OXFORDSHIRE COUNTY COUNCIL

Health Needs Assessment for Promoting Healthy Weight

Full report

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1 Executive Summary

Living with excess weight poses a significant challenge to living a healthy life. It is one of the leading causes of preventable early deaths, increasing the risks for a wide range of health conditions including heart attacks, strokes, many types of cancer and depression. It is associated with worse mental health and lower educational attainment in children and needing to take more sick leave in adults. Excess weight also comes with high social costs due to its impact on residents' quality of life and increased need for health and social care, costing an estimated 3% of the UK's GDP. Meanwhile, measures to promote a healthy weight will also contribute to objectives to reduce levels of dental decay and support progress towards achieving net-zero goals.

What is the current situation with regards healthy weight in Oxfordshire?

In Oxfordshire, one in five children are already living with excess weight on entering Reception, this rises to over one third of children in Year 6 and nearly six in ten adults. This compares to fewer than one in a hundred Reception-age children and just over one in a hundred Year 6 children being underweight. National data show that levels of excess weight have been increasing amongst Year 6 children and adults. Excess weight is clearly a population-level problem that goes beyond individual decisions or behaviours.

Whilst overall levels of excess weight in Oxfordshire compare favourably to comparable local authority areas, we see that Oxfordshire residents from certain population groups or living in some geographical areas experience substantial health inequalities in relation to excess weight – including those who live in less affluent areas, from Black or certain Asian ethnic backgrounds or living with a learning disability.

During the height of the Covid-19 pandemic, we saw the largest year-on-year increase in excess weight since data collection began, with widening of pre-existing health inequalities for groups that already experienced higher risks for excess weight pre-pandemic. Data from 2021/22 show there has been a partial recovery but levels of excess weight remain substantially higher than those seen pre-pandemic.

Sustaining a healthy weight relies on maintaining a balance between energy intake (through food and drink) and energy expenditure (through being physically active). The key influencing factors for preventing excess weight considered in this health needs assessment (HNA) therefore include diet, breastfeeding and physical activity.

With respect to diet, four in ten adults in Oxfordshire are not meeting the national '5-a-day' recommendations for fruit and vegetable consumption, and one third of school-age children report having 3 or more 'unhealthy' snacks a day. Increasing costs of living are adding to existing challenges to eating healthily, with a 17% rise in food prices in the year to November 2022. Nationally, approximately one quarter of households with children were estimated to be experiencing food insecurity in 2022 with families reporting buying less fruit and vegetables and reducing their use of cooking appliances.

In relation to physical activity (PA), almost half of school-aged children and close to three in ten adults in Oxfordshire are not currently meeting the nationally recommended levels of PA. The proportion of children meeting nationally recommended PA levels had been increasing up until 2019/20, however since the start of the Covid-19 pandemic both have fallen without signs of recovery.

What is working well in Oxfordshire?

There is much to support progress towards addressing excess weight in Oxfordshire. Firstly, there are strong partnerships between organisations including Oxfordshire County Council (OCC), District and City Councils, community and voluntary sector organisations, healthcare providers and academics. Given the multitude of factors we know influence our ability to stay a healthy weight, based on the research literature and affirmed by the conversations we have had with residents, service providers and other stakeholders, this is vital to the delivery of a Whole Systems Approach to Obesity. To this end, the re-establishment of a Healthy Weight Core Working Group that brings together stakeholders from these different backgrounds will help translate recommendations from this needs assessment into systems-level action.

Local data gathered by partners (for example by Good Food Oxfordshire through their relationships with local community food services, through Healthwatch's surveys of diverse communities and from school pupils in the Oxwell Student Survey) have helped to provide insights into the experiences of population groups who experience higher risk of excess weight.

There are already a number of local programmes to promote healthy weight at key life stages which we can build on like Breastfeeding Support, The Healthy Smiles Accreditation Scheme, cycling and walking activation programmes social prescribers linking residents up with active recreation opportunities. Mapping of existing community assets in OCC's community profiles has helped identify examples of community-led initiatives that can serve as the inspiration for wider learning, meanwhile recently developed Local Cycling and Walking Infrastructure Plans have helped identify priorities for infrastructure improvements to support development of urban environments that facilitate use of active travel for shorter journeys.

Building on these partnerships, programmes and healthy-place shaping schemes will be key to addressing local health inequalities in excess weight, especially as we work to recover from the dual challenges to maintaining a healthy weight presented by Covid-19 and inflation.

What opportunities are there to reduce residents' risk of excess weight and address gaps in current knowledge?

The report draws together information from a wide range of sources – nationally and locally collected data and surveys and interviews with residents and stakeholders – to understand the opportunities and barriers to maintaining a healthy weight, including in the groups who experience a higher risk for developing excess weight.

Given that relatively high levels of excess weight and health inequalities in excess weight are observed even amongst children starting at Reception, there is a clear need to act early in the life course to prevent excess weight. The report identifies the need to work with early years providers and engage with new parents in the pre-school years to support development of food preferences that include healthier foods early in life, the need to take a whole school approach to ensure the school food and activities offer appeals to students and is affordable to parents, alongside supporting pupils to develop their capability to use active travel independently.

The important influence of environments more broadly to healthy weight is supported by national guidance but was also evocatively described by residents who told us how constant exposure to less healthy foods along their commutes, in their neighbourhoods and through advertising and promotions make it harder to resist temptation despite their best intentions. Data shows us that less affluent areas have a higher concentration of fast-food outlets, making it more challenging for residents in these areas to stick to a healthy diet. This section of the report looks at the different routes through which we may be able to reduce exposure to less healthy foods and increase access to fresh produce and basic cooking staples via council policies and through working with local convenience stores, public sector facilities and community larders. To increase residents' participation in active travel, we must work with partners to implement the infrastructure improvements identified as priorities in our Local Cycling and Walking Infrastructure Plans alongside sustaining support for cycling and walking activation programmes that build skills and awareness about the routes available.

Beyond the need for supportive environments, residents also described the combination of positive and negative motivational and social barriers to cooking at home (for example, the difficulty of meeting everybody's preferences, existing cultural norms and familial habits, the convenience and variety of pre-prepared and out-of-home home meals) and engaging in active recreation (including the challenge of finding suitable activities for people of their demographic group, cost, the benefits of these activities for their wellbeing). This highlighted the need to ensure that existing cooking skills programmes and physical activity offers align with residents' expressed needs and preferences, and to review how we can improve dissemination of information on what is available.

Whilst comprehensive weight management programmes are available to Oxfordshire residents, the needs assessment recommends expanding provision for certain groups and making sure pathways for referring into these programmes are straightforward and accessible for professionals and the public. There is a gap in provision at levels 3 and 4 that must be addressed. We must also ensure that services, programmes and messaging aiming to promote healthy weight in Oxfordshire do not unintentionally perpetuate weight stigma by considering our word choice and language use.

The last section of the report sets out specific recommendations against each of these objectives. Across all of these areas, we must ensure we are addressing the higher level social and environmental factors that enable and promote healthy-weight-supporting habits, and identifying and reaching the groups who experience the highest risks of excess weight and its associated health harms.

Acknowledgements

I would like to thank and acknowledge the members of the Healthy Weight Core Working Group who contributed their insight and expertise to this needs assessment through meetings and feedback. Thank you all for your thoughtful comments and suggestions.

2 Summary list of recommendations

For a comprehensive list of recommendations with rationale see Appendix 11.14.

KEY OBJECTIVE 1

System - address healthy weight inequalities in everything we do

1. Prioritise actions based on, and measure progress against, addressing healthy weight inequalities.
2. Ensure our policies, strategies, communications, campaigns, and weight support programmes avoid perpetuating weight stigma and use co-production approaches in the design of weight support services

KEY OBJECTIVE 2

Prevent - To prevent excess weight, start early

A substantial proportion of children are already affected by excess weight by the time they start Reception. From national data, we know that the majority of these children will still be affected by overweight in Year 6 and see that health inequalities in excess weight already start developing from this early age. This highlights the need to promote a healthy weight in parents during pregnancy, breastfeeding, through early years providers and in school settings. Residents identified being exposed to healthy eating habits and a cooking culture at home early in life as key factors that support their motivation to cook themselves later in life. The research evidence suggests childhood Physical Activity (PA) levels predict PA levels later in life (for example levels later in childhood, during adolescence and adulthood).

3. Collate up-to-date small area data to assess for inequalities in breastfeeding initiation and continuation within Oxfordshire, taking action to address inequalities if required
4. a) Work with early years providers to assess current food provision against, and understand facilitators and barriers to adherence to, national nutritional guidance and work to improve adherence where it is currently low
   b) Understand the opportunities for breastfeeding support, promotion of the Healthy Start scheme and increasing children's confidence to engage in physical activity through these settings
5. Review the evidence on programmes to prevent childhood obesity aimed at children aged 0-3 years to identify those that have been demonstrated to have longer term impacts on enabling healthier diets and physical activity.
6. Ensure a continued focus on increasing uptake of the Healthy Start scheme across Oxfordshire via the OCC Healthy Start working group action plan and District Food Action Working Groups
7. Implement a 'whole school approach' to promote healthier eating and physical activity in schools, prioritising areas with high excess weight prevalence amongst children.

KEY OBJECTIVE 3

Environment - Enable healthy weight by building healthy places and environments

In community engagement, residents described the constant exposure to less healthy foods through neighbourhoods, social media and advertising as making it easy for less healthy dietary habits to develop. It is estimated that nationally around one in five meals are eaten outside of the home. Meals from out-of-home food outlets tend to have higher levels of saturated fats, sugar, and salt, and lower levels of essential micronutrients. National data show that less affluent areas have a higher concentration of fast-food outlets. Research has found that the proportion of school pupils regularly purchasing food outside of school is much higher in these areas, with the most commonly purchased foods including chips, sandwiches, sweets and chocolate. This highlights the importance of healthy food environments around schools as well as within schools.

8. Use available levers to restrict advertising of less healthy food in public sector spaces and externally owned spaces across Oxfordshire

9. Introduce planning policy to limit proliferation of less healthy food vendors, prioritising areas with the highest levels of excess weight and around schools

10. Use levers within licensing to increase exposure to healthier foods and limit exposure to less healthy foods

11. Use evidence-based levers to support and incentivise local food outlets to provide a healthier food offer

12. Ensure Government Buying Standard-based criteria are used in the procurement of food and catering services by public sector facilities

13. a) Identify and act on opportunities to increase the healthiness of the food offer provided by Community Food Services
b) Ensure information on best practice for addressing stigma associated with accessing services and improving accessibility is shared between Community Food Services

14. Develop Local Cycling and Walking Infrastructure Plans in all market towns in Oxfordshire

15. Work with partners to implement the priorities of the Local Transport and Connectivity Plan and review progress in achieving its targeted aims of increasing walking and cycling. Including work with Local Enterprise Partnerships to ensure physical activity is integrated into local economic growth and infrastructure plans

16. Sustain support for cycling and walking activation programmes, especially aiming to increase engagement amongst those who are least active, and evaluate their impact and reach

17. Support community engagement activities to improve the quality of existing green spaces in order to increase use of green space in the population groups known to be at the highest risk from low physical activity levels

18. Consider the added value a workplace wellbeing programme for Oxfordshire could contribute to improving healthy eating and increasing physical activity (as well as other health promoting behaviours such as smoking)

KEY OBJECTIVE 4

Prevent - Environment - Enable healthy weight by building healthy places and environments

19. a) Review existing cooking-related training to ensure it is meeting the specific needs identified by residents during community engagement.
b) Work with providers of cooking-related training to measure and increase uptake in key target groups (including those at important life transitions such as leaving home or becoming a new parent).

20. Use and expand upon existing evidence from community engagement with residents to ensure the active recreation offer in Oxfordshire aligns with activity preferences across different age groups

21. Ensure information about programmes that support physical activity (including what activities are available), healthy diet and weight support services, is promoted to the public and partners working with those at the greatest risk from excess weight

KEY OBJECTIVE 5:

Support - Ensure those living with excess weight are connected with healthy weight-promoting programmes and weight support services

Several weight management support programmes are offered in Oxfordshire for children and adults, as well as specific programmes for adults living with a mental health condition(s) (Gloji Mind+), residents from a Black, Asian or minority ethnic background and for men. Offers need to be joined up across the lifecourse.

22. a) Address the gap in provision at Tiers 3 and 4 in Oxfordshire. At Level 2 ensure support is provided for groups that experience a high prevalence of excess weight where gaps have been identified (those with learning disabilities, women peri-pregnancy, young people aged 12-18 years) alongside promoting prevention-orientated approaches in these groups
b) Develop a clear healthy weight care pathway for children and adults across all ages and commissioning bodies

23. a) Identify brief intervention approaches for excess weight that complement the MECC ('Making Every Contact Count') approach.
b) Identify professional groups who have a high amount of contact with groups at high risk of excess weight with whom to implement the MECC/brief intervention approaches to excess weight, monitoring the effectiveness of training where delivered.

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3 Defining excess weight, overweight and obesity

Excess weight is used within this report to describe abnormal or excessive fat accumulation that presents a risk to health and to encompass both overweight and obesity (based on the definitions used by the World Health Organisation (WHO).

Whilst several ways of measuring obesity exist, Body Mass Index (BMI) is one that is commonly used. BMI represents a weight-to-height ratio, specifically a person's weight (in kg) divided by the square of their height (in metres) and provides a proxy measure of adiposity.

For adults, the definitions for overweight and obesity used in this report follow those set out by NICE (Figure 3.1).

FIGURE 3.1:
Classification of excess weight categories in adults

BMI category	BMI criteria (kg/m^2)
Underweight	BMI ≤ 18.5
Healthy weight	18.5 < BMI < 25
Overweight	25 ≤ BMI < 30
Obese	30 ≤ BMI

People with a South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean ethnic background are more prone to central adiposity and experience an increased risk of adverse health consequences (for example from diabetes and heart attacks) at a lower BMI. NICE therefore suggests use of lower BMI thresholds for overweight and obesity in these population groups (Figure 3.2).

FIGURE 3.2:

Classification of excess weight categories in adults from a Black or Asian ethnic background

BMI category	BMI criteria (kg/m^2)
Healthy weight	18.5 < BMI < 23
Overweight	23 ≤ BMI < 27.5
Obese	27.5 ≤ BMI

In children, definitions for overweight and obesity must take into account children's age and sex as described in Figure 3.3.

FIGURE 3.3:

Classification of excess weight categories in children

BMI category	BMI criterion relative to centiles in the UK90 British 1990 growth reference charts
Underweight	BMI ≤ 2nd centile
Healthy weight	2nd centile < BMI < 85th centile
Overweight	85th centile ≤ BMI < 95th centile
Obese	95th centile ≤ BMI

Source: Cole T, Freeman JV, Preece MA. Body mass index reference curves for the UK, 1990. Arch Dis Child 1995; 73: 25-9

4 Aims and scope of the Health Needs Assessment (HNA)

4.1 Aims

This HNA provides a quantitative and qualitative description of the health needs and determinants in relation to excess weight for residents in Oxfordshire. The aim of the report is to support targeting of current work to the populations with the greatest needs and to aid prioritisation of resources to new areas of work. The outcomes will be used to inform development of our action plan for promoting healthy weight including commissioning decisions and our next steps in working towards taking a whole systems approach.

With more than half of adults in Oxfordshire living with overweight or obesity and separate monitoring and evaluation processes in place for weight management support services, the Healthy Weight Core Working Group who oversaw the production of the HNA determined that the report should take a prevention-focussed perspective, in line with national recommendations from the Office for Health Improvement and Disparities (OHID). The title of this report was also chosen to reflect this objective.

4.2 Scope of the HNA

Key areas included within the HNA are:

- A description of health needs relating to excess weight in the Oxfordshire population;
- An exploration of what factors influence the key activities that impact on weight;
- A review of the national guidance and research evidence on actions and interventions seeking to address wider determinants of excess weight and on weight management support programmes.

The interaction between mental health and wellbeing and physical activity is considered only in brief given their inter-relationship has been previously examined with more depth within the Mental Health Needs Assessment (2018) and Mental Wellbeing Needs Assessment (2021).

Excluded areas include:

1. Given the comparatively low prevalence of underweight compared to levels of excess weight, health needs in relation to underweight and eating disorders are considered as a clinical priority that falls within the remit of work undertaken by Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board (formerly Oxfordshire NHS CCG)
2. Health needs with respect to excess weight occurring as a symptom or direct consequence of a medical condition (for example Cushing's disease) or as a side effect of medications.
3. Areas covered within the Physical Activity Strategy and Action Plan being developed by Active Oxfordshire
4. Feedback gathered from service users for existing services and programmes where this is already regularly routinely reviewed as part of service planning processes.

4.3 Methods

A health needs assessment is *"a systematic method for reviewing the health issues facing a population, leading to agreed priorities and resource allocation that will improve health and reduce inequalities"* (Cavanagh 2005).

Health needs can be considered from different perspectives (described below), and it is recommended that all of these perspectives are taken into account to generate balanced recommendations that are not skewed in favour of any specific perspective.

This HNA aims to incorporate information from across these perspectives, where data are available, to inform its recommendations. Examples of data sources from different perspectives that are used within the report are given below:

- **expressed needs** of residents through community engagement reports (for example gathered by PressRed, Healthwatch Oxfordshire, Oxford Hub, Community First Oxfordshire, Collaborative Change)
- **corporate needs** of providers and other stakeholders through oversight from the Oxfordshire Healthy Weight Core Working Group, gathered by PressRed during community engagement projects, or from the 'A Whole Systems Approach to Obesity' system workshops
- **epidemiological needs** using national data sources (for example from the National Child Measurement Programme and the Active Lives Adult Survey) and locally collected demographic data (for example from the Oxwell Student Survey or from local needs assessments), evidence-informed national guidance and research literature based on handsearching
- **comparative needs** based on comparison of health needs, with respect to excess weight in Oxfordshire versus that in comparable local authority areas

Sources for specific data and figures are acknowledged where used within the HNA. A description of the methods used to gather community insights from residents is included in Appendix 11.1 and a summary of strengths and limitations of key data sources used is provided in Appendix 11.2.

4.4 Stakeholder involvement and governance

The production of the HNA was overseen by members of the Healthy Weight Core Working Group whose membership is described in Appendix 11.3.

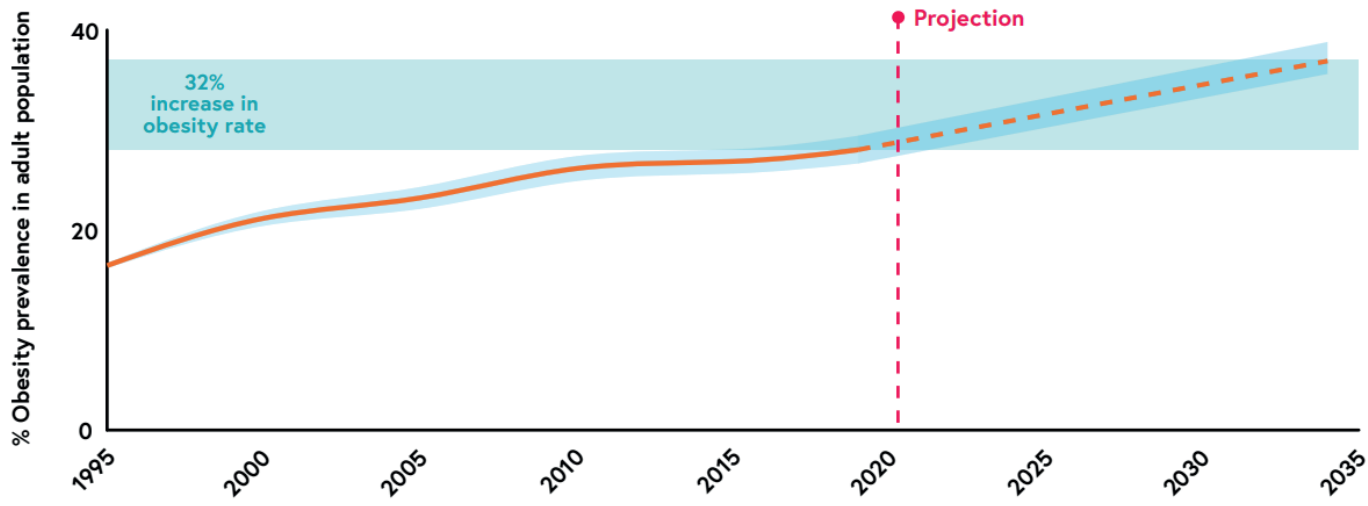
5 Background

5.1 Impacts of living with excess weight

5.1.1 Health impacts of excess weight

Living with excess weight has a significant impact on health at a population level. Globally, living with excess weight consistently ranks as one of the top five risk factors that contributes the highest numbers of deaths. In England, out of one hundred children in Year 6, almost forty (38% in 2021/22) are living with obesity or overweight (compared with less than two meeting definitions for being underweight), rising to almost two-thirds of adults. The impact of excess weight on the health of the population continues to rise: between 1993 and 2017, the prevalence of obesity amongst adults doubled from 15% to 29% (Figure 5.1). Excess weight is therefore a population-level issue and addressing it requires taking a systems-level prevention-focussed approach.

FIGURE 5.1:
Historic and projected trends in adult obesity in England between 1993 and 2017



Source: National Food Strategy 2021

References: historic trend based on Health Survey for England data. Projected trend based on Janssen F, Bardoutsos A, Vidra N. Obesity Prevalence in the Long-Term Future in 18 European Countries and in the USA. OFA 2020;13:514–27.

High BMI and risk factors for high BMI (including poor diet and low physical activity) together present a major cause of avoidable ill health and death in the UK (Figure 5.2). This reflects the fact that excess weight acts as a risk factor for many leading causes of death and ill health (Figure 5.3, 5.4). For example, those living with obesity experience:

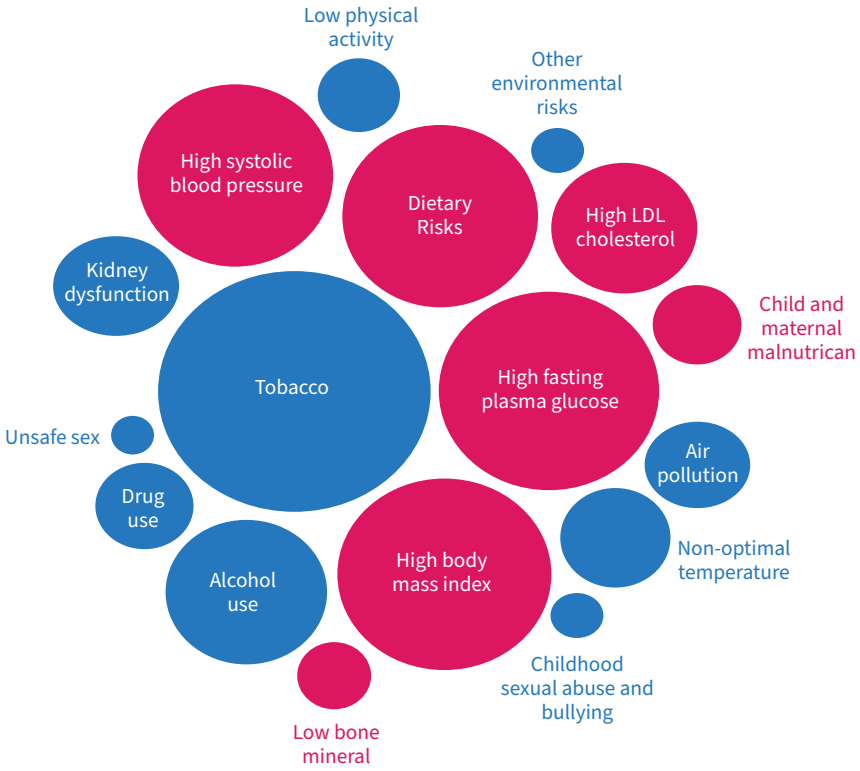
- A five-fold increase in risk of developing Type 2 diabetes
- Are more than 2.5 times more likely to develop high blood pressure, a risk factor for heart attacks, strokes and kidney disease amongst other conditions
- A three-fold increase in risk of developing colon cancer

Obesity is also associated with increased risk of other cancers (including breast, prostate, and ovarian) and conditions including, dementia, osteoarthritis, infertility, and depression (with depression also in turn a risk factor for obesity). During the Covid-19 pandemic, those with a higher BMI experienced a higher risk of severe illness, hospitalisation and death from Covid-19 infection.

Pregnant women with high BMI are more likely to experience complications during pregnancy and childbirth, including diabetes, life-threatening clots, miscarriage, are at higher risk of needing an emergency C-section delivery, and for maternal death. Their children are at higher risk of congenital abnormalities, injury during delivery, stillbirth, and experience a higher risk of developing obesity themselves.

FIGURE 5.2:

Proportion of years lost to avoidable ill health and death, by cause



Note: Diet-related causes of morbidity and mortality are coloured pink.

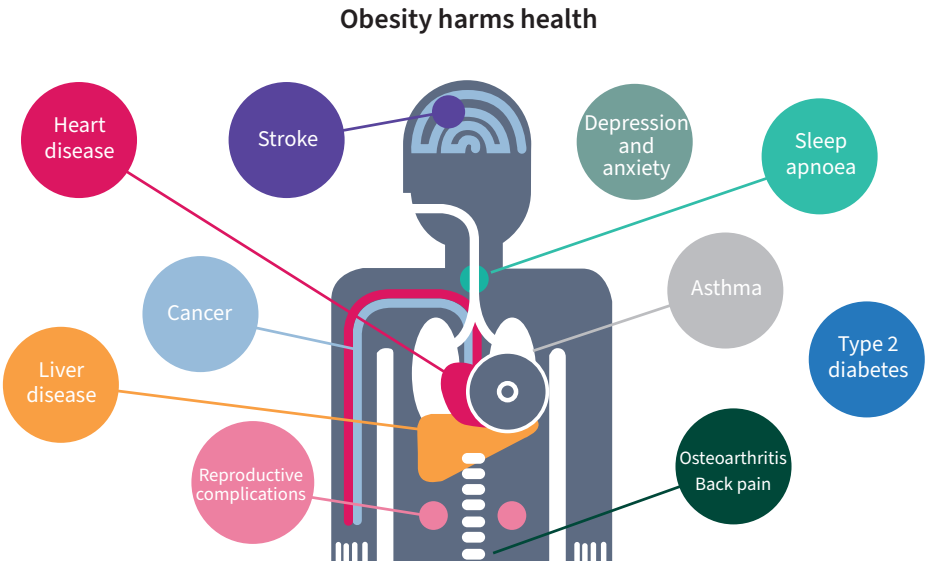
Strategies to reduce prevalence of excess weight are likely to also reduce ill health and death occurring as a result of diet-related determinants or as a result of low physical activity.

Source: National Food Strategy (2021)

Data: Global Burden of Disease 2019: Global Health Data Exchange. (2021). GBD Results Tool. Institute for Health Metrics and Evaluation.

FIGURE 5.3:

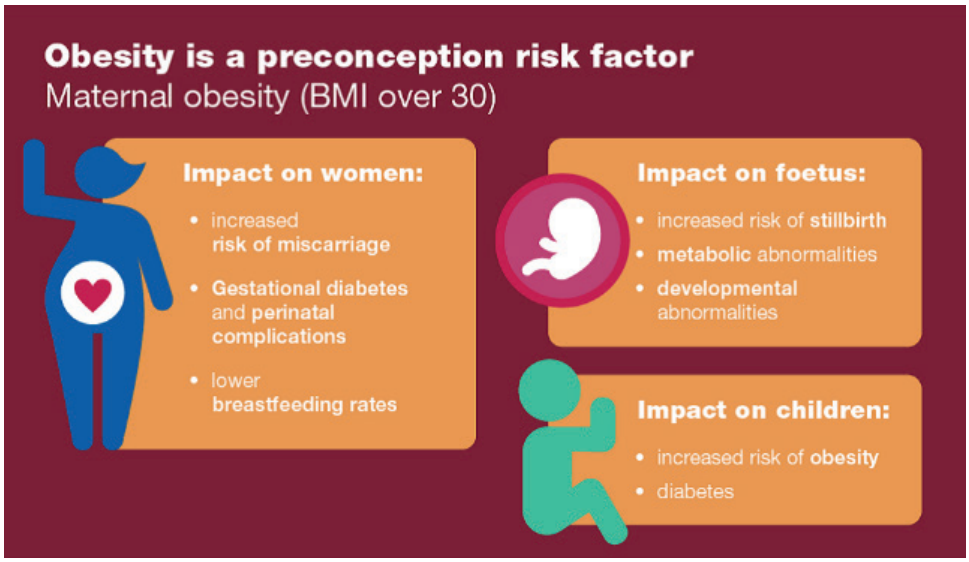
Obesity acts as a risk factor for a multitude of health conditions



Source: OHID guidance: Adult obesity: applying All Our Health (updated 11 February 2022)

FIGURE 5.4:

Health impacts of obesity during pregnancy



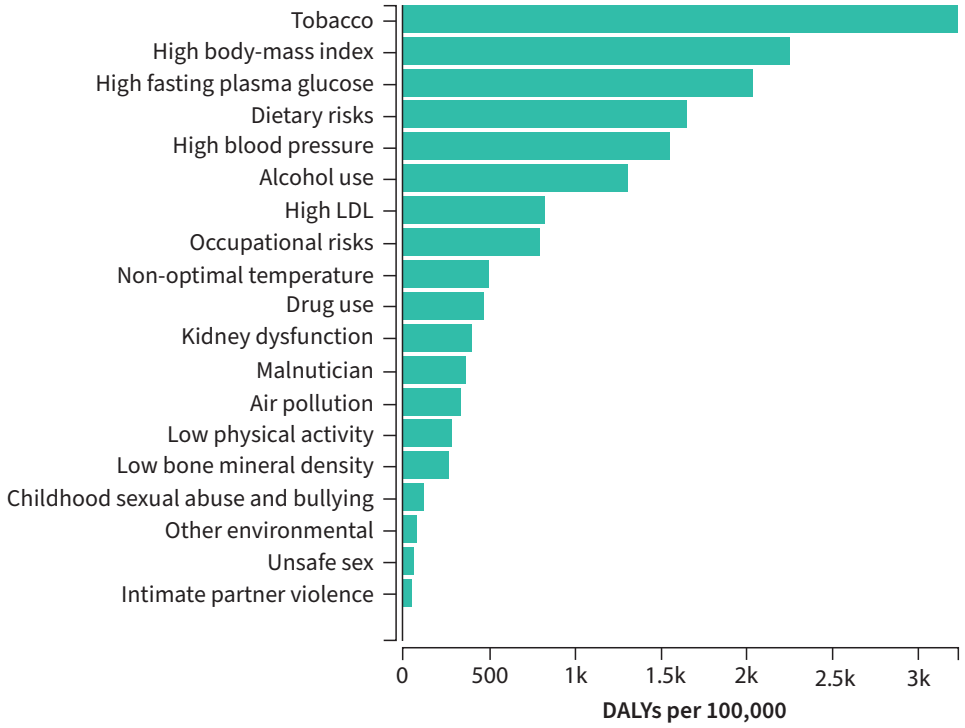
Source: OHID guidance Health matters: Prevention - a life course approach

On average, adults living with moderate obesity (BMI 30-35 kg/m^2) experience a reduction in life expectancy of 2-4 years, whilst those living with severe obesity (BMI 40-45 kg/m^2) experience a reduction of 8-10 years, a loss comparable to the effects of lifelong smoking. The impact of developing excess weight during childhood on life expectancy is challenging to estimate (given that this would require research studies that followed up participants over many decades), however we would anticipate these impacts to be even greater given that childhood obesity predicts adult obesity and so these individuals are likely to be exposed to a high BMI for a longer duration over their lifetime.

With response to the health impacts of excess weight in Oxfordshire, the number of Disability Adjusted Life Years[1] contributed collectively by high body-mass index, diet-related risk factors (including high fasting plasma glucose, dietary risks, high LDL level, malnutrition) and low physical activity exceed the contribution from tobacco (Figure 5.5).

FIGURE 5.5:

Oxfordshire Disability Adjusted Life Years by risk factor, all causes, 2019



DALY: Disability Adjusted Life Year

Source: JSNA 2022

Data: Institute for Health Metrics and Evaluation (IHME), GBD Compare. World Health Organisation, Metrics: Disability Adjusted Life Year (DALY)

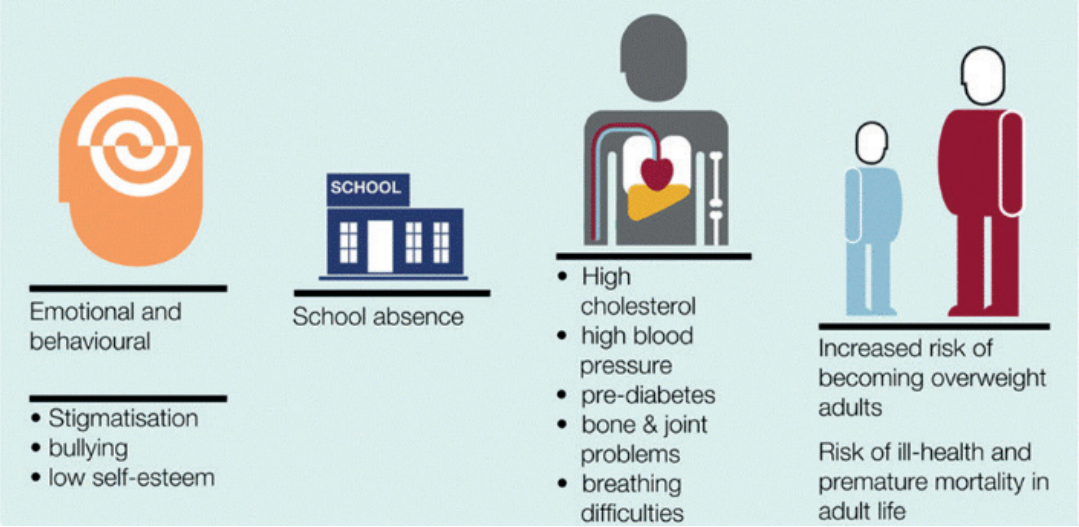
Beyond the direct health impacts of living with excess weight and weight-related health conditions, living with excess weight also negatively impacts on quality of life more broadly. During childhood, it appears to be associated with experiencing more bullying, worse mental health, greater absenteeism and lower educational attainment. Childhood obesity predicts adult obesity: with children meeting definitions for being overweight at least twice as likely to be overweight as adults compared to healthy-weight children.

Adults living with excess weight are likely to need more days of sick leave and require more social care as a result of obesity-related long-term conditions. In a Canadian survey, employees with obesity were more likely to experience reduced productivity at work as a result of a long term health condition and higher levels of absenteeism than healthy weight individuals (7-11% compared to 7%). In a study of staff working for the London Underground Ltd., employees who were obese required on average 4 more sick days per year.

1 A Disability Adjusted Life Year (DALY) represents the loss of one year of "healthy" life. DALYs are calculated at the population level from the sum of Years of Life Lost (YLL) due to premature mortality due to the risk factor and the Years Lost due to Disability (YLD) for people living with the risk factor or health condition and its consequences in a specific population.

FIGURE 5.6:

Social impacts of living with excess weight in children



Adapted from Childhood obesity: applying All Our Health - GOV.UK (www.gov.uk)

FIGURE 5.7:

Social impacts of living with excess weight in adults

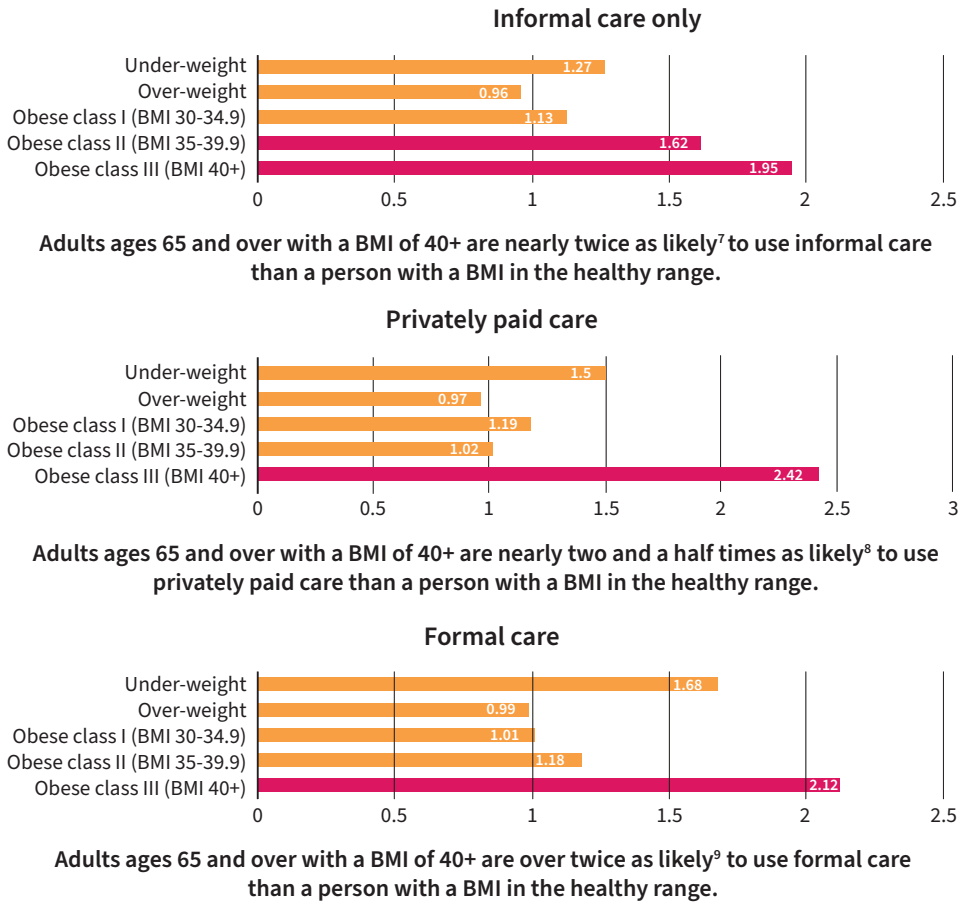
Adapted from Adult obesity: applying All Our Health - GOV.UK (www.gov.uk)

5.1.2 Social and economic impacts of living with excess weight

At the societal level, the prevalence of excess weight, affecting almost six in ten adults in Oxfordshire, places substantial demands on the need for formal and informal social care. Amongst older adults (65+) not living in a care home, an addition 1kg/m^2 increase in BMI is estimated to be associated with a 5% higher odds of requiring social care support (Figure 5.8). This reflects that excess weight is associated with an increased risk for several long-term conditions which are associated with high levels of need with regards social care input, including musculoskeletal conditions, Type 2 diabetes, mental health conditions, cardiovascular disease, cancers and respiratory diseases.

FIGURE 5.8:

Associations between BMI and need for informal and formal social care support



Source: LGA report: Social care and obesity (2020)

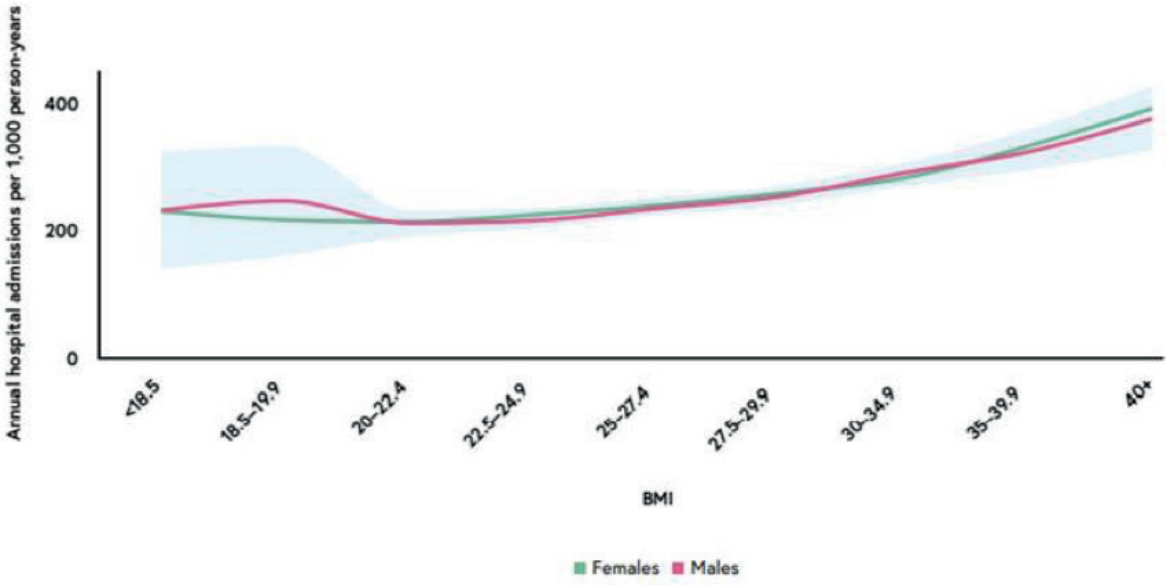
Data source: PSSRU, University of Kent (2019) The Hidden Costs of Obesity: Implications for Long-Term Care.

Living with excess weight is associated with higher risks of hospital admission and higher healthcare costs (Figures: 5.9, 5.10). In 2019/20, obesity was recorded as the primary diagnosis or a contributing factor in over one million hospital admissions[2] in England. Higher BMI was associated with higher rates of admission and costs for many types of health condition, including osteoarthritis (e.g. knee replacements), digestive disorders (e.g. gallbladder and cancers of the digestive tract) and circulatory diseases (heart attacks and strokes).

2 This estimate includes only the Finished Admission Episode (FAE), the first period of inpatient care under one consultant within one healthcare provider but disregards repeat admissions within the same year

FIGURE 5.9:

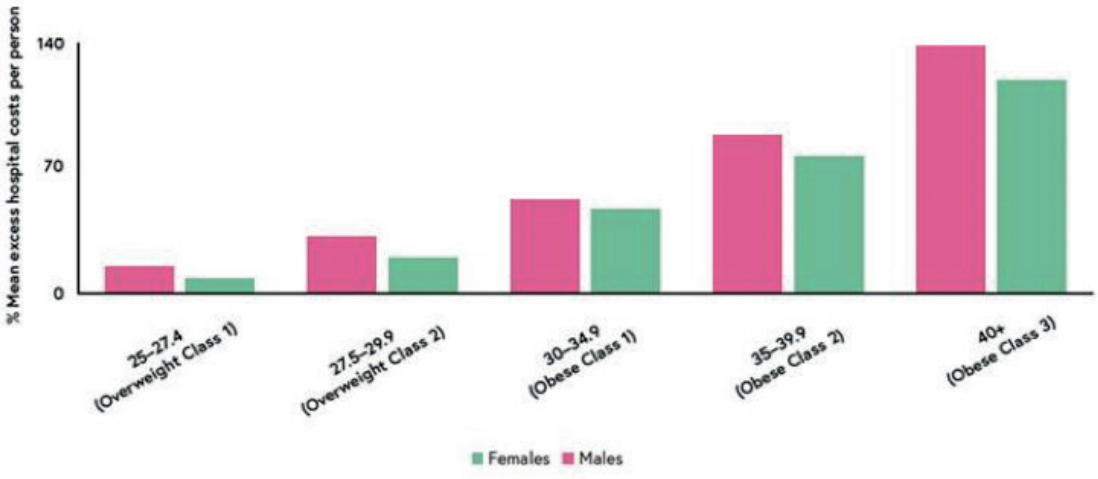
The link between BMI and risks of needing hospital admission



Source: The National Food Strategy - The Plan.

FIGURE 5.10:

The link between BMI and additional NHS hospital admission costs



Note: Excess costs were calculated relative to costs for a healthy weight cohort.

Source: The National Food Strategy - The Plan using data from O'Halloran et al. (2020)

Given the wider consequences of living with excess weight, estimations of the economic costs of obesity need to take into account both direct costs (the impact of obesity-related morbidity and mortality on individuals and on the healthcare system) and indirect costs (including the healthcare and social care costs of treating obesity-related diseases and impacts on workplace productivity and employment levels).

A report estimated the annual direct costs of obesity amongst adults in the UK to be £51 billion in 2019 and the combined direct and indirect costs to be ~£62 billion once costs relating to social care and lowered workplace productivity are also included - equating to 2.7% of the UK GDP (Figure 5.11). Given costs arising from excess weight during childhood and obesity-related mental illness outside of antidepressant medication-related costs are not included in this estimate, this is likely to be an underestimate of the overall costs of excess weight to the UK.

FIGURE 5.11:
Estimation of costs, direct and indirect, associated with living with excess weight

Type of cost	Description	Cost for UK (£ billions)	Cost as a percentage of total costs (%)
Costs to NHS	Including for primary care usage, medications, hospitalisation, cost of antidepressant medications	6.5	11
	Additional costs relating to Covid-19 due to higher probability of hospitalisation and death in those living with obesity	4.2	7
Costs due to reduction in quality of life	Measured using Quality Adjusted Life Years	39.8	64
Social care costs	Due to obesity related long-term health conditions	7.5	12
Social costs	Due to reduction in workplace productivity as a result of obesity-related long-term health conditions	4	6
Total		**62**	**100**

Note: Only costs relating to adult obesity (and not childhood overweight or obesity) have been included

Source: The annual social cost of obesity in the UK | Frontier Economics (frontier-economics.com).

We know that the health and social impacts of living with excess weight do not fall equally on all parts of society: the Marmot review: Fair Society, Healthy Lives (2010) highlighted the stark differences in obesity prevalence across social gradients for income, social deprivation and ethnicity and childhood obesity; rates are twice as high in the least affluent areas compared to the most. Considering the health and social impacts of living with obesity outlined above, inequalities in levels excess weight in different population groups can serve to perpetuate existing health and social inequalities.

5.1.3 Co-benefits of taking action to promote healthy weight

Actions that seek to reduce levels of excess weight through improving dietary quality and physical activity levels will benefit health, wellbeing and environmental sustainability more broadly. These co-benefits are further described in Sections 8.1.1.1, 8.1.4.4b and 8.2.1.1.

5.2 Strategies and policies for addressing excess weight

5.2.1 Global goals with respect to promoting healthy weight

The World Health Organisation (WHO) stated in 2018 that childhood obesity is one of the most serious public health challenges of the 21st century. Addressing overweight is set out as an explicit goal in the Sustainable Development Goals (SDG) adopted by all United Nations Member States in 2015, within SDG 2.2. Reducing levels of overweight will also be necessary to achieving SDG 3 (reducing premature mortality from non-communicable diseases) and contribute towards reducing health and social inequalities resulting from the uneven burden of excess weight in different sociodemographic groups (SDG 10).

The Member States of the WHO set voluntary targets in 2013 to reduce the incidence of non-communicable diseases, including to halt the rise in childhood obesity (relative to 2010 levels) by 2025 (World Health Assembly (2013) Resolution 66.10). They also committed to halting the rise in diabetes and achieve a 25% reduction in mortality from cardiovascular diseases, cancer, diabetes and chronic respiratory diseases by 2025. A progress review by the World Obesity Federation (WOF) in 2020 highlighted the lack of progress towards achieving this target, with childhood obesity in Europe being projected to rise to 11.2% by 2025 (a 62% increase relative to 2010 levels). In 2016, the UK had the third highest proportion of men living with obesity and the second highest proportion of women living with obesity within Europe.

5.2.2 National policies and strategies to promote healthy weight

In England, the need to reduce levels of excess weight to bring about improvements in health at a population level has been recognised at both national and local levels. “Achieving healthier diets and weight” and ensuring the “best start in life” (including reducing inequalities in childhood obesity) are identified as two of the Office for Health Improvement and Disparities’ (OHID) top ten priorities in their strategy for 2020-25 (2019). Interventions that promote healthy weight are likely to have co-benefits on two other priority areas: cleaner air and better mental health.

Since 2010, six governmental strategies have been published on the subject of addressing obesity (Appendix 11.4). Most recently, the Department of Health & Social Care policy paper “Tackling obesity: empowering adults and children to live healthier lives” (2020) included a ‘call to action’ to reduce obesity and announced a range of interventions including legislature mandating calorie labelling, restrictions on advertising for unhealthy foods and expanding the range of tools and services available to individuals to

support them to manage their weight. The government's Childhood Obesity Plan (2018) set a key target to halve childhood obesity by 2030 (relative to 2018 levels) and significantly reduce the gap in obesity between children from the most and least deprived areas within the same timeframe.

5.2.3 Local policies and strategies to promote healthy weight

Locally, enabling people to maintain a healthy weight and improve their diets and physical activity levels have been identified as priorities by several organisations in Oxfordshire in their strategic plans (Appendix 11.4). Reducing levels of excess weight is the focus of the Oxfordshire County Council's Director of Public Health's Annual Report (2022/23) and is identified as a high priority area within the Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System Strategy.

6 Excess weight in Oxfordshire

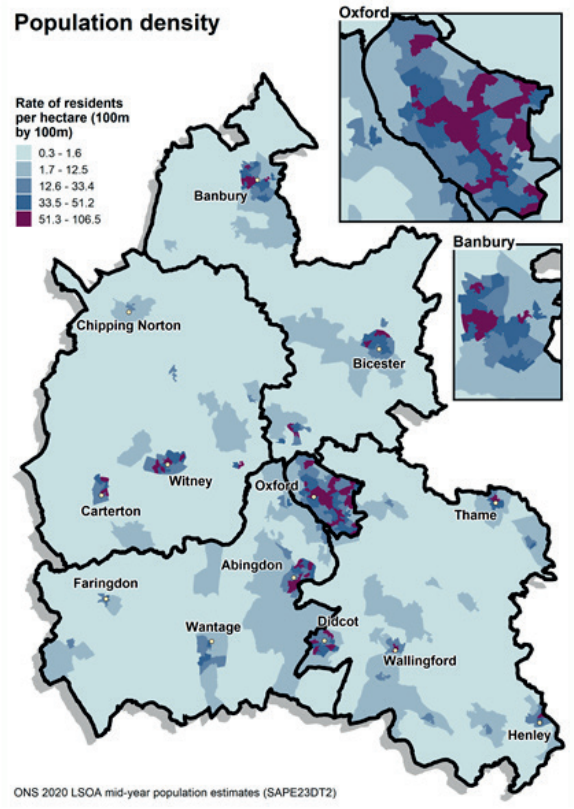
6.1 Demographics of the population of Oxfordshire

Oxfordshire has a population size of just over 725,000 residents (based on the 2021 Census estimates). As the most rural county in the South-East region, 60% of Oxfordshire's population live in Oxford City or the main towns within the county, whilst 40% live in the smaller towns and villages (Figure 6.1).

Areas of higher population density are the urban centres of

- Banbury, Bicester and Kidlington
- Oxford City
- Didcot, Thame and Henley-on-Thames
- Abingdon and Wantage & Grove
- Carterton and Witney

FIGURE 6.1:
Population density by geography in Oxfordshire

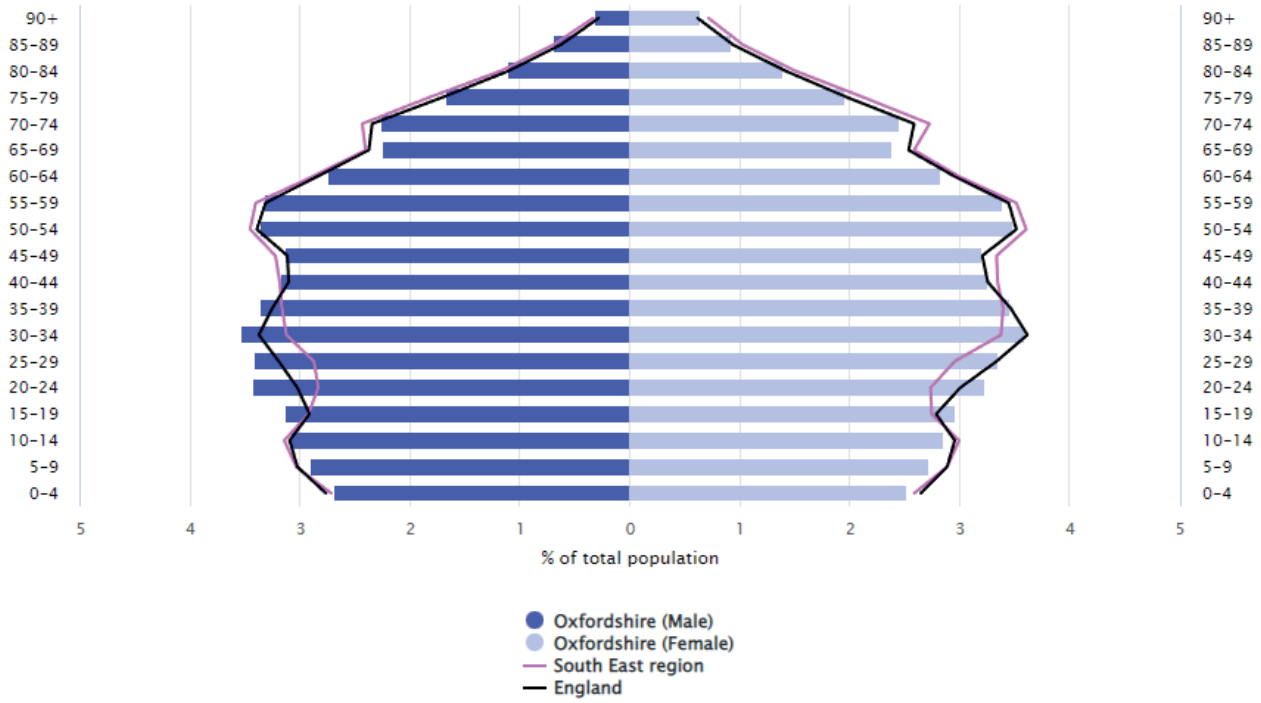


Source: Oxfordshire JSNA 2022

Whilst, overall, the age profile of Oxfordshire residents is similar to that for England (Figure 6.2), Oxford City has a higher proportion of people in younger age groups (especially in the 20-29 year age group) and a lower proportion of adults in the 65+ age group compared to the four other districts.

FIGURE 6.2:

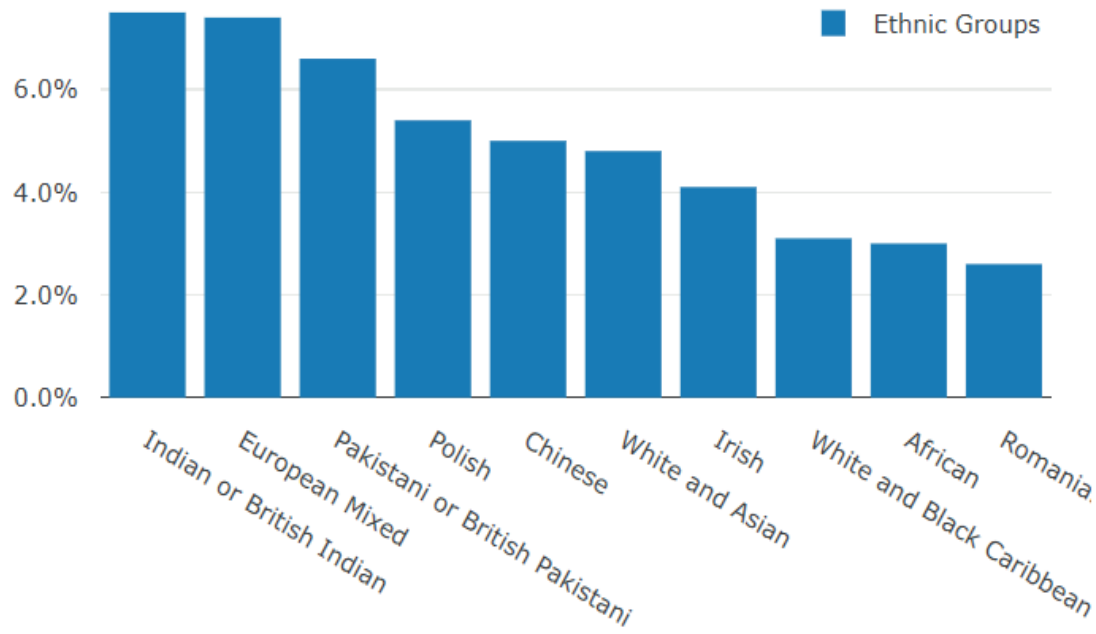
Age profile of Oxfordshire residents 2021



Source: OHID Fingertips

With respect to ethnic diversity, 23% of Oxfordshire residents are from a non-'White British' ethnic background (compared to 26% for England and Wales). However, by district, there is a high degree of ethnic diversity in Oxford City (47%) and less diversity in West Oxfordshire, South Oxfordshire and Vale of White Horse (11-17%). After the 'White British' ethnic group, the largest population groups by ethnicity are those from an Indian/British Indian, Pakistani/British Pakistani or European Mixed ethnic background (see Figure 6.3).

FIGURE 6.3:
Ethnic minority groups in Oxfordshire



Source: Census 2021

As a county, Oxfordshire is the 10th least deprived out of 151 upper-tier local authorities in England. However, 17 out of the 407 Lower Super Output Areas in Oxfordshire are ranked within the 20% most deprived areas nationally. These areas mostly fall within 10 wards in Oxfordshire: 6 in Oxford, 3 in Banbury and 1 in Abingdon. In 2020-21, 11% of 0-19 year olds in Oxfordshire (18,200 children) lived in households with a relative low-income[3] though proportions appeared to be higher in Cherwell (13%) and Oxford City (14%). Out of pupils attending state schools, 14% (13, 880) were eligible for Free School Meals in January 2022, however this proportion varied between 7% in the most affluent areas to 36% in the least affluence areas (Department for Education School Census, January 2022).

6.2 Epidemiology of weight in Oxfordshire

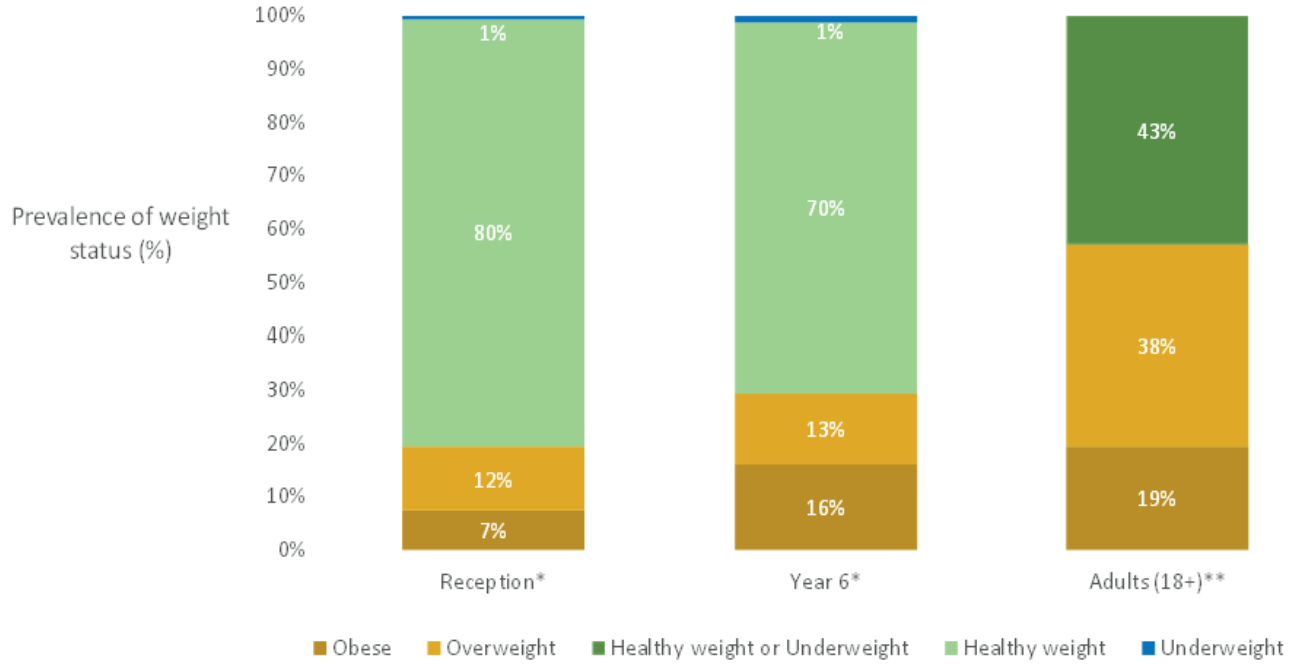
6.2.1 Excess weight prevalence in Oxfordshire

In Oxfordshire, on entering Reception, one in five children (20% in 2021/22) meet definitions for overweight or obesity. This proportion rises to over one third (34% in 2021/22) in Year 6 and approaches 6 in 10 (58% in 2020/21) in adults.

3 A relative low-income household is defined as on in which the gross household income (including consideration of earnings, state support, pensions, adjustment for family size and composition, but before housing costs) is less than 60% of the median household income for that year.

FIGURE 6.4:

Prevalence across different weight categories at reception, Year 6, and in adults, in Oxfordshire - 3 year averages for 2017/18 - 2019/20



Note: 3 year averages from 2017/18-2019/20 are displayed due to data quality issues for local area level data for 2019/20 and 2020/21 (with smaller data samples being collected in these years, see Glossary) meaning that the data from 2017/18-2019/20 are the most recent robust 3 year average data available.

