

Healthy Weight Health Needs Assessment 2025



Suffolk Public Health and Communities Knowledge,
Intelligence and Evidence Team
KnowledgeandIntelligence@Suffolk.gov.uk

Contents

Definitions	2
About this need assessment	2
Key information.....	3
Executive Summary	4
Weight in Suffolk	4
What is currently being done?	9
Updated evidence-base: the evolving landscape of healthy weight management	10
Local perspectives and views	11
What does this mean for Suffolk?	11
Recommendations	12
What is the public health issue?	16
What do the statistics show?	16
Children and Young people.....	17
Adults	43
Older adults (65+ years)	56
Environments	61
What is being done to support healthy weight management?	63
National policies and guidance	63
Local policy and guidance	69
Healthy weight management services for Suffolk residents	71
Updated evidence-base: the evolving landscape of healthy weight management	82
Weight stigma and bias	83
Socioeconomic inequalities	84
Environmental influences	86
Social relationships	87
Industry and media influence.....	88
Trends over time	89
Demographic influences	89
A whole systems approach to tackling healthy weight management.....	90
Sustainable weight maintenance	92
Local perspectives and views	93
Environmental and societal barriers to healthy weight management	94
Public engagement with healthy weight management services	94
Emotional impact and language sensitivity	95
Lifelong learning and support.....	95
Feel Good Suffolk Celebration Events	95
University of East Anglia eSign study	96
What does this mean for Suffolk?	96
Recommendations	97
References	102

Definitions

Throughout the document the following terms have been used:

- **Unhealthy weight:** This includes people living with underweight, overweight, or obesity as defined by their body mass index (BMI).
- Although the term 'living with overweight or obesity' may appear grammatically unconventional wherever possible in this document, we use person-centred language such as '**living with overweight or obesity**' to reduce stigma and reflect a more respectful, inclusive approach to discussing weight.

About this need assessment

A health needs assessment (HNA) is a systematic method for reviewing the health issues facing a population, leading to agreed recommendations that aim to improve health and reduce inequalities. This HNA combines quantitative and qualitative insights to explore the drivers of healthy weight and the impact of unhealthy weight, across the life course. This assessment also includes a rapid review of emerging evidence to ensure recommendations are grounded in current best practice and local relevance.

This Healthy Weight HNA has been developed in response to a request from Suffolk County Council's Public Health and Communities leads for healthy weight, with the aim of informing the creation of a comprehensive adult healthy weight strategy. Due to the broad scope of healthy weight considerations, this needs assessment focuses on the period from 4 years onwards. It should be noted that Suffolk's Public Health and Communities Knowledge, Intelligence and Evidence Team will be developing a 'Healthy pregnancy profile' in Autumn 2025 which will include information on living with overweight or obesity during pregnancy and weight information for 0-4 years.

Recognising the complex and multifaceted nature of healthy weight management, this assessment has been designed to support strategic planning not only within local authority services but also in alignment with Integrated Care Board (ICB) and NHS priorities. The assessment reflects a collaborative effort across Suffolk's Public Health and Communities Knowledge, Intelligence and Evidence Team, with input from a wide range of stakeholders including service leads, commissioners, and community partners.

Key information...

- Suffolk faces a persistent public health challenge with the prevalence of overweight and obesity across all age groups worsening as residents progress from childhood to adulthood
 - In Suffolk (2023/24), 1 in 5 children in reception (21.5%) are living with obesity or overweight, this rises to 1 in 3 in Year 6 children (34.1%), growing to 2 in 3 adults, 18+ yrs, (67.2%)
- Clear differences exist across gender, ethnicity, and socioeconomic status
 - In Suffolk, across all ages, a higher percentage of females tend to be living with a healthy weight, whereas a higher percentage of males tend to be living with overweight and obese
 - In Suffolk, a higher percentage of people who identify as Black or Black British tend to be living with overweight or obese across all age groups
 - People in the 50% most deprived areas in England are less likely to be a healthy weight than those in the 50% least deprived, across all age groups. This indicates that unhealthy weight is not just an issue at the extremes of deprivation. However, the impact remains particularly stark in the most deprived areas.
- Environmental and societal factors significantly impact weight outcomes, including financial constraints, time pressures, access to green space, transportation challenges, and food accessibility
- A whole systems approach may support the coordination of diverse stakeholders in addressing the complex determinants of weight
- Research supports shifting from weight-focused initiatives toward promoting overall wellbeing through body acceptance, intuitive eating, joyful movement, and size diversity to improve health outcomes and reduce stigma
- People seeking to make positive health changes, through engagement with services, most value the combination of emotional support (through non-judgmental staff and face-to-face or group settings) alongside practical knowledge (through informative, educational content)
- Psychological support is essential for sustainable weight management, as it supports improved emotional regulation, successful habit formation and positive identity shifts
- New weight loss medications represent both opportunity and uncertainty in our collective weight management strategies but clearly highlight the necessity of behavioural support
- Achieving lasting change means tackling this public health challenge at several levels. Prevention helps to reduce new cases of overweight or obesity, addressing existing cases treats the current public health issue, and ongoing support enables individuals to maintain their progress over time. Focusing on just one aspect is not sufficient- meaningful, sustainable change can only occur when all three areas are addressed together. If any one level is neglected, the likelihood of long-term success is reduced.

Executive Summary

Weight in Suffolk

Weight percentage

Reception children (ages 4-5yrs):

- Suffolk faces a persistent public health challenge. For nearly two decades, 1 in 5 reception children have been living with overweight or obesity.
- Despite being statistically similar to the England average, and decreasing from pandemic highs, in 2023/24 more than 1 in 5 reception children in Suffolk (22.3%) were living with an unhealthy weight. This equates to nearly 1,500 (21.5%) of reception children living with overweight or obesity at the start of their education.
- Suffolk has maintained a statistically significantly lower or similar percentage of reception children living with underweight when compared to England over the last 15 years.

Year 6 children (ages 10-11yrs):

- Suffolk faces a persistent public health challenge. For nearly two decades, 1 in 3 year 6 children have been living with overweight or obesity.
- In 2023/24, over 1 in 3 year 6 children in Suffolk (34.1%) were living with overweight or obesity. While this remains statistically significantly lower than England estimates, it represents an increase from pre-pandemic levels (31.8% in 2019/20). This means nearly 2,600 children are now finishing primary school education living with overweight or obesity.
- Suffolk has maintained a statistically significantly lower or similar percentage of year 6 children living with underweight when compared to England over the last 15 years.

Adults (ages 18+ yrs)

- The percentage of adults living with overweight or obesity in Suffolk has remained a persistent public health challenge, with the percentage worsening in recent years compared to national trends.
- In 2023/24 Suffolk reached its highest percentage of adults (18+ yrs) living with overweight or obesity at 67.2%- this equates to over 2/3rds of all adults in Suffolk. This is statistically significantly above the England average (64.4%).
- Internal Population Health Management (PHM) data indicates that over half (58.8%) of working aged adults (18-64 years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances, are living with overweight or obesity.
- Internal PHM data shows that 5.0% of working aged adults (18-64 years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances, are living with underweight.

Older adults (ages 65+ yrs)

- Internal PHM data indicates that nearly 2 in 3 (64.8%) of older adults (aged 65+ years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances are living with overweight or obesity.
- Internal PHM data indicates that 2.2% of older adults (aged 65+ years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances are living with underweight.

Trends overtime

- Despite performing better than the England average, 1 in 5 healthy weight reception age children (4-5 years) go on to live with overweight or obesity by year 6 (10-11 years).

- While Suffolk is statistically significantly lower than the national average, 3 in 4 children living with overweight or obesity in reception maintain this weight throughout primary school to year 6.
- Cohort tracking in Suffolk shows the percentage of children shifting from healthy weight in reception to unhealthy weight by year 6 has worsened over time, reaching its highest difference of 14.3% in the 2017/18-2023/24 cohort, compared to 9.8% in the 2007/8-2013/14 cohort- a 4.5 percentage point difference.
- The percentage of Suffolk residents living with an unhealthy weight increases with age. In 2023/24, more than 1 in 5 reception children were living with an unhealthy weight, in year 6 children this increases to more than 1 in 3 and in adults (18+ years) this worsens further to 2 in 3.

Demographic variation

Gender

- In Suffolk, more females are living with a healthy weight when compared to males, across all age groups.
- Data shows that female children consistently maintain higher percentages of healthy weight across all academic years - with percentages typically 0.3-1.0 percentage points higher than their male counterparts.
- Among working-aged adults (18-64 years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances, men have higher percentages living with overweight/obesity (61.3%) compared to women (56.7%).
- For older adults (65+ years) registered to a GP in West Suffolk, and Ipswich and East Suffolk alliances, men have higher percentages living with overweight/obesity (70.3%) compared to women (59.8%).

Ethnicity

- In Suffolk, 2023/24, reception age children recorded as Asian have the highest percentage living with a healthy weight (82.1%), while those who are recorded as Black have the lowest (71.1%)- an 11 percentage point difference.
- In year 6, 2023/24, children who are recorded as White have one of the highest percentage living with healthy weight (64.8%), while those who are recorded as Asian have the lowest (57.1%), a 7.7 percentage point difference. Children recorded as Black have the second lowest percentage living with healthy weight (57.8%).
- Among working-age adults (18-64) registered with a GP in West Suffolk and Ipswich and East Suffolk alliances, 66.7% of individuals who identify as Black or Black British live with overweight/obesity, the highest rate among ethnic groups.
- Similar patterns are seen in older adults (65+ years) registered with a GP in West Suffolk and Ipswich and East Suffolk alliances, with 73.8% of older adults who identify as Black or Black British living with overweight/obesity, the highest percentage, while older adults who identify as Asian or Asian British have the lowest (53.0%)- a 20.8 percentage point difference.

Deprivation

- People in the 50% most deprived areas of England are consistently less likely to be living with a healthy weight when compared to those in the 50% least deprived across all age groups.
- In 2023/24, 72.6% of reception-aged children (4-5 years) in the 10% most deprived areas were living with a healthy weight, compared to 82.1% in the 10% least deprived- a 9.5

percentage point gap. Children in the 40% most deprived areas in England had a statistically significantly lower percentage of children that are living with a healthy weight compared to the England average.

- Among year 6 children (10-11 years), 55.0% in the 10% most deprived areas were living with a healthy weight compared to 72.9% in the 10% least deprived areas- a 17.9 percentage point difference. Again, children in the 40% most deprived areas in England had a statistically significantly lower percentage of children that are living with a healthy weight compared to the England average.
- For adults in 2023/24, 71.2% in the 10% most deprived areas were living with overweight or obesity, compared to 59.4% in the 10% least deprived areas- a 11.8 percentage point difference.
- As of April 2025, 32.1% of working-age adults (18-64 years) in the 10% most deprived areas (decile 1) of Ipswich and East/West Suffolk were living with a healthy weight, compared to 38.0% in 10% least deprived areas (decile 10)- a 5.9 percentage point difference.
- For older adults (65+ years), 26.9% in decile 1 areas were living with a healthy weight, compared to 36.1% in decile 10- a 9.2 percentage point difference.

Health behaviours

Physical activity

- In 2023/24, 52.7% of children (aged 5-16 years) in Suffolk were not physically active.
- Activity levels in children (aged 5-16 yrs) peaked at 50.0% in 2022/23 but declined to 47.3% in 2023/24.
- Variations exist between Suffolk's local areas, with Ipswich having the highest percentage of active children at 51.8% and West Suffolk presenting the lowest percentage of active children at 42.2% in 2023/24.
- Conversely, the percentage of physically inactive adults (ages 19+ yrs) in Suffolk is declining. Most recent data (2023/24) shows that 18.9% of adults are physically inactive, a 2.2 percentage point decrease compared to the Suffolk 2022/23 percentage (21.1%).

Active travel, walking and cycling

- Active travel-such as walking and cycling-can help people build regular physical activity into daily routines, which supports healthy weight and reduces the risk of obesity.
- Local data was not available for child active travel percentages. However, England data indicates that about 47-53% of primary school children (ages 5-10) walk to school. About 35-45% of secondary school children (ages 11-16) in England walk to school. Cycling remains uncommon, with only 1-5% of students cycling to school. Secondary students (2-5%) cycle more than primary students (1-3%).
- In Suffolk, the percentage of adults (18+ yrs) walking remains relatively stable, with about 80% of adults walking at least once per month. Only about 33% of Suffolk adults walk at least 5 times per week. Cycling participation in Suffolk showed a downward trend, declining from 22.0% in 2016 to 15.9% by 2023.

National Diet and Nutrition Survey

- Fruit and vegetables: In the UK only 9% of children (aged 11-18) and 17% of adults (19+) meet the "5 A Day" recommendation.
- Sugar consumption: In the UK children consume highest levels of sugar-sweetened drinks (124ml daily average).

- Saturated fats: In the UK 85% of children and 82% of adults exceed 10% energy limit recommended.
- Free sugars: In the UK only 9% of children and 19% of adults meet 5% energy guideline.
- Fibre intake: In the UK 96% of children and adults fail to meet the 30g daily recommendation.
- People in the most deprived areas in the UK have consistently poorer diets.
- 72% of the general population in the UK purchase food from out-of-home sector (i.e. cafes, takeaways) weekly.

Fruit and vegetable consumption

- Eating enough fruit and vegetables is vital for a balanced diet and healthy weight, as they are high in fibre and nutrients but low in calories.
- Local data for children is unavailable, but in England in 2022, only 19.5% of children aged 5–15 met the 5-a-day recommendation-meaning 80.5% did not. In the same year, 12.8% of children ate less than one portion daily, and 8.9% ate none at all.
- England trends show little improvement in children's fruit and vegetable intake over the past decade.
- Among Suffolk adults, fruit and vegetable consumption is declining: 40.2% met the 5-a-day target in 2020/21, falling to 35.9% in 2023/24-a 4.3 percentage point drop. This means that in 2023/24 nearly two-thirds of adults (64.1%) are not eating the 5-a-day recommendation.

Free school meals

- Eligibility for free school meals in Suffolk has risen from 12.4% (2014/15) to 21.9% (2023/24). An increase of 9.3 percentage points occurred from 2018/19 (12.6%) to 2023/24 (21.9%). Suffolk remains consistently statistically significantly below the national average in terms of free school meal eligibility.
- This increase could be driven by many factors including macro-economic conditions, the coronavirus pandemic, and the continued effect of the transitional protections during the rollout of Universal Credit.

Alcohol consumption

- The relationship between alcohol consumption and obesity represents a significant public health concern in the UK. Research shows that alcohol can contribute to weight gain through multiple mechanisms, including its high caloric density (at 7 calories per gram), its tendency to reduce inhibitions around food choices, and its metabolic effects that can prioritize alcohol processing over fat burning.
- Although local data was unavailable, recent data from the Drinkaware monitor 2024 shows that 90% of UK drinkers now attempt to moderate their consumption (up from 84% in 2018). 71% of drinkers practice drink-free days. Use of zero-alcohol (31%) and low-alcohol products (34%) is increasing. Despite positive trends, 29% of UK drinkers still engage in "risky" drinking patterns.

Home working

- The increase in home working can contribute to weight gain by reducing incidental physical activity-such as walking to work or moving between meetings-and increasing sedentary time, which can make it harder to maintain a healthy energy balance.
- Geographical variations exist in work-from-home practices throughout Suffolk. In 2022, Mid Suffolk demonstrated the most flexible working arrangements (45% of workers using home

at least occasionally). Across all districts, the majority of workers (55-66%) never worked from home in 2022.

Malnutrition

- While malnutrition represents an important component of healthy weight management, with malnourished individuals in the UK requiring twice as many GP visits and experiencing three times more hospital admissions with stays extending three days longer than well-nourished patients, the higher percentage of overweight and obesity among Suffolk residents constitutes a more immediate public health priority in the current context.
- Limited local statistical data exists regarding malnutrition specifically, though available underweight percentage data indicates 0.8% of reception-aged children, 1.7% of year 6 children, 5% of adults, and 2.2% of older adults in Suffolk are living with underweight, which has been reported where relevant to provide a comprehensive picture of weight-related health challenges in the region.
- Since the pandemic, 1.4 million older people (aged 60 and over) in England have been eating less, and 3.7 million report difficulty accessing healthy, nutritious food (Age UK). Age UK also noted that pandemic lockdowns have reduced some older people's appetites and limited their ability to shop for and prepare healthy meals.
- As of April 2025, 246 older adults (aged 65 and over) registered with GPs in Ipswich and East/West Suffolk have a malnutrition flag on record- this is likely an underestimate.

Mental health

- Research indicates that both poor mental health can contribute to unhealthy weight, and being an unhealthy weight can worsen mental health.
- Population Health Management (PHM) data shows that adults (aged 18 years and over) with a reported mental health morbidity are more likely to be living with overweight or obesity, (registered with a GP in Ipswich and East Suffolk, and West Suffolk Alliances, between January 2024 and December 2024). Results show that:
 - 2 out of 3 adults diagnosed with serious mental illness are also living with overweight or obesity (66.4%).
 - Similar patterns are shown for adults diagnosed with depression and anxiety with 41.8%, and 39.8% respectively also living with overweight or obesity.

Physical health implications

- An accumulation of an excessive amount of body fat can increase the risk of hypertension, type 2 diabetes and heart disease.
- Weight is also associated with cancer risk, compared to people of healthy weight, those living with overweight or obesity are at greater risk of at least 13 types of cancer.
- PHM data shows that adults (aged 18 years and over) with a reported physical health morbidity are more likely to be living with overweight or obesity (registered with a GP in Ipswich and East Suffolk, and West Suffolk Alliances, between January 2024 and December 2024). Results show that:
 - Over 8 in 10 patients diagnosed with type 2 diabetes are also living with overweight or obesity (80.4%).
 - Similar patterns are shown for patients diagnosed with heart disease and hypertension, where 64.0% and 64.1% are also living with overweight or obesity respectively.

- A similar, but less pronounced, pattern is also shown in patients diagnosed with cancer, where just under half (48.0%) are also living with overweight or obesity.

Environments

- Access to green spaces serves as a protective factor for healthy weight by encouraging physical activity. There are over 50 small areas (Lower Super Output Areas or LSOAs – with between 400-1,200 households) in Suffolk where no households have access to green space.
- The availability of fast food is associated with negative health outcomes and contributes to the obesogenic nature of some neighbourhoods. Suffolk has 98.0 fast food outlets per 100,000 population, which is statistically significantly better (lower) than the national average of 115.9 per 100,000.

What is currently being done?

