Contents

2 Diet

2.1 Introduction

A good ('healthy') diet is essential for good health. Conversely, a poor ('unhealthy') diet can have lasting detrimental health impacts (see Box 1 for definitions used in this section).

Diet is now the leading behavioural risk factor for illness and death in England. [1] An unhealthy diet can lead to undernutrition, faltering growth in children, tooth decay, overweight and obesity, cardiovascular disease (CVD), type 2 diabetes and some (30% of) cancers. A healthy diet, on the other hand, promotes both physical and mental wellbeing in a number of ways (see Box 1). [2] [3] [4] [5]

Box 1: Definitions used in this section

'5-a-day' - refers to UK government guidelines which recommend consumption of at least five portions of fruit and vegetables per day (400g). High fruit and vegetable intakes are an indicator of a healthy diet and they also correlate with lower risk of obesity and diet-related disease. [6]

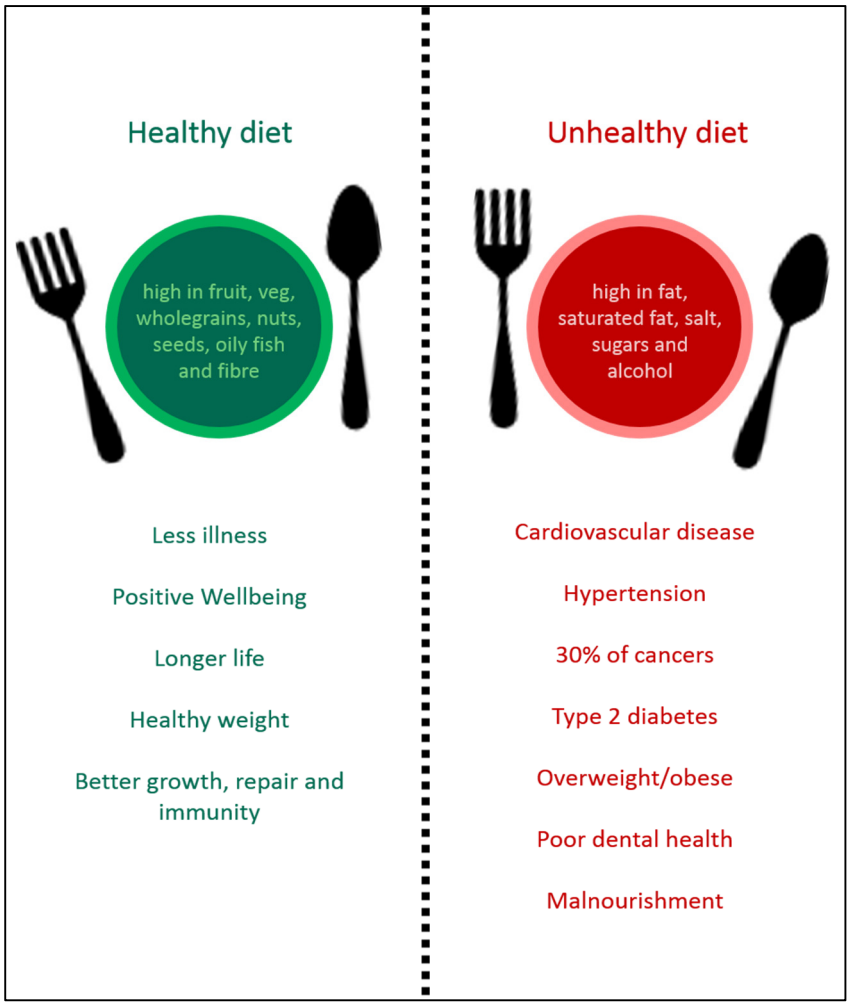
Free sugars – sugars added to food or those naturally present in honey, syrups and unsweetened fruit juices (but excluding lactose in milk and milk products). This free sugars definition is used by the World Health Organisation (WHO). [7] [8]

Healthy diet – a diet that balances calorie intake with activity levels, incorporating a wide variety of foods with an emphasis on vegetables, whole fruits, starchy carbohydrates and wholegrains.

Unhealthy diet - a diet that is unbalanced, containing harmful quantities of foods or nutrients that are 'bad' for health and/or may be lacking key nutrients. This includes diets low in fruits and vegetables or high in free sugars, fats and salt. [6]

Undernutrition - a type of malnutrition (along with over-nutrition), which occurs when an individual does not get enough nutrients, either as a result of an inadequate diet or a problem absorbing nutrients from food. The most common symptom is unintentional or unplanned weight loss. [9]

Figure 1: The positive and negative impacts of diet

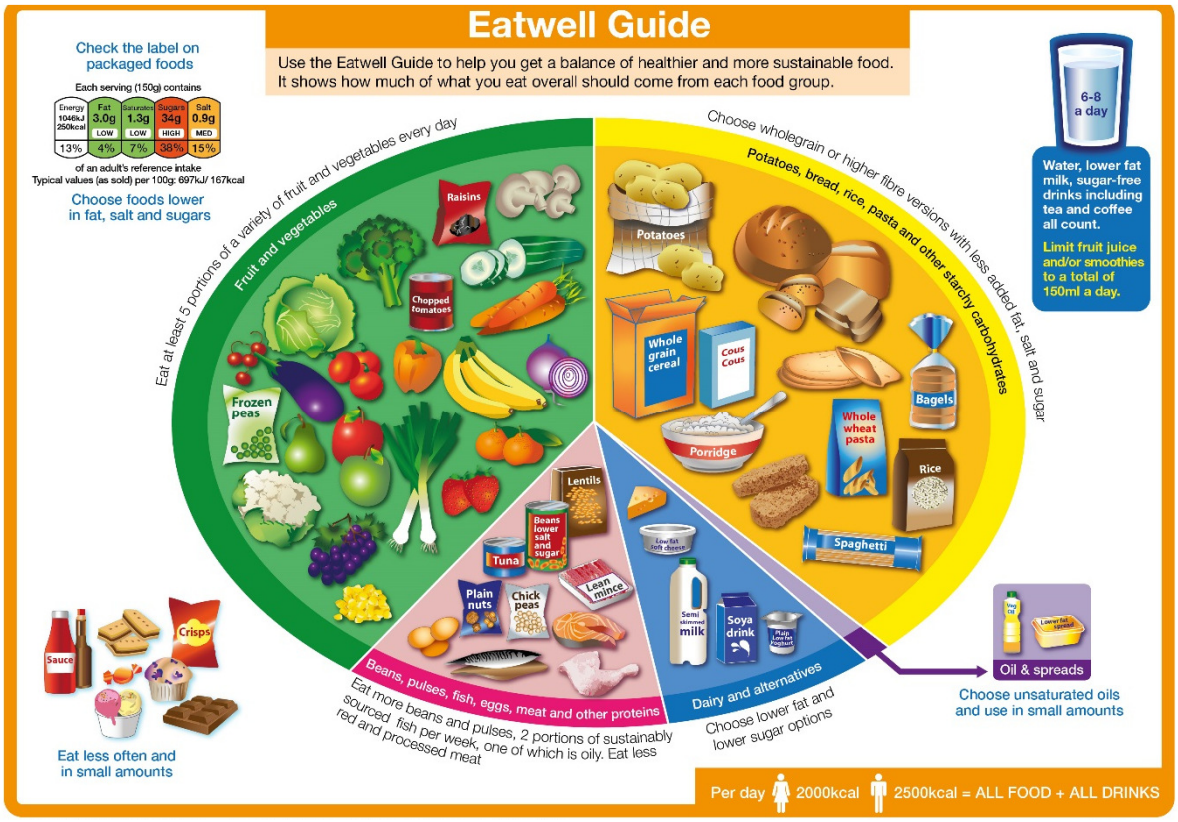


Source: City & Hackney Public Health Team

UK government recommendations for a healthy diet are set out in the Eatwell Guide, presented in Figure 2. Despite these guidelines, many people do not achieve a healthy diet as described in the guide. For example, the majority of the adult and child population in England do not eat enough fruit and vegetables, fibre or oily fish; but consume too much salt, sugar and saturated fat. [10] [7] [11]