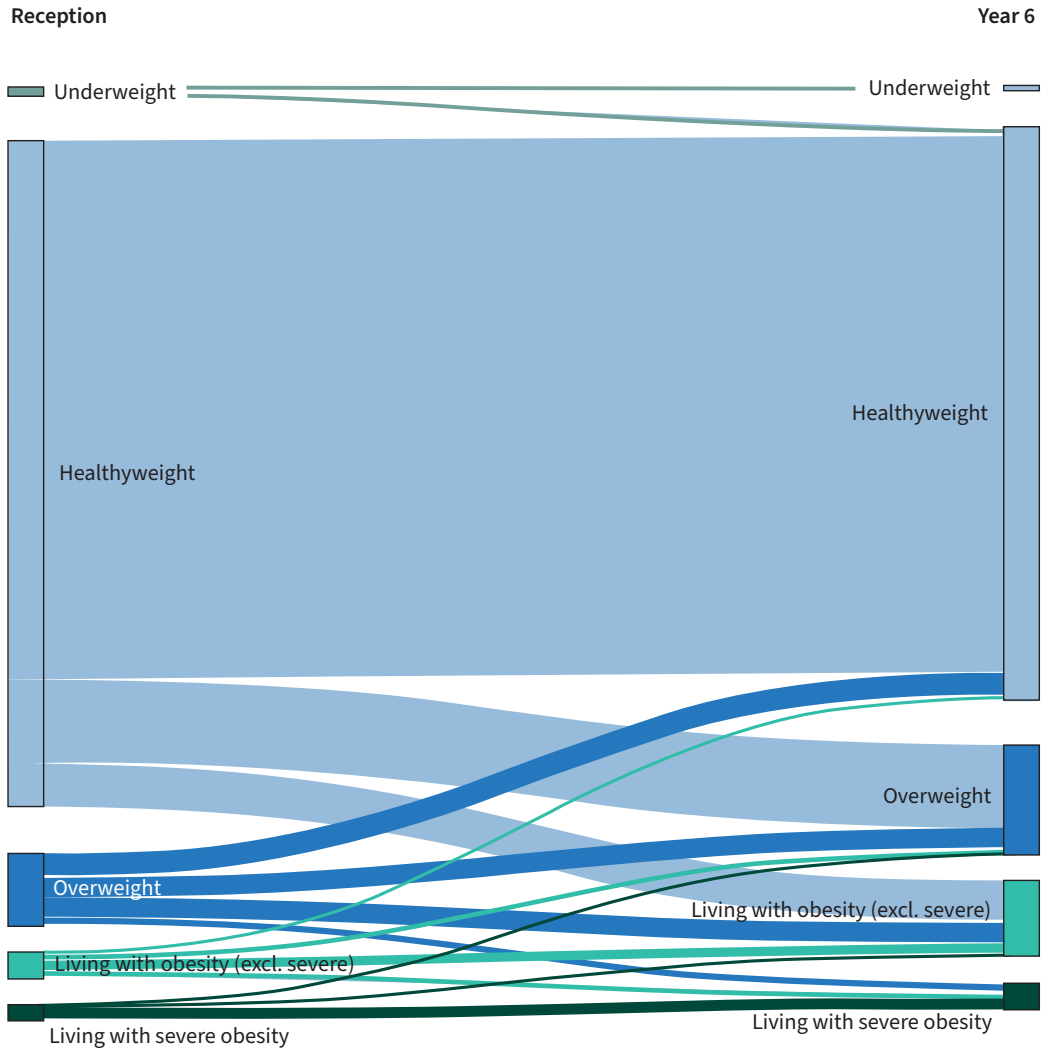
Data source for reception and Year 6 children: National Child Measurement Programme (NCMP) 3 year average for weight across 2017/18 - 2019/20

Data source for adults: Sport England's Active Lives Adult Survey 3 year average for weight across 2017/18 - 2019/20

When children's weight is tracked between Reception and Year 6, this shows that the majority of children (76%) who are affected by overweight in Reception will still experience excess weight in Year 6. Meanwhile, the majority (79%) of children with a healthy weight status in Reception, remain at a healthy weight in Year 6 (whilst 20% move into an excess weight category) (Figure 6.5). The proportion of children moving from a healthy weight category to a higher weight category is higher for those from a black African or Caribbean or Southeast Asian (Bangladeshi, Indian, Pakistani) ethnic background relative to those of white British ethnicity, and amongst children living in more deprived areas.

FIGURE 6.5:

Changes in child weight status between Reception and Year 6, in Englandhanges in child weight status between Reception and Year 6, in England



Note: Derived from data for children whose weight was tracked from Reception to Year 6.

Source: Changes in the weight status of children between the first and final years of primary school - GOV.UK (www.gov.uk)

Across measures relating to healthy weight and proximal determinants of healthy weight (including maternal obesity, breastfeeding uptake, consumption of fruit and vegetables and physical activity levels), Oxfordshire as a whole performs statistically better than 95% of local authorities in England and comparably to a selection of CIPFA neighbour local authorities which have similar demographic characteristics (Leicestershire, Hertfordshire and Cambridgeshire, see Figure 6.6). However, comparison at the county level masks considerable intra-county inequalities which means that the levels of and impact from excess weight experienced by different population subgroups in Oxfordshire can be similar or even higher than the average for England (see Section 6.2.3).

FIGURE 6.6:

Indicators for excess weight and proximal determinants of weight for Oxfordshire, compared with England and selected CIPFA neighbours

Indicator	Oxford-shire	CIPFA neighbouring local authorities			England	Period
		Cambridge-shire	Hertford-shire	Leicester-shire		
Deprivation score (IMD 2019)	12	14	13	12	22	2019
Excess weight						
Reception: Prevalence of overweight (including obesity), 3-year average	19	18	20	20	23	2019/20 - 21/22
Reception: Prevalence of obesity (including severe obesity), 3-year average	8	7	8	8	10	2019/20 - 21/22
Year 6: Prevalence of overweight (including obesity), 3-year average	31	30	30	31	36	2019/20 - 21/22
Year 6: Prevalence of obesity (including severe obesity), 3-year average	17	16	17	18	22	2019/20 - 21/22
Percentage of adults (aged 18+) classified as overweight or obese	58	61	62	65	64	2020/21
Key determinants for healthy weight:						
Obesity in early pregnancy	19	17	19	22	22	2018/19
Proportion of the population meeting the recommended '5-a-day' on a 'usual day' (16+)	60	57	59	57	55	2019/20
Percentage of physically active children and young people (5-16 yrs)	47	47	48	51	47	2021/22
Percentage of physically inactive adults (19+ yrs)	18	20	22	22	23	2020/21

Note: Local authorities are benchmarked against the average for England: green shading indicates that performance is better than 95% of local authorities, red shading indicates performance is worse than 95% of local authorities, yellow indicates no statistically significant difference from the average across local authorities in England.

Note: NCMP data collection from 2020/21 was much reduced compared to previous years due to disruption in collection relating to the Covid-19 pandemic. Therefore, for the calculation of 3 year averages from 2019/20 - 21/22, OHID uses NCMP data from 2018/19 in lieu of that from 2020/21.

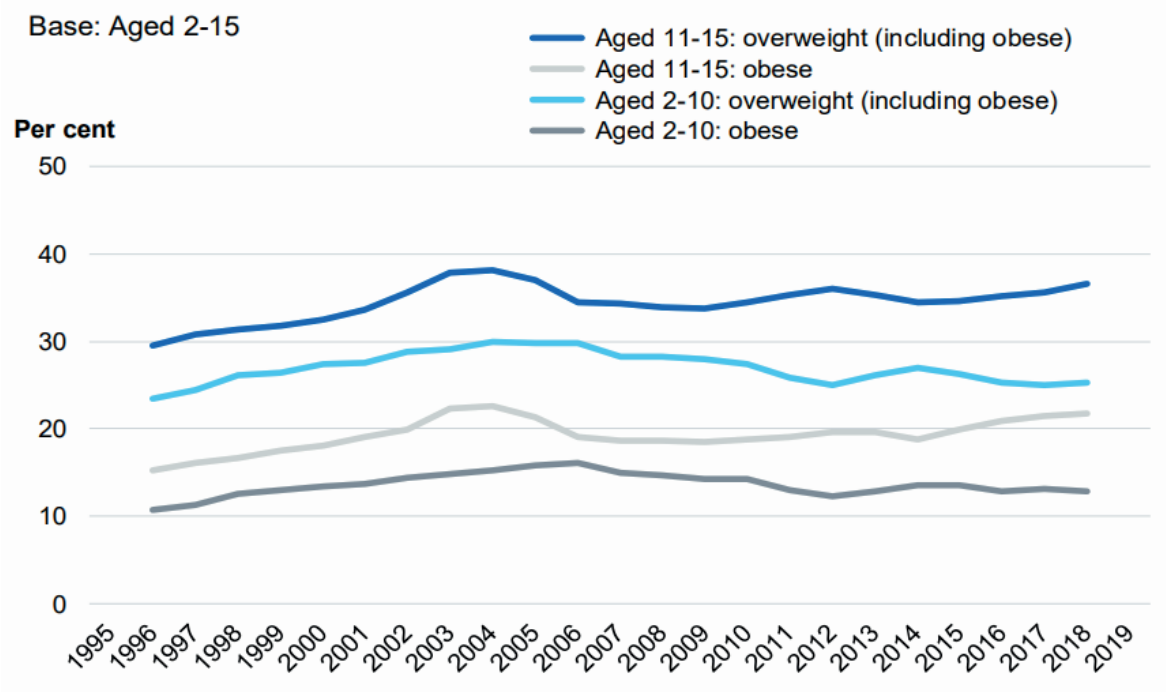
6.2.2 Trends in excess weight prevalence

6.2.2.1 Trends in excess weight prevalence nationally

Nationally, the prevalence of overweight and obesity in Year 6 children has been increasing steadily year on year. However, in 2020/21, a substantial increase in overweight and obesity prevalence was observed in children (an increase of 5% in both overweight prevalence and obesity prevalence in Reception-age children, an increase of 6% in overweight prevalence and 5% in obesity prevalence in Year 6 children compared to increases of less than 1.1% per year in the preceding years since the National Child Measurement Programme, NCMP, was introduced in 2006). Moreover, the greatest increases were seen to occur in the areas with the highest deprivation and amongst ethnic groups already experiencing the highest prevalence of obesity, contributing to widening of existing inequalities in childhood obesity by deprivation and ethnicity. The timing of this observed increase corresponded with the introduction of public health measures, including school closures, as part of the public health response to the Covid-19 pandemic in the UK. From 2020/21 to 2021/22; there has been a partial recovery in childhood overweight and obesity prevalence, however levels of childhood excess weight have not recovered back to the levels we would predict based on pre-pandemic trends. Levels of excess weight in adults have also followed an upwards trend between 1993 and 2021 (see Figure 6.8).

FIGURE 6.7:

Prevalence of overweight and obesity in children, by age, in England from 1993-2019

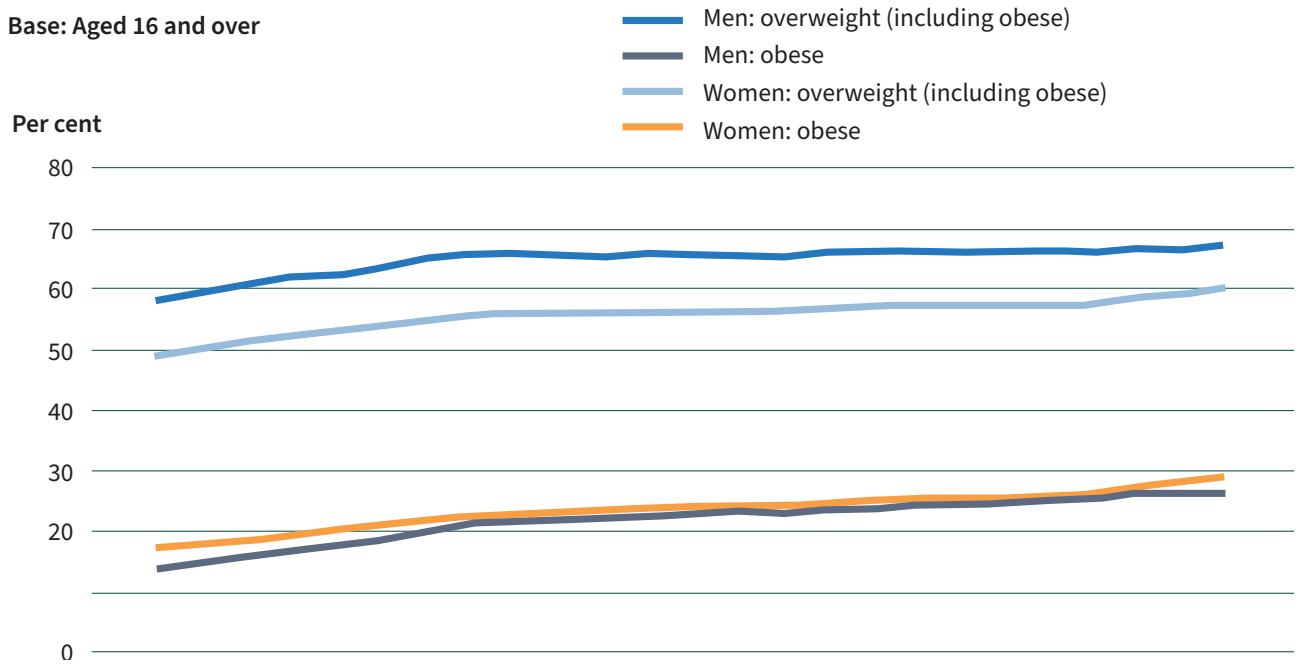


Note: 3 year rolling averages are shown

Source: HSE 2019 Overweight and obesity in adult and child (digital.nhs.uk)

FIGURE 6.8:

Prevalence of overweight and obesity in adults, by sex, in England from 1993-2019



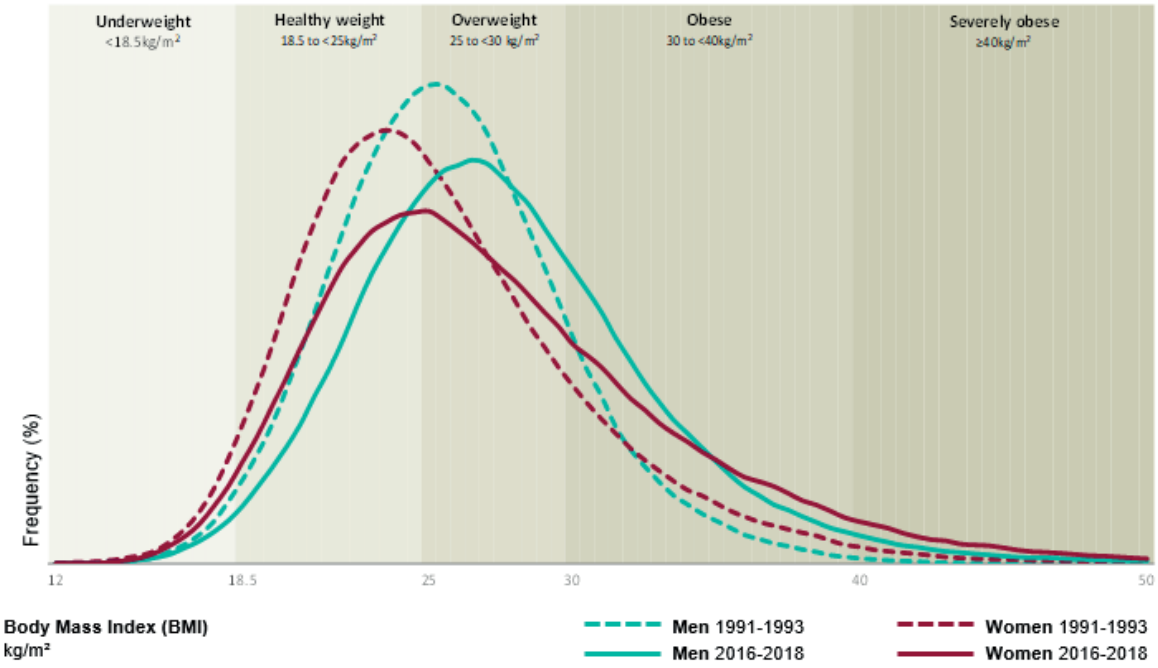
Note: 3 year rolling averages are shown for adults aged 16+

Source: HSE 2019 Overweight and obesity in adult and child (digital.nhs.uk)

We see that these increases in average BMI reflect an increase in BMI across the whole population for men and women (see Figure 6.9), consistent with these changes being driven by increased exposure to obesogenic social and environmental conditions, rather than changes in individuals' capacity for self-control or decision making. To address rising levels of excess weight, we must therefore seek to address the factors driving accumulation of excess weight at the population, rather than individual, level.

FIGURE 6.9:

Change in the distribution of BMI amongst adults from 1991-93 to 2016-18



Note: This chart shows the distribution of BMI for men and women across the population in England in 2016-18 (most recent data for which BMI distribution is available) compared to 1991-1993

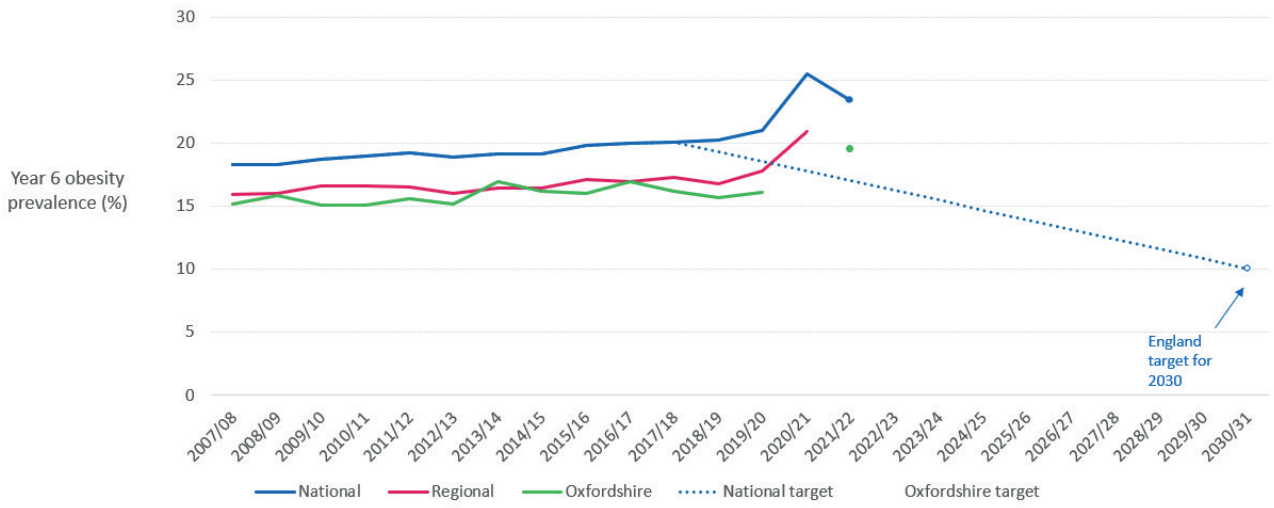
Source: Health Survey for England

6.2.2.2 Trends in excess weight prevalence in Oxfordshire

Data up until 2019/20 show that levels of excess weight in Oxfordshire have followed similar trends to those seen in England. Reduced data collection as a result of school closures during the Covid-19 pandemic mean estimates for excess weight prevalence at the local level are not robust for 2020/21 and have therefore not been published at the local authority level. However, NCMP data for Oxfordshire from 2021/22 suggest that there was a similar change in childhood overweight and obesity prevalence between 2019/20 and 2021/22 locally as that seen nationally. It is plausible that the prevalence of childhood obesity locally may have followed a similar trajectory to that seen nationally over this period. Irrespective of the precise trajectory of childhood obesity in this time interval, the Covid-19 pandemic appears to have contributed to a substantial setback in terms of progress towards achieving the national aspiration of reducing childhood obesity prevalence by 50% by 2030 relative to 2018 levels. Changes in levels of excess weight amongst adults in Oxfordshire since 2015/16 have likewise followed a similar trend to that seen nationally (Figure 6.11).

FIGURE 6.10:

Trends in levels of obesity in Year 6 children in Oxfordshire, compared to England and regionally

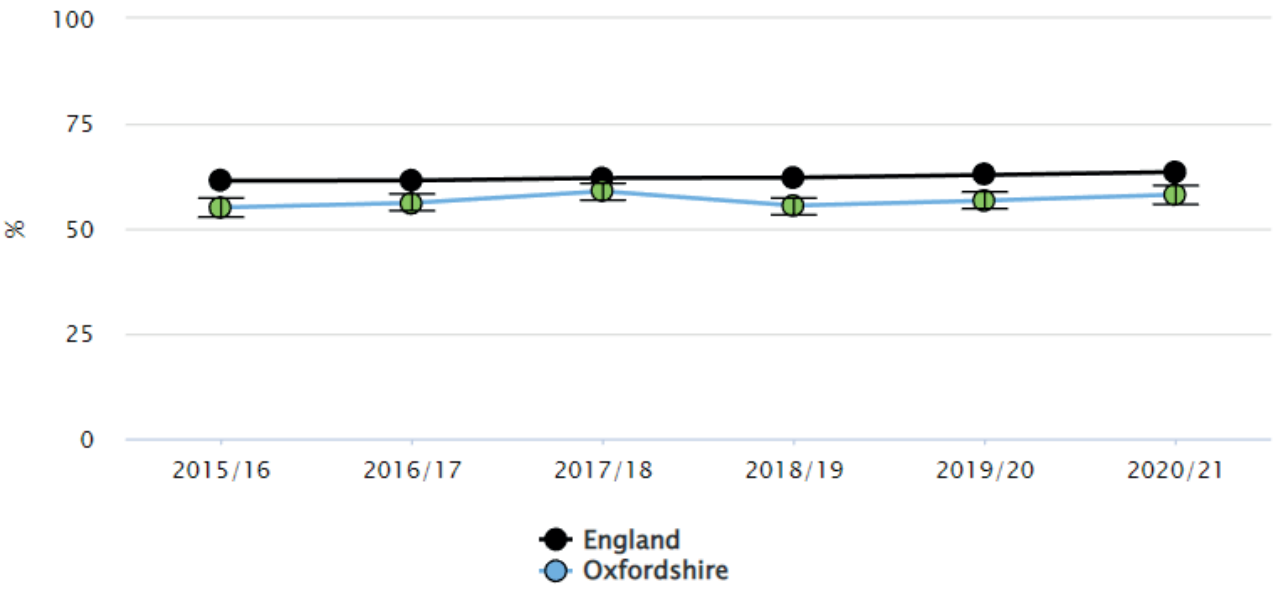


Note: The target for England is based on a national target set out in the Childhood obesity: a plan for action (to reduce childhood obesity levels by 50% by 2030 relative to 2018 levels)

Source: NCMP

FIGURE 6.11:

Trends in levels of excess weight in adults in Oxfordshire, compared to England



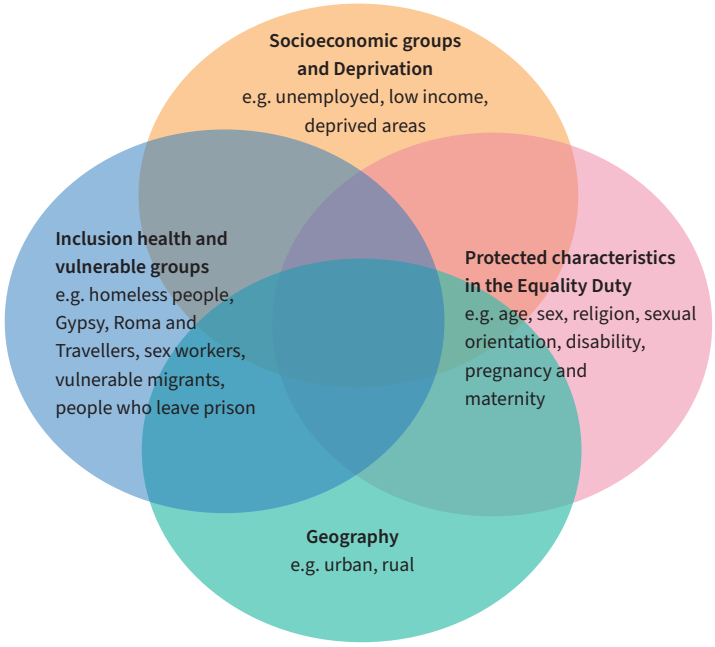
Source: Obesity Profile - Data - OHID (phe.org.uk)

6.2.3 Health inequalities in excess weight

Health inequalities are 'differences in the health status' or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age'. These differences are deemed unfair and avoidable. The need to reduce health inequalities occurring as a result of living with excess weight has been recognised across multiple national strategies and guidelines, including the Childhood Obesity - A Plan for Action (2018), The Marmot Review (2010), PHE Making the case for tackling obesity – why invest? (2015)).

Health inequalities are observed to exist across a range of characteristics (Figure 6.12). Factors that may contribute to health inequalities include differences in people's experiences of wider health determinants such as housing and environments, in the prevalence of health-related behaviours in those population groups, psychosocial factors such as social networks, or inequities in access to or experience of health services. Health inequalities may result from individuals possessing a single characteristic (that shows associations with health inequalities) or multiple characteristics, as represented by the overlap in Figure 6.12. Whilst associations between having one of these characteristics and the impact on health inequality experienced tend to be better characterised, there is limited research evidence and data available on health inequalities resulting from intersectionality (the impact of possessing more than one characteristic on a population subgroup's risk of experiencing worse health outcomes). Population groups known to be at higher risk of experiencing health inequalities relating to excess weight include those from certain minority ethnic backgrounds, living in areas of higher deprivation (especially amongst women) or with a disability or long-term life-limiting illness (PHE Making the case for tackling obesity – why invest? (2015)). The following sections examine how the risk of experiencing excess weight differs across different areas within Oxfordshire and across these different population groups.

FIGURE 6.12:
Health inequalities population groups at risk



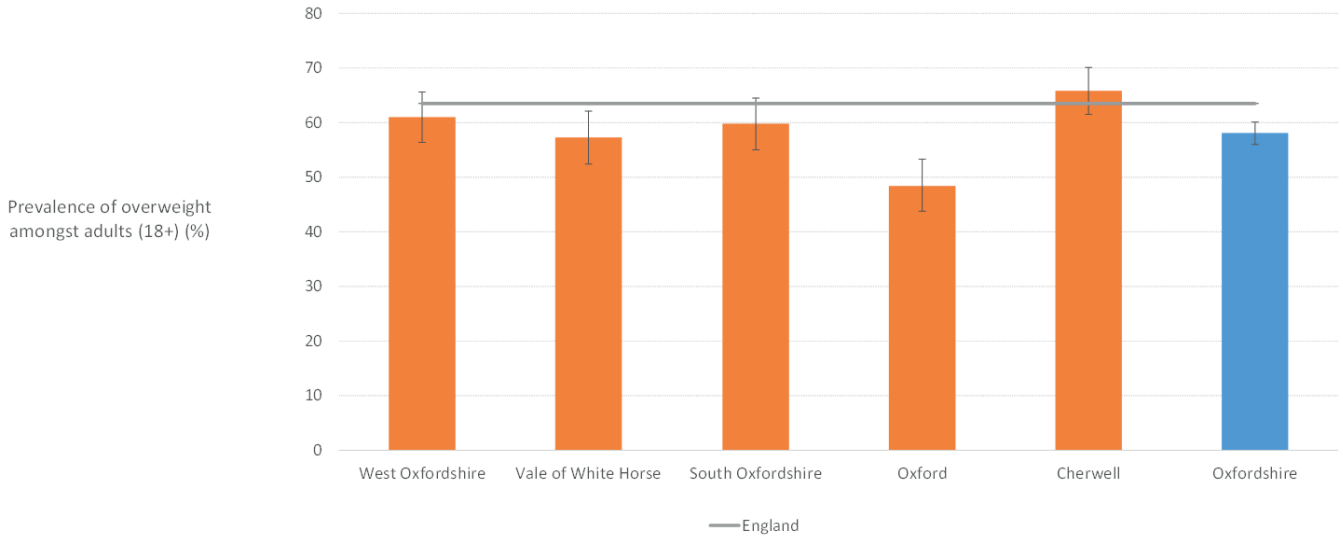
6.2.3.1 Health inequalities in excess weight across Oxfordshire

As a whole, Oxfordshire appears to perform well on measures of healthy weight and factors directly relating to healthy weight when compared to the England average. However, when excess weight prevalence is examined at the district level, we observe that amongst adults this is primarily driven by lower overweight and obesity prevalence in Oxford City. Meanwhile, levels of adult obesity in the other four districts in Oxfordshire are either similar to or approaching the average prevalence in England.

Visually, time trend data suggest that whilst excess weight prevalence remained stable in Oxford City between 2015/16 and 2020/21, prevalence in the other districts appeared to track the increasing trend in excess weight prevalence observed in England (Figure 6.15).

FIGURE 6.13:

Inequalities in adult overweight prevalence by District in 2020/21

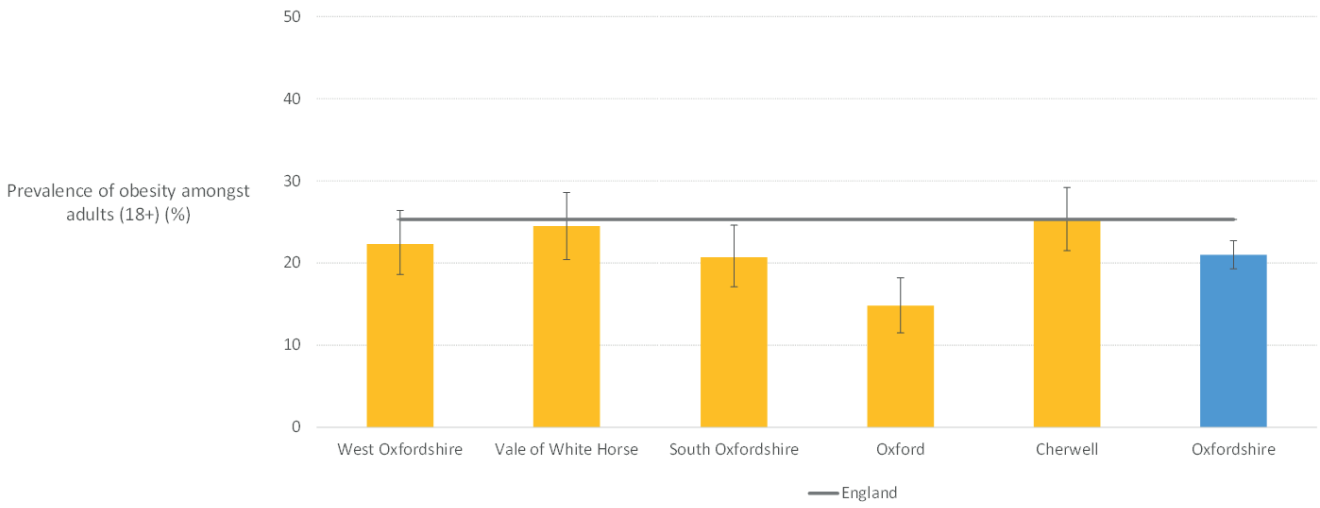


Note: Reference line represents average prevalence of overweight in adults in England.

Source: Active Lives Adult Survey, Sport England

FIGURE 6.14:

Inequalities in adult obesity prevalence by District in 2020/21

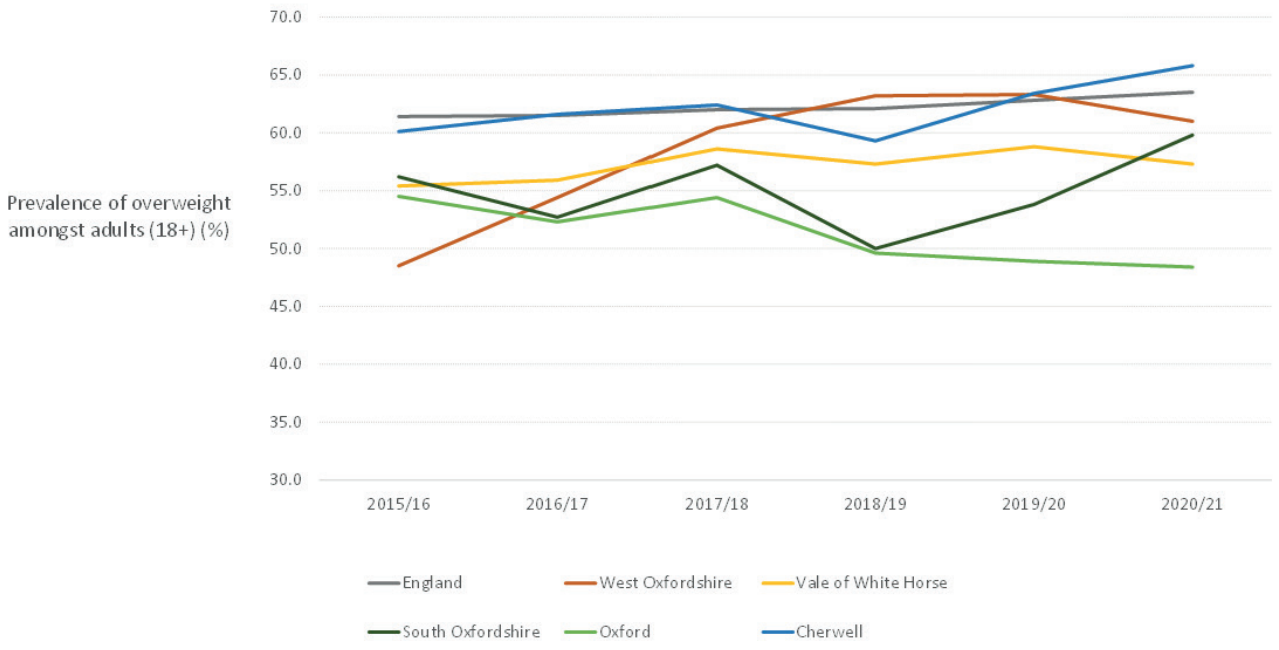


Note: Reference line represents average prevalence of obesity in adults in England.

Source: Active Lives Adult Survey, Sport England.

FIGURE 6.15:

Trends in adult overweight prevalence by District in 2020/21



Source: Active Lives Adult Survey, Sport England.

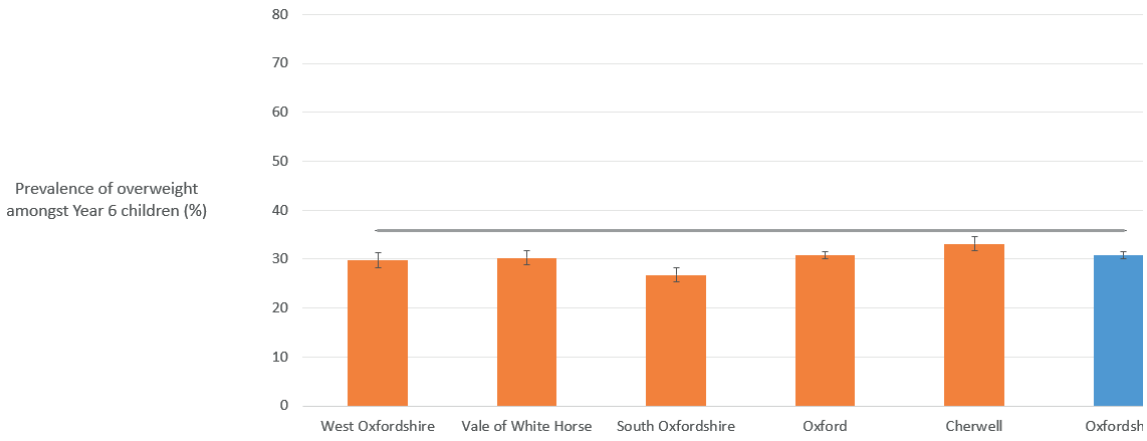
Inequalities in childhood excess weight prevalence by geographic area - at Middle Super Output Area (MSOA) level

Data collected through the NCMP allows inequalities in excess weight in childhood to be examined at a finer geographic resolution (for the 71 of 85 MSOAs for which small area prevalence data is available). Despite excess weight prevalence appearing similar across the districts for Reception age and Year 6 children (Figure 6.16), when prevalence is examined at the MSOA level, there are substantial geographical inequalities between MSOAs and inequality within districts exceeds that seen between districts (Figure 6.17). For example, Oxford City, which had the best performance in the district-level comparison, contains 4 out of the 10 worst performing MSOAs alongside 2 of the 10 best performing MSOAs. In the other districts, differences in Year 6 overweight prevalence of 12 to 24 percentage points are observed between the best and worst performing MSOAs within the district. We do not have data available to compare adult obesity prevalence at this geographic resolution. However, the research evidence supports an association between having excess weight as a child and still living with excess weight in adulthood, with individuals meeting definitions for being overweight during childhood being at least twice as likely to live with overweight as adults compared to healthy-weight children. This suggests these geographic inequalities seen in children are likely to contribute towards inequalities in excess weight amongst adults too. In addition, there are three MSOAs in Oxfordshire which experience childhood overweight and/or obesity prevalences that are statistically significantly higher than the England average, these are Blackbird Leys and Greater Leys in Oxford City and Didcot South East in South Oxfordshire.

Examining changes in inequalities over time, it appears that geographic inequalities in excess weight amongst Year 6 children grew wider between 2010 and 2019 though they appear to have remained stable in 2019/20-2021/22 relative to 2016/17-2018/19 levels in spite of social and environmental changes resulting from implementation of health protection measures in schools during the peak of the Covid-19 pandemic (subject to caveats around robustness of the 3-year average for 2019/20-2021/22, see Note under Figure 6.18 for details).

FIGURE 6.16:

Inequalities in childhood overweight prevalence by District in 2019/20-21/22



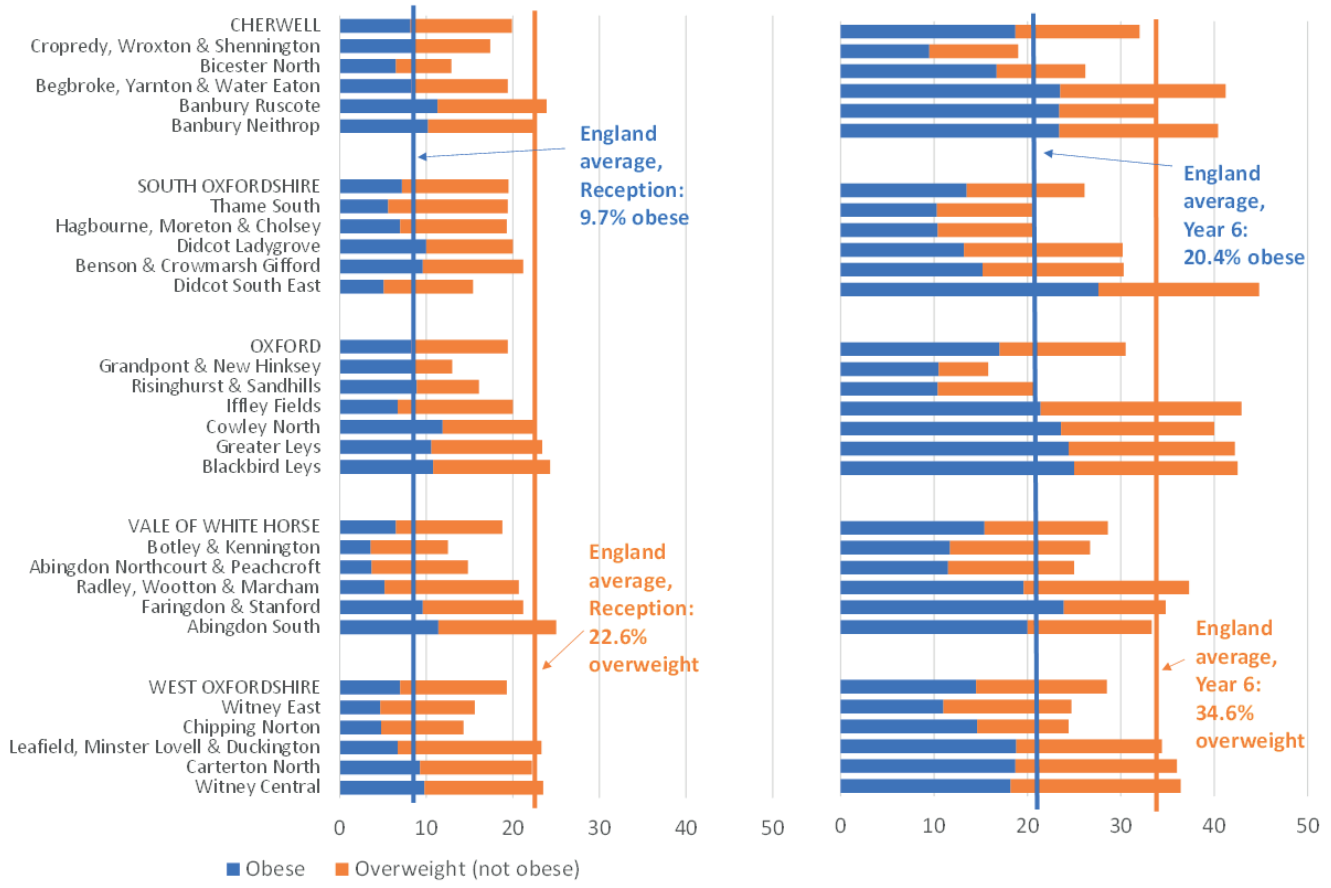
Note: Reference line represents average prevalence of overweight in Year 6 children in England.

NCMP data collection from 2020/21 was much reduced compared to previous years due to disruption in data collection relating to the Covid-19 pandemic. Therefore, for the calculation of 3 year averages from 2019/20 - 21/22, OHID Fingertips uses NCMP data from 2018/19 in lieu of that from 2020/21.

Source: NCMP

FIGURE 6.17:

Inequalities in excess weight prevalence amongst children in Reception (left hand bar chart) and Year 6 (right hand bar chart) for the MSOAs with the highest and lowest prevalence statistics overall and within each District – 3 year averages from 2017/18-2019/20



Note: 3 year averages from 2017/18-2019/20 are displayed due to data quality issues for local area level data for 2019/20 and 2020/21 (with smaller data samples being collected in these years, see Glossary) meaning that the data from 2017/18-2019/20 are the most recent robust 3 year average data available.

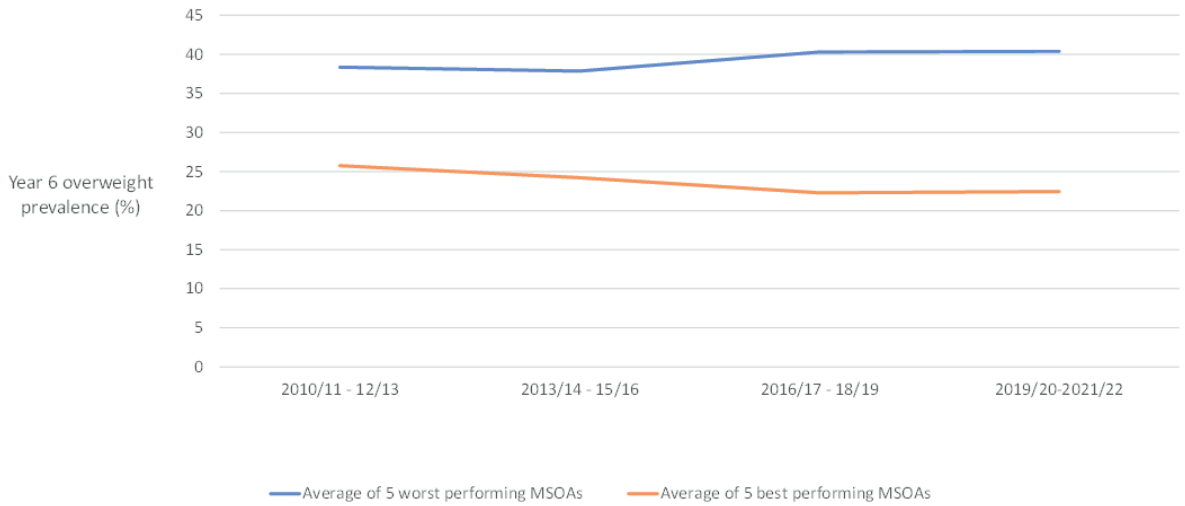
Reference lines represent average obesity (blue) or overweight (orange) prevalence for England

The three MSOAs with the highest prevalence and the two MSOAs with the lowest prevalence of excess weight or obesity across Reception and Year 6 (based on the rank after averaging across excess weight metrics for 2017/18-2019/20) within each district are displayed. MSOAs whose overall excess weight prevalence ranked within the top 10 for Oxfordshire have been additionally included, even where they did not fall within the three MSOAs with the highest overall excess weight prevalence in their district.

Note that ranking of MSOAs' performance could only be performed for the 71 MSOAs where sufficient numbers of children were sampled in the NCMP for 3 year weight prevalence averages to be published by OHID fingertips. Three-year average weight prevalences could not be compared for 15 of 86 MSOAs (these were Kidlington South; Kingham, Enstone & Middle Barton; Charlbury & North Leigh; North Central Oxford; Oxford Central; Osney, Jericho & Port Meadow; East Central Oxford; Thame North; Beckley & Horspath; Wheatley & Great Haseley; Didcot South West; Henley North; Shiplake & Binfield Heath; Dean Court, Cumnor & Appleton; Abingdon Audlett Drive & Farm Road). Thus MSOAs identified in this graph should be taken as indicative examples of some areas where childhood obesity prevalence is noted to be high within the county, rather than a list of the highest priority areas to target.

FIGURE 6.18:

Inequalities in excess weight prevalence in the 5 best versus 5 worst performing MSOAs



Note: 3 year averages for 2019/20-2021/22 use 2018/19 data instead of 2020/21 (which is not available at smaller geographies due to the much reduced data collection in the NCMP in 2020/21). For some MSOAs, the contribution of 2019/20 was underweighted in the calculation of the 3-year average due to a smaller data sample being collected in this year. Thus the 3 year averages displayed for 2019/20-2021/22 should be considered as less robust than those for earlier years.

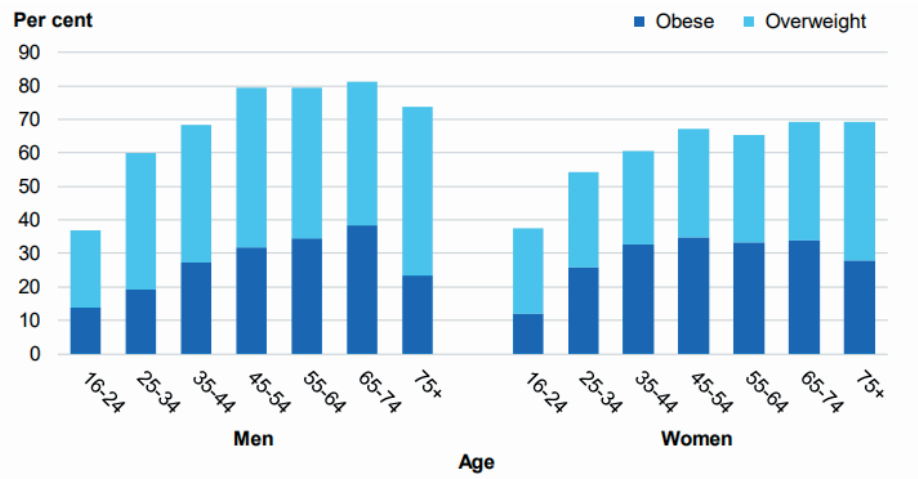
Source: NCMP

6.2.3.2 Health inequalities in excess weight by age and gender

In Oxfordshire, amongst children starting in Reception, almost 2 in 10 children are already living with overweight and/or obesity (Figure 6.4). This increases to 3 in 10 amongst Year 6 pupils. Whilst data on excess weight prevalence by age through adulthood is not available at the local authority level, in the national data we see a continued increase in levels of excess weight up until the age of 45-54 years, whereupon it stabilises in women, and appears to plateau and then show a slight decrease in the 75+ age group amongst men. Nationally, the majority of adults live with overweight or obesity in all age groups above 25 years (Figure 6.19).

FIGURE 6.19:

Prevalence of overweight and obesity by age group and sex, in England



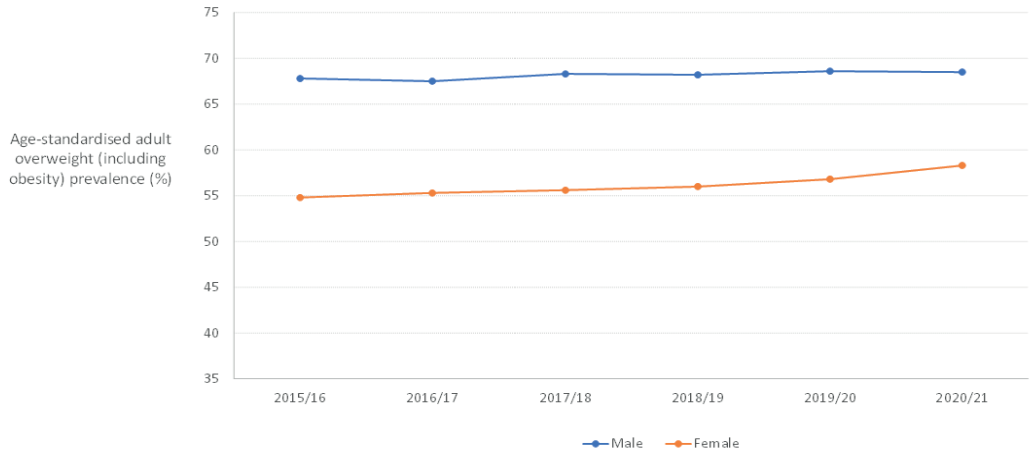
Source: Health Survey for England 2019 Report: Overweight and obesity in adults and children

Historically, the prevalence of excess weight has been higher overall in adult men than in adult women. In 2020/21, prevalence of overweight was still approximately ten percentage points higher in men compared to women. Obesity prevalence is currently similar across genders (25% in men and women based on the Active Lives Adult Survey, Sport England), however, a higher proportion of women than men live with severe obesity (defined as a BMI>40kg/m2). The national data show that differences in overweight prevalence by gender are decreasing over time as a result of a faster rate of increase in overweight prevalence in women compared to men (Figures 6.20).

A governmental evidence review found that the evidence suggested there was no difference in the levels of excess weight experienced by different population groups based on sexual orientation.

FIGURE 6.20:

Trends in adult (18+) overweight prevalence by gender, in England



Source: Active Lives Adult Survey, Sport England

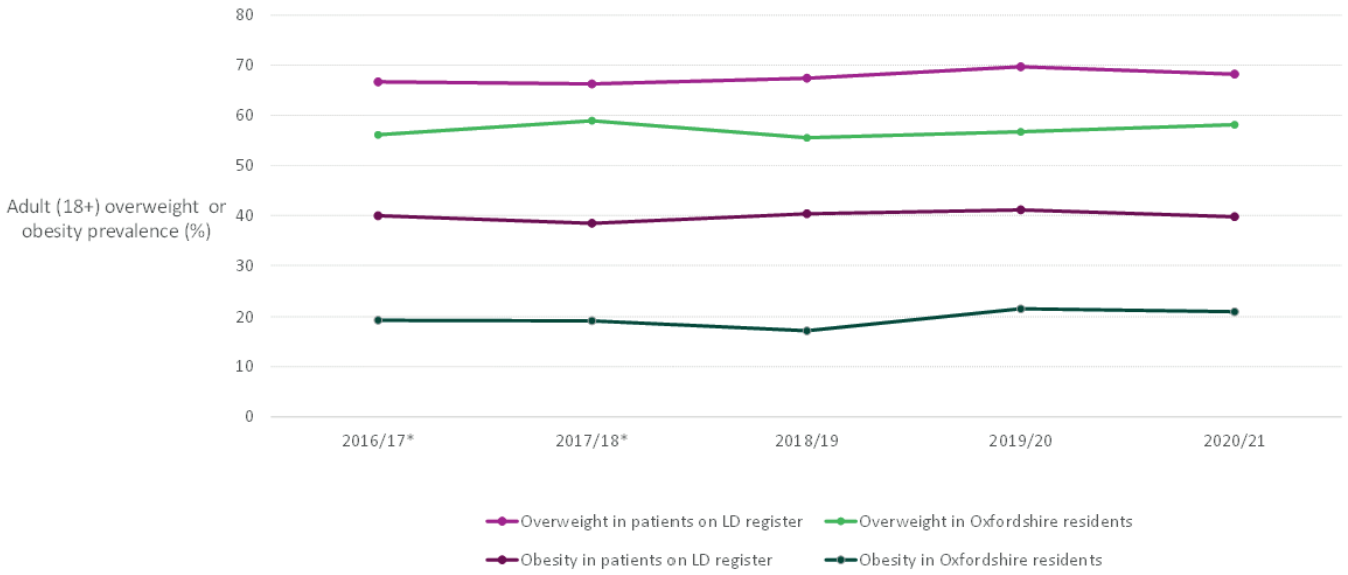
6.2.3.3 Health inequalities in excess weight: learning disability

In 2020-21, there were 3,093 people (across all ages) registered as having a learning disability (LD) with Oxfordshire CCG GP practices. There were 5,800 pupils with a LD attending state primary or secondary schools (6% of students at these schools) and 571 attending special schools (43% of their student cohort). In April 2022, 1,661 adults were receiving long-term social care for learning disabilities from Oxfordshire County Council Adult Social Care services.

People with LDs are recognised to have poorer health and shorter life expectancies compared to the general population (14 years shorter for men, 18 years for women). People aged 14+ who have been assessed to have a moderate, severe or profound LD and those with a mild LD who have other complex health needs are eligible for a free annual health check including measurement of their BMI: in 2020/21, 79% of people registered as eligible in Oxfordshire received one. GP-recorded BMI measurements estimate overweight prevalence (including obesity) in Oxfordshire to be 28% amongst under 18 year olds with LDs and 68% amongst adults (18+) with LDs. Obesity prevalence was 16% in under 18 year olds rising to 40% amongst adults (2020/21). Compared to levels of excess weight across all adults in Oxfordshire, this equates to a 10% higher prevalence of overweight and a 19% higher prevalence of obesity amongst those with a LD - this inequality has persisted since 2016/17.

FIGURE 6.21:

Trends in overweight and obesity prevalence amongst patients with a learning disability (formerly registered with Oxfordshire CCG) compared against all adults in Oxfordshire County



LD, learning disability

Note: Overweight and obesity prevalence for patients with learning disabilities registered with a GP within NHS Oxfordshire CCG boundaries extracted from the NHS Digital Health and Care of People with Learning Disabilities Dataset.

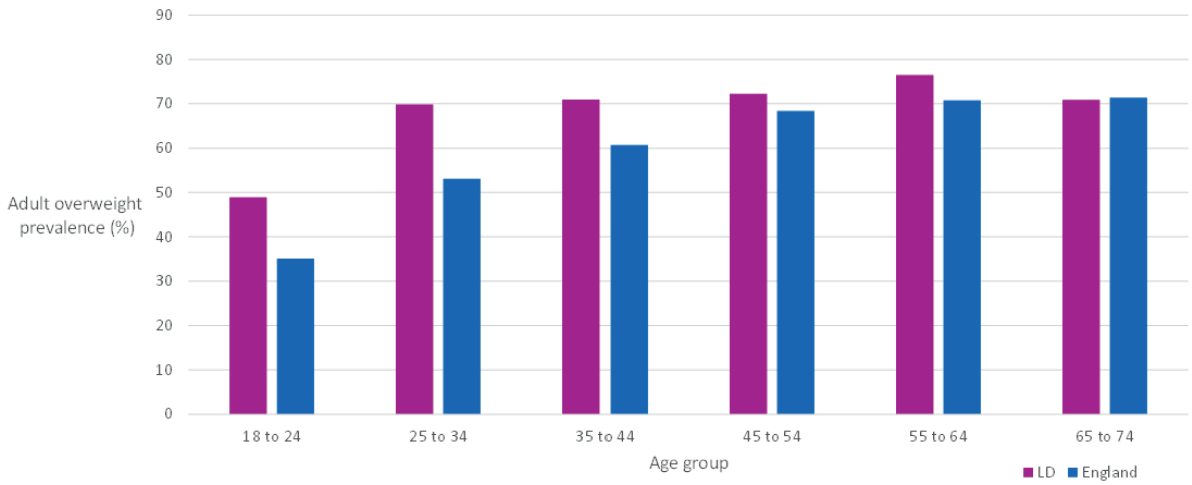
Overweight and obesity prevalence in adults in Oxfordshire are based on county boundaries and extracted from OHID fingertips using data from the Active Lives Adult Survey, Sport England.

(**Note:** The boundary for what was formerly NHS Oxfordshire CCG is closely aligned to the footprint of Oxfordshire County Council, however a small number of Oxfordshire CCG registered patients live outside the Oxfordshire area and vice versa. For more details of where boundaries differ, see the Oxfordshire JSNA 2022.)

When excess weight prevalence in adults with LD in Oxfordshire is compared to prevalence in all adults by age band (data only available at the national level), we note that substantial inequality already exists in the 18 to 24 age group for both overweight and obesity (this difference in prevalence remains statistically significant for all age bands between 18-64 for overweight and across all age bands for which comparable data is available for obesity (Figure 6.22). Amongst those with a learning disability, the risk of excess weight is higher amongst women, especially those living in more deprived areas, amongst those with Down's syndrome, those with higher ability and those living in less restrictive environments. Higher prevalence of excess weight contributes to the higher health burdens that people with learning disabilities experience including higher rates of diabetes, heart failure and strokes.

FIGURE 6.22:

Age-specific prevalence (ASP) of overweight in those with a learning disability in Oxfordshire compared Adult Overweight ASP in England, 2020/21



Note age specific prevalence in the under 18 age groups were not included in the published dataset due to the small numbers of patients on the learning disability GP register in these age groups who have had a recent BMI measurement (in the last 15 months), the calculated prevalence for these age groups would therefore have been subject to a high degree of random variation.

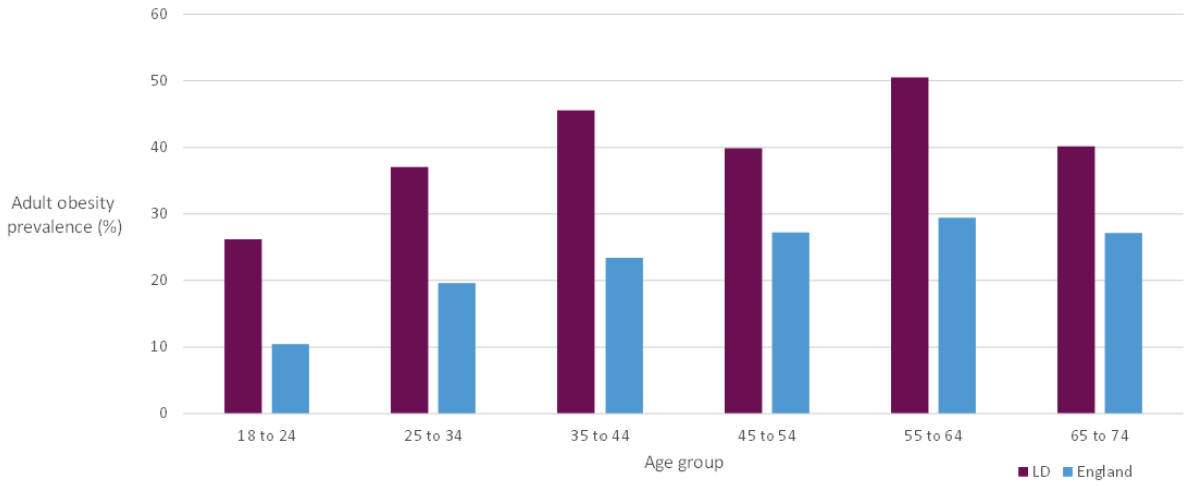
Age specific prevalence in the 75+ age group are not displayed as differential grouping of age bands prevents direct comparison of proportions across datasets.

Source: Overweight and obesity prevalence for patients with learning disabilities registered with a GP within NHS Oxfordshire CCG boundaries extracted from the NHS Digital Health and Care of People with Learning Disabilities Dataset.

Overweight and obesity prevalence in adults in Oxfordshire are based on county boundaries and extracted from OHID fingertips using data from the Active Lives Adult Survey, Sport England.

FIGURE 6.23:

Age-specific prevalences of obesity in those with a learning disability in Oxfordshire compared against age-specific prevalences in England, 2020/21



Source: Overweight and obesity prevalence for patients with learning disabilities registered with a GP within NHS Oxfordshire CCG boundaries extracted from the NHS Digital Health and Care of People with Learning Disabilities Dataset.

Overweight and obesity prevalence in adults in Oxfordshire are based on county boundaries and extracted from OHID fingertips using data from the Active Lives Adult Survey, Sport England.

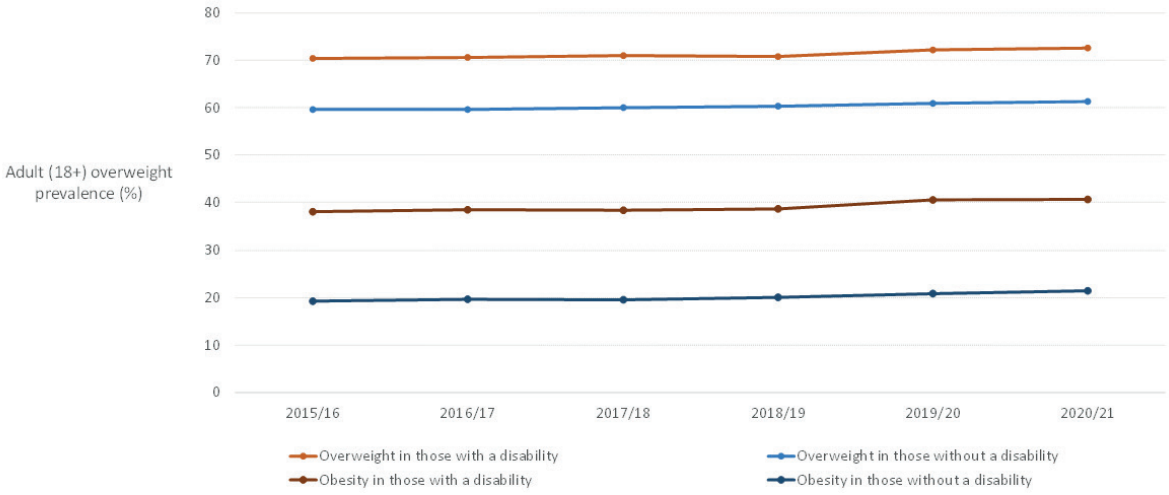
6.2.3.4 Health inequalities in excess weight by disability

Disability is defined by the Active Lives Adult Survey as any physical or mental health conditions or illnesses that have lasted or are expected to last 12 months or more, that have a substantial effect on the ability to carry out normal daily activities. In 2020/21, an estimated 153,300 Oxfordshire residents were living with self-reported disability (based on data from the Family Resources Survey data for the South East scaled to the population size of Oxfordshire) with 49,653 people claiming disability-related benefits in November 2021 (Oxfordshire JSNA 2022).