Policy and guidance

National policy and guidance

- The government released its updated national health plan: [Fit for the future: The 10 Year Health Plan for England](#). The plan introduces a "moonshot to end the obesity epidemic" through systemic environmental changes including restricting junk food advertising to children, banning energy drink sales to under-16s, expanding NHS access to GLP-1 medications, and implementing world-first mandatory reporting requirements for large food companies on healthy food sales with binding targets.
- The government published its initial UK food strategy report: [A UK government food strategy for England, considering the wider UK food system](#). The strategy establishes a framework for creating a healthier, more sustainable food system through 10 outcomes spanning affordability, environmental sustainability, and local food culture, with government coordination across departments and stakeholder engagement to align policy direction, though specific timelines and detailed implementation plans remain to be developed.
- The National Institute for Health and Care Excellence (NICE) published an overweight and obesity quality standard, introducing several new priority areas including:
 - Waist-to-height ratio measurement for adults with BMI under 35 kg/m²
 - Opportunistic BMI recording in children and young people
 - Learning disability access to weight management services
 - Service information maintenance and provision systems
 - Wraparound care for weight management medicines
 - Post-intervention support for maintaining weight changes

Local policy and guidance

- The Suffolk Children's Healthy Weight Strategy 2023–2027 translates national policy into local action through a whole system approach across four priorities: Move Well, Eat Well, Sleep Well and The World Around Us.
- Additionally, in line with national policy, Suffolk are currently investigating the potential in embedding an approach to external food advertising. The proposed policy aims to support the reduction in overweight and obesity levels in children and adults by reducing the visibility of high in fat, sugar or salt (HFSS) products in external advertising spaces.

Obesity management medications

- New weight-loss medications are transforming obesity treatment. Semaglutide (Ozempic), approved by the NHS in 2023, and Tirzepatide (Mounjaro), approved in 2024, offer significant weight loss-up to 15.2% and 22.5% respectively in trials-but are limited by cost, side effects, and access. Oral GLP-1 options are in development, with launches expected from 2026. Behavioural support remains essential, and weight regain is common after stopping treatment.

Healthy weight management services in Suffolk

Children and young people services

- Suffolk's healthy living service provides free, evidence-based family support including one-to-one work, group sessions, and community health promotion. The service has supported 267 families since October 2023, 61% from the most deprived areas. 55% of referrals are made via the National Childhood Measurement Programme (NCMP).
- The complications from excess weight service (CEWS) supports children aged 2-18 with severe obesity and significant health complications. This service provides holistic assessment and treatment addressing mental health, physical health and social needs. There are 4 clinics across the East of England (2 hubs, 2 spokes). 282 children have been supported since April 2023.
- Due to capacity, budget and demand, there is an ongoing business case in development from SNEE ICB with regards to a potential tier 2.5 service providing psychological and dietetic support and wider Voluntary, Community, Faith and Social Enterprise (VCSFE) sector support. Potential options are currently being reviewed.

Adult services

- Suffolk's healthy weight services currently follow a four-tier model aligned with NICE guidance, but the system is evolving towards a new Single Point of Access (SPOA) model. This aims to move away from structured progression through tiers, instead offering a fluid, needs-led approach. Individuals will be assessed and directed to the most appropriate support at the right time, enabling more integrated, person-centred care.
- Feel Good Suffolk (FGS), launched in October 2023, anchors current Tier 1 and 2 services and has already supported over 8,500 people.
- Suffolk and North East Essex ICB are transitioning to a new Weight Management and Complex Obesity Service (WMCOS).

Updated evidence-base: the evolving landscape of healthy weight management

Despite the importance of personal behaviours and supporting individuals with healthy weight management, trends across England show that the whole population is becoming more overweight over time. This trend emphasises a need to consider factors that influence everyone's weight management journey (i.e. environmental and social influences).

As part of this needs assessment a rapid literature review was undertaken. The rapid review explores how environment and society fundamentally impact weight outcomes. The review investigates key areas including weight stigma, social determinants of health, environmental influences, and practical implementations of whole system approaches to support sustainable healthy communities. Through this community-centred perspective, the review provides a more complete picture in relation to sustainable healthy weight management across populations.

Key findings

- Weight stigma and bias represents a persistent social issue with far reaching health consequences that extend beyond individual behaviour. Research shows that public health and policy perspectives shifting focus from weight loss to promoting overall wellbeing and healthy behaviours for everyone- including body acceptance, intuitive eating, joyful movement, and size diversity- can improve physiological measures, metabolic parameters and psychological outcomes independent of weight changes with better long-term adherence than traditional approaches.
- Evidence highlights that comprehensive approaches addressing both individual behaviours and environmental factors produce more sustainable outcomes. Social relationships, networks and support systems were also essential for sustainable healthy weight management. Sustainable weight maintenance was also shown to require specific psychological adaptations- including identity shifts, improved emotional regulation, and habit breaking and formation.
- A whole systems approach (WSA) offers a practical evidence-based framework for bringing together diverse stakeholders to create coordinated solutions that address multiple determinants simultaneously. Case studies and guidance documentation demonstrate critical success factors providing a roadmap for implementation. This approach effectively addresses the complex interconnected determinants of obesity that no single intervention can tackle alone.

Local perspectives and views

- Novel data collection to capture local perspectives was not specifically undertaken to inform this health needs assessment. However, previous surveys and resources were used to collate the views and perspectives of the local community and help to give an insight into our residents voices.
- The views and perspectives of participants strongly aligned with statistical and literature findings.
 - Local experiences reflect statistical socioeconomic disparities in healthy weight outcomes.
 - Reported weight stigma aligns with research on physiological stress and healthcare avoidance.
 - Preference for face-to-face support matches literature on importance of social support structures
 - Educational needs confirm evidence that effective interventions must provide practical skills and environmental change.

What does this mean for Suffolk?

- This Health Needs Assessment (HNA) provides a clear picture of Suffolk's healthy weight challenges and opportunities. It shows that creating lasting improvements require a coordinated approach across three key areas with implementation proportionate to need across different communities and population groups:

1. Preventing unhealthy weight

- Creating healthier environments where people live, work and learn
- Shifting community perspectives
- Improving how health information is communicated to residents

2. Addressing existing unhealthy weight

- Supporting individuals with personalised approaches
- Supporting effective clinical treatments
- Ensuring access to appropriate weight management services

3. Supporting healthy weight maintenance

- Developing a whole-systems approach that connects and strengthens efforts across the county
- Providing ongoing behavioural support and wellbeing resources

The evidence suggests that working on all three areas is beneficial. Prevention reduces new cases, addressing treats existing issues, and maintenance support helps people sustain their progress over time. Simply addressing one area isn't enough, the three must be worked on in tandem, if one is left out sustainable change will not occur. By addressing all three components together, while recognising and responding to the different needs across Suffolk's diverse communities, the county can work toward improvements in community health.

Recommendations

The evidenced-based recommendations for the Suffolk Healthy Weight Needs Assessment (HNA) (2025) are shown below. These are designed to support approaches across prevention, intervention, and maintenance - while also strengthening action on health inequalities.

Appendix 8 provides an overview of the supporting evidence aligned with each recommendation.

The recommendations outlined are intended for implementation over the next two years, with detailed timelines and milestones to be developed through internal action plans.

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
Prevent	Healthy Environments	Develop local food systems network	Supporting the roll out, implementation and utilisation of food mapping that is underway across Suffolk	Public Health & Communities (PH&C), VCFSE, District Councils, Economic Dev
		Local advertising policy	Supporting partners to pilot and adopt the High Fat Salt and Sugar advertising policy on public property	PH&C, Planners, District Councils
		Promote healthy school environments	Recognise and promote food standards across educational environments. This includes exploring the development of a food audit toolkit to support local settings such as schools and community venues	PH&C Education, SCC Schools
	Communications & Stigma	Audit for weight bias and improve inclusivity of language and communications	Review Public Health and Communities services, websites and communications for weight stigma and bias and ensure language is inclusive, updating where it isn't. This includes exploring further evidence around frameworks such as the Health at Every Size and Well Now.	Public Health, Comms, ICB
	Incentives	Explore behaviour-based incentives	Explore the feasibility of implementing appropriate, evidence based and targeted incentives with a local focus, to incentivise behaviours such as daily step goals, supporting sustained engagement in healthier lives	PH&C,
		Promote the Healthy Start Scheme	Identify and engage with those eligible for the Healthy Start Scheme. Ensure residents are aware of the scheme, understand the application process and access finances available	PH&C, VCFSE, District Councils
Address	Equity & engagement	Prioritise deprived areas for outreach	Target resources to the most deprived neighbourhoods – but recognise the reach of unhealthy weight extends beyond the most deprived 20%	PH&C, JSNA Team, VCFSE
		Men's health and weight	Implement evidence-based men's health and weight interventions to improve male participation and long-term engagement with services to reduce the percentage of overweight men across Suffolk	PH&C, FGS Team
		Culturally relevant co-design	Engage diverse communities in co-design of healthy behaviour services, materials and campaign, including translation of key materials and engaging cultural mediators for key populations	PH&C, Equalities Team, VCFSE
		Transitional wellbeing	Focus on maintaining and promoting wellbeing including healthy weight at key transition points of life (i.e. moving from early years through educational settings, moving on past education, transition from CYP healthy weight to adult services, leaving home, perimenopausal and	PH&C, FGS Team

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
			menopausal women, work and mid-life and retirement – specifically older males).	
Maintain	Services	Improve engagement with Feel Good Suffolk	Improve sustainable engagement with Feel Good Suffolk by adapting offers based on user feedback, trialling drop-ins and flexible models, and exploring innovative digital enhancements-such as smarter personalisation and recommendation features (including the use of AI)-to better tailor the experience to individual needs	PH&C, FGS Team
		Follow-up support post-programme	Enhance follow-up support post-programme by trialling peer groups, celebration events, and digital aftercare, and by strengthening the integration of mental health and wellbeing support-building on existing links with the wellbeing service and working towards a more consistent, quality-assured pathway between services	PH&C, Community Groups
	Clinical Support	Monitor obesity management medication use	Develop and promote easy to understand materials tailored to local populations to improve understanding of the safe use, access to, and behavioural support associated with obesity management medications-ensuring these resources are informed by health literacy principles	PH&C, ICB,
	System Leadership	Align weight with broader strategy	Align and integrate latest research and healthy weight initiatives across local government policy and guidance in Suffolk (i.e. planning, transport, economic, environmental policies) and Health and Wellbeing Board priorities in Suffolk	Strategy Leads, PH&C
		Monitor Children's Strategy	Track and report progress on the four pillars of the Children's Healthy Weight Strategy, embedding a continuous improvement approach through regular evaluation, stakeholder feedback, and adaptive action planning	PH&C Children, Strategy Team
	Continuous improvement	Embed learning and evaluation in all programmes	Embed learning, monitoring and evaluation as standard facilitating continuous improvement for all healthy weight services and initiatives	PH&C, Evaluation Team
		Evaluate and learn from obesity management medication implementation	Develop understanding of obesity management medications to facilitate ongoing service improvement and to inform future commissioning decisions	ICB, PH&C, Evaluation Team
	Community Voice	Co-production with lived experience	• Ensure engagement and/or co-production with community voices in service and strategy design • Support communities to lead on actions and resources • Implement continuous feedback and improvement mechanisms	PH&C, VCFSE, Participation Leads

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
			• Understand more about beliefs, attitudes and barriers to service engagement and explore key transition points for children and young people • Explore tailored engagement approaches for older adults, recognising diverse needs around digital access, mobility, and social connection • Investigate barriers to healthy weight among males, including potential reluctance to engage with services, and co-design approaches that feel relevant, accessible and acceptable	

What is the public health issue?

The persistent and widespread percentage of unhealthy weight across Suffolk represents a clear public health issue. As Suffolk residents age, the percentage of unhealthy weight increases. More than 1 in 5 reception age children are living with an unhealthy weight, in year 6 children this increases to 1 in 3. In adults aged 18 years and over this increases further to 2 in 3, and this pattern has stayed consistent over several years.

There are also clear differences in unhealthy weight when looking at data split by gender, ethnicity and deprivation. Across all age groups gender influences weight outcomes, with males generally showing higher percentages of overweight and obesity than females. Differences in weight by ethnic group persist as a structural rather than temporary issue, with patterns shifting notably between age groups - Asian children show the highest healthy weight percentages in reception but the lowest by Year 6, while Black and Black British adults face the highest obesity percentages alongside the lowest healthy weight percentages. Additionally, across England the percentage of people who are living with a healthy weight is lower in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic problem rather than limited to extreme deprivation. The scale and persistence of this issue calls for sustainable, system-level change.

The landscape of healthy weight management also presents an increasingly complex public health challenge, requiring multi-faceted approaches. Understanding unhealthy weight involves navigating intricate interactions between genetic predispositions, individual behaviours and perspectives, environmental factors, socioeconomic conditions, and food systems- with no single root cause applicable across populations.

This complexity is further amplified by the emergence of novel pharmaceutical interventions, particularly the GLP-1 receptor agonists (Ozempic and Mounjaro), which represent both opportunity and uncertainty in our collective weight management strategies.

What do the statistics show?

Population Health Management data

Some data in this section utilises Population Health Management (PHM) data. PHM data contains up-to-date data from patients registered to a GP in Suffolk and North East Essex (SNEE). PHM joins data from primary care, secondary care, mental health, social care, and other sources into a single dataset. Although the PHM is a rich source of data that has been aggregated so that individuals cannot be identified, there are still caveats to be aware of when interpreting the data:

- PHM reports what is recorded and doesn't exclude any potentially inaccurate recordings.
 - The data provided is based on 1-year indicators which only provide a static snapshot of: Jan 2024 – December 2024
-
-

- Includes data for people living in Suffolk and North East Essex and registered to a GP practice in the area. It does not include Waveney or Suffolk residents registered to a GP outside of these geographies.
- For the purpose of this needs assessment data is only included for individuals registered to a GP in the Suffolk area (so excludes North East Essex)
- Dataset is missing data from the following Suffolk GPs:
 - Woolpit Health Centre
 - The Reynard Surgery
 - Market Cross Surgery
 - Two Rivers Medical Centre
- Weight data is reported using [NHS body mass index classifications](#)
- Not all patients have a recorded BMI classification; therefore, percentages relating to comorbidities across BMI categories may not total 100%.

Children and Young people

Weight statistics

The National Childhood Measurement Programme (NCMP) is a government run programme which aims to keep track of children's growth and help identify any weight concerns early. The school nurse or health team measures a child's height and weight when they first start school (reception, ages 4-5) and before they leave primary school (year 6, ages 10-11). After measuring health professionals can calculate a Body Mass Index (BMI) and children will then be grouped into the following categories based on their BMI:

- **Underweight:** The child weighs less than 98% of children their age and sex
- **Healthy weight:** The child's weight is similar to most children their age and sex
- **Overweight:** The child weighs more than 85% of children their age and sex
- **Obesity:** The child weighs more than 95% of children their age and sex

The following sections describe the key findings from the NCMP for Suffolk.

It's important to note that 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% of all eligible children, however in 2019/20 the number of children measured was around 75% of previous years. Despite the lower than usual number of measurements, analysis by NHS England indicates that figures at national and regional level are directly comparable to previous years, for all breakdowns.

The data at local authority level and below are not as robust because of the fewer measurements than usual. Suffolk's reception data for 2019/20 has been categorised as 'fit for publication but interpret with caution'. This means that for 2019/20 the measured data coverage was between 25% and 75%. Therefore, the reception data is fit for publication, but caution is advised when using the outputs due to low numbers measured. Suffolk's year 6 data for 2019/20 has been categorised as 'reliable'. This means that for 2019/20 the measured data coverage was 75% or higher. Therefore, the year 6 data is considered a reliable estimate and comparable to analyses reported in previous years.

Following the disruption to the 2019/20 collection, NCMP did not officially open as usual at the start of the 2020/21 school year (September 2020). At the end of March 2021 Local Authorities were asked to use the remainder of the academic year to collect a representative sample of child measurement data. The sample of schools was stratified by deprivation and ethnicity,

taking every 9th school, to yield 10% of children in the local area, after factoring in that there could be a higher than normal level of pupil absence¹.

While all local authorities were asked to collect a 10% sample due to pandemic constraints, publication of reliable local authority data required achieving 75% of historical measurement levels compared to full collection years (2016/17-2018/19). Despite the challenging late sampling period (March-July 2021), 18 local authorities achieved the 75% threshold for reception children data, and 19 local authorities achieved the 75% threshold for Year 6 children data. This meant their data could be published as robust local estimates without the statistical weighting required for national figures.

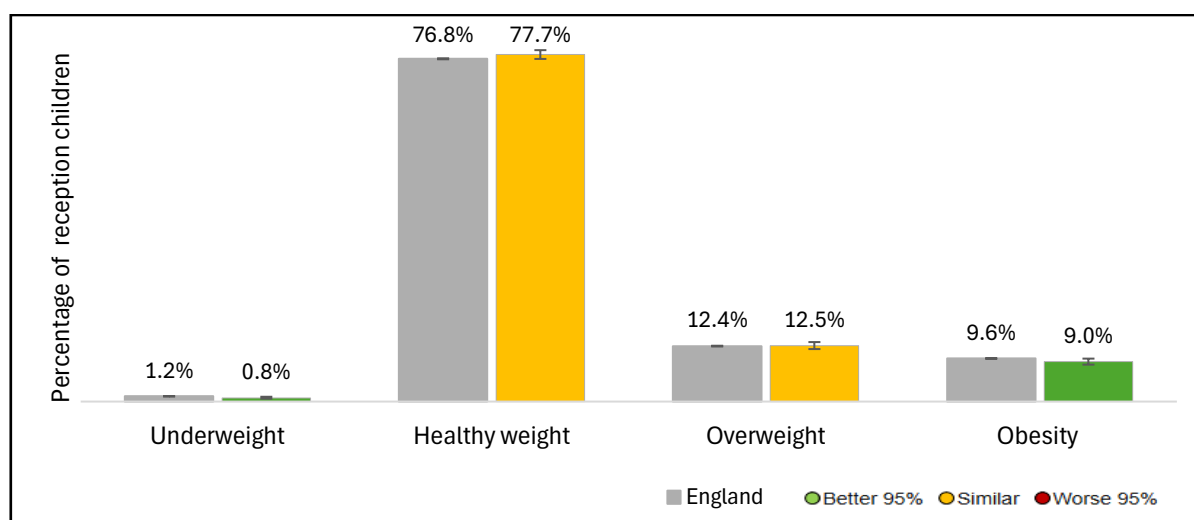
Suffolk achieved 80.4% of historical measurement levels for reception year data, exceeding the 75% publication threshold. Therefore, for reception aged children data is reported as normal without statistical weighting. However, Suffolk did not achieve the 75% threshold required for year 6 data. Therefore, 2020/21 data for Year 6 children in Suffolk has not been published or included within this analysis^{2,3}.

Reception age children (ages 4-5)

Figure 1 shows the percentage of reception children in Suffolk that fall into each weight category for 2023/24 compared to England. Results show that:

- **More than 1 in 5 reception children in Suffolk are living with an unhealthy weight-** this is the combined percentage of children who are living with either underweight, overweight, or obesity (22.3% total).
- **Suffolk has fewer children living with underweight** than the national average- just under 1% of reception children in Suffolk (55 people) are living with underweight statistically significantly better when compared to 1.2% in England.
- **Overweight percentages are similar-** 12.5% of Suffolk reception children are living with overweight (860 people), which is statistically similar to England (12.4%)
- **The percentage of reception children in Suffolk living with obesity is statistically significantly better when compared to England estimates-** 9.0% of Suffolk reception children are living with obesity (615 people) statistically significantly better compared to England (9.6%).