Specifically in relation to sugar, there is growing evidence that free sugars and sugar-containing drinks are an independent risk factor for weight gain and type 2 diabetes. The UK Scientific Advisory Committee on Nutrition (SACN) recently reviewed the evidence, which resulted in a change to the dietary guidelines for sugars – reducing the recommended level from 10% to 5% of total daily energy intake. [8] All population groups in the UK now exceed this revised guideline level of consumption. [7] Public Health England (PHE) have estimated that almost 250,000 cases of tooth decay could be avoided each year if the SACN target was achieved over the next five years. [12]

Figure 2: The Eatwell Guide



Source: Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland (2016).

2.2 Causes and risk factors

The most important individual risk factors for poor diet are ageing, ill health, eating disorders and socio-economic circumstances. Many of these risk factors are described in Section 2.4.

There is growing recognition that people do not make dietary choices based on the full costs and benefits of these decisions. [13] Decisions over what, when and where we eat and drink is governed by a complex mix of inter-related factors, including biological, psychological, social and economic influences. [14] At a basic level, we eat because we are hungry. However, our dietary behaviour is often not based on conscious decisions, but is the product of habit and automatic cues.

A European Commission briefing identified the following underpinnings of consumer dietary choices: [13]

- decisions are made on the basis of habit and positive experiences of brands
- people make quick decisions and often don't really think about the consequences (mental short cuts)
- people find it harder to give things up and are more likely to try something new
- food label reading is a low priority and people like to compare 'like for like'

- people choose products or brands which make a statement about their identity
- people struggle with too much choice.

Much is also determined by the wider 'food environment', i.e. the availability and affordability of healthy food as well as social and peer influence. For more detail on these wider environmental determinants of dietary behaviour see 'The food environment' section of the 'Society and environment' chapter of the JSNA. Other specific influences on individual food and drink choices include the following.

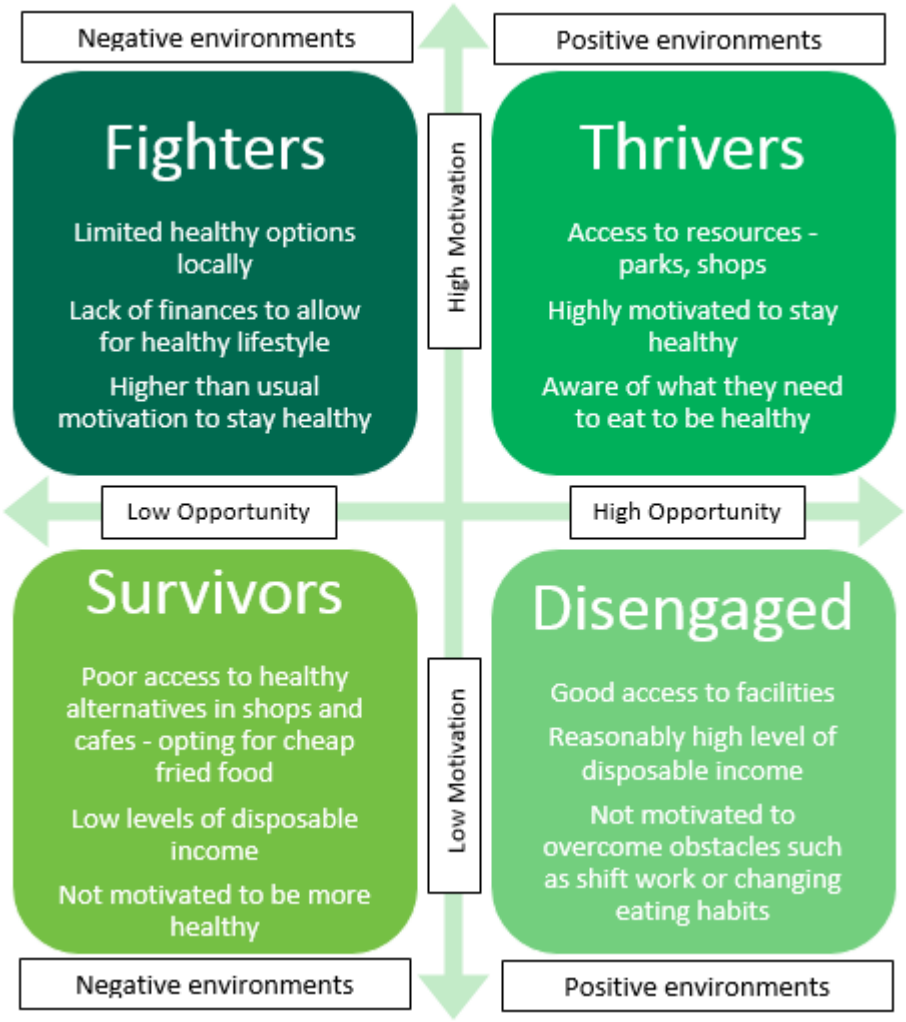
- *Taste.* One study of people with a high Body Mass Index (BMI)[1] found that taste is more of an influence than health considerations. [15] Similarly, the taste of 'unhealthy' takeaway food is one of the primary reasons for regular purchases by young people, and this overrides any concerns about possible negative health effects. [16]
- *Portion sizes*. There is evidence that portion sizes of meals purchased out of the home have been increasing over the last 30 years, and that package sizes for snack items have got bigger. [12]
- *Habit.* Habitual behaviours are repeated (often automatically), commonly triggered by social and environmental cues (e.g. product placement or peer behaviour), and can be difficult to control or change. The cues to eat and drink are increasingly to consume unhealthy foods. [17]
- *Individual perceptions of diet.* Underestimation of energy intake is a common phenomenon, especially among women, older people and people who are overweight. [18] [19]
- *Food and drink advertising.* Advertising has a strong influence on the dietary behaviour of both children and adults (40% of all the food we buy is on offer, for example 'buy one get one free'). [20] [12]
- *Mistrust of health messages*. There is widespread mistrust of different healthy eating messages and advice, which has been fuelled by the emergence of social media that can contribute to the confusion of health messages. [21]
- *Dietary patterns and trends*. Changing dietary trends can have a major influence on the food that people consume – some positive, others less so. For example, vegetarian (and to a lesser extent) vegan diets are now mainstream, and wheat or gluten free diets are increasingly common. In general, households in the UK are eating less meat, fruit, vegetables, potatoes and bread than they were five years ago. [22] Some trends are complicated by an individual's relationship with food and may be health harming, such as a recent phenomenon that has been labelled 'orthorexia' (which refers to extremely restrictive diets. [23])
- *Cultural influences*. Cultural and religious influences also play a major role in the dietary behaviour of certain communities. For example, halal diets include food permissible or lawful in Islam, while kosher food conforms to the regulations of Jewish dietary law. [24] [25]

A recent study of three communities in east London (including residents of a housing estate in Hackney) helps to illustrate these various influencers at a local level. The

[1] BMI is a measure of whether someone is a healthy weight for their height. It is calculated by dividing someone's weight (in kilograms) by their height (in metres) squared.

researchers divided the population into four groups or 'segments', according to the wider influences on their health behaviours (including healthy eating). A summary of the findings of this research is presented in Figure 3. This study found significant variation in the dietary choices of each of these groups, with those in the 'thriver' and 'fighter' groups more likely to choose healthier foods when hungry (e.g. fruit and vegetables) and those in the 'disengaged' or 'survivor' groups more likely to choose less healthy options (e.g. takeaway food, crisps or cake).