Data on weight status amongst those with other disabilities are not available at the Oxfordshire level. However, at the national level, amongst those with a disability, overweight prevalence was approximately 11% higher and obesity prevalence 19% higher compared to those without a disability. These inequalities have persisted since 2015 (Figure 6.24). Inequalities in excess weight have been described in the research literature for those living with a severe mental illness such as schizophrenia or bipolar disorder (for those living in Europe or Central Asia, an approximately 23-33% higher prevalence of obesity is seen in this population group).

FIGURE 6.24:

Adult obesity prevalence amongst those living with a disability versus those without, in England



Source: OHID Fingertips Obesity profile

6.2.3.5 Health inequalities in excess weight by ethnicity

Inequalities in excess weight by ethnicity in England

Nationally, for those of Black African, Black Caribbean or other Black ethnicities (including mixed), overweight and obesity prevalence is already statistically significantly higher than that for England overall by the time they start Reception (Figure 6.23). By Year 6, this difference has increased across all Black ethnic groups (Figure 6.24). Similar patterns are seen for obesity prevalence in Reception and by Year 6. As prevalences in Reception and Year 6 represent data from different year groups rather than the same cohort of children followed over time (and thus prevalence data for Year 6 reflect exposures to historical obesogenic socioenvironmental factors), an alternative explanation could be that disparities between Black ethnicity and the population average have narrowed over time – however this explanation is shown not to be true by Figure 6.27 which demonstrates how inequalities by ethnicity have persisted over time (though not shown, a similar trend is seen amongst Reception-age children). Amongst adults, those from Black ethnic backgrounds experience the highest overweight prevalence (approximately 9% higher than the average for England).

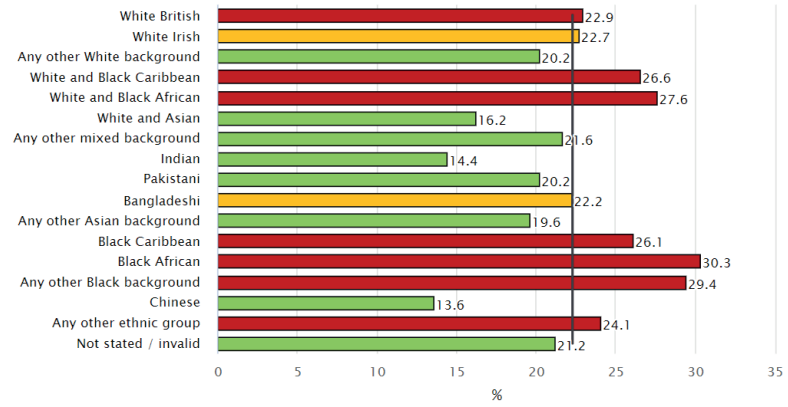
Disparities in excess weight prevalence for those from Asian backgrounds differ depending on more specific ethnic groupings. In Reception-age children, overweight prevalence is either not statistically significantly different (for those of Bangladeshi ethnicity) or better than the national average (for all other Asian ethnicities); however we see that obesity prevalence is statistically significantly higher in those of Bangladeshi or Pakistani ethnic origin. By Year 6, prevalence of both overweight and obesity is statistically significantly higher than the national average for all Asian ethnic groups except for those of Chinese or mixed White and Asian origin, with the gap in obesity prevalence having widened since Reception for those of Bangladeshi or Pakistani backgrounds. Children of Indian and Chinese ethnicity have substantially lower prevalence of overweight and obesity at time of entry into Reception relative to the average for England, however for those of Indian ethnicity this gap reduces over the course of primary school such that the prevalence of excess weight they experience is no longer statistically significantly different from that for England by Year 6. Amongst Chinese adults, excess weight prevalence is substantially lower than

the national average, however for other Asian ethnicities data on prevalence amongst adults are grouped together such that further conclusions cannot be inferred (as inequalities in prevalence are likely to be obscured when data from different ethnic subgroups have been combined).

The inequality gap in excess weight prevalence by ethnicity appear to have remained static over time, including through the peak in excess weight prevalence observed during the Covid-19 pandemic, for both children and adults (Figure 6.27, 6.28).

FIGURE 6.25:

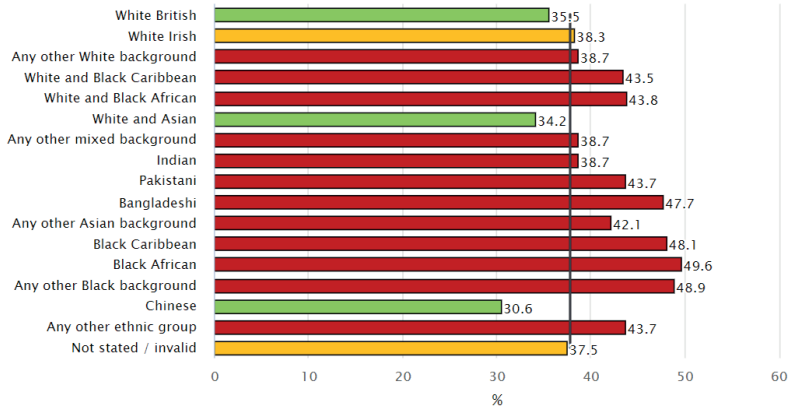
Childhood overweight prevalence by ethnicity, in Reception, in England 2021/22



Reference line represents the average Reception overweight prevalence in England (22% in 2021/22). Red shading indicates the overweight prevalence in an ethnic group was significantly higher than that for England (at the 5% significance level). Yellow shading indicates the overweight prevalence in an ethnic group was not significantly different from that for England. Green shading indicates the overweight prevalence in an ethnic group was significantly lower than that for England.

FIGURE 6.26:

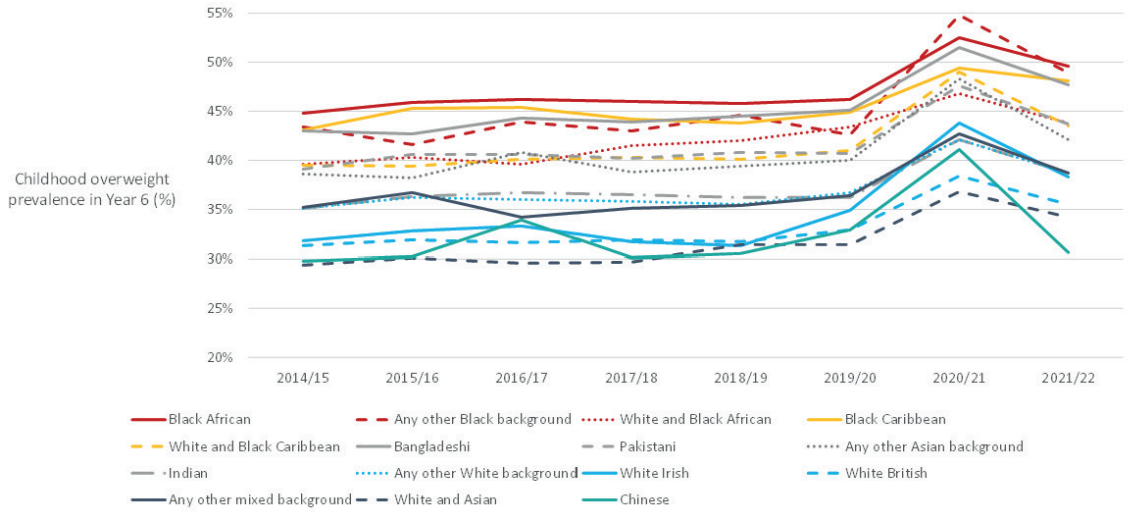
Childhood overweight prevalence by ethnicity, in Year 6, in England 2021/22



Reference line represents the average Year 6 overweight prevalence for England (38% in 2021/22). Red shading indicates the overweight prevalence in an ethnic group was significantly higher than that for England (at the 5% significance level). Yellow shading indicates the overweight prevalence in an ethnic group was not significantly different from that for England. Green shading indicates the overweight prevalence in an ethnic group was significantly lower than that for England.

FIGURE 6.27:

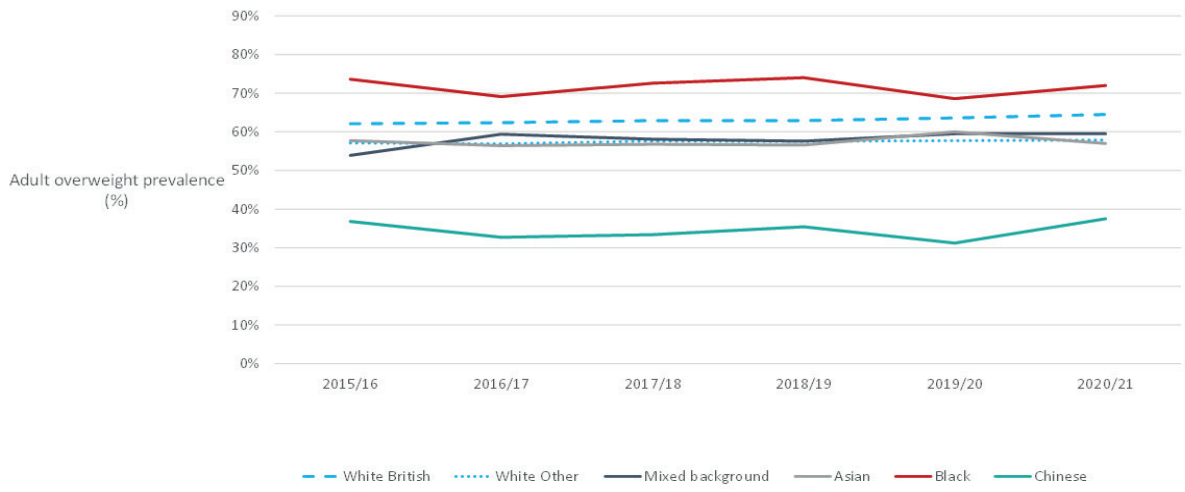
Trends in childhood overweight prevalence by ethnicity, in Year 6, in England 2014/15-2020/21



Data source: NCMP

FIGURE 6.28:

Trends in adult overweight prevalence by ethnicity, in England 2015/16-2020/21



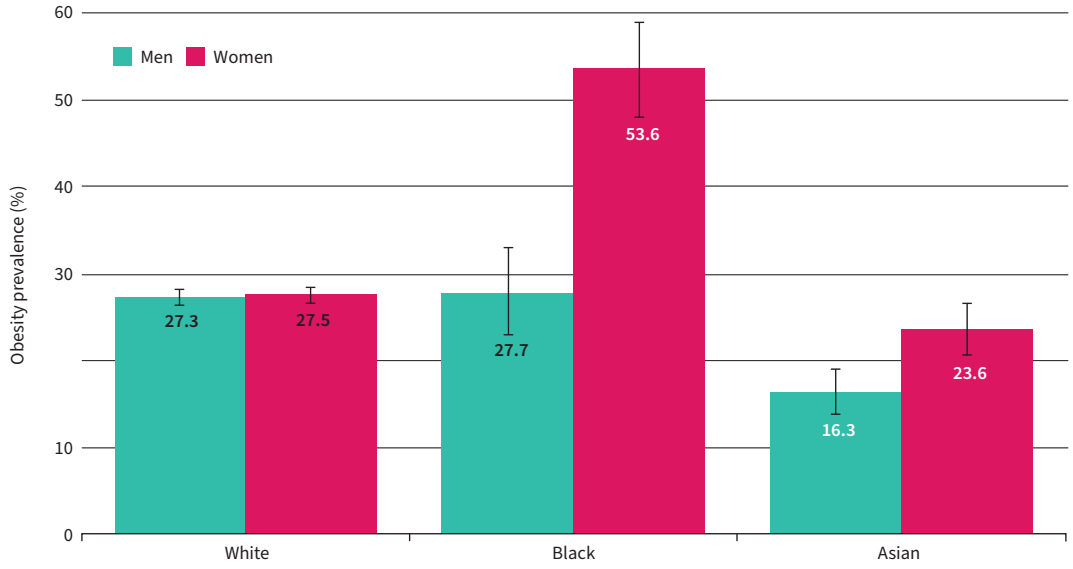
Data source: Active Lives Adult Survey, Sport England

Intersectional health inequalities by gender and ethnicity were examined in a report published by OHID using national data from the Health Survey for England. Inequalities were only examined using very broad ethnicity categorisations, which is likely to obscure differences between different ethnic groups falling within the same category.

However, the analysis suggests that associations between ethnicity and excess weight prevalence differ depending on gender. For example, obesity prevalence in Asian men was significantly lower than amongst White men, however obesity prevalence in Asian women was not significantly different to that experienced by White women. Amongst women of black ethnicity, obesity prevalence was almost two times higher than that seen in White women, whilst obesity prevalence amongst Black men was not significantly different to that in White men.

FIGURE 6.29:

Adult obesity prevalence by ethnicity and gender, in England 2015-17



Obesity prevalence was measured amongst adults aged 16+ and has been age-standardised. Error bars represent 95% confidence intervals. Data from 2015-17 are used as the most recent year for which this analysis is available.

Source: OHID Fingertips: Obesity profile: Report: Patterns and trends in adult excess weight

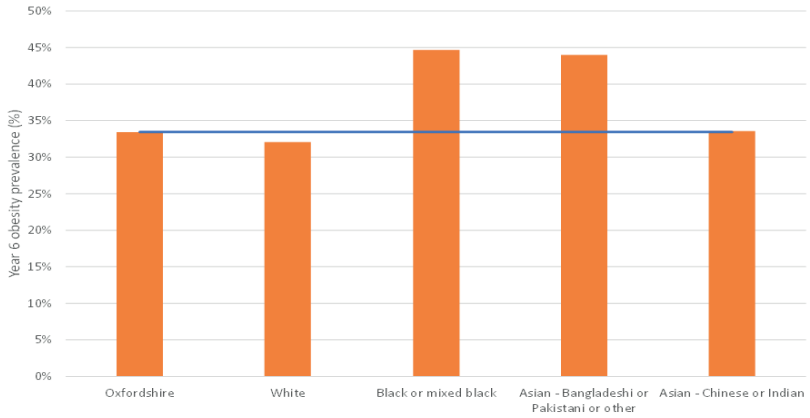
Data source: Health Survey for England 2017 [NS] - NHS Digital

Inequalities in excess weight by ethnicity in Oxfordshire

At the Oxfordshire level, inequalities in excess weight prevalence by ethnicity appear to follow a similar pattern to that observed nationally, with higher prevalence of overweight and obesity in those from Black (or mixed Black), Bangladeshi or Pakistani ethnic backgrounds (Figure 6.30).

FIGURE 6.30:

Year 6 overweight prevalence by ethnicity, in Oxfordshire

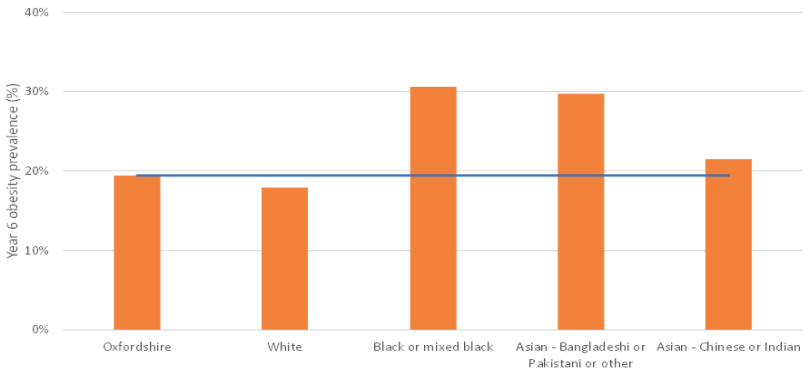


Reference line indicates average Year 6 overweight prevalence in Oxfordshire

Data source: Local data collection for NCMP 2021/22

FIGURE 6.31:

Year 6 obesity prevalence by ethnicity, in Oxfordshire



Reference line indicates average Year 6 obesity prevalence in Oxfordshire

Data source: Local data collection for NCMP 2021/22

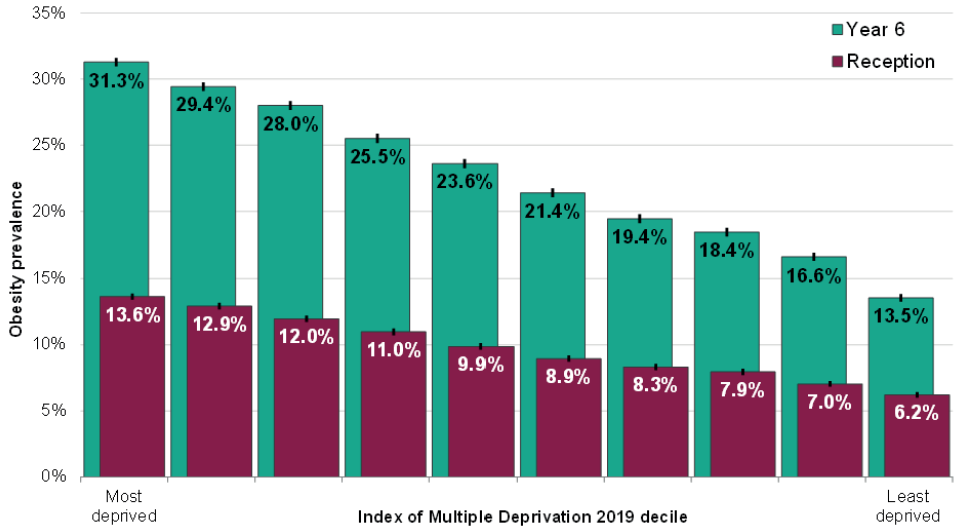
The presence of substantial inequalities in excess weight amongst children of Black ethnicity by the time they start Reception highlights the need to start early in life to successfully prevent excess weight, including addressing the drivers of excess weight already at play in the early years before children start at school. The difference in relationships observed between ethnicity and obesity prevalence by gender suggests that efforts to reduce inequalities in excess weight by ethnicity need to ensure that factors specific to, or which have a stronger influence amongst, women from at risk ethnic minority backgrounds are addressed. Investigation for interactions between other dimensions of health inequality (for example deprivation and ethnicity, disability and deprivation) would aid identification of other areas of intersectionality and help inform the targeting of healthy weight actions and programmes to the populations most at need.

6.2.3.6 Health inequalities in excess weight by deprivation

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation in England (see Glossary), it was last updated in 2019. Nationally, children who live in one of the 10% most deprived areas in England are more than two times as likely to meet definitions for obesity than those who live in areas in the least deprived 10%. This represents a gradient in obesity prevalence across the entire socioeconomic spectrum, rather than an inequality limited to only the areas experiencing the highest levels of deprivation (Figure 6.32).

FIGURE 6.32:

Childhood obesity prevalence by area deprivation, for Reception and Year 6, in England

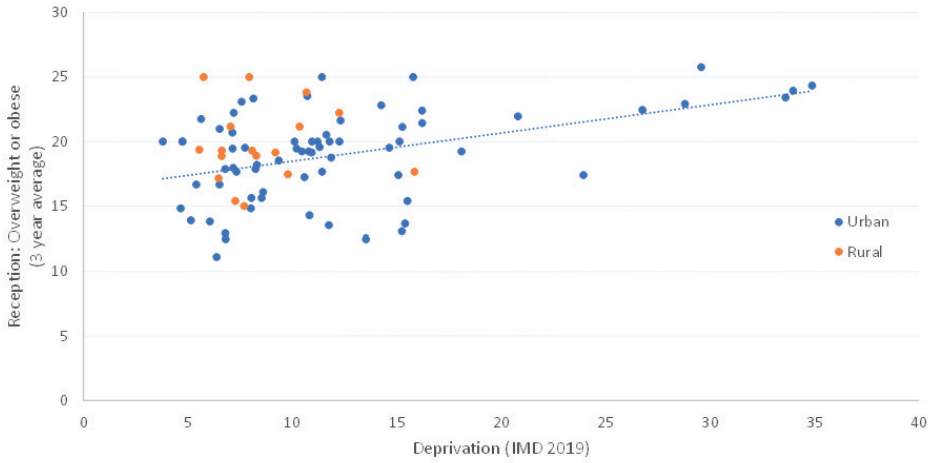


Source: OHID Fingertips: Obesity profile: Report: Patterns and trends in child obesity

Data: NCMP 2021/22

FIGURE 6.33:

Childhood obesity prevalence versus area deprivation, for Reception, in Oxfordshire



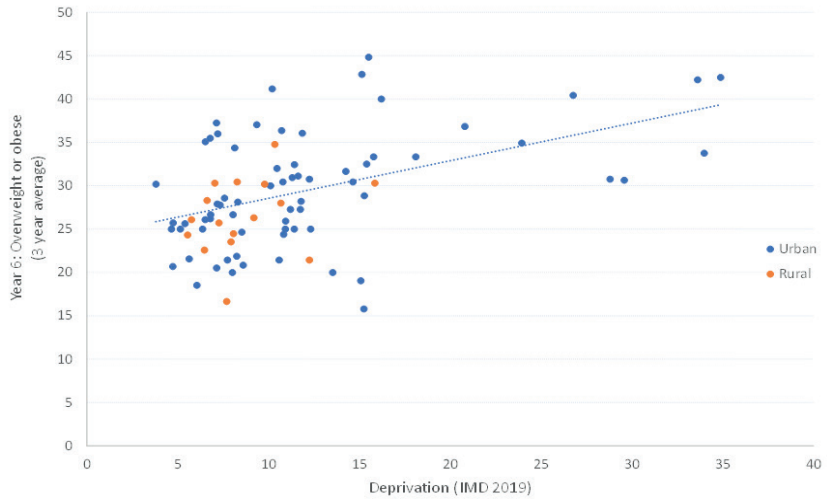
Data points represent individual Middle Super Output Area (MSOAs) allowing comparison of correlation between small area deprivation level (using IMD 2019) and childhood excess weight prevalence for urban (blue) and rural (orange) areas.

Geographic areas are assigned an urban or rural classification at the Output Area level initially based on whether its population-weighted centre is within or outside a built-up area of greater than 10,000 people (based on 2011 census data and taking into account population density). These classifications were subsequently aggregated to produce MSOA-level rural-urban classifications

Data source: NCMP 2017/18-19/20, 2011 Rural Urban Classification - GOV.UK (www.gov.uk)

FIGURE 6.34:

Childhood obesity prevalence versus area deprivation, for Year 6, in Oxfordshire



Data points represent individual Middle Super Output Area (MSOAs).

Data source: NCMP 2017/18-19/20, 2011 Rural Urban Classification - GOV.UK (www.gov.uk)

Whilst overall Oxfordshire is relatively affluent compared to England as a whole (Figure 6.6), a correlation between increased deprivation and higher prevalence of childhood overweight or obese is still observed when comparing MSOAs within Oxfordshire. This inequality in excess weight by deprivation is already observed amongst Reception-age children. The difference in overweight prevalence between children living in the five most deprived MSOAs versus the five least deprived goes from 6% in Reception to 11% in Year 6 (based on 3 year averages for 2017/18-2019/20). There is however considerable variation in excess weight prevalence which does not appear to be explained by deprivation in isolation - with a high degree of variation in excess weight prevalence being seen between more affluent MSOAs with comparable deprivation scores. This supports a contribution from factors beyond deprivation to inequalities in excess weight prevalence and it is important to note that relatively affluent areas may nonetheless experience high childhood obesity prevalence and this should be factored into prioritisation decisions within the Healthy Weight Action Plan.

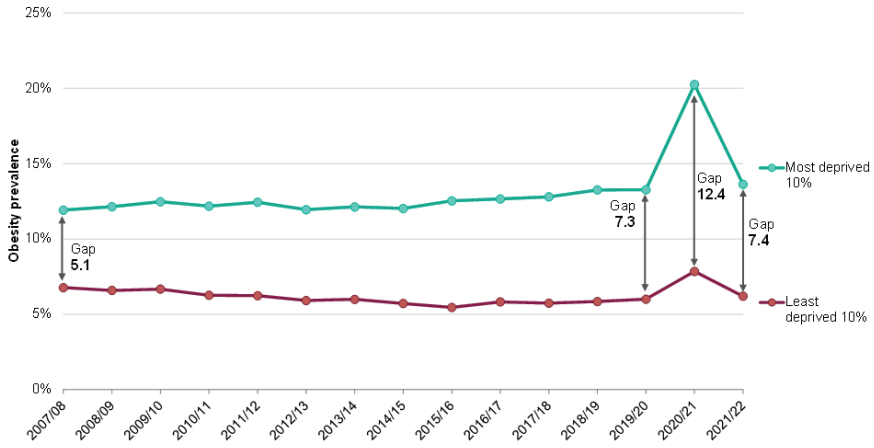
From Figures 6.33 and 6.34, we see that rural MSOAs tend to have low levels of deprivation comparable to that in the least deprived urban areas[4]. The range and variability in childhood overweight prevalence in rural areas appears comparable to that in urban areas.

4 At the time of the 2011 census, 17 out of the 86 MSOAs in Oxfordshire met definitions for being rural: 5 of these were classified as 'rural village and dispersed', whilst the remainder were classified as 'rural town and fringe'. Urban MSOAs were classified as either 'major conurbation' or 'city and town' areas.

With respect to changes in the deprivation excess weight inequality gap over time, national level data suggest that pre-2019/20 the inequalities gap followed a gradual increasing trend, reflecting a combination of decreasing obesity prevalence in the most affluent areas and increasing obesity prevalence in the least affluent areas. During the Covid-19 pandemic, the inequalities gap in childhood obesity prevalence between the most versus the least affluent 10% of areas widened substantially (reflecting a substantial increase in childhood obesity prevalence in the least affluent areas compared to much smaller increases in the most affluent areas). Whilst the deprivation inequality gap has returned to pre-pandemic levels in Reception-age children (Figure 6.35), the gap in Year 6 children in 2021/22, although reduced compared to 2020/21, remains wider than that seen in pre-pandemic years (Figure 6.36).

FIGURE 6.35:

Inequalities in childhood obesity prevalence in Reception-age children, by deprivation, in England

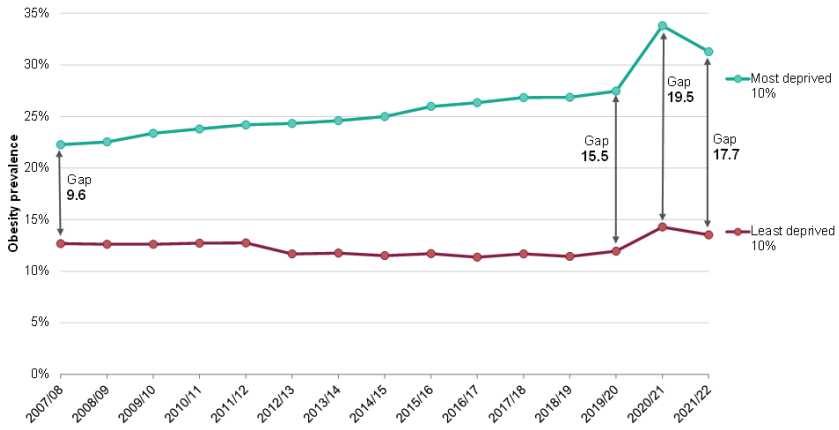


Source: OHID fingertips: Report: Patterns and trends in child obesity

Data source: NCMP

FIGURE 6.36:

Inequalities in childhood obesity prevalence in Year 6, by deprivation, in England



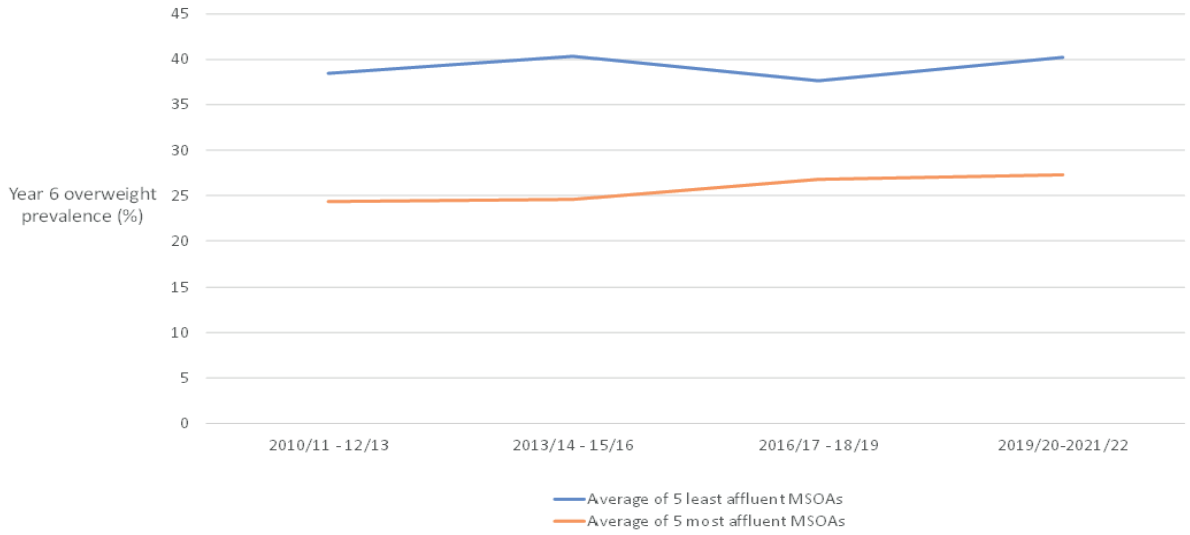
Source: OHID fingertips: Report: Patterns and trends in child obesity

Data source: NCMP

In Oxfordshire, inequalities in Year 6 overweight prevalence by deprivation appear to have remained relatively stable between 2010/11 and 2021/22 (ranging between 11% to 16% comparing the average across the five MSOAs with the highest versus lowest levels of deprivation).

FIGURE 6.37:

Inequalities in childhood overweight prevalence in Year 6, by deprivation (at MSOA level), in Oxfordshire



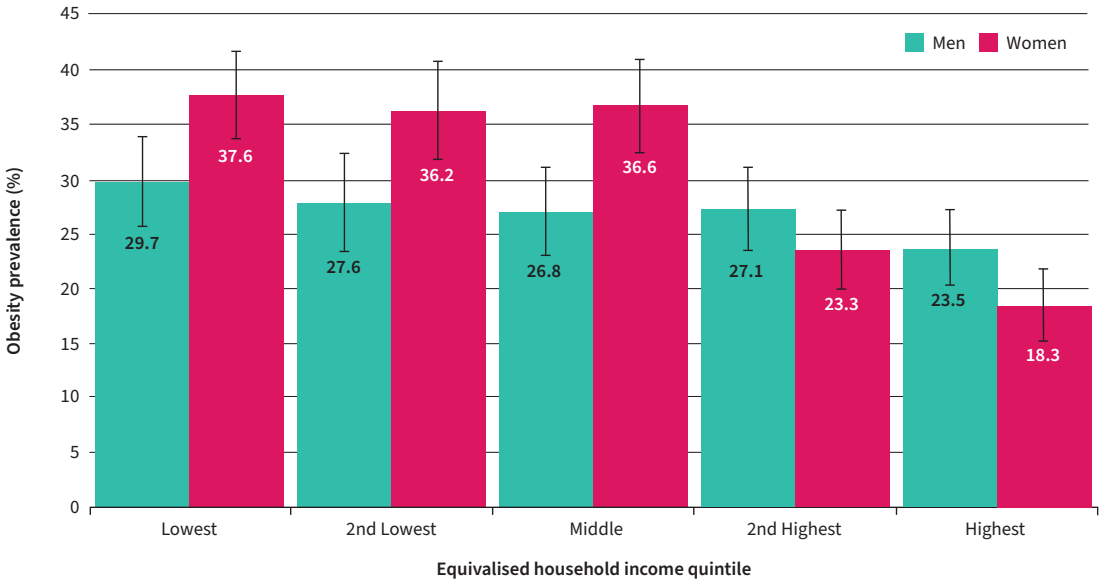
Note: 3 year averages for 2019/20-2021/22 use 2018/19 data instead of 2020/21 (which is not available at MSOA level due to a much smaller sample of data being collected during the NCMP that year). For some MSOAs, the contribution of 2019/20 data was underweighted in the calculation of the 3-year average due to a smaller data sample being collected in this year. Thus the 3 year averages displayed for 2019/20-2021/22 should be considered less robust than those for earlier years.

Data source: NCMP

When differences in adult obesity prevalence by deprivation are examined by gender, women appear to experience a steeper gradient in obesity prevalence based on household income relative to men: women in the lowest quintile for household income experienced an obesity prevalence of 38% in 2017 compared to a prevalence of 18% for women in the highest quintile for household income (Figure 6.38). Amongst men, a small difference was observed between obesity prevalence in men in the lowest quintile for household income compared to those in the highest, however this did not reach statistical significance. Similar patterns are seen when IMD score is used as a measure of socioeconomic status instead of household income. This suggests that women living in less affluent areas are a population subgroup at high risk of developing obesity and actions within the Healthy Weight action plan need to ensure that factors specific to, or with greater impact on, this group are addressed.

FIGURE 6.38:

Inequalities in adult obesity prevalence, by gender and income, in England in 2017



Error bars represent 95% confidence intervals. Wider intervals mean more uncertainty. Where confidence intervals overlap, we cannot be sure that the two values are significantly different from each other. Data from 2017 represents the most recent year for which this analysis is available.

Obesity prevalence was measured amongst adults aged 16+ and has been age-standardised. Equivalised household income is based on overall household income after the number of adults and dependent children in the household have been taken into consideration.

Source: OHID Fingertips Obesity profile: Report: Patterns and trends in adult excess weight

Data source: Health Survey for England 2017 [NS] - NHS Digital

6.2.4 Summary of the population groups at highest risk of excess weight

In summary, whilst Oxfordshire as a whole performs comparably to its CIPFA local authority neighbours, within the county, there is clear evidence of differences in the risk of excess weight experiences by residents based on their demographic characteristics and where they live within Oxfordshire at the small area (MSOA) level (summarised in Figure 6.39). Aside from gender and disability (for which local data are not available), all other population groups that have been identified as experiencing health inequalities relating to excess weight at a national level are also seen to experience substantial inequalities in the Oxfordshire context.

FIGURE 6.39:

Summary table of inequalities in excess weight in Oxfordshire across different population subgroups

Dimension of inequality	Lowest level at which data are available	Differences in overweight prevalence (%)	Differences in obesity prevalence (%)	Comparison groups	Inequality gap time trend	Detail on inequality gap time trend
Geographic	Oxfordshire	18	13	In Year 6 children, between the 5 highest and lowest prevalence MSOAs	→	Static since 2016/17-18/19
Gender	National	10	0	In adult men compared to adult women, 2020/21	↓	*Nationally: reducing for overweight, due to overweight prevalence increasing more quickly in women than men*
Learning disability	Oxfordshire (CCG)	10	19	In adults with a LD vs all adults	→	Static
Disability	National	11	19	In adults with a disability vs all adults	→	*Nationally: Static*
Deprivation	Oxfordshire	13	10	In Year 6 children, between the 5 most and the 5 least deprived MSOAs	→	Oxfordshire: static *Nationally: greater inequalities seen amongst women than amongst men.*

Dimension of inequality	Lowest level at which data are available	Differences in overweight prevalence (%)	Differences in obesity prevalence (%)	Comparison groups	Inequality gap time trend	Detail on inequality gap time trend
Ethnicity	Oxfordshire	11	11	In Year 6 children, amongst Black, Bangladeshi, Pakistani and non-Indian/ Chinese Asian ethnic groups when compared to Oxfordshire average	→	Nationally: Static *Substantial inequalities in excess weight prevalence seen for Black women relative to White women, but not Black men relative to White men.*

Note: Where available, data on inequalities in excess weight are presented for adults in Oxfordshire; where not available, they are presented for Year 6 children in Oxfordshire (this may underestimate the size of the inequality gap if this widens over the life-course), or national data are used where local data are not available (shown in italics, this may not be representative of the gap locally). Thus the size of the inequality gaps reported for different dimensions of inequality are not directly comparable, instead these data should be taken as indicative of where data are currently available to understand the degree of inequality experienced by different population subgroups.

Where subgroups have been combined (as they have been for geographic inequalities and ethnic groups), the average prevalence for the combined group was calculated by taking the average of the prevalence in individual subgroups.

The inequalities in excess weight prevalence by geography are substantial (Figure 6.39). These may represent differences in the demographics of residents living in these areas (for example their ethnicity, affluence, prevalence of disability), or differences in their exposures to local social and physical environmental characteristics and assets that help or hinder a healthy weight. Factors within the latter are further explored in Section 8.

The inequalities we observe amongst adults are already present amongst primary school-age children. Tracking changes in weight in children as they progress through primary school shows that the proportion of children who move from a healthy weight category to a higher weight category over the course of Years 1 to 6 is higher amongst boys, children from a black or minority ethnic group or living in a less affluent area. This highlights the need to ensure our actions tackle the factors which start influencing our weight from early on in the lifecourse (even before the age when children start at school) in order to successfully prevent excess weight, and inequalities in excess weight, from developing.

Actions to reduce the prevalence of excess weight in Oxfordshire need to make it a priority to reduce levels of excess weight in the following groups:

- Early years (age 0-3 years) and new parents
- Those from ethnic groups with higher excess weight prevalence (specifically those from African, Caribbean or mixed Black ethnicities, Pakistani or Bangladeshi backgrounds)
- Black women and low-income women
- Those living in areas of higher deprivation
- Those living with learning disabilities and other disabilities, including living with a severe mental illness

With respect to remaining gaps in our understanding of the situation in relation to excess weight in Oxfordshire, analysis to look at other types of intersectionality may help us to better prioritise our community engagement and initiatives to the groups with the highest health needs (for example inequalities by ethnicity and affluence, or by disability combined with other dimensions of health inequality). Data on whether inclusion health groups recognised to experience other types of health inequalities (for example Gypsy Roma and Traveller communities, vulnerable migrants) also experience inequalities with respect to excess weight are not currently available even at the national level.

Recommendation: Prioritise actions based on, and measure progress against, addressing healthy weight inequalities

7 Excess weight in Oxfordshire

7.1 Individual-focussed versus population level approaches

At the simplest level, excess weight is caused by an energy imbalance - where energy intake (through diet) exceeds energy expended (through being active). Diet (including food and drink) and physical activity are two behaviours that are closely linked with maintenance of energy balance. Observations from weight management programmes suggest that changing people's diets is most effective at shifting overall energy balance compared to increasing energy expenditure through increasing physical activity levels[5], however physical activity appears to have an important role in maintenance of weight loss.

At individual level, behaviours may be perceived as a reflection on individuals' lack of knowledge or capacity for self-regulation and impulse control. However, the observation that adult obesity prevalence in the UK doubled between 1993 and 2017 (from 15% to 29%) cannot be explained by changes in human psychology or biology during this time period. Instead, what has undergone substantial change are populations' social and physical environments. The WHO notes that there has been a shift globally towards more energy-dense foods (that are high in fat and sugars) and more sedentary forms of work and travel as well as increasing urbanisation. Thus it is important to recognise that our behaviours are shaped by the social norms and opportunities we are exposed to in our environment. Academic research on strategies to address excess weight have historically primarily focussed on addressing excess weight through changing behaviours at the individual level. However, with 6 in 10 adults in Oxfordshire currently living with excess weight, it is important that we recognise that system-level approaches are needed if we are to address a population-level problem within our resource constraints, alongside delivering individual-based interventions to support those individuals with the greatest health needs.

The report by the Government Office for Science's Foresight Programme "Tackling Obesities: Future Choices (2007)" identified more than one hundred variables that influence on the maintenance of energy balance based on the literature available at the time - spanning biological factors, early life experiences, education, media, food production and supply, macroeconomic drivers, built environment, transport, nature of work and healthcare. This highlighted the fact that no single intervention is likely to be able to reverse the trends of increasing excess weight, and instead the need for a systematic programme of multiple interventions and wide ranging partnerships (a so-called 'whole systems approach') is needed to successfully reduce levels of excess weight.

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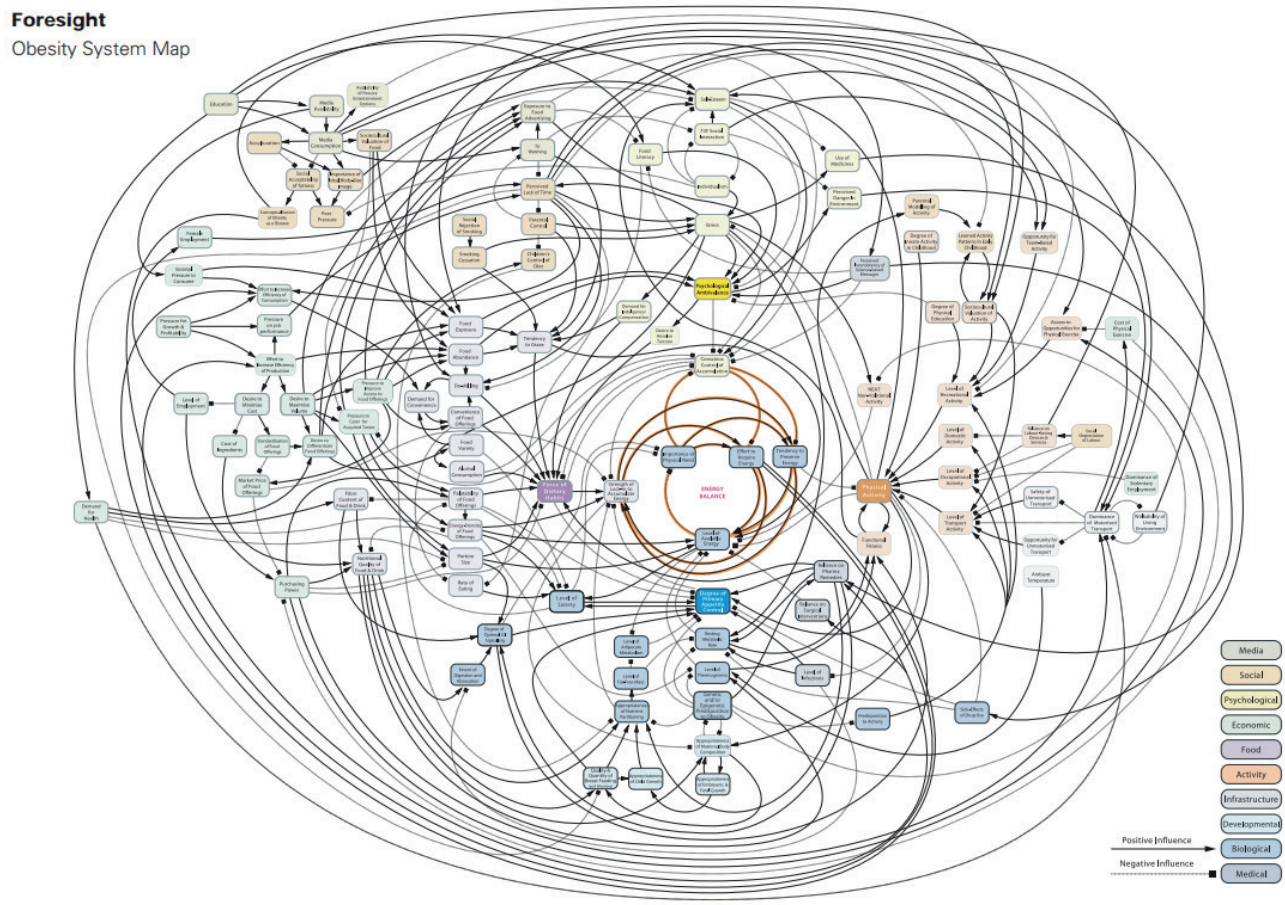
5 In a review of 17 randomised controlled trials of weight management programs, programs with a physical activity component typically prescribed between 60 to 240 minutes of exercise a week corresponding to a deficit of ~ 1000–1500kcal per week, in comparison adhering to the dietary component of the programs would contribute to an energy deficit of ~3500-7000kcal per week (The role of physical activity in producing and maintaining weight loss | Nature Reviews Endocrinology). Unsurprisingly, programs that involved diet or diet with exercise were able to achieve substantially greater weight loss than those involving exercise alone (11kg versus 3kg).

Weight management programs focus on changing behaviour on an individual basis, rather than through changing system or environmental factors, however these studies suggest that the degree of change in diet needed to substantially influence energy balance is feasible and acceptable relative to the degree of change in PA levels needed to achieve a similar effect.

However, whilst programs involving diet with exercise did not lead to significantly more weight loss than those involving diet only, they did increase the probability of maintenance of weight loss in the longer term. The explanations for this observation are not yet fully understood.

FIGURE 7.1:

Systems map of factors that influence maintenance of a healthy weight based on the research literature



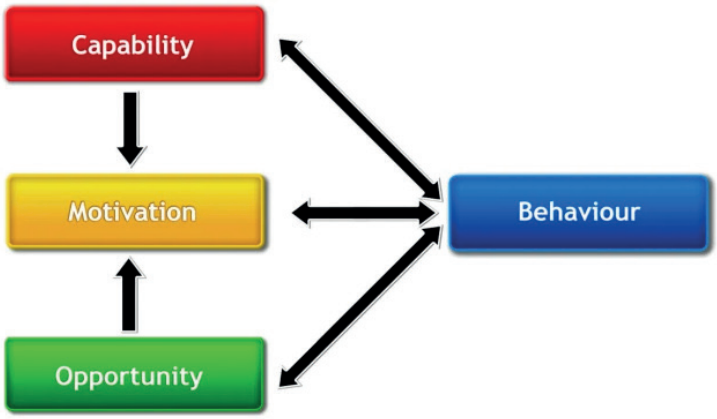
Source: Foresight Programme "Tackling obesities: future choices report" (2007)

7.2 Using the Behaviour Change Wheel framework to understand the factors that support healthy weight-promoting behaviours and select interventions

OHID advocates for the use of insights from behavioural and social sciences to improve our understanding of public health issues as well as providing a rigorous and disciplined way to aid the selection and development of interventions. To understand the complex influences on healthy-weight-promoting behaviour, the Behaviour Change Wheel framework has been used in this HNA to identify what factors are believed to be important in supporting a healthy weight. Central to this behaviour change framework is the COM-B ('capability', 'opportunity', 'motivation' and 'behaviour') model that conceptualises the need for all three of capability, opportunity and motivation to be present in order to change long-term behaviour. Capability refers to having the physical and mental ability to engage in the behaviour; opportunity is dependent on being in a physical and social environment that supports the behaviour or makes it possible and motivation requires that we are more motivated to do the target behaviour than other behaviours we might do instead. These components are each further divided into two subcomponents (see Figure 7.3) that

have been mapped onto policies and interventions that are more likely to be effective at influencing those subcomponents based on behavioural theory (summarised in row three of Figure 7.4).

FIGURE 7.2:
The COM-B model for understanding influences on behaviour



Source: The behaviour change wheel: A new method for characterising and designing behaviour change interventions - PMC (nih.gov)

FIGURE 7.3:

Linking the COM-B model components to interventions that target that component based on behavioural theory

	Capability, physical	Capability, psychological	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation: reflective
Description of component of behaviour:	Physical skills eg stamina	Psychological skills eg Memory, Attention, Behavioural Regulation and Decision Processes	Opportunities afforded by social norms	Opportunities afforded by environment (time, location, resource, cues)	Automatic processes involving emotional reactions eg desires (wants and needs), impulses, inhibitions	Reflective processes involving plans (self-conscious intentions) and evaluations (beliefs about what is good and bad)
Interventions that target the component of behaviour:	Training, Enablement (by increasing capability (beyond training) or opportunity (beyond environmental restructuring) eg by providing cooking equipment)	Education, training, enablement	Enablement, Environmental restructuring (changing physical or social context eg automatic computer prompts), restriction	Enablement, Environmental restructuring, Restriction (eg banning sale of alcohol to under 18s)	Persuasion (social marketing or communi-cations that aim to induce positive or negative feelings or stimulate action), Enablement, Environmental restructuring, Modelling, Incentivisation, Dis-incentivisation ("Coercion")	Education, Persuasion, Incentiv-isation, Dis-incentivisation

Reference: The behaviour change wheel: A new method for characterising and designing behaviour change interventions - PMC (nih.gov)

FIGURE 7.4:
Defining the meaning for different types of intervention as used in the Behaviour Change Wheel framework

	Definition	Example
Environmental restructuring	Changing the physical or social context	Providing on-screen prompts for GPs to ask about smoking behaviour
Modelling	Providing an example for people to aspire to or imitate	Using TV drama scenes involving safe-sex practices to increase condom use
Enablement	Increasing means/reducing barriers to increase capability (beyond education and training) or opportunity (beyond environmental restructuring)	Behavioural support for smoking cessation, medication for cognitive deficits, surgery to reduce obesity, prostheses to promote physical activity
Training	Imparting skills	
Coercion	Creating an expectation of punishment or cost	Raising the financial cost to reduce excessive alcohol consumption
Incentivisation	Creating an expectation of reward.	Using prize draws to induce attempts to stop smoking
Persuasion	Using communication to induce positive or negative feelings or stimulate action	Using imagery to motivate increases in physical activity
Education	Increasing knowledge or understanding	
Restrictions	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in competing behaviours)	Prohibiting sales of solvents to people under 18 to reduce use for intoxication

Reference: The behaviour change wheel: A new method for characterising and designing behaviour change interventions - PMC (nih.gov), The Behaviour Change Wheel Book - A Guide To Designing Interventions

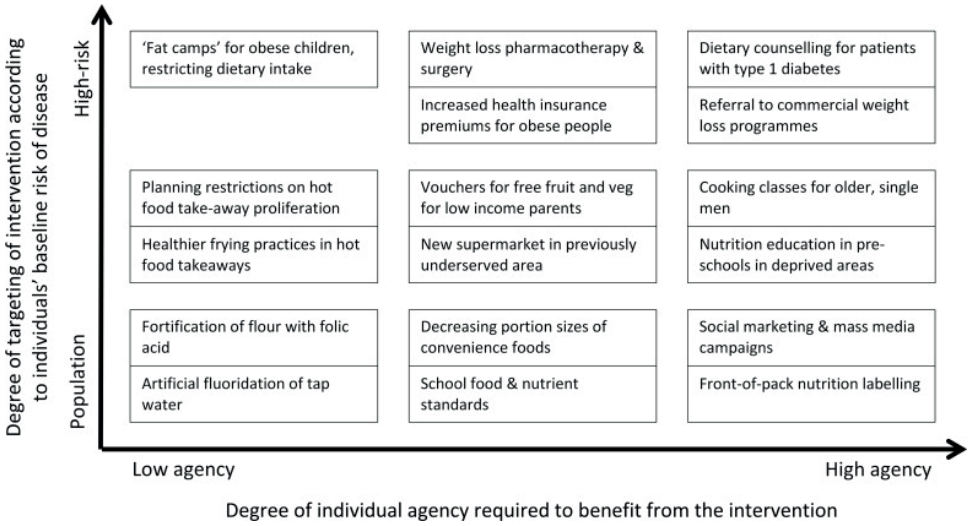
7.3 Selecting interventions that can address health inequalities

Reducing the health inequalities observed in childhood obesity levels is a key objective of the government's Childhood Obesity Plan. Interventions that require a high level of individual agency (for example providing information, cooking classes) require more of individuals' personal resources (including greater

psychological, time and material resource) for them to be able to benefit. These types of intervention are therefore considered to have greater potential to exacerbate inequalities resulting from socioeconomic differences. For example, more affluent individuals may have better health literacy to make sense of the information provided, the time resource to prepare meals from raw ingredients and the material resource to afford a variety of healthy but expensive foods. In contrast, the effectiveness of low-agency interventions (see Figure 7.5) is less dependent on individuals' capability or access to resources and therefore has greater potential to reduce health inequalities.

FIGURE 7.5:

Examples of interventions that aim to improve the healthiness of diets classified by the degree of agency they require of individuals (and comparing whole-population versus high-risk population approaches)



Source: Why Are Some Population Interventions for Diet and Obesity More Equitable and Effective Than Others? The Role of Individual Agency - PMC (nih.gov)

Low-agency interventions are sometimes considered synonymous with reducing choice, however low-agency interventions can enable better choices without reducing the options available, for example through changing default menu options or increasing opportunities for engagement in healthy behaviours (for example by increasing the safety of walking or cycling in neighbourhoods). In addition, behaviours such as dietary choices are known to be influenced by many factors that are outside of an individual's control (for example the food environment in the neighbourhood they live in, the advertising they are exposed to, the cost of fresh produce compared to pre-packaged ready meals). The public acceptability of interventions which limit choice is dependent on factors such as perceived causes for the behaviour (individual versus environmental), and information on the effectiveness of interventions, which can mean more restrictive measures are regarded favourably by the public (for example, a survey of UK residents found 62% of people had a positive attitude to the Sugary Drinks Levy at the time when it was introduced).

7.4 A Whole Systems Approach to Obesity: the four pillar action plan

From the findings of this HNA, five key overarching objectives emerge which map closely to the four pillars within the Whole Systems Approach to Obesity action plan.

Whole Systems Approach to Obesity action plan four pillars:	Key objectives identified from assessment of the health needs of Oxfordshire residents in the HNA:
System	Address healthy weight inequalities in everything we do
Prevention	To prevent excess weight, start early Make healthy behaviours (breastfeeding, healthier diets, active living) more social and attractive to help them stick
Environment	Enable healthy weight by building healthy places and environments
Support	Ensure those living with excess weight are connected with healthy weight-promoting programmes and weight support services

The subsequent sections of the report and report recommendations are structured according to these objectives.

8 Key Determinants of Healthy Weight

8.1 Diet

8.1.1 Introduction to healthy diets

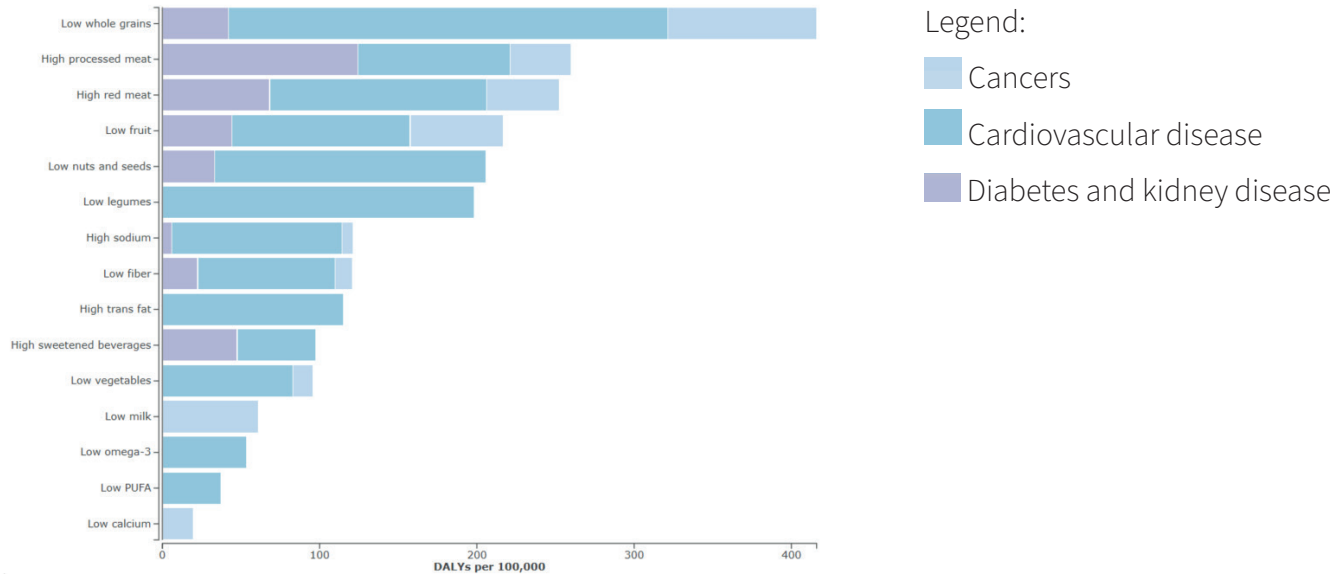
8.1.1.1 Defining what a healthy and sustainable diet looks like

Diet contributes to the energy intake aspect of maintaining energy balance and a healthy weight. However, beyond the calorie content of food and drinks, the nutritional content and the balance in the proportions of foods of different types consumed is also important to the maintenance of good health. Children's heights are a frequently used measure of nutritional status at a population level, representing the effects of undernutrition (and impact of infections) during pregnancy and after birth. Children living in the least affluent areas in England are not only more likely to experience excess weight compared to those from more affluent areas but are also more likely to be shorter. This illustrates how obesity and poor nutrition can co-exist.

The Global Burden of Disease study estimated that dietary risk factors contributed to over 11,500 years of healthy life lost (Disability Adjusted Life Years) in 2019 due to the associated increase in risk for cardiovascular disease, cancers, diabetes and kidney-related diseases amongst others. The dietary risk factors which contributed the greatest negative impacts on health were under-consumption of whole grains, fruit, nuts, seed and vegetables and overconsumption of red meat and processed meat.

FIGURE 8.1:

The contribution of different dietary risk factors to DALYs (across all health conditions) in Oxfordshire (2019)



Source: Institute for Health Metrics and Evaluation GBD Compare. (Accessed 28/09/2022)

The benefits of a healthy diet extend beyond supporting a healthy weight. More than one in five children in Oxfordshire (21% in 2019) experience visually obvious dental decay leading to pain, sleep loss, time off school and in some cases the need for treatment under a general anaesthetic. Reducing levels of consumption of high sugar-containing food and drink would be beneficial not only for reducing childhood obesity but also for reducing the incidence and impacts of dental caries.

At a societal level, the food system contributes to approximately one fifth of greenhouse gas emissions in the UK (rising to ~30% once emissions from imported food is taken into account) - the largest contribution of any sector after Energy. Every stage of food production contributes to emissions, however the greatest contributor to emissions is from agriculture (especially due to methane production from ruminant livestock and cultivation of rice). Research from the EAT Lancet commission has shown that the changes to diet required for better human and planetary health overlap in many areas.

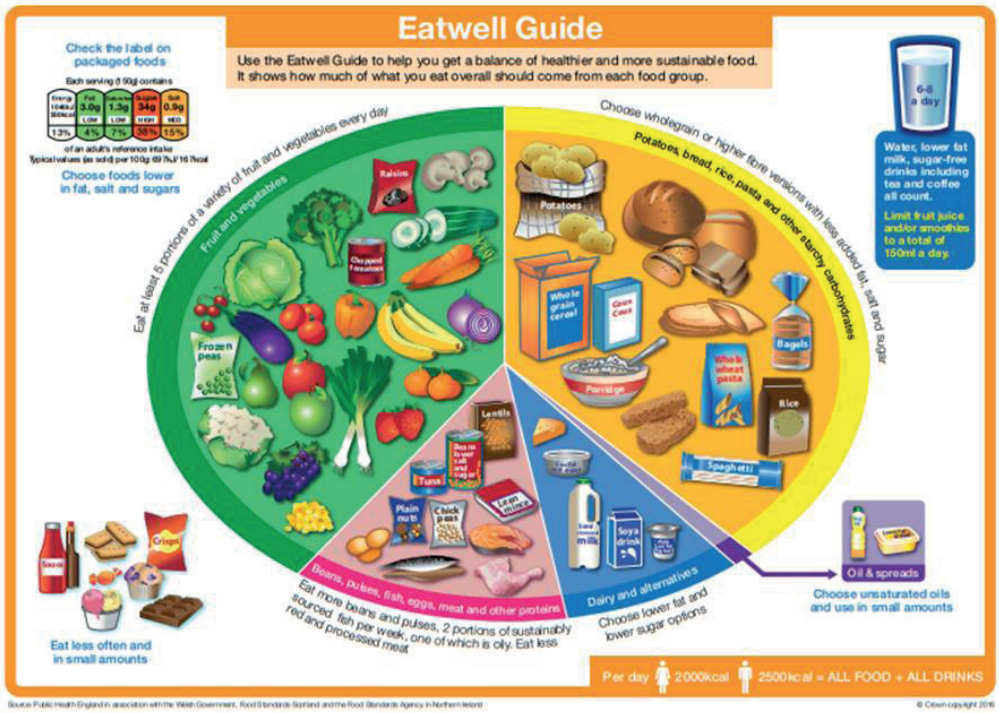
The dietary components necessary to maintain a healthy weight are described in the PHE Eatwell Guide (below). The Government Buying Standard for food and catering services (GBSF) and the School Food Standards set out guidelines for food procurement and provision in the public sector and in schools respectively to support them to provide meals and snacks that are in line with the recommendations in the Eatwell Guide.

Nutritional standards and targets

The Eatwell Guide provides recommendations for children above the age of 5 and adults on the proportions of foods to consume from different categories:

FIGURE 8.2:

Summary of recommendations from the Eatwell Guide



- Eat at least 5 portions of a variety of fruit and vegetables every day
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible
- Have some dairy, or dairy alternatives (such as soya drinks), choosing lower fat and lower sugar options
- Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily)
- Choose unsaturated oils and spreads and eat these in small amounts
- Drink 6-8 cups/glasses of fluid a day
- If consuming foods and drinks high in fat, salt or sugar (such as chocolate, cakes, biscuits, full-sugar soft drinks, butter and ice-cream), have these less often and in small amounts.

It recommends that children between the ages of 2 to 5 should gradually move towards eating foods in the proportions outlined in the Eatwell Guide.

