Public Health*. 2015 Aug 11;
71. Bagwell, S. Encouraging healthier takeaways in low income communities. Cities Institute, London Metropolitan University; 2014.
72. Nelson M, Bradbury J, Poulter J, McGee A, Msebele S, Jarvis L. School Meals in Secondary Schools in England. Research Report No. 557. London: Department for Education and Skills/Food Standards Agency; 2004.
73. Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall L, et al. School Meals in Primary Schools in England. Research Report No. 753. London: Department for Education and Skills/Food Standards Agency.; 2006.
74. Nelson M, Nicholas J, Riley K et al. Seventh annual survey of take up of school lunches in England [Internet]. Sheffield: Children's Food Trust; 2012. Available from: www.childrensfoodtrust.org.uk/childrens-food-trust/our-research/
75. The Scottish Government. Beyond the School Gate - Improving food choices in the school community [Internet]. 2014. Available from: <http://www.gov.scot/Publications/2014/05/4143>
76. NHS Sussex. Hot-food takeaways near schools: an impact study on takeaways near secondary schools in Brighton and Hove [Internet]. 2011. Available from: http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/ldf/Healthy_eating_Study-25-01-12.pdf
77. London Food Board and Chartered Institute of Environmental Health CIEH. Takeaways Toolkit [Internet]. London; 2012. Available from: <http://www.cieh.org/WorkArea/DownloadAsset.aspx?id=44312>
78. NEF. An Inconvenient Sandwich [Internet]. London: New Economics Foundation; 2010 [cited 2016 Mar 15]. Available from: <http://www.neweconomics.org/publications/entry/an-inconvenient-sandwich>
79. Bagwell S. Healthier catering initiatives in London, UK: an effective tool for encouraging healthier consumption behaviour? *Crit Public Health*. 2014 Jan 2;24(1):35–46.
80. Olstad D, Raine KD, McCargar LJ. Competing Mandates in Recreational Facilities: Profit vs Public Health. *Can J Diabetes*. 2013 Apr;37, Supplement 2:S246.
81. Department for Environment Food and Rural Affairs. Sustainable procurement: the GBS for food and catering services - Publications - GOV.UK [Internet]. [cited 2016 Aug 31]. Available from: <https://www.gov.uk/government/publications/sustainable-procurement-the-gbs-for-food-and-catering-services>
82. Public Health England. Healthier and more sustainable catering - Publications - GOV.UK [Internet]. 2014 [cited 2016 Aug 31]. Available from: <https://www.gov.uk/government/publications/healthier-and-more-sustainable-catering-a-toolkit-for-serving-food-to-adults>
83. Carey G, Malbon E, Carey N, Joyce A, Crammond B, Carey A. Systems science and systems thinking for public health: a systematic review of the field. *BMJ Open*. 2015 Dec 1;5(12):e009002.

84. Hawe P, Shiell A, Riley T. Theorising interventions as events in systems. *Am J Community Psychol.* 2009 Jun;43(3–4):267–76.
85. Garside R, Pearson R, Hunt H, Moxham T, Anderson R. Identifying the key elements and interactions of a whole system approach to obesity prevention [Internet]. University of Exeter/NICE; 2010. Available from: <https://www.nice.org.uk/guidance/ph42/documents/evidence-review-1-identifying-the-key-elements-and-interactions-of-a-whole-system-approach-to-obesity-prevention2>
86. Waters E, de Silva-Sanigorski A, Burford BJ, Brown T, Campbell KJ, Gao Y, et al. Interventions for preventing obesity in children. In: The Cochrane Collaboration, editor. *Cochrane Database of Systematic Reviews* [Internet]. Chichester, UK: John Wiley & Sons, Ltd; 2011 [cited 2016 May 23]. Available from: <http://doi.wiley.com/10.1002/14651858.CD001871.pub3>
87. Local Government Association and Town and Country Planning Association. Building the foundations: Tackling obesity through planning and development [Internet]. 2016 [cited 2016 Mar 1]. Available from: http://www.local.gov.uk/documents/10180/7632544/L16-6+building+the+foundations++tackling+obesity_v05.pdf/a5cc1a11-57b2-46e3-bb30-2b2a01635d1a
88. Local Government Association. Public health transformation three years on: Extending influence to promote health [Internet]. 2016 [cited 2016 Feb 26]. Available from: <http://www.local.gov.uk/documents/10180/7632544/L16-2+Public+health+transformation+three+years+on/28ba2042-51e8-4f6f-86f8-e81d451bdfb2>
89. Local Government Association. Health in all policies: a manual for local government [Internet]. London; 2016 Sep [cited 2017 Jan 12]. Available from: http://www.local.gov.uk/publications/-/journal_content/56/10180/7970816/PUBLICATION
90. Borys J-M, EPODE European Network Coordinating Team, Proteines, Paris, France, Valdeyron L, EPODE European Network Coordinating Team, Proteines, Paris, France, Levy E, Sainte-Justine Hospital, Montreal, Canada, et al. EPODE ♦ A Model for Reducing the Incidence of Obesity and Weight-related Comorbidities. *US Endocrinol.* 2013;09(01):32. s