Figure 3: Segmentation of children and adults - based on the Healthy Foundations Life Stages Mode (2010)



Source: Adapted from Healthy London Partnership: Healthy Communities stage 1 research. [26]

2.3 Local data and unmet need

2.3.1 Dietary behaviour in adults

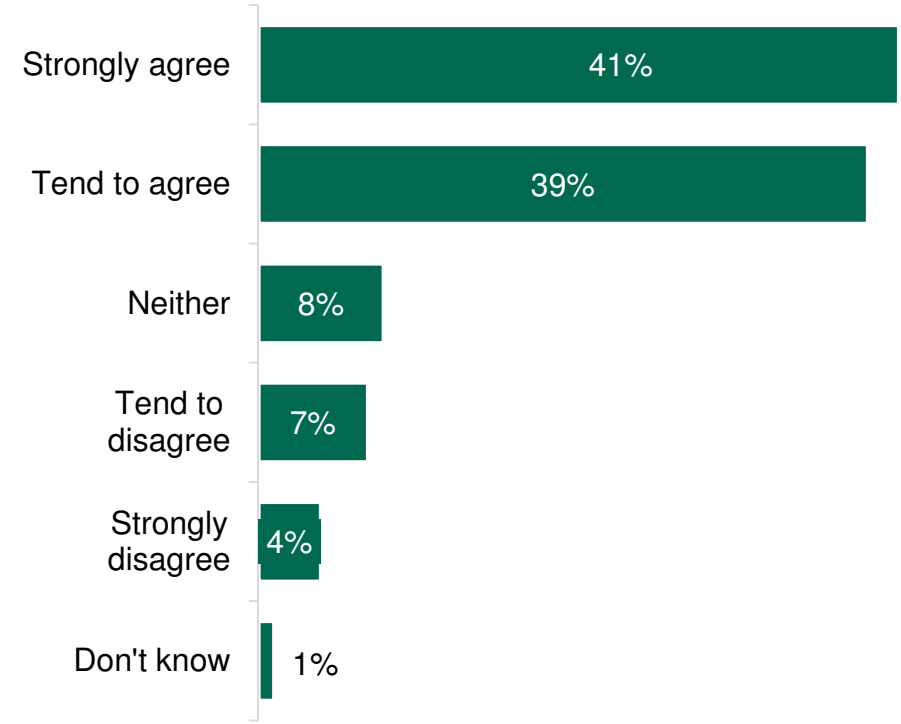
Different sources provide different estimates of the extent to which the adult population is achieving a healthy diet. Fruit and vegetable intake is one indication of the healthiness of a population's diet; in general, people who eat more fruits and vegetables have a healthier diet overall. The latest National Diet and Nutrition Survey (NDNS) reported that 27% of 19-64 year olds and 35% of those aged 65+ were eating '5-a-day'. [11] This survey uses food diaries to obtain a detailed picture of the nation's dietary intake.

An alternative source of evidence on dietary behaviour is the Public Health Outcomes Framework (PHOF), which also includes an indicator on the proportion of adults who eat '5-a-day', in different areas across the country. The PHOF indicator uses evidence from the Active People Survey, which may be a less reliable source than NDNS as it relies on self-reported behaviour – when asked, people may overstate fruit and vegetable consumption through a desire to show socially desirable behaviour. On the PHOF measure, almost half (47%) of Hackney adults, and just over a third (36%) of City adults, are reported to eat '5-a-day'. [27] Due to the relatively small number of residents in the City of London, estimates for this area should be treated with particular caution.

In 2015, Ipsos MORI was commissioned by Hackney Council to carry out a survey of the health and wellbeing of adults (age 16+) in Hackney. This survey (based on a sample size of 1,009) included questions on dietary behaviours, as well as knowledge and attitudes to a healthy diet. [28] Virtually all respondents to this survey (89%) were aware of the recommendation to eat at least five portions of fruit and vegetables each day, but only a third (35%) said they achieve this in practice.

Figure 4 shows that eight out of 10 residents believe they have a healthy diet (41% strongly agree with this statement), while just over one in 10 (11%) do not. The main perceived barriers to healthy eating are cost and lack of time.

Figure 4: Extent to which adult Hackney residents agree that they have a healthy diet (age 16+, 2015)

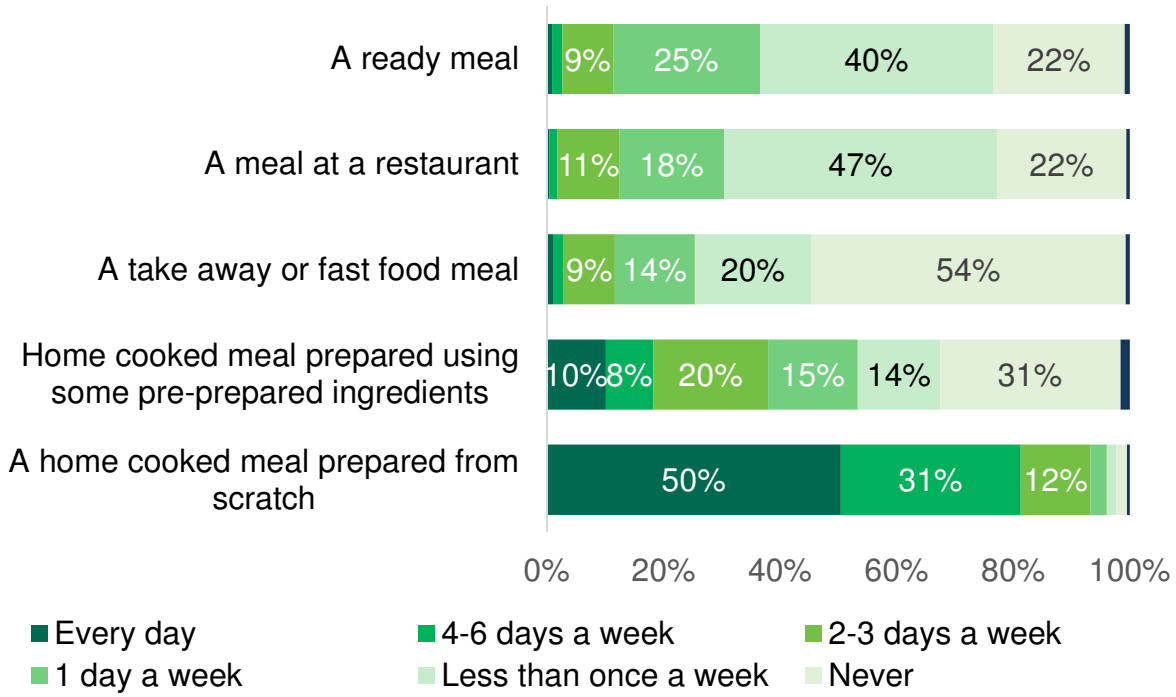


Source: Hackney resident health and wellbeing survey (2015)

Figure 5 suggests that the majority of adult Hackney residents (81%) eat home-cooked meals made from scratch four or more days a week, with half saying they do this every day. Almost half (46%) say they eat takeaway food at least once a week, but around a half (54%) say they never do. Around three quarters (77%) eat out in restaurants at least once a week but one in five (22%) say they never do. One in five (22%) of adult residents say they never eat ready meals.