Source: Eatwell Guide (2018)

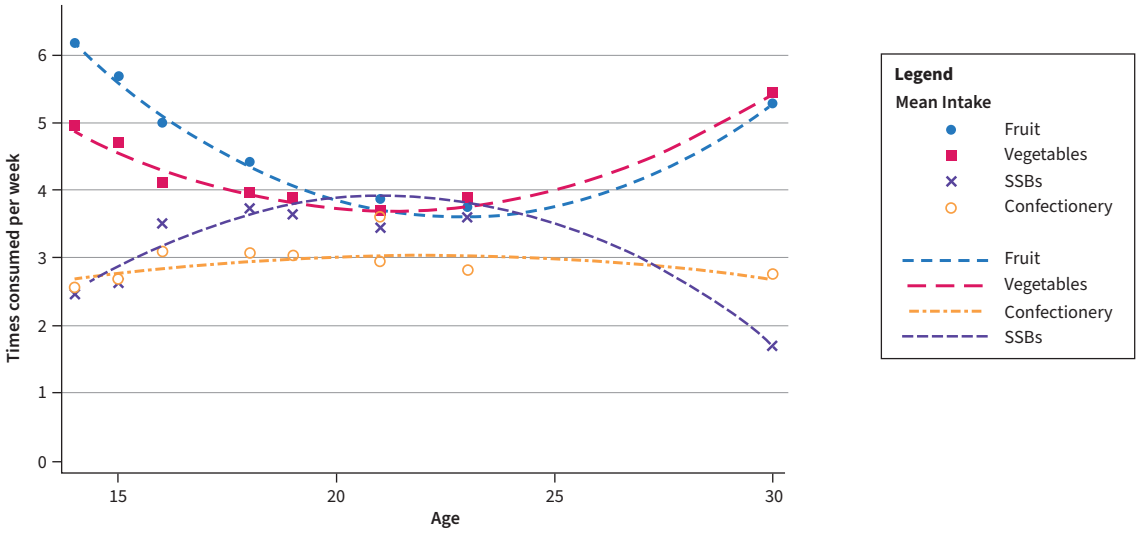
The public sector in England spends £2 billion on food and catering services, just under half of which goes towards purchasing food and ingredients. The Government Buying Standards for food and catering services (GBSF) were introduced in 2011 and updated in 2021 to ensure that food procurement by central government departments, the NHS and prisons was in line with evidence-based dietary recommendations.

8.1.1.2 Changes in food preferences through the life course

Evidence from studies of dietary trajectory through the life course suggests that initial dietary patterns are established before 3 years of age and remain relatively stable up until the age of 7 years (corresponding to the period between 2 to 6 years when food neophobia, the fear of trying new foods, is observed to peak and when children start becoming more independent in their dietary choices and have more influence over parental purchasing choices). However, changes to dietary patterns are also observed to occur at other time points (for example between 7-9 years of age, during adolescence and early adulthood between ~13 and 30 years), and following major life transitions. For example, beginning full-time employment and becoming a parent appear associated with increases in fast food intake, particularly when coinciding with late adolescence (at 15-19 years, in a US cohort), meanwhile leaving the parental home and beginning cohabitation with a partner are both associated with decreases in fast food intake. Data from a Norwegian cohort study suggest that dietary quality declines from adolescence into early adulthood, before recovering to be more similar to dietary quality during childhood by age 30. This suggest that dietary patterns established during childhood may have an important role in determining diet in middle- and older- age and hence the preschool period offers an important window of opportunity to establish favourable initial dietary preferences that enable a healthier diet and weight later in the life course. Potential opportunities to influence children's dietary habits in the early years through collaboration with early years childcare providers are outlined in Appendix 11.5. Other time points when diet appears to be more labile, such as at key life transitions, offer additional opportunities to influence dietary habits to be more healthy.

FIGURE 8.3:

Changes in dietary patterns over the life-course based on observations from a longitudinal cohort study



Source: Changes in diet through adolescence and early adulthood: longitudinal trajectories and association with key life transitions - PMC (nih.gov)

FIGURE 8.4:
Summary of time points when dietary preferences tend to undergo change over the life course

Age (years):	0 – 3	3 – 7	7 – 9	13 – 30
Dietary patterns:	Initial dietary patterns established [1]	2-6 years Peak food 'neophobia' Diet remains relatively stable [1]	Diet undergoes changes [1]	**Leaving full-time education:** increase in SSB and confectionery consumption [3] **Beginning full-time employment:** increased fast food intake, especially in 15-19 year olds [2] **Leaving the parental home:** decreased fast food intake [2], decreased fruit and vegetable consumption, in males decreased SSB consumption [3] **Beginning cohabitation with a partner:** decreased fast food intake [2], increased fruit intake [3] **Becoming a parent:** increased fast food intake [2]

SSB; sugar sweetened beverage

Sources:

Dietary trajectories through the life course: opportunities and challenges | British Journal of Nutrition | Cambridge Core

Associations of early adulthood life transitions with changes in fast food intake: a latent trajectory analysis | SpringerLink in the US based Project EAT (Eating and Activity in Teens and Young Adults) cohort

Changes in diet through adolescence and early adulthood: longitudinal trajectories and association with key life transitions - PMC (nih.gov) in the Norwegian Longitudinal Health Behaviour Study (NLHBS) cohort

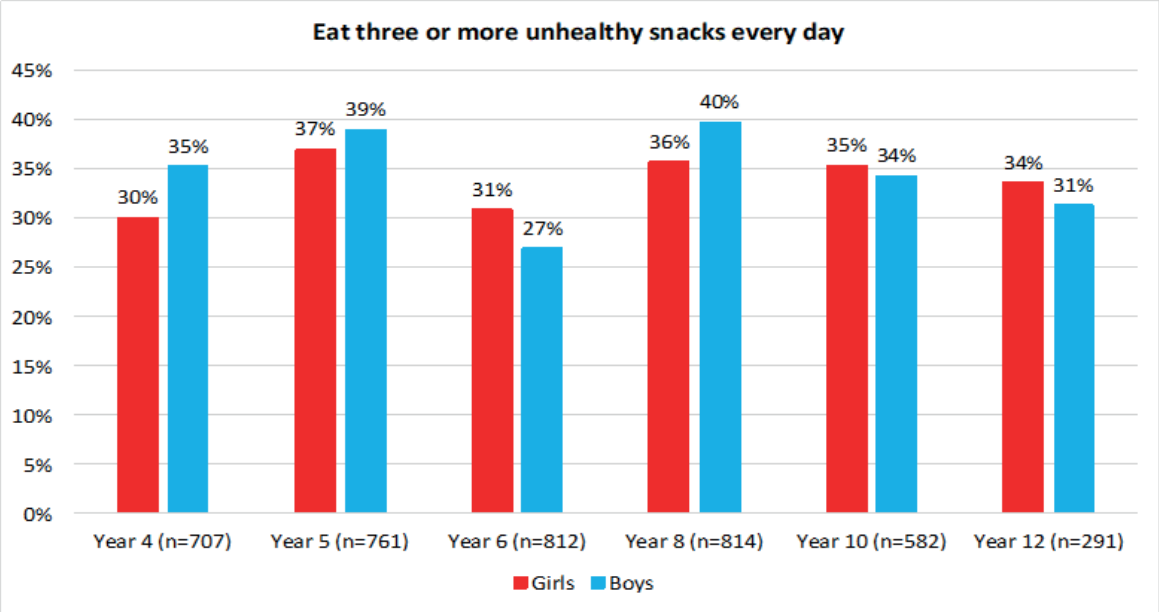
8.1.2 Diets of Oxfordshire residents

8.1.2.1 Descriptive epidemiology of diets of Oxfordshire residents

There are limited data available on the healthiness of diets at the local level. Amongst children, approximately one third of school-age children (34%) in Oxfordshire reported having 3 or more 'unhealthy' snacks (encompassing products such as sweets, chocolate, biscuits and crisps) every day in 2019 (Figure 8.5). Data on fruit and vegetable consumption in children are only available at the national level: based on data from the National Diet and Nutrition Survey (NDNS, from 2016-19)[6], an estimated 29% of primary school age children (5-10 years) and 23% of secondary school age children (11-16 years) eat less than one portion of vegetables per day.

Amongst adults (aged 16+) in Oxfordshire, 60% reported meeting the '5-a-day' recommendation for fruit and vegetable consumption on a usual day in 2019/20, this appears similar across the districts and comparable to levels reported for similar local authorities and nationally (55%). However, this means four in ten adults in Oxfordshire are not meeting the fruit and vegetable consumption levels recommended in the Eatwell guide. Time trends suggest levels of consumption in adults have remained relatively static between 2015/16 and 2019/20.

FIGURE 8.5:
Frequency of snack consumption in school-age children in Oxfordshire

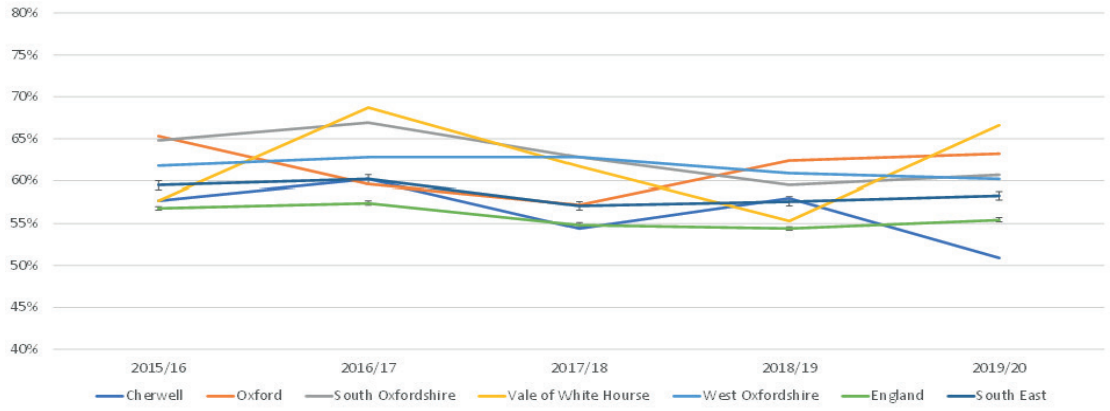


Source: Oxwell Student survey, 2019

6 The National Diet and Nutrition Survey is a cross-sectional survey that collects information on food intake from a sample of 1000 people in the UK (500 adults and 500 children) each year, and which aims to be nationally representative.

FIGURE 8.6:

Proportion of adults who report meeting the '5-a-day' recommendation for fruit and vegetable consumption in Oxfordshire



Participants (16+) were asked how many portions of fruit and vegetables they ate in the day before they completed the survey

Source: Sport England Active Lives Adult Survey

The NDNS reported that nationally adherence to the '5 a day' fruit and vegetable recommendation[7] is 12% amongst 11-18 year olds, 33% in adults aged 19-64 years, 40% in adults aged 65-74 years and 27% in adults aged over 75 years[8]. The NDNS notes that mean fruit and vegetable consumption has remained relatively unchanged between 2008 to 2019. The survey found that dietary quality appears to be lower in children and adults from lower income families: children in the 20% least affluent families consumed 29% less fruit and vegetables, 17% less fibre and 75% less oily fish compared to those in the 20% most affluent. Similar patterns were seen in adults who also had higher sugar consumption.

Other findings from the NDNS are summarised in Figure 8.7.

FIGURE 8.7:

Summary of findings from National Diet and Nutrition Survey (between 2016/17 and 2018/19)

Too much sugar	Consumption of free sugars consistently exceeds government targets, making up between 12% of total energy (for children aged 11 to 18 years who have the highest intake) and 9% of total energy (for adults aged 65 and over). (Free sugars should not exceed 5% of total dietary energy based on recommendations from the Scientific Advisory Committee on Nutrition, 2015). The consumption of sugar-sweetened beverages is decreasing in children and adults.

7 The '5-a-day' recommendation applies across children and adults however portion sizes are smaller in children based on age, size and levels of physical activity.

8 Note the Active Lives Survey uses online or postal responses to measure dietary quality in adults, in contrast the NDNS assesses diet using information gathered from a face-to-face interview, a four-day diet diary and analysis of blood and urine samples, and so differences in the levels of consumption reported in data from these sources are not unexpected. Only the Active Lives survey collects data from a large enough sample for data to be robust at the local authority level.

Too much saturated fat	Saturated fat intake exceeded government targets (saturated fats should contribute not more than 10% of total energy intake), with a mean intake of 12-13% in children and adults across age groups. There is no evidence of an increasing or decreasing trend in saturated fat intake over the last decade in children or adults.
Insufficient fruit and vegetables	Average portions consumed by age group: • 2.9 portions/day in children aged 11-18 years • 4.3 portions/day in adults aged 19-64 years • 4.5 portions/day in adults aged 65-74 years • 3.9 portions/day in adults aged 75 years and over. Trends since 2008 show the proportion of women aged 19-65 years meeting the recommendation has increased by 7% but no changes have been observed in other age groups.
Insufficient fibre	Fibre intake was below government recommendations for all age groups, with no evidence for a sustained or consistent trend over the last decade.
Red and processed meat	Mean consumption in all age or sex groups met the recommendation of no more than 70g per day.
Insufficient oily fish	Mean consumption in children was less than 20g per week. Mean consumption of oily fish was equivalent to 56g per week in adults aged 19 to 64 years and 86g per week in adults aged 65 years and over, well below the recommended one portion (140g) per week in all age groups.

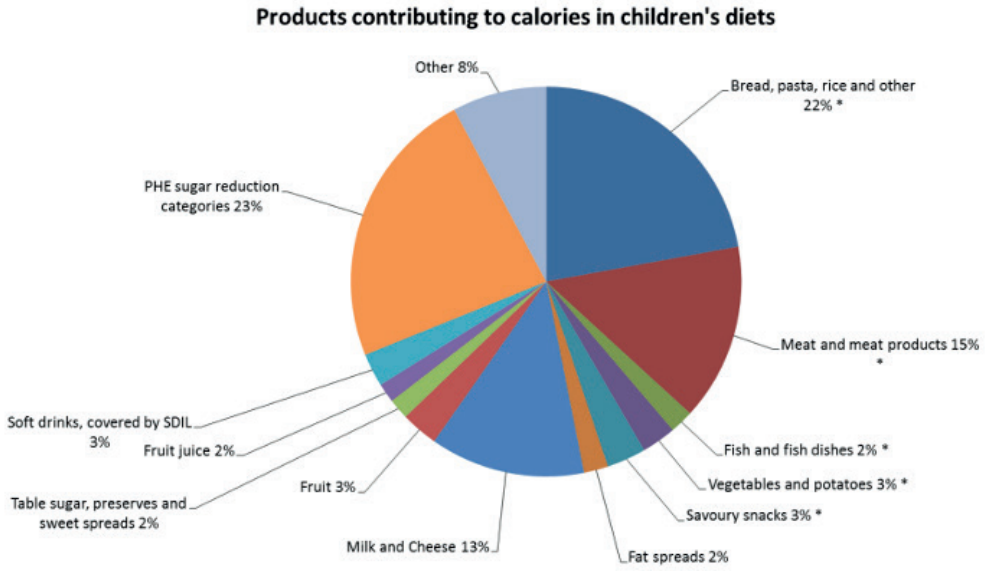
Source: NDNS: results from years 9 to 11 (2016 to 2017 and 2018 to 2019)

With respect to energy intake, children living with excess weight are estimated to consume approximately 140-500 more calories per day (depending on age and sex) compared to those with healthy weights. Sugar is a major contributor to calorie consumption (see Figure 8.8). Product categories identified in OHID's sugar reduction strategy as contributing most of the free sugar[9] in children's diets include morning goods (such as croissants, buns and waffles), breakfast cereals, sweet spreads and sauces, yogurts, puddings, ice-cream, biscuits, cakes and confectionery (soft drinks were considered separately within the Soft Drinks Industry Levy) - this selection was expanded to include juices and milk-based drinks in 2018. In combination these foodstuffs contribute 28% of the calories in children's diets and offer a clear target for reduction. However, parents' ability to reduce sugar from these sources may be limited by what products are available from retailers; an analysis by Action on Salt and Action on Sugar identified that only 7% of breakfast cereals and 4% of yoghurts marketed to children were low in sugar based on information from Front of Pack nutrition labelling. For adults, major sources of free sugars in the diet were 'sugar, preserves and confectionery' (25%),'cereal and cereal products' (including cakes and biscuits) (24%) and 'non-alcoholic beverages' (soft drinks and fruit juices) (21%) (based on data from 2014/2015 to 2015/2016).

9 Free sugars refer to sugars outside of those that are naturally occurring for example in fruit

FIGURE 8.8:

Contributions from different product categories to calories in children's diets



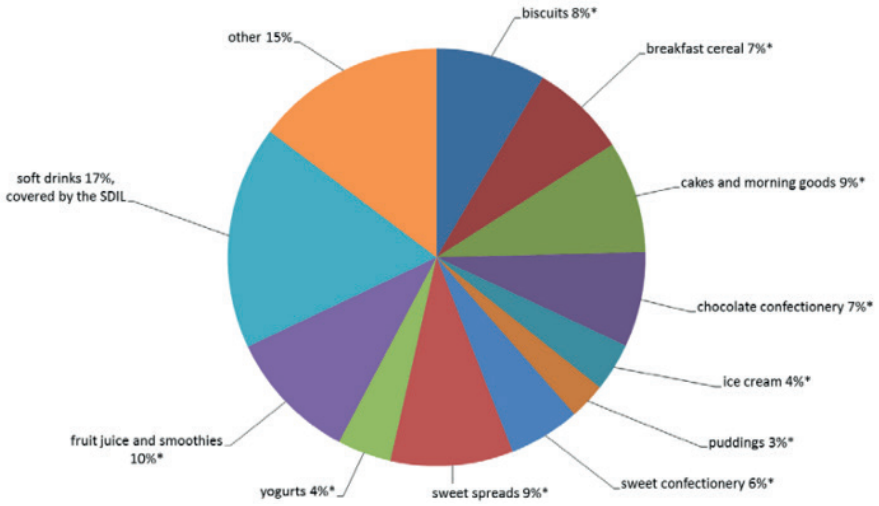
Note: Products included in the 'PHE sugar reduction categories' were yogurts, biscuits, cakes, morning goods (such as croissants, buns and waffles), puddings, ice-cream, breakfast cereals, confectionery, sweet spreads and sauces.

The 'Other' included: other meat, meat products and dishes; oily fish; other potato dishes; nuts and seeds; dry weight beverages; soup; savoury sauces, pickles, gravies and condiments.

Source: National Diet and Nutrition Survey (NDNS), years 7 and 8 (2014/15 - 2015/16)

FIGURE 8.9:

Contributions from different products to sugar in children's diets



'Other' includes pasta, rice, pizza, other cereal types, white and wholemeal break, other milk and cream types, meat and meat products, vegetable and potatoes, dry weight beverages, soup, savoury sauces, pickles, gravies and condiments.

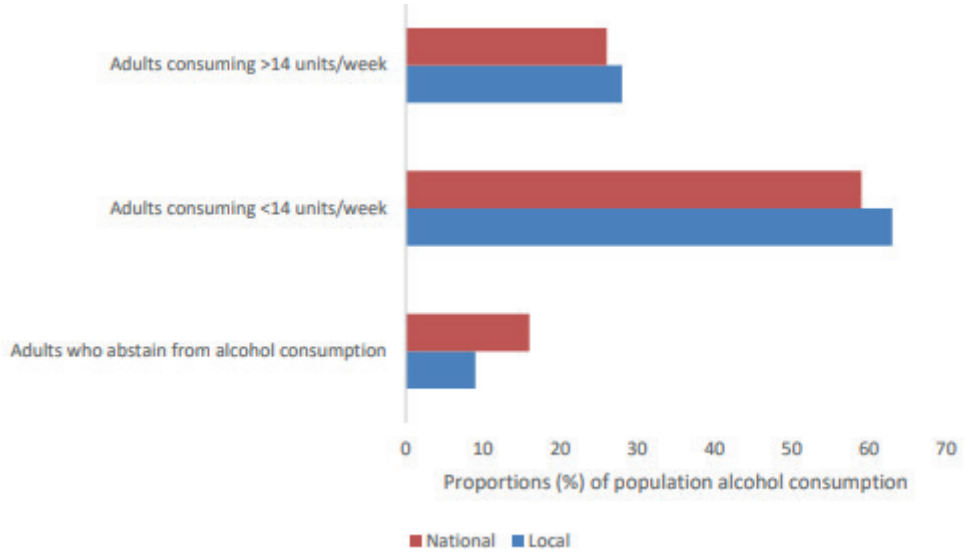
Products starred with an asterisk are those included in OHID's sugar reduction programme.

If dietary consumption patterns in Oxfordshire are comparable to those seen nationally in other dimensions beyond adult fruit and vegetable consumption, these data would suggest that the main aims of dietary interventions in Oxfordshire should be to increase fruit and vegetable consumption (with substantial potential for improvement across all age groups, especially the under 18 age group), and increase consumption of fibre and oily fish, whilst reducing sugar and saturated fat consumption.

Reducing sugar intake appears key to calorie reduction – including at breakfast (in cereal and morning goods), in or alongside meals (sweet spreads and sauces), in desserts and snacks and soft drinks. Given medium-high sugar versions of these products still predominate the food market for children, efforts to reduce sugar consumption need to take into consideration that low-sugar alternatives may not be widely available (see section 5.1.5.6 for an example of an initiative piloted with local convenience stores in Southwark to improve the availability of healthier formulations of products).

Alcohol also has a high calorie content and contributes towards calorie intake in the 9 in 10 adults in Oxfordshire who consume alcohol regularly (see Figure 8.10). A bottle of wine per week contributing a comparable number of calories to eating 48 Big Macs per year (~27,000kcal) and alcohol accounts for approximately 8% of energy intake amongst adults (19-64 years) who consume alcohol. There is some suggestion that public awareness of this may be low nationally and local awareness of the contribution of alcohol to calorie intake is not known.

FIGURE 8.10:
Levels of alcohol consumption - for Oxfordshire and nationally



Source: Oxfordshire Drug and Alcohol Needs Assessment (2018/19)

Data source: Health Survey for England combined data 2011 to 2014

8.1.2.2 Factors which support healthy diets identified from our community engagement

A number of community engagement projects in Oxfordshire have engaged residents from areas with high excess weight prevalence and other risk characteristics (for example lower affluence) to identify the factors

that support or prevent them from maintaining a healthy diet. The needs most frequently identified by residents are summarised below:

Physical opportunity factors - the need to improve the food environment especially in less affluent neighbourhoods:

- Cost is a key factor for residents when deciding what and where to eat, with the rising cost of living being a major source of stress. For those experiencing financial insecurity, planning meals is a challenge, eating something is the priority rather than health and less healthy meals are perceived as being cheaper than cooking from scratch. Promotions on less healthy food appear to offer irresistible value for money
- Affordable fresh produce can be challenging to access without a car (with poor availability in local shops, and challenges to accessing larger budget supermarkets on public transport, especially when also caring for children)
- Constant exposure to less healthy foods in neighbourhoods, through social media and trends and advertising, and normalisation of eating at these places makes it easy for less healthy dietary habits to develop

Social opportunity and reflective motivation factors - the need to start early to build healthy habits:

- Motivation to eat better is higher at certain life stages, for example when weaning children or after an acute illness
- Motivators for cooking include being exposed to healthy eating habits and a cooking culture early in life

Psychological capability and automatic motivation factors - the need to build capability and increase motivation to cook and eat more healthily:

- Less healthy foods and snacks are used as rewards and treats, to self-manage poor mental health (but also seen as 'addictive') and to save on time.
- With respect to cooking, barriers include time constraints, the difficulties of meeting everybody's preferences, needing to come up with ideas on what to cook and lack of variety compared to what is available from food outlets and lack of interest in cooking.
- People are motivated to cook food for others to enjoy

Responses from residents are described in greater detail in Appendix 11.6. Many of the factors favouring the purchase of fast food or ready meals can be anticipated to become more prominent due to inflationary pressures on the cost of living (these include the cost of food, the need to prioritise quantity of food over quality, susceptibility to promotions, difficulties of meal planning when pressured for money, lack of access to cooking equipment, concerns about wasting money on food that is not eaten, and use of unhealthy food to manage stress). This makes the need to improve the retail food environment an especially urgent priority.

8.1.2.3 Factors which support healthy diets identified from the research literature

Results from a systematic review of the qualitative research literature show a high degree of overlap with factors identified as being important from our community engagement, with affordability, availability and access and being identified as the key factors that influence people's capability to maintain a healthy diet.

People identified cost as the primary factor influencing their purchasing choices, alongside ensuring that they could buy an adequate quantity of food for their family, especially amongst those of lower socioeconomic status, despite awareness that the foods they were selecting were less healthy. Healthier foods were generally perceived as being more expensive, though some groups found it was more cost effective to buy fresh food in season or felt cost savings from reducing unhealthy food consumption enabled them to invest in purchasing healthier foods.

With regards to availability of and access to food, participants noted differences in the availability of stores selling healthy food versus those selling fast food depending on the ethnic mix and level of affluence of a neighbourhood. Whilst participants expressed a preference to shop at larger supermarkets to access a greater variety of foods and save money, public transport was seen as impractical when trying to transport heavy groceries or when shopping with young children, the cost of public transport especially over multiple trips could also act as a barrier. Those without access to private motor transport were reliant on lift-sharing or else purchasing food from local convenience stores within walking distance - despite a recognition that they offered less variety in terms of healthy foods and a greater choice of unhealthy foods such as snacks, cold drinks, cigarettes and beer. Those from ethnic minority backgrounds cited that availability of traditional foods and ingredients were important influences on their choice of store and expressed a reluctance to shop in stores for other ethnic groups due to lack of familiarity with store products.

Other factors that influenced purchase decisions included advertising (with children pestering parents to buy unhealthy foods they had seen advertised) and the safety of the immediate environment around the store.

8.1.3 Diet Prevent: Start early

8.1.3.1 Breastfeeding

Given one in five children already live with overweight or obesity by the time they start school, supporting healthy weight and nutrition in the early years forms one of OHID's high impact areas for preschool children. Key factors that support a healthy weight specifically in the early years are parental weight (further examined in Section 9.1.2.2) and breastfeeding.

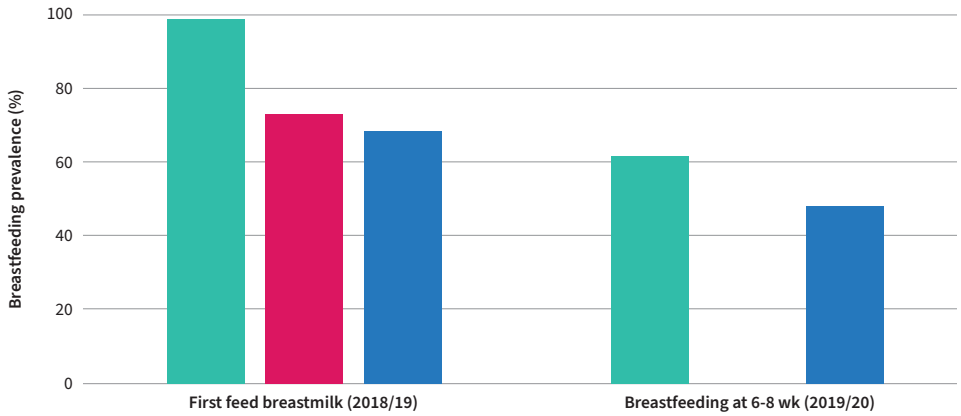
Being breastfed for longer (at least 6 months compared to less than 6 months) and being breastfed exclusively are associated with lower risks of developing childhood obesity. Being breastfed also conveys other benefits to infants including a lower risk for infections and tooth decay, for mothers breastfeeding is associated with a lower risk of developing type 2 diabetes. The age of introduction of complementary feeding does not however appear to contribute to higher BMI in infancy. In the UK, exclusive breastfeeding is recommended for around the first six months of a baby's life. It is recommended that breastfeeding should be continued until at least 12 months alongside introduction of complementary foods.

Breastfeeding initiation within 48 hours of delivery is recorded in hospital and again at the Health Visitor check at 6-8 weeks after delivery. Breastfeeding initiation and continuation at 6-8 weeks is higher for Oxfordshire than its CIPFA neighbours, and compared to national averages. Nevertheless, by 6-8 weeks only 61% of women were still breastfeeding (2021/22) (compared to 49% of women still breastfeeding at 6-8 weeks on average for England) (source: local data and OHID fingertips). Data on prevalence of breastfeeding for infants at older ages are not available.

Nationally, breastfeeding rates are noted to be much lower amongst young mothers (especially those aged under 25 years, Figure 8.12) and those living in less affluent areas, and also lower in mothers of white ethnicity and those with lower levels of educational attainment. Breastfeeding data at the small area level were collated in Oxfordshire up until 2014/15. Data at this time demonstrated substantial geographical inequality in breastfeeding prevalence (with 3-year-averages for breastfeeding prevalence ranging from 42% to 90%), however inequalities did not appear closely correlated with deprivation. Whether geographic inequalities in breastfeeding continuation within Oxfordshire have changed since 2015 are unclear.

FIGURE 8.11:

Prevalence of breastfeeding in Oxfordshire compared with regionally and nationally

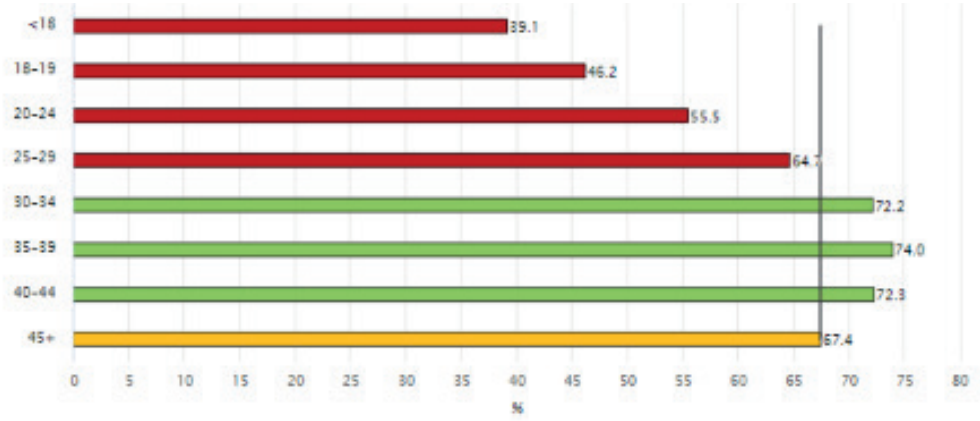


Note: data on breastfeeding prevalence at 6-8 weeks are not available for the South-East region for 2019/20.

Data source: Maternity Services Dataset and OHID's interim reporting of health visiting metrics

FIGURE 8.12:

Prevalence of first feed being breastmilk by maternal age - in England



Data: Maternity Services Dataset (2018/19)

A small-scale community insights project (2014) commissioned by OCC involving 14 women who had initially breastfed and interviews with stakeholders (including midwifes, family nurse practitioners, health visitors, OUH staff and those working at children's centres) identified the following barriers to breastfeeding continuation:

Capability factors:

- Women were generally knowledgeable about the benefits of breastfeeding. Stakeholders noted that some women may perceive that breastfeeding needs to be supplemented with other things
- Clinical issues (such as mastitis, thrush or pain from a C section) and psychological stresses (for example stress, tiredness, the need to establish a routine, concerns about not producing enough milk for their baby) were often the trigger for switching from breastfeeding to bottle feeding.

Opportunity factors:

- For social opportunity, breastfeeding practices in family members and relatives influenced women's decision to breastfeed. Stakeholders perceived that women who had moved away from their families were less likely to breastfeed.
- Partners perceived their role as supporting the mother's decision (rather than as an active enabler of breastfeeding). Partners often encouraged transitioning to formula feeding as a means to reduce stress and tiredness or so that they could help more actively with feeding. Women reported that receiving more motivational support from their partner may have helped them to continue to breastfeed.
- Stigma around breastfeeding in public contributed to the overall burden of continuing to breastfeed.
- With respect to the breastfeeding support they had received from healthcare professionals, some women perceived that the disproportionate emphasis on breastfeeding and lack of information on formula feeding meant they felt disempowered to make an informed choice. Participants expressed interest in learning from the experiences of people 'like them' and were in some cases mistrustful that advice from midwives and health visitors was being 'read from a book'.
- Some women reported that the distance to breastfeeding services was a barrier to access, feeling apprehensive about meeting new people at group sessions was also a barrier for some
- Stakeholders noted that health professionals face many competing pressures during both antenatal and postnatal visits which leave them with insufficient time to impart more than a sentence or two about breastfeeding and provide leaflets. Stakeholders differed in their perceptions on whether the actions of healthcare professionals could influence decisions relating to breastfeeding.
- Stakeholders perceived that there was a gap in the breastfeeding support provided in the period between 7 days and 6-8 weeks when pressures on new parents are particularly high. Stakeholders perceived that use of social media and apps appeared to be high amongst mothers and that this could be another potential avenue for supporting mothers with breastfeeding.

With respect to physical opportunity, women cited cost and convenience as benefits of breastfeeding over formula feeding, though on the other hand the convenience of formula feeding for feeding in public was a motive to use infant formula.

Motivational factors:

- Some participants perceived breastfeeding as part of their role as a mother though others expressed ambivalence or feeling negatively influenced by perceived pressure from healthcare professionals to breastfeed.
- Stakeholders noted that wanting to transition to getting back to 'life as normal' (for example going to the gym, going back to work) appeared to be a motivator for transitioning from breastfeeding to formula feeding.

Evidence from Cochrane systematic literature reviews shows that receiving breastfeeding support helps women breastfeed for longer but found no difference in breastfeeding outcomes based on whether the support was delivered by a professional, or by a lay person or peer supporters. In preterm infants, cup feeding rather than bottle feeding is associated with higher breastfeeding rates at discharge and may also be associated with longer continuation of breastfeeding.

NICE recommends that a structured programme is provided to women and their partners to encourage and support breastfeeding, suggesting the UNICEF Baby Friendly Initiative criteria as a minimum standard. The UK Baby Friendly Initiative is an accreditation programme that sets standards for facilities (including units providing maternity and neonatal care, health visiting and children's centres) and universities in relation to the support they provide to families in terms of feeding and developing a close relationship with their baby (see Figure 8.13). In line with the UKBFI standards, OHID recommends that a Making Every Contact Count (MECC) approach is taken to increasing breastfeeding rates. NICE also recommends that information and training is provided to women and their partners on how to overcome barriers to breastfeeding, how to manage common breastfeeding problems, and on the hand expression and safe storage of breast milk. In addition, OHID guidance recommends that workplaces employ good practice to support mothers to continue breastfeeding on their return to work.

FIGURE 8.13:

UK Baby Friendly Initiative accreditation scheme standards

Achievement against these standards is assessed by UNICEF UK.

Source: Guide to the Unicef UK Baby Friendly Initiative Standards

Breastfeeding support offered in Oxfordshire

Several maternity and postnatal services in Oxfordshire have been awarded their full UK BFI accreditation or are working towards achieving full accreditation (or reaccreditation):

- **OUH Maternity Service** (working towards full accreditation in late 2022 - early 2023)
- **OUH Neonatal Care unit** (full accreditation, most recently assessed in 2021).
- **0-5yrs Public Health Service** (full accreditation awarded 2017, working towards reaccreditation). Training sessions on breastfeeding and relationship building are offered to health visitors and family nurses on a quarterly basis, with a target of ensuring all staff complete this training within six months of

starting their post. Existing staff are offered annual update training and undergo an annual skills review. The Baby Friendly Guardian and Infant Feeding Champions support health visitors to maintain the standards in the accreditation.

- **The Enhanced Infant Feeding service** - a team of 12 specially trained health visitors supports mothers of babies beyond the age of 6 weeks with ongoing feeding difficulties (babies are eligible to be seen in the OUH Infant Feeding Clinic up to the age of 6 weeks)
- The **Specialist Community Public Health Nursing course** at Oxford Brookes University (accreditation awarded 2021). This means all graduating health visitors are qualified to support breastfeeding.

Other sources of support offered in the county include:

- A **peer support group 'Baby Lunchbox'** organised by the Oxfordshire NHS Health Visitors service
- Local voluntary organisations that provide breastfeeding support include:

  La Leche League:

  - Run by peer supporters
  - Drop-in in-person breastfeeding support sessions are offered in North Oxford, East Oxford and Bicester on a monthly basis at each location for those at any stage of pregnancy or breastfeeding

  Oxfordshire Breastfeeding Support

  - Run by trained breastfeeding support workers
  - Antenatal breastfeeding education sessions
  - Drop-in in-person breastfeeding support sessions, 1:1 virtual support consultations and a private Facebook support group
  - Low-cost loan of breast pumps
  - Peer supporter training

The **Family Nurse Partnership**, a programme funded by Oxford Health NHS Foundation Trust and staffed by health visitors and family nurses, supports young parents (aged 19 and under) during pregnancy through to 2 years. Support is provided through one-to-one home visits and group sessions and includes advice on practical aspects of breastfeeding, places where they can breastfeed and where to access support from.

Information on sources of breastfeeding support are available on the Oxford Health NHS Foundation Trust website, through the organisational websites for La Leche League and Oxfordshire Breastfeeding support and through OCC's Family Information Service directory.

Recommendation: Collate up-to-date small area data to assess for inequalities in breastfeeding initiation and continuation within Oxfordshire, taking action to address inequalities if required

8.1.3.2 Diet in the early years (0-5 years)

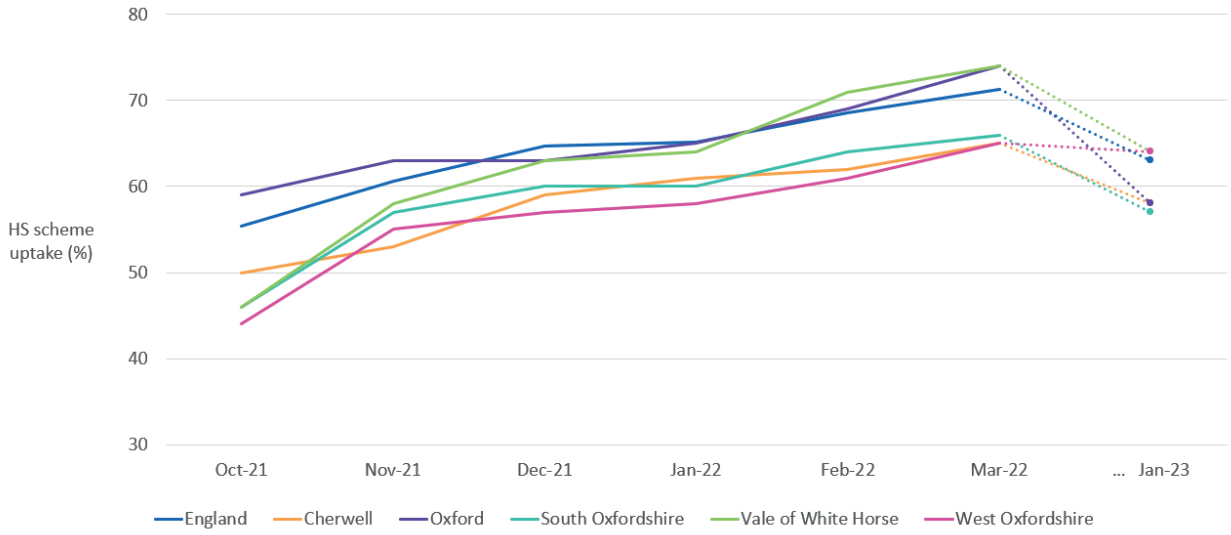
Several national programmes aim to improve diets in children in the early years. As part of the national Healthier Families (formerly Change4Life) campaign, Start4Life information service sends out information to parents by email on making healthier choices relating to breastfeeding and children's diets. Healthy Start Vouchers is a government scheme for low-income women during pregnancy or with a child under four who

are claiming income-related benefits. A weekly voucher is worth £3.10 and can be spent on milk (cow's milk or formula milk), fresh, frozen, and tinned fruit and vegetables, fresh, dried, and tinned pulses.

In Oxfordshire, uptake of the Healthy Start Vouchers scheme was increasing between October 2021 and March 2022. However, data from January 2023, the most recent data available since the switch over from a paper voucher-based setup to a digital card-based setup, show that uptake fell in all the districts apart from West Oxfordshire where it remained stable. Current uptake in the Vale of White Horse and West Oxfordshire is similar to the average uptake nationally (63%), with uptake in Cherwell, Oxford City and South Oxfordshire falling below the average (57-58%). Sustain have reported that eligible families are facing problems with applying for and using the new digital cards.

FIGURE 8.14:

Uptake of Healthy Start Vouchers scheme in eligible parents (October 2021-January 2023)



Uptake is calculated by dividing the total entitled beneficiaries by the total eligible beneficiaries.

Source: JSNA 2022, Healthy Start uptake data

Recommendation: Ensure a continued focus on increasing uptake of the Healthy Start scheme across Oxfordshire.

Dietary Guidelines for Early Years Settings

Early years settings (including childminder settings registered with Ofsted) have a statutory requirement to provide food that is "healthy, balanced and nutritious" Adherence to this requirement is assessed by Ofsted during inspections: practitioners must "provide a healthy diet and a range of opportunities for physically active play, both inside and outdoors" and "give clear and consistent messages to children that support healthy choices around food, rest, exercise and screen time" to be rated as "Good" or above.

The "Example menus for early years settings in England" national guidance document provides more specific advice to settings on how they can ensure they are providing meals that mean children attending the setting consume the right amount of energy and nutrients for their age), encourage children to consume a wide range of foods and support development of healthy eating habits early in life. Settings' adherence to these more specific recommendations does not appear to be assessed currently. Challenges to the implementation of dietary guidelines in these settings identified in research literature, include environmental contextual barriers (the cost of acquisition of new foods, new cooking instruments, new recipes and upskilling of staff) and social influences (staff beliefs or experiences of children not liking new, healthier menu options). Facilitators included using pre-tested recipes and receiving social support from experienced cooks and food vendors.

Recommendations for how to achieve a healthy, balanced and nutritious food offer in Early Years settings

Support continuation of breastfeeding for babies who attend through:

- Providing a comfortable place to breastfeed
- Encouraging mothers who wish to provide expressed breastmilk for their children to do so
- Signposting to breastfeeding support services

For children who are being introduced to solid foods, it recommends:-

- Mealtimes are used as an opportunity to introduce infants to a wide range of tastes and textures to increase their acceptance of a wider range of foods and enable sharing of meals with others as an aid to social development (a range of approaches to achieve this are described in the guidance - including ensuring savoury foods and less sweet vegetables are offered rather than only sweet dishes and fruit, moving from purees to mashed foods as soon as infants can manage them, recognising that new foods may need to be presented to infants on many occasions before they are accepted).
- Allow plenty of time for eating and to make it into a social occasion
- Do not offer any drinks before 12 months besides breastmilk, infant formula or water
- Make food colourful and tasty and include a variety of foods across the day
- Cook meals from scratch where possible (Section 4 of the guidance provides advice on how to prepare meals from scratch in a cost-effective way)
- Make use of food labels to inform choice of products purchased for meals

Source: Example menus for early years settings in England

FIGURE 8.15:

National 'good practice' recommendations on menu planning for lunch provision in early years settings

Key to symbols/definitions used in the 'at a glance' information on pages 11-15	
✓	**Guidelines –** use these to plan your meals and snacks
	Good practice – consider these when planning your meals and snacks

Menu planning advice	Each lunch should include a main course and a dessert. Vary the desserts you offer with a lunch and tea each week. For main meals (typically lunch), provide a variety of different desserts each week (for example fruit-based desserts such as apple crumble, dairy-based desserts such as rice pudding) and limit provision of cakes and biscuits.	
Food group	**Guidelines**	
Potatoes, bread, rice, pasta and starchy carbohydrates	✓	Provide a portion of starchy food as part of each lunch
	✓	Provide at least three different starchy foods as part of lunch each week
	✓	Provide a variety of wholegrain and white starchy foods each week
	💡	It is good practice to provide wholegrain starchy foods for at least one lunch each week
	✓	Limit starchy foods which have been tried to once a week at lunch
	✓	Limit canned pasta in sauce
	✓	Avoid flavoured dried rice, pasta and noodle products, for example packets and pots of instant flavoured noodles, pasta and rice
Fruit and vegetables	✓	Provide at least one portion of vegetables and/or fruits as part of lunch
	✓	Provide a variety of vegetables and fruit across the week at lunch
	✓	Check product labels to choose canned vegetables and pulses without added salt and sugar, fruit canned in juice not syrup, and reduced salt and sugar baked beans
	✓	Baked beans can count as a vegetable only once during each week
Beans, pulses, fish, eggs, meat and other proteins	✓	Provide a portion of beans, pulses, fish, eggs, meat (for example red meat or poultry) or other proteins (for example meat alternatives) as part of lunch each day
	✓	Provide a variety of foods from this group as part of lunch across the week
	💡	It is good practice to provide a portion of beans, pulses, fish, eggs, meat (for example red meat or poultry) or other proteins (for example meat alternatives) each week as part of lunch
	✓	Provide vegetarian children with a variety of protein sources such as pulses, eggs and meat alternatives each week as part of lunch
	✓	Provide one lunch for all children each week which uses pulses or a meat alternative as the protein source
	✓	Provide oily fish (such as salmon, sardines or pilchards) at least once every three weeks; this can be provided as part of lunch or tea

	✓	Limit the provision of meat products (for example, sausages, meatballs), fish products (for example, fish fingers, fish cakes), and products made from meat alternatives (for example vegetarian sausages), to once a week for each of the three types
Dairy and alternatives	💡	It is good practice to provide three portions of milk and dairy foods each day (including those provided at home); one of these can be provided as part of lunch
Drinks	✓	Children must have access to fresh drinking water
	✓	Provide only fresh tap water and plain milk for children to drink

Source: Example menus for early years settings in England

Initiatives to support healthy diets in the early years

There are several established programmes that aim to support healthy diet in the early years such as the HENRY programmes (which include two programmes that specifically support children in the early years - the 8-week 'Healthy Families: Right from the Start' programme and the 6-week 'Cooking for a healthy family' programme). Through group sessions, these programmes aim to provide parents with the skills and confidence in relation to breastfeeding, nutrition, physical activity, emotional wellbeing, parenting skills and family lifestyle habits to sustain a healthier family lifestyle and are usually delivered by childrens centre staff. There is evidence to support short-term impacts on healthy behaviours following the programme, with parents reporting an increase in fruit and vegetable consumption (a 19% increase in the number of parents and a 22% increase in the number of children meeting the five a day target), a reduction in sedentary behaviour (an 11% reduction in the number of parents achieving <30min/day of PA, not reaching statistical significance in children) and an increase in children's activity levels (a 5% increase in those attaining >3hours/d and a 15% increase in those attaining <2 hours/day).

There is research evidence to suggest that the risk of higher BMIs is higher amongst children of single-parent families. One explanation could relate to observations from community engagement that food quality and allowance of treats can be more variable in blended/separated families depending on who is caring for the child that day (for example grandparents versus mothers versus fathers). An estimated 19% of households with dependent children in Oxfordshire are lone parent households (2011 ONS Census data). There is some evidence to suggest that training programmes involving both mothers and fathers appear to be associated with greater improvements in children's engagement in healthy behaviour compared to those involving only mothers, however a review of evaluations of family-based childhood-obesity prevention programmes published between 2008–2015 found only 6% of parents who participated were fathers. Rates were observed to be particularly low for initiatives targeting the prenatal or infant period. Given this, family-based interventions should aim to involve both mothers and fathers as the default.

Planned actions with early years providers in Oxfordshire

The Oxfordshire County Council Public Health team and Early Years team are conducting a survey of early years settings to understand:

- Current practices in relation to food provision in Early Years settings

- Engagement with any healthy food/diet-related programmes by settings currently
- Barriers and facilitators to implementing national food provision guidelines in Early Years settings

Discussions are underway with Home Start about piloting a Child Feeding Guide training programme for staff and volunteers to develop their knowledge and skills for establishing healthy eating in children, address fussy eating habits and support healthy mealtimes.

Recommendation:

a) Work with early years providers to assess current food provision against, and understand facilitators and barriers to adherence to, national nutritional guidance and work to improve adherence where it is currently low

b) Understand the opportunities for breastfeeding support, promotion of the Healthy Start scheme and increasing children's confidence to engage in physical activity through these settings

Recommendation:

a) Review the evidence on programmes to prevent childhood obesity aimed at children aged 0-3 years to identify those that have been demonstrated to have longer term impacts on enabling healthier diets and physical activity

8.1.3.3 Diet in the school years

8.1.3.3a School food standards and guidelines

As children spend approximately 38 (73%) out of the 52 weeks annually in school, school food has an important role to play in influencing dietary preferences and habits as well as directly supporting nutrition and maintenance of healthy weight during childhood. Schools are required to follow the government's School Food Standards (SFS) they may choose to follow the GBSF criteria in addition to this. The SFS provide guidance on what food should be provided as part of school lunches, breakfasts, at midmorning break and after school clubs, as well as from vending machines and tuck shops, a broad overview of the standards is provided in Figure 8.16.

FIGURE 8.16:

Summary of the School Food Standards

Fruit and vegetables

One or more portions of vegetables or salad as an accompaniment every day.

One or more portions of fruit every day.

A dessert containing at least 50% fruit two or more times each week.

At least three different fruits and three different vegetables each week.

Foods high in fat, sugar and salt

No more than two portions of food that has been deep-fried, batter-coated, or breadcrumb-coated each week*.

No more than two portions of food which include pastry each week*.

No snacks, except nuts, seeds, vegetables and fruit with no added salt, sugar or fat*

Savoury crackers or breadsticks can be served at lunch with fruit or vegetables or dairy food.

No confectionery, chocolate or chocolate-based products*.

Desserts, cakes and biscuits are allowed at lunchtime. They must not contain any confectionery*.

Salt must not be available to add to food after it has been cooked*.

Milk and dairy

A portion of food from this group every day.

Lower fat milk must be available for drinking at least once a day during school hours.

Meat, fish, eggs, beans

and other non-dairy sources of protein

A portion of food from this group every day.

A portion of meat or poultry on three or more days each week.

Oily fish once or more every three weeks.

For vegetarians, a portion of non-dairy protein on three or more days each week*.

A meat or poultry product (manufactured or homemade, and meeting the legal requirements) no more than once each week in primary schools and twice each week in secondary schools*.

Food provided outside lunch

- Fruit and/or vegetables available in all school food outlets
- No savoury crackers and breadsticks
- No cakes, biscuits, pastries or desserts (except yoghurt or fruit-based desserts containing at least 50% fruit)

Starchy food

One or more wholegrain varieties of starchy food each week.

One or more portions of food from this group every day.

Three or more different starchy foods each week.

Starchy food cooked in fat or oil no more than two days each week*.

Healthier drinks*

Free, fresh drinking water at all times.

The only drinks permitted are;

- Plain water (still or carbonated)
- Lower fat milk or lactose reduced milk
- Fruit or vegetable juice (max 150mls)
- Plain soya, rice or oat drinks enriched with calcium; plain fermented milk (e.g. yoghurt) drinks
- Combinations of fruit or vegetable juice with plain water (still or carbonated, with no added sugars or honey)
- Combinations of fruit juice and lower fat milk or plain yoghurt, plain soya, rice or oat drinks enriched with calcium; cocoa and lower fat milk, all with less than 5% added sugars or honey
- Tea, coffee, hot chocolate

Combination drinks are limited to a portion size of 330ml. They may contain added vitamins or minerals, and no more than 150mls fruit or vegetable juice. Fruit or vegetable juice combination drinks must be at least 45% fruit or vegetable juice.

Source: School food standards: resources for schools - GOV.UK (www.gov.uk)

Alongside nutritional content, the standards emphasise the importance of ensuring that food is visually appealing, appetising in taste and varied across the week and provides a pleasant and supportive canteen environment which, for example, allows children to sit with their friends and minimises queuing. The Department of Education recommends that schools consult with children, parents and catering staff to make menus more varied and appealing and ensure that they meet cultural needs.

Statutory responsibility for ensuring SFS are met lies with school governing bodies and trustees. Whilst the Ofsted inspection framework includes an evaluation criterion on the inclusion of teaching on healthy eating in school curriculums, school food provision is not routinely assessed against the SFS during school inspections. However, the government's Levelling Up white paper (2022) set out plans for a pilot project for the Food Standards Agency to inspect adherence to food standards in schools located in a selection of local authorities in England.

8.1.3.3b School meals, packed lunches and out-of-school food purchases

An analysis of data from the National Diet and Nutrition Survey (2008-2017) showed that school lunches were more likely to meet food and nutrient recommendations compared to packed lunches. Packed lunches were much less likely to contain vegetables (40-46% of packed lunches compared to 72-92% of school lunches) and more likely to include sweet and savoury snacks (58-76% compared to 30-45%). However, there was still potential to improve the quality of school lunches, with more than 30% of school lunches containing a sweet snack. At higher key stages, the quality of school meals consumed was found to decline (with decreases in the amount of fruit and vegetables consumed and increases in the consumption of snacks) whilst packed lunches remained of similar, relatively poor nutritional quality across age groups.

Schools are in a stronger position to influence what food they provide in school lunches than on what children bring in from home or purchase outside of school during breaktimes, the schools that can maintain a higher uptake of school lunches are able to have a greater influence. The School Food Plan report (2013) suggested that in addition to direct impacts on children's diets, increasing school lunch uptake above the level required for a school to break-even (estimated to equate to an uptake of 50%) could generate a surplus that could be reinvested into improving the school food culture.

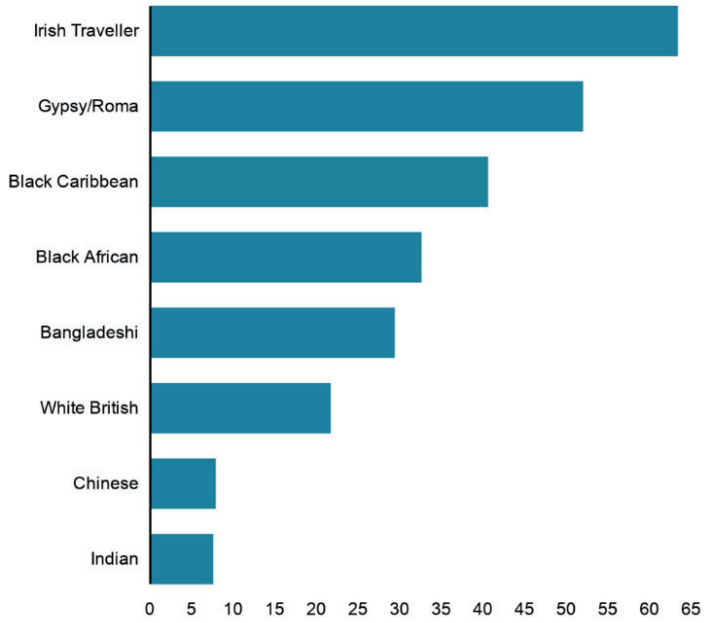
For pupils transitioning from primary to secondary school (or into older year groups), being able to leave school grounds during the school day provides greater autonomy over their food choices. A survey of over 500 secondary school pupils found that the proportion of students regularly purchasing food outside of school at lunchtime can vary substantially between schools and suggested an association with area deprivation levels: over 90% of students attending the two schools in the least affluent areas included in the survey regularly purchased food outside of school at lunchtime, compared to 43% of students from the most affluent school in the study. The most commonly reported food items purchased outside of school at lunchtime were chips (26%), sandwiches, filled rolls and baguettes (24%), sweets (21%), chocolate (20%); and crisps or similar snacks (19%). Only 4% students reported purchasing fruit and 2% salad. The types of outlets secondary school pupils were most likely to buy food from were hot food takeaways (26%); newsagents and sweet shops (25%); supermarkets (23%); grocery or corner shops (20%); sandwich shops or bakeries (16%) and burger, chip and ice cream vans (11%). This highlights the importance of ensuring supportive retail food environments around schools (alongside consideration of closed gate policies or payment systems that avoid the need for children to bring cards and cash into school) alongside in-school initiatives to improve the healthiness of children's diets.

8.1.3.3c Free School Meals

All children from Reception age to the end of Year 2 who attend state schools are eligible for free school meals under the universal infant free school meals scheme. Above Year 2, children in England are only eligible for free school meals if they or their parents receive certain benefits[10]. Children meeting these criteria are also eligible for the Holiday Activity and Food Programme. National data show that the proportion of children eligible is higher in some of the ethnic minority groups that also experience the highest prevalence of excess weight (Figure 8.17).

FIGURE 8.17:

Proportion of pupils eligible for free school meals by ethnicity - in England



Source: Free school meals: How many children can claim them? - BBC News using data from the Department of Education.

In England, it is estimated that 2.3 million children currently receive free school meals, however approximately one third of school-age children living in relative poverty do not meet eligibility criteria for receiving free school meals after Year 2. A cost benefit analysis commissioned by Impact on Urban Health estimated that expanding free school meal provision to all state school pupils receiving universal credit would generate £1.38 in core benefits for every £1 spent and that expanding provision to all state school pupils would generate £1.71 in core benefits for every £1 spent. In both modelled scenarios, the majority of benefits were mediated through savings on household expenditure on packed lunches, increasing families' ability to purchase more nutritious food at home and improving household food security, and increases in lifetime earnings and contributions as a result of improved educational attainment and reduced absenteeism. Benefits to the NHS through reduced excess weight-related healthcare costs and from job creation within food catering services were also considered within the analysis.

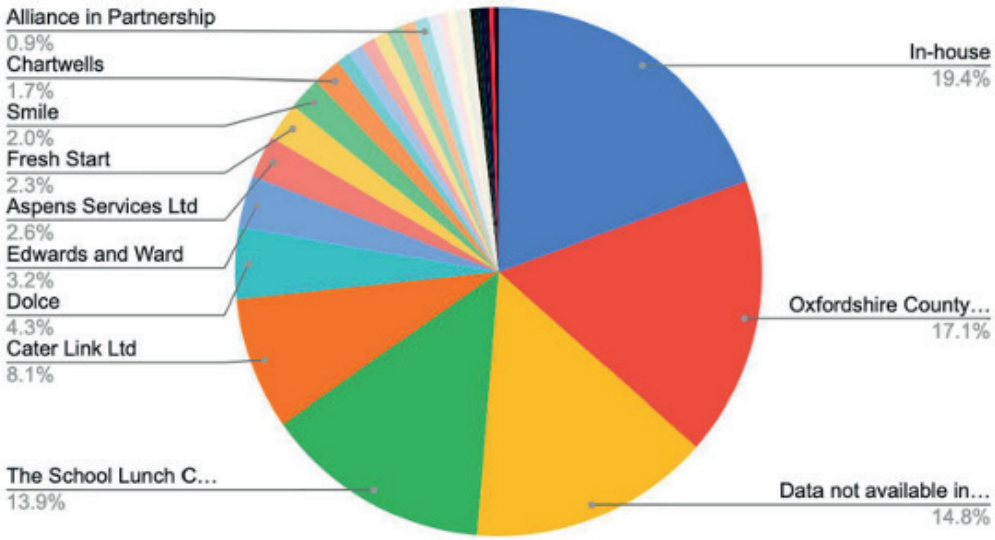
10 These include certain income-related benefits or Universal Credit where total household income is under £7,400 per year after tax. More details are available from Apply for free school meals - GOV.UK (www.gov.uk).

8.1.3.3d Needs with respect to school food in Oxfordshire

In Oxfordshire, there are 241 state primary schools, 41 state secondary schools, 17 state schools of other types and 51 independent schools. Approximately one fifth of schools deliver in-house catering and one fifth through a contract with OCC, the remainder are supplied by one of over 30 catering providers (Figure 8.18). Across all schools, 31% have received some form of catering accreditation for providing healthy and sustainable food.

FIGURE 8.18:

Main catering providers to schools in Oxfordshire by market share



Source: Good Food Oxfordshire, based on publicly available data (December 2021)

Locally, for the 57 schools catered for by OCC, average school lunch uptake across Years 1 to 13 was 51% in 2021/22 compared to an average of 53% for other local authorities (data source: Association of Public Service Excellence).

A survey of parents and carers conducted by Good Food Oxfordshire in May 2021 found that:

- A fifth of parents perceive school meals to be poor in quality, 13% feel children's dietary requirements would not be met by school lunches.
- Almost half of parents (48%) perceive packed lunches to be healthier than lunches provided by schools
- 40% of parents provide packed lunches in line with their child's preference
- 7% of parents reported providing packed lunches on the basis of cost
- Some parents commented that having school lunches had contributed to their children being more open to trying a wider range of foods that they might not have otherwise been willing to try at home

The relative importance of these different factors to parents' and children's decisions not to have meals provided by schools may vary between individual schools.

In January 2021, of the ~12,500 pupils attending schools in Oxfordshire who were "known to be eligible" for free school meals, 82% were actually receiving them. In a survey of state schools in Oxfordshire from May 2021, stigma and lack of knowledge of the Free School Meals scheme were identified as barriers to uptake. A significant proportion of the schools who responded also felt there were children attending their school who were in need of Free School Meals but who did not meet eligibility criteria.

8.1.3.3e National and research recommendations on implementing a whole school approach to healthy school food and improving school lunch uptake

Features common to primary school-based obesity prevention programmes that have reported positive outcomes on weight status or healthy-weight promoting behaviours (identified from a literature review of 27 such programmes) are summarised below:

- Introduction of school policies that promote the availability of healthy food and beverage choices, limit the availability of unhealthy snacks in the school cafeteria and remove vending machines. By contrast, programmes that focused only on educational sessions and informational materials for parents without promoting relevant environmental and policy changes were found to be less effective
- Environmental changes in the playground and changes to recess rules (to increase PA during recess and allow access to the school playground after school hours) and changes in physical education classes to increase the physical activity were positive.
- Use of incentives for children such as stickers, t-shirts
- Use of social marketing techniques, for example slogans, characters
- Use of interactive activities (such as cooking lessons or cultural dance classes) where less emphasis is placed on the educational part of the initiative. Promote non-competitive and enjoyable activities that enable whole class participation.
- Involve teachers as role-models and in the delivery of the intervention (when compared to having the programme be delivered by health professionals)
- Engage parents for example through assignments, meetings and encourage them to improve the home environment
- Collaborate with stakeholders in the local community and the media

The review supports the need to involve headteachers, governors, teachers and parents in addition to pupils themselves in the whole school approach to supporting healthy-weight-promoting behaviours in schools.

National guidance proposes the following strategies to increase school lunch uptake:

- consult with children to develop healthier and tastier school food options
- make canteens more attractive environments with shorter lunch queues
- consider cashless systems that avoid pupils being given cash to spend outside of school, or having closed gate policies
- involve pupils in analysing the food offered by local food outlets as part of the curriculum

Source: Health matters: obesity and the food environment - GOV.UK (www.gov.uk)

In an analysis by the Department for Education, the factors associated with higher school lunch uptake were:

- lowering the price of school food: for every 50p increase in price, school lunch uptake falls by 9.3%. The minimum costs of preparing a packed lunch (especially if not required to achieve the recommended nutritional standards) have been found to be roughly a quarter of the price of the average school dinner (Children's Food Trust: Secondary school meals versus packed lunches report, 2011. Note more recent robust data on price comparisons do not appear to be readily available at the time of this report).
- having an in-house provision model (when compared to a local authority contract model)

However, no association was found between operating a cashless payment system or an advanced booking system and differential levels of school meal uptake.