Figure 1: Percentage of reception children in Suffolk that fall into each weight category for 2023/24 compared to England.



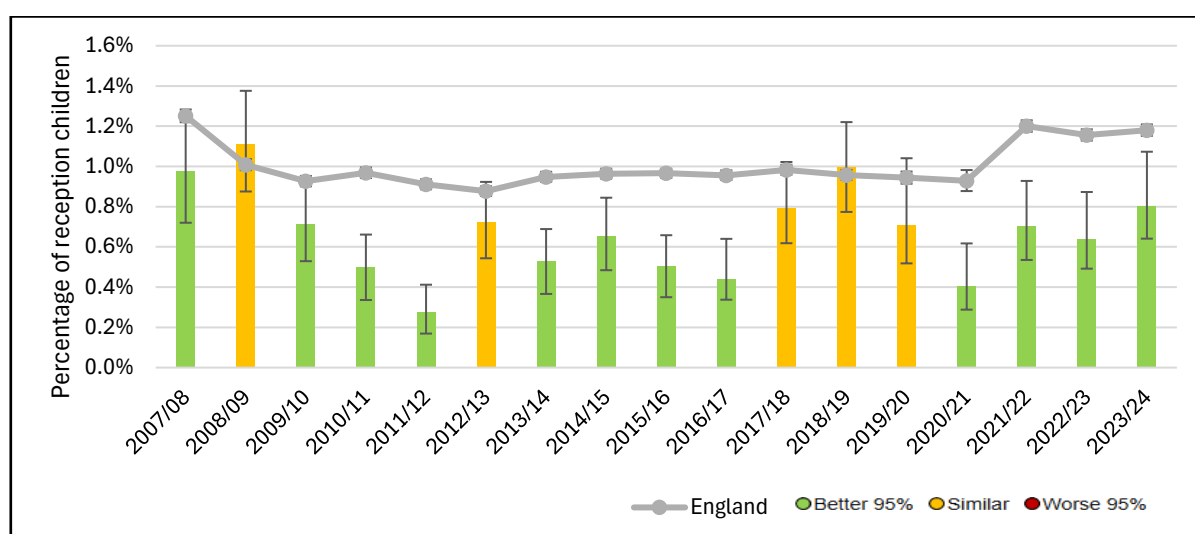
Source: [Fingertips](#)

Trends over time

Figure 2 shows the trends over time for the percentage of reception children in Suffolk living with underweight from 2007/08 to 2023/24 compared to England. Results show that:

- **Suffolk has maintained statistically significantly lower or similar percentage of reception children living with underweight when compared to England over the last 15 years.**
- Recent trends show the percentage of reception children living with underweight in Suffolk has increased from 0.4% to 0.8% between 2020/21 and 2023/24. However, the overlapping confidence intervals indicate that this is not statistically significant.

Figure 2: Trend overtime for the percentage of reception children in Suffolk living with underweight from 2007/08 to 2023/24, compared to England

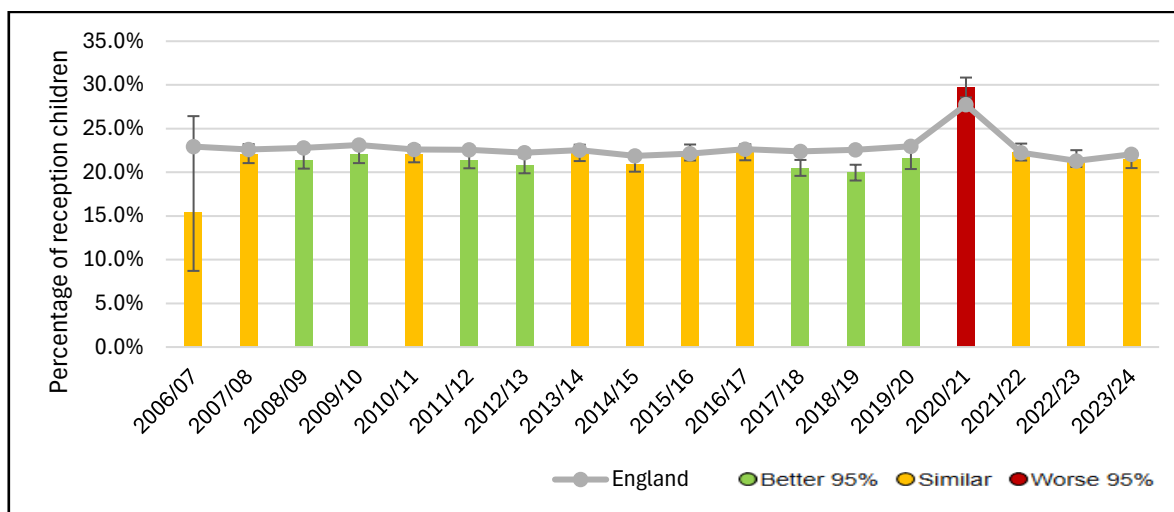


Source: [Fingertips](#)

Figure 3 shows the trends over time for the percentage of reception children in Suffolk living with overweight or obesity from 2006/07 to 2023/24 compared to England. Results show that:

- **The percentage of children living with overweight or obesity has remained relatively static between 21-23% for 16 years** – showing little variation in overweight or obesity among reception children over time.
- **COVID-19 exacerbated an already high baseline to 29.7% in 2021/22** - a 7 percentage point increase, statistically significantly higher than England.
- **The percentage of children living with overweight or obesity has returned to historic levels-** between 2021/22 and 2023/24 percentages reduced from 29.7% to 21.8% - a decrease of 7.9 percentage points.

Figure 3: Trend overtime for the percentage of reception children in Suffolk living with overweight or obesity from 2007/08 to 2023/24, compared to England



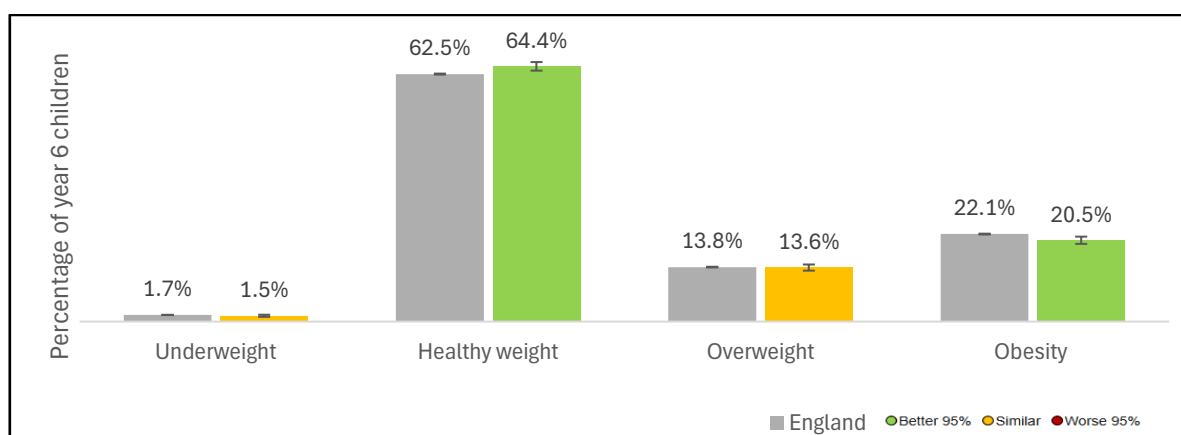
Source: [Fingertips](#)

Year 6 children (ages 10-11)

Figure 4 presents the weight categories for year 6 children in Suffolk for 2023/24. Results show that:

- **While Suffolk performs better or similar to England estimates, over 1 in 3 year 6 children in Suffolk are still living with an unhealthy weight** - this is the combined percentage of children who are either living with underweight, overweight, or obesity (35.6%, nearly 2,700 people).
- **The percentage of year 6 children living with underweight in Suffolk is statistically similar to the England average** - 1.5% of year 6 children in Suffolk (110 people) are living with underweight, compared to 1.7% across England.
- **1,025 year 6 children (13.6%) are living with overweight in Suffolk**- this is statistically similar to England estimates (13.8%).
- **Over 1 in 5 year 6 children in Suffolk are living with obesity**- 20.5% (1,540 people), although statistically significantly better when compared to England (22.1%).

Figure 4: Percentage of year 6 children in Suffolk that fall into each weight category for 2023/24 compared to England.



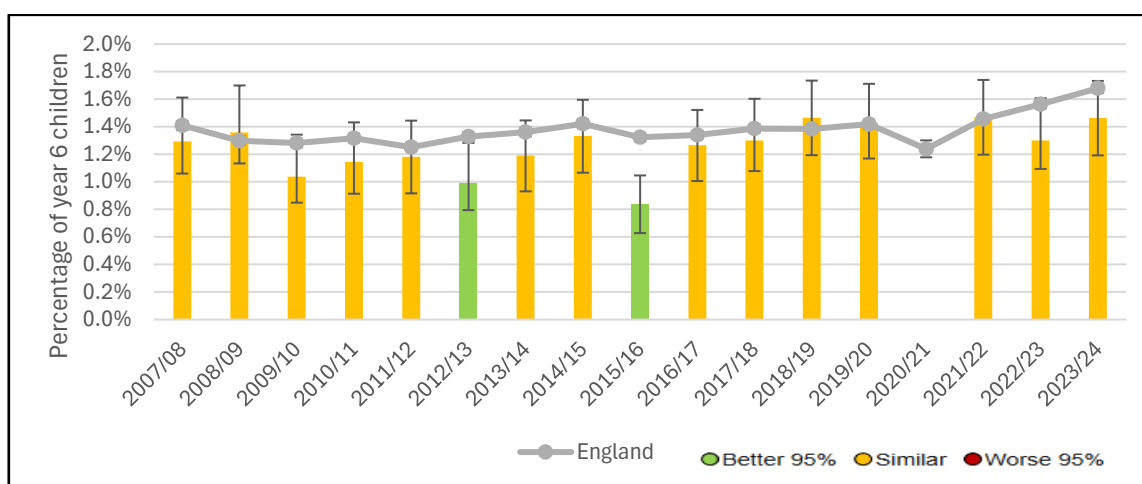
Source: [Fingertips](#)

Trends over time

Figure 5 tracks the trend over time for year 6 children living with underweight in Suffolk from 2007/08 to 2023/24. Results show that:

- **Suffolk has maintained statistically significantly lower or similar percentage of year 6 children living with underweight when compared to England over the last 15 years-** with the percentage of children remaining statistically similar throughout 2007/08 to 2023/24
- The percentage of year 6 children living with underweight has risen above pre-pandemic levels- also shown across England. However, the overlapping confidence intervals indicate that year-to-year fluctuations reflect variation rather than definitive statistically significant changes.

Figure 5: Trend overtime for the percentage of year 6 children in Suffolk living with underweight from 2007/08 to 2023/24, compared to England



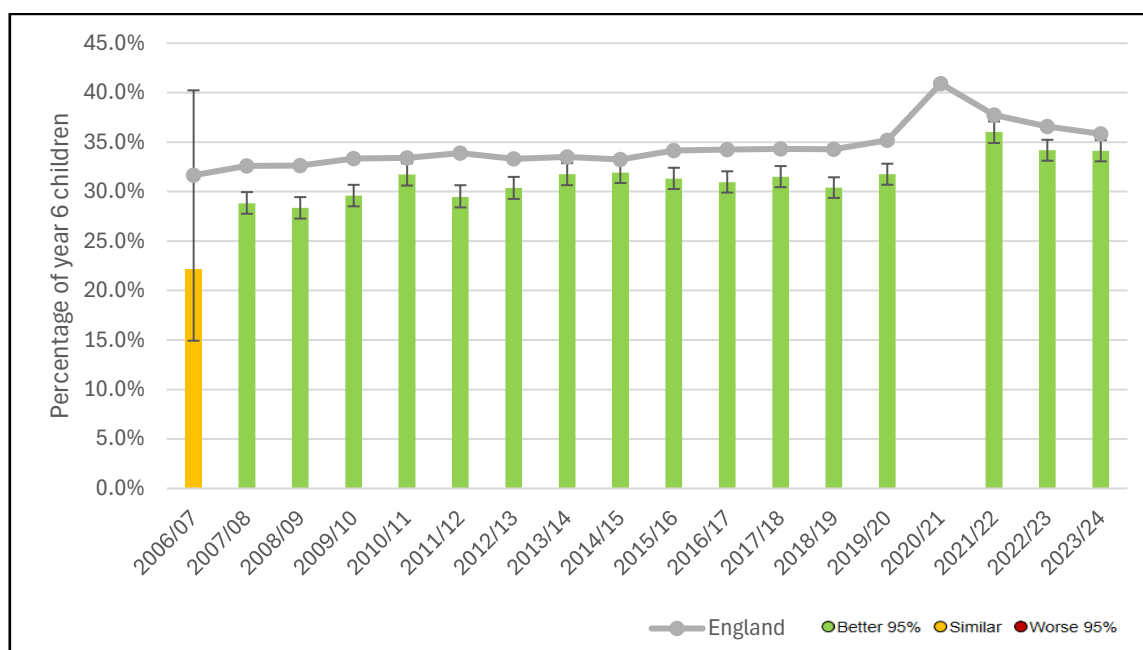
2020/2021 Suffolk NCMP data did not achieve the 75% threshold required for publication

Source: [Fingertips](#)

Figure 6 tracks the trend over time for year 6 children living with overweight or obesity in Suffolk from 2006/07 to 2023/24. Results show that:

- **Suffolk has consistently remained below the national average** - maintaining statistically significantly lower overweight and obesity percentages throughout the period.
- **Suffolk has experienced gradual increases of children living with overweight or obesity up until the pandemic period** – in 2007/08 Suffolk the percentage of year 6 children living with overweight or obesity was 28.8%. This rose to 31.8% by 2019/20, and 34.1% in 2023/24, all statistically significantly lower when compared to England.
- **The pandemic caused a spike in year 6 children living with overweight or obesity-** with England reaching a peak just over 40.9% in 2020/21, while Suffolk hit its highest reported percentage of 36.0% in 2021/22.
- **Percentages remain elevated post-pandemic** - Suffolk has declined slightly to around 34.1% by 2023/24, but this is still above pre-pandemic levels.

Figure 6: Trend overtime for the percentage of year 6 children in Suffolk living with overweight or obesity from 2007/08 to 2023/24, compared to England



2020/2021 Suffolk NCMP data did not achieve the 75% threshold required for publication

Source: [Fingertips](#)

BMI Tracking

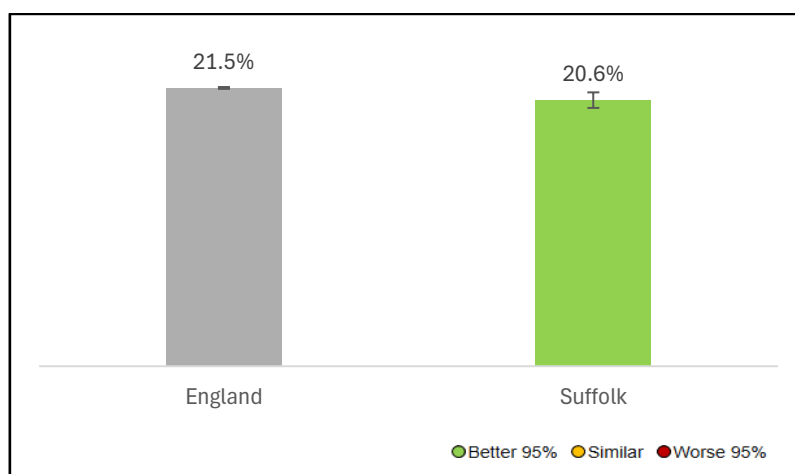
The percentage of children living with obesity is rising and increasingly persists into adulthood. As children age, their likelihood of living with obesity as adults grows substantially. Studies show children living with overweight or obesity become progressively more likely to carry this weight status into adulthood⁴⁻⁶.

In England, data from the Office for Health Improvement and Disparities (OHID) reveals most children starting reception (ages 4-5) with healthy weight maintain it through year 6 (ages 10-11). However, more children shift from healthy to unhealthy weight than vice versa, explaining the increased obesity percentage across primary school years. This trend sets the stage for lifelong health risks associated with living with obesity⁷.

Figure 7 shows the percentage of children in Suffolk who were living with healthy weight when they started reception (ages 4-5) but were living with overweight or obesity by Year 6 (ages 10-11). The data covers the period from 2021/22 to 2023/24 and combines three years of NCMP data. By tracking a larger group of children throughout their entire primary school journey, this approach provides more statistically reliable results than looking at single-year data alone.

Results show that, in Suffolk, 20.6% of children with healthy weight in reception are living with overweight or obesity in year 6. This is statistically significantly better than England's average of 21.5%. This demonstrates that **despite performing better than the national average, Suffolk still sees 1 in 5 healthy weight children aged 4-5 live with overweight or obesity by ages 10-11.**

Figure 7: Percentage of children moving from healthy weight in reception to overweight (including obesity) in year 6, in Suffolk between 2021/22 and 2023/24, compared to England

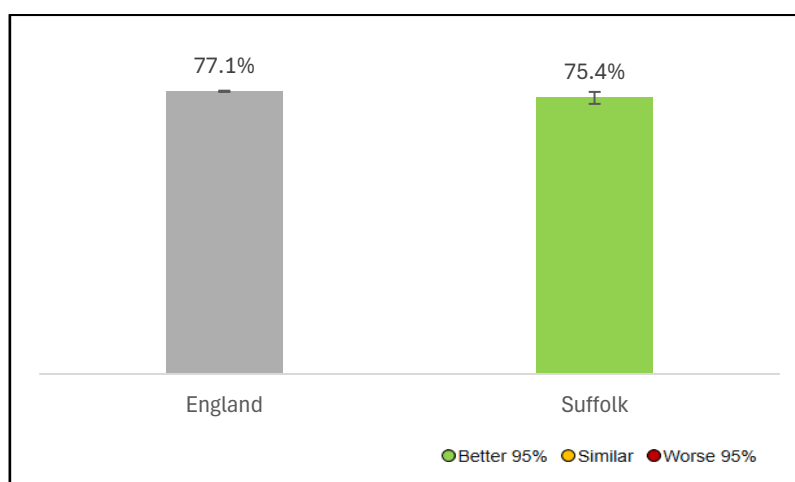


Source: [Fingertips](#)

Figure 8 tracks children who started reception (ages 4-5) living with overweight or obesity to see what percentage remained living with overweight or obesity by year 6 (ages 10-11). Similarly, the figure combines data from three different yearly measurements through the NCMP, tracking a larger group of children through their full primary school journey, which allows for a more statistically robust and reliable picture.