There was a strong correlation in this local survey between eating '5-a-day' and preparing meals from scratch. This mirrors other research which found that people who cook regularly eat more fruit and vegetables. [29]

Figure 5: Reported frequency of eating different types of meal among adult Hackney residents (age 16+, 2015)



Source: Hackney resident health and wellbeing survey (2015)

2.3.2 Dietary behaviour in children and young people

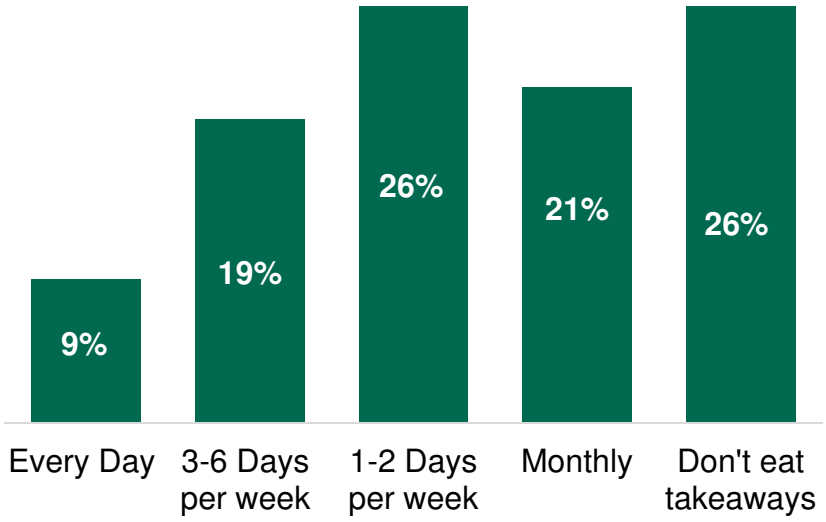
A locally commissioned survey of young people (aged 11-19) in Hackney in 2012 (carried out by Rockpool Associates) asked about a range of health behaviours, including dietary habits. [30] This survey (involving a sample size of 844) found that only 15% reached the '5-a-day' target, which is much lower than the 56% reported for Hackney 15 year olds in the national What About YOUth survey (WAY). [31] It is difficult to draw any conclusions from these data, however, as they cover different age groups and use different methods.

The Rockpool survey found that the least popular foods among local 11-19 year old respondents were salad, fruit and vegetables, while the most popular were pasta, pizza, chicken and chips. This suggests that young people's dietary behaviours are largely not driven by health concerns, as the majority (76%) also said that 'vegetables' is what healthy food means to them.

Takeaways are popular among young people in Hackney (see Figure 6), with over half of 11-19 year olds surveyed saying they eat takeaways at least once a week and just under 10% doing so every day. Other findings from the Rockpool survey show that just over a third (39%) of young people eat takeaways in place of a school meal at least one a week, and for a similar proportion takeaways are eaten as a snack on the way home; 13% say they have a takeaway in place of a main meal at least once a week.

The comparatively high levels of child obesity in City and Hackney (see 'Children and young people' JSNA chapter) may be considered an indicator of poor dietary behaviour in local young people.

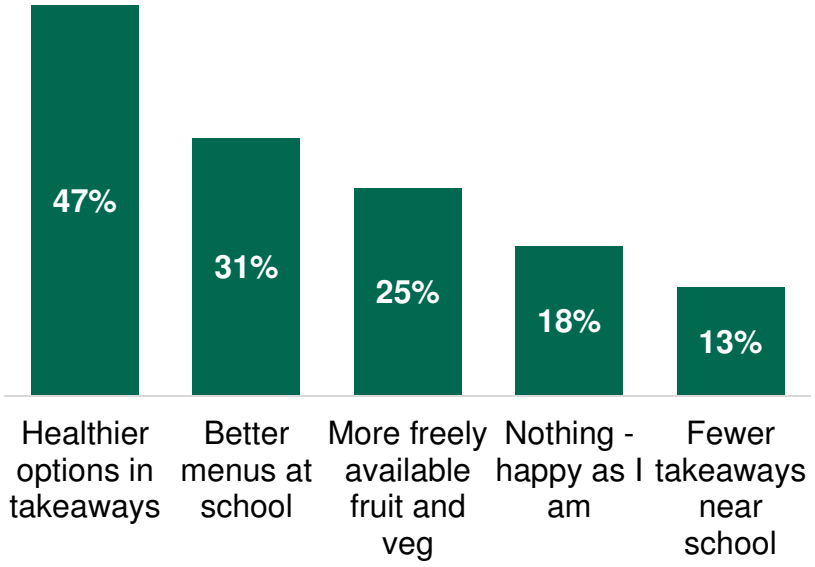
Figure 6: Reported frequency of eating takeaways among young people in Hackney (age 11-19, 2012)



Source: Rockpool survey, Healthy lives in Hackney (2012)

Young people were also asked in this survey what would help them be healthier in terms of their diet. Figure 7 shows that healthier takeaway options were most commonly mentioned, followed by better school menus.

Figure 7: Suggestions from Hackney young people to help them be healthier (age 11-19, 2012)



Source: Rockpool survey, Healthy lives in Hackney (2012)

2.3.3 Health outcomes

The 'Adult health and illness' chapter of the JSNA describes the prevalence of a range of health conditions that are linked to poor diet (including coronary heart disease, diabetes and cancer). The 'Children and young people' JSNA chapter provides a similar commentary.

Estimates from the recent Global Burden of Disease (GBD) report 2013, suggest that as many as 17% of deaths in Hackney may be due to dietary risk factors (for example, eating too little fruit) – this equates to around 273 deaths in Hackney. [32] If current dietary trends of eating too little fruit and vegetables continue, this number may increase. The GBD report identified CVD and cancer to be the main underlying causes of death associated with dietary risk factors.

Due to small numbers of residents in the City, the estimated number of deaths due to dietary risk factors cannot be calculated accurately.

2.4 Inequalities

Where available, local data for Hackney are reported in this sub-section to illustrate inequalities in dietary behaviour. No inequalities data are available on diet for the City of London.