A number of other strategies to increase school meal uptake have been put forwards in national reports, for example in The School Food Plan and from the Food Foundation.

In 2020, it became compulsory to incorporate teaching on healthy diets and active lifestyles into school curriculums. A framework to support teachers to provide teaching on food to primary-school-age children and a toolkit of teaching resources have been published to support this.

Underway in Oxfordshire:

The Oxfordshire Community Dental Service (CDS) is currently working to deliver a Healthy Smiles accreditation scheme in early years settings in areas of higher deprivation in Oxfordshire as well as providing workshops for parents. The scheme sets standards that promote good dental health and oral hygiene and provides annual refreshers for settings once accredited. Components of the scheme that are particularly relevant to promoting healthy weight early in life include:

- Promoting awareness of the Healthy Start and Change4life schemes
- Advice on provision of savoury over sugary foods, healthier snack options, use of healthier foods as part of celebrations and events
- Settings that additionally opt in for the lunchbox scheme also receive support with achieving healthier meals

Since 2020, over 50 settings have received accreditation through the scheme (including early years provider settings attached to a primary school, nurseries, preschools, playgroups/childminders). The CDS note that no statutory guidance is available for lunchbox contents so currently it is up to schools and other settings to come up with their own. Producing guidance on healthier and affordable options for lunchbox contents (and appropriate portion sizes across different year groups) may therefore be helpful to schools and other childcare provider settings as well as potentially providing an opportunity to address concerns raised by parents and carers about the healthiness and sufficiency of school meals when compared to packed lunches.

With respect to fruit and vegetable consumption in primary schools, Veg Power run the 'Eat Them to Defeat Them' national media campaign (including advertising by ITV, Channel 4 and Sky Media as well as 12 other media partners and supported by celebrity endorsement). Schools can take part in a 6 week programme alongside the campaign which aims to increase vegetable consumption amongst primary school age

children by introducing and rewarding children for eating and trying vegetables, and providing themed recipes (initially prepared in schools but also shared with families to prepare at home). In the national-level evaluation of the programme in 2022, 64% of parents reported that their children ate more vegetables as a result of the programme (compared to 26% for children who saw the TV advert but did not take part in the schools-based element of the programme). Participation amongst Oxfordshire schools has been increasing, with 53 primary schools participating in 2022.

Veg Power created the Simply Veg resource that provides ideas and advice to help parents and carers to prepare sustainable meals containing more vegetables whilst staying within budget. It provides information on healthier recipes, money and effort saving tips and how to involve kids in cooking and growing. Over 7000 leaflets promoting this resource have been circulated to families in Oxfordshire through community food services such as community fridges and the holiday activity and food programme. Their "Kung Fu Panda lunchbox guide and planner", which provides information on recommended contents for a healthy lunchbox as well as tools for engaging children, is being piloted in three schools in Oxfordshire from March 2023.

Sugar Smart Oxfordshire is working with educational settings to reduce sugar consumption by providing resources (for example assembly presentations) and a self-assessment template to help schools identify what the most beneficial actions for them to take would be. Its aims are to improve school food provision, get staff and parents/carers to make individual pledges to reduce sugar consumption and increase their confidence to make healthier choices. The scheme started in 2018, however schools' progress in the scheme was impacted by the Covid-19 pandemic and thus far only Rose Hill Primary School has achieved the golden teaspoon accreditation award.

Recommendation: Implement a 'whole school approach' to promote healthier eating in schools, prioritising areas with high excess weight prevalence amongst children. (for details on recommended actions within this recommendation, see Appendix 11.14)

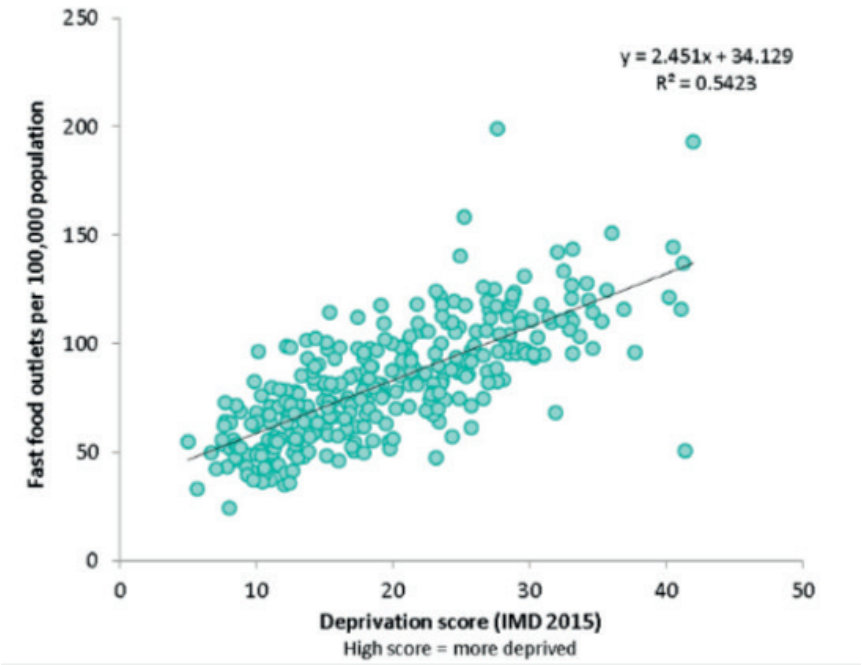
8.1.4 Diet Environment: Build healthy places

8.1.4.1 Relationships between the retail food environment and diets

Meals from out-of-home food outlets tend to be associated with higher energy intake; higher levels of saturated fats, sugar, and salt, and lower levels of micronutrients. Nationally, more than one quarter (27%) of adults and one fifth of children eat food from out-of-home food outlets at least once a week, overall almost one in five meals were eaten outside of the home in 2015. Residents living in the least affluent areas are known to have higher levels of exposure to fast food outlets (Figure 8.19).

FIGURE 8.19:

Correlations between fast food outlet density and deprivation for local authorities in England



Source: Obesity and the environment briefing: regulating the growth of fast food outlets - GOV.UK (www.gov.uk)

Our food environment encompasses the multiple food environments that we are exposed to around our homes, in our schools, workplaces, recreational facilities and whilst travelling between these places. It includes the availability and relative mix of food retailers. With respect to the contribution of different locations to overall food environmental exposure, a research study conducted prior to the Covid-19 pandemic (2013) found that, at that time, workplace food environments contributed approximately 40-45% of overall takeaway outlet exposure on average, whilst residential and commuting route food environments each contributed to 27-35% of overall takeaway outlet exposure. Workplace practices have changed as a result of the Covid-19 pandemic in certain occupation groups, with the overall proportion of people homeworking in the South East increasing from 20% to 37% between October-December 2019 and January-March 2022 and 16% of non-homeworkers (defined as those who do not predominantly work from home) working at least one day per week from home. Whilst the relative contribution of workplace-related food to food environmental exposures is likely to be lower overall, for occupational groups which continue to attend a workplace where food is provided on a regular basis, workplace food environments may still be an important exposure.

Community engagement with Oxfordshire residents identified how frequent exposure to less healthy food outlets in residential neighbourhoods and along commuting routes can both drive temptation and normalise less healthy dietary behaviours (Appendix 11.6). A rapid review of the literature (2022, Appendix 11.7) found mostly mixed evidence of associations, this may reflect that different measures of the food environment differ in their significance to healthy weight (a summary of a study that has examined this further is included in Appendix 11.8) or that most studies only focussed on one aspect of food environment (for example residential neighbourhood without considering the contribution of coexistent exposures at

the workplace or along their commute). There was however some evidence of associations with higher childhood BMI for:

- higher fast-food outlet exposure (using count/density or proximity measures) around schools
- higher convenience store count/density around homes and schools
- lower density of supermarkets around homes and schools

Amongst adults, there was some evidence to support an association between higher residential neighbourhood fast-food exposure and higher BMI.

Taking the findings from the above research studies into account, prioritisation of geographic areas for initiatives to improve the retail food environment should:

- Prioritise reducing exposure to fast-food outlets (given stronger evidence of associations between exposure to these types of outlets and excess weight)
- Prioritise areas with higher prevalence of excess weight, less affluent areas, and environments around secondary schools
- Initiatives aiming to reduce inequalities in excess weight by ethnicity need to consider that the choice of retail food outlets used by these communities may differ and mapping of the retail food environment in ethnically diverse areas would benefit from consultation with representatives from those communities
- Where retail food metrics are being used to identify areas with high exposure to less healthy retail food environments, use more than one retail food environment metric to better capture different aspects of the food environment, including at least one relative measure of retail food environment that describes the relative availability of different outlet types (for example fast food outlets as a proportion of all food outlets) instead of only measuring a single type of outlet (for example the number of hot food takeaways). Use broader definitions of fast-food outlets to encompass non-chain hot food takeaways (for example, including outlets that have no waiter services and considering whether cafes, chain coffee shops and retail bakeries should be included)

Underway in Oxfordshire:

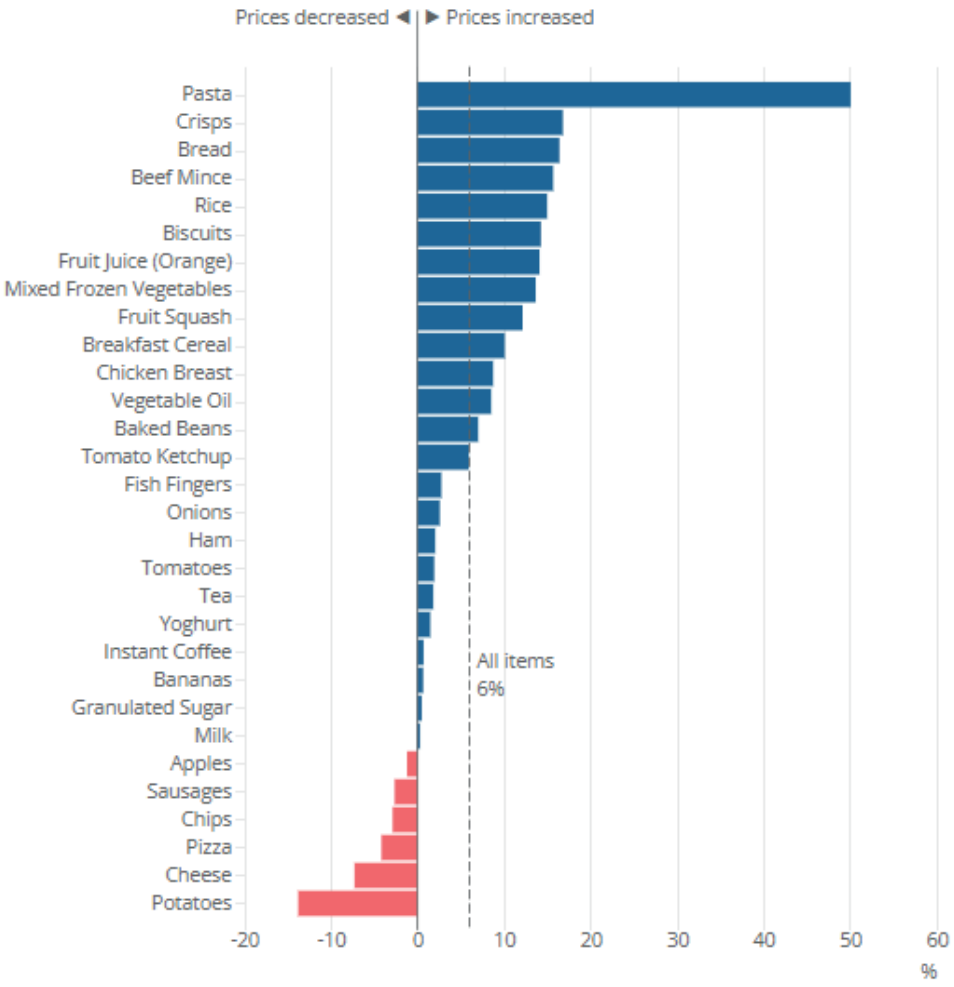
Switch Up Your Lunch 'Turnip the spotlight onto veggies' is a food-related workplace campaign delivered by Good Food Oxfordshire every June that encourages residents to increase their vegetable consumption by pledging to eat a vegetarian or vegan meal for lunch. In 2021, the campaign reached over 74,000 people on social media and 94 organisations participated in serving 1,400 additional vegetarian or vegan meals to their employees.

8.1.4.2 Impacts of the Covid-19 pandemic and rising food costs on households in Oxfordshire

Overall inflation in the 12 months to November 2022 was at 11%, food and fuel prices rose by 17% in the same period. This has had a substantial impact on the cost of essential food items, with price increases seen in 24 out of 30 everyday grocery items sampled by the Office for National Statistics. The price of pasta increased by 50%, bread by 16% and rice by 15% in the year to April 2022 (see Figure 8.20).

FIGURE 8.20:

Changes in the prices of essential food items between April 2021 and April 2022



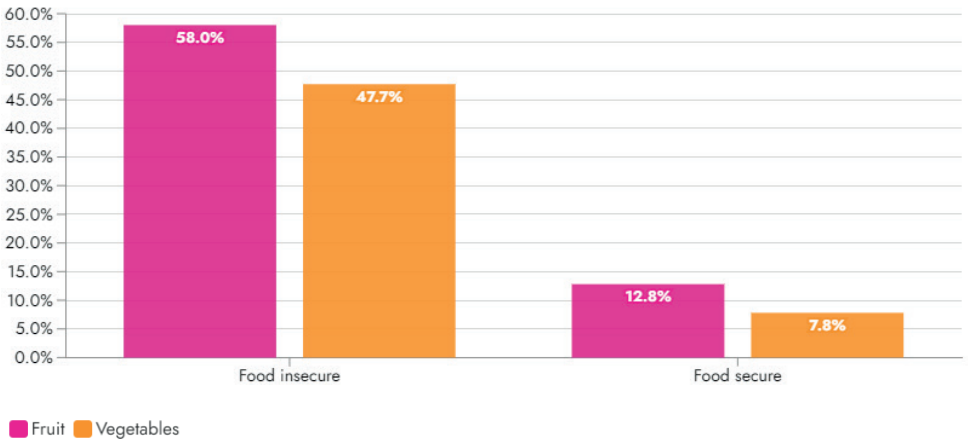
Note: prices shown represent the average price for the lowest-cost version of the grocery item across seven retailers

Source: Tracking the price of the lowest-cost grocery items, UK, experimental analysis - Office for National Statistics (ons.gov.uk)

In 2020/21, nationally the average household spent 14% of their household expenditure on food and drink. 32% of all spend on food and drink was spent outside of the home, with over three quarters of this going towards food and non-alcoholic drinks. Spend on food relative to income is higher in lower income households and rising food costs place greater pressure on low-income households. The proportion of household expenditure that is spent on food has been increasing since 2019/20 (from 11% to 14% in 2020/21 in the average household, and from 15% to 18% in households in the lowest 20% for equivalised income). In the 12 months to September 2022, food insecurity doubled, with 18% of households reporting experiencing food insecurity in the last month, levels of food insecurity were higher amongst households with children (26%) or in receipt of Universal Credit (54%). Households reported reducing the amount of fruit and vegetables they purchased and changing their food preparation routines to reduce energy usage (for example reducing use of cooking appliances), particularly in those households that were experiencing food insecurity (Figure 8.21 and 8.22).

FIGURE 8.21:

Proportion of households reducing how much fruit and vegetables they purchase, split by households that are food secure versus food insecure in the UK

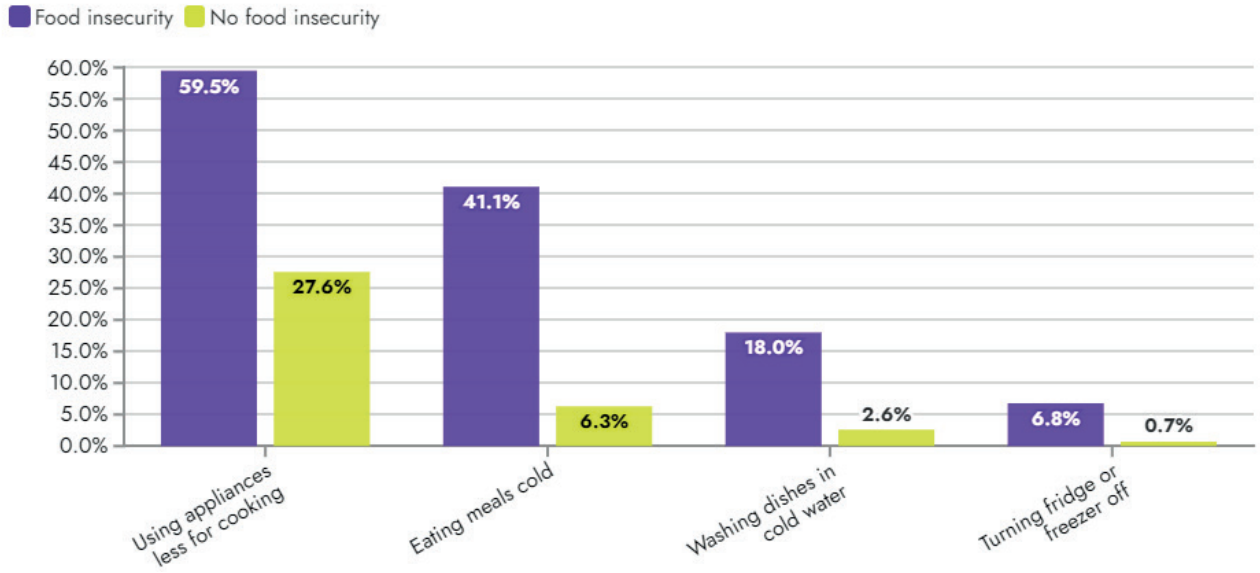


Note: data are based on self-reported changes in activity in the last month from a survey of households in September 2022

Source: Food Insecurity Tracking | Food Foundation

FIGURE 8.22:

Proportion of households changing their meal preparation-related activities, split by households that are food secure versus food insecure in the UK



Note: based on self-reported changes in activity by households in the last month as measured in September 2022

Source: Food Insecurity Tracking | Food Foundation

8.1.4.3 Community food services in Oxfordshire

Approximately 100 community food services, operated by 74 organisations, are working to address food poverty in Oxfordshire through providing a range of services, including community larders, emergency foodbanks and community kitchens (see Figure 8.23). Information on what services are provided, their location, eligibility criteria and contribution requirements is collated by Good Food Oxfordshire (GFO) (Figure 8.24).

FIGURE 8.23:

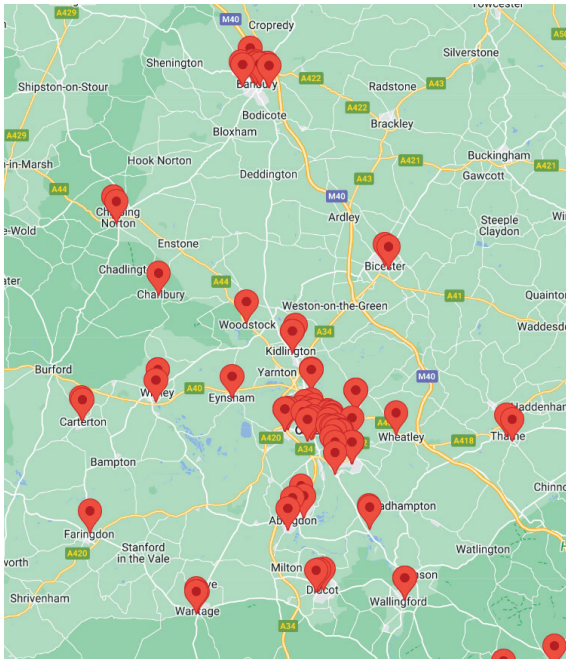
Summary of Community Food Services operating in Oxfordshire

	Definition	West	Cherwell	South	Vale	City	Total no. of services*
Emergency Foodbank	Access limited to particular communities of need. May require referral from another organisation	7	9	6	6	11	**39**
Community Larder	Typically a membership scheme. Members receive regular food supplies for minimal cost - food is donated, fees cover operational costs	3	3	3	1	4	**14**
Community Fridge or Cupboard	Typically no charges, open to all to take or donate food, helps those in need and reduces food waste	2	3	2	3	3	**13**
Community Kitchen/ Prepared Meal Service	Typically provide meals for communities with identified needs	0	2	0	0	25	**27**
Other	May include community shop and other settings where food is shared e.g. growing projects	1	0	0	0	6	**7**
Total		**13**	**17**	**11**	**10**	**49**	**100**

Source: Good Food Oxfordshire survey of Community Food Services (May 2020)

FIGURE 8.24:

Locations of Community Food Services in Oxfordshire



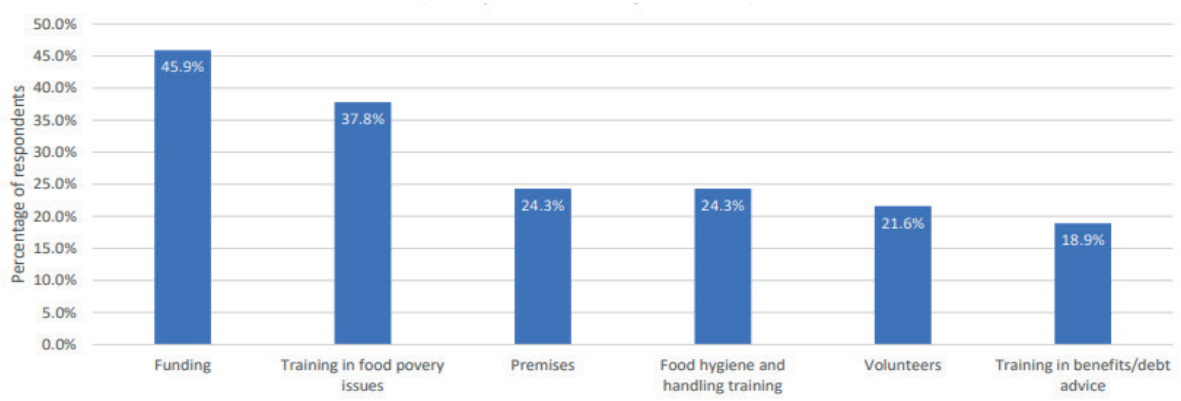
Source: Good Food Oxfordshire map of locations of Community Food Services in Oxfordshire

During the pandemic, demand on services increased substantially, with a three-fold increase in the number of residents using services (from 1,700-2,500 to 5,100-5,600 users per week) and a six-fold increase in the number of food parcels being delivered (from 652 to 3,874 parcels per week).

With respect to the food offer from community food services, Covid-19 pandemic-related restrictions impacted on services' ability to meet dietary needs (including nutritional and health needs, allergies and intolerances, religious-cultural preferences and taste preferences) particularly for services dependent on a single supplier rather than multiple suppliers. It is estimated that half of all food distributed by community food services in Oxfordshire come from SOFEA and ~22% from the Oxford Food Bank. Service providers identified wanting more support with funding (46%), training in food poverty issues (38%) and expressed concerns about the risks of being dependent on a small pool of volunteers and volunteer fatigue.

FIGURE 8.25:

The types of additional support that community food services feel they would benefit from



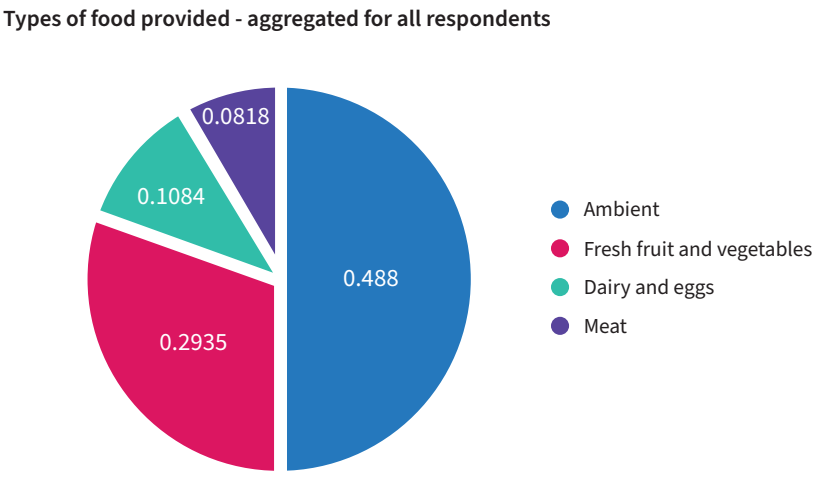
Note: services could select more than one option

Source: Good Food Oxfordshire Research Survey, July 2020

Amongst the services that responded to the most recent GFO survey in July 2021 (40 out of approximately 100 community food service providers), the number of beneficiaries that services support per month varies widely across these services from <50 to >1600 per month, the majority from Oxford City (65%) or Cherwell (21%). Most services offer a combination of ambient and fresh food, on average fresh fruit and vegetables make up 29% of the food offer (though it is unclear what contribution preserved fruit or vegetables make towards the ambient food offer, which makes up almost half of the food provided). Most of these services use more than one supplier (spread across many sources including but not limited to SOFEA, Oxford Food Help, supermarket public donations and supermarket direct contact).

FIGURE 8.26:

The food offer from community food services by food category in July 2021



Data source: Good Food Oxfordshire survey of Community Food Service providers in Oxfordshire (responses were received from approximately 40% of community foods services operating in the county)

A toolkit has been produced by GFO to support community stakeholders and frontline professionals to initiate conversations about food insecurity with residents and signpost to sources for additional support.

Recommendation: a) Identify and act on opportunities to increase the healthiness of the food offer provided by Community Food Services

b) Ensure information on best practice for addressing stigma associated with accessing services and improving accessibility is shared between Community Food Services

8.1.4.4 Strategies to reduce exposure to less healthy foods in the retail food environment

8.1.4.4a Improving the food offer in existing premises

In line with findings from OCC's community engagement, results from the qualitative research literature observe that consumers report promotions are rarely applied to fresh produce whilst unhealthy foods are heavily promoted both through price promotions and placement. In the research, consumers express interest in seeing shelf labelling being used to highlight sections containing healthier products rather than price promotions only. Other factors such as customer service and the cleanliness of stores were also identified as factors which influence their choice of store.

For public sector facilities, OHID advocates that councils require leisure centres, workplaces, schools and hospitals with catering facilities and/or vending machines to provide a healthier food offer. Government Buying Standards for Food and Catering Services (GBSF): checklist (publishing.service.gov.uk) – section

B nutrition. OHID provides a related guide for using the GBSF as part of procurement scoring criteria to encourage best practice that meets and exceeds the GBSF criteria.

With respect to what in-store interventions encourage purchasing of healthier foods, evidence suggests that interventions placing lower demands on individual agency are more effective at increasing purchasing of healthy products compared to those requiring a high level of individual agency. The barriers for small food businesses to adopt these types of changes have been investigated by London Metropolitan University in research with fast food outlets in high deprivation areas (see Figure 8.27).

FIGURE 8.27:

Strategies for positively influencing in-store food purchasing choices, grouped by the demands they place on individual agency

Agency-dependent measures appear less effective:	Less agency-dependent measures appear more effective:
calorie labelling cash back incentives that require effort from consumers to reimburse costs	• calorie labelling where interpretation has been made straight-forwards (for example through use of warning signs rather than a traffic light system) or when used in combination with health priming techniques • financial incentives for healthy foods at the point of purchase • health priming using subtle external cues such as flyers on entering a store to encourage a mindset orientated towards buying healthier food • increasing visibility and reachability of healthier foods

Source: The impact of the consumer and neighbourhood food environment on dietary intake and obesity-related outcomes: A systematic review of causal impact studies - PMC (nih.gov)

FIGURE 8.28:

COM-B factors relating to barriers and facilitators to improving food offer within fast food outlets in less affluent areas

Capability-related factors:	• lack of space and the right equipment, or skills and resources, to prepare or cook healthier options • limited menus with little scope for healthier changes
Opportunity-related factors:	• the higher cost of healthier options (some suppliers charge more for healthier products and additional costs cannot be passed on to the customer) • the lack of availability of healthier options in appropriate sizes from wholesalers for small outlets that may only need small quantities

Motivation-related factors:	• smaller outlets often struggle to be profitable, and those in low income areas often operate in highly competitive, price-sensitive markets. • a real or perceived lack of demand for healthier food and drink • a fear that fresh fruit and vegetables would be wasted and lose the outlets money • a fear that some changes, such as reducing salt, would affect the taste and deter customers • a reluctance to change popular recipes or traditional ethnic cuisines

Sources: summarised from Health matters: obesity and the food environment - GOV.UK (www.gov.uk)

FIGURE 8.29:

Strategies to improve the healthiness of the in-store food offer that are more likely to be acceptable to food retail outlets:

- introduce changes gradually so they are less likely to affect custom
- promote cost neutral changes (or ones which may increase revenue or attract new customers) for example:
  - reducing salt and sugar, portion control
  - increasing fruit, vegetable and fibre content
  - promotion of healthier foods through their placement
- signposting of healthier and lower calorie options on menus and other 'nudge' based interventions that support healthier options being the 'default'
- increasing the costs of less healthy foods and increasing availability and reducing the cost of healthier options
- build on existing relationships between local outlets and environmental health or trading standards teams to deliver healthier catering initiatives
- provide incentives such as free food hygiene or nutrition training, grants for outlets to purchase chiller cabinets or other catering equipment, and publicly promoting outlets that achieve a healthier catering award
- provide disincentives, for example by making leases on premises conditional on adoption of healthier catering practices

Sources: summarised from Health matters: obesity and the food environment - GOV.UK (www.gov.uk), PHE Strategies for Encouraging Healthier 'Out of Home' Food Provision: Annexes: evidence, tools, resources, local practice examples and guidance

Recommendation: Use evidence-based levers to support and incentivise local food outlets to provide a healthier food offer

Recommendation: Ensure Government Buying Standard-based criteria (section B- nutrition) are used in the procurement of food and catering services by public sector facilities

8.1.4.4b Limiting proliferation of fast-food outlets and less healthy food vendors in at risk areas

OHID guidance recommend the use of **planning policies** to prevent over-concentration of hot food takeaways in existing town centres and high streets, and restrict their proximity to schools or other facilities for children and young people and families such as leisure centres. Refusal of planning permission for new food outlets can be justified where it can be demonstrated that they will have an adverse impact on the health and wellbeing of the local population or will undermine the council's strategy to tackle excess weight (through linkage between health needs assessments, health strategies, and planning policies such as Supplementary Planning Documents).

OHID recommends considering measures including:

- **'Exclusion zones'**: restrictions on planning permissions in specific areas, for example within walking distance of schools or other places frequented by children and young people
- **'Limits to density'**: restrictions limiting the maximum density of outlets for a given area, which may require amending the 'classes of use' orders for England to be in line with appropriate categories for disease prevention

A census of local authorities in England in 2019 found that approximately half (51%) already have a policy to address the proliferation of takeaway food outlets, with approximately one third being based on a health-focussed justification using one of the strategies outlined above. A high proportion of councils used non-health factors to justify planning restrictions - primarily on the basis of minimising other negative impacts associated with takeaway food outlets including litter, smells, noise, anti-social behaviour, traffic and design features that were regulated to protect the visual amenity of an area, highlighting the co-benefits of limiting takeaway food outlets on the appeal of the local environment as well as for health reasons.

OHID also supports piloting the use of **leasing and licensing powers** to place restrictions on, or provide disincentives for, vendors selling less healthy foods - for example by requiring provision of healthier options as a condition of their licence to trade under the Local Government (Miscellaneous Provisions) Act 1982 (Schedule 4 Section 2), or specifying restrictions on the location and hours of operation for vendors selling less healthy foods (PHE Strategies for Encouraging Healthier 'Out of Home' Food Provision: Annexes: evidence, tools, resources, local practice examples and guidance) based on their potential for impact.

Recommendation: Introduce planning policy to limit proliferation of less healthy food vendors, prioritising areas with the highest levels of excess weight and around schools

Recommendation: Use levers within licensing to increase exposure to healthier foods and limit exposure to less healthy foods

8.1.4.4c Addressing other routes of exposure to less healthy foods

Advertising serves as an additional route for 'exposure' to less healthy food. Healthier food advertising policies that restrict advertising of high fat, salt and sugar products in favour of advertisements for healthy products appear to be effective at changing purchasing behaviour within a short timeframe without any detriment to advertising revenue. They have already been piloted in Haringey, Southward, Merton and Bristol local authorities and offer a promising low-cost intervention to reduce 'exposures' to unhealthy foods that residents described as providing the cue for unplanned consumption of unhealthy foods.

Underway in Oxfordshire

Some policies to reduce exposure to less healthy food have already been implemented in Oxford City - for example through the city council's Street Trading Policy which includes requirements for an exclusion zone on ice cream vans around schools, for street vendors to not sell energy drinks to under 18 year olds, and a limit to the proportion of sugary drinks they have on sale. The council also requires that a Health Impact Assessment is conducted for any developments greater than 1000 square metres to identify and minimise harmful impacts on health and maximise benefits to health.

Recommendation: Use available levers to restrict advertising of less healthy food in public sector spaces and externally-owned spaces across Oxfordshire

8.1.4.5 Strategies to address constant exposures to unhealthy foods in homes

Residents participating in the community engagement commented on how easy availability of less healthy food within the home facilitated the consumption of these foods for enjoyment or distraction. This issue was compounded in those shopping with limited budgets which appeared to increase the sway of promotions on purchasing decisions, contributing to overbuying of less healthy foods. The availability of evidence-based initiatives from national guidance or the research literature (based on handsearching) appears sparse (though there are some examples of such initiatives having positive outcomes). However, incorporating awareness-raising about sustaining a healthy-weight promoting food environment in the home could be considered for inclusion as one component of a wider programme targeted at changing residents' diets on a pilot basis.

8.1.5.6 Strategies to improve access to healthier foods in the retail food environment

Insights from community engagement highlight the intersecting challenges of price and accessibility: whilst more affordable fresh produce is available from larger budget supermarkets, these are often based outside of town and less accessible for those without access to private motor transport, especially for those also needing to take children with them. Meanwhile fresh produce in local convenience stores is more expensive especially when compared to the price of less healthy pre-prepared food options available locally, as well as potentially being more limited in choice and lower in quality.

With respect to improving the food offer within local convenience stores, the London Borough of Southwark ran a successful pilot working with 35 convenience stores in selected areas identified to have poor access

to healthy affordable food. This involved developing an action plan with convenience stores identifying opportunities for them to provide healthier lines within product categories that already sell well and options for introducing new healthier products in categories with low sales currently, as well as providing them with advice on placement and presentation. This resulted in increases in purchases of healthier products from wholesalers by convenience stores and increased stockage of healthier versions of products within convenience stores (for more details, see Appendix 11.9).

Working with suppliers, who supply products to a large number of local food outlets, to improve the range of healthy products they offer has been highlighted as a likely high impact area by OHID (OHID guidance provides a range of examples). The community insights profile for the Leys area provides an example of a partnership between a local shop and a larger supermarket chain to improve the selection of fresh produce they can offer at an affordable price.

Underway in Oxfordshire

Good Food Oxfordshire coordinates a network including over 90 community food services, working with them to identify needs, gaps and share resources. As part of this they deliver a survey of community food services in the network.

Refining the questions included in the survey could provide an opportunity to better understand:

- The availability of healthier products, and products that support home cooking (for example pantry staples), in the food offer from community food services
- What services are offering to support accessibility (for example home delivery services)

This could help facilitate shared learning between food services on how to improve their food provision and accessibility.

8.1.5 Diet Prevent: Make healthy behaviours more social and attractive

8.1.5.1 Increase capability and motivation to cook

With respect to cooking at home, comments from residents highlighted that the skills needed to cook healthy meals on a regular basis are much broader than physical cooking skills alone, but also requires knowing or having a sufficient collection of recipes that can be prepared within time and budget constraints, provide variety and, for families, meet the preferences of different family members (or otherwise having the means to easily find new recipes that meet these criteria). Being able to make sense of food and calorie labelling in a way that facilitates purchase of healthier products when food shopping or eating out, and potentially skills relating to meal planning, were also identified as being helpful.

A 2016 review of community-based cooking programmes found evidence to support that they can increase participants' confidence with cooking, though only one study found a statistically significant increase in consumption of fruit and vegetables (by 0.5 portions/days) at six months after the programme (notably only half of participants completed the full program). All three programmes identified in the review only provided training on practical cooking skills such as following recipes, rather than wider skills relating to meal planning or cooking for a family on a budget. Data from food industry-led surveys suggest that

the majority of households rotate through a narrow repertoire of different meals, thus providing people with ways in which to prepare regularly consumed foods in a healthier way may present a low risk initial approach to improving diets for parents and individuals more generally.

Increasing motivation to cook also appears to be an important facilitator for cooking - factors that some residents identified that motivated them to cook included gaining a sense of pride from their cooking and enjoyment from providing food and eating together with other people. Childhood appeared to be an important time period during which seeing parents and carers cook influenced perceived social norms and personal identity relating to cooking food for oneself and others later in life. Considering the influence of early food exposures to dietary habits later in life, school settings and especially early years settings provide an opportunity to increase children's acceptance of a wide range of healthy foods (thus facilitating later family meal planning and home cooking) through repeated exposure and modelling.

Recommendation:

a) **Review existing cooking-related training to ensure it is meeting the specific needs identified by residents during community engagement.**

b) **Work with providers of cooking-related training to measure and increase uptake in key target groups (including those at important life transitions such as leaving home or becoming a new parent).**

8.1.5.2 Support healthier relationships with food

Residents described turning to food as a way to manage stress and poor mental health and wellbeing. Residents who perceived their overconsumption of certain foods to be problematic reported not knowing where to access support and expressed concerns their problems would be dismissed by healthcare professionals. This highlights an important role for promoting mental wellbeing (an area of work which the Mental Health Prevention Concordat leads on against the Mental Health Prevention Framework 2020-22 and informed by needs identified within the Mental Health Wellbeing Needs Assessment (2021)) in supporting healthier diets and weight, and a need to understand how these residents can be best supported by healthcare services.

The potential for excess weight to result from poor mental health or use of less healthy foods to manage stress and distress is recognised within the NICE guidance on children's weight management service provision. This guideline recommends assessing children living with excess weight to identify whether their weight is a consequence of circumstances that have affected their mental wellbeing. This area is considered further within Section 9.2.3.

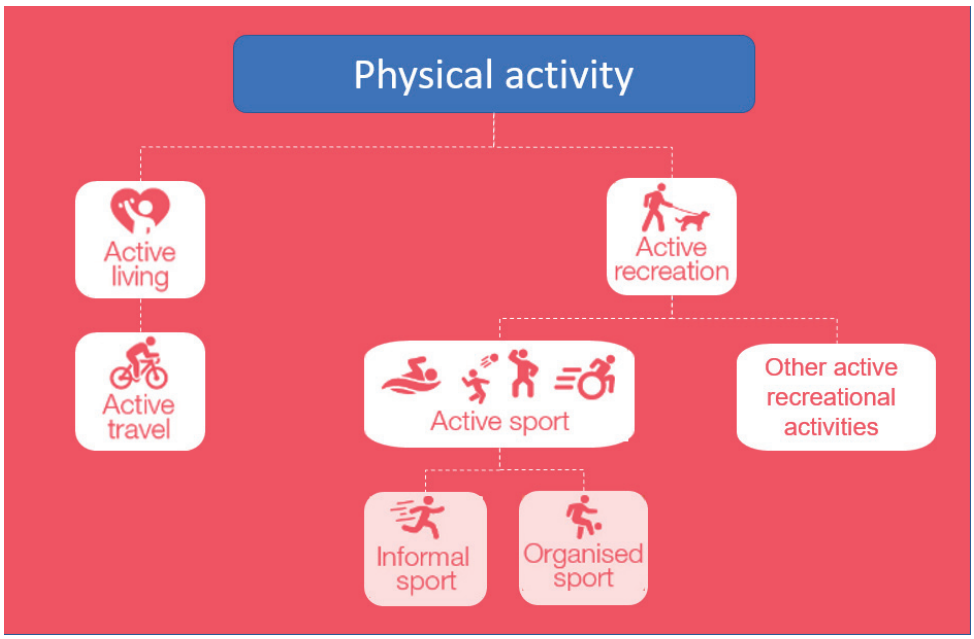
8.2 Physical activity

8.2.1 Introduction to physical activity

8.2.1.1 Defining physical activity

Physical activity (PA) contributes to the energy expenditure aspect of maintaining energy balance and a healthy weight. PA can be accumulated through active living (being active during everyday activities like active travel, housework, using the stairs rather than the lift) or through active recreation (like recreational activities occurring in green space or dedicated facilities such as gyms or sports grounds).

FIGURE 8.30:
Sources of physical activity



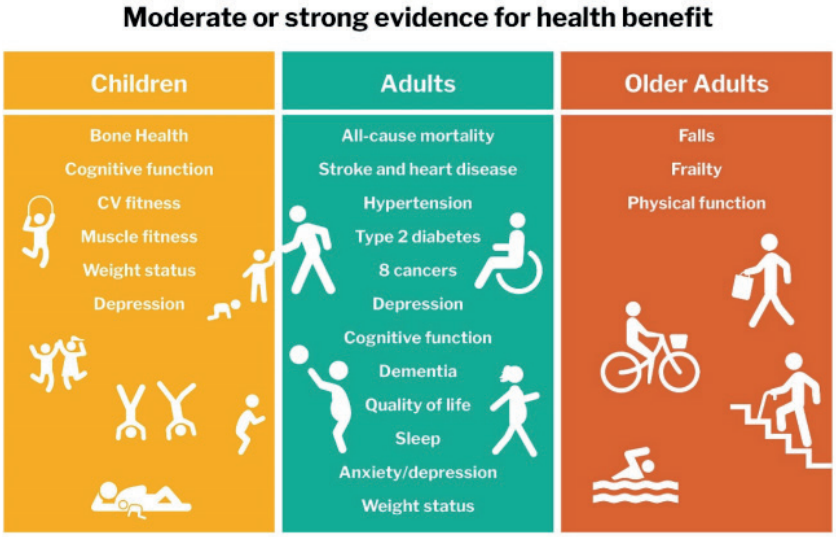
Adapted from: Health matters: physical activity - prevention and management of long-term conditions - GOV.UK (www.gov.uk)

In addition to supporting a healthy weight, increasing levels of physical activity and reducing sedentary behaviour are associated with many wider benefits to health and wellbeing across all age groups (see Figure 8.31) and additionally are associated with increased work and cost savings for health and social care. Benefits of PA accrue over time and whilst the role of physical activity may be primary disease prevention in younger age groups, it changes to become more about promoting maintenance of independence and aiding the management of symptoms of disease in the later years of life. It is therefore important to promote physical activity from the early years and throughout the life course.

Promoting active travel has co-benefits at the population level through reducing road congestion and air pollution (which increases the incidence of asthma, coronary heart disease, strokes and lung cancer, contributing to an estimated 28,000-36,000 deaths in the UK every year).

FIGURE 8.31:

Co-benefits of Physical Activity beyond maintaining a Healthy Weight

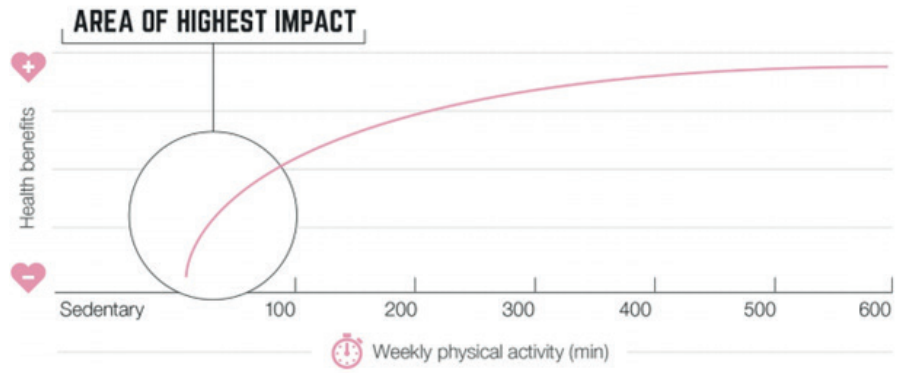


Source: UK Chief Medical Officers' Physical Activity Guidelines (2019)

The more time spent being physically active the greater the health benefits, however even small increases in physical activity can improve health and the quality of life. The potential gains in health are especially important amongst those who are the least active currently (fewer than 30 minutes per week) as the improvements they experience in health per additional minute of physical activity will be proportionately greater (see Figure 8.32). Conversely, there is growing evidence of health harms arising from sedentary behaviour (including lower cardiovascular fitness, higher excess weight independent of PA level and increased risk of cancer). Sedentary behaviours include activities such as watching television, sitting while playing video games, travelling in a motor vehicle, working with the computer and reading. It is possible for individuals to participate in the recommended amount of physical activity (for example through engagement in recreational activities) whilst still engaging in high levels of sedentary behaviour, and prolonged sitting appears to be harmful to health even amongst those achieving physical activity targets.

FIGURE 8.32:

Dose-response curve of physical activity and health benefits



Source: UK Chief Medical Officers' Physical Activity Guidelines (2019)

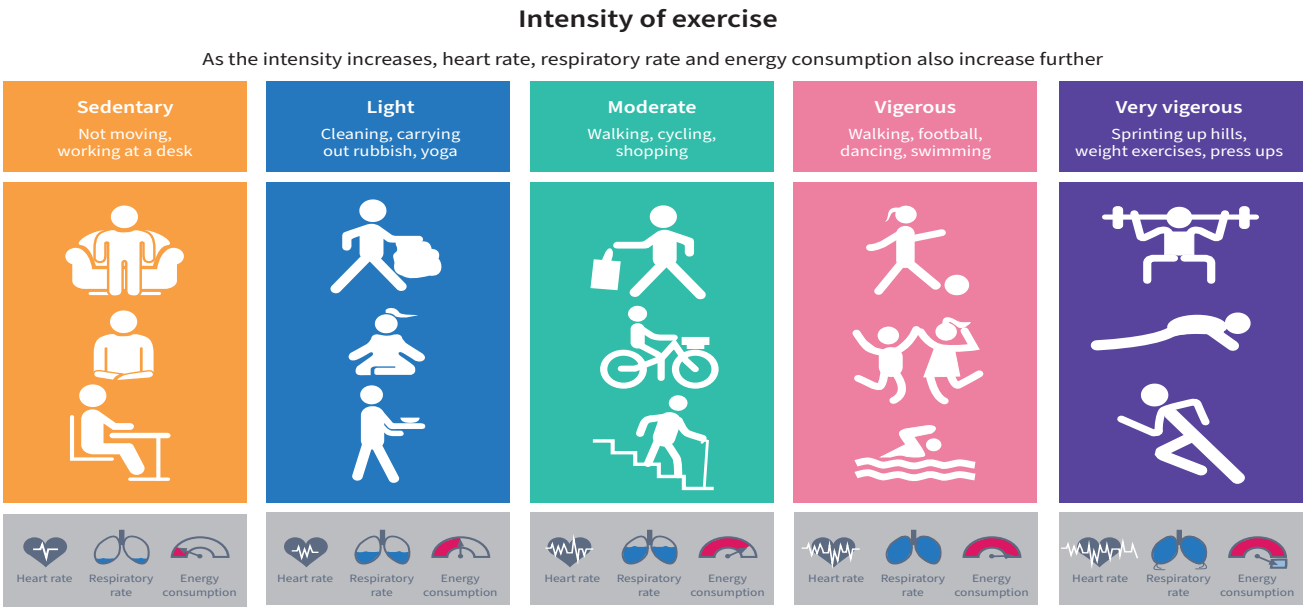
In terms of potential risks from PA, whilst exacerbating health issues and fear of injury can act as a barrier to undertaking physical activity, there is little evidence to suggest that PA is unsafe when performed in a manner and at an intensity appropriate to an individuals' current health status and physical function, and when duration and intensity are built up over time, the UK Chief Medical Officers' Physical Activity guidelines deem the health benefits from PA to outweigh risk of harm from accidents and injuries. Physical activity is also considered safe for women during and after pregnancy, and has not been seen to have adverse effects on breastfeeding duration (similar recommendations apply with respect to building up slowly from pre-pregnancy activity levels). Meanwhile co-benefits of PA during pregnancy include reduced pregnancy-associated weight gain, reduced risk of gestational diabetes and high blood pressure, and co-benefits of post-partum PA include a reduction in the probability of postpartum weight gain, improved emotional well-being and reduced risk of postnatal depression.

8.2.1.2 Guidelines on the amount of physical activity recommended

The intensity of exercise is defined relative to an individuals' fitness level. Moderate intensity activity refers to an activity level at which you can talk but not sing, whereas an activity level at which you have difficulty talking without pausing indicates an activity is vigorous in intensity. National guidelines for the amount of PA recommended for different age and population groups are described in Figures 8.33 to 8.39.

FIGURE 8.33:

Approximate intensities for different everyday activities



Source: UK Chief Medical Officers' Physical Activity Guidelines

FIGURE 8.34:

PA guidelines for the 0 to 5 age group

FIGURE 8.35:

PA guidelines for the 5 to 18 age group

FIGURE 8.36:

PA guidelines for children and young people living with disabilities

FIGURE 8.37:

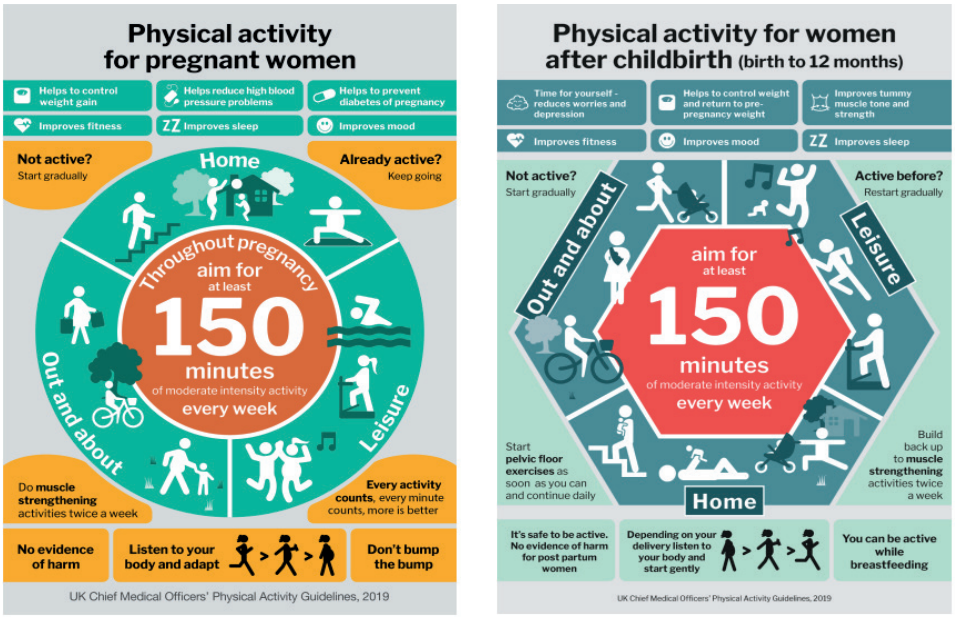
PA guidelines for adults and older adults

FIGURE 8.38:

PA guidelines for adults living with disabilities

FIGURE 8.39:

PA guidelines during pregnancy



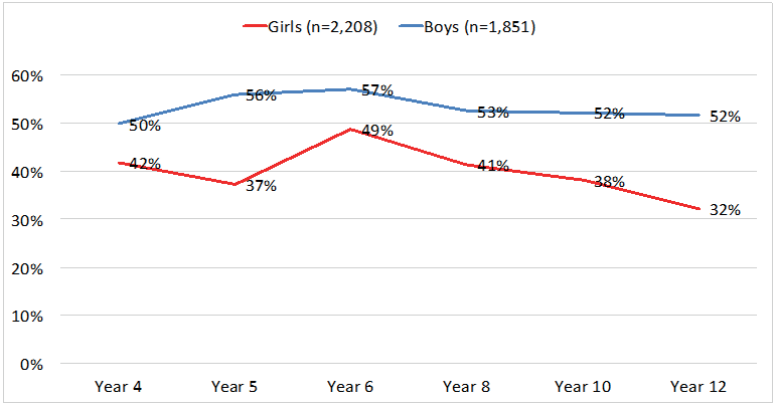
Source: UK Chief Medical Officers' Physical Activity Guidelines (2019)

8.2.1.3 Physical activity across the lifecourse

Amongst school-age children, the proportion of children meeting CMO guidelines is higher amongst boys (54% across year groups Year 4-12 in 2019) compared to girls (41%). PA levels appear to peak in Year 6, with a decline in PA levels between Year 6 and Year 12 especially amongst adolescent girls contributing to a gender gap in PA levels (Figure 8.40, Oxwell student survey 2019). This gender inequality and decline in PA levels through adolescence is also observed in national data. PA levels decline gradually through adulthood, followed by a more rapid decline in age groups above 75 years (Figure 8.41).

FIGURE 8.40:

Changes in the proportion of children meeting nationally recommended physical activity levels amongst school-age children in Oxfordshire

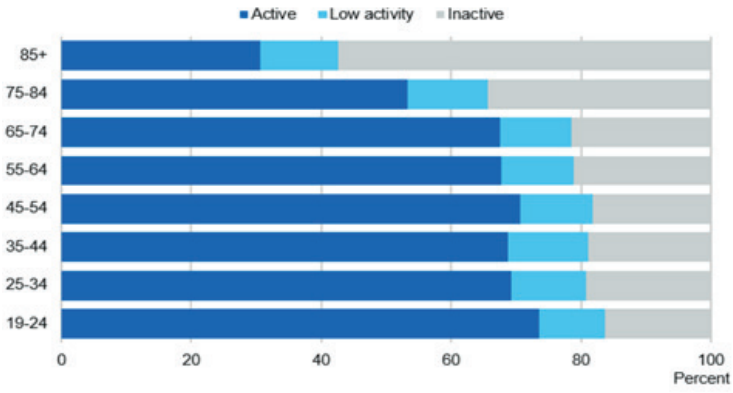


Data from 2019 represent the most recent year for which data are available.

Source: Oxwell student survey (2019)

FIGURE 8.41:

Physical activity levels in adults by age group in England in 2019



Analysis using 2019 data represent the most recent year for which this analysis is available[11].

Source: Statistics on Obesity, Physical Activity and Diet, England, 2020 - NHS Digital

11 These include certain income-related benefits or Universal Credit where total household income is under £7,400 per year after tax. More details are available from Apply for free school meals - GOV.UK (www.gov.uk).

There is some evidence to support that higher participation in certain types of PA during childhood and adolescence are associated with higher levels of PA in adulthood. A number of potential explanations exist for these findings - both causal ones (for example high childhood PA participation increasing automatic motivation through habit formation and physical capability through skill acquisition) and non-causal (for example the contribution of other factors such as the presence of supportive social or physical environments throughout the lifecourse).

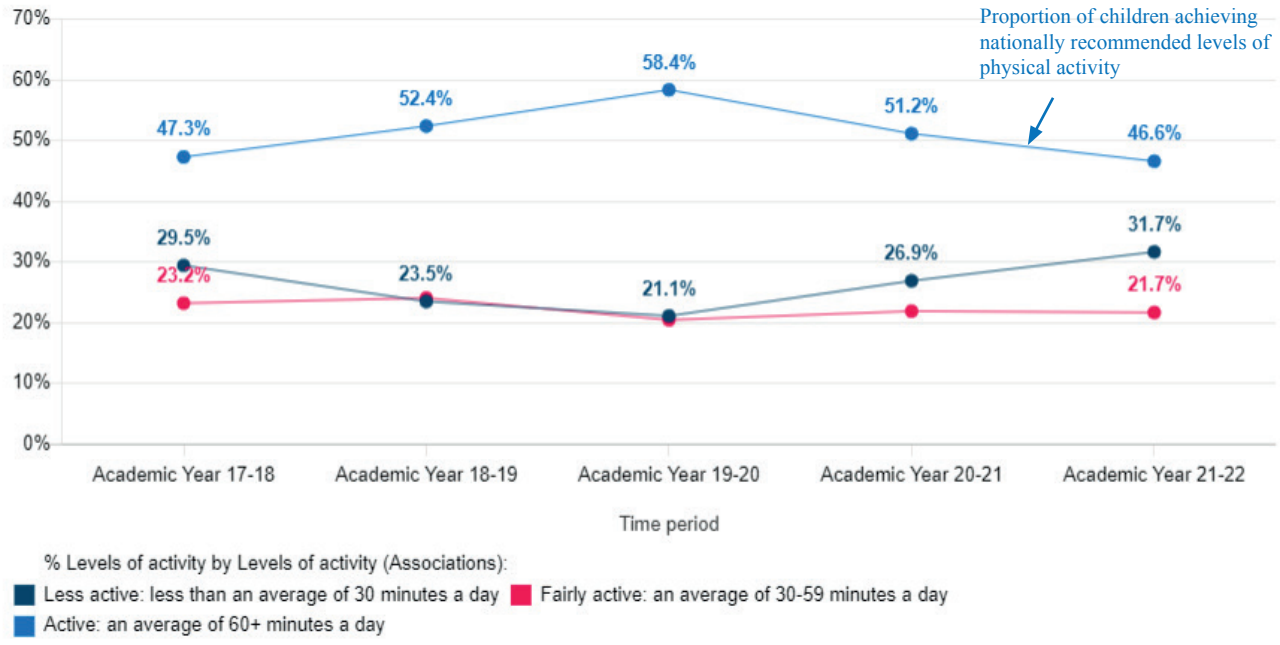
8.2.2 PA levels in Oxfordshire residents

8.2.2.1 PA levels in children

PA levels in children in Oxfordshire are comparable to those seen nationally and in similar local authorities (see Figure 6.6), nonetheless this equates to more than half of school-aged children (53%) not currently meeting the nationally recommended levels of PA. The proportion of 'active' children (aged 5-16 years and meeting nationally recommended PA levels) increased between 2017/18 and 2019/20 (mirrored by a fall in the proportion of 'less active' children engaging in less than 30 minutes of PA a day on average) (Figure 8.42). However, between 2019/20 and 2021/22, the proportion of 'active children' has fallen with a corresponding increase in the number of 'less active' children. A similar trend has been observed in swimming capability - whilst the proportion of children able to swim 25m unaided had been increasing from 2017/18 to 19/20, this decreased substantially in 2020/21 and remains at 56% in 2021/22.

FIGURE 8.42:

Proportion of children and young people aged 5-16 years (school years 1-11) meeting nationally recommended PA levels in Oxfordshire

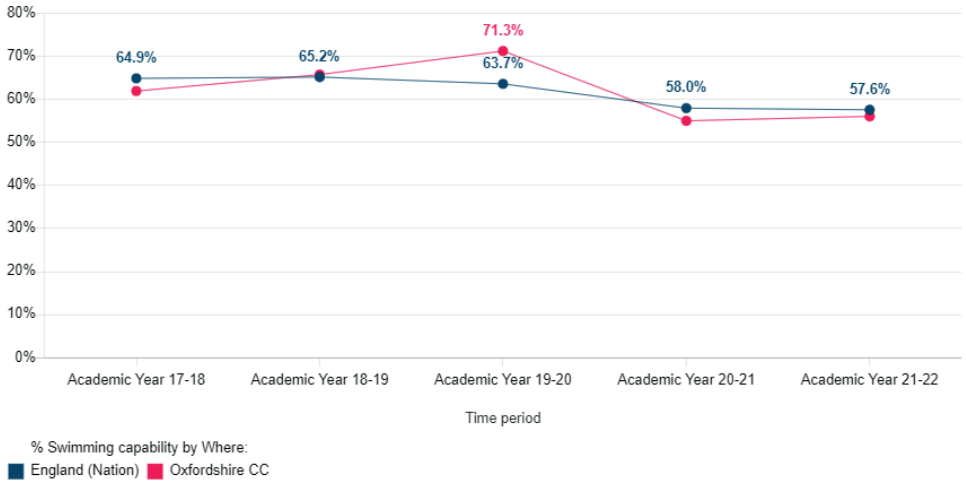


Note: As these data are collected during term time, this graph does not provide any insight into physical activity levels amongst children during the school holidays which make up ~27% of the weeks in a year.

Source: Sport England, Active Lives Survey

FIGURE 8.43:

Proportion of children able to swim 25 metres unaided in Oxfordshire

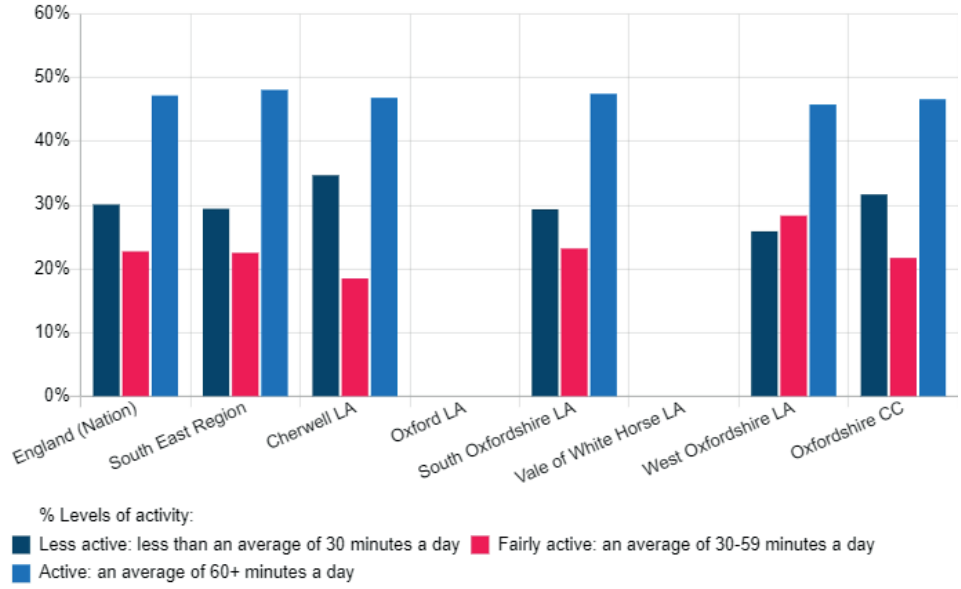


Source: Sport England, Active Lives Survey

Across the districts, the proportions of children meeting recommended PA levels (or who are physically inactive) are comparable for Cherwell, South Oxfordshire and West Oxfordshire, however insufficient data were obtained from Oxford and Vale of White Horse to produce robust estimates for these districts in 2021/22. Data on geographic inequalities at the MSOA level are not available.

