Healthy Weight and Good Nutrition JSNA Profile Pack

Determinants Influencing Healthy Weight and Good Nutrition

Supplementary Document

What surrounds us shapes our health. It is estimated at least 50% of health outcomes are attributable to where we are born, grow and live (1). These factors, such as employment, education, transport, access to healthy food and our surroundings are collectively known as the Building Blocks of Health (2). When all these building blocks are in place, people can live long lives and thrive, but for many people these blocks are weak or missing, which is cutting lives short.

Poor diet and a lack of physical activity are key causes of unhealthy weight, and the causes of poor diet and low physical activity are linked to the building blocks of health. For example, having sufficient money and resources to be able to afford healthy and nutritious food, living in areas that are food deserts (places where it is difficult to access good-quality fresh food at a reasonable price), and exposure to advertising for High Fat Salt and Sugar (HFSS) foods all impact on our ability to have a healthy diet. This section will outline some of these factors in further detail.

1. Access to healthy food

a) Availability and accessibility of healthy food and a nutritious diet

Healthy food availability and access are strongly shaped by deprivation and cost. While many residents have physical access to supermarkets and food retailers, this access is uneven across Nottingham and Nottinghamshire. More deprived areas experience poorer quality local food environments, with limited availability of affordable fresh fruit and vegetables and higher exposure to less healthy food options (3) (4)

Availability and affordability of fresh, whole food and inexpensive, well marketed, and nutrient deficient food, compete for space in food environments. Eight per cent of the most deprived areas of the UK are food deserts where there is no access to healthy and affordable food. Where there are food deserts, this is likely to impact on healthy food choices and affect some groups more than others (5). For example, this may disproportionately affect people with disabilities, people on low incomes or living in a rural area as they may face additional costs of transport to less expensive supermarkets further from their home than local convenience stores.

b) The Out of Home Food Environment

The Out of Home (OOH) food environment refers to all settings where food and drink are prepared, sold, served, or provided for consumption outside the home. It also refers to the wider physical, economic, and social factors within these settings that influence food availability, affordability, promotion and choice. This encompasses settings like pubs, restaurants and hot food takeaways.

The OOH food environment in the UK has seen a significant shift in recent years. Food from hot food takeaways now make up a significant and growing proportion of residents' weekly food consumption. Nearly half the UK population regularly consumes takeaway food, as 22% of people in the UK order from a takeaway and a further 23% order via a food delivery service (for example, Deliveroo, Just Eat, Uber Eats) at least once a week (6). People now

consume 50% more calories from takeaways than before the COVID-19 pandemic, indicating an increasing trend of takeaways (7). This is concerning from a population health perspective as many of the foods served in hot food takeaways are high in Fats, Sugar and Salt (HFSS). These foods are designed to be highly palatable and energy dense and therefore, if consumed in high quantities, are likely to impact on someone's weight.

What is further concerning is the disproportionate impact that the OOH food environment is having in the most deprived communities. In Nottingham and Nottinghamshire, there are varying levels of density of fast-food takeaways. In 2025, Nottingham had 135.4 fast food takeaways per 100,000 population, higher than the national average (8). Across Nottinghamshire's seven districts, the average population weighted density of fast food outlets is- 98.6 per 100,000 population (calculated using district- level rates from the OHID fast -food- outlets indicator and Census 2021 district populations as weights), below the England average of 115.9 per 100,000 (2024) (8) (9) . Mansfield, at 115.9 per 100,000, is at the national average (8). This data at an upper-tier authority level masks inequalities in density within districts and boroughs. Market Warsop, a ward within Mansfield, is characterised by high levels of deprivation, (including an LSOA in the 10% most deprived nationally, IMD Decile 1, and several others in Deciles 3–4), and simultaneously exhibits a very high fast food outlet density of approximately 325 outlets per 100,000 population, based on 10 outlets for a population of just 3,081 residents, illustrating the well established pattern whereby fast -food- takeaways cluster more densely in more deprived communities both locally and nationally (10) (11).