2.4.1 Pregnancy and maternity

The 'Children and young people' chapter of the JSNA describes the importance of maternal nutrition and dietary behaviour for health. During and after pregnancy, nutrient supply and feeding are key for growth, birth weight and protecting a child against future disease risk. [33] [34] Folic acid supplementation, adequate Vitamin D intake and maintaining a healthy preconception body weight are all important in improving outcomes for both mother and child. [34]

The birth of a child can be an important trigger for parents to make improvements to their diet. [35]

2.4.2 Age

Early childhood represents a period of rapid growth and development (with a shift from milk based feeding to solid foods), during which it is important to establish good eating habits, Early exposure to healthy foods in childhood can increase later acceptance of such foods in later life. [36] [35]

During adolescence, young people often exhibit a desire to become more independent in their food choices, which is further complicated by issues around body image, sense of self and peer approval. Adolescent diets are often the furthest from dietary guidance - commonly high in free sugars, saturated fat and salt, and low in fruits and vegetables. [37] [11] This is demonstrated locally, with only 20% of 16-24 year olds in the Hackney resident health and wellbeing survey reporting that they eat at least five portions of fruit and vegetables a day (compared with 35% overall).

[28] Section 2.3.2 also provides evidence of unhealthy diets among many younger residents.

A variety of factors influence changes in dietary health as people grow older. These include the ageing process itself, illness or disease, loss of a partner or social relationships, changes to residency, drug interactions and food access issues (such as ability to go food shopping). [38] Older people are at particular risk of undernutrition, which is strongly linked to social isolation. There is no reliable source of data on the number of older people at risk of undernutrition in Hackney or the City, but national estimates suggest that prevalence in the community is one in 10. [39] Conversely, the latest NDNS found that people aged 65 and over were *more* likely than younger adults to eat the recommended five daily portions of fruit and vegetables. [11]

2.4.3 Gender

Nationally, women consume slightly more in the way of fruit and vegetables than men. [7] This mirrors research in Hackney, which showed that 30% of men and 40% of women reported meeting the '5-a-day' guidance. [28]

In the Hackney resident health and wellbeing survey, women were also more likely to say they eat a home cooked meal from scratch every day when compared to men (54% compared to 44%); and women also report eating less in the way of pre-prepared (e.g. frozen and microwavable) meals than men (21% compared with 29%). [28]

2.4.4 Ethnicity

Certain ethnic groups are at increased risk of diet-related ill-health and disease - such as obesity, diabetes and heart disease (see 'Adult health and illness' chapter of the JSNA).

The Hackney resident health and wellbeing survey found that Black residents (28%) and Asian residents (18%) were less likely than average (35%) to say they ate at least five portions of fruit and vegetables a day. [28]

Due to the ethnic diversity of the populations of Hackney and the City, it is likely that there is considerable variation in diets and food behaviours locally. A national review of the diets of minority groups in the UK found some key differences, including: [40]

- inner London Black African-Caribbean children were more likely to skip breakfast or have other poor dietary practices, including eating less than one portion of fruit and vegetables each day
- inner London South Asian children had healthier overall diets, but a higher intake of fizzy drinks
- south Asian and Black African-Caribbean children have lower dietary intakes of vitamin D and calcium
- minority ethnic groups are more likely than White populations to meet the '5-a-day' recommendation (this is not consistent with local survey findings for Hackney)

- second generation children often adopt more western style dietary practices (high fat, sugar and low fruits and vegetables) than their parents.

2.4.5 Disability

In the Hackney resident health and wellbeing survey, adults with a disability were less likely to report consuming five portions of fruit and vegetables a day than average (24% compared with 35% overall). [28]

People with learning disabilities are at increased risk of dietary-related poor health, being more likely to be both underweight and obese – depending on severity of disability. [41] Underweight risk in this population is associated with poor diet and difficulty swallowing; overweight and obesity can be due to specific conditions such as Prader Willi syndrome (which causes insatiable appetite) or due to high intakes of energy and saturated fat. [41] [42] Fewer than 10% of adults with learning disabilities in supported accommodation eat a balanced diet, with poor intake of fruit and vegetables a common feature in this population. [42]

2.4.6 Religion or belief

There are many different religious and faith groups in Hackney, where food is a focus of celebrations (for example Purim is celebrated by Jewish residents and Eid marks the end of a month of fasting for Muslim residents). In some of these communities, food behaviours (such as fasting) have great significance.

A 2010 survey of the Orthodox Jewish community in Hackney (sample size 302) found that almost two thirds (62%) of respondents met the '5-a-day' guidance. These data suggests higher compliance with the '5-a-day' guidance than local or national comparisons, but care should be taken when interpreting findings from these different source. [43]

2.4.7 Socio-economic disadvantage

National data show that, compared with higher income families, low income households consume fewer fruits and vegetables, get more energy from free sugars and consume less fibre. [22] Data from the 2015 Living Costs and Food Survey show that consumption of fruit and vegetables has fallen in lower income groups in recent years (between 2007 and 2014) while consumption of confectionary has increased. [44] These trends may be acting to further widen health inequalities across social groups.

The Hackney health and wellbeing survey identified differences in dietary behaviour across a number of measures of socio-economic status, for example: [28]

- home owners (42%) and full time workers (45%) are more likely to eat meals in restaurants at least once a week compared with social renters (20%) and part time workers (29%)
- social renters (42%) are more likely to eat takeaway meals at least once per week compared to home owners (33%)
- social tenants eat fewer fruits and vegetables compared to other residents (29% reach the '5-a-day' guidance compared with 35% overall)

- residents living in 'rising prosperity' areas are more likely to report eating '5-a-day' (41%) and less likely to say they eat takeaways (30%) than those living in 'urban adversity' areas (30% and 43%, respectively).[2]

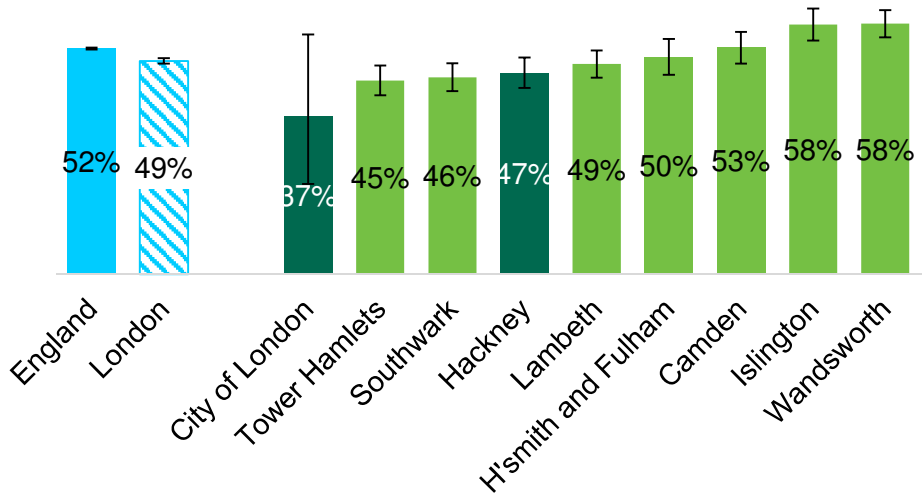
Low income households are also at risk of food poverty and food insecurity (see 'The food environment' section of the 'Society & environment' JSNA chapter).

2.5 Comparisons with other areas and over time

The figures below present local survey data on consumption of '5-a-day', comparing Hackney and the City of London with Hackney's statistical peers, London and England. No other comparative data, and no trend data, are available on dietary behaviour.

Figure 8 shows how (self-reported) consumption of '5-a-day' in Hackney and the City compares with Hackney's statistical peers as well as the regional and national averages. A smaller proportion of Hackney residents report eating '5-a-day' than in Islington and Wandsworth, but rates are similar to other statistical peers and London (but statistically lower than for England as a whole). Due to small numbers, it is not possible to say whether rates are lower or higher in the City compared to other areas (the confidence intervals on the City data are very wide).