FIGURE 8.44:

Proportion of children and young people aged 5-16 years (school years 1-11) meeting nationally recommended PA levels in Oxfordshire – by District



Note: Insufficient data were collected to produce robust estimates for PA levels in Oxford and Vale of White Horse for 2021/22.

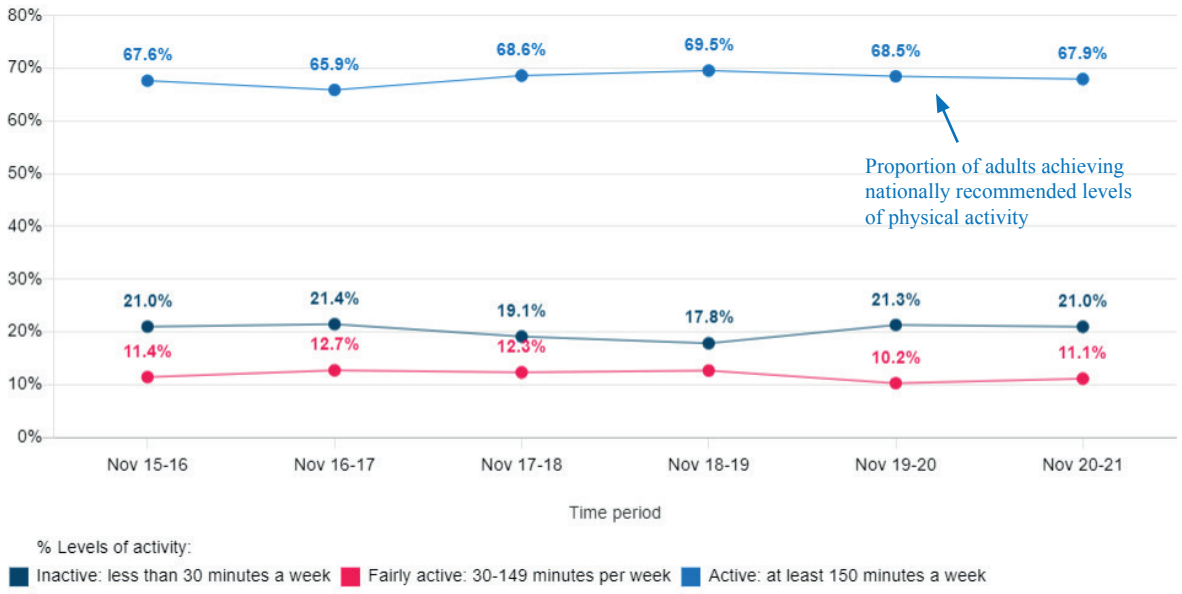
Source: Sport England, Active Lives Survey

8.2.2.2 PA levels in adults

Approximately three in ten adults (28%) in Oxfordshire are not currently meeting the nationally recommended levels of PA, and one in ten (11%) accumulate less than 30 minutes of PA per week (and are therefore considered physically 'inactive').

FIGURE 8.45:

Proportion of adults meeting nationally recommended physical activity levels in Oxfordshire

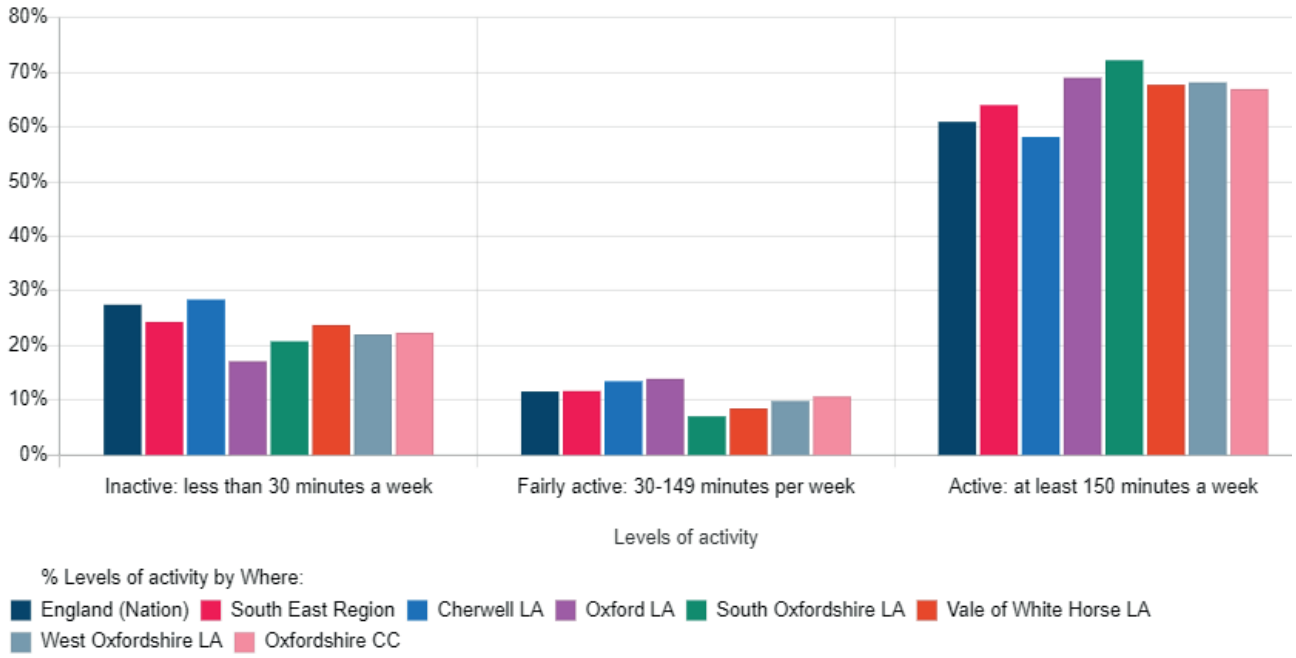


Source: Sport England, Active Lives Survey

By district, more adults appear to be meeting national guidelines and fewer are 'inactive' in Oxford City and South Oxfordshire, meanwhile it appears that in Cherwell, a higher proportion of adults are physically inactive and fewer are meeting national recommendations (based on visual comparison). Proportions in the Vale of White Horse and West Oxfordshire are similar to those in the South-East region.

FIGURE 8.46:

Proportion of adults meeting nationally recommended physical activity levels - by District in November 2020/21



Source: Sport England Active Lives Survey

8.2.2.3 Factors promoting physical activity from the community engagement and the research literature

During community engagement, conversations with residents were framed using the Health Foundation's How to talk about the building blocks of health toolkit rather than based on pre-specified questions encompassing the different types of PA. Most comments from residents relating to PA (see Appendix 11.11) were specifically focussed on active recreation, especially being able to find activities in line with their preferences and the individual and social motivation factors affecting their engagement in active recreation – these are summarised in Section 8.2.5. Factors more broadly that have been found to be associated with higher PA levels in the research literature are summarised in the table below.

FIGURE 8.47:

Factors associated with higher or lower physical activity (PA) levels across different life stages from the research literature

	In preschool children	In children and adolescents	In adults
Factors associated with higher PA levels:	• Greater availability of backyard space and outdoor toys/ equipment at home • Access to parks/ playgrounds/open spaces	• Previous physical activity levels • Use of active travel • [Overall neighbourhood 'accessibility' level] • Independent mobility (meaning ability to engage in outdoor play without adult supervision) • [Access to family transport] • [Access/availability of PA infrastructure/equipment in the neighbourhood] • [School PE] • [Out of school active recreation]	[Baseline PA levels]
Factors associated with lower PA levels:	• Shorter distance to school (<800m) • Negative street characteristics (lack of crossings/lights, busy road barriers and steep roads on the way to school) • [Screen use]	[Sedentary activities, internet use, reading]	• Transitioning to university, pregnancy/ having a child • [Moving into an institution] • [Time constraints] • [Language difficulties] • [Smoking]

Note: Square brackets indicate that lower quality evidence is available to support an association between the named factor and PA levels

Factors more relevant to active travel (as judged by the report author) are displayed in red font and those more relevant to active recreation are displayed in blue font.

Sources: Condello G et al. Behavioral determinants of physical activity across the life course: a "DEterminants of DIet and Physical ACtivity" (DEDIPAC) umbrella systematic literature review. Int J Behav Nutr Phys Act 2017;14:58. Carlin A et al. A life course examination of the physical environmental determinants of physical activity behaviour: A "Determinants of Diet and Physical Activity" (DEDIPAC) umbrella systematic literature review. PLOS ONE 2017;12:e0182083.

In summary, research suggests that PA levels earlier in life predict PA levels later in the lifecourse, and that factors that support active travel (such as improved street characteristics and neighbourhood accessibility) and active recreation (through factors such as access to spaces and equipment for outdoor play, ability to play outdoors without adult supervision and access to transport) help to support higher PA levels. Targetted action to prevent the decline in PA observed in parents when they have a child could also be a helpful approach, especially considering the role of parents in modelling behaviour (Foresight report 2007).

8.2.3 PA Prevent: Start early

8.2.3.1 Physical activity in the Early Years (0-5 years)

Findings from the research literature (that greater availability of garden space, outdoor toys/equipment at home and access to parks, playgrounds and open spaces are associated with higher PA levels in preschool children) are consistent with informal play and active travel being the activities that younger children most commonly participate in (Figure 8.67). This suggests that programmes that enable active travel or protect or increase access to greenspace (see Sections 8.2.4.1 and 8.2.4.2) are the most likely to facilitate the types of PA that pre-school children engage in.

To increase children's PA levels in the early years, national guidelines additionally recommend:

- Ensuring schools and early years settings have active travel plans that are monitored (through audit of policies that are in place and monitoring the percentage of active travel to and from the setting as an outcome) and which are updated annually
- Commissioning training programmes for staff on how to increase physical activity in early years settings, to ensure they have the skills to increase children's confidence in their own abilities and motivate them to be physically active and understand the practical issues and problems that may discourage families or groups of children and young people from getting involved

Recommendation:

Understand the opportunities for breastfeeding support, promotion of the Healthy Start scheme and increasing children's confidence to engage in physical activity through early years settings

8.2.3.2 Physical activity in school-age children (5-18 years)

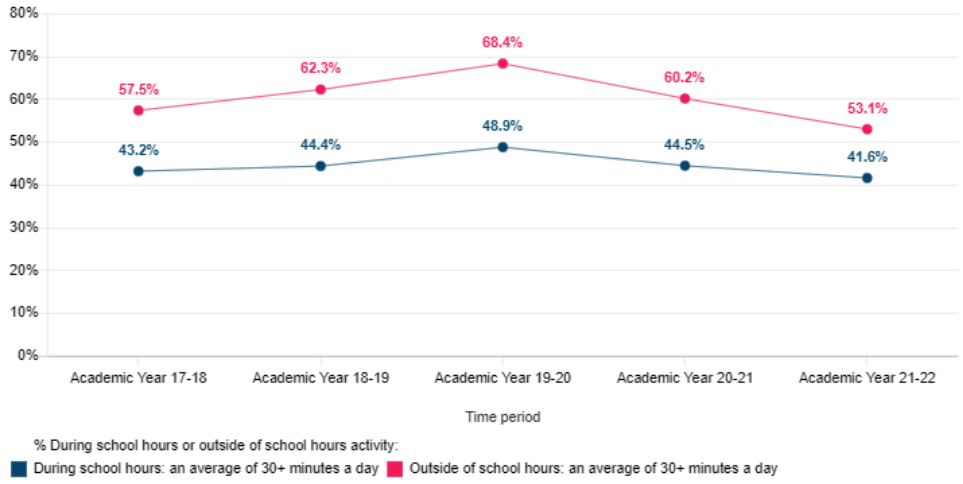
During term time children and young people often spend more of their waking hours in school and college than in any other location and thus schools and colleges have an important role to play in encouraging children to be active, to achieve their academic potential (through the beneficial effects of PA on concentration and cognition) and to create healthy habits around PA for life. Opportunities for PA include PE lessons, break times, travel to and from school/college and links to opportunities outside of school/college. In the Oxwell study survey in 2021, a high proportion of children reported looking forward to sports and exercise activities on their return to school (63%, the second highest motivating factor after 'seeing friends again'), suggesting that for children taking part in sports and exercise is a key source of motivation and enjoyment for attending school.

The proportion of children achieving 30 minutes or more of PA whilst at school (as recommended in the national guidelines) was 42% in Oxfordshire 2020/21 (Figure 8.48), levels of in-school PA attainment were similar for children from across the socioeconomic spectrum. Whilst 53% of children overall achieved at least 30 minutes of PA outside of school, this proportion varies by socioeconomic status, with lower

proportions achieving the target amongst children from families in the two least affluent deciles. A possible explanation for this is that socioeconomic factors are an important influence on children's ability to participate in out-of-school activities. A gradient is also seen between swimming capability and deprivation (Figure 8.50). Increasing PA levels achieved within the school day has been identified as an important target area nationally for increasing children's overall PA levels and is an important area to address for mitigating against socioeconomic inequalities in access to active recreational activities.

FIGURE 8.48:

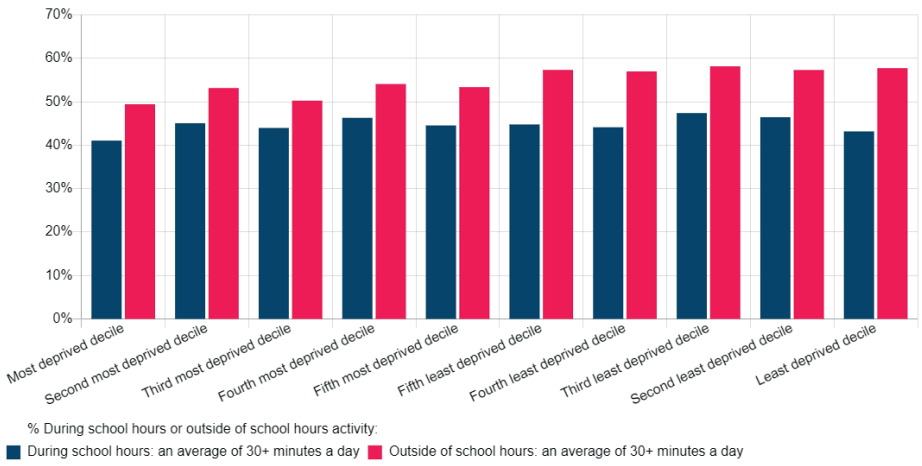
Proportion of children achieving 30 minutes of physical activity in school and outside of school - in Oxfordshire



Source: Sport England Active Lives Survey

FIGURE 8.49:

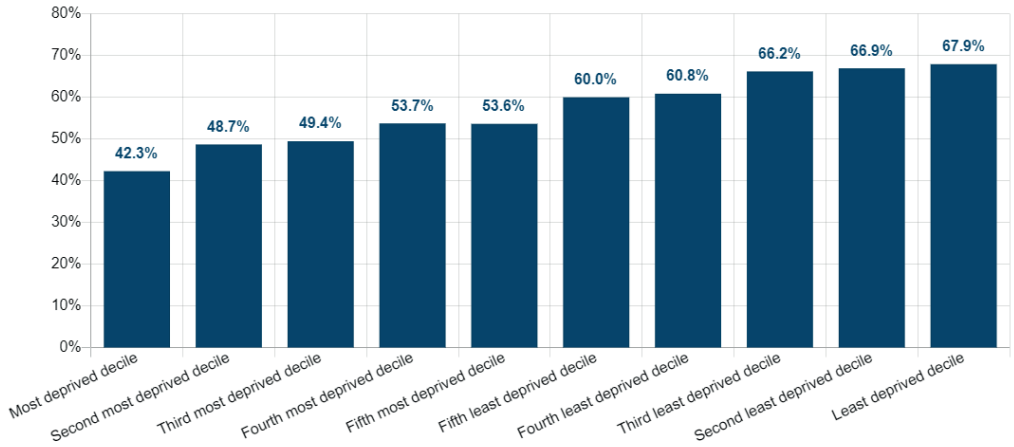
Proportion of children achieving 30 minutes of physical activity in school and outside of school - by deprivation status in England



Source: Sport England Active Lives Survey, 2021-22

FIGURE 8.50:

Proportion of children able to swim 25 metres unaided - by deprivation status in England



Source: Active Lives Survey 2021-22

Recommendations on implementing a 'whole school approach' to increasing PA levels achieved within the school/college day are outlined in guidance from OHID and NICE and summarised below. Implementation of this guidance requires engagement with the wider school community (extending beyond the school gates to include families and work placement providers for college students) and voluntary and community sector organisations to develop a culture and environment that supports PA.

Summary of national guidelines on implementing a 'whole school approach' to increasing PA levels:

1. **Embed PA in learning, for example increase the amount of time spent being physically active in PE and other lessons.** Identify and review periods of inactivity within the school day.
2. **Ensure school staff feel confident and are competent to incorporate PA across the school/college day as well as in PE lessons.** Examples given include implementing an Active Learning scheme to make classrooms into active spaces, or providing training for teachers on delivering activities in a way that promotes inclusivity.
3. **Offer a variety of PA opportunities, that focus on games, fun and free play as well as more traditional sports or competitive activities. This is especially helpful for encouraging participation amongst currently inactive pupils.** For example, offer free taster sessions for new activities.
4. **Create active environments that provide access to greenspace and play equipment that are designed to encourage varied play including both individual and group activities.**

   Examples include:

   - Inclusion of non-traditional play materials such as car tyres, milk crates
   - The Daily Mile (where teachers are given the option of flexibly taking pupils out of the classroom to run or jog for 15 minutes every day at their own pace) has been found to lead to lower BMI and be highly cost-effective in improving quality of life in girls

- Opening up access to playgrounds before and after school and during holidays. Consider partnerships between schools, colleges, out-of-school services, children's centres, youth services, further education institutions, community clubs and private sector providers to increase access to facilities and environments that support active recreation
- Providing a classroom with sports equipment as a space where pupils can use exercise to de-stress.

5. **Promote active travel for example through development of active travel plans and ensure coordination with local transport plans.** For example, provide infrastructure to support active travel (for example changing space, secure storage, showers), offer award schemes based on active travel uptake, bike skills training, led walks and bike rides for families on evenings and weekends
6. **Involve students in PA delivery to ensure activities meet their needs**
   Consult with students and families especially for groups known to have lower levels of PA on what activities would meet their interests and needs (for example for single gender activities to help build confidence for taking part in and leading activities in a mixed gender setting)

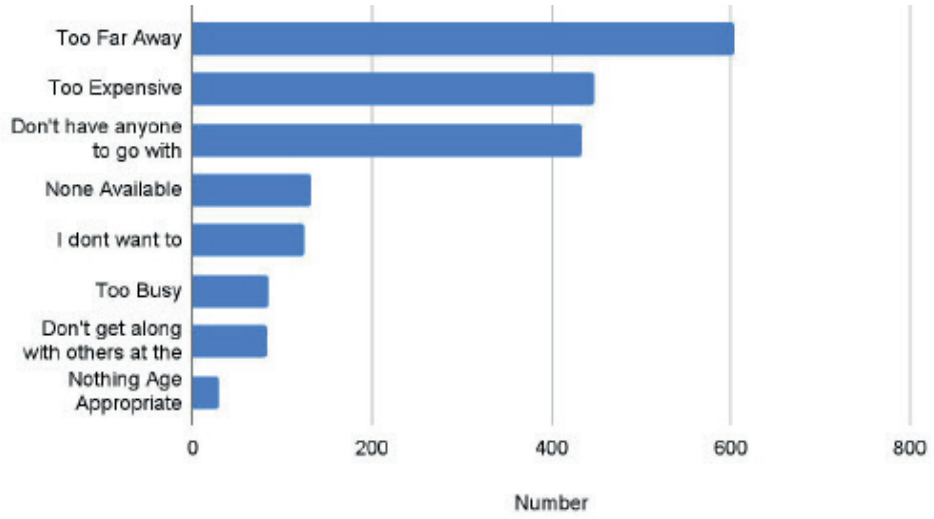
Sources: Guidance to increase physical activity among children and young people in schools and colleges (publishing.service.gov.uk), NICE guidance PH17, Physical activity for children and young people, NICE guideline [NG90] Physical activity and the environment (2018), Quality statements | Physical activity: encouraging activity in the community | Quality standards | NICE, Everybody active, every day: 5 years on - GOV.UK (www.gov.uk)

8.2.3.2.1 Barriers and preferences for children and young people to participate in active recreation

In a survey of young people attending mainstream secondary schools and sixth form colleges in West Oxfordshire (2022), 49% of respondents identified physical activity as an activity they wanted to do but were not able to access. The activities that young people most commonly said they wanted to do were football and basketball, followed by boxing, swimming and gym (note the number of young people interested in dancing were not available, West Oxfordshire District Council's Youth Needs Assessment, 2022). The most commonly reported barriers to attending activities as reported by children were that activities were too far away, followed by cost and not having other people to go with. In contrast, parents were most likely to identify physical opportunity factors (availability of activities, distance, cost, time factors) as barriers to access to activities, whereas social factors (not having anybody to go with or getting along with others there) and motivational factors (lack of interest) were reported less often.

FIGURE 8.51:

Barriers to accessing the activities they want to do as reported by young people in West Oxfordshire

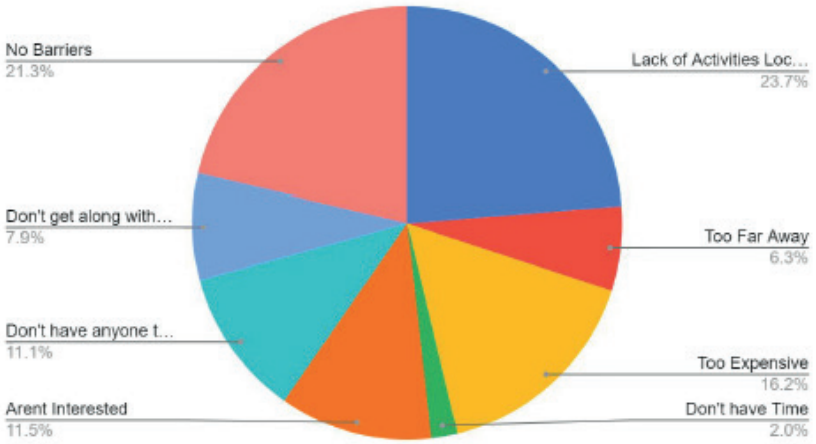


Activities included all activities that young people would like to do but cannot access, not limited to active recreational activities

Source: West Oxfordshire District Council's Youth Needs Assessment (2022)

FIGURE 8.52:

Survey responses from parents to a question on why young people could not access the activities they wanted to do



Activities included all activities that young people would like to do but cannot access, not limited to active recreational activities.

Source: West Oxfordshire District Council's Youth Needs Assessment (2022)

For young adolescent women, some insights into their active recreational preferences have been collected by Project PT from students in Year 7-9 at schools participating in the Active Oxfordshire School Games events (Youth Voice: A study of girls' engagement in physical activity report). The young women expressed interest in having opportunities **to try a wider variety of activities and in activities associated with an element of 'daring' or 'risk'** (such as skateboarding and boxing) and for **girls only** (due to boys making fun of them, judging their abilities or not allowing them to participate as much). Some participants reported

a preference for solo activities instead of group activities (enjoyment of which is dependent on the skill level of all participants).

Summary of facilitators and barriers to participating in active recreation for young adolescent women from community engagement in Oxfordshire:

Capability factors:

- there was high awareness of the importance and benefits of PA
- however awareness about what clubs or activities are available was low
- pupils were very conscious of how their skill level compared to their peers and being at a lower skill level made them reluctant to join in with new activities

Opportunity factors:

- students' support network (whether family members, a teacher or others in the community) was instrumental in identifying opportunities for active recreation for them
- students of a lower skill level reported feeling discouraged by the lack of encouragement and support they received
- location and timing: students reported that it is too late to participate in activities by the time they get home from school, lack of access to transport is a barrier to getting to activities. Students reported not wanting to feel looked at whilst participating in activities

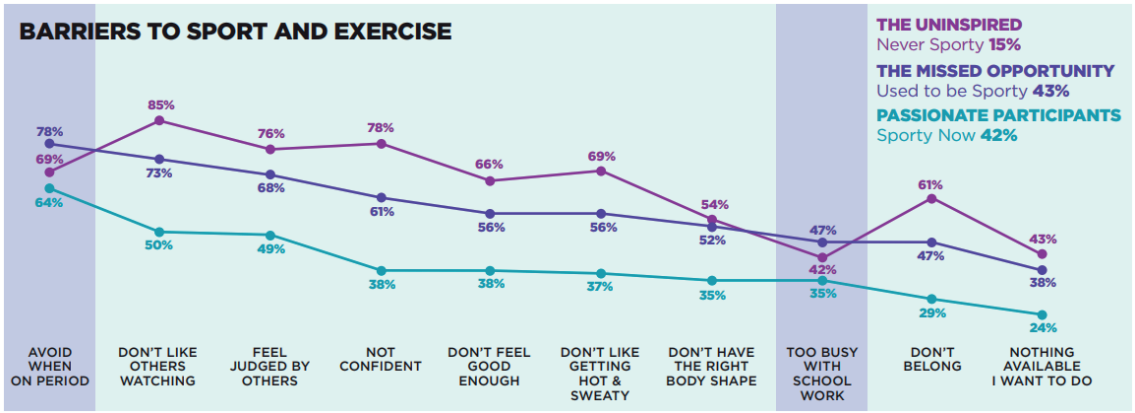
Whilst this project did not specifically seek to engage adolescent women who are currently the least active, the results align with a nationally representative survey of over 4000 boys and girls aged 11-18 by Women in Sport in 2021. This found that fewer adolescent girls reported enjoying physical activity (27% of girls vs 44% of boys) and over forty percent (43%) of girls reported no longer perceiving themselves as 'sporty' after primary school (compared to 24% of boys). The most commonly reported barriers to PA were the same across girls reporting different levels and historic patterns of PA. Social factors (being watched or judged by others for skill or body shape, lack of belonging, fear of leakage whilst on their period) and psychological factors (feeling not good enough to engage in PA) were the most commonly reported followed by physical opportunity factors (types of activity available). More self-described 'never sporty' girls experience these barriers compared to 'sporty' girls, however even amongst 'sporty' girls, these barriers were more commonly reported by girls than by boys. Those who reported having never been 'sporty' were however much less like to report enjoying competitive sports than those describing themselves as 'sporty' (23% versus 84%).

In terms of social support, parents were the most frequently cited source of encouragement and support for being active. However, whilst boys and girls were equally likely to feel supported by their mum to be active (48%), only 31% of girls reported feeling supported by their father or a father figure to be active compared to 50% of boys.

Based on these findings, programmes aiming to support adolescent girls to engage in more active recreation need to consider how to address social barriers relating to being watched, judged, excluded, embarrassed whilst on their period, and lower levels of confidence. Provision of some activities specifically for girls may help address some of these factors, this and non-competitive activities that can be enjoyed without being highly dependent on skill level may help address low confidence. Programmes should also aim to involve parents, especially fathers, to ensure they are providing support and encourage to their daughters to be active and can share information with them on what activities are available.

FIGURE 8.53:

Barriers to active recreation reported by adolescent girls across self-defined PA level groups

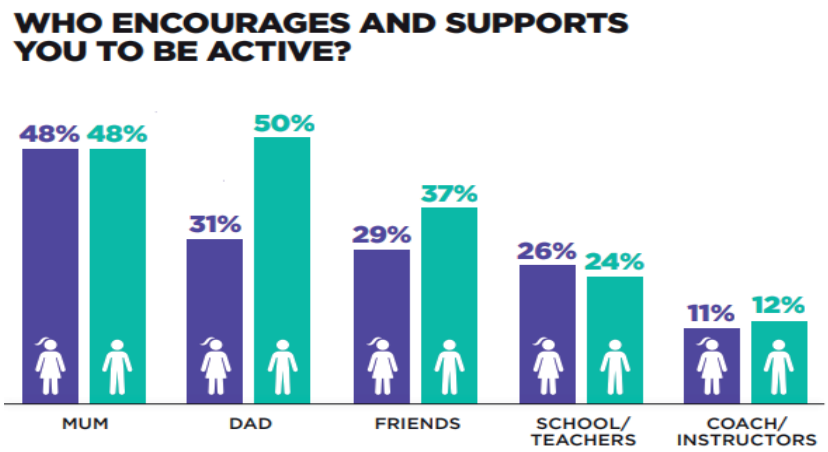


Being 'sporty', 'never sporty' or 'used to be sporty' was self-defined by survey participants

Data: Nationally representative survey of 2,291 girls and 2,024 boys aged 11-18 conducted by Savanta on behalf of Women in Sport in July 2021.

FIGURE 8.54:

Sources of social support to be active received by adolescent girls (purple) and adolescent boys (green)



Responses to a survey question on 'Who encourages and supports you to be active?'

Data: Nationally representative survey of 2,291 girls and 2,024 boys aged 11-18 conducted by Savanta on behalf of Women in Sport in July 2021.

Recommendation: Implement a 'whole school approach' to promote physical activity in schools, prioritising areas with high excess weight prevalence amongst children. (for details on recommended actions within this recommendation, see Appendix 11.14)

Use and expand upon existing evidence from community engagement with residents to ensure the active recreation offer in Oxfordshire aligns with activity preferences across different age groups.

8.2.4 PA Environment: Build healthy places

8.2.4.1 Active travel environments

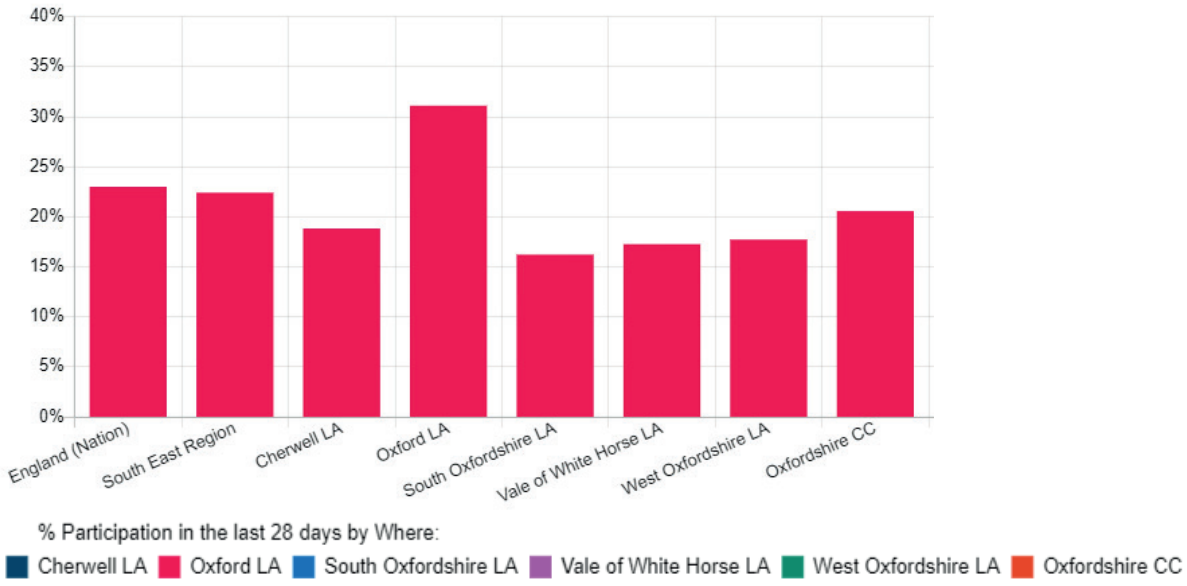
Active travel refers not only to walking and cycling but any mode of travel that involves a level of physical activity. It therefore includes trips made by e-bike, scooter, mobility scooter and wheelchair. Nationally, 58% of car trips are made for journeys below 5 miles suggesting significant potential for increasing use of active forms of travel for short journeys. Active travel has been identified nationally as the most important area to target to increase PA at a population level.

Participation in active travel varies by district across Oxfordshire. Oxford City is an outlier with respect to levels of participation in walking for travel (12-15% higher than in the other districts in 2020/21) and especially cycling for travel (25-27% higher than in other districts). In the other districts (excepting South Oxfordshire for which more recent data since 2018/19 are not available), participation in walking for travel is between two to three times higher than participation in cycling for travel. Between 2015/16-2020/21, participation in walking across Cherwell, South Oxfordshire and West Oxfordshire appears to have been slightly lower than the average for England whilst Vale of White Horse appears comparable, though formal statistical testing is not available. Participation in cycling across the other districts appears comparable (or slightly higher in the Vale of White Horse) to that for England across the same timeframe.

Differences in the opportunities presented by infrastructure (physical opportunity) appear to contribute to differences in active travel uptake, with participation in walking being approximately 10% higher amongst those living in urban areas compared to in rural areas nationally although the corresponding difference for participation in cycling is smaller (approximately 3%) (Figure 8.59).

FIGURE 8.55:

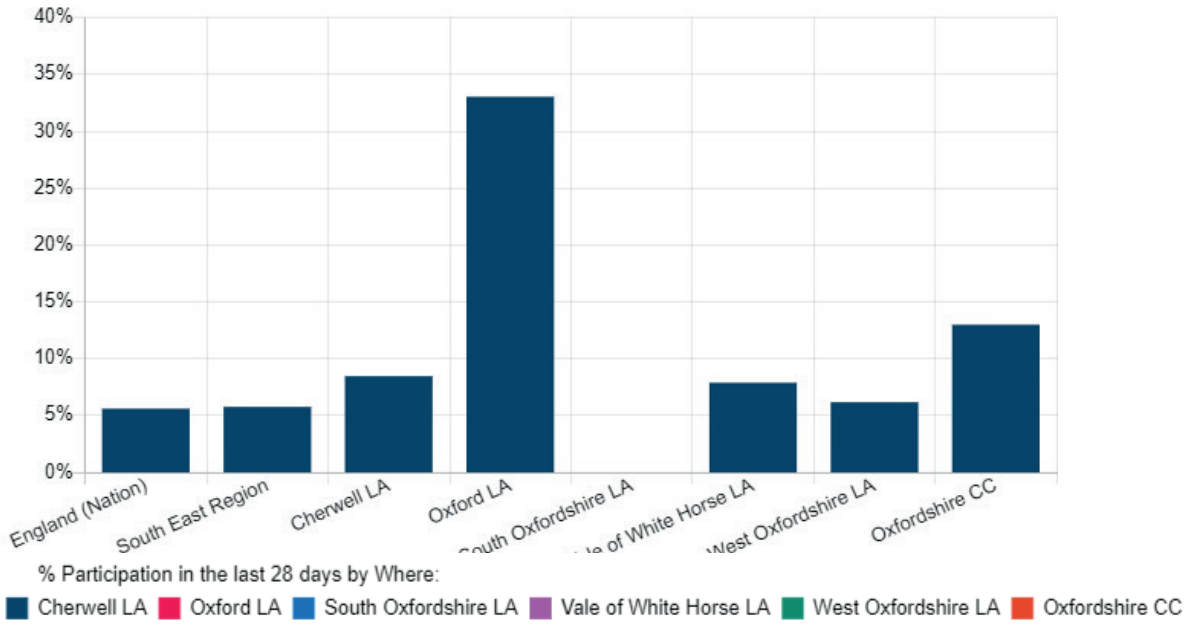
Participation in walking for travel - in adults in Oxfordshire and by district



Source: Sport England Active Lives Survey (2020/21)

FIGURE 8.56:

Participation in cycling for travel - in adults in Oxfordshire and by district

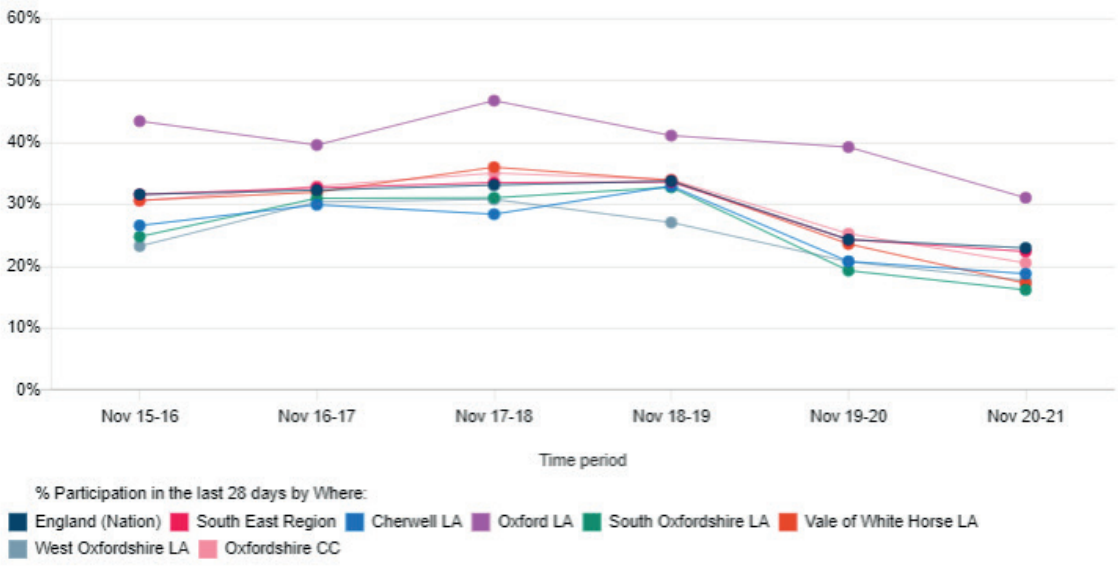


Note: data are not available at the district level for South Oxfordshire

Source: Active Lives Survey (2020/21)

FIGURE 8.57:

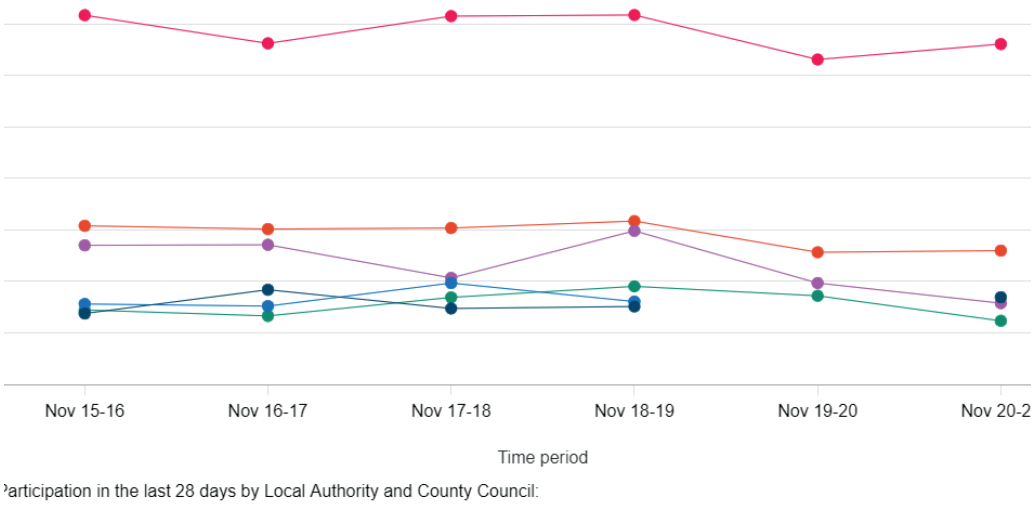
Trends in participation in walking for travel in adults – in Oxfordshire and districts



Source: Sport England Active Lives Survey

FIGURE 8.58:

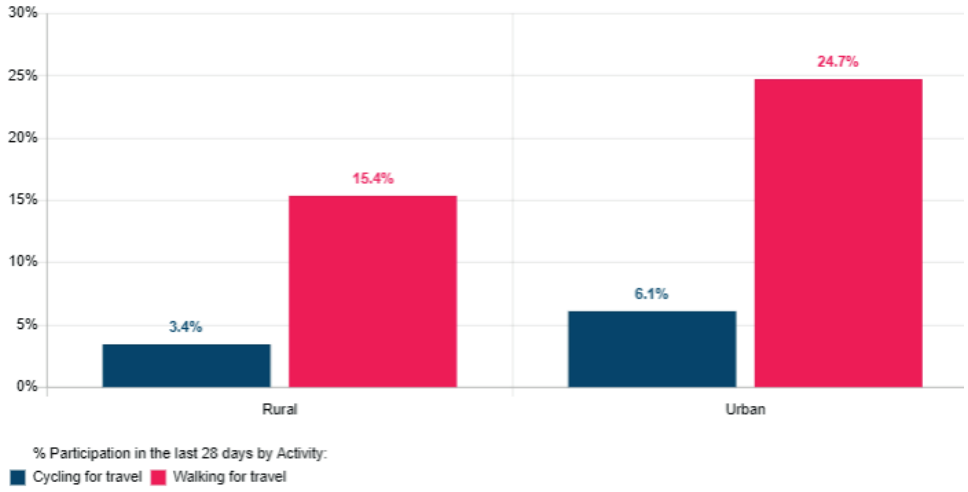
Trends in participation in cycling for travel in adults – in Oxfordshire and districts



Source: Sport England Active Lives Survey

FIGURE 8.59:

Participation in walking for travel in adults - in rural versus urban areas in England



Source: Sport England Active Lives Survey (2020/21)

Underway in Oxfordshire

The Oxfordshire Local Transport and Connectivity Plan (Local Transport Plan, adopted by full council in July 2022) outlines Oxfordshire's strategy with respect to Oxfordshire's transport and travel system for 2022-2050. It sets out an aspiration to reduce the need to travel and make active forms of travel, or public or shared transport, the natural first choice for journeys.

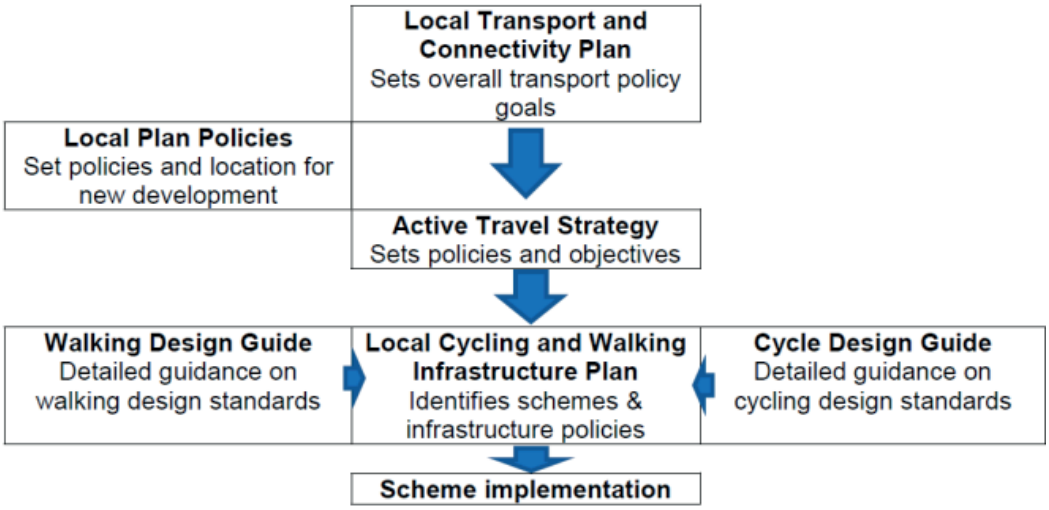
It includes targets to:

- replace or remove 1 out of every 4 car trips by 2030
- deliver a net-zero transport network by 2040
- have zero, or as close to zero as possible, road fatalities or life-changing injuries by 2050

Delivery of the plan is supported by the Active Travel Strategy that sets out 79 actions to increase use of active travel through use of data, collaboration and engagement, setting design guidance and network development. Local Cycling and Walking Infrastructure Plans (LCWIPs) set out a programme of practical measures to improve cycling and walking infrastructure and support achievement of the strategic objectives set out in the Local Transport and Connectivity Plan and Oxford Local Plan. So far LCWIPs have been agreed for Oxford, Bicester and Kidlington and are being developed for Abingdon, Banbury, Witney and Didcot.

FIGURE 8.60:

Local strategies and action plans in place to support delivery of the targets and objectives set out in Oxfordshire's Local Transport and Connectivity Plan



Alongside this, Oxfordshire's Cycling and Walking Activation Programme aims to increase residents' use of the active travel network and reduce inequalities in active travel through identifying, understanding and addressing barriers to walking and cycling. Programmes delivered in 2021-22 include park and stride pilots around schools, community-led projects in Witney, Bicester and Oxford and a wayfinding pilot in Kidlington.

The OCC Road Safety and Education team deliver several education programmes to support children to learn the skills they need to engage in active travel safely. In the Footsteps program, the team oversee dissemination of the Footsteps child pedestrian safety guide to parents of children in early years' settings and Year 1 via schools and hold sessions for parents to support them to put the advice in the guide into practice, particularly prioritising schools in less affluent areas. The team also organise cycle training for children in Year 6 and 7 in schools across Oxfordshire.

A summary of recommendations from national guidance and comparison against planned programmes in Oxfordshire is included in Appendix 11.10. This shows that there is a high degree of alignment between nationally recommended and local ongoing or planned actions, and highlights the programmes of work that require sustained support. An area where there is scope to expand on current areas of work relates to ensuring physical activity is integrated into economic growth and infrastructure plans.

Recommendation: Develop Local Cycling and Walking Infrastructure Plans in all market towns in Oxfordshire

Recommendation: Work with partners to implement the priorities of the Local Transport and Connectivity Plan and review progress in achieving its targeted aims of increasing walking and cycling. This includes working with Local Enterprise Partnerships to ensure physical activity is integrated into local economic growth and infrastructure plans.

Recommendation: Sustain support for cycling and walking activation programmes, especially aiming to increase engagement amongst those who are least active, and evaluate their impact and reach

8.2.4.2 Green space and blue space environments

Green space encompasses: publicly accessible and private grounds, including parks, play areas and sports areas, private gardens, green corridors and routes (for example along canals) and street trees. Blue space includes inland water bodies (such as rivers, ponds, canals and lakes, fountains and water features). There is some evidence to support that people living in greener urban environments are more likely to meet nationally recommended PA levels and less likely to live with excess weight. Green space may increase PA through providing spaces for active recreation and active travel or more indirectly through influencing perceived social norms (social opportunity factors). Exercising in greenspace is associated with greater benefits when compared to exercising indoors (including increased energy, enjoyment and satisfaction and a greater expressed intent to repeat the activity at a later date). Associations have also been found between higher green space exposure and positive benefits to physical and mental health including reduced incidence of type 2 diabetes and reported stress.

However, many of the population groups known to have lower levels of PA also use greenspace less often - including women, those with poor health, with lower socioeconomic status and those from an ethnic minority background. Yet research suggests those with lower levels of educational attainment benefit more from greenspace across several health outcomes compared to those with higher levels of education suggesting that exposure of greenspace may help promote greater health equity. Wider benefits of increasing the availability of greenspace include improvements to biodiversity, carbon capture and reductions in flood risk.

National guidance recommends taking a dual approach to increasing the benefits people receive from greenspace - protecting and improving existing greenspace alongside investing in programmes to promote social engagement with the space (see Figure 8.61).

FIGURE 8.61:
Summary of national recommendations on improving access to greenspace

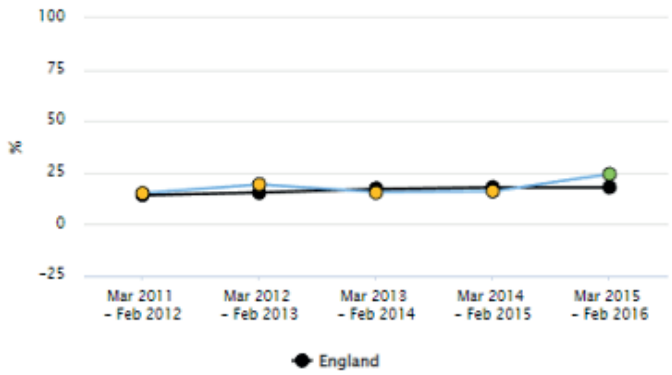
Protect access to existing greenspace	Increase use of greenspace especially amongst those with low use currently
• Ensure that the benefits residents accrue from green infrastructure is recognised in local decision making (at county or district and city level) for example through using a natural capital approach • Health needs with respect to greenspace and use of outdoor space for exercise and health should be embedded in the Local Plan. Consider use of Community Infrastructure Levies and Section 106 agreements to support greenspace development • Consider setting standards for access to greenspace based on metrics relating to size, proximity or opportunity and quality (several existing standards are already in use e.g. the Accessible Natural Greenspace Standards	• - Incorporate use of inclusive design principles in the design and renovation of greenspace (for example in decisions relating to location, structure, sense of safety, activities, versatility, facilities for shelter and rest, and access) • Hold regularly scheduled group activities (which to help motivate continued participation through increasing social opportunity) • Provide 'facilitated access' initiatives (for example arranging transport to a site followed by a led and supported activity) which help to support increased use of greenspace, especially for women in ethnic minority groups, older adults and those with low current use • Ensure promotional materials and information sources are appropriately tailored and tested (for example considering the clothing, gender and ethnicities of people in photographs and avoiding wording that could be perceived as condescending) • Plan and evaluate proposed changes to ensure they do not widen health inequalities

Sources: Improving access to greenspace: 2020 review (publishing.service.gov.uk), NICE guideline [NG90] Physical activity and the environment (2018)

In Oxfordshire, data up to 2015/16 suggests use of greenspace has been comparable to that for England, more recent data is not available at the local level (Figure 8.62). Access to greenspace for recreational activities within Oxfordshire has been mapped by the Environmental Change Institute at the University of Oxford. Overlaying these with maps of residential areas could aid identification of areas with high unmet demand in terms of access to green space and which should be prioritised in green infrastructure projects (Figure 8.63).

FIGURE 8.62:

Utilisation of greenspace for exercise or health reasons – for Oxfordshire

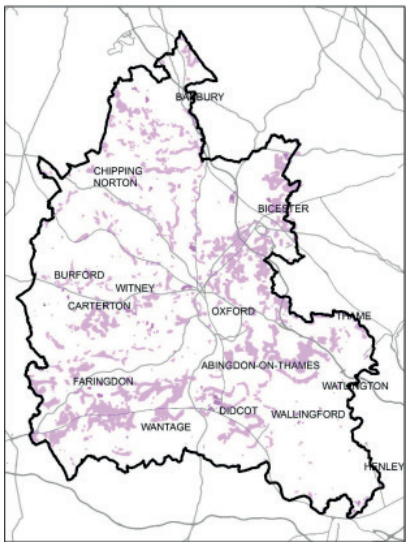


Note: Proportions were calculated from the proportion of residents in Oxfordshire taking a visit to the natural environment for health or exercise purposes in the previous seven days. Data from the survey are only available up until 2015/16.

Source: Natural England Monitor of Engagement with the Natural Environment (MENE) survey

FIGURE 8.63:

Map of geographic areas in Oxfordshire where the degree of value received from green spaces is estimated to be low currently



Source: Natural capital in Oxfordshire Short Report (2019) from the Environmental Change Institute, University of Oxford

Examples of common barriers to accessing greenspace that have been identified in the research literature are shown in Figure 8.64. In Oxfordshire, factors identified in community engagement in the Leys as impacting on accessibility of green space included perceptions of safety and physical obstacles (affecting visual appeal and accessibility for those with reduced mobility, Appendix 11.11). A local community partnership project, Greenspace & Us, investigated barriers and enablers to accessing green space for young women (aged 11-16) in East Oxford using participatory and creative approaches (see Figure 8.65). Factors identified through this project show a high degree of consistency with those that have previously been identified in the research literature.

FIGURE 8.64

Summary of common barriers to using greenspace from the research literature

Capability factors:	Physical opportunity factors:	Social opportunity factors:	Motivation factors:
• low awareness: limited awareness of opportunities to visit greenspace, particularly for low income groups • low confidence: lack of experience of and confidence with being in a natural setting	• proximity: lack of access to good quality greenspace near to home; MENE data shows that two-thirds of visits to greenspace occur within 2 miles of home • transport: lack of public transportation or private vehicle, cost of parking at a site • physical obstacles: lack of or poorly maintained roads or path networks, challenging topography • lack of facilities: toilets, benches, cafes; this is particularly important for older age groups and those living with a disability	• social experiences: being out in a natural setting not being part of social background; feeling unwelcome or out of place, discomfort over perceptions of what is seen as 'appropriate' behaviour in such spaces; being put off by the behaviour of other users • cultural experiences: experiences of racism; fear of bullying; presence of dogs; failure to provide for the needs of a mixed community, for example, providing areas where Muslim women can meet away from men • different values: differences in the way people perceive greenspace as a contributing factor to health	• time constraints: competing time pressures and interests (MENE data show that for those who tend not to visit the natural environment, 36% of respondents reported this was because they were "too busy at work" or "too busy at home") • lack of interest (MENE data show that for those not visiting green space regularly, 21% of responses cited "not (being) interested" or "no particular reason") • perceptions of safety, perceiving spaces to be unattractive (for example due to antisocial behaviour, vandalism, litter, poor maintenance, lack of lighting)

Adapted from Improving access to greenspace: 2020 review (publishing.service.gov.uk)

FIGURE 8.65:

Factors influencing access to greenspace for young women in Oxfordshire – findings from the Greenspace & Us community partnership project in East Oxford

Factors influencing **capability** to access greenspace	Factors influencing **opportunity** to access greenspace	Factors influencing **motivation** to access greenspace
•Lack of knowledge of local greenspaces or available activities •Lack confidence to claim a male dominated space	•Competing priorities – school, social life and other activities •Unable/unsafe to get to greenspaces •Lack of attractive and well-maintained greenspaces nearby •Greenspaces lack facilities to meet basic needs of young women •Lack of quiet and protected greenspace for young women to socialise in •Lack of play equipment aimed at older kids and teenagers •Not enough/high cost of outdoor sport clubs for girls	•Desire to participate in a wide range of activities in greenspace •Desire to visit a wider range of greenspaces •Greenspaces are/can feel unsafe for young women •Lack of sense of ownership over local greenspaces and exclusion from democratic processes •Mixed feelings about 'nature' spaces •Awareness of the wellbeing benefits of greenspace and nature •Perception that there is 'nothing to do' in greenspace

Participants in the Greenspace & Us project went on to develop a prototype table and shelter combination, as an example of the type of park furniture that would make them more likely to socialise and study in greenspaces, with a plan for this piece to be professionally built and installed in the East Oxford recreation ground that was the subject of a 'greenspace walkabout' as part of the community engagement.

Other recommendations from this project include:

1. Invest in basic facilities in existing greenspace (clean toilets, water, seating and shelter). Offer opportunities for adventurous and nature-based play suitable **for older children and teenagers**.
2. **Reduce opportunities for anti-social behaviour.** Involve young women in identifying hotspots and potential solutions.
3. **Offer safe, quiet spaces that maintain visibility** for adolescent girls. Ensure adequate funding for free/low-cost women's only activities in green space.
4. Ensure transport and active networks link green spaces with **key places of interest** for young people.

Recommendation: Support community engagement activities to improve the quality of existing green spaces in order to increase use of green space in the population groups known to be at the highest risk from low physical activity levels

8.2.4.3 Workplace environments

Many adults spend a large proportion of their time in the workplace and physical activity has been linked to improved productivity and reduced workplace sickness. Increasing PA achieved whilst at, or travelling to and from, work provides a key opportunity for increasing physical activity levels in adults. This is backed up by community insights gathered from the Leys highlighting that work was in some cases the main source of PA for residents.

There are a number of toolkits and accreditation schemes available to businesses to support the wellbeing of their employees, such as the WorkPlace Wellbeing Charter and Business in the Community toolkits, and related NICE Guidance. These include recommendations on how to create a healthy workplace policy and supportive workplace cultures and environments (see Figure 8.66). A 2018 Cochrane review of interventions to reduce sedentary behaviour at work identified sit-stand desks as being effective at reducing sitting time (by 84-116 minutes per day in the first year of use, though effects are anticipated to reduce with time). It also identified several studies that had found positive effects on total sedentary time at work from a range of interventions - however the review deemed that there was insufficient evidence currently available to recommend their use due to the small size of these studies and the types of study design used.

Interventions that aim to influence PA levels within the workday need to be relevant to employees' specific job role (for example office-based jobs versus routine manual-type jobs) although schemes to facilitate and increase use of active travel have potential to benefit employees across different job roles.

NICE guidelines recommend that local authorities especially prioritise working with small and medium-sized enterprises which employ 98-99% of the workforce and with enterprises where a high proportion of employees are sedentary or from a disadvantaged background.

Recommendation: Consider the added value a workplace wellbeing programme for Oxfordshire could contribute to improving healthy eating and increasing physical activity (as well as other health promoting behaviours such as smoking)

8.2.5 PA Prevent: Make healthy behaviours more social and attractive

8.2.5.1 Participation in active recreational activities in Oxfordshire

Engaging in active recreation was a factor that was frequently mentioned by residents across community engagement projects as supporting them to maintain a healthy weight. Active recreation encompasses not only sports but also any form of active leisure including walking or cycling for leisure and activities such as dancing, attending exercise classes and play (see Figure 8.33).

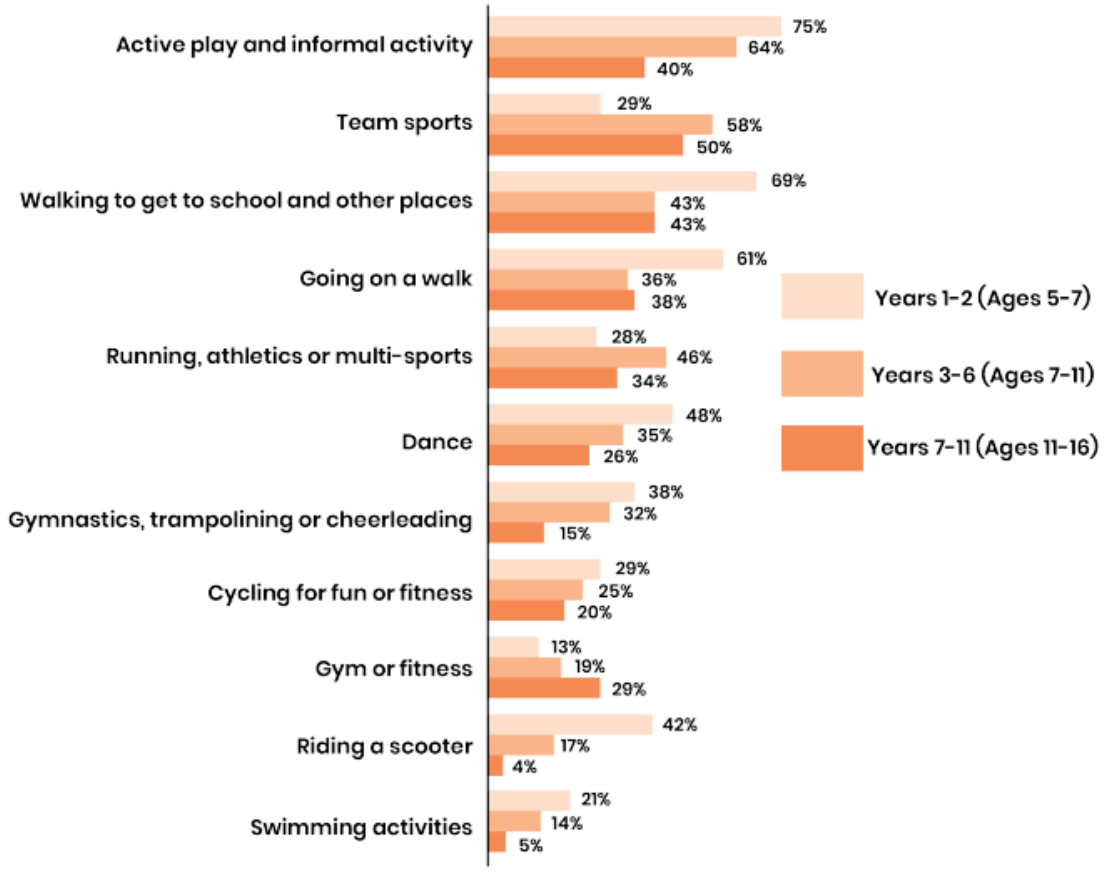
Amongst children in Years 1-2 in England, participation is highest for active play and informal activities (for example kicking a ball about or playing tag), walking for travel and for leisure, dancing and riding a scooter. Through Years 3 to 11, participation in team sports and gym and fitness increases, though participation in many other popular activities decreases.

In adults, walking for leisure is by far the most commonly reported activity with approximately 50% of adults reporting participation at least twice in the last 28 days (Figure 8.68). Note the Active Lives Survey collects information on frequency of participation but not duration so it is not possible to assess the contribution of activities of differing intensities towards meeting the national recommendations). Activities with the next highest levels of participation (10-20% participating at least twice in the last 28 days) tend to be non-competitive individual or group activities (fitness classes, running or jogging, cycling for leisure, using the gym, yoga/pilates and swimming), followed by dance (8%), team sports (7%) and racket sports (7%). In 2020/21, the most recent year for which data are available, participation in outdoor activities (walking for leisure, informal activities and active play) was higher than in May 2019 whilst participation in indoor activities (fitness classes, gym sessions, racket sports, dance and swimming) was lower - potentially reflecting shifts in behaviour as a result of the Covid-19 pandemic, either temporary or potentially longer term.

In those with lower socioeconomic status (as classified by occupation type) and amongst those living with a disability or long-term health condition, participation tended to be lower across all activities examined, although relative participation by activity type was similar. By contrast, differences in levels of relative participation in recreational activities by gender and ethnicity suggests that activity preferences may differ between these population subgroups. National data show levels of participation are higher in women for walking for leisure, fitness classes, pilates and yoga, dancing, and higher participation amongst men in team sports, football, running and jogging and recreational cycling (Active Lives Survey, 2020-21). With respect to differential activity participation by ethnicity, the biggest difference observed was the much lower participation in recreational walking and cycling in those from non-White ethnicities compared to those of White or mixed ethnicities. For those of Black ethnicity, participation in team sports and dancing were relatively high when compared to participation levels amongst those of White ethnicity.