National updates to the 2024 National Planning Policy Framework (NPPF) now give local authorities stronger powers to refuse new hot food takeaway applications, particularly near schools and in areas where existing concentrations are linked to poor health outcomes (12). Guidance from the Local Government Association confirms that these strengthened policies help councils make and defend health -led planning decisions when supported by strong local evidence (13). Over half of English local authorities already use policies or SPDs to limit takeaway proliferation, especially in deprived areas (14). For Nottingham City and Nottinghamshire, where fast food outlet density and poor diet- related outcomes are patterned by deprivation, these planning powers offer a practical, evidence- based- tool to create healthier neighbourhoods and reduce exposure to unhealthy food environments, where currently only Mansfield District Council's Local Plan contains explicit restrictions on hot food takeaway development of the 8 local authorities in Nottingham and Nottinghamshire (15).

c) Schools and early years settings

Schools and early years settings play a central role in shaping children's eating habits, physical activity levels and long-term- health behaviours. They provide a daily structured food environment where many children consume a significant proportion of their weekly meals, up to 90% of daily energy intake in Early Years settings (nurseries, childminders, pre-school) (16) and around 30% in schools (primary and secondary) (17), meaning the quality, affordability and cultural acceptability of food in these settings can strongly influence diet quality and healthy weight trajectories.

UK national analysis of 3,001 children found that children eating school meals were significantly more likely to meet recommendations for vegetables, fibre and protein, and less

likely to exceed limits for salt, sugary snacks and sweet foods compared with those bringing packed lunches. This demonstrates that the nutritional quality of the school food environment shapes overall diet quality (18). Diet quality advantages of school meals weaken in older pupils, showing that exposure to poorer-quality food environments (e.g., more snack availability) worsens dietary patterns, reinforcing the direct role of school environments in shaping intake (18). Clear lunchbox and whole setting food policies play an important role in shaping -healthy weight outcomes, as they influence what children bring from home, reduce exposure to high- fat-, salt and sugar (HFSS) foods, ultra processed foods (higher in lunchboxes than school meals) and support consistent messaging between families and settings about balanced, nutritious eating (19)

Schools and Early Years settings help establish early food preferences and routines through curriculum-based- food education, opportunities to learn practical food skills, and consistent exposure to balanced meals in line with national school food standards, developing life-long food literacy. Beyond food provision, schools and early years environments influence children's movement patterns, screen time and outdoor play opportunities, all of which contribute to energy balance and wider wellbeing (20) (21). Ensuring these settings remain nutrition positive, stigma- aware- and compassionate, supporting all children to engage with food confidently and without shame, is essential for reducing inequalities and fostering healthy, sustainable behaviours from the earliest years.

d) Marketing and advertising of high-fat, sugar, and salt (HFSS) foods.

Aggressive marketing and advertising of foods high in fat, sugar and salt (HFSS) contributes to unhealthy diets and obesity, particularly among children and young people. Evidence shows that exposure to HFSS advertising influences food preferences, purchasing behaviour and consumption, with stronger effects in deprived communities (22) .

National restrictions on HFSS advertising strengthened from January 2026, with a 9pm TV watershed and a ban on paid-for online HFSS advertising (23). However, outdoor advertising and brand-only advertising are not fully regulated. Nottingham and Nottinghamshire currently have no healthier advertising policy for council-owned spaces.

e) Digital environment influence on food

The digital food environment increasingly shapes dietary behaviour through social media, online videos, food delivery platforms and influencer marketing. Studies show higher screen time and digital HFSS exposure are associated with greater consumption of sugary drinks and energy-dense foods among children and young people, particularly in more deprived groups (24).

f) Environmental impacts on healthy foods

Global and national factors, including conflict changes to climate and biodiversity loss, continue to disrupt food supply chains, affecting both the availability and affordability of healthy food. These are known as food shocks. It is essential that local areas prepare for food shocks to consider mitigating the impact of these for the diet of the population in the future. For more information on food partnerships, see the supplementary document assets and services.

2. Affordability of healthy food

There are clear inequalities between deprivation and the consumption of healthy food. Research shows that those living in more affluent households eat more fruit and vegetables, drink fewer sugar-sweetened beverages, and are more likely to consume diets associated with lower cardiovascular risk than those living in less affluent households (25) (26).