Results show that, in Suffolk, 75.4% of children who were living with overweight or obesity in reception remained living with overweight or obesity by year 6. This is statistically significantly better than the England average of 77.1%. This reveals high persistence of childhood obesity - once children are living with overweight or obesity at age 4-5, they are very likely to remain so throughout primary school. **While Suffolk performs slightly better the national average, 3 in 4 children living with overweight or obesity maintain this weight throughout primary school**, emphasising the challenge of reversing childhood weight patterns.

Figure 8: Percentage of reception children remaining overweight (including obesity) in year 6, in Suffolk between 2021/22 and 2023/24, compared to England



Source: [Fingertips](#)

Percentage point difference in classification for children from reception to year 6

The analysis in this section uses a different but complementary approach to the BMI tracking data presented above.

There are important distinctions to note between these two statistical methods:

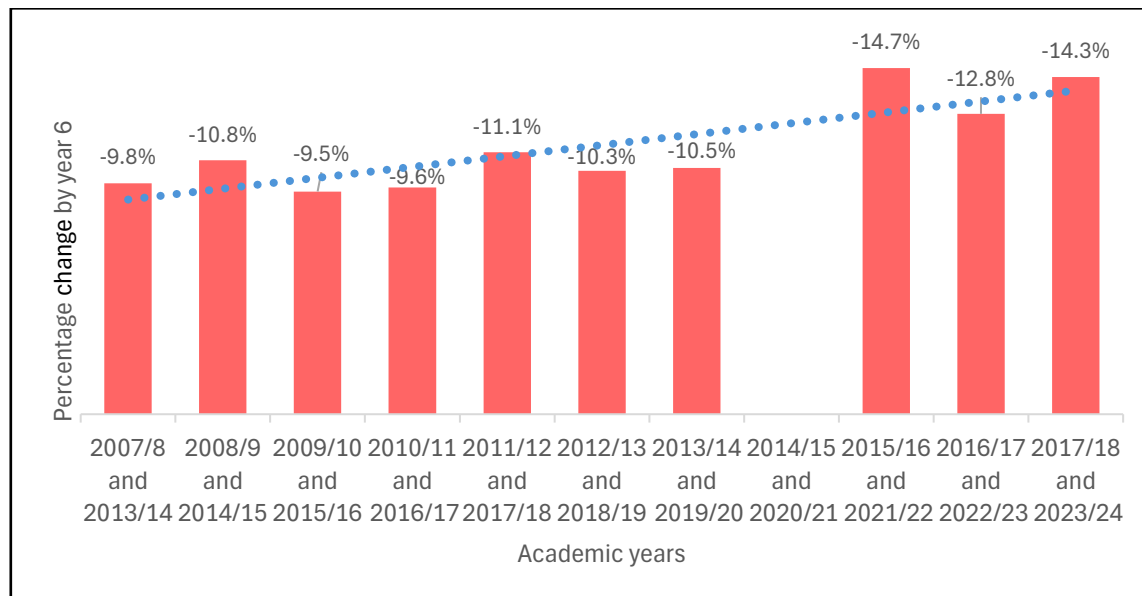
- **BMI Tracking Analysis:** Follows specific individuals longitudinally, showing how children's weight classifications change during their primary school years. This approach reveals whether individual children maintain, improve, or worsen their weight status over time.
- **Percentage Point Difference Analysis:** Compares separate cohorts of children at reception and Year 6, examining population-level differences between age groups. This cross-sectional comparison works because the reception cohort in 2007/08 would roughly correspond to the same year 6 cohort in 2013/14 (since there's approximately a 6-year gap between reception and year 6). This approach highlights broader trends affecting entire groups rather than individual trajectories.

Together, these two analytical methods provide a more complete picture of childhood weight patterns in Suffolk.

Figure 9 shows the percentage point difference in healthy weight classification for cohorts from reception to year 6 in Suffolk between 2007/8 and 2013/14, and 2017/18 and 2023/24 cohorts (2014/15 and 2020/21 cohort comparison was unavailable due to no reporting at the beginning of the COVID-19 pandemic). Results show:

- **An increasing trend of children moving from a healthy weight status between early and late primary school**
- **This trend is worsening over time** - The rising blue dotted trend line shows that the challenge of maintaining healthy weight throughout childhood is getting worse. An increasing number of children who start primary school living with healthy weight end up living with overweight or obesity by the time they finish.
- **In the most recent years, a larger percentage of children have moved out of the healthy weight classification** - This suggests that maintaining healthy weight over time is becoming a growing problem for the population.

Figure 9: Percentage point difference in healthy weight classification in cohorts from reception to year 6 in Suffolk between 2007/08 reception cohort and 2013/14 year 6 cohort, and 2017/18 reception cohort and 2023/24 year 6 cohort.



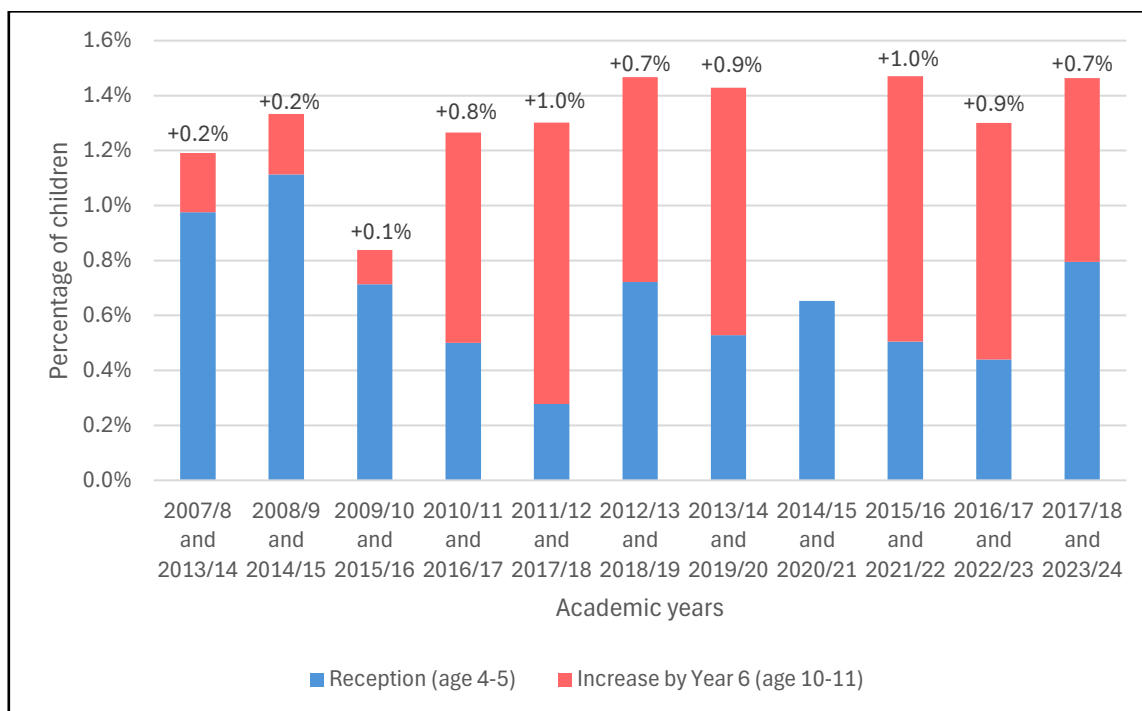
2020/2021 Suffolk NCMP data did not achieve the 75% threshold required for publication. Therefore, 2014/15 and 2020/21 comparison was unavailable.

Source: [Fingertips](#)

Figure 10 shows the percentage point difference in the underweight classification for the same cohorts from reception to year 6 in Suffolk. The blue bars represent the percentage of children living with underweight in the reception cohort (ages 4-5) and the red portion and text label shows the additional increase in children living with underweight in the corresponding year 6 cohort.

Results show that **more children are transitioning into the underweight category throughout primary school in Suffolk** with recent years showing a 0.7% increase (2016/17 reception and 2023/24 year 6).

Figure 10: Changes in underweight classification in children from reception to year 6 in Suffolk between 2007/08 reception cohort and 2013/14 year 6 cohort, and 2017/18 reception cohort and 2023/24 year 6 cohort.



2020/2021 Suffolk NCMP data did not achieve the 75% threshold required for publication

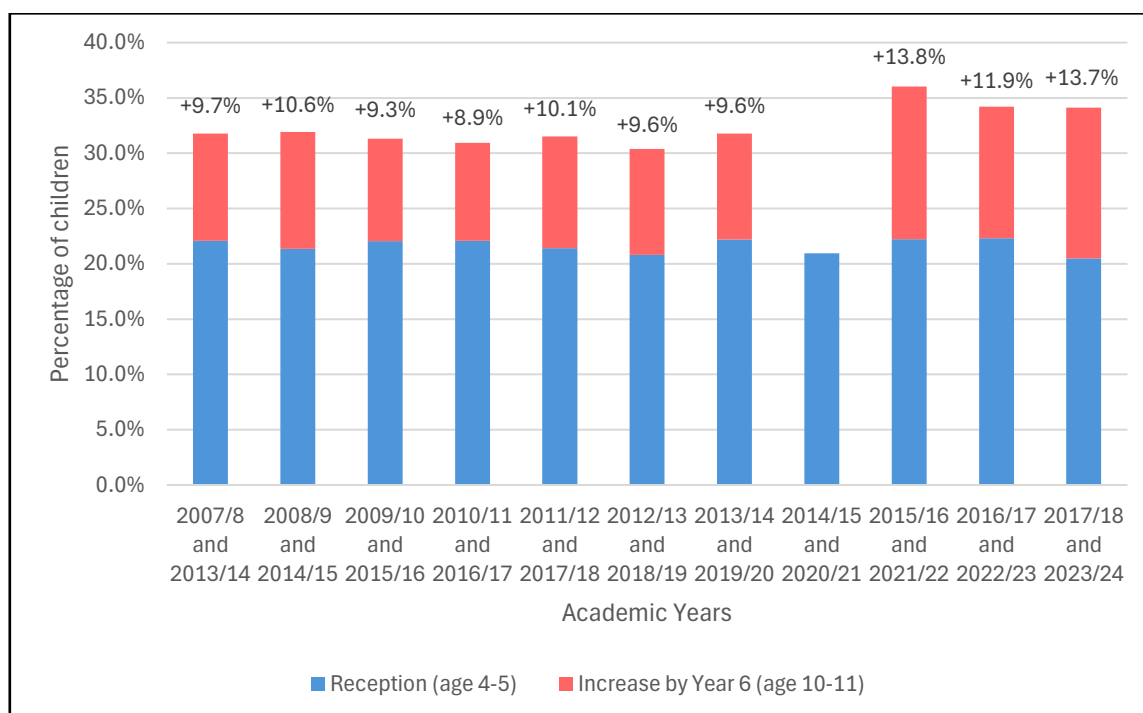
Source: [Fingertips](#)

Figure 11 shows the percentage point difference in children living with overweight and obesity in the same cohorts from reception to year 6 in Suffolk. The blue bar represents the percentage of children living with overweight or obesity at reception (ages 4-5). The red portions show the additional increase in the percentage of children living with overweight or obesity by year 6.

Results highlight that:

- **Compared to reception cohorts, more children in corresponding year 6 cohorts are living with overweight or obesity.**
- Notably the figure shows a clear **jump in the increase of children living with overweight or obesity for those in year 6 after the COVID-19 pandemic**. This suggests the pandemic may have exacerbated childhood weight gain, with more children living with overweight or obesity during their primary school years.
- This indicates that **more needs to be done to address maintaining a healthy weight throughout childhood, particularly in the post-pandemic context.**

Figure 11: the percentage point difference in children living with overweight and obesity from reception to year 6 in Suffolk between 2007/08 reception cohort and 2013/14 year 6 cohort, and 2017/18 reception cohort and 2023/24 year 6 cohort.



2020/2021 Suffolk NCMP data did not achieve the 75% threshold required for publication

Source: [Fingertips](#)

Demographic variation

This section examines variations by gender, ethnicity and socioeconomic deprivation for children in reception (ages 4-5) and year 6 (ages 10-11). By examining NCMP data through the lens of key demographic factors we can better understand how underweight or overweight and obesity impacts different population groups.

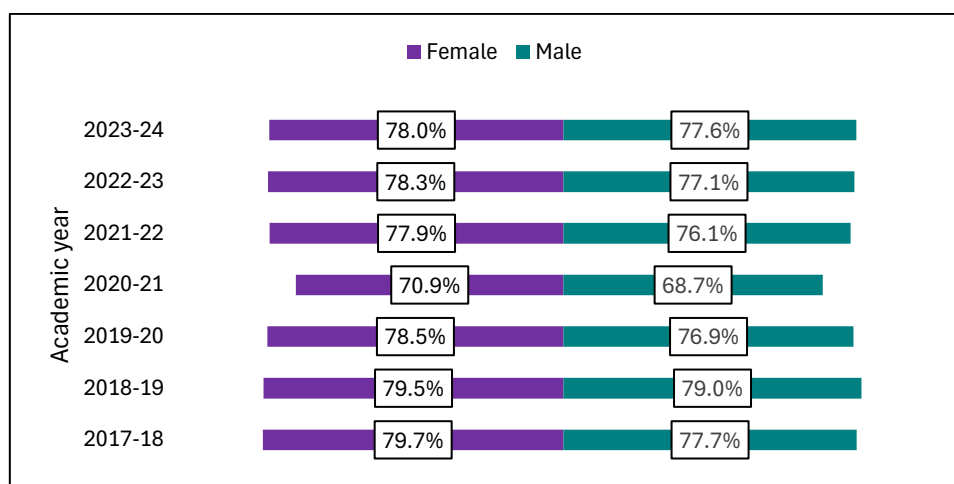
Reception children (ages 4-5)

Gender

Figure 12 presents the percentage of reception children living with a healthy weight for academic years 2017-18 to 2023-24 in Suffolk, split by gender. Results show that:

- **Female children consistently maintain higher percentages of healthy weight across all academic years** - with percentages typically 0.3-1.0 percentage points higher than their male counterparts.
- **The largest gender gap occurred during the pandemic year 2020-21** when healthy weight percentages dropped to 70.9% for females and 68.7% for males. **Both males and females returned to pre-pandemic levels by 2021-22** but the difference remained.
- **The overall trend shows relative stability** outside the pandemic disruption, with healthy weight percentages ranging from 76-80% for both males and females in most years.

Figure 12: Percentage of healthy weight children in reception by academic year and gender, in Suffolk

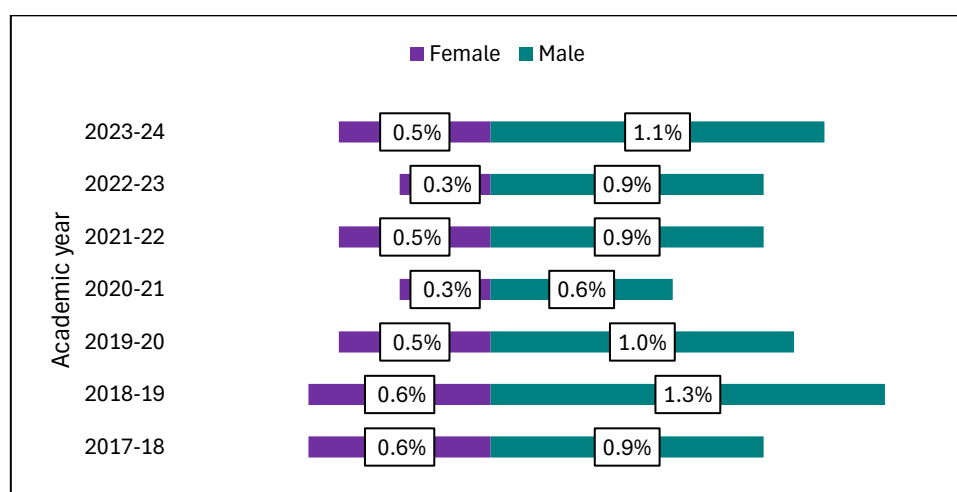


Source: Suffolk NCMP Dashboard

Figure 13 presents the percentage of reception children living with underweight for academic years 2017-18 to 2023-24 in Suffolk. The data reveals that:

- **More male children are living with underweight than females**- with percentages typically double those of female counterparts across most years.
- **Males have underweight percentages ranging from 0.6% to 1.3%**, while **female percentages remain consistently lower at 0.3% to 0.6%**. During the pandemic year 2020-21, underweight percentages reached their lowest levels for both genders, with females at 0.3% and males at 0.6%.
- **The overall trend shows mild year-to-year variation** but no clear directional pattern, with both genders maintaining relatively stable underweight percentages throughout the seven-year period.
- Whilst NCMP data show males being more underweight in some years, this is often a reflection of natural growth differences and should be interpreted with caution, considering the various factors that influence child weight status.

Figure 13: Percentage of underweight children in reception by academic year and gender, in Suffolk

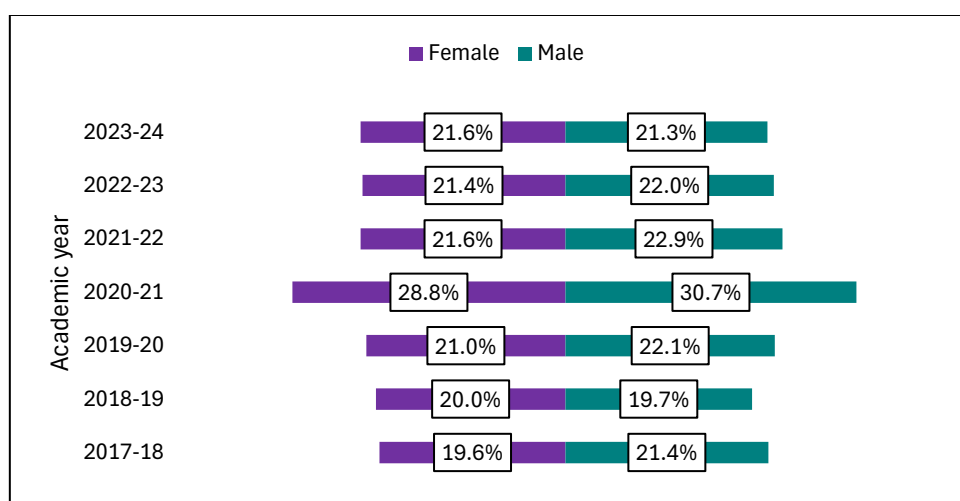


Source: Suffolk NCMP Dashboard

Figure 14 presents the percentage of reception children living with overweight or obesity for academic years 2017-18 to 2023-24 for Suffolk. The data reveals that:

- **Both genders maintain relatively similar percentages of overweight and obesity**, with minor variations between genders across different years. Female percentages have ranged from 19.6% to 28.8%, while male percentages have ranged from 19.7% to 30.7%.
- **The pandemic year 2020-21 shows the highest percentages for both genders** - peaking at 28.8% for females and 30.7% for males. This represents a significant increase from pre-pandemic levels and **marks the period where the gender difference was most pronounced, with males exceeding females by 1.9 percentage points.**
- **Following the pandemic, percentages decreased substantially for both genders** - returning closer to pre-pandemic levels by 2021-22 and continuing to decline through 2023-24.