FIGURE 8.67:

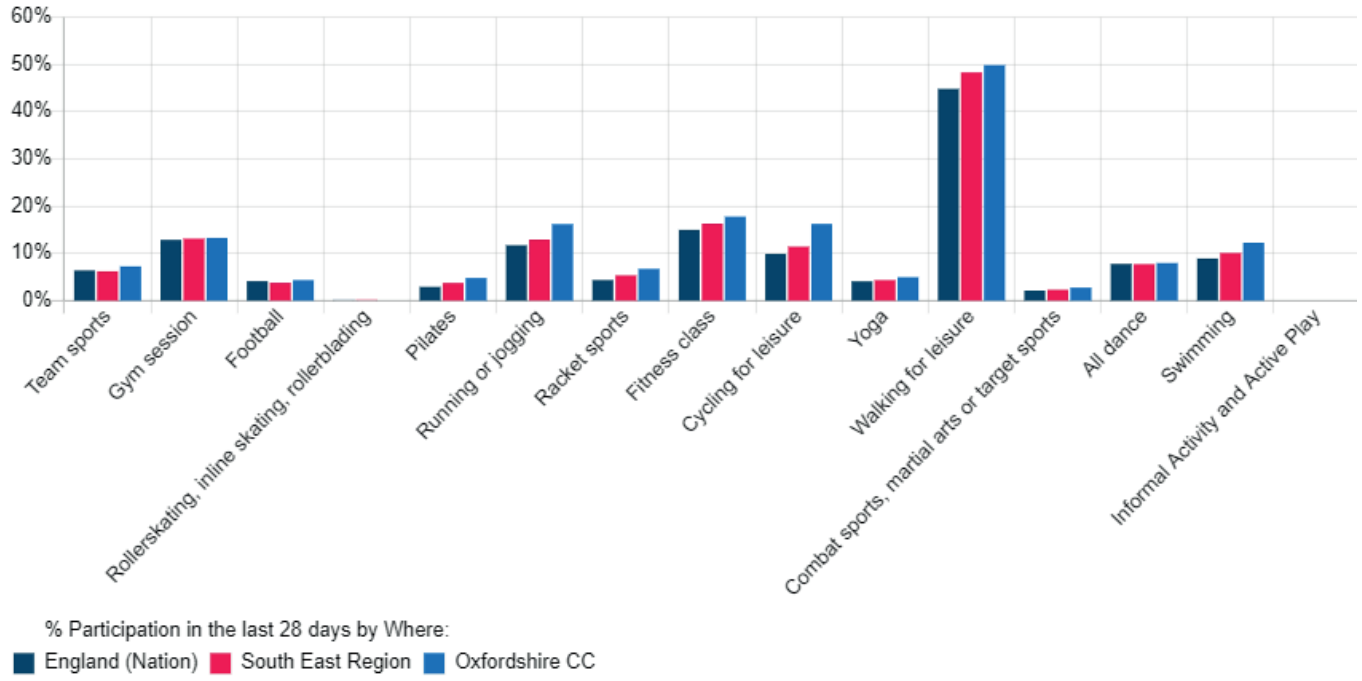
Activities taken part in over the last week (self-reported) for children (5-16 years) in England



Source: Active Lives Children and Young People Survey Academic Year 2020-21 Report

FIGURE 8.68:

Activities taken part in over the last week (self-reported) for adults (16+) - in May 2019-20



Note: Participation was defined as having taken part in an activity at least twice in the last 28 days.

Source: Active Lives Survey (Adults 16+) 2020-21

In summary, these data suggest high engagement in recreational walking and cycling in Oxfordshire and in non-sporting activities amongst adults (although team sports and football are popular amongst men). Differences are seen in levels of participation in different activity types by gender and ethnicity (though not for socioeconomic status or disability status) which may represent differences in preferences for different activities in these groups. However, whilst participation provides some indication of preference (or motivation in the COM-B model), it is also likely to be influenced by other factors in the COM-B model including capability (for example ability to participate due to having a comparable skill level to peers), opportunity (for example availability, cost and accessibility of activities and social norms for the types of activities performed at different life stages or by different social groups).

8.2.5.2 Facilitators, barriers, and risks to active recreation

In Oxfordshire's community engagement, residents identified a number of supportive factors and barriers to engaging in active recreation which predominantly fell in the physical opportunity, social opportunity and reflective motivation segments of the Behaviour Change Wheel.

With respect to **physical opportunity**, the cost of recreational activities, the limited range of activities available (perceived to not be inclusive for many population groups including parents, teenagers, adults without children, women preferring single-sex activities, older people, lower impact type activities) and at limited times were the most commonly cited barriers. In line with this, OHID identifies providing activities at times suitable for parents with older children as well as those with babies, providing affordable childcare facilities (such as a creche) and ensuring locations used are breastfeeding friendly as important factors for enabling pregnant women and parents with babies and children to participate in active recreation.

These findings are consistent with those from West Oxfordshire District council's Youth Needs Assessment (2022) where parents and young people were most likely to cite limited availability of activities locally and distance to activities as barriers preventing young people from accessing the activities they wanted to participate in. Ability to recruit staff was cited as a limiting factor to providing more swimming sessions in the Leys. The ability to easily access information on what activities are available sorted by age group and other criteria (such as accessibility) was also raised as an issue. Whilst residents appeared to be aware of what greenspace was available, researchers carrying out the community engagement perceived that usage appeared to be low - though this was not measured formally, nor the underlying reasons explored in more depth during conversations with residents.

For **social opportunity** and **reflective motivation factors**, supportive factors included:

- participating in activities with other people, whether family, friends or strangers as part of a group activity
- being able to find an activity which they enjoyed
- being motivated by the mental wellbeing benefits the received from participating in activities

Barriers in these areas included:

- viewing PA as only including high intensity activities
- not feeling safe

Other factors identified by residents are described in greater detail in Appendix 11.11.

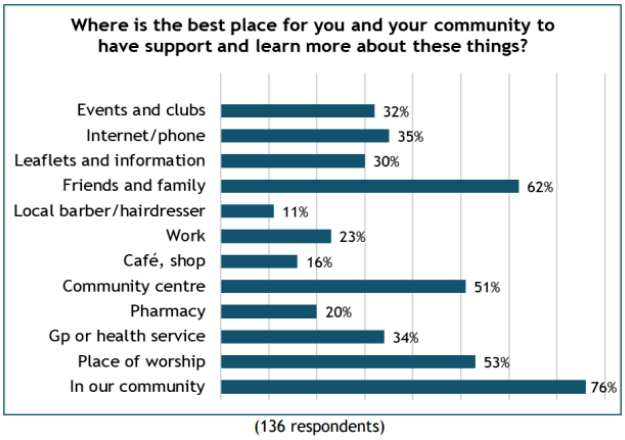
This suggests efforts to increase participation in active recreation should aim to:

- Support residents to find activities that they enjoy. This includes supporting provision of activities in line with adults' and children and young people's preferences, with consideration of potential differences in interests based on gender and ethnicity, for example through use of data from West Oxfordshire District Council's Youth Needs Assessment (2022)
- Improve access to information on what activities are available
- To help combat distance as a barrier to accessing activities, support children and young people to develop their capability for independent mobility (to travel to activities without adult supervision, ideally using active modes of travel) and facilitate activities to be provided through more locations

Recent Healthwatch Oxfordshire surveys have asked some population subgroups about their preferred routes for receiving information on issues relating to improving their health and wellbeing. Residents from Black, Asian and Minority Ethnic backgrounds were most likely to report seeking information from within their community (including community centres and places of worship) and from family and friends (Figure 8.69). In a smaller survey of Asian women, they identified that they would look to their GP for lifestyle behaviour advice.

FIGURE 8.69:

Sources of information residents look to for advice on improving their health



Source: Healthwatch survey of residents from Black, Asian or ethnic minority backgrounds, May 2019

Underway in Oxfordshire

With respect to sources of information about what activities are available, the Go Active website, curated by Active Oxfordshire, collates information on the physical activity offer across Oxfordshire including information on activities, groups, and walking and cycling routes. It also provides signposting to physical activity programs including Move Together and the Go Active Get Healthy Diabetes programme (for residents with Type 2 Diabetes). The Live Well Oxfordshire website, looked after by OCC, provides information on a wide range of resources, activities and services for adults in Oxfordshire including those relating to physical activity that can be filtered by age/population group, postcode area, accessibility and day of the week.

In recognition of the fact that 71% of indoor sports halls are owned by educational establishments, the Opening School Activities Scheme seeks to open up school owned facilities outside of school hours for community use on the basis that they are trusted, safe and accessible spaces. In Oxfordshire, Active Oxfordshire is working with 16 schools in the North Oxfordshire Schools Partnership to progress work in this area with funding from the Department of Education.

For those living with long-term health conditions such as Type 2 diabetes, Move Together is a pilot of a county-wide pathway into physical activity which provides support, advice and guidance. This includes signposting to local opportunities for physical activities, apps and other online resources to support PA including an activity tracker and online activity classes.

Recommendation: Use and expand upon existing evidence from community engagement with residents to ensure the active recreation offer in Oxfordshire aligns with activity preferences across different age groups

Recommendation: Ensure information about programmes that support physical activity (including what activities are available), healthy diet and weight support services, is promoted to the public and partners working with those at the greatest risk from excess weight

9 Supporting those who live with excess weight

9.1 National recommendations and guidance on weight management service provision

9.1.1 Guidelines on recommended adult and childrens' weight management services

NICE recommend that multicomponent interventions (ones that aim to increase physical activity and reduce inactivity alongside improving diets and reducing energy intake and which include use of behaviour change strategies) are provided to support weight management. Examples of behaviour change strategies include stimulus control, self-monitoring, ensuring social support, relapse prevention and strategies for dealing with weight regain.

Adult weight management services are delivered through a four-tiered approach, where differing levels of support are offered at each tier:

Tier 1: Universal-based prevention and early intervention initiatives

Tier 2: Self-help, community and primary care-based programmes

Tier 3: Specialist services for individuals who are not making progress at Tier 2 or who have an urgent health need to lose weight

Tier 4: Bariatric surgery

Indications for referral to Tier 3 services may include:

- If specialist interventions, drug treatment or surgery are being considered
- If Tier 2 treatment has been unsuccessful
- For those with complex or specialist needs not adequately met in Tier 2 (for example people with learning disabilities or other additional support needs)

Referral for Tier 4 (bariatric surgery) includes consideration of BMI-based criteria, lack of success after trying all appropriate non-surgical measures (including those offered under Tier 3) and commitment to long term follow-up.

National guidelines include recommendations not only on programme content but also on using a Making every contact count (MECC) approach to increase referrals into services and on ensuring support is provided after the end of the programmes. A summary of the recommendations, focussing on these elements in particular, is included in Appendix 11.12.

9.1.2 Guidelines on recommended weight management services for specific groups

9.1.2.1 Supporting healthy weight in those with additional support needs

Previously we have identified increased levels of excess weight in individuals with Learning Disability. National guidance specifically relating to supporting children and young people with a LD with their weight are summarised in the box below.

Weight management services for those with additional support needs

Recommended pathways:

- Services for children with special needs or disabilities may be provided through a specific programme or by making reasonable adaptations to mainstream programmes with close working with Tier 3 specialist weight management services
- Reciprocal support from peers without disabilities is effective at encouraging exercise participation

Referrals into program:

- Ensure health professionals involved in annual health checks are skilled and feel confident with having sensitive discussions about weight

Programme content:

- Programmes should promote healthy diets and physical activity as the most important elements to achieving and maintaining a healthy weight, as with weight management services for other groups
- An individualised multicomponent approach is beneficial
- Potential programme adjustments that may be needed:
  - Use of different methods of 'adiposity' measurement where BMI is not appropriate due to atypical body shape or problems relating to chronic constipation
  - Have a greater emphasis on increasing self-awareness of excess weight as this appears to be lower in young people living with disabilities or additional support needs
  - Support with understanding the benefits of exercise to their health (a range of accessible information resources are available from Obesity and weight management for people with learning disabilities: guidance - GOV.UK (www.gov.uk))
  - Consider what changes are feasible and acceptable for individuals who may face greater challenges with respect to transport, risk assessment, immobility, illness and financial constraints
  - Involve family and paid carers and support them to encourage healthy behaviours and ideally role model these behaviours. Consider dilemmas faced by family or paid carers relating to balancing autonomy, duty of care and best interest decisions

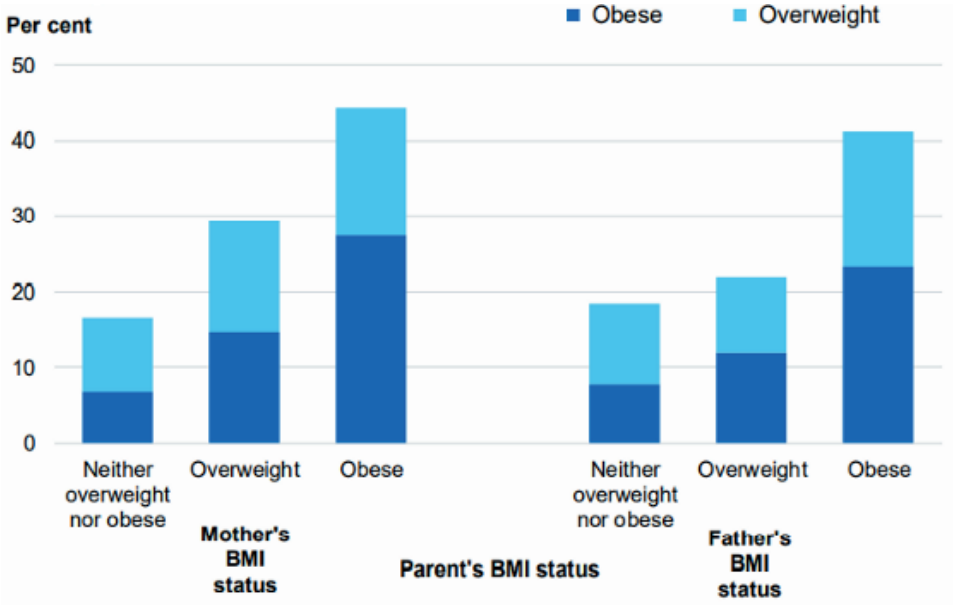
Different local authorities have used a mix of dedicated service models (specifically for participants with LD) and integrated service models (some examples include Weight Management Support for people with Learning Disabilities in Birmingham and Brighton (beezeebodies.com), Free weight management sessions for learning disabled adults (learningdisabilitytoday.co.uk)).

9.1.2.2 Supporting a healthy weight before, during and after pregnancy

Women living with excess weight when they become pregnant face greater risks to their health during pregnancy and childbirth (including for gestational diabetes, gestational hypertension, pre-eclampsia, congenital abnormalities, having a large-for-gestational-age baby, maternal death, miscarriage and stillbirth). Children's BMI is also observed to be closely related to parental BMI, both for mothers and fathers. Amongst children of mothers living with obesity 27% were affected by obesity, compared to 7% of children of mothers with a healthy weight, meanwhile 23% of children of fathers living with obesity were affected by obesity compared to 8% for children of fathers in a healthy weight category (Figure 9.1). Potential explanations may include a causal relationship or exposure to common barriers to healthy weight (for example from a shared neighbourhood retail food environment). National guidance identifies addressing maternal obesity as a high impact area for supporting healthy weight in childhood and research evidence suggests that interventions targetting both parents could be more effective than interventions only targeting an individual parent.

FIGURE 9.1:

Prevalence of excess weight in children by parental BMI status



Analysis based on data from 2019, the most recent year for which data are available.

Source: Health Survey for England, 2019

Guidance from NICE and OHID differ in terms of whether they recommend that pregnant women are offered programmes centred around weight management support or which focus on promoting healthy-weight-supporting behaviours only (Figure 9.2). However, both recommend that weight management support is offered to women during their contacts with community pharmacies and family planning services antenatally and with healthcare services postnatally (see Figure 9.3). Contact points during the early years period may provide additional opportunities for taking a MECC approach with parents before women become pregnant again.

FIGURE 9.2:

Considerations with respect to the best timing for weight management support to reduce levels of excess weight in pregnant women

During pregnancy:

OHID recommends that pregnant women living with excess weight should be offered appropriate referral to local Tier 2 weight management support services, describes features recommended for these programmes (see Figure 9.4) and provides examples of good practice which have been implemented in other areas. However, NICE (2010) recommends against offering weight loss programmes during pregnancy due to concerns that these may harm the health of the unborn child and avoids providing any recommendations on target weight gain ranges during pregnancy (citing that increases in body fat are only one of many factors contributing to weight gain during pregnancy and the degree of weight gain is highly variable).

Instead, NICE recommends that during pregnancy, women are supported to increase their engagement in healthy weight-promoting behaviours (with respect to diet and physical activity) rather than focussing on weight-based targets. This includes dispelling pregnancy-related myths in relation to energy needs (which remain stable in the first 6 months and only increase by ~200 calories per day in the last 3 months of pregnancy) and physical activity levels (ensuring women know that they can continue to engage in moderate-intensity PA without risk of harm to her or her baby).

Before pregnancies:

For women to be able to attain a healthier weight at the time of pregnancy, advice to promote healthy weight needs to be received approximately 1-2 years pre-pregnancy. It is estimated that approximately 55% of pregnancies in Britain are planned, women's contacts with community pharmacies and family planning services may therefore be an opportune time for MECC-type interventions. NICE recommends that women who are trying to become pregnant with a BMI of 30 or more should receive information that losing weight could increase their chances of becoming pregnant and be offered a weight-loss support programme involving diet and physical activity components.

In the early postnatal period:

NICE identifies the time after childbirth as a period when women are likely to gain weight and to conceive again: approximately 20% of women with a healthy BMI in their first pregnancy are categorised as overweight or obese in their next pregnancy. Postnatal healthcare contacts and the early years period are therefore important windows of opportunity to intervene in order to reduce the risk that women will enter their next pregnancy with an elevated BMI. NICE recommends that women's weight is discussed at the 6-8 week postnatal check and that women with a pre- or post-pregnancy BMI of 30 or more should be offered a structured weight management programme (at the time or otherwise an appointment made to re-discuss in 6 months' time). However, OHID guidance notes that best timing of referral to a weight management service postnatally will vary between women (a randomised controlled trial offering women access to a commercial weight management programme commencing 8 to 16 weeks postnatally free of charge found that less than half (47%) attended one or more sessions and only 19% completed the recommended minimum 10 or more sessions).

FIGURE 9.3:

Examples of contact points that offer opportunities for healthcare professionals to raise the issue of weight with women before, during and after pregnancy

Before pregnancy

- cervical cancer screening
- sexual health (including contraception) consultations
- community pharmacy when purchasing fertility tests/pregnancy tests
- community family planning service at time of removal of contraceptive device/implant

During pregnancy

- when weighing women at booking or subsequent appointment
- when discussing Healthy Start, the Eatwell Guide or physical activity in midwifery appointments
- when having discussions on place of birth
- antenatal appointments with health visitor

After pregnancy

- health visitor reviews:
  - newborn check
  - 6-week check
  - 3-month check
  - 6 to 9-month check
  - 1-year review
  - 2 to 2.5-year review
- 6 to 8-week GP check
- child immunisations or when weighing child
- breastfeeding support provision
- developmental checks for infant or pre-school children

Pre-existing appointments

- routine medical appointments
- dental appointments

FIGURE 9.4:

Suggestions from OHID guidance on implementation factors to help increase uptake and attendance of maternal/parental weight management services

The service should:

- provide practical information including recipes and opportunities to participate in cooking classes or taste test a range of healthy foods
- provide opportunities for safe physical activities
- provide opportunity to set, monitor and review dietary and physical activity goals
- offer personalised support
- signpost to other community services
- be free at the point of access
- provide social support through encouraging women to invite a family member or friend (to reduce the potential apprehension of attending when they do not know who else is attending)
- provide childcare
- schedule the service to fit with school and nursery drop-off timings (and care of older children)
- use a convenient location with parking and public transport
- offer tea, coffee and healthy refreshments to the women participating
- delivery of the service by experienced professionals who are trained to provide healthy lifestyle advice

9.2 Weight management services in Oxfordshire

9.2.1 Core weight management support offer for children and adults

A number of weight management support services are offered in Oxfordshire (Appendix 11.13). Tier 2 services are predominantly commissioned by Public Health (OCC) and this HNA has identified some potential service additions for key groups such as pregnant women, teenagers and to support individuals with learning disability.

Tier 3 and Tier 4 services are funded by NHSE via the BOB Integrated Care Board. There is a gap in provision of permanent Tier 3 Level Programmes and Tier 4 currently.

All programmes that are in place provided in line with current NICE guidelines (for a summary, see Appendix 11.12) and regularly monitored for compliance

9.2.2 Weight management support offer for specific at-risk groups

The current provider of Tier 2 services in Oxfordshire monitor uptake of weight management services by participants' gender, learning or physical disability status and by residence in an area of higher deprivation status.

For children with complex needs such as learning difficulties and mental health conditions and their families, eligibility for the Tier 2 child weight management programme is assessed on a case-by-case basis. Achieve Oxfordshire are aiming to make their weight management programmes more inclusive for those with learning and physical disabilities including through providing training for practitioners delivering the service to support clients with complex needs and making course materials suitable for a wider range of participants (for example, producing new recipe videos with subtitles and sign language for those with hearing impairments).

In terms of **support provided with promoting healthy behaviours in women during pregnancy**, Are You Ready for Pregnancy is a campaign delivered across the South East region that aims to increase awareness about health during pregnancy and after birth. It includes information on starting pregnancy at a healthy weight, having a healthy diet, taking regular exercise and on breastfeeding.

Recommendation:
a) Ensure support is provided for groups that experience a high prevalence of excess weight where gaps have been identified (including those with learning disabilities, mental health conditions, women peri-pregnancy, young people aged 12-18 years) alongside promoting prevention-orientated approaches in these groups

b) Develop a clear healthy weight care pathway for children and adults across all ages and commissioning bodies

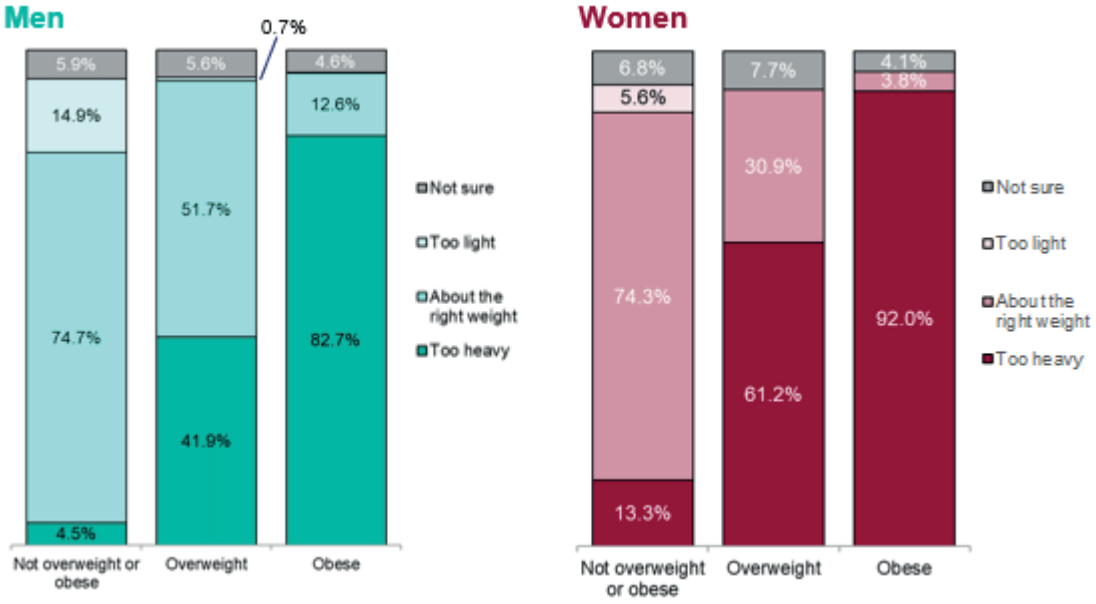
9.2.3 Barriers and facilitators to accessing weight management support in Oxfordshire from community engagement with residents

Community engagement found factors relating to psychological capability and motivation cited as key barriers to losing weight (Appendix 11.14). Residents described how their mental health and experiences of life changing events impacted on their diet and weight. Some expressed fears that their concerns about being 'addicted' to specific less healthy foods would not be taken seriously by healthcare professionals and that they would feel judged when seeking support from healthcare services. The process of trying to lose weight was perceived as stressful in itself. Women from the Leys described experiencing substantial weight change around the time of having children and felt that the difficulties of managing what they were eating alongside caring for young children contributed to this weight gain.

With respect to physical capability, residents described not being aware of where to access information on programmes to support weight loss, perceiving losing weight as an expensive endeavour and that their GP was not aware of alternative options besides commercial weight management programmes. In some cases, self-awareness of excess weight was described as being low (for example in partners or relatives), consistent with findings from national data: results from the Health Survey for England (2016) which asked people to describe their weight status showed that a high proportion of people living with excess weight in England (57% of men living with overweight and 39% of women living with overweight) did not perceive themselves as such or were unsure (Figure 9.5, data for Oxfordshire are not available).

FIGURE 9.5:

Actual versus self-perceived weight status in men and women in England, in 2016



The survey asked people to describe their weight using one of the following options: "too heavy", "about the right weight", "too light" or "not sure". Adults included people aged 16+. Due to rounding, percentages may not sum to 100%.

Source: OHID fingertips report: Patterns and trends in adult obesity

Data source: Health Survey for England, 2016

In terms of supportive environments, participants enrolled in the Thrive Tribe weight management programme pilot noted that the adaptations that had been made to the programme to make it more culturally relevant (both in content and delivery) had helped enable their participation: for example access to single sex sessions was essential for women's attendance to be acceptable to their husbands and other family members. Women were in some cases only able to attend if they could bring children along to sessions and around existing family and cultural commitments, highlighting the need for the programme to allow flexible attendance. Learning from the pilot is being used to improve future iterations of the programme.

Other barriers and facilitators identified by residents are described in greater detail in Appendix 11.13.

Recommendation:

Ensure support is provided for groups that experience a high prevalence of excess weight where gaps have been identified (including those with learning disabilities, women peri-pregnancy, young people aged 12-18 years, mental ill health) alongside promoting prevention-orientated approaches in these groups

Identify brief intervention approaches for excess weight that complement the MECC ('making every contact count') approach.

Identify professional groups who have a high amount of contact with groups at high risk of excess weight with whom to implement the MECC/brief intervention approaches to excess weight, monitoring the effectiveness of training where delivered.

9.3 Supporting conversations about excess weight

9.3.1 Promoting early identification of excess weight

Both NICE and OHID guidance recommend taking a MECC approach to promoting uptake of healthy diets and physical activity to support achievement and maintenance of a healthy weight. Assessment of BMI by health professionals during routine healthcare contacts may help prompt individuals who were not aware of their weight status to recognise the need to reduce their weight to maintain their health and wellbeing. However national primary care patient record data indicate that approximately half (47%) of patients diagnosed with obesity by their GP do not receive signposting or a referral to a lifestyle intervention within two years of their diagnosis, suggesting opportunities for secondary prevention are being missed.

Taking a MECC approach requires that healthcare professionals feel confident to have sensitive conversations with patients and have easy access to up-to-date information on local initiatives that support healthy diets and PA. Guidance is in place to support these conversations. Achieve Oxfordshire offers training sessions on applying a MECC approach to healthy weight for a range of healthcare and voluntary and community sector professionals in Oxfordshire.

Existing opportunities for MECC conversations about excess weight during routine healthcare contacts include:

- Feedback letters sent to parents of children taking part in the NCMP programme
- Pregnant women attending antenatal clinic
- Residents aged 40-74 who are invited for an NHS Health Check once every 5 years
- When residents register with a new GP
- When residents see their GP for a consultation for a related condition
- At annual health checks provided for those with a learning disability aged 14 or over by GP surgeries providing this service under the DES contract

An Enhanced Service specification for weight management is available to GP practices as part of the NHSE GP contract which provides a financial incentive for referring patients appropriately to weight management support services, this aims to encourage use of the MECC approach during routine healthcare consultations. For adults in the 40-74 year age group, measurement of BMI as part of the five-yearly NHS Health Check provides an opportunity to improve self-awareness of weight status and for MECC conversations about healthy weight. Uptake of NHS Health Checks is routinely monitored and an action plan to increase uptake rates in 2022-23 is being implemented by the OCC Public Health team.

Summary of conditions in the GP contract Enhanced Service specification for Weight Management 2022/23:

GP surgeries are required to:

1. develop a supportive environment for healthy weight conversations by ensuring practice and other healthcare staff involved in referral and signposting conversations must have the necessary skills and training on conversational approaches to lifestyle and weight management
2. develop and implement a protocol for the identification and support of patients living with obesity and maintain a GP practice Obesity Register
3. patients on the Obesity Register should undergo assessment of readiness to engage with weight management services and an offer of referral where appropriate

9.3.2 Avoiding perpetuating weight stigma

Negative attitudes towards people living with excess weight are widespread. During community engagement, residents described feeling stigmatised and judged and pressures to lose weight were cited as a source of stress. Common stereotypes identified in the research literature include that those living with excess weight lack self-discipline, are less conscientious, more emotionally unstable, are less competent and less likely to comply with medical treatment. Such perceptions have been observed across the UK population, including in employers, co-workers, teachers, family members, healthcare professionals and in children as young as 3 years.

Weight stigma negatively impacts on the ability to achieve a healthy weight - both at an individual and a population level. In studies of weight management support programs, participants with a stronger belief in weight-related stereotypes achieved less weight loss (as well as lower energy expenditure and higher programme attrition). There is also evidence that weight stigma impacts on individuals' health in more indirect ways for example through affecting the quality of care that patients receive - with doctors spending less time during appointments providing education about health to people living with obesity. A possible reason why weight-related stigma persists in our communities may be a perception that weight stigma could motivate individuals to lose weight. However this is not supported by the research literature: experiencing weight-related teasing or criticism predicts higher prevalence of unhealthy weight control behaviours such as binge eating and negative attitudes towards sports and lower participation in physical activity in children (when compared to children of the same BMI who experienced less teasing). Consistent findings have been reported for adults who experience weight-based stigmatisation with respect to both unhealthy eating behaviours and physical activity.

Underlying weight stigma is an assumption that an individual's weight is largely under their own control rather than acknowledging the influence of biological, socio-economic and environmental factors. This can lead to programmes and initiatives focussing exclusively on increasing individuals' capability (for example through increasing awareness or providing education) whilst ignoring the other components of the COM-B model (such as influencing physical and social environments to enable and incentivise choices that

support a healthy weight) which are also necessary to successfully shift behaviour at the population level. It is vital that services, programmes and messaging aiming to promote healthy weight in Oxfordshire do not unintentionally perpetuate weight stigma. Recommendations on language choices that avoid contributing to weight stigma have been published by a range of national, research and advocacy organisations and are summarised in the box below.

Summary of recommendations for avoiding perpetuating weight stigma:

- Consider word choice (e.g. "excess weight", "unhealthy weight", "overweight", "high BMI" are preferred to terms incorporating "obese")
- Use person-first language: to recognise that people are not defined by a health status but should be respected as people. For example, "the number of people with obesity", "people experiencing obesity", "the woman affected by obesity"
- Avoid language that attributes blame to individuals living with high BMI or infers generalisations about people's health-related behaviour based on their weight
- Where appropriate use positive terminology such as referencing the benefits of having a healthy weight (e.g. the potential to improve quality of life) rather than the potential harm of obesity on health
- Take a solution-focused rather than a problem-focused approach: for example, taking high health needs as an indicator that more investment is needed rather than focussing on the need to bring down the costs of excess weight
- Avoid oversimplifying causes and solutions to obesity in a way that infers losing weight is easy
- Avoid use of stigmatising images
- Avoid use of combative or sensationalist language (which can lead to a sense of panic, frustration and anger) whilst maintaining the seriousness of the impact of the condition
- Avoid use of humour or weight-based stereotypes when referencing individuals with obesity

Sources: NHS England 'Language Matters' guide, Obesity Health Alliance's Weight Stigma - Position Statement (2018), Food Act!ve: Stamping out weight stigma: a checklist for the workforce (2021), Flint SW. 2020. The NHS long-term plan: a comparison of the narrative used for cancer and obesity. The Lancet Diabetes & Endocrinology. 8(5), pp. 355-357, Brown A, Flint SW. Preferences and emotional response to weight-related terminology used by healthcare professionals to describe body weight in people living with overweight and obesity. Clinical Obesity 2021;11.

Recommendation: Ensure policies, strategies, communications, campaigns, and weight support programmes avoid perpetuating weight stigma and use co-production approaches in the design of weight support services.

10 Glossary

ALS Active Lives Survey. A survey of self-reported height and weight data collected from children (for the Active Lives Children and Young People Survey) and adults (Active Lives Adult Survey) in England by Sport England. The ALS relies on self-reported measures that undergo adjustment to correct for self-report related biases and standardisation so that the estimates produced are comparable across local authorities, age groups, trends and levels of deprivation.

CCG Clinical Commissioning Group
CCGs were statutory NHS bodies that were responsible for the planning and commissioning of health care services for their local area, created following the Health and Social Care Act in 2012. In July 2022, all CCGs were replaced by Integrated Care Systems following the Health and Care Act 2022 (with Oxfordshire CCG being replaced by the Buckinghamshire, Oxfordshire, Berkshire West Integrated Care System). Data used in this report still refers to CCGs where it was published pre-transition to ICS. The geographic area covered by the former Oxfordshire NHS CCG was geographically slightly smaller than the Oxfordshire county area, however the numbers of GP registered patients are slightly higher (773,409 compared to 725,200) due to inclusion of patients who live outside the county but use NHS Oxfordshire area GPs and patients who have relocated outside of Oxfordshire but remain registered with a GP within the NHS Oxfordshire area).

Excess weight Excess weight is used to describe accumulation of excess fat that presents a risk to health, encompassing both overweight and obesity. It is used within the report as research suggests that this term is more likely to elicit a neutral emotional response and therefore avoid perpetuating weight stigma.

HSE Health Survey for England. The survey collects nurse measured height and weight from adults aged 16 and over, and children aged 0 to 15, living in private households in England. It aims to be nationally representative. In 2019, measurements were taken from approximately 5000 adults. Given this limited sample size, estimates on excess weight are available at the regional level but not the local authority level. Despite methodological differences between the ALS and HSE, both datasets provide comparable estimates for excess weight across age groups and levels of deprivation.

IMD The Index of Multiple Deprivation
The 2019 English Indices of Deprivation ranks each of England's 32,844 Lower-layer Super Output Areas by deprivation. The IMD is a weighted combination of seven domains of deprivation:

- Income Deprivation (22.5%)
- Employment Deprivation (22.5%)
- Education, Skills and Training Deprivation (13.5%)
- Health Deprivation and Disability (13.5%)
- Crime (9.3%)
- Barriers to Housing and Services (9.3%)
- Living Environment Deprivation (9.3%)

BOB ICB (Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board) ICBs have replaced CCGs as the statutory bodies that are responsible for planning and funding most NHS services in a particular local area as of the passage of the 2022 Health and Care Act.

LSOA Lower-layer Super Output Areas
Small geographic areas with an average of approximately 1,500 residents or 650 households. These were defined by the Office for National Statistics for the reporting of small area statistics and were designed to have a similar population size.

MSOA Middle Super Output Area
MSOAs are made up of groups of LSOAs (typically four or five) and have an average population of 7500 residents or 4000 households. They fit within the boundaries of local authorities. MSOAs are used preferentially over wards in this report as MSOAs are of a similar size and therefore more comparable to each other (whereas wards vary widely in size), their boundaries have for the most part remained consistent over time, hence they are more suited to making comparisons across time (whereas ward boundaries change frequently) and ward-level data tend to be obtained from mapping of data collected at LSOA level to ward boundaries (unlike for MSOAs, LSOAs do not necessarily nestle exactly within ward boundaries) which increases the risk of inaccurate statistics.

NCMP National Child Measurement Programme. Routinely collected surveillance data on height and weight from children attending state-maintained primary schools in England as measured by school nurses. The data collection aims to be nationally representative with data being collected from over one million pupils prior to 2019/2020.

The 2019/20 NCMP data collection stopped in March 2020 when schools were closed due to the coronavirus COVID-19 pandemic. In a usual NCMP collection year, national participation rates are around 95% (over a million) of all eligible children, however in 2019/20 the number of children measured was around 75% of previous years. Estimates of excess weight prevalence at local authority level and geographic areas smaller than local authority level are not as robust given the fewer number of measurements than usual and may be more subject to bias if primary schools with certain characteristics were more likely to stay open than others. Analyses by NHS Digital suggests that national and regional level data is reliable and comparable to previous years however, at the local authority level and below, data identified as not likely to be robust given a lower number of measurements than usual has been withheld from publication and where included in the report is presented as a 3-year average.

The start of the 2020/21 NCMP data collection was delayed due to the COVID-19 pandemic response and local authorities were asked to collect a representative 10% sample of data rather than the full NCMP collection given data collection started so late in the academic year. Approximately 25% of previous full measurement years was sampled. This enabled national and regional estimates of children's weight status to be calculated but is not robust at local authority level.

For the 3 year averages for excess weight prevalence in 2019/20-21/22, OHID used NCMP data from 2018/19 instead of 2020/21. As the local authority-level estimates for 2019/20 are also not as robust as in previous years, where 3 year average data for excess weight prevalence are required within the report, in most places data for 2017/18-2019/20 are used instead as the most recent more robust prevalence data available.

NICE National Institute for Health and Care Excellence

OCC Oxfordshire County Council

OHID Office for Health Improvement and Disparities

Small area level is used in the report to refer to whether data are available for small geographic areas below the county level (for example at the MSOA level).

11 Appendices

11.1 Methods used in community engagement projects with Oxfordshire residents

PressRed and Community insight profile community engagement reports

Oxfordshire County Council's Public Health team commissioned PressRed to work with local partners and communities to gather insights from areas where residents are known to be at the greatest risk of experiencing poor health and health inequalities from excess weight. Areas were prioritised for community engagement projects based on factors including prevalence of childhood obesity, affluence, employment and eligibility of free school meals and prevalence of life limiting illness.

FIGURE 11.1:

Areas and population groups engaged during community engagement projects delivered by PressRed

District	Oxford	Cherwell	Vale of White Horse	South Oxfordshire	West Oxfordshire
Place	Blackbird Leys/ Northfield brook	Banbury - Grimsbury/Ruscote	Abingdon	Berinsfield	Witney
Population groups prioritised	Black African/ Caribbean, Families	Asian/Pakistani, 50+ age group, Families	50+ age group, Families	50 age group+, Families (in progress)	50 age group+, Families (in progress)

The Health Foundation's 'How to talk about the building blocks of health' toolkit was used to provide a framework to support conversations about how wider determinants of health impact on residents' ability to engage in healthy-weight-supporting behaviours. Insights were gathered over 12 months via questionnaires, interviews and focus groups involving over 500 residents and 36 community stakeholders. Findings from these projects have been summarised in the Community Insight Profiles (Community Insight Profiles | Oxfordshire Insight) and PressRed community engagement reports.

FAST Families' Food Survey 2020-21

FAST (Families Active Sporting Together) is a 12-week physical activity programme for less affluent families in Cherwell, discounts are also offered for certain leisure centres and clubs to encourage families to be active together. A survey of families participating in the FAST programme was conducted in 2020-21 using a mix of quantitative questions (for example, "During the last 12 months was there a time when you were unable to eat healthy and nutritious food because of a lack of money or other resources?") and qualitative (blank space) questions. Barriers and facilitators linked to a healthy-weight promoting behaviour were extracted as themes from the responses.

As the survey was conducted during the Covid-19 pandemic, this may have impacted food purchasing behaviours and expressed preferences for activities to help with cooking healthily due to concerns about social mixing or travelling safely. Many families reported eating more food as a result of the Covid-19

pandemic including snacking more in between meals. Asking participants to answer against a list of prespecified options for certain questions may have elicited different responses to those that would have been spontaneously volunteered if qualitative methods had been used and led to certain factors being missed out.

A **Whole Systems Approach Systems Map** was developed in Feb 2022 to capture key themes from a series of workshops with stakeholders from across the healthy weight system that took place between 2020 and 2022. Themes from the map were extracted and incorporated into the summary tables in Appendix 11.6, 11.11 and 11.13.

Themes were also extracted from the **evaluation of the Thrive Tribe pilot programme**, a Tier 2 behavioural weight management programme specifically tailored to residents living in less affluent areas and from ethnic minority groups who are at highest risk of excess weight.

11.2 Strengths and limitations of key data sources used

A summary of strengths and weaknesses of key data sources used in this report are included in the table below. Data sources and their specific limitations, where important to the interpretation of data, are included within the text of the report or as footnotes.

Data type	Examples of data sources used	Examples of strengths and limitations
Quantitative data on healthy weight (for example on the prevalence of excess weight)	National Child Measurement Programme (NCMP) Health Survey for England (HSE) Active Lives Adult Survey (ALS)	National surveys such as the NCMP and HSE use recruitment methods that aim to take measurements from a nationally representative sample of the population. Data on excess weight prevalence are available at the local authority level, however small area data looking at geographic inequalities in excess weight at the MSOA-level are only available for children (via the NCMP) but not for adults (via the HSE or ALS). The NCMP and HSE excess weight prevalence estimates are based on objective measurements of height and weight, taken by a nurse. The Active Lives Survey uses self-reported measurements of height and weight which may be less accurate and also subject to self-reporting biases, however as differences between self-reported and measured height and weight are observed to vary in a systematic way, adjustments are made to self-reported measurements to bring them closer to likely actual height and weight. Data on inequalities in excess weight for certain groups are not available at the county level (including for gender, different types and severity of disabilities, severe mental illness and inclusion health groups).

Data type	Examples of data sources used	Examples of strengths and limitations
Quantitative data on determinants of healthy weight	Maternity Services Dataset, National Diet and Nutrition Survey, Oxwell Student survey Active Lives Children and Young People Survey, Active Lives Adult Survey	Data on breastfeeding come from population statistics routinely collected by midwives and health visitors at early postnatal visits so are likely to be relatively complete. However, they are only available up until 6-8 weeks so rates of continuation of breastfeeding in the longer term are not known. Up-to-date data on inequalities in breastfeeding uptake within Oxfordshire are also not available. For the diet of Oxfordshire residents, only information on fruit and vegetable consumption amongst adults and snacking amongst children are available at the county level which limits our ability to describe diets of residents more fully, particularly with respect to consumption of foods known to be more harmful to health. We also lack quantitative information on dietary behaviours – for example use of home cooking versus purchasing pre-prepared or out-of-home meals and uptake of school meals across Oxfordshire. With respect to physical activity, the Active Lives Surveys aim to use a representative sampling method, and includes questions on active recreation and active travel but not use of green space. Data on geographic inequalities in PA are available at the district level but not for smaller areas within Oxfordshire.

Data type	Examples of data sources used	Examples of strengths and limitations
Insights from Oxfordshire residents (mixed quantitative and qualitative)	PressRed community engagement reports for Abingdon Caldecott, the Leys and Banbury, Community Insight profiles, Healthwatch Oxfordshire surveys, Oxwell Student surveys, Good Food Oxfordshire surveys Collaborative Change community insights project on breastfeeding	Community engagement allows deeper exploration of individual experiences and the 'why' behind the health inequities we observe. Given limited time and resources, only a select number of communities were engaged. Therefore, challenges with respect to maintaining a healthy weight that may be unique to certain groups at high risk of excess weight may not be well represented in the findings (for example, the experiences of parents of pre-school children, or those living with disabilities or severe mental illnesses). Several community insight projects have engaged residents in conversations relating to healthier diets and being more active, this enabled identification of common themes across these projects with respect to barriers and facilitators to heathier diets and active lifestyles (see Appendix 11.6, 11.11). Even so, it does not appear data saturation was reached and it is not possible to assess the relative importance different factors have in terms of influencing residents' lifestyles based on the information collected.
Insights and perspectives from stakeholders such as service providers and Voluntary and Community Sector organisations (qualitative)	PressRed community engagement reports Oxfordshire Healthy Weight Core Working Group (see Appendix 11.3 for membership) Whole Systems Approach to Obesity system workshops occurring between 2020-22	These data are helpful for identifying influencing factors that residents may not be likely to perceive or volunteer themselves (for example as a result of stigma).

Data type	Examples of data sources used	Examples of strengths and limitations
Evidence base for determinants of, and barriers and facilitators to maintenance of, healthy weight and for interventions to address excess weight and support healthy-weight-promoting behaviour	Evidence-based national guidance from OHID, NICE Academic literature (systematic literature reviews, academic papers) Evidence reviews included in third sector reports	Given the large body of published research literature on the subject of addressing excess weight or factors influencing excess weight, only broad overviews of the literature or use of findings from existing syntheses was possible within the current report. This means primary research that has been published more recently (i.e. after the publication of the evidence reviews included in the report) may have been overlooked in the research presented in the report.
Weight Management Services		

11.3 Stakeholders in the Healthy Weight Core Working Group

Organisation	Job Role/Team
Oxfordshire County Council Live well promote and prevent team	Consultant in public health
	Health improvement principal
	Health improvement practitioner
	Public health specialty registrar
Oxfordshire County Council wider public health team	Healthy place shaping team
	Start Well team
	Partnerships and Inequalities team
	Public health intelligence team
Other OCC teams	Early years team
	Education team
	Communications team
Service providers	Active Oxfordshire
	Achieve Oxfordshire
	Good Food Oxfordshire
	North Oxfordshire School Sports Partnership

NHS healthcare	GP
	CCG
	Allied health professional (Health Coach)
	Social prescriber representative from CCG
Academia	Leeds Beckett University
	University of Oxford and University of Heidelberg
	University of Canterbury
	University of Oxford and University of Heidelberg
Oxford Health Information Library and Knowledge Service	LKS Outreach Librarian

11.4 Key national and local strategies and plans relevant to the healthy weight agenda

National strategies and guidance relevant to promoting healthy weight

Year of publication	Document title	Summary of contents/goals
2019	OHID Strategy 2020-25	Targets for 2025: • 20% reduction in levels of sugar in a range of everyday foods consumed by children • 20% reduction in numbers of calories in a range of everyday foods consumed by children • increased consumption of healthy food groups in children • reduced levels of salt in average diets across the population • reduced exposure to polluted air and lower rates of ill health attributable to air pollution • reduced inequalities across key markers of maternal and child health • lower rates of tooth decay and hospital attendances due to preventable accidents and illnesses • improvements in rates of key protective factors linked to better child health outcomes, such as maternal mental health and breastfeeding
2019	OHID guidance: Health matters: whole systems approach to obesity	Building on the understanding from the Foresight Tackling Obesities: Future Choices report that obesity is a complex problem, this guidance document describes the need to take collective action and build on existing community assets in order to have a wider impact across the local system and address inequalities in excess weight. The whole systems approach describes a collaborative approach to solving complex problems through coming together with local stakeholders and communities to develop a shared understanding of the challenge and agree on how to work together as a network to bring about sustainable systems-level change.
2019	DEFRA policy paper: Clean Air Strategy	Halve the number of people living in locations where concentrations of particulate matter are above 10 µg/m3 by 2025 (Shifting towards greater use of active travel for journeys is highly relevant not only to achieving healthy weight goals but also clean air targets.)

Year of publication	Document title	Summary of contents/goals
2018	DHSC guidance: Childhood Obesity - A Plan for Action, part 2	Set national ambition to: • halve childhood obesity by 2030 relative to 2018 levels • significantly reduce the gap in obesity between children from the most and least deprived areas by 2030 • for every primary school to adopt the Daily Mile, or a similar active mile initiative • Increase the percentage of children aged 5-10 years who usually walk to school to 55% in 2025
2016	DHSC guidance: Childhood Obesity - A Plan for Action	Children should be supported to achieve at least 30 minutes of the national children's PA target of 60 minutes of moderate to vigorous physical activity per day whilst in school.
2011	Healthy lives, healthy people	Achieve a sustained downward trend in the level of excess weight in children by 2020 Achieve a downward trend in the level of excess weight averaged across all adults by 2020
2010	Fair Society, Healthy Lives (The Marmot Review)	Highlighted that income, social deprivation and ethnicity have important impacts on the risk of becoming obese.
2008	Healthy weight, healthy lives	Reduce the proportion of obese children to levels seen in 2000 by 2020
2007	Foresight project: Tackling obesities: future choices report	System causal maps demonstrate how the individual and socioenvironmental determinants of food intake, physical activity and breastfeeding interact in complex ways to influence the maintenance of healthy weight.

Local strategies relevant to promoting healthy weight in Oxfordshire

Year	Title	Key priorities
(Due to be published in 2023)	Physical Activity Framework for Oxfordshire	A strategy identifying the steps needed to ensure every child in Oxfordshire has the potential to achieve the Chief Medical Officer's physical activity target of 60 active minutes every day and learn the skills to swim and ride a bike safely.

Year	Title	Key priorities
2023	Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System Strategy	The ICS strategy identifies reducing the proportion of people who are overweight or obese, especially in our most deprived areas and in younger people, as a key objective under the 'Promote and protect health' theme.
2022	Oxfordshire County Council's Strategic Plan 2022-25	Addressing excess weight will contribute to creating a greener, fairer and healthier county through tackling inequalities in Oxfordshire, improving the health and wellbeing of residents and creating opportunities for children and young people to reach their potential. More details are available from: Our strategic plan 2022 - 2025 | Oxfordshire County Council
2022	Good Oxfordshire Oxfordshire: Oxfordshire Food Strategy	Priority areas within this strategy include: • Improving the quality and sustainability of food offered in schools and by anchor institutions • Developing the local food economy by increasing local food production and supporting development of the local supply chain • Working to prevent food poverty • Supporting people to make healthy and sustainable food choices and community-building through food-related activities.
2021	Good Food Oxford: Food Poverty Action Plan for Oxfordshire	To support the estimated 8-10% of households in Oxfordshire currently experiencing food insecurity.
2020	OxCC's Climate Action Framework	Oxfordshire County Council commits to becoming carbon neutral by 2030 and sets out a plan to achieve net-zero carbon emissions in Oxfordshire by 2050
2019	Oxfordshire Joint Health and Wellbeing Strategy (2018-2023)	Key priorities in this strategy relevant to healthy weight include: • addressing inequalities in childhood obesity, • prevention of illness through promoting healthy weight and physical activity, enabling people to eat healthily across all stages of the life course • promoting independence and mobility in the 75+ age group • creating healthy places and physical environments to encourage health and wellbeing and promote active travel • reduce poor air quality

11.5 Children's contact time with formal and informal childcare providers in the early years (0-5 years)

Over 80% of children aged 3 to 4 years receive formal childcare, median contact hours with a formal childcare setting are approximately 17 hours/week for children aged 0-1 years (based on small numbers, nonetheless this far exceeds the contact hours with healthcare professionals as part of the routine postnatal care schedule), 22 hours/week for pre-school children and 3.5 hours/week for school-age children (Figure 11.2, data for England, source: Childcare and Early Years Survey of Parents, collated July 2021 and April 2022).

FIGURE 11.2:

Hours of childcare used per week by age of child in England, 2021

Type of childcare used:	Median hours of childcare received by children, per week, by age of child										
	0	1	2	3	4	All pre-school children	5–7	8–11	12–14	All school-age children	All
Any childcare	[10.7]	22.0	21.0	24.0	30.1	25.0	8.3	4.8	4.0	5.0	10.0
Formal childcare	[17.4]	18	17	18.7	30	22.0	6.5	3.0	2.5	3.5	9.0
Informal childcare	[6.5]	14.8	10.6	10	5.6	9.0	6.0	5.9	4.0	5.0	6.6

Source: Childcare and early years survey of parents 2021, adapted from Table 1.67. Link: Childcare and early years survey of parents, Reporting Year 2021 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

FIGURE 11.3:

Use of childcare providers for children across different age groups

	Proportion of children receiving childcare from the provider (%)									
	Age (years)									
	0	1	2	3	4	All pre-school children	5–7	8–11	12–14	All school aged children
Children receiving no formal or informal childcare	79	46	33	15	12	32	39	46	61	48
Any childcare	21	54	67	85	88	68	61	54	39	52
Formal providers	7	32	57	81	86	59	50	40	25	39
Nursery school	2	11	20	27	17	17	*	0	0	*

	Proportion of children receiving childcare from the provider (%)									
	Age (years)									
	0	1	2	3	4	All pre-school children	5–7	8–11	12–14	All school aged children
Nursery class attached to a primary or infants' school	1	*	3	19	11	8	1	0	0	*
Reception class	0	0	0	0	45	11	15	0	0	5
Day nursery	1	16	22	18	7	13	*	0	0	*
Playgroup or pre-school	1	1	6	13	3	6	0	*	0	*
Breakfast club	0	0	0	0	5	1	8	9	1	6
After-school club or activity	*	1	1	3	11	4	31	34	24	30
Childminder	*	4	6	7	4	4	2	2	*	2
Nanny or au pair	*	*	*	*	2	1	1	*	*	*
Informal providers	**16**	**35**	**30**	**28**	**22**	**27**	**22**	**22**	**15**	**20**
Grandparent	14	33	27	25	20	24	17	15	9	14
Older sibling	0	*	*	*	*	*	1	2	4	3
Another relative	3	2	3	4	2	3	2	3	2	2
Friend or neighbour	1	1	1	1	1	1	2	4	2	3

Note: The use of an asterisk in the table denotes a percentage value of less than 0.5 but greater than zero. Highlighting indicates settings with higher proportional attendance by children in particular age ranges.

Source: Childcare and early years survey of parents 2021, adapted from Table 1.6

For children aged 0 to 4 years, the formal childcare setting types attended by the highest proportion of children were nursery schools and day nurseries followed by nurseries attached to a primary school and playgroup or preschool settings. Whilst Reception attendance is relatively high (45%), programmes targetting this setting would only influence children once they reached 4 years of age. For school-aged children, after school clubs are the predominant source of formal childcare (with 30% of children attending) with a smaller contribution from breakfast clubs (6%).

With respect to informal childcare, care from grandparents predominates across all age groups between 0 to 14 years suggesting the importance of involving grandparents in family-based interventions to promote healthy weight.

The most common reasons for using childcare were for economic reasons (to work, look for work or study, 71%) and child-related reasons (for educational or social development or because the child likes attending, 61%), with parental time-related reasons being less frequently reported (so parents can conduct domestic

activities, socialise or look after other children, 20%). The proportion of children receiving formal childcare shows associations with families' work status and income and the deprivation of the local area (Figure 11.6). Children are more likely to receive formal childcare in dual-working couple families (54%) or working lone-parent families (42%) than in non-working couple (22%) or lone-parent families (30%). Children in families earning under £20,000 (30-32%) were less likely to receive formal childcare compared to in families earning £45,000 or more (54%) and children living in the most deprived areas (35%) were less likely to receive formal childcare than those in the least deprived areas (56%).

Prioritisation of childcare settings to work with may be influenced by factors such as the number of children settings cater for, contact in and out of term time and settings' existing interest and engagement in wider system leadership. With respect to collaboration with specific providers, on average maintained nursery schools offer ~100 places, compared to ~50 for private group-based providers and 32-25 for voluntary group-based providers and nurseries attached to a school (Figure 11.4). However, group-based providers are more likely to be a part of a chain (38% of private group-based providers and 10% of voluntary group-based providers) compared to school-based providers (1%, either in partnership with other schools or with formal involvement from voluntary, community or private sector providers).

With respect to formal childcare provision out of term time, the majority of private group-based providers (77%) and childminders (90%) are open, compared to much lower proportions of voluntary group-based providers (23%) or school-based providers (5%). Meanwhile maintained nursery schools are by far the providers most likely to be involved in system leadership (42% compared to 11% or less for other childcare providers, Figure 11.5).

FIGURE 11.4:
Mean number of Ofsted-registered childcare places per provider in England

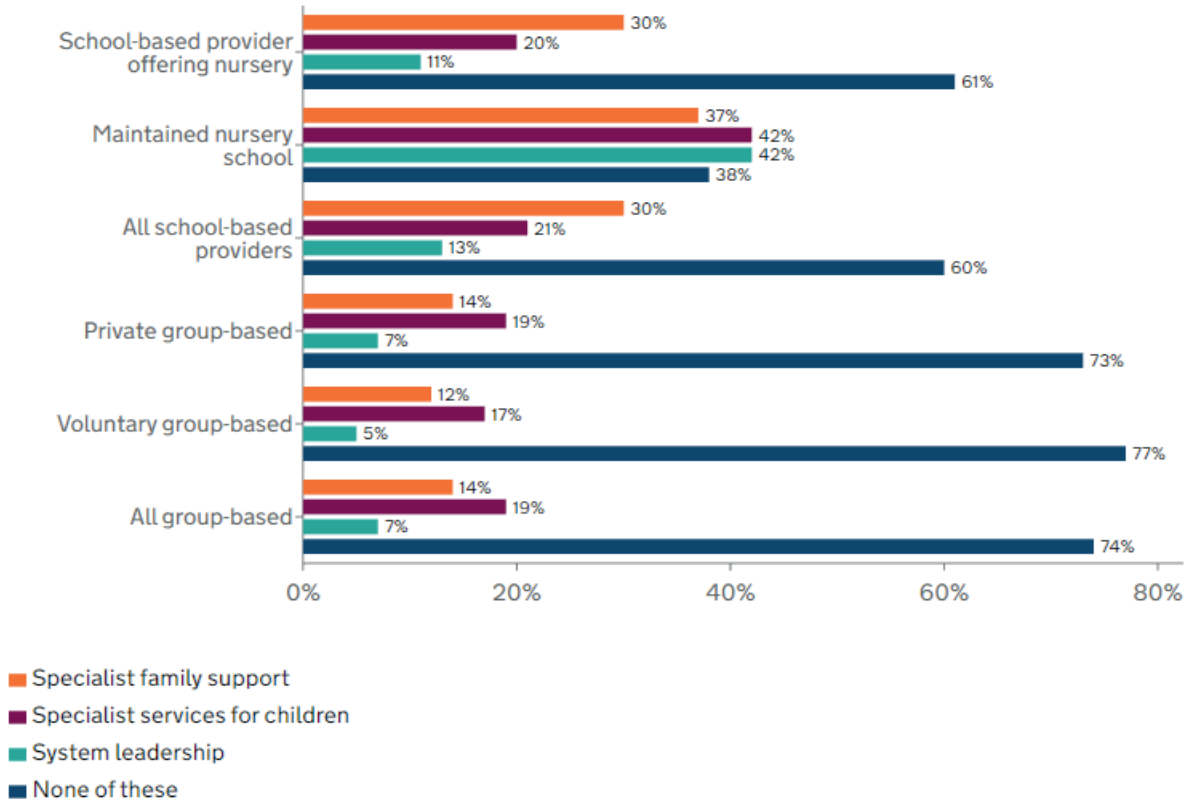
	2018	2019	2021	2022
All school-based providers:	39	37	38	35
School-based providers offering nursery	36	34	35	32
Maintained nursery schools *(maintained school for children in their early years with a teacher present)*	94	97	102	95
All group-based providers	45	46	47	48
Private group-based providers *(including independent schools offering nursery provision and employer-run childcare for employees)*	51	53	53	55
Voluntary group-based providers *(including community group, charity or religious group arranged provision)*	35	35	37	35
Childminders	6	6	6	6

Note: Definitions for voluntary, private and 'other' group-based providers changed between 2021 and 2022 so places per setting for providers in these categories should not be compared across years.

Source: Childcare and early years provider survey, 2022 Link: Childcare and early years provider survey, Reporting Year 2022 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

FIGURE 11.5:

Proportion of providers offering other services beyond childcare



Source: Childcare and early years provider survey, 2022 Link: Childcare and early years provider survey, Reporting Year 2022 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

FIGURE 11.6:

Use of childcare by family and area characteristics

	Use of childcare		
Family and area characteristics	% Any childcare	% Formal childcare	% Informal childcare
All	**57**	**44**	**22**
South East	57	45	18
Family work status			
Couple – both working	66	54	27
Couple – one working	43	35	11
Couple – neither working	30	22	7
Lone parent – working	61	42	30
Lone parent – not working	39	30	12

	Use of childcare		
Family and area characteristics	% Any childcare	% Formal childcare	% Informal childcare
Area deprivation			
1stquintile – most deprived	47	35	18
2ndquintile	54	40	21
3rdquintile	58	46	23
4thquintile	59	48	22
5thquintile – least deprived	68	56	26
Family annual income			
Under £10,000	46	30	17
£10,000 £19,999	44	32	16
£20,000 £29,999	50	38	19
£30,000 £44,999	56	41	25
£45,000+	69	57	27
Rurality			
Rural	62	47	26
Urban	56	44	21

Source: Childcare and early years survey of parents 2021, adapted from Table 1.3

In Oxfordshire, there are eight Children and Family Centres owned by OCC, however some additional children's centres and family groups, including some supporting children with the highest needs or vulnerability, are provided through the voluntary and community sector, for example by organisations such as Home Start.

11.6 Summary of factors relevant to healthy diets from OCC community engagement work

Factors that were described in one or more of the areas that OCC has engaged as part of its community engagement projects are listed below against the behavioural components within the COM-B model (for information on methods used to collect community engagement, see Appendix 11.1). A colour key is included to indicate which project(s) the insight was identified from to provide an indication of applicability of the factor across multiple areas and population groups in Oxfordshire.