Food affordability is a major driver of these inequalities. On average, healthier foods cost more than twice as much per calorie as less healthy options, with healthier food increasing in price at twice the rate in the past two years (27). To meet the government recommended healthy nutritious diet, the most deprived fifth of the population would need to spend 45% of their disposable income on food, rising to 70% for those households with children, compared to 11th for the least deprived fifths of households (27). To mitigate these pressures, national and local interventions such as Healthy Start, Free School Meals, and the Holiday Activities and Food Programme aim to improve financial access to nutritious food, more information about this can be found in the assets section. However, the uptake of such schemes can be limited by stigma and lack of awareness, indicating the need for both economic and structural policy responses to address the affordability of healthy diets and reduce diet-related health inequalities (28) (29).

Recent cost of living pressures have restricted people's ability to purchase heathy nutritious food. Food price inflation peaked at 19.1% in March 2023, disproportionately affecting low-income households and increasing the risk of food insecurity, meal skipping and reliance on cheaper, energy-dense foods (28). For further information on the affordability of food, please see the Nottinghamshire Food Insecurity JSNA (28).

3. Capability: Education and health literacy affecting food choices

Gallegos and Vidgen define food literacy as "A collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake" (30). Food literacy is an important aspect of health literacy because it helps individuals make informed decisions about what they eat and how diet affects their health (31).

Poor food literacy can contribute to health inequities, especially where it is experienced alongside other determinants such as poverty and limited access to fresh foods or proper nutrition education interventions (32). Several factors contribute to poor or limited food literacy, including a lack of access to education about healthy eating, lack of access to affordable healthy food, lack of time to cook healthy meals, lack of knowledge about how to prepare healthy meals, and high levels of stress, which can lead to unhealthy eating habits (33).

4. Cultural and social factors

Cultural norms, traditions and religious practices shape diets because they influence what foods are considered acceptable, guiding everyday eating habits across generations. These cultural frameworks interact with social and environmental factors, such as availability, accessibility, family expectations, and community food practices, which further reinforce specific dietary patterns. For people who have migrated, the balance between home-country foods and host-country food environments can significantly shape how their diets evolve and continue to do so generationally (34).

Beyond nutritional value, food plays an important social, cultural and religious role. Traditional foods are strongly linked to identity, belonging and social cohesion, and are often viewed as practices that must be preserved. Food sharing, hospitality and communal eating during festivals and religious events reinforce family and community relationships, while traditional meals often evoke memories and connections to heritage and ancestry (35). Because food practices are deeply shaped by cultural identity, social cohesion and communal traditions, healthy weight interventions are more effective when they respect and build on these cultural norms, since sociocultural influences strongly determine dietary choices and eating patterns (36). It is important therefore that approaches to solving diet-related health inequalities are culturally sensitive, family-centred and community-led.

a) The impact of family eating habits

Early formations in eating habits in childhood can promote health and reduce later disease risk. Children tend to maintain dietary patterns into adulthood; therefore family, home and social environments are critical for healthy weight (37) (38) (39). Parents or caregivers shape availability and accessibility of foods at home, influence how children think about food, and act as daily role-models. Parental dietary patterns, role modelling and moderate restriction (as opposed to high pressure or outright bans) are closely linked with healthier child eating e.g. higher fruit/vegetable intake, fewer high-fat/high-sugar foods (38) (40) (41) (42).

b) Attitudes toward body image and weight.

Body image (how people think and feel about their bodies) shapes health behaviours across the life course. Poor body image and weight stigma are consistently linked with lower physical activity, unhealthy dieting and disordered eating, delayed healthcare seeking, and poorer mental wellbeing (43) (44). Positive body image (e.g., body appreciation) is associated with better mental health and fewer unhealthy weight-control behaviours (45) (46).

Evidence in this area supports a shift towards weight-neutral, stigma-aware approaches within local healthy weight systems. Framing healthy weight around wellbeing, behaviours and environments, rather than appearance or weight alone, is more likely to support sustained engagement and reduce harm (47) (48). Weight-neutral or Health at Every Size-aligned approaches emphasise body acceptance, intuitive eating and physical activity for health and function, alongside monitoring a broader range of outcomes such as cardiometabolic markers, fitness and mental wellbeing rather than weight alone (49) (50). A compassionate, person-centred approach, one that validates lived experience, avoids shame, and prioritises psychological safety, further strengthens engagement and helps mitigate the harmful effects of weight stigma, supporting healthier behaviours and improved wellbeing over time.

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