Figure 14: Percentage of children in reception living with overweight or obesity by academic year and gender, in Suffolk



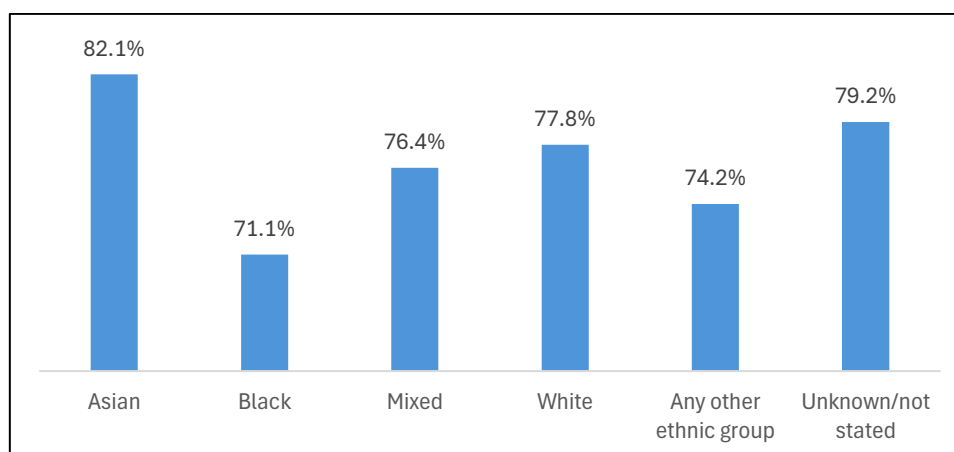
Source: Suffolk NCMP Dashboard

Ethnicity

Figures 15 and 16 present the percentage of children by weight category in reception split by ethnicity, for 2023/24 academic year, in Suffolk. Results show that:

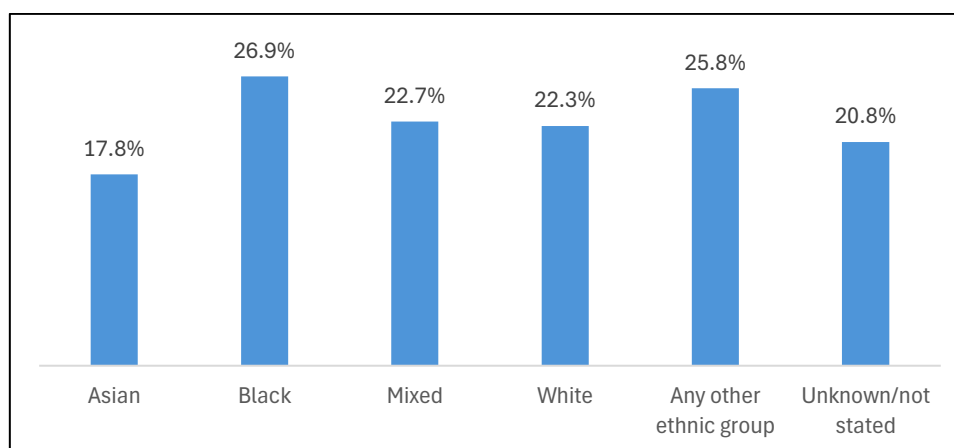
- **82.1% of children recorded as Asian are living with a healthy weight and 17.8% are living with an unhealthy weight** (underweight, overweight or obese)
- **71.1% of children recorded as Black are living with a healthy weight and 26.9% are living with an unhealthy weight**- representing an 11.0 percentage point gap in healthy weight and 9.1 percentage point gap in unhealthy weight compared to children who identify as Asian
- **Other ethnic groups show intermediate patterns:** Children who are recorded as White (77.8% healthy, 22.3% unhealthy), Mixed (76.4% healthy, 22.7% unhealthy), Any other ethnic group (74.2% healthy, 25.8% unhealthy), and Unknown/not stated (79.2% healthy, 20.8% unhealthy)

Figure 15: Percentage of healthy weight children in reception split by ethnicity, for 2023/24 academic year, in Suffolk



Source: Suffolk NCMP Dashboard

Figure 16: Percentage of children categorised as either underweight, overweight or obese in reception split by ethnicity, for 2023/24 academic year, in Suffolk

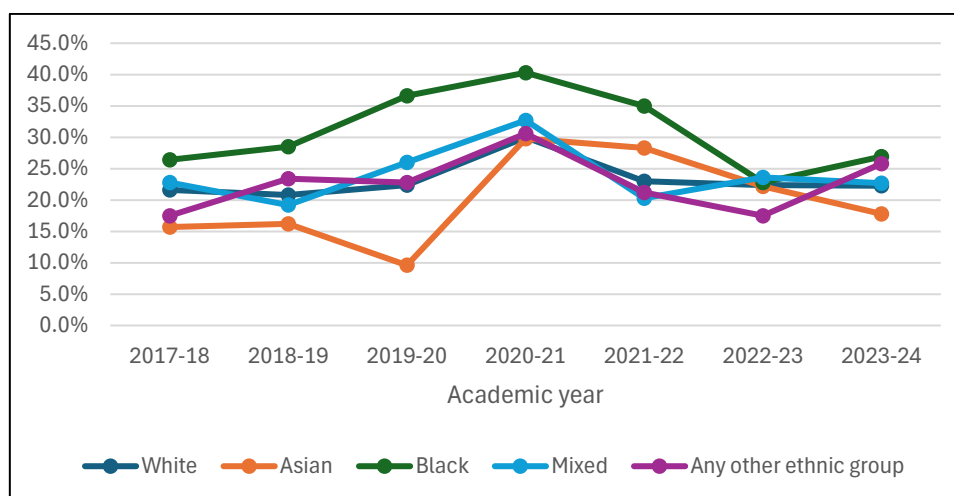


Source: Suffolk NCMP Dashboard

Figure 17 presents the percentage of children living with underweight, overweight or obesity in reception split by ethnicity, by academic year, in Suffolk. Results show that:

- **Children who are recorded as Black consistently show the highest percentages living with unhealthy weight** across most years, ranging from 25.7% to 40.5%, with notable peaks in 2019-20 (36.8%) and 2020-21 (40.5%)
- **Children who are recorded as Asian show the most variable pattern**, ranging from 10.3% (2019-20) to 28.7% (2020-21), representing the largest year-to-year fluctuation (18.4 percentage points)
- **Children who are recorded as White demonstrate the most consistent trajectory**, with percentages between 20.9% and 32.7%, showing more consistent patterns across years
- **The 2020-21 academic year shows notably higher percentages** across all ethnic groups, potentially reflecting COVID-19 pandemic impacts
- **By 2023-24, percentages have generally stabilised** across all ethnic groups to levels similar to 2017-18, though disparities remain

Figure 17: Percentage of children living with either underweight, overweight or obese in reception split by ethnicity, by academic year, in Suffolk



Source: Suffolk NCMP Dashboard

Deprivation

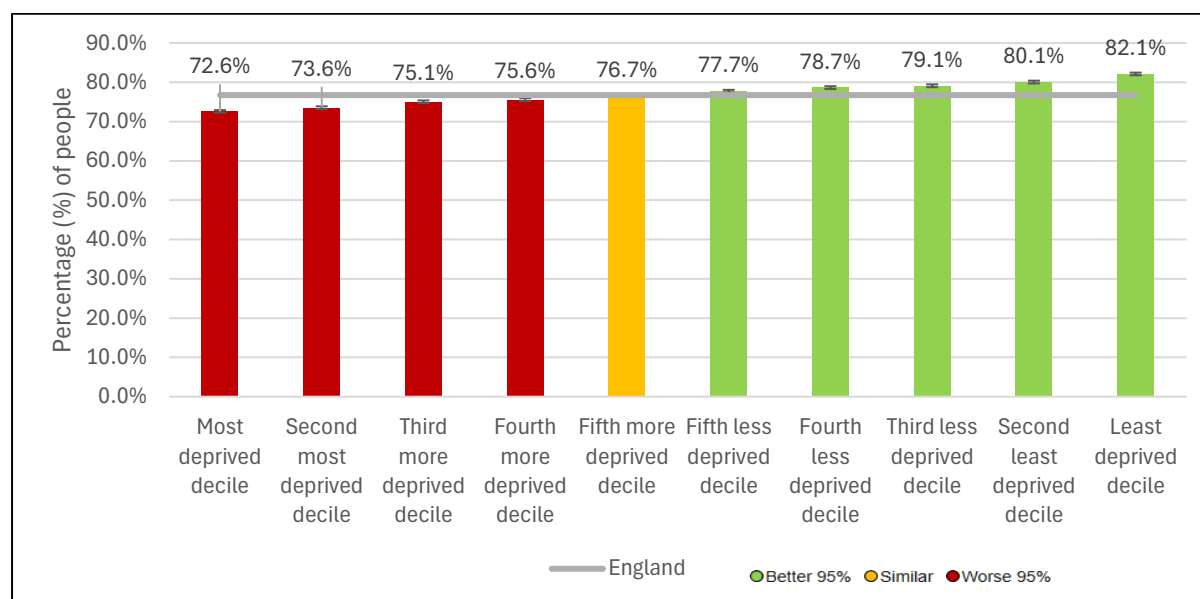
The data in this section shows the percentage of pupils living with healthy weight, overweight obesity and underweight in relation to the Index of Multiple Deprivation (IMD), which is part of the [Indices of Deprivation \(IoD\)](#). The IMD is the official measure of relative deprivation in England, and IMD data is split by deprivation decile. Decile 1 includes the 10% most deprived areas nationally and decile 10 includes the least deprived 10% of areas. The latest publication was in 2019, and the next update is scheduled for 2025.

Due to wide ranging confidence intervals, meaning each decile is statistically similar, Suffolk deprivation data in relation to BMI classifications has not been included.

Figure 18 presents the percentage of reception children living with a healthy weight in England, split by deprivation decile, compared to the England average for 2023/24. Results show:

- Across England in 2023/24, 72.6% of reception children from the most deprived areas are living with a healthy weight compared to 82.1% in the least deprived areas (a 9.5 percentage point difference), with the 40% most deprived areas performing statistically significantly below the England average.
- The percentage of reception children who are living with a healthy weight is lower in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic problem rather than limited to extreme deprivation.

Figure 18: Percentage (%) of healthy weight reception children (4-5 yrs) in England, split by deprivation decile, compared to England average, 2023/24



Source: [Fingertips](#)

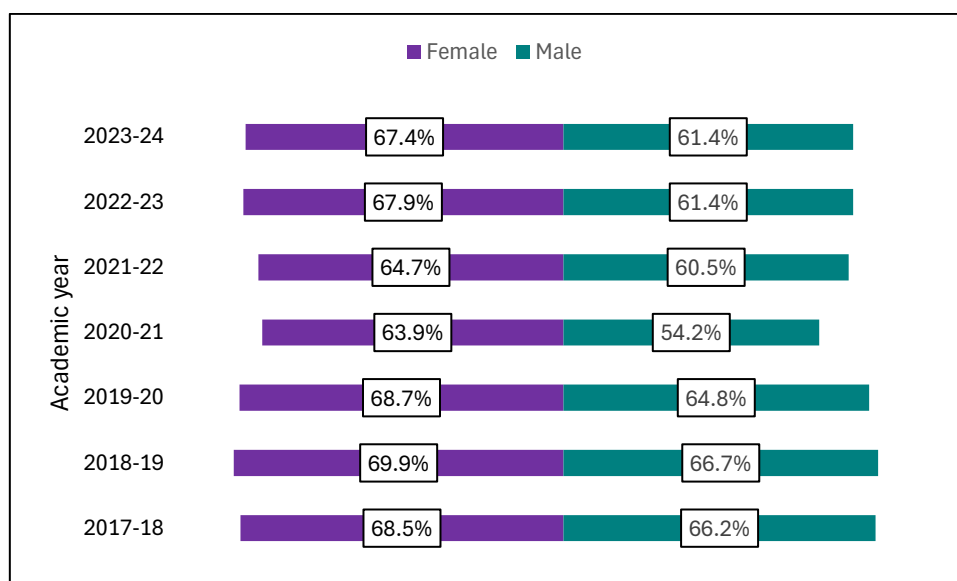
Year 6 children (ages 10-11)

Gender

Figure 19 presents the percentage of year 6 children living with a healthy weight for academic years 2017-18 to 2023-24 in Suffolk. Results show that:

- **Female children consistently maintain higher percentages living with a healthy weight across all academic years** - with percentages typically 3-7 percentage points higher than their male counterparts
- **The largest gender gap occurred during the pandemic year 2020-21** when healthy weight percentages dropped to 63.9% for females and 54.2% for males (a 9.7 percentage point difference) - the only time the gender gap exceeded 7 percentage points
- **Percentages stabilised or decreased slightly for both genders by 2023-24**, reaching 67.4% for females (down 0.5%) and 61.4% for males (unchanged). While these remain below pre-pandemic levels (69.9% and 66.7% in 2018-19), the gap has narrowed considerably from the pandemic trough

Figure 19: Percentage of healthy weight children in year 6 by academic year and genders, for Suffolk



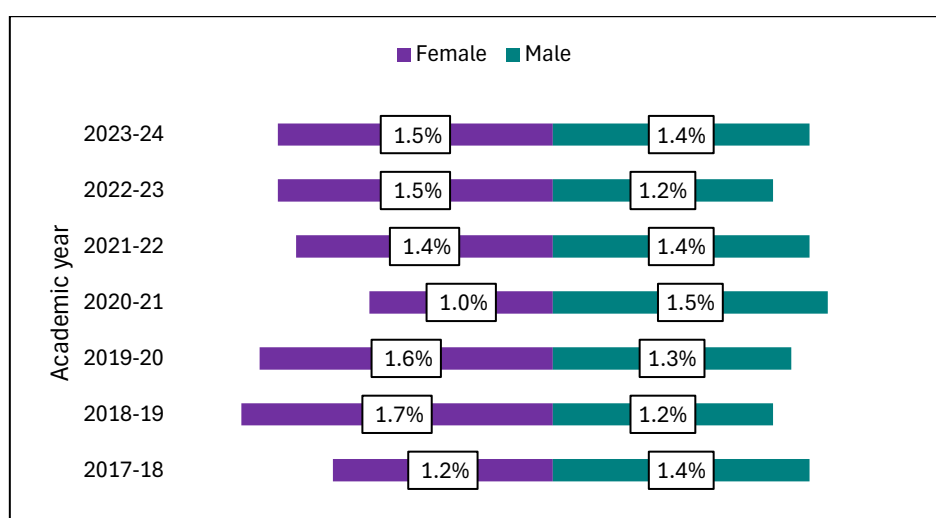
Source: Suffolk NCMP Dashboard

Figure 20 presents the percentage of Year 6 children living with underweight for academic years 2017-18 to 2023-24 in Suffolk. Results show that:

- **Underweight percentage is consistently low** - ranging from 1.0-1.7% across all years with no clear trend
- **Genders differences are minimal** - neither gender shows consistently higher percentages, with differences typically within 0.3 percentage points
- **The pandemic year 2020-21 showed divergent patterns** - females reached their lowest rate (1.0%) while males reached their highest (1.5%), creating the largest gender gap (0.5 percentage points)

The minimal gender differences and overall low percentage suggest that underweight is relatively uncommon among Year 6 children, with variation appearing random rather than systematic.

Figure 20: Percentage of underweight children in year 6 by academic year and gender, for Suffolk

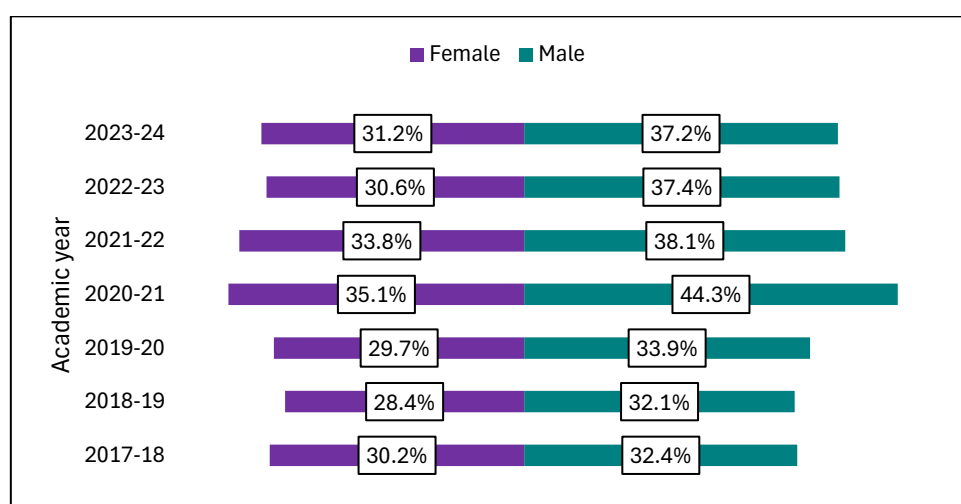


Source: Suffolk NCMP Dashboard

Figure 21 presents the percentage of Year 6 children living with overweight or obesity for academic years 2017-18 to 2023-24 in Suffolk. Results show that:

- **Males consistently show higher percentages living with overweight/obesity** - with percentages typically 2-9 percentage points higher than females across all academic years
- **The pandemic year 2020-21 marked the peak for both genders** - males reached their highest rate (44.3%) while females reached 35.1%, creating the largest gender gap (9.2 percentage points)
- **Percentages have decreased for both genders post-pandemic** - by 2023-24, males dropped to 37.2% and females to 31.2%, though these remain above pre-pandemic levels

Figure 21: Percentage of overweight and obese children in year 6 by academic year and gender, for Suffolk



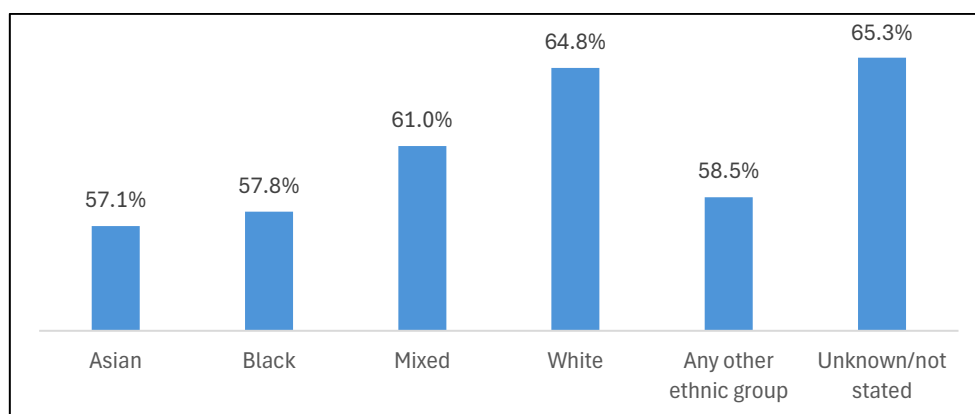
Source: Suffolk NCMP Dashboard

Ethnicity

Figures 22 and 23 present the percentage of children living with underweight, healthy weight, overweight or obesity in Year 6 split by ethnicity, for 2023/24 academic year, in Suffolk. Results show that:

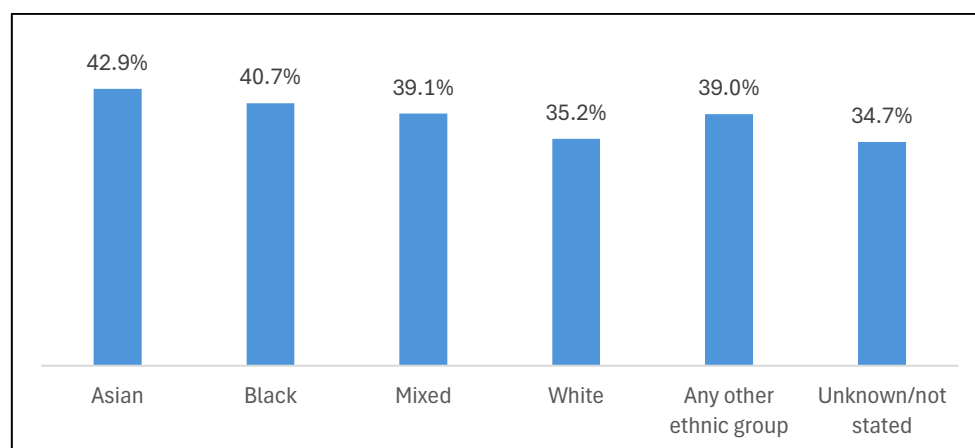
- **Children recorded as White have the highest percentage living with healthy weight** (64.8%), followed closely by "Unknown/not stated" (65.3%)
- **Children who are recorded Asian have the lowest percentage living with healthy weight (57.1%), a 7.7 percentage point gap when compared to children who identify as White-** 42.9% of children who identify as Asian are living with an unhealthy weight (underweight, overweight or obese)
- 57.8% of children who are recorded as Black are living with a healthy weight and 40.7% are living with an unhealthy weight
- Other ethnic groups show varying patterns: Children recorded as Mixed ethnicity (61.0% living with a healthy weight, 39.1% living with an unhealthy weight), as any other ethnic group (58.5% living with a healthy weight, 39.0% living with an unhealthy weight)

Figure 22: Percentage of healthy weight children in year 6 split by ethnicity, for 2023/24 academic year, in Suffolk



Source: Suffolk NCMP Dashboard

Figure 23: Percentage of children categorised as either underweight, overweight or obese in year 6 split by ethnicity, for 2023/24 academic year, in Suffolk



Source: Suffolk NCMP Dashboard

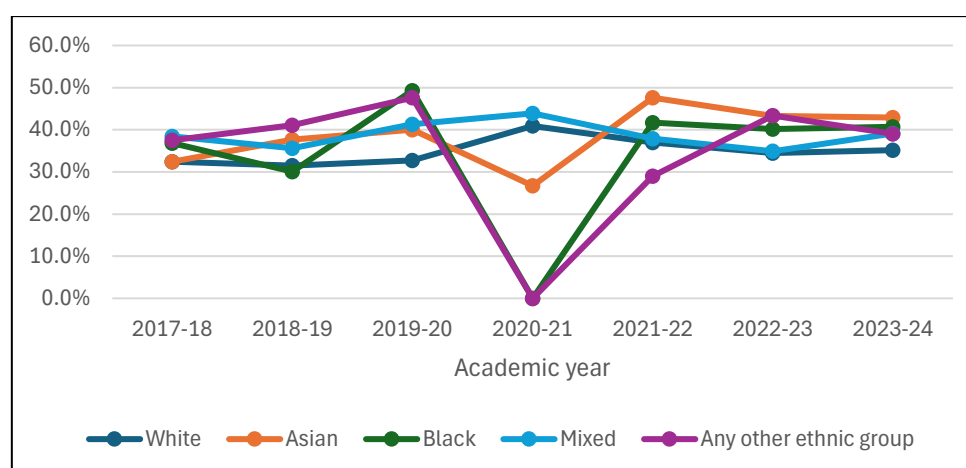
Figure 24 presents the percentage of children living with underweight, overweight or obese in Year 6 split by ethnicity, by academic year, in Suffolk. Results show that:

- **Children recorded as White demonstrate a relatively stable trajectory** with the percentage of children living with unhealthy weight ranging from 31.5% (2018-19) to its highest at 40.9% (2020-21), a 9.4 percentage point difference. In 2023-24 the percentage decreased to 35.2%, in line with historic numbers.
- **Children recorded as Asian showed notable fluctuations**, with percentages living with an unhealthy weight ranging from 26.7% (2020-21) to 47.6% (2021-22), a 20.9 percentage point difference. The percentage of Asian children living with an unhealthy weight in 2023-24 was 42.9%, suggesting that percentages have not yet met pre-pandemic figures, presenting a 10.5 percentage point increase from 2017-18 (32.4%).
- **Children recorded as Black also exhibited variations**, with percentages living with unhealthy weight ranging from 30.1% (2018-19) to 49.3% (2019-20), a 19.2 percentage point difference. By 2023-24, their rate (40.7%) is 3.9 percentage points higher than pre-pandemic numbers in 2017-18 (36.8%).
- **Children recorded as Mixed ethnicity also show a fluctuating pattern**, with percentages ranging from 34.9% (2022-23) to 43.9% (2020-21), a 9.0 percentage point

difference. Their 2023-24 figure (39.1%) represents a slight increase of 0.7 percentage points from 2017-18 (38.4%).

- **Children recorded within "Any other ethnic group" display variation** with percentages living with an unhealthy weight ranging from 29.0% (2021-22) to 47.6% (2019-20), an 18.6 percentage point difference. By 2023-24, their percentage (39.0%) was 1.5 percentage points higher than in 2017-18 (37.5%).
- **The 2020-21 academic year shows infrequent patterns** with data gaps for some ethnic groups and significant changes for others, likely reflecting COVID-19 pandemic impacts.
- By 2023-24, there remains a 7.7 percentage point gap between the ethnic group with the lowest percentage living with an unhealthy weight (children who identify as White at 35.2%) and highest percentage living with an unhealthy weight (children who identify as Asian at 42.9%).

Figure 24: Percentage of children categorised as either underweight, overweight or obese in year 6 split by ethnicity, by academic year, in Suffolk



Source: Suffolk NCMP Dashboard

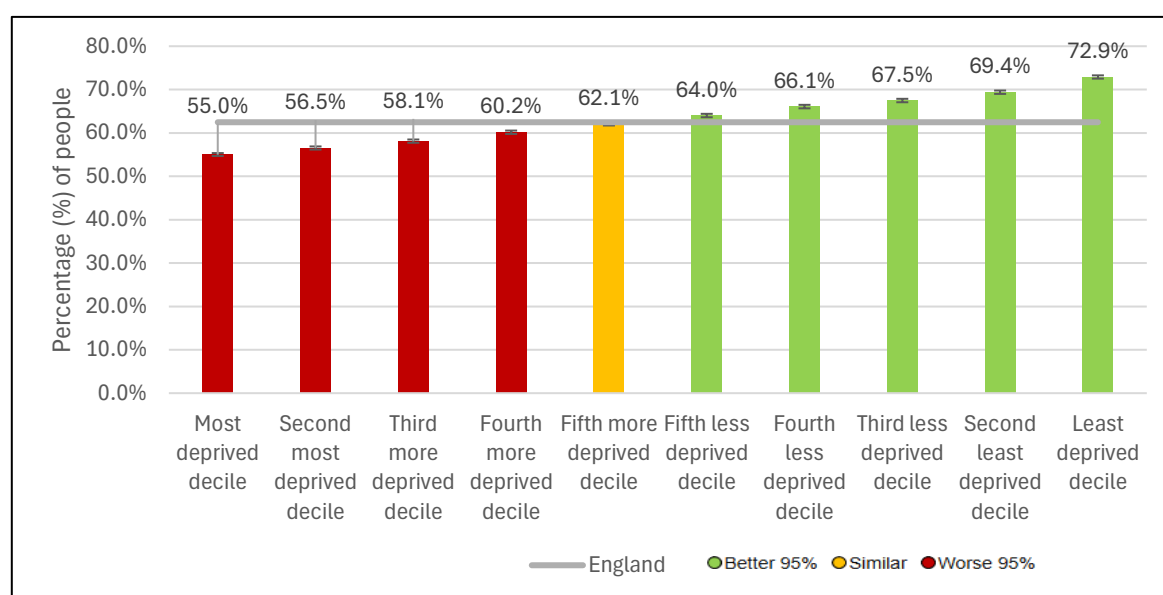
Deprivation

Due to wide ranging confidence intervals Suffolk deprivation data in relation to BMI classifications has not been included. This is because the results for each group were statistically similar, and meaningful conclusions could not be made.

Figure 25 shows the percentage of year 6 children in England living with a healthy weight, split by deprivation, compared to the England average for 2023/24. Results show:

- Across England in 2023/24, 55.0% of children from the most deprived areas live with a healthy weight compared to 72.9% in the least deprived areas, a 17.9 percentage point difference, with the 40% most deprived areas performing statistically significantly below the England average.
- The percentage of year 6 children who are living with a healthy weight is lower in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic problem rather than limited to extreme deprivation.

Figure 25: Percentage (%) of healthy weight year 6 children (10-11 yrs) in England, split by deprivation decile, compared to England average, 2023/24



Source: [Fingertips](#)

Health behaviours

This section presents key statistical data on child health behaviours, focusing on factors that influence healthy weight management. These interconnected factors provide a comprehensive picture of the current behavioural landscape in Suffolk and help identify both challenges and opportunities for promoting sustainable healthy weight across the county. Where local data is unavailable national data is provided.

Physical activity

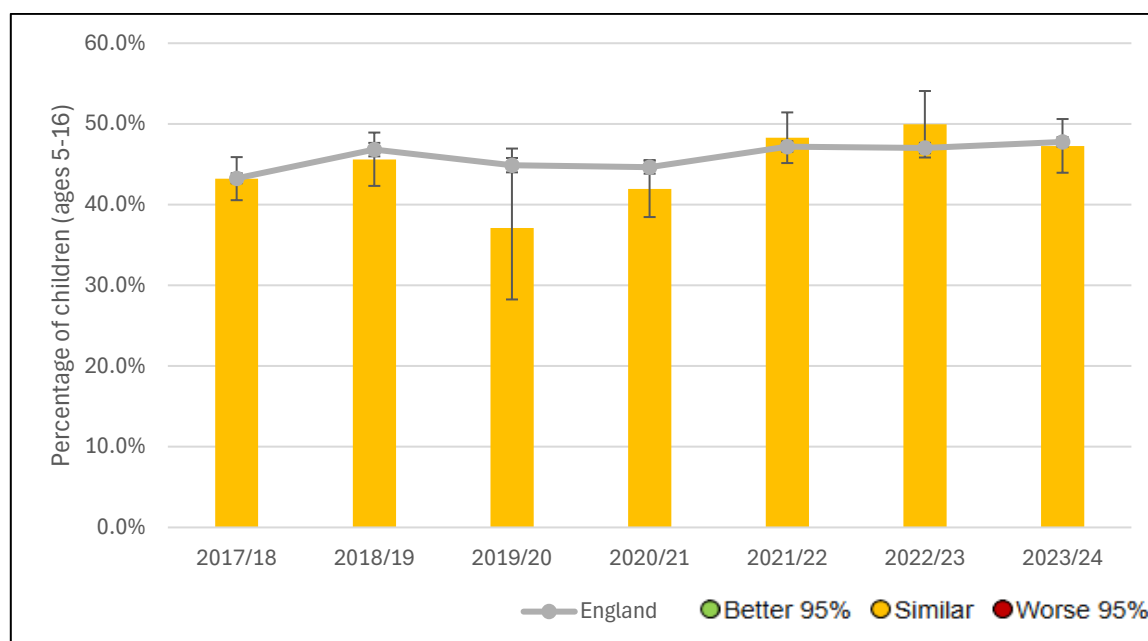
Regular moderate to vigorous physical activity (MVPA) improves health and fitness, strengthens muscles and bones, develops coordination, maintains healthy weight, improves sleep, makes you feel good, builds confidence and social skills and improves concentration and learning⁸.

Good physical activity habits established in childhood and adolescence are also likely to be carried through into adulthood. If we can help children and young people to establish and maintain high volumes of physical activity into adulthood, we will reduce the risk of morbidity and mortality from chronic non communicable diseases later in their lives⁹. The [UK Chief Medical Officers' report](#) recommends that children and young people (ages 5-18) are physically active for an average of at least 60 minutes per day across the week.

Figure 26 shows the percentage of children and young people (ages 5-16) meeting physically activity recommendations in Suffolk from 2017/18 to 2023/24 compared to England. Results show that:

- **In 2023/24, over half (52.7%) of children aged 5-16 in Suffolk weren't not physically active** - only 47.3% are physically active, statistically similar to the England average.
- **Activity levels hit a low in academic year 2019/20 (37.1%), coinciding with the start of COVID-19 pandemic.** This sharp drop was likely due to lockdowns and school closures restricting children's ability to be active.
- Activity levels improved to 48.3% in 2021/22 and peaked at 50.0% in 2022/23 as restrictions lifted, However, we've seen a slight decline back to 47.3% in 2023/24

Figure 26: The percentage of physically active children and young people (ages 5-16 years) in Suffolk from 2017/18 to 2023/24, compared to England



Source: [Fingertips](#)

Table 1 also shows the activity levels of children and young people in England, Suffolk, and Suffolk's Lower Tier Local Authorities (LTLAs) for the 2023/24 academic year. The data is presented as percentages and comes from the Active Lives Survey.

Results found that:

- Suffolk's children and young people (ages 5-16) show slightly differing activity patterns than the national average, with fewer "Less Active" children (27.4% vs. 29.6%) and more "Fairly Active" children (25.3% vs. 22.7%).
- Within Suffolk, significant variations exist between LTLAs:
 - Over half of children in Ipswich (51.8%) are able to achieve the recommended 60+ minutes of daily physical activity, while West Suffolk lags behind at 42.2%.
 - Mid Suffolk shows the highest percentage of "Less Active" children at 30.9%.

Table 1: Percentage of children and young people (ages 5-16) by activity level in England, Suffolk and Suffolk's LTLAs, Active Lives Survey, 2023/24 academic year

	Less Active Less than avg. of 30 mins/day	Fairly Active Avg. of 30-59 mins/day	Active Avg. of 60+ mins/day
England	29.6%	22.7%	47.8%
Suffolk	27.4%	25.3%	47.3%
Babergh	26.5%	27.1%	46.4%
East Suffolk	26.4%	24.9%	48.8%
Ipswich	25.1%	23.1%	51.8%
Mid Suffolk	30.9%	24.0%	45.2%
West Suffolk	29.0%	28.7%	42.2%

Source: [Active Lives Survey](#)

The latest Active Lives data released by Sport England, show that across the UK, children and young people's physical activity levels have been mostly maintained and remained stable

compared to the previous academic year. Activity levels in Suffolk have generally also followed this national trend and remained relatively similar to the previous year.

In Suffolk, compared to the 2022/23 academic year, the Active Lives Survey reported a non-significant decrease of 2.7% in children and young people that are living with active, alongside a very similar decrease of 2.6% in children that are less active. A significant increase of 5.3% in fairly active children and young people was also shown. Active Suffolk still aim to improve and build a culture where all children can be active¹⁰.

Active travel

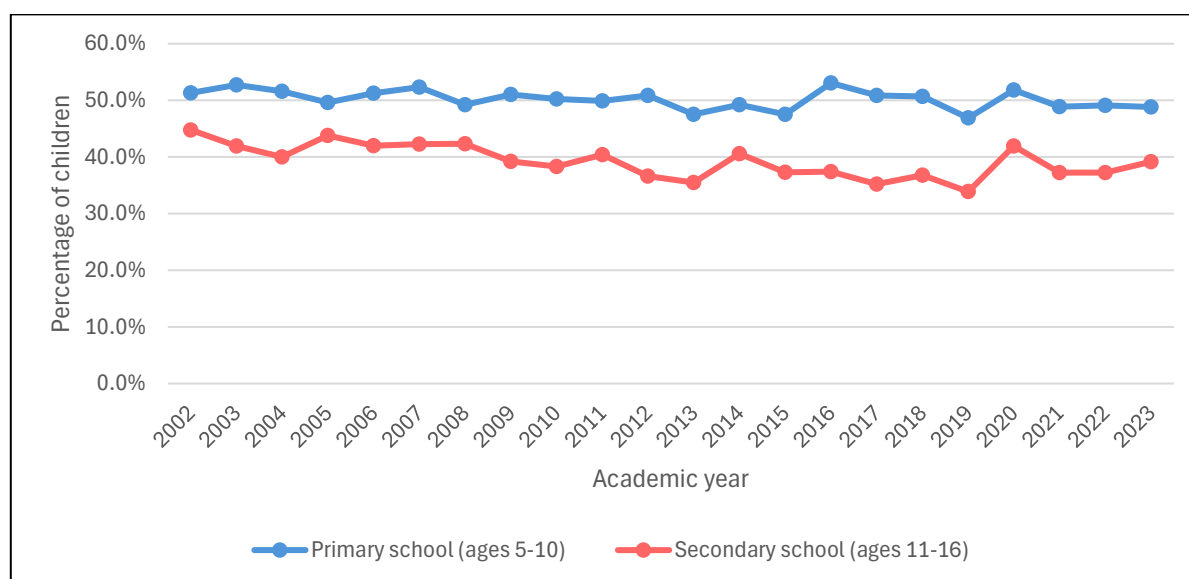
Active travel to school refers to journeys to and from school primarily by walking or cycling. Not all children will be able to walk or cycle to school, either because they live too far away or for other reasons. However, where this is feasible, active commuting to school can have great benefits for health. Regularly walking to school can help children get the daily exercise they need. Active commuting to school has also been associated with higher cognitive performance¹¹ and higher cardiovascular fitness¹².

Figure 27 shows the percentage of primary (ages 5-10) and secondary school (ages 11-16) children walking to school in England from 2002 to 2023. Results show that:

- **Primary school children walk more:** About 47-53% of children aged 5-10 walk to school
- **Secondary school children walk less:** About 35-45% of children aged 11-16 walk to school
- **Patterns are stable:** These percentages have remained fairly consistent over two decades
- **Pandemic impact:** There was a temporary decrease around the academic year 2019-2020 (likely due to COVID-19), but percentages recovered afterward

Overall, this shows that walking to school is a stable behaviour in England. Despite the COVID-19 disruption, the long-term trend shows around half of primary students and about 40% of secondary students consistently walk to school.