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resid-ents' perspect-ives	**Needing to come up with ideas on what to cook** •• **Transport** to and from shops with young children • **Difficulties with identifying healthy and unhealthy foods at shops and when eating out** • **Information on how to** understand food labelling helpful • **Lack of equipment** e.g. a freezer •	**Limited time** for food shopping, planning meals and cooking, plan needed for low energy days or when it is too late to cook •••• **Lack of money makes meal planning hard** • And means priority is to eat something rather than eating healthily • Difficult to meet **preferences of whole family with one meal** •••• **Parents' feel pressured to purchase foods which their children request** • Women prioritise **needs of family over their own needs** •• Perception that **if you are active, you can 'eat what you want'** •	**Stigma and stress** from **social pressure to lose weight** • Living with overweight has become **normalised** • **Unhealthy habits become normalised when you see others** eating at less healthy food outlets • Drinking alcohol is the social norm • **Stigma** a barrier to accessing the community larder, particularly in some ethnic groups • Children's desire to eat out influenced by social trends and friends, children place pressure on parents to eat out • Friends and family members can help support healthy eating habits • Individuals' families and parents are resistant to change •	**Cost (and availability of promotions) is the key factor when deciding what to eat and where to shop**. Rising cost of living is a major source of stress. •••• Ready meals perceived to be cheaper than preparing the same food from scratch • **Fresh produce from local convenience shops is often expensive and availability unreliable** due to short shelf life (though collaborations between local stores and supermarket chains can improve provision) •• **Distance to larger supermarkets selling affordable healthier foods** is a challenge for residents without a car due to poor public transport provision and environmental barriers to walking (challenges in areas with low perceived safety, time required).	Food used as a **reward** for children •••, as an intrinsically **enjoyable** activity (e.g. snacking) ••, to aid **relaxation** •, as a **distraction** when bored •• Unhealthy diets used to **cope with poor mental health** (stress, low mood, traumatic life events) • Some described the enjoyment from sugary foods and drinks as **'addictive'** • **Promotions**, especially those that appear to offer good value for money, are highly motivating, to the extent they **are difficult to resist.** • Eating healthily viewed as resting on individuals' willpower. • Eating from food outlets attractive due to the **great variety** of foods they offer. •	Lack of interest in healthier eating • and cooking •• Lack of exposure to healthy eating habits during childhood impacts on ability to eat healthily as an adult • Perceptions of fruit and vegetables being 'boring' foods Perceptions that children do not like eating fruit and vegetables. • Cooking for and eating with other people is motivating ••, though less so when not everybody enjoys it • Being able to cook can give people a sense of pride. • Perusing food available whilst food shopping can be intrinsically enjoyable and provide inspiration for cooking. •

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resid-ents' perspect-ives			In cultures with stronger traditions around what food is eaten, adapting how food is prepared may be more likely to be acceptable • Cultural traditions around parents welcoming children home with sugary snacks • Familial values to **'finish everything on your plate'**. • **Differing work schedules** pose a challenge to eating together as a family. • Workplace **lunch breaks too short** to eat 'proper food' •	Delivery services can help improve access to larger supermarkets. •• **High exposure to unhealthy food outlets in residential neighbourhoods and low availability of healthy out-of-home options** • **Advertising from unhealthy food outlets, through social media, text messaging, increases exposure to these outlets** • Need for food to be **culturally relevant** means access to culturally relevant foods may look different from overall access to healthy foods locally • Lack of options to buy fresh food in smaller quantities a barrier due to concerns about food wastage •	Increased exposure to/ constant availability of unhealthy food **leads to increased temptation** and consumption - including in the home (when larger quantities are purchased on promotion), at work, in the residential neighbourhood •• **Overbuying due to promotions leads to higher consumption** rather than consumption being spread over a longer period as intended • Parents struggle to monitor consumption when snacks are available in the home • Increased exposure to unhealthy food through advertising contributes to temptation •• Occasional consumption of unhealthy foods **unconsciously develops into unhealthy routines** (especially in the face of high exposure and social norms) which are difficult to break. ••	Motivation to eat better can be higher at certain time periods e.g. when weaning children or after an acute illness • **Low cost, convenience and saving time are motivators for the consumption** of fast food, snacks and ready meals •• Judgement - residents do not want to 'feel lectured' about eating more healthily • Perceptions that food on promotion offers better value for money, which can influence choice of store as well as choice of product. Unhealthy foods more likely to be on promotion. •

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Stake-holders' perspect-ives	Low cooking skills •		Family members contribute to normalising unhealthy eating patterns • Pressures to achieve social recognition can influence decision to prioritise spending on other things over eating healthily • Stigma is a barrier to uptake of free school meals •			

Key:

- • Abingdon Caldecott community engagement PressRed report and Community Insight Profiles report
- • The Leys community engagement PressRed report and Community Insight Profiles report
- • Banbury community engagement PressRed report
- • FAST families' food survey 2020-21
- • Summary Systems Map from Whole Systems Approach to Obesity stakeholder workshops (2020-2022)
- • Tier 2 BAME weight management service pilot

11.7 Literature review investigating the relationship between the retail food environment and healthier eating or weight

Completed by Bethany Ferris with oversight from Yaolin Zheng, November 2022

Summary of findings and implications:

This rapid literature review on the relationship between built food environment and healthier diets or obesity prevalence found the majority of associations were null or mixed though there was however some evidence of associations with higher childhood BMI for:

- higher fast-food outlet exposure (using count/density or proximity measures) around schools
- higher convenience store count/density around homes and schools
- lower density of supermarkets around homes and schools

Amongst adults, there was some evidence to support an association between higher residential neighbourhood fast-food exposure and higher BMI.

The high degree of inconsistency in identification of associations may reflect use of different metrics (for example proximity- versus density-related measures versus composite food environment indices that take the relative availability of healthy and unhealthy food outlets into consideration), more or less accurate classification of outlets by the type of food they sell or quality of available studies (for example use of cross-sectional studies that cannot investigate temporality). Few research studies take into account the full range of environments that individuals are exposed to when investigating determinants or designing interventions - instead focussing solely on for example the school or residential neighbourhood - given the influences on weight are multifactorial, the contribution of a single food environmental context to weight may be relatively small and thus easily missed (The relationship of the local food environment with obesity: A systematic review of methods, study quality, and results - Cobb - 2015 - Obesity - Wiley Online Library, The built and social neighborhood environment and child obesity: A systematic review of longitudinal studies - ScienceDirect, The impact of the consumer and neighbourhood food environment on dietary intake and obesity-related outcomes: A systematic review of causal impact studies - PMC (nih.gov)).

The first explanation listed above was investigated by Wilkins et al. (2019) who found that use of different outlet classifications, buffer definitions, and types of metric (count, density and relative ratio of different types of outlet) had a substantive impact on the direction and shape of associations identified between aspects of food environment and obesity as well as their statistical significance. The measures of the retail food environment that showed dose-response relationships with BMI were “fast food outlets/(fast food outlets + restaurants)” and “fast food outlets/total outlets” (postcode areas with a high measure on this metric were associated with a higher BMI amongst residents in that area), whilst other measures showed U-shaped associations or no evidence of an association with BMI. A summary of findings from this study is included in Appendix 11.8.

Methods: A literature review was conducted on Embase limiting the results to ‘Systematic Reviews’ and using the following search terms:

“obesity” OR “BMI” OR “body mass index” OR “weight” OR “overweight” OR “adiposity” 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 “fast food restaurant” OR “supermarket” OR “healthy food outlet” OR “unhealthy food outlet” OR “grocery store”

123 articles were retrieved and 15 were included in the synthesis. Studies were excluded where they were not relevant to the research question or were conducted in low or low-middle income countries or indigenous populations. Conference abstracts and protocols were also excluded.

Results: Overall, the results were null or inconsistent for an association between aspects of the food environment and childhood and adult BMI. In children, there was some evidence to support a positive association between the following exposures and BMI: presence of grocery or convenience stores around schools, presence of fast-food outlets around schools and count of convenience stores around residential addresses. In children, there was some evidence to support a negative association between the following exposures and BMI: count of fruit and vegetable markets and presence of supermarkets around residential addresses. There were some examples from individual studies of stronger associations between fast-food availability and higher BMI in girls (but not in boys) and in low-income areas. In adults, the evidence from the identified systematic reviews was mixed with some studies reporting null associations whilst others

reported a negative and positive association between access to supermarkets and fast-food outlets, respectively, and obesity.

Limitations: This search was completed by a single author using one database, it is possible that relevant systematic reviews have been missed. Quality of individual studies was not assessed preventing this from being taken into account in the assessment of overall strength of evidence for each association. Most studies were observational, either cross-sectional or cohort studies, so associations between the food environment and obesity are not necessarily causal. There is likely to be residual confounding, for example from factors such as access to leisure centres or physical activity opportunities which were not accounted for within these studies.

The studies included investigated food environments around schools, homes and workplaces but no studies looking at associations for food environments around commuting routes were identified in the literature search. There is heterogeneity between individual studies included in systematic reviews with regards to food outlet definitions and exposure measures used (count or density within different areas, and proximity referring to either different buffer zones or the presence or absence of outlets within different buffer zones). Accessibility of outlets within an area (for example by private or public transport), rather than within specific buffer zones, may be a more relevant determinant of access to food outlets. Absence of evidence is not evidence of absence and future research should focus upon interventional studies – looking at areas where access to food outlets has been restricted in some way and whether this affects BMI in children and adults.

FIGURE 11.7:

Summary of studies examining the association between components of the food environment around schools and childhood BMI

	Exposure Measure							
Study (number of studies looking at any of the exposure measures)	Super-market count or density	Super-market proximity/ distance (shorter distance)	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance (shorter distance)	Fast-food outlet count or density	Fast-food outlet proximity/ distance (shorter distance)	Multi-component exposure	Subgroup analyses
State-of-the-art of measures of the obesogenic environment for children 2021	Conclusion: Null 3 Null 2 Negative	No studies	Conclusion: Null 8 Null 4 Positive	Too few studies	Conclusion: Null 5 Null 3 Positive	Too few studies	No studies	G+ (FF count) Oreskovic et al. (2009)

	Exposure Measure							
Study (number of studies looking at any of the exposure measures)	Super-market count or density	Super-market proximity/ distance (shorter distance)	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance (shorter distance)	Fast-food outlet count or density	Fast-food outlet proximity/ distance (shorter distance)	Multi-component exposure	Subgroup analyses
A systematic review of the influence of the retail food environment around schools on obesity-related outcomes 2014	Too few studies	Too few studies	Conclusion: Null 5 Null	Conclusion: Positive association 2 Null 3 Positive	Conclusion: Mixed 3 Null 3 Positive	Conclusion: Positive association 3 Null 6 Positive	Too few studies	Y+ (FF proximity) Y+ = fifth graders vs ninth graders
The food environment in schools and their immediate vicinities associated with excess weight in adolescence: A systematic review and meta-analysis 2021	No studies	No studies	Too few studies 2 Positive 1 Negative	Too few studies 1 Null	Too few studies 1 Positive	Too few studies 1 Null	Too few studies	Any restaurant within 800m of school = higher BMI (Laska, 2010)
Retail food environment around schools and overweight: a systematic review 2020	No studies looking at this measure only (as presented in this review)	No studies looking at this measure only (as presented in this review)	No studies looking at this measure only (as presented in this review)	Too few studies 2 Positive	No studies looking at this measure only (as presented in this review)	Conclusion: Mixed 2 Null 2 Positive	Conclusion: Mixed 9 Null 8 Positive 4 Negative	

	Exposure Measure							
Study (number of studies looking at any of the exposure measures)	Super-market count or density	Super-market proximity/ distance (shorter distance)	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance (shorter distance)	Fast-food outlet count or density	Fast-food outlet proximity/ distance (shorter distance)	Multi-component exposure	Subgroup analyses
Food environment near schools and body weight — a systematic review of associations by race/ ethnicity, gender, grade, and socio-economic factors (some studies may have looked at obesity rather than overweight/ obesity) 2020	Race/ethnicity - too few studies Gender - too few studies School Grade - too few studies		GS – too few studies CS: Race/ethnicity – Latino/AA+ Gender – null (6 null) School grade – too few studies		Race/ethnicity – Latino+ Currie (2010); Grier (2013); Sanchez (2012) (Null=Langellier, 2012) White (2+, 1-)/AA (2+, 3 null)/Asian (2- (prox), 1 null) – mixed results Gender – mixed results (1 for boys, 1 for girls, 5 null) School grade and SES – too few studies		No studies	
Overall	Mixed (3 null, 2 negative)	Insufficient studies	Mixed, majority null (13 null, 6 positive, 1 negative)	Mixed (5 positive, 3 null)	Mixed (8 null, 7 positive)	Mixed (8 positive, 6 null)	Mixed (9 null, 8 positive, 4 negative)	

**AA = African-American, CS=convenience store, FF=fast-food, G=girls, GS=grocery store, Y=young people

FIGURE 11.8:

Summary of studies examining the association between components of the food environment around homes and childhood BMI

	Exposure Measure						
Study (number of studies looking at any of the exposure measures)	Supermarket count or density	Supermarket proximity/ distance	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance	Fast-food outlet count or density	Fast-food outlet proximity/ distance	Subgroup analyses
The built and social neighbour-hood environment and child obesity: A systematic review of longitudinal studies	"Access to" Conclusion: Null **3 Negative** **8 Null**		"Access to" Conclusion: Null **1 Positive** **1 Negative** **7 Null**		"Access to" Conclusion: Null **2 Positive** **1 Negative** **9 Null**		G+ (FF proximity)
State-of-the-art of measures of the obesogenic environment for children	Conclusion: Null **11 Null** **3 Negative** **2 Positive**	Conclusion: Positive association **1 Null** **Distance:** **3 Positive**	Conclusion: Null **7 Null** **2 Positive** **1 Negative** Convenience stores -Conclusion: Positive association **9 Positive** **6 Null** **3 Negative**	Conclusion: Null **GS** **2 Null** (Increasing distance = increasing BMI) **1 Positive** **CS** **4 Null**	Conclusion: Null **13 Null** 3 Positive **1 Negative**	Conclusion: Null **8 Null** (Increasing distance = decreasing BMI) **1 Negative**	G- (SM count) G+ (GS and FF count) L+ (CS count and FF density) M- (FF density) L- (FF proximity)
The Relationship of the Local Food Environment with Obesity: A Systematic Review of Methods, Study Quality, and Results	"Availability" Conclusion: Null (>90% null)		"Availability" (CS only) Conclusion: Mixed 82% null (14 studies)		"Availability" Conclusion: Null (80% null) Favourable Result (positive in L, 3 of 4 studies found a positive association)		L+ (FF availability)

	Exposure Measure						
Study (number of studies looking at any of the exposure measures)	Supermarket count or density	Supermarket proximity/ distance	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance	Fast-food outlet count or density	Fast-food outlet proximity/ distance	Subgroup analyses
Grocery store access and childhood obesity: A systematic review and meta-analysis	No studies	No studies	Conclusion: Null **16 Null** **5 Positive** **4 Negative**	Conclusion: Null **9 Null** **1 Negative** **2 Positive**	No studies	No studies	Kepper (2016) – ratio of FF to GS not sig assoc with BMI z score
Access to fruit and vegetable markets (FVM) and childhood obesity: A systematic review	FVM Conclusion: Negative association **1 Null** **3 Negative** **1 Positive** Unclear direction of assoc.: Burd (2013)	FVM Conclusion: Null **3 Null** Distance **1 Negative**	No studies	No studies	No studies	No studies	
Fast-food restaurant, unhealthy eating, and childhood obesity: A systematic review and meta-analysis (23)	No studies	No studies	No studies	No studies	Conclusion: Null Meta-analysis of studies using count (associations with BMI and obesity): Null	Conclusion: Null Meta-analysis of studies using 'presence of' (associations with BMI and obesity): null Meta-analysis of studies using 'distance to' (associations with BMI and obesity): null Road network distance proximity: null	13-15yo girls- (FF proximity and count) L+ (FF count)

	Exposure Measure						
Study (number of studies looking at any of the exposure measures)	Supermarket count or density	Supermarket proximity/ distance	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance	Fast-food outlet count or density	Fast-food outlet proximity/ distance	Subgroup analyses
Association between access to convenience stores and childhood obesity: A systematic review (30)	No studies	No studies	"Access to" Conclusion: Null **9 Null** **7 Positive** **1 Negative**		No studies	No studies	
Neighbour-hood super-market access and childhood obesity: A systematic review (20)	Too few studies	Conclusion: Mixed 12 studies = negative (stronger in girls and AA) 6 studies = positive 6 studies - null	No studies	No studies	No studies	No studies	
Overall	Mixed, majority null 12 null, 6 negative, 3 positive)	Distance: Mixed (13 negative, 10 null, 9 positive)	Mixed, majority null (22 null, 7 positive, 5 negative) Convenience stores only: Mixed, majority positive 9 positive, 6 null, 3 negative	Overall: Majority null (9 null, 2 positive, 1 negative) GS only: (2 null, 1 positive) CS only: (4 null)	Majority null (13 null, 1 negative)	Majority null (8 null, 1 negative)	

*AA = African-American, CS=convenience store, FF=fast-food, G=girls, GS=grocery store, L=low-income, M=middle/high-schoolers SM=supermarket, Y=young people

TABLE 11.9:

Summary of studies examining the association between components of the food environment and adult BMI

	Exposure Measure						
Study (number of studies looking at any of the exposure measures)	Supermarket count or density	Supermarket proximity/ distance	Grocery or convenience store count or density	Grocery or convenience store proximity/ distance	Fast-food outlet count or density	Fast-food outlet proximity/ distance	Subgroup analyses
A systematic review of environmental factors and obesogenic dietary intakes among adults: are we getting closer to understanding obesogenic environments?	"Access to" Conclusion: Negative association **3 Negative** **1 Null**		"Access to" Too few studies		"Access to takeaway stores" Conclusion: Mixed **3 Positive** **3 Null**		W- (supermarket access)
The Relationship of the Local Food Environment with Obesity: A Systematic Review of Methods, Study Quality, and Results (35 studies)	"Availability" Conclusion: Null 4% studies' associations positive 24% studies' associations negative 72% studies' associations null		"Availability" Conclusion: Null GS: 15% studies' associations positive 2% studies' associations negative 83% studies' associations null CS: 10% studies' associations positive 5% studies' associations negative 84% studies' associations null		"Availability" Conclusion: Null 27% studies' associations positive 6% studies' associations negative 67% studies' associations null		L+ (FF availability)
Built Environment, Selected Risk Factors and Major Cardiovascular Disease Outcomes: A Systematic Review	Too few studies		Too few studies		Too few studies (2 studies found FF density + assoc. with obesity and 1 study + with stroke)		

The association between workplace built environment and metabolic health: A systematic review and meta-analysis	No studies	No studies	No studies	No studies	Too few studies	Too few studies	2 studies (take-away count) – one null and one + assoc. with obesity
Overall	Mixed 3 negative, 1 null		Majority null		Mixed (5 positive, 3 null)		

*L=low-income, W=women

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11.8 Comparing the relationship between the retail food environment and BMI when different retail food environment metrics are used

Controlling for difference in demographics (age, gender, ethnicity and education level) and urbanicity (type of urban classification), Wilkins et al. (2019) found:

With respect to choice of outlet definition: Higher fast food outlet counts was positively associated with BMI when moderate or broad definitions for fast food outlets were used (moderate included major chains, fast food takeaways with no or limited seating and no waiter services, broad additionally included cafes, chain coffee shops and retail bakeries). This relationship was not seen for narrow definitions of fast food outlets which included major chain outlets only, excluding non-chain hot food takeaways (which were considerably more numerous than chain fast food outlets in the area of the study).

- With respect to type of retail food environment (RFE) metric used:
- When exposure to fast food outlets was measured using certain relative RFE measures (that describe relative availability of food outlets of different types), dose response relationships were seen between higher exposure and BMI as well as obesity. These measures were "fast food outlets/(fast food outlets + restaurants)" and "fast food outlets/total outlets". However, "(fast food outlets + convenience)/(supermarkets + fruit & veg stores)" showed a null association with BMI.
- By contrast, higher counts of fast food outlets showed U-shaped associations with BMI.
- Exposure to convenience stores or supermarkets showed null associations with BMI across the majority of models using counts or presence/absence measures of exposure and across a range of outlet definitions and exposure buffer sizes. Previous studies have noted that these types of outlets can be very variable in terms of the healthiness of products offered within these stores.

The authors proposed that different RFE metrics may measure different dimensions of RFE that can exert an influence on weight - whilst density may most closely represent accessibility, count may increase exposure to cues triggering craving, and relative availability may contribute to altering perceived norms suggesting that use of multiple measures of RFE may be needed to describe all the dimensions of RFE that have a substantiative influence weight.

The authors hypothesised that the U-shaped relationship observed for fast food outlet counts could represent two underlying relationships - one between higher fast food exposure and higher BMI, and one due to more urban areas also having higher street connectivity or other features that facilitate increased physical activity.

Some limitations of this study were that, as a cross-sectional study, causal relationships cannot be inferred as alternative explanations or 'confounding factors' cannot be excluded (such as differences in the physical characteristics of higher versus lower RFE exposure areas at a level not captured by their Rural Urban Classification). It only examined residential food environments which limits generaliseability to school, workplace or commute-adjacent food environments. It also used data from a study of residents in Yorkshire where the majority of urban areas are of the 'urban minor conurbation' type whereas in Oxfordshire, urban areas are predominantly 'urban city and towns' and 'urban major conurbations'. It is unclear whether the observed associations may differ for these different settlement types or whether the range of RFE exposure levels experienced by Oxfordshire residents may lie outside the range of exposure levels observed in Yorkshire.

11.9 A summary of a local convenience store pilot by Southwark council, delivered by Urban Impact on Health

Southwark Council identified five wards classed as 'food deserts' with low access to healthy, affordable food from which convenience stores were selected for the programme. The programme was delivered by a marketing agency that provides consultancy to independent food retail and wholesale businesses and externally evaluated.

The pilot programme involved:

- developing a 100 Healthier Lines Framework with the largest independent wholesaler in the UK that identified product options with healthier formulations (lower in sugar, salt and fat) for 100 bestselling products across key product categories stocked in convenience stores and a Healthier Options list of healthier products in categories where sales were currently low (such as plant milks).
- working with stores to develop a store-specific action plan identifying a selection of products from the Framework lists that stores wanted to move towards stocking. This included buying small volumes initially as a test, and advice on location and presentation factors.
- support and monitoring were provided via phone calls through the pilot period and data on what is stocked and sales were collected at the end of the pilot.
- a campaign promoting the Healthier Lines products including a two-day trade event at the wholesaler depots that promoted healthier lines and which incentivised suppliers of healthier lines to offer deeper margins in exchange for promotional marketing of their products.

Results:
Between Jan 2021 and April 2022, 35 of 41 recruited local convenience store retailers completed the pilot, including 6 specialist stores catering to specific nationalities including a higher proportion of residents from a ethnic minority background.

There was an increase in products stocked within each product category that were from the Healthier Lines Framework across all product categories, with broadly greater increases seen in product categories where a lower proportion of products from healthier lines had been stocked before the pilot. The absolute proportional increase ranged from a 4% absolute proportional increase for fruit and vegetables (from 51% to 55%) to 12% for crisps and snacks (from 10% to 22%) and other snacking products.

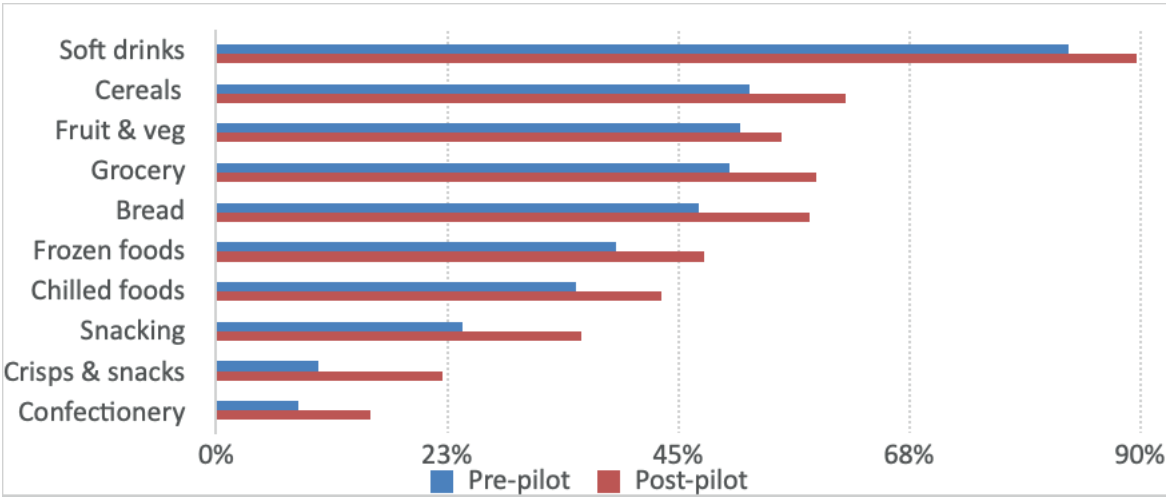
The median number of new healthier products stocked by stores was between 6 and 10 (equating to an increase of approximately 20%). The campaign appeared to be effective at increasing sales of the promoted lines for wholesalers after the event though absolute baseline sales are not available for comparison.

Although specialist store retailers tended to stock a different product mix to other stores (using a wider range of suppliers and wholesalers), the programme appeared no less successful in achieving comparable or better outcomes in these stores.

It was challenging to gather sales data from retailers in order to measure change in sales or impacts on calories purchased. However, wholesaler Bestway reported a nine-fold increase in sales of featured healthier lines during its in-depot event in Lewisham, including a 25-fold increase in sales for grocery products.

FIGURE 11.10:

Proportion of products stocked by stores in each product category that came from a healthier product line (included in the Healthier Lines Framework) at the start versus end of the pilot



Adapted from: Putting health at the heart of convenience (urbanhealth.org.uk)

Qualitative findings from the project include:

- Convenience store owners were found to have a strong sense of community and were motivated to help their customers and wider community by improving the healthiness of their food offer. They were willing to stock healthier options if supported to do so by capability (through expert, objective advice on selection and placement of healthier product lines) and physical opportunity (by good availability in wholesale depots, ease of finding a new product within the depot, price-marked packs) and motivation (by good product margins). With respect to finding healthier products within the depot, retailers commented on taking the same route through the depot on every visit and sometimes struggling to find the new products
- during the trade event, promoted products were placed at the entrance to the depot but it was only planned for this to be a temporary measure.

Convenience store retailers located in neighbourhoods where they face little local competition appeared less motivated to engage than those in locations where they face high competition (for example from multiple supermarkets) and store managers from larger ambassador stores (that are 'a destination').

After the pilot, convenience stores reported anecdotally that healthier products sold well and sometimes better than expected though detailed sales data could not be obtained. Longer term evaluation results are not available. All convenience stores intended to continue stocking healthier options after the pilot either at the same level (26%) or expanding their offer (74%, based on seeing other items from their action plan at the wholesaler, further recommendations from the marketing consultancy or customer requests).

Almost three quarters of convenience stores received stock from one of the three major local wholesalers. However, wholesalers have limited additional capacity for new initiatives, internal teams were focused on managing multiple market challenges such as supply chain issues due to Brexit, the war in Ukraine and the effect of rising fuel costs on product costs and availability and only one of the three major wholesalers could be engaged in the pilot (building on their previous involvement in a smaller scale pilot).

It was challenging to engage suppliers, in part due to the difficulties of identifying the right collaborators within large, often multinational, organisations.

11.10 Gap analysis of currently planned local actions relevant to active travel against nationally recommended actions

Recommendation from national guidance		National guidance source	Underway in Oxfordshire
Improving existing infra-structure:	Develop Local Cycling and Walking Infrastructure Plans (LCWIPs): to address concerns about safety amongst cyclists and pedestrians by providing dedicated road space for cyclists as well as measures to manage vehicle speed and volume	Department of Transport	Local Cycling and Walking Infrastructure Plans are being developed for all major settlements in Oxfordshire
	Local authorities should prioritise pedestrians, cyclists and people who use public transport when developing and maintaining connected travel routes. Examples of measures include through reallocation of road space to support active travel, restriction of motor vehicle access, introducing traffic-calming schemes, maintaining active travel routes to a high standard including removing hazards, ensuring routes are well lit enough to make people feel safe and providing secure cycle parking facilities in public places and at public transport stops	NICE	Local Cycling and Walking Infrastructure Plans ensure that cycling and walking are prioritised within local planning and transport policies and strategies. They include a detailed analysis of the current transport network and provide recommendations on high priority walking and cycling routes and other infrastructure improvements for investment. The Active Travel Strategy prioritises walking and cycling infrastructure (footways, cycleways, verges, etc) in highways maintenance programmes and operations.
	Develop and implement Travel Demand Management Plans to promote awareness of the range of travel options available and messaging to influence the mode of travel with the aim of reducing pressure on the transport network at times of heightened demand	Department of Transport	OCC's Network Management Plan (2023-28) describes expanding and improving cycle and walking networks as one of the council's highest priorities. It affirms that decisions on road space usage should consider how to promote use of active travel and public transport (especially on over-capacity routes) and sets ambitions to ensure restrictions and bus gates are enforced in a consistent manner across the County. Raising awareness of the range of travel options available forms a part of several of the Cycling and Walking activation programmes being implemented in Oxfordshire, for example through distribution of maps of walking routes and a wayfinding pilot for walking routes (see below)

Recommendation from national guidance		National guidance source	Underway in Oxfordshire
Improving existing infra-structure:	Improve connectivity between residential areas and local services and assets including to green and blue spaces	NICE	OCC is developing the Strategic Active Travel Network (SATN). As part of this, we are considering how transport links between settlements, for example from villages and between towns, can be improved in a way that supports active travel and identifying priorities for cycling infrastructure development based on current and anticipated future demand.
	Promote active travel by improving public transport services (for example, their reliability and accessibility)	NICE	Oxfordshire's Bus Service Improvement Plan 2022 outlines how OCC and local bus operators will achieve the overarching outcomes of the National Bus Strategy, which are to build back bus use to pre-pandemic levels and increase mode share still further in the future. It identifies 3 key areas for action: - strengthen the Premium Route policy of frequent services - deliver the Rural Flexible Bus strategy and the Eastern Arc rapid transit proposal - promote Bus Priority measures to secure reliable and faster journeys
Planning new infra-structure:	Plan for and improve active travel infrastructure in the spatial planning of new developments and redevelopments, including enabling access on foot to local services, for example through establishing low traffic neighbourhoods, 20-minute neighbourhoods and green routes between key community assets	Department of Transport, NICE	The OCC public health team input into residential planning applications and the Oxfordshire Local Transport and Connectivity Plan to ensure that active travel and healthy place shaping promoting elements are prioritised within plans, and within delivery timelines, and that negative impacts on public health are identified, minimised and mitigated through completion of health impact assessments.
	Ensure any changes in local services are assessed for their impact on accessibility by active travel, including for those with limited mobility	NICE	Planning applications and environmental permit applications submitted to OCC are reviewed by the public health team who review whether these plans maintain access to public rights of way during construction and post-delivery and include plans on managing the risk of health harms to those engaging in active travel (for example through exposure of more vulnerable residents to dust).
	Work with Local Enterprise Partnerships to integrate PA into economic growth and infrastructure plans	OHID	

Recommendation from national guidance		National guidance source	Underway in Oxfordshire
Increasing engagement with active travel:	Involve communities and community organisations in the development of local strategies, policies and plans to support physical activity and ensure policies promote access for those with limited mobility (for example ensuring new routes create new through routes for active travel rather than just linking to a new facility)	NICE	Accessibility actions in the Active Travel Strategy include conducting a review of all cycle routes to ensure they are accessible to most types of cycles (for example that access control barriers in foot- and cycle-ways are accessible to all types of pedestrians, cyclists and wheelers), ensuring regular sitting opportunities are available along walking routes and involving experts and stakeholders with lived experience of disabilities in consultations and advisory groups. Development of all LCWIPs involves formal consultation with local stakeholders and residents, for example, community engagement from the Oxfordshire Cycle Survey 2019 has been used extensively in the development of the Oxford LCWIP.
	Promote behaviour change to enable active travel for example through walking and cycling engagement events (with potential to link into existing programmes such as Cycling UK's Big Bike Revival), cycle hire schemes, cycling skills courses, school-focused initiatives and measures to improve cycle security.	Department of Transport	A number of Cycling and Walking Action Programmes that aim to increase residents' engagement with active travel are underway in Oxfordshire including bike libraries, bikeability training, walking clubs and an e-bike loan scheme for residents living in less affluent areas. Programmes delivered in 2021-22 include park and stride pilots around schools, community-led projects in Witney, Bicester and Oxford, and a wayfinding pilot in Kidlington.

Recommendation from national guidance		National guidance source	Underway in Oxfordshire
	Work with corporations and employers to increase physical activity in employees through evidence-based local workforce development programmes and supporting employees to travel actively to and from work. A range of actions are recommended in Active Travel UK's A Moment of Change: Guidance for local authorities on promoting an active return to work report to facilitate active travel to workplaces. These include increasing capability through supporting staff to plan journeys during their induction, providing employers with administrative support for example to implement Cycle to Work schemes, applying for grants and using data on staff travel behaviour to plan initiatives (for example delivered by a workplace active travel officer); increasing physical opportunity through providing grants to businesses to provide facilities and equipment that facilitate cycling, low cost bike loan schemes and bike buddying schemes, or boost motivation for active travel through parking reduction schemes and taking part in national cycling campaigns.	OHID	The OCC Travel Plans team are working with a number of larger employers to trial workplace active travel programmes.

Sources of national guidance documents: Department of Transport guidance refers to Active travel: local authority toolkit - GOV.UK (www.gov.uk), OHID guidance refers to Everybody active, every day: 5 years on - GOV.UK (www.gov.uk), https://www.gov.uk/government/publications/everybody-active-every-day-5-years-on/everybody-active-every-day-5-years-on), NICE guidance refers to NICE guideline [NG90] Physical activity and the environment (2018) and Quality statements | Physical activity: encouraging activity in the community | Quality standards | NICE).

11.11 Summary of factors relevant to increasing physical activity levels from OCC community engagement work

Factors that were described in one or more of the areas that OCC has engaged with as part of its community engagement projects are listed below against the behavioural components within the COM-B model.
A colour key is included to indicate which project(s) the insight was identified from to provide an indication of applicability of the factor across multiple areas and population groups in Oxfordshire.

FIGURE 11.11:

Summary of factors relevant to being physically active from OCC community engagement work

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident perspectives	**Impact of physical health** (living with excess weight, long term health conditions) **cited as a physical barrier** to being able to walk longer distances. • **Improving promotion and awareness of events and initiatives** Residents reported not being aware of activities that they could do (suitable for their age group, accessible, information on activity can be accessed without requiring internet access). Other suggestions included holding events in open spaces where they are visible •		<u>In relation to recreational activities available</u> **Organised group activities appear helpful** Residents reported only using green space when there were activities taking place there • **Doing activities with family members or friends** can help some to maintain active habits in the longer term. • Muslim women described being part of a tightknit community, leaders within this community perceived that if they changed their behaviours, this was likely to influence the behaviour of others • **Intimidating behaviour from other gym users** such as 'hogging' equipment and male gym users watching women whilst they were exercising put off other would-be gym users.•	<u>In relation to physical environment:</u> **Availability of greenspace** supports being active though there was concern about the impact of housing developments encroaching on green spaces. •• **Safety:** respondents perceptions of the safety of the area was mixed with some perceiving that the area is safer than portrayed in the media whilst others reporting that concerns about safety relating to drug dealing, presence of gangs, attacks on women, act as barriers for them or them to allow their children to exercise and walk around. Perceptions of safety appeared related to how well-connected residents were (with those with lots of connections feeling safer). Residents expressed having a preference for using certain 'safe' well-lit walking routes. Cycle paths noted to be poorly maintained. • **Visual amenity:** litter, graffiti, dog mess, broken glass • **Accessibility:** pavements and lack of dropped kerbs act as a barrier for wheelchair users to access services •	**Feeling self-conscious of their body.** • Receiving **social support and encouragement during exercise** helped motivate participation despite lower skill/fitness level. •	**Difficulties of maintaining good habits in the long term.** • Some residents perceived that engaging in healthy behaviours is very much **an individual responsibility** - ie relying on individual motivation. • <u>Opposing factors</u> **High bar for what 'being active' looks like:** perceptions that being active looks like running a 5k race or completing a HIIT class. • Older residents and more vulnerable residents do not feel **safe** going out, some feel pandemic has impacted on confidence to go out. • **Poor relationships between residents and leisure centre** Animosity towards leisure centre due to their treatment of staff during the Covid-19 pandemic •

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident perspectives				In relation to recreational activities available **Limited activities available:** only football or dance classes available. Classes and gym facilities suspended during Covid-19 have not been reinstated. Perceived lack of activities for many population groups such as children, families (e.g. which allow parents to exercise without being reliant on arranging childcare), teenagers (and concerns that this would lead to increased crime), adults without children, women-only, low impact, older people and at appropriate times. Activities accessible and appealing to a range of age groups and with better availability (across different days/times) identified as being likely to improve uptake. •• **Activities exclude certain population groups:** visibility of the swimming pool to the public is off-putting, respondents expressed a desire for women-only or women and children-only swim sessions with a female lifeguard to enable Muslim women to swim. Muslim women cited that women-only gym sessions and planned introduction of women-only swimming sessions via their Mosque had made these activities accessible to them ••		Supportive factors: **Enjoyment:** residents identified that finding something they enjoyed was key to maintaining a regular habit of attending activities. An intergenerational dance class was cited as an example. • There was recognition that being active (especially through walking), socialising with friends and family, eating healthily, attending community groups was **beneficial to physical, emotional and mental health**. ••

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident perspectives				**Cost:** Participation in activities such as swimming lessons and gym membership are getting cut due to rising costs of living. Cost of after school activities prohibitive (especially in families with multiple children). Perceptions that leisure centre is not good value for money. • Resorting to walking as unable to afford other leisure activities. Tasters and discounted sessions suggested as factors that may improve activity uptake. Free gym equipment in park support being active due to being free to use ••• **Inadequate capacity:** comments that services are always fully booked and that there are long waiting lists for certain activities • **Difficulties with lifeguard recruitment** limit the number of swim sessions that can be offered • **Distance:** Leisure centre too far away. • **Challenges with registration and booking activities:** difficulty getting through to speak to staff via phone, process for registration complex for those on benefits and process used for disclosure contributing to embarrassment. •		

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident perspectives				Active living **Workplace environment:** Work provides a key source of physical activity with over half respondents in the Leys doing no formal sport or exercise and almost half reporting work as their main source of physical activity. A substantial proportion of residents (one third) are sedentary whilst at work. •		
Stakeholder perspectives			Perceptions that loneliness contributes to lower PA levels •	**Greenspace** supports being active • **School environment:** Higher quality of PE lessons enables accumulation of more PA in school • Active travel **Infrastructure** that supports active travel •		Good **mental health and wellbeing** supports PA, cohesive communities, access to greenspace, social connectivity help support good mental health • Parental beliefs in the importance of PA, parents' personal interest in physical activity supports higher PA • Beliefs of governors in the importance of PA supports increased PA in schools •

Key:

- Abingdon Caldecott community engagement PressRed report and Community Insight Profiles report
- The Leys community engagement PressRed report and Community Insight Profiles report
- Banbury community engagement PressRed report
- FAST families' food survey 2020-21
- Summary Systems Map from Whole Systems Approach to Obesity stakeholder workshops (2020-2022)
- Tier 2 BAME weight management service pilot

11.12 Summary of NICE guidelines on commissioning of weight management services for adults and children

For adult weight management services:

Ensure appropriate referral into services by:

- Using the Making every contact count (MECC) approach: strengthen links with related services and encourage referrals from a range of professionals (e.g. staff from GP surgeries, professionals involved in NHS health checks, pharmacies, health visiting teams, smoking cessation services, fertility services, the NHS diabetes prevention program, mental health services, maternity services, leisure service staff). Ensure staff have the skills to, and feel confident with, raising weight management in a sensitive way. Ensure they are aware of recommendations on using lower BMI thresholds for those from certain ethnic groups
- Ensure communications about the programme are non-judgemental in content and tone
- Ensure adequate provision for disadvantaged groups
- Consider use of (lower) ethnicity-specific BMI referral thresholds for those from black and minority ethnic groups

Recommended programme content and delivery:

- A multicomponent programme addressing dietary intake, physical activity levels and behaviour change, designed with input from a registered dietitian, registered practitioner psychologist and a qualified PA instructor
- Tailor programme to support needs of different groups (for example single sex sessions, consider need to provide childcare, consider timing and accessibility of session venues or use of venues already used by that community)
- Link in with other local services that can provide additional support

Monitoring and evaluation of programs:

- Aim for at least 60% of participants to complete the programme and an average weight loss of at least 3% (with at least 30% of participants losing at least 5% of their initial weight)
- Assess for impact on health inequalities

Maintaining healthy changes after programme completion:

- Discuss sources of long-term support with participants (formal or informal, including peer support or support from a social network)
- Consider offering graduated exits, 'maintenance' light touch follow-ups at later timepoints, encouraging participants to continue meeting as a group regularly, signposting to local services, supportive apps

Sources: NICE Public health guideline [PH53] Weight management: lifestyle services for overweight or obese adults, A guide for delivering and commissioning tier 2 adult weight management services (PHE, 2017), NICE clinical guideline [CG189] Obesity: identification, assessment and management (2014, updated Sept 2022)

For children weight management services:

Ensure appropriate referral into services by:

- Using the MECC approach: Ensure staff in the health, social care, and voluntary and community sector who may be involved in making referrals are aware of the pathway, and have the skills to, and feel confident about, raising weight management in a sensitive way (including staff working in children's centres, libraries, schools, voluntary and community sector organisations that work with children, staff involved in the delivery of the NCMP and health visitors).
- Agree contracts that specify at-risk groups which the programme should aim to target
- Identify whether excess weight is a consequence of challenges relating to mental wellbeing and ensure referral into the most appropriate service (for example children's social care or child and adolescent mental health services)

Recommended programme content and delivery:

- Offer family-based, multicomponent programmes that cover improving healthiness of family diets on a budget, identifying opportunities to be more active, behaviour change strategies to change the behaviour of all family members, positive parenting skills training and parental role-modelling of desired behaviours.
- Allow all family members to be involved in the service where possible, including any members who have a significant influence on children's lifestyles. Involve family members who cannot attend the programme itself (for example through sharing information with them on how they can provide support).
- Offer appropriate support to family members who live with excess weight
- Promote adherence through ensuring advice is culturally appropriate and affordable, accessibility of venues, session timing, flexible approaches to attendance around childcare and work commitments.
- Ensure recommended activities are culturally acceptable

Monitoring and evaluation of programmes:

- Follow-up on outcomes for programme participants until at least 1 year after programme completion

Maintaining healthy changes after programme completion:

- Offer ongoing support for at least one year after completion of the program
- Offer drop-in maintenance sessions, support with continued group meetings, connect participants with local services and activities that help them maintain and manage their weight

Sources: NICE public health guideline [PH47] Weight management: lifestyle services for overweight or obese children and young people, NICE clinical guideline [CG189] Obesity: identification, assessment and management (2014, updated Sept 2022), A guide to commissioning and delivering tier 2 weight management services for children and their families (PHE, 2017)

11.13 Summary of factors relevant to improving support for those living with excess weight from OCC community engagement work

Factors that were described in one or more of the areas that OCC has engaged with as part of its community engagement projects are listed below against the behavioural components within the COM-B model.
A colour key is included to indicate which project(s) the insight was identified from to provide an indication of applicability of the factor across multiple areas and population groups in Oxfordshire.

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident persp-ectives	**Recognition of excess weight.** Self awareness of own weight can be low. • Realising that their child is not physically able to do the same things as their friends can prompt some parents to recognise that their child is meeting definitions for excess weight • **Difficulty of accessing information on how to lose weight** • Having a translator attend weight support service sessions was felt to improve under-standing. •	Residents reported that their **mental health and mood** was strongly related to weight and their ability to adhere to a diet. This was in some cases related to life changing events such as traumas, domestic abuse and the Covid-19 pandemic. • Efforts to lose weight can increase stress. Some residents reported stress contributing to their being underweight. • When residents notice that their weight is changing, this can act as a prompt for them to start monitoring what they are eating. • Need for topics covered in weight support programmes to be culturally relevant •	For participants from an ethnic minority group: Social media provides a way to exchange ideas on how to make culturally relevant foods in a healthier way • For female participants, participation may be contingent on being able to access single-sex groups. • Participation for women was often also conditional on being able to bring children to sessions - family-based sessions or providing a creche facility alongside sessions have been proposed. • Need for option for flexible participation as women often could not attend when they needed to prepare for cultural or family events. •	Perceptions that it is **difficult to access healthcare appointments**. Long waiting times was a very commonly mentioned issue. •• Residents interested in receiving mental health support from local agencies rather than just healthcare services. • **Challenges of accessing hospital and other health-related services:** needing to travel out of the Leys to receive breastfeeding support. Lack of direct transport to John Radcliffe Hospital and Churchill Hospital, public transport too expensive especially when needing to take children with them •	**Fear of judgement** (not specifically in relation to losing weight) acts as a demotivator for people to seek support from healthcare services. • **Distrust of healthcare systems within African and Caribbean heritage comm-unities** •	Perceptions that losing weight is expensive • Some residents feel stigmatised about living with excess weight • **Some residents recognised that losing weight will help with other health conditions** • Desire for healthcare professionals to take 'sugar addiction' seriously, concerns about whether healthcare professionals would have an understanding of other harmful relationships with food (e.g. a dependence on unhealthy food to relax) •

	Capability, physical:	Capability, psychological:	Opportunity, social: Social influences	Opportunity, physical: Environmental Context and Resources	Motivation, automatic	Motivation, reflective
Resident persp-ectives		**Difficulties of considering what you are eating alongside competing demands of looking after young children** cited as a contributor to gaining weight after having children •	For men, sessions must avoid prayer times to facilitate participation. • Men from ethnic minorities were reluctant to join a football league where there are no players who they see as being representative of them. •	**Limited advice/ resources offer from health professionals** when residents sought weight management advice. Only offered a single commercial weight loss programme by their GP they had already tried before. •		
Stake-holder persp-ectives		Many residents reported experiencing traumatic or life changing events such as loss of children, neglect during childhood. This contributes to **poor mental health** which, combined with poor access to mental health support, affects their ability to look after own health. •	Stakeholders perceive isolation to be an issue, interviewers noted that residents infrequently mentioned family and friends during discussions except in the context of loss of relationships. They perceive isolation is likely to contribute to poor mental health. • Family or friends were perceived in some cases to entrench unhealthy behaviours. •			

Key:

- Abingdon Caldecott community engagement PressRed report and Community Insight Profiles report
- The Leys community engagement PressRed report and Community Insight Profiles report
- Banbury community engagement PressRed report
- FAST families' food survey 2020-21
- Summary Systems Map from Whole Systems Approach to Obesity stakeholder workshops (2020-2022)
- Tier 2 BAME weight management service pilot

11.14 Recommendations and summary of associated rationale

Key objective 1: System - address healthy weight inequalities in everything we do

1. **Prioritise actions based on, and measure progress against, addressing healthy weight inequalities**

Oxfordshire residents from some population groups or living in particular geographical areas experience substantial health inequalities in relation to excess weight: using small area (Middle Super Output Area-level) geographic data we see that amongst Year 6 children there is an 18% difference in levels of excess weight between the areas with the highest and lowest levels of excess weight. Levels of excess weight are 13% higher in the least affluent areas (combined, when compared to the most) and ~10% higher than the average for those of Black or some Asian ethnicities, or those living with a learning disability. These inequalities in excess weight have persisted over time, and are already seen amongst children starting Reception, suggesting the need to take targeted action if we are to address them.

This overarching recommendation therefore includes taking a combination of place-based approaches (looking at geographic inequalities at the Middle Super Output Area-level) and population group-based approaches with a key focus on:

- Early years (age 0-3 years) and new parents
- Those from ethnic groups with higher excess weight prevalence (specifically those from African, Caribbean or mixed Black ethnicities, Pakistani or Bangladeshi backgrounds)
- Black women and low-income women
- Those living in less affluent areas
- Those living with learning disabilities and other disabilities

Local data collection is recommended to assess for inequalities in excess weight amongst those with disabilities and amongst those with a severe mental illness and to investigate for intersectionality (interactions between other dimensions of health inequality, for example gender and deprivation, deprivation and ethnicity) to aid targeting of healthy weight actions and programs to the populations most at need.

2. **Ensure our policies, strategies, communications, campaigns, and weight support programmes avoid perpetuating weight stigma and use co-production approaches in the design of weight support services**

Residents living with excess weight described feeling stigmatised and judged because of their weight. Experiencing stigma has been shown to negatively impact attitudes and engagement in healthy-weight-promoting behaviours and participants' chances of losing weight through weight management support programmes. As a system, we must commit to ensuring all strategies, programmes and communications that we deliver follow national and evidence-based guidelines to avoid perpetuating weight stigma.

Key objective 2: Prevent - To prevent excess weight, start early

A substantial proportion of children are already affected by excess weight by the time they start Reception.

From national data, we know that the majority of these children will still be affected by overweight in Year 6 and see that health inequalities in excess weight already start developing from this early age. This highlights the need to promote a healthy weight in parents during pregnancy, breastfeeding, through early years providers and in school settings.

Residents identified being exposed to healthy eating habits and a cooking culture at home early in life as key factors that support their motivation to cook themselves later in life. The research evidence suggests childhood Physical Activity (PA) levels predict PA levels later in life (for example levels later in childhood, during adolescence and adulthood).

3. **Collate up-to-date small area data to assess for inequalities in breastfeeding initiation and continuation within Oxfordshire, taking action to address inequalities if required**

Being breastfed for longer is associated with a lower risk for developing excess weight during childhood. By 6-8 weeks after birth, only 61% of women in Oxfordshire are still breastfeeding. Breastfeeding initiation levels and continuation at 6-8 weeks are higher in Oxfordshire than in comparable local authority areas and nationally, however substantial geographic inequalities in breastfeeding levels have been observed across Oxfordshire historically. There is a need to assess how geographic inequalities in breastfeeding uptake and continuation have changed since 2015 (when these data were last routinely collected).

4. **a) Work with early years providers to assess current food provision against, and understand facilitators and barriers to adherence to, national nutritional guidance and work to improve adherence where it is currently low.**
   b) Understand the opportunities for breastfeeding support, promotion of the Healthy Start scheme and increasing children's confidence to engage in physical activity through these settings

Research suggests dietary preferences are established early on in life (before the age of four, though these preferences can undergo a degree of change at certain time points later in life). For children in these age groups, mealtimes therefore provide an opportunity to introduce them to a wide range of tastes and textures and increase their acceptance of a wider range of foods.

Early years settings (including Ofsted registered childminders) have a statutory requirement to provide food that is 'healthy, balanced and nutritious'. As part of inspections, Ofsted checks early years settings are providing 'a healthy diet and a range of opportunities for physically active play, both inside and outdoors' but there are not mechanisms to assess provision against the more specific (but non-statutory) national recommendations. Ofsted ratings for early years settings can therefore provide an indication of whether these settings meet the minimum national standard but not of what potential there might be to further improve the healthiness of food provision (or to support breastfeeding continuation) in these settings.

5. **a) Review the evidence on programmes to prevent childhood obesity aimed at children aged 0-3 years to identify those that have been demonstrated to have longer term impacts on enabling healthier diets and physical activity.**

Residents reported feeling more motivated to eat more healthily at certain time periods, including when introducing children to solid foods. Research literature suggests that pregnancy and having a child are associated with reductions in physical activity levels in parents.

Attendance of formal childcare settings is very low amongst children between 0-1 years (7%), though increases to over 80% of children of 3-4 years (see Appendix 11.4). Given evidence that dietary preferences

are established in the 0-3 years period, exploring other avenues for reaching at risk children and parents in this period (including around the time when children are introduced solid foods) may provide a route through which to positively influence dietary preferences.

6. **Ensure a continued focus on increasing uptake of the Healthy Start scheme across Oxfordshire via the OCC Healthy Start working group action plan and District Food Action Working Groups**

Approximately one quarter of households with children were estimated to be experiencing food insecurity in the UK in 2022 with families reporting buying less fruit and vegetables and reducing their use of cooking appliances to minimise energy usage. The Healthy Start scheme provides support with the cost of buying fresh produce to cook from scratch (which was one of the foremost concerns raised by residents during community insights projects). Uptake has fallen in all the districts apart from West Oxfordshire since the switch to the digital card format and uptake in Cherwell, Oxford City and South Oxfordshire falls below the national average. Information on barriers and facilitators to accessing the scheme are not currently being collected nationally or locally.

7. **Implement a 'whole school approach' to promote healthier eating and physical activity in schools, prioritising areas with high excess weight prevalence amongst children.**

Measures recommended in national guidance include:

- *Ensure high awareness of the Free School Meals scheme amongst eligible families and ensure children can receive free school meals without signalling this to peers.*
- *Assess current uptake of school meals and healthiness of food provision against statutory School Food Standards and take a whole school approach to understanding barriers to high uptake in consultation with pupils, parents and school staff*
- *Ensure lunch menus contain healthier and tastier food options, are competitively priced and developed in consultation with pupils*
- *Ensure canteen environments are attractive (for example, with short waiting times and sufficient time to eat as a minimum)*
- *Ensure a healthier wider food environment within and around schools (including vending machines), consider cashless systems that avoid pupils being given cash to spend outside of school or having closed gate policies*
- *Develop recommendations relating to lunchbox contents and portion sizes in consultation with parents*
- *Ensure teaching on healthier diets is included in school curriculums through use of interactive activities and includes wider skills around food purchasing and preparing healthy food*
- *Support pupils to develop their capability for independent active travel*
- *Co-produce programmes and activities offer with students and parents*
- *Understand and offer opportunities for varied activities that can be enjoyed by all pupils, including those currently the least active*
- *Create active classrooms and address inactive periods during the school day*
- *Expand access to locations and green spaces that support active recreation for pupils and young people in the community*

- *Undertake an in-depth review of related guidance/best practice to define the 'what' and 'how' to implement the Whole School Approach*

School-age children attend school for almost three quarters of the weeks in a year, therefore food consumed during the school day forms an important contribution to children's diet and influence on their food preferences. Statutory responsibility for ensuring schools are meeting the School Food Standards falls to school governing bodies and trustees. Although Ofsted inspections include an evaluation criterion relating to inclusion of healthy eating in curriculums, school food provision is not assessed against the School Food Standards specifically as part of routine inspections (though there is a plan for such inspections to be piloted in a selection of local authorities).

Uptake of school lunches appears to be low (51% in the 17% of Oxfordshire schools catered for by OCC) and sensitive to meal pricing. On average, school lunches have been found to have a better nutrient profile though comparable calorie content to packed lunches, they also allow schools to have more influence over what is provided. However, a survey of parents and carers in Oxfordshire found that almost half of parents perceive packed lunches to be healthier than lunches provided by schools. Approximately 80% of pupils in Oxfordshire who are known to be eligible are taking up free school meals currently - meaning that 20% are not.

PA levels in children are highest in Year 6 pupils (when ~60% of boys and ~50% of girls are meeting national physical activity guidelines) but become progressively lower through the secondary school years and during adulthood.

We need to support the implementation of a whole school approach to healthy eating and physical activity to ensure healthy food environments within schools, improve school lunch provision and uptake, provision of a recreational activity offer that appeals to those who are least active currently and provide children with the skills to travel actively to attend activities independently and support active travel later in the life course.

Key objective 3: Environment - Enable healthy weight by building healthy places and environments

In community engagement, residents described the constant exposure to less healthy foods through neighbourhoods, social media and advertising as making it easy for less healthy dietary habits to develop. It is estimated that nationally approximately one in five meals are eaten outside of the home. Meals from out-of-home food outlets tend to have higher levels of saturated fats, sugar, and salt, and lower levels of essential micronutrients.

National data show that less affluent areas have a higher concentration of fast-food outlets. Research has found that the proportion of school pupils regularly purchasing food outside of school can be much higher in these areas, with the most commonly purchased foods including chips, sandwiches, sweets and chocolate. This highlights the importance of healthy food environments around schools as well as within schools.

Several strategies to improve the retail food environment have been recommended by national guidance, from the research literature or based on experiences in other areas. They aim either to reduce exposure to less healthy food from food retail outlets and public sector facilities or improve access to healthy foods.

8. **Use available levers to restrict advertising of less healthy food in public sector spaces and externally-owned spaces across Oxfordshire.**

9. **Introduce planning policy to limit proliferation of less healthy food vendors, prioritising areas with the highest levels of excess weight and around schools.**
10. **Use levers within licensing to increase exposure to healthier foods and limit exposure to less healthy foods.**
11. **Use evidence-based levers to support and incentivise local food outlets to provide a healthier food offer. This may involve working with a range of food outlets including hot food takeaways, mobile food vendors and supermarkets and convenience stores.**
12. **Ensure Government Buying Standard-based criteria Government Buying Standards for Food and Catering Services (GBSF): checklist (publishing.service.gov.uk), Section B nutrition are used in the procurement of food and catering services by public sector facilities. Review whether guidelines are embedded into contracts or leases and ensure adherence to GBSF guidelines related to nutrition as a minimum is monitored on a regular basis**
13. **a) Identify and act on opportunities to increase the healthiness of the food offer provided by Community Food Services**
    b) Ensure information on best practice for addressing stigma associated with accessing services and improving accessibility is shared between Community Food Services
14. **Develop Local Cycling and Walking Infrastructure Plans in all market towns in Oxfordshire**
15. **Work with partners to implement the priorities of the Local Transport and Connectivity Plan and review progress in achieving its targeted aims of increasing walking and cycling.**
    This includes working with Local Enterprise Partnerships to ensure physical activity is integrated into local economic growth and infrastructure plans

Nearly 6 in 10 car trips nationally are made for journeys below 5 miles suggesting significant potential to increase the use of active modes of travel for short journeys. Use of walking for travel is lower than the national average in Cherwell, South Oxfordshire and West Oxfordshire. Based on the research literature, factors that support active travel (such as crossings and neighbourhood accessibility) are associated with higher PA levels in children of all ages, thus use of active travel is dependent on having supportive infrastructure in place.

Local Cycling and Walking Infrastructure Plans (LCWIPs) analysing the current transport network and identifying priorities for investment with respect to active travel infrastructure have been agreed for Oxford, Bicester and Kidlington and are being developed for Abingdon, Banbury, Witney and Didcot.

16. **Sustain support for cycling and walking activation programmes, especially aiming to increase engagement amongst those who are least active, and evaluate their impact and reach**
17. **Support community engagement activities to improve the quality of existing green spaces in order to increase use of green space in the population groups known to be at the highest risk from low physical activity levels**

Based on the research literature, greater access to green spaces is associated with higher PA levels in preschool children and there is some evidence that those living in greener urban environments may be more likely to meet nationally recommended PA levels.

Data from 2015/16 suggest use of greenspace in Oxfordshire residents was comparable to that for England at that time, however we know (from national data) that use of greenspace is lower in many

of the population groups known to accumulate lower levels of PA such as women, those with lower socioeconomic status, from an ethnic minority background or with poor health. Local community engagement has identified barriers to accessing existing green space including safety, accessibility issues, and factors such as lack of age-appropriate play equipment and gender-appropriate spaces in parks.

18. **Consider the added value a workplace wellbeing programme for Oxfordshire could contribute to improving healthy eating and increasing physical activity (as well as other health promoting behaviours such as smoking)**

Many adults spend a large proportion of their time in the workplace. Data predating the Covid-19 pandemic showed that workplace food environments contributed to approximately 40-45% of overall takeaway outlet exposure, meanwhile community insights gathered from the Leys area highlight that work was in some cases the main source of PA for residents. Work therefore provides a key opportunity for promoting healthy weight in adults. Increased productivity and reduced sickness provide incentives for employers to engage in programmes that help prevent excess weight.

Key objective 4: Prevent - Make healthy behaviours more social and attractive to help them stick

19. **a) Review existing cooking-related training to ensure it is meeting the specific needs identified by residents during community engagement.**
b) Work with providers of cooking-related training to measure and increase uptake in key target groups (including those at important life transitions such as leaving home or becoming a new parent).

Some of the most commonly identified barriers to cooking identified from our community engagement were limited time, difficulties of meeting everybody's preferences and needing to come up with ideas on what to cook. Convenience and variety were also cited as factors that made consuming pre-prepared or out-of-home meals more attractive than cooking at home.

These needs appear not to necessarily have traditionally been the focus of cooking programmes (based on previous research), addressing them more directly could help improve the effectiveness of such programmes in increasing residents' day-to-day capability to cook.

20. **Use and expand upon existing evidence from community engagement with residents to ensure the active recreation offer in Oxfordshire aligns with activity preferences across different age groups**

21. **Ensure information about programmes that support physical activity (including what activities are available), healthy diet and weight support services, is promoted to the public and partners working with those at the greatest risk from excess weight**

Taking part in active recreation was frequently mentioned by residents as supporting healthy weight and mental and social wellbeing. There are differences in what types of activities residents tend to participate in at different life stages, by gender and by ethnicity and where residents in key risk groups (for example from communities of different ethnic backgrounds) look for this type of information.

Residents were motivated by being able to find activities suitable for their age and demographic group and that they enjoyed and by the social benefits of being active with other people, however, barriers included difficulties in finding suitable activities, cost and distance. Using insights from community engagement to

inform what recreational activities we prioritise offering will help enable residents to find activities that they are more likely to want to participate in and continue in the longer term.

Key objective 5: Support - Ensure those living with excess weight are connected with healthy weight-promoting programmes and weight support services

Several weight management support programmes are offered in Oxfordshire for children and adults, as well as specific programmes for adults living with a mental health condition(s) (Gloji Mind+), residents from a Black, Asian or minority ethnic background and for men. There are areas where current provision could be expanded for certain groups who are known to be at higher risk of excess weight or in whom excess weight is likely to have greater or longer-term health impacts (listed above).

22. **a) Ensure support is provided for groups that experience a high prevalence of excess weight where gaps have been identified (those with learning disabilities, mental health conditions, women peri-pregnancy, young people aged 12-18 years) alongside promoting prevention-orientated approaches in these groups**
    b) Develop a clear healthy weight care pathway for children and adults across all ages and commissioning bodies

23. **a) Identify brief intervention approaches for excess weight that complement the MECC ('making every contact count') approach.**
    b) Identify professional groups who have a high amount of contact with groups at high risk of excess weight with whom to implement the MECC/brief intervention approaches to excess weight, monitoring the effectiveness of training where delivered.

National data suggest a high proportion of those living with overweight do not currently recognise this (almost 60% of men and 40% of women). Low self-recognition of excess weight was described by some residents (for example in relation to partners) and stakeholders in the community engagement (in relation to excess weight within families). MECC approaches help promote self-recognition of excess weight and opportunistic signposting during routine contact points with health professionals and providers.