Figure 8: Proportion of the adult population meeting the recommended '5-a-day' (age 16+, 2015)

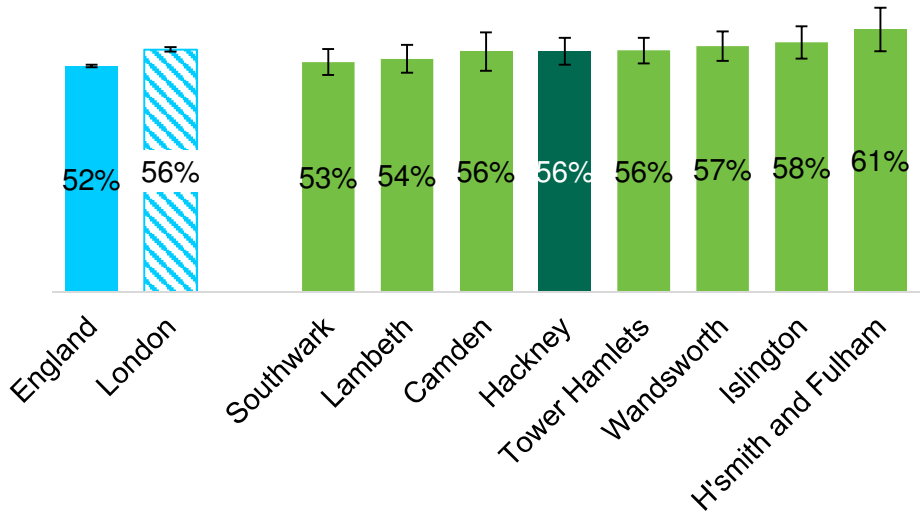


Source: Public Health Outcomes Framework

The WAY survey provides comparisons with other areas of London on this same measure of fruit and vegetable consumption, among 15 year olds. Figure 9 shows that around half of Hackney's young people reported eating '5-a-day' in this survey, which is similar to that reported in other areas. [31] No equivalent data are available for the City.

[2] These are population groupings defined by the ACORN socio-demographic segment tool [http://acorn.caci.co.uk/downloads/Acorn-User-guide.pdf]

Figure 9: Proportion of the population age 15 meeting the recommended '5-a-day' (2014/15)



Source: Public Health Outcomes Framework

2.6 Evidence and good practice

As already described, the influences on people's food (and drink) choices and dietary behaviour are many and complex. Effective responses to maximise the positive, and minimise the negative, influences therefore requires a comprehensive response.

This sub-section does not provide a detailed review of all possible interventions to address poor diet, but instead provides a snapshot of good practice categorised under two broad headings – 'dietary interventions' and 'behaviour change' at the individual level.

Recommendations for early nutrition and obesity prevention are summarised in the '0-5s Health Needs Assessment' published in 2016 by the Hackney Public Health Team. [45] Evidence-based approaches to tackling the wider food environment are contained within the new 'Society & environment' JSNA chapter.

2.6.1 Dietary interventions

A life course approach is used here to describe evidence-based interventions and good practice for different age groups with different dietary needs.

Early years

The main stages of early feeding are breastfeeding, introducing solid food (complementary feeding) and moving to family foods.

It is recommended that babies are exclusively breastfeed until six months, and are continued to be breastfed into their second year of life. [46] At around six months, it

is recommended to introduce first foods and include a range of vegetables, fruit, starchy foods (like potato or bread), proteins (like meat, fish, well cooked eggs) and dairy products.[3]

In addition, the Children's Food Trust's Eat Better, Start Better programme provides a best practice framework for improving the food offer in early years settings. [47]

Children and young people

The long awaited national 'Child Obesity Plan', published by the government in August 2016, outlined a number of national actions relevant to improving the dietary choices available to children and young people (see Box 2).

Schools provide excellent settings to promote and enable healthy eating among children and young people (even more so where food is provided through breakfast clubs or afterschool provision).

School food provision is covered by the Government Buying Standards for Food and Catering Services and specific guidance in 'The School Food Plan'. [48] [49] High quality school meals are an important nutritional safety net for low income families and guidance is available to school leaders on how to deliver healthy school meals that meet nutritional guidelines. [50]

A survey analysing the content of lunch boxes in English schools found that 90% did not meet the dietary guidelines set for school meals and are in general lacking in fruits and vegetables. [51] A healthy packed lunch should contain foods from each food group in the Eatwell Guide. NHS Choices provide the following guidance for foods to include in a healthy lunchbox: [52]

- starchy foods – bread, rice, potatoes, pasta and others
- protein foods – including meat, fish, eggs, beans and others
- a dairy item – this could be cheese or a yoghurt
- vegetables or salad and a portion of fruit.

[3] https://www.nhs.uk/start4life/babies

Box 2: Child Obesity Plan 2016 - summary of actions related to food and diet [53]

1. Introducing a soft drinks industry levy, with funds going towards schools to promote physical activity and healthy diet.
2. Taking out 20% of sugar in products through a voluntary reduction programme.
3. Supporting innovation to help businesses make their products healthier through initiatives to encourage research and development.
4. Developing a new framework by updating the nutrient profile model to encourage companies to make food healthier – this aims to make it easier for families to identify which foods and drinks are healthier and which are less healthy.
5. Making healthy options available in the public sector, e.g. encouraging councils to adopt the Government Buying Standards for Food and Catering Services.
6. Providing support with the cost of healthy food for those who need it most, through continuing to support the Healthy Start scheme to provide vouchers to low-income families for fruit, vegetables and milk.
7. Creating a new voluntary healthy rating scheme for primary schools, to recognise and encourage their contribution to preventing obesity by helping children to eat better and move more. This scheme will be taken into account in Ofsted inspections.
8. Making school food healthier through updating the voluntary School Food Standards, encouraging academies to commit to tackling child obesity, and investing in breakfast clubs with funds from the soft drinks levy.
9. Clearer food labelling through considering the most effective ways to communicate food content to families on packaging, such as teaspoons of sugar.
10. Supporting early years settings by commissioning the Children's Food Trust to develop revised menus these settings, to be incorporated into voluntary guidelines, and campaign to raise awareness of these guidelines.
11. Harnessing the best new technology, for example by developing applications to support healthier eating decisions for adults, children and families.
12. Enabling health professionals to support families by reviewing how healthy weight messages can be conveyed by midwives and health visitors; supporting all NHS providers to 'make every contact count' by raising weight issues with families.

Working age adults

As schools are key health promoting settings for children, so workplaces are important settings for public health interventions in adults. The majority of working age adults spend most of their time in the workplace, where they may eat at least one meal each day. Recognising this opportunity, the London Healthy Workplace Charter provides an evidence-based framework for investing in workplace health initiatives, including a set of standards (at three different levels) which aim to improve access to healthy food among staff (see Table 1).

Table 1: London Healthy Workplace Charter - healthy eating standards [54]

Level of Achievement	Requirements
Commitment level	Appropriate, acceptable and accessible information on healthy eating is provided.
	Any kitchen facilities or beverage areas are in good condition and conform to the highest possible standards and requirements of food hygiene.
	Wherever possible, eating facilities are provided away from work areas. Use of these facilities is promoted to enable regular breaks away from the work area.
	All workplaces have access to fresh drinking water.
Achievement level	Any on-site catering facilities provide healthier options that are actively promoted.
Excellence level	A corporate healthy eating food plan, guidelines or similar has been produced in consultation with staff that covers: • corporate hospitality • catering provision • local sourcing of food using local providers where appropriate • vending/in-house catering pricing strategy to promote healthy options.
	Internal or external support is on offer for those who wish to lose weight.
	There is a rolling schedule of planned events to promote the importance of healthy eating.