Figure 27: Percentage of primary and secondary school children walking to school in England, up to 2023



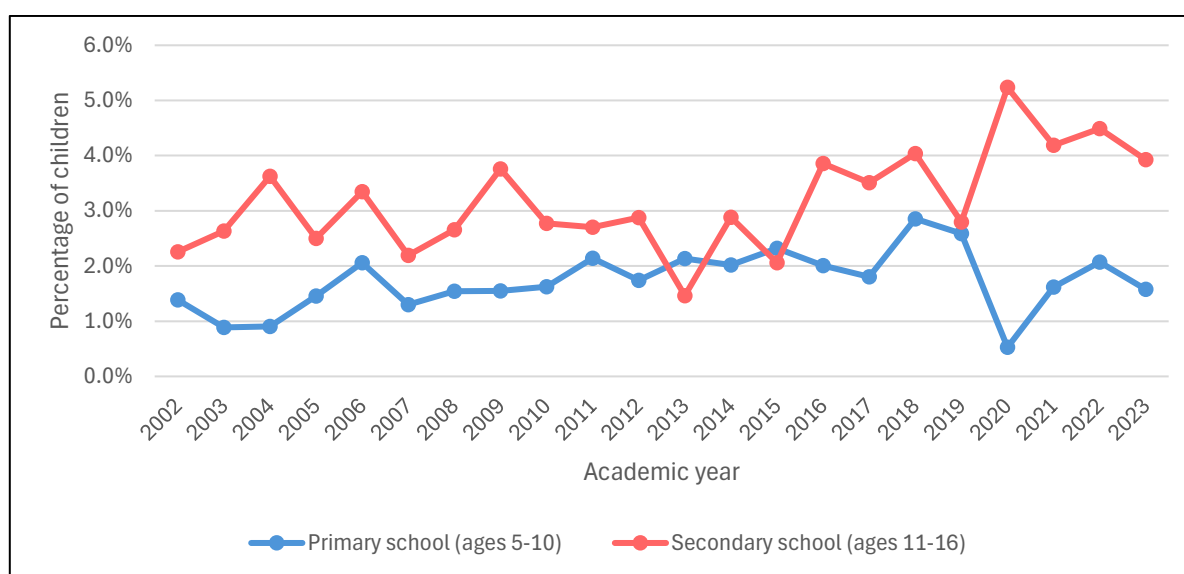
Source: [National Travel Survey](#)

Figure 28 shows the percentage of primary (ages 5-10) and secondary school (ages 11-16) children cycling to school in England from 2002 to 2023. Results show that:

- **Cycling is uncommon:** Only 1-5% of students cycle to school in England.
- **Secondary students cycle more:** 2-5% of children aged 11-16 cycle, while 1-3% of children aged 5-10 cycle.
- **Secondary student cycling spiked during the pandemic** (5.2%) during 2020-2021.
- **Primary student cycling dropping during the pandemic** (to nearly 0.5%).

Overall, cycling remains a minority transportation choice for school children in England, with secondary students roughly twice as likely to cycle compared to primary students throughout the time period measured.

Figure 28: Percentage of primary and secondary school children cycling to school in England, up to 2023



Source: [National Travel Survey](#)

For more information on active travel for young people, [Promoting Active Travel to School: Progress and Potential](#) answers the main questions people often ask about promoting active travel to school.

National Diet and Nutrition Survey

The National Diet and Nutrition Survey (NDNS) is designed to assess the diet, nutrient intake and nutritional status of the general UK population. Participants aged 18 months and over living in private households are selected each year from all 4 UK countries. The sample is designed to be nationally representative. The survey data is used by UK governments to monitor progress towards achieving diet and nutrition objectives and to develop food and nutrition policies.

The most recent [National Diet and Nutrition Survey](#) presents data for 2019 to 2023. Key findings for children and young people are presented below:

- The UK government recommends eating at least 5 portions of a variety of fruit and vegetables each day. On average, children aged 11 to 18 years ate 2.8 portions of fruit and vegetables a day. **Less than 1 in 10 children aged 11 to 18 years (9%) met the '5 A Day' recommendation.**
- The **highest average consumption of sugar sweetened soft drinks was by children aged 11 to 18 years (124 millilitres [mls] per day).** The highest consumers in this age group

drank 606mls per day. Average consumption by younger children (4 to 10 years) was under half this amount (54mls per day, highest consumers 371mls per day).

- The UK government recommends that no more than 10% of energy comes from saturated fats. For 2019 to 2023, average intakes exceeded the recommendation. Saturated fats provided 12.5% of energy for children (18 months to 18 years). Overall, **85% of children did not meet the recommendations for energy from saturated fats.**
- The UK government recommends that no more than 5% of energy comes from free sugars. **Overall, less than 1 in 10 children (9%) met the recommendation for energy from free sugars.** Average intakes were 10.5% of energy for children. **Girls aged 11 to 18 years had the highest intake (12% of energy).**
- **Most children do not meet UK government fibre recommendations** (at least 30g per day for adults and 15 to 25g per day for children depending on their age). For younger children, 78% of those aged 18 months to 3 years and 86% of those aged 4 to 10 years did not meet the recommendation for their age group. For children aged 11 to 18 years 96% did not meet the fibre recommendation.

Fruit and vegetable consumption

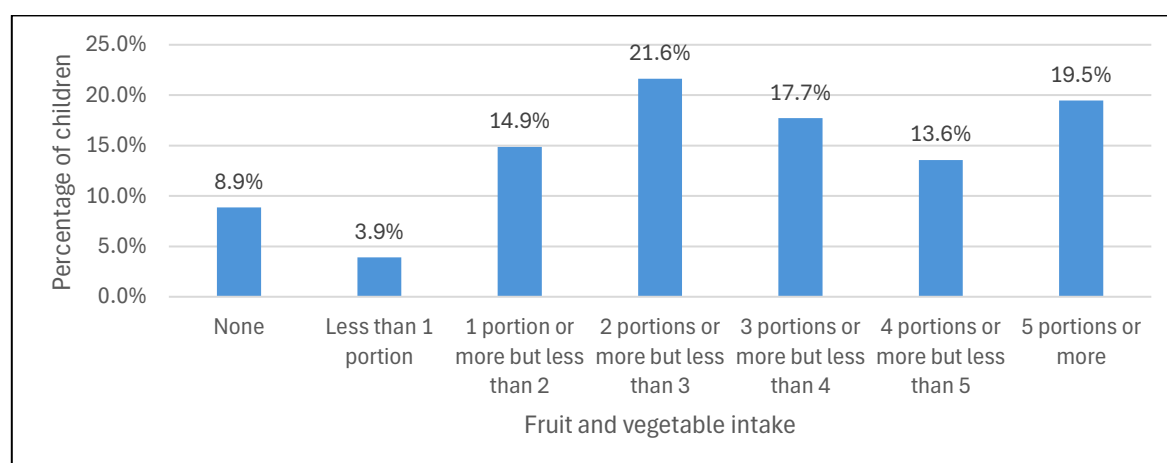
Evidence shows there are significant health benefits to getting at least 5 portions of a variety of fruit and vegetables every day. That's 5 portions of fruit and veg in total, rather than 5 portions of each. A portion of fruit or vegetables is 80g. The 5 A Day campaign (adopted in 2003 by the government) is based on advice from the World Health Organisation (WHO), which recommends eating a minimum of 400g of fruit and vegetables a day to lower the risk of serious health problems, such as [heart disease](#), [stroke](#) and some types of [cancer](#)¹³.

Figure 29 shows the daily fruit and vegetable consumption for children and young people aged 5-15 years in England as reported in the Health Survey in 2022.

Results show that:

- **Just under 1 in 5 children and young people aged 5-15 in England (19.5%) consumed the recommended 5 portions of fruit and vegetables daily.**
- Just over half of children (50.8%) consumed 3 or more portions daily.
- **Approximately 1 in 8 children (12.8%) consumed less than one portion of fruits and vegetables daily, with 8.9% eating none at all.**

Figure 29: Children and young people (ages 5-15) daily fruit and vegetable consumption, England, Health Survey, 2022

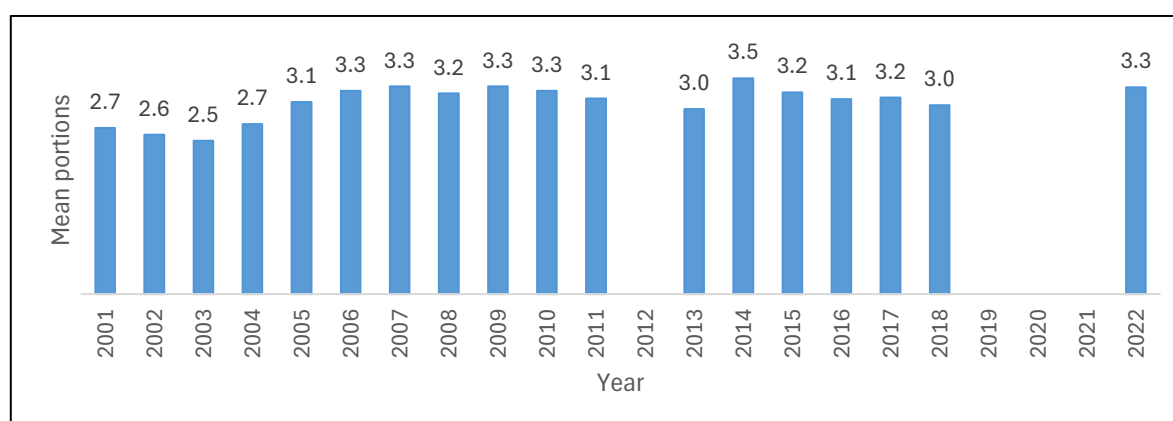


Source: [Health Survey](#)

Figure 30 shows the mean daily fruit and vegetable intake between 2001 and 2022 for children and young people aged 5-15 years in England. Results show that:

- The trend in mean daily fruit and vegetable consumption among children in England has shown little improvement over the past decade.
- The 5-a-day campaign (launched in 2003) showed some impacting increasing mean consumption from 2.6 in 2003 to 3.3 in 2006¹⁴.
- Despite some fluctuations, the benefits of the campaign are shown to level with **consumption remaining stable, between 3.0 and 3.5 portions from 2006 to 2022.**
- There was a notable peak around 2014 at approximately 3.5 portions, but this improvement was not sustained.

Figure 30: Children and young people (ages 5-15) mean portion of daily fruit and vegetables between 2001 and 2022, England, Health Survey



Source: [Health Survey](#)

Free school meals

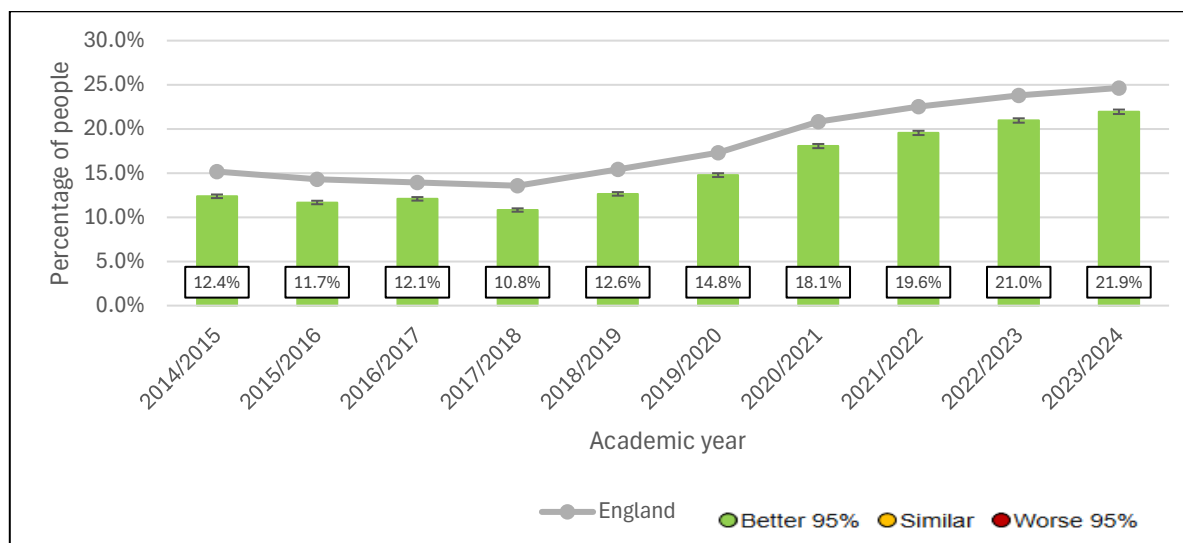
Studies have shown that providing free school meals, particularly Universal Infant Free School Meals (UIFSM), can lead to a reduction in the percentage of children living with obesity and increase the percentage of children living within a healthy weight range¹⁵.

Figure 31 shows the percentage of children eligible for free school meals who attend state-funded nursery, primary, secondary, alternative provision (AP) schools and special schools, and non-maintained special schools in Suffolk between 2014/15 and 2023/24. This encompasses both children who are eligible and currently receiving free school meals and those who are eligible but not currently receiving them. Results show:

- **Substantial increase over decade:** Eligibility rose from 12.4% (2014/15) to 21.9% (2023/24)
- **Recent acceleration:** Increased by 9.3 percentage points from 2018/19 (12.6%) to 2023/24 (21.9%)
- **Pandemic correlation:** Steepest increases began around 2019/2020, coinciding with COVID-19 onset
- **Consistently statistically significantly better than the national average:** Suffolk percentages (green bars) remain below England average (grey line) throughout period

This increase could be driven by many factors including macro-economic conditions, the coronavirus pandemic, and the continued effect of the [transitional protections](#) during the rollout of Universal Credit.

Figure 31: Percentage of pupils eligible for free school meals who attend state-funded nursery, primary, secondary, alternative provision (AP) schools and special schools, and non-maintained special schools in Suffolk between 2014/15 and 2023/24, compared to England



Source: [Fingertips](#)

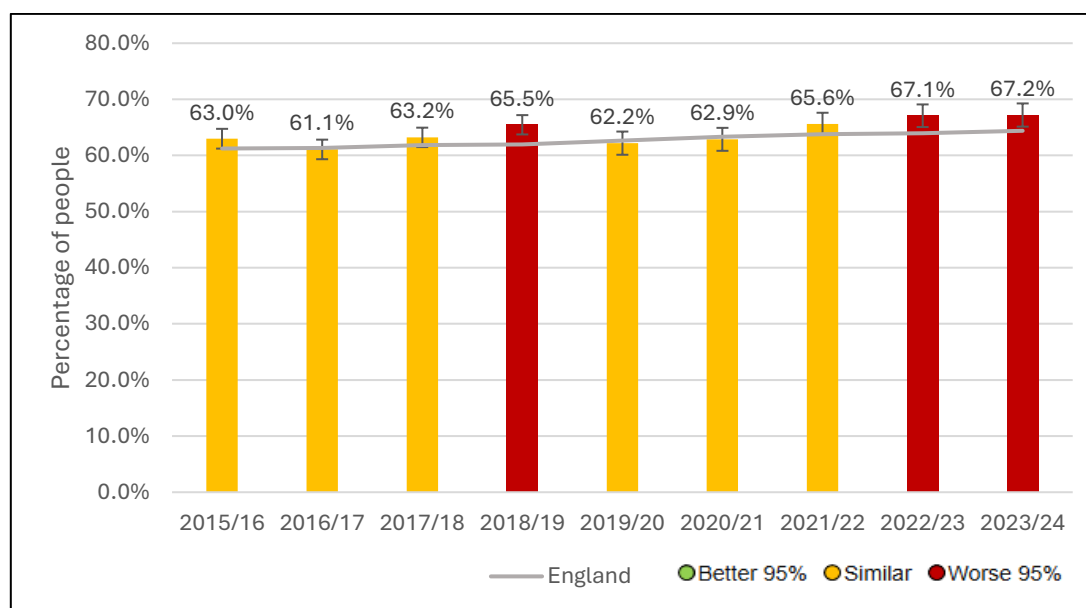
Adults

Weight statistics

Figure 32 shows the percentage of adults (18+ yrs) living with overweight (including obesity) in Suffolk between 2015/16 and 2022/23, compared to England. Results show that:

- Suffolk's percentage has fluctuated between 61.1% and 67.2% from 2015/16 to 2023/24
- Suffolk has generally maintained similar percentages to the England average which displays a slight upward trend over time.
- Notably, in 2018/19 and most recent years (2022/23 and 2023/24) **Suffolk has performed statistically worse compared to the England average.**
- The most recent data shows Suffolk's highest percentage at 67.2%, which is statistically significantly higher (worse) compared to the England average. **This means that, in 2023/24, 2 in 3 adults (18+ yrs) are living with overweight or obesity.**

Figure 32: Overweight (including obesity) percentage in adults (18+ yrs) in Suffolk between 2015/16 and 2022/23, compared to England

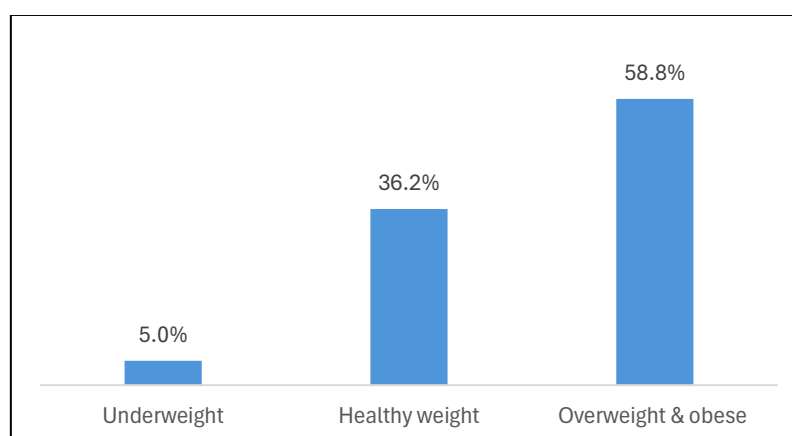


Source: [Fingertips](#)

Figure 33 uses PHM data to present the percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances with a recorded BMI classification as of April 2025. Results show that:

- **nearly 2 in 3 patients (63.8%) are living with an unhealthy weight** (underweight, overweight or obese)
- Just over 1 in 3 patients are living with healthy weight

Figure 33: The percentage of patients (aged 18-64 years) registered to a GP in Ipswich, East Suffolk, and West Suffolk with a recorded BMI classification as of April 2025



Source: PHM data

Demographic variables

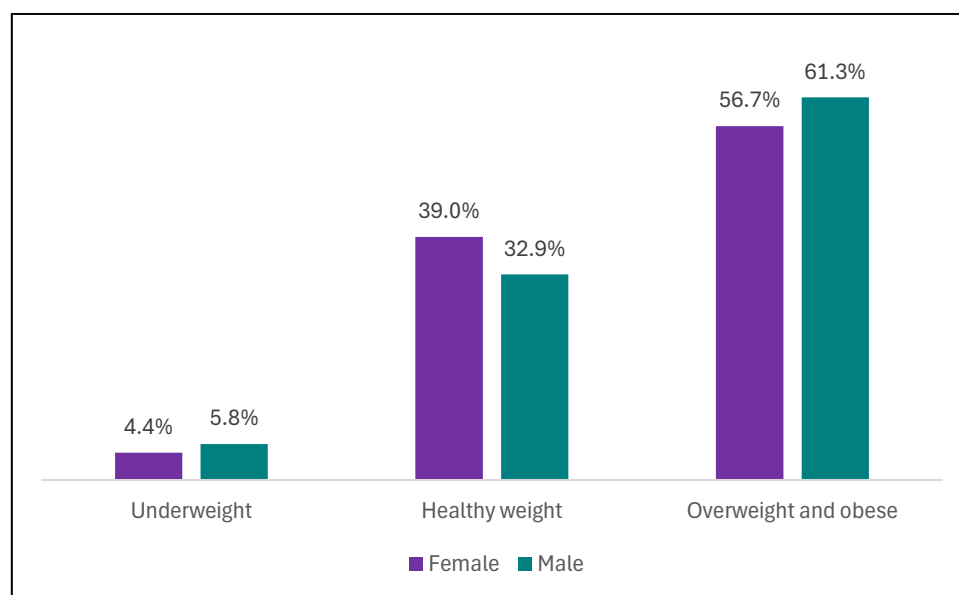
This section examines demographic factors available using [PHM data](#). By examining this data through the lens of key demographic factors we can better understand how living with an unhealthy weight (underweight or overweight and obesity) impacts different population groups.