Older people and other vulnerable groups

A number of resources are available which provide dietary advice for older people. [38] [55]

A summary of nutritional guidance for older people in care, published by the Social Care Institute for Excellence (SCIE) in 2009, is presented in Box 3.

In order to estimate the numbers of people at risk of undernutrition, to help target interventions, the 'malnutrition screening tool' (MUST) can be completed within a representative cross-section of older people in the community. See Box 4 for further details.

Box 3: Nutritional care and older people guidelines (SCIE) [56]

Good nutritional care for older people is founded on:

- dignity in care – respect for people receiving care, ensuring that meals are appetising and appropriate
- screening – nutritional screening on admission to health and social care services, and improving food intake where necessary should be a key part of assessment and care planning
- prioritising mealtimes – ensuring that mealtimes are respected and not interrupted by other routine activities, sufficient staff are allocated and the environment is conducive to eating
- training – staff should receive training to ensure that they have a nutritional knowledge base appropriate to their role; the training should also equip those working with older people with the skills to communicate with people that have dementia and communication difficulties
- accountability – ensuring everyone takes responsibility for good nutritional care from assessor to commissioner to frontline worker
- information and support for people using services and carers - awareness of nutrition may, for many reasons, be low in older people and their carers.

Box 4: Malnutrition screening tool [57]

MUST is a five step tool to identify adults who are either malnourished or at risk of malnutrition. The steps are as follows.

Step 1 - calculate BMI and create a score
Step 2 - calculate any unplanned weight loss and create a score
Step 3 - establish disease affect and create a score
Step 4 - add scores from step 1, 2 and 3 to obtain overall risk
Step 5 - use management guidelines to develop a care plan or local policy

Interventions of relevance across the life course

Addressing social inequalities in dietary behaviours

The 'Food Standards Pocket Book' estimates that the food purchases of the lowest income households could be adjusted to meet the recommendations set out in the Eatwell Plate (the previous version of the Eatwell Guide) by altering spending on different types of food as follows (£ per person per week): [58]

- £2.20 more on fruit and vegetables
- £1.82 more on starchy foods
- £0.68 less on meat, fish and eggs
- £0.72 less on milk and dairy and
- £2.62 less on foods high in fat and or sugar.

However, it is recognised that this would require changes in food behaviours that would be challenging for many households.

The Faculty of Public Health recommends that local authorities: [59]

- implement initiatives such as cooking clubs to encourage and develop cooking skills, and increase nutritional knowledge
- integrate measures to address food poverty within existing local programmes and strategies, such as local obesity strategies
- produce local information to explain the importance of a healthy diet and what constitutes a healthy diet, as well as listing local suppliers where good quality affordable food is available.

Sugar reduction

Dietary intake of sugar is a growing health concern (particularly among children) and, in response, PHE has published a set of recommendations, including the following: [12]

- adopt, implement and monitor the Government Buying Standards for food and drinks, across the public sector
- ensure that accredited training in diet and health is routinely delivered to all those who have opportunities to influence food choices in the catering, fitness and leisure sectors and others within local authorities
- continue to raise awareness of concerns around sugar levels in the diet to the public, employers and the food industry
- encourage action to reduce sugar intake and provide practical steps to help people lower their own and their family's sugar intake.

Fasting

Fasting is practiced by several faith groups, as mentioned in Section 2.4.6. The NHS provides information and advice on eating well and hydration when fasting. [60]

2.6.2 Behaviour change

Improving food and dietary behaviours is complex and evidence suggests that there is no single best approach, but that a range of strategies are needed which should be informed by consumer research. [61] [62]

Social and peer norms

Health behaviours which are shared with a social group, friends or family are deemed to be normal or 'the norm'. Healthy or unhealthy behaviours are acceptable to an individual if there is acceptance from peers (for example, eating fruit as a snack is a norm for some families). Shifting norms is an effective strategy to improving food and dietary behaviours, but requires challenges and changes to the attitudes of social groups. [36]

Change4Life is a behaviour change program led by the NHS. The 'We're in' campaign aimed to normalise good behaviours and publicise evidence of other people making positive change. To do this, sub campaigns with local and regional press were developed alongside commercial programs like Breakfast4Life. [63]

Loss and gain messages

There is growing evidence to suggest that different people understand and respond differently to health messaging and associated health risks. Research from the United States has found that 'loss framed messages' (for example, 'eat less meat') resonate more with higher educated people, while 'gain framed messages' (such as, 'by eating healthfully, people can gain positive body image or energy') has a greater effect on people with lower levels of education. Appropriate framing of messages therefore needs to be considered when designing targeted communications aimed at changing dietary (and other) health behaviours. [64]

2.7 Services and support available locally

This sub-section provides a snapshot (at the time of writing) of local services and support available in Hackney and the City under the same headings presented in Section 2.6.

2.7.1 Dietary Interventions

Early years

For information on nutritional support during and after pregnancy, including local breastfeeding programmes and Healthy Start vitamins and food voucher schemes, please see the 'Children and young people' JSNA chapter.

Get Hackney Healthy is a local programme to promote healthy lifestyles in families and young people. There are several projects aimed at the 0-5 age group and their parents and carers, including several interventions to improve food and dietary behaviours. Locally produced guidance is available for early years settings to promote healthy weight. [65]

HENRY (Health, Exercise, Nutrition for the Really Young) is an eight week group programme for parents of young children in Children's Centres across Hackney and the City. It accepts referrals from parents or carers with children under five years of age who are keen to develop their skills to provide a healthy lifestyle for their family. It provides support with:

- parenting skills
- eating patterns and behaviour
- physical activity
- emotional wellbeing.

In 2014/15, 104 families competed the HENRY program and all reported they were more likely to make healthy changes to their lifestyle.

Local Children's Centres also provide complementary feeding support for families, with the support of a dietitian.

In addition, a locally delivered Eat Better Start Better programme is being rolled out in Hackney to improve food choices in early years settings (see Box 5 for details).

Box 5: Case study - Eat Better Start Better in Hackney

60 of Hackney's 177 early years settings are participating in the Eat Better Start Better programme. The first two years of the programme have seen some promising results, including:

- improving the diets of 2,200 children
- increasing fruit and vegetable intake for over 1,000 children
- increasing the variety of fruit and vegetables for over 1,500 children
- increasing oily fish consumption for over 600 children
- increasing consumption of whole grains for over 1,000 children
- reducing salt intake for almost 500 children
- reducing consumption of high fat/high sugar snacks for over 900 children.

Children and young people

For information on obesity treatment and prevention (as well as dental health interventions) in this age group please see the 'Children and young people' JSNA chapter.

Get Hackney Healthy also runs projects aimed at the 5-19 age group. Health Heroes is one of the main programmes for school age children and works with targeted primary schools. The Health Heroes programme is focused on physical activity, increasing children's knowledge of healthy eating and school catering reviews. Health Heroes has worked with 13 schools and conducted 10 catering reviews, and has improved the school food environment for over 3,000 young people in Hackney.

The catering reviews have resulted in the development of new packed lunch policies, the development of new menus, removal of flash fried foods (for example pre-made roast potatoes), improvements in the eating environment and developing healthy tuck shops. An example of the success of one Health Heroes school in increasing vegetable intake among pupils is described in Box 6.

Box 6: Case study - Nightingale Primary School

As part of the Health Heroes programme, Nightingale Primary School in Hackney grew its own vegetables and salad leaves. A new salad bar was introduced to the meal hall which used produce that the children had grown in the school garden. This resulted in a 40% increase in the number of salad portions eaten each day, with 80% of children now regularly choosing to eat salad – up from 50% prior to the school participating in the Health Heroes programme.

Adults

In Hackney and the City, Bags of Taste is a local charity which runs a course to promote dietary change in adults, specifically targeting spending on takeaways, by providing cooking equipment and ingredients to take home (see case study in Box 7). The course uses cooking and budgeting skills to prepare healthier versions of takeaway foods with online support, homework activities and the offer of low cost

equipment to purchase. At the end of the first two years of the project they have found:

- household food bills were reduced by £15 per week as a result, equating to a saving of £763 per year
- 87% of participants report that they have saved money on their takeaway and ready meal spend by an average of £12.50 per week.

Box 7: Case study - Bags of Taste course participant

Jimmy, 66, was a self-confessed take away fan. He popped out for a kebab, fish and chips or a Chinese takeaway at least four times a week.

He came to the four-session Bags of Taste course at the Round Chapel, Clapton, in December 2015 and cooked a variety of dishes including Singapore noodles. He posted a photo of every dish he cooked on the 'Bags of Taste' Facebook page and now volunteers at the charity doing cooking demonstrations.

Older people and other vulnerable groups

Meals on Wheels is a service where older or vulnerable people can order meals to be delivered to their homes. A service is currently running in Hackney, available 365 days a year, and meals can be tailored based on dietary and cultural needs. [66]

Interventions of relevance across the life course

Improving the food environment

Various regulatory, policy and targeted interventions to improve the local food environment are described in the 'Society and environment' JSNA chapter. These include a Healthier Catering Commitment award scheme for hot food takeaways in Hackney, Local Plan policies to limit further proliferation of such takeaways near secondary schools, as well as various food growing projects.

Addressing social inequalities in dietary behaviours

In Hackney, a range of food budgeting and cooking skills activities are run as part of the local Community Kitchens programme, involving community-based sessional courses run by local not-for-profit organisations. The projects target deprived areas across the borough and classes are free to attend.

The courses on offer are a mix of adult and family classes and aim to promote healthy eating and improve dietary behaviours for all ages. Course content includes cooking healthily from scratch and preparing affordable meals, in order to improve confidence and skills in the kitchen. At the end of each session, participants sit down and eat the food they have prepared together.

In 2015/16, Hackney Public Health funded over 70 'cook and eat' courses on nine estates. Over 700 residents have completed a four week programme. The evaluation

showed that at the end of the course:

- 77% of participants on both adult and family courses reported feeling more confident reading nutritional labels on food packaging
- 70% of participants said they felt confident preparing and cooking new foods and recipes at home
- 91% of participants reported cooking at home two or more times a week.

Box 8: Case study - Pembury estate 'cook and eat' course participant

Carol and her son joined the course as her son was a picky eater and had poor eating habits. After the second session, Carol was surprised that her son started trying the vegetables and salads with the other children. By the end of the course, her son has cooked a three-course healthy meal for Carol.

"We have really enjoyed this course. It's made us look at what we eat, finding healthy ways to cook. Not using salt and sugar too much. My children have wanted to go home and do lots of cooking and put it into practice."

2.7.2 Behaviour change

Data reported in Section 2.3 suggests that awareness of what constitutes a healthy diet is high in Hackney (at least in terms of stated knowledge of the '5-a-day' guidelines), but this does not appear to be translating into healthy dietary behaviours (a minority actually meet these guidelines). Only through a better understanding of the drivers of day-to-day decisions and habits around food can we develop an effective response to health harms created by poor diets locally.

Gathering local insight to inform behaviour change interventions

Section 2.2 referenced some insight work that has been carried out in east London (including on a housing estate in Hackney), as part of a pilot project to develop effective place-based responses to child obesity. As part of this work, a 'deep dive' of the Haggerston area (where the Hackney pilot is located) was undertaken to obtain a detailed understanding of the drivers of obesity-related behaviour, including diet (the outcome of this work led to the identification of four population 'segments' as described in 2.2). Local insight identified the following barriers and facilitators to healthier diets: [26]

- difficulties among parents in keeping up to date with information about free local activities
- children can be encouraged to become more involved in cooking and growing food, suggesting that if they learn how to make food themselves they would be more likely to eat a healthy diet
- lack of knowledge on how to prepare food on a tight budget, negative perceptions of the price of healthy food and a lack of understanding and skills related to cooking.

These insights are being used in the next stage of the project to design a concept that can be tested with the 'disengaged' and 'survivor' population segments, who were identified as facing the most significant barriers to healthier lifestyles.

Message framing

The local Community Kitchens programme has adopted Public Health England's One You branding,[4] selecting positively framed messages to promote healthier behaviours in order to maximise opportunities to address health inequalities.

2.8 Service gaps and opportunities

Section 2.7 described a comprehensive range of activities, projects and programmes that aim to support healthier diets for local residents. However, there are inevitably some potential gaps and opportunities, examples of which are described below.

Given the relatively poorer dietary behaviour of adolescents and young people (Section 1.4.1), this may present a potential gap for local services to address. However, this is likely to be filled at least in part by the new City and Hackney Children and Young People's Health and Wellbeing Service, launched in October 2016. This new, holistic service has a strong prevention focus and will deliver education and outreach in primary and secondary schools, and also in a range of youth and community settings. As with other school-based interventions, the abundance of independent schools in Hackney does pose a challenge for ensuring equal access to the education provision within this service model, however this challenge is being addressed by engaging with affected communities to better identify need and tailor the provision to maximise coverage of the service.

Other planned and ongoing interventions to tackle the wider food environment (including work to reduce the 'unhealthiness' of hot food takeaways on sale locally) will also help to improve the diets of young people as well as other residents. There is also a current gap, in Hackney at least, in terms of working with local employers to create workplaces which support healthier eating for their staff. The City of London Corporation has already attained London Healthy Workplace Charter status and has a comprehensive offer of support to local businesses to create healthier workplaces through the Business Healthy programme. In Hackney, the council was awarded Charter status in October 2016, which is an excellent platform to start working with local employers in a similar way.

The refresh of the local obesity strategy (which expires in 2018) also offers an excellent opportunity to review existing provision to ensure that it is based on the most up-to-date evidence of need and best practice to improve the diets of local people. This work is being led by a new Obesity Strategic Partnership (OSP) in Hackney, which was launched in early 2016 to guide a 'whole systems approach' to tackling obesity in the borough. The partnership is chaired by the Chief Executive of the council and includes membership from across a range of service areas that can influence aspects of the food (and physical activity) environment, as well as the NHS. The new strategy will be informed by learning from current local projects, including the behaviour change pilot in Haggerston described earlier.

[4] One You is a Public Health England campaign to encourage adults to make healthy lifestyle changes to prevent future ill health – see https://www.nhs.uk/oneyou

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