Gender

Figure 34 presents the percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by gender. Results show that:

- **Women are more likely to be living with a healthy weight (39.0%) compared to men (32.9%).**
- **Men have a slightly higher percentage living with underweight (5.8%) compared to women (4.4%).**
- **Men have a higher percentage living with overweight/obesity (61.3%) compared to women (56.7%).**

Figure 34: The percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by gender.



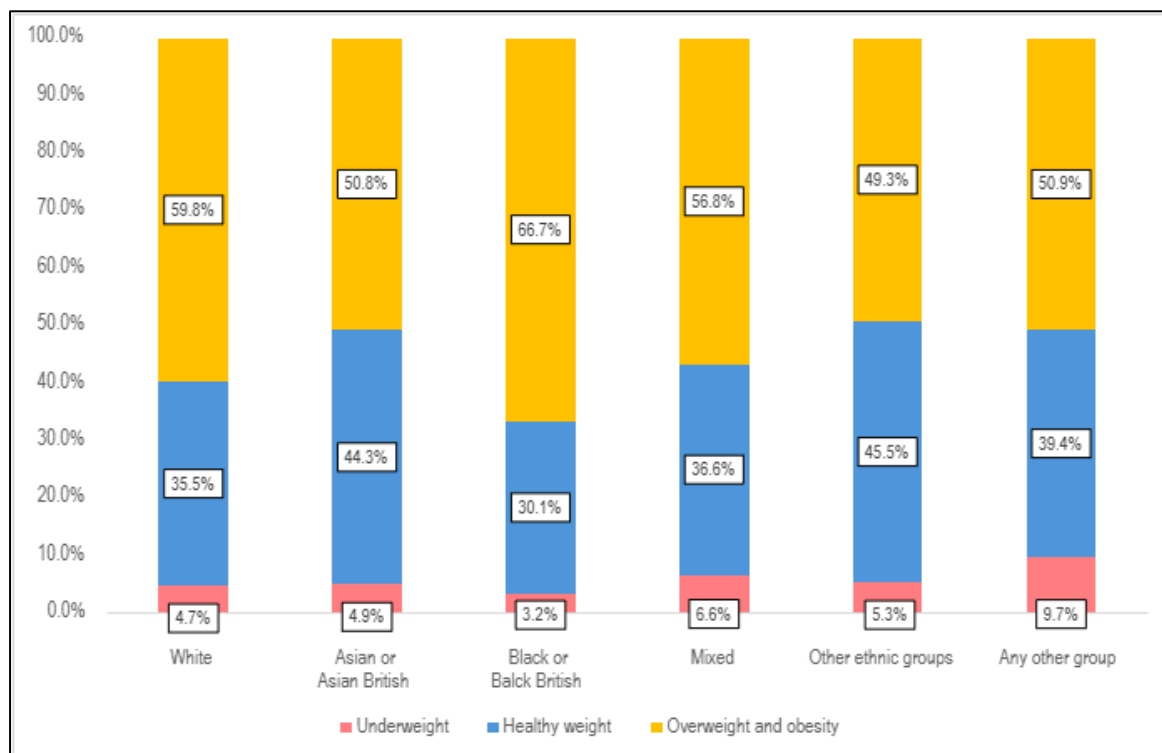
Source: PHM Data

Ethnicity

Figure 35 presents the percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by ethnicity. Results show that:

- **Working aged adults who identify as Black or Black British have a higher percentage living with overweight or obesity (66.7%) while simultaneously having the lowest percentage living with a healthy weight (30.1%).**
- **Working aged adults who identify as Asian or Asian British populations show relatively higher percentages living with a healthy weight status compared to other groups.**

Figure 35: The percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by ethnicity



Source: PHM Data

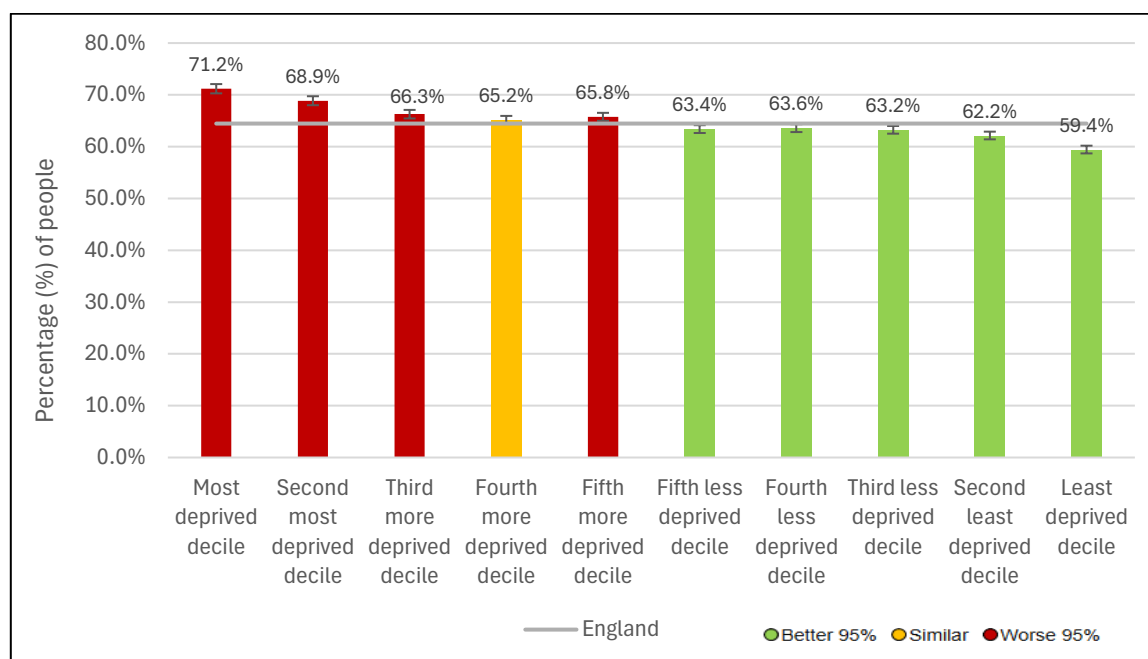
Deprivation

Figure 36 shows the percentage of adults (18+ yrs) living with overweight (including obesity) split by IMD decile for England, compared to England average for 2023/24.

Results show that:

- The percentage of adults who are living with overweight or obesity is higher in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic issue rather than limited to extreme deprivation.
- However, across England in 2023/24, 71.2% of adults from the most deprived areas are living with overweight or obesity, 11.8 percentage point difference compared to the least deprived area (59.4%).

Figure 36: Percentage of overweight (including obesity) in adults (18+ yrs), split by IMD decile for England, compared to England average, 2023/24



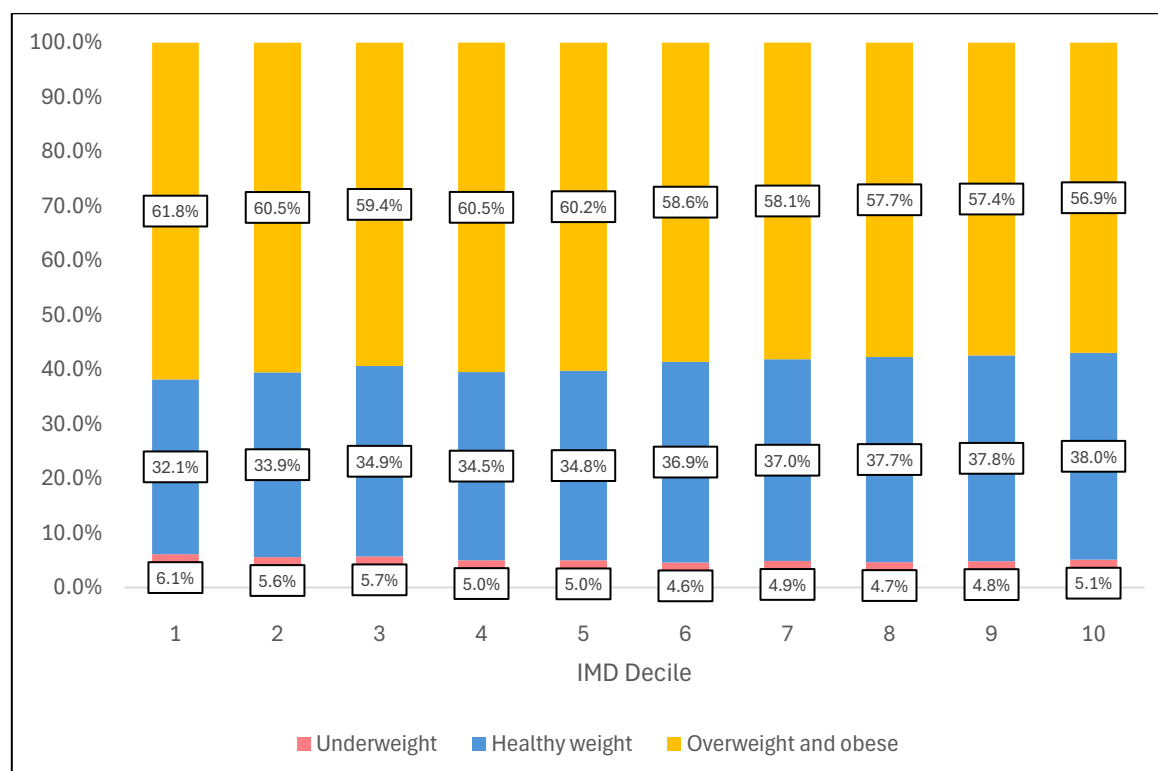
Source: [Fingertips](#)

Figure 37 presents the percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by IMD decile.

Results show that:

- As of April 2025, just under 1 in 3 (32.1%) of working aged patients from the most deprived area (decile 1) were living with a healthy weight, a 5.9 percentage point difference to the least deprived area (38.0%).
- As of April 2025, 61.8% of working aged patients from the most deprived area (decile 1) were living with overweight or obesity, a 4.9 percentage point difference to the least deprived area (56.9%).
- The percentage of working aged adults who are living with overweight, or obesity is higher in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic problem rather than limited to extreme deprivation.
- The percentage of working aged adults living with underweight ranges from about 4.6% to 6.1% across deciles, with a slightly higher percentage in the most deprived areas (decile 1).

Figure 37: The percentage of working aged patients (aged 18-64 years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by IMD decile



Source: PHM Data

Health behaviours

This section examines key health behaviours among Suffolk's adult population that influence weight status and overall health outcomes. These interconnected factors provide a comprehensive picture of the current behavioural landscape in Suffolk and help identify both challenges and opportunities to promote sustainable healthy weight across the county. Where local data is unavailable national data is provided.

Physical activity

Research suggests that many adults spend more than 7 hours a day sitting down at work, on transport or in their leisure time. Inactivity is described by the Department of Health and Social Care as a "silent killer". Evidence is emerging that sedentary behaviour, such as sitting or lying down for long periods, is bad for health. Common examples of sedentary behaviour include watching TV, using a computer, using the car for short journeys and sitting down to read, talk or listen to music. This type of behaviour is thought to increase the risk of developing many long-term conditions, such as heart disease, stroke and type 2 diabetes, as well as weight gain and [obesity](#)¹⁶.

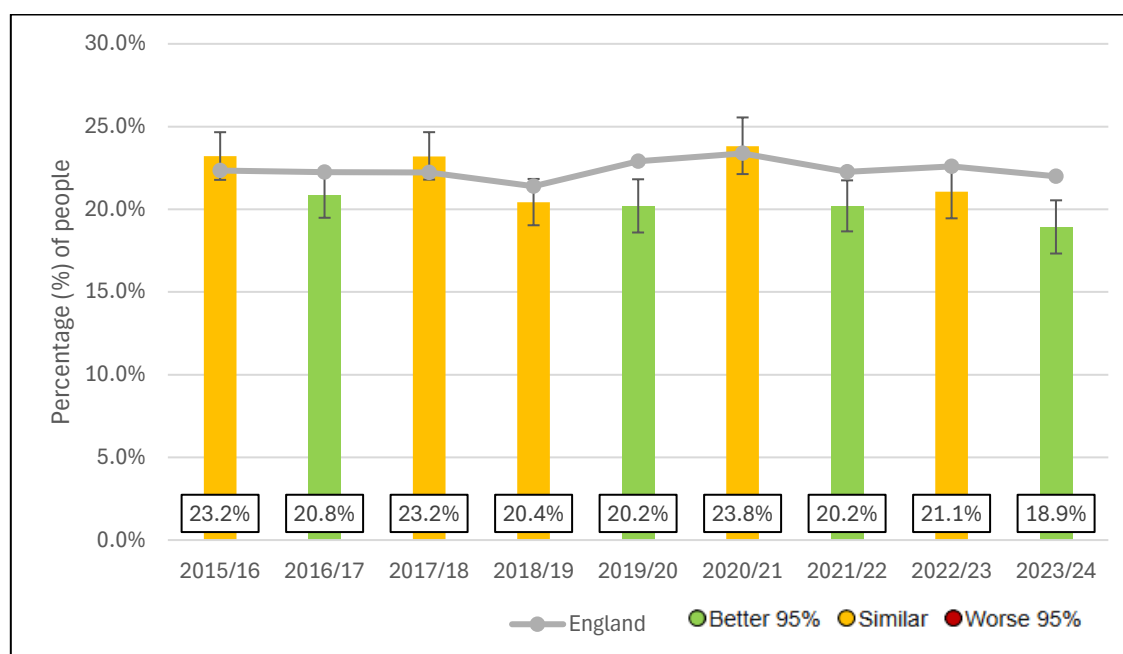
In England, 'physically inactive' is defined as doing less than 30 minutes of moderate intensity physical activity per week¹⁷. Figure 38 shows the percentage of physically inactive adults (19+ yrs) in Suffolk between 2015/16 and 2022/23, compared to England. Results show that:

- **The percentage of physically inactive adults in Suffolk has declined from a decade ago.** Most recent data (2023/24) shows that 18.9% of adults are physically inactive,

statistically significantly better than England and a 2.2 percentage point decrease compared to the Suffolk 2022/23 percentage (21.1%).

- Notably, 2020/21 shows the highest inactivity rate in Suffolk, likely reflecting pandemic-related disruptions to physical activity.

Figure 38: Percentage (%) of physically inactive adults (19+ yrs) in Suffolk between 2015/16 and 2023/24, compared to England



Source: [Fingertips](#)

For physical activity levels in more detail the [Sport England Map](#) provides modelled estimates of population of physical activity, inactivity and sports participation in small geographical areas across England. These models can be split by age categories, gender, ethnicity, disability status and socioeconomic status.

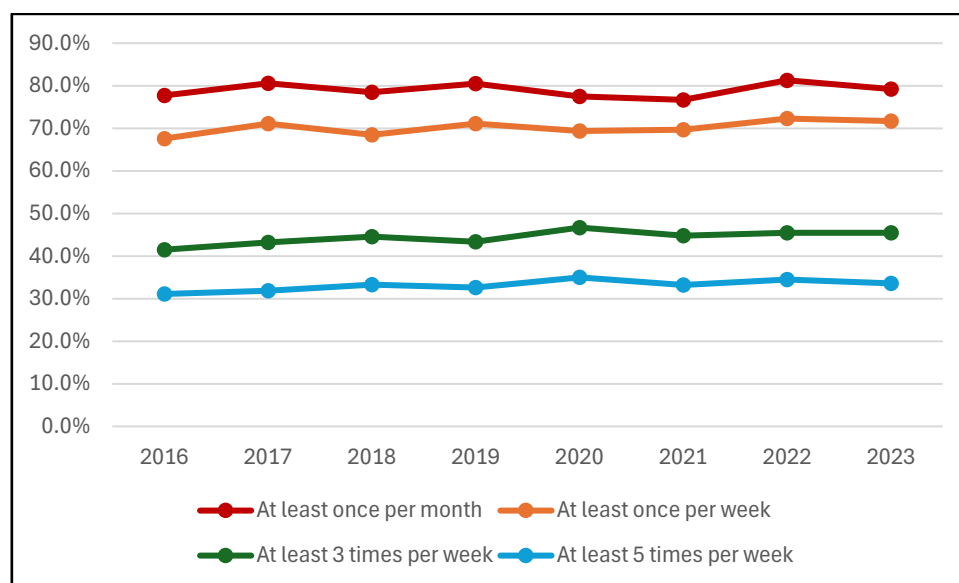
Active travel

Active travel, like walking and cycling, is beneficial for healthy weight management in adults because it increases physical activity and burns calories, which contributes to weight loss and maintenance. By incorporating active travel into daily routines, individuals can meet recommended physical activity levels, reducing the risk of obesity and related health issues¹⁷.

Figure 39 shows the percentage of adults who do walk, where walking refers to any continuous walk of over 10 minutes, by frequency in Suffolk between November 2016 and November 2023. Results show that:

- Walking percentages remained relatively stable across all frequency categories.
- The highest percentage (around 80%) represents adults who walk at least once per month, showing slight fluctuations but maintaining a consistent range between 77-82%.
- Those walking at least once per week constitute the second highest group at approximately 70%, while about 45% of adults walk at least 3 times per week.
- The least common frequency, adults walking at least 5 times per week, consistently remained around 33%.

Figure 39: Percentage of adults who do walk, by frequency in Suffolk between November 2016 to November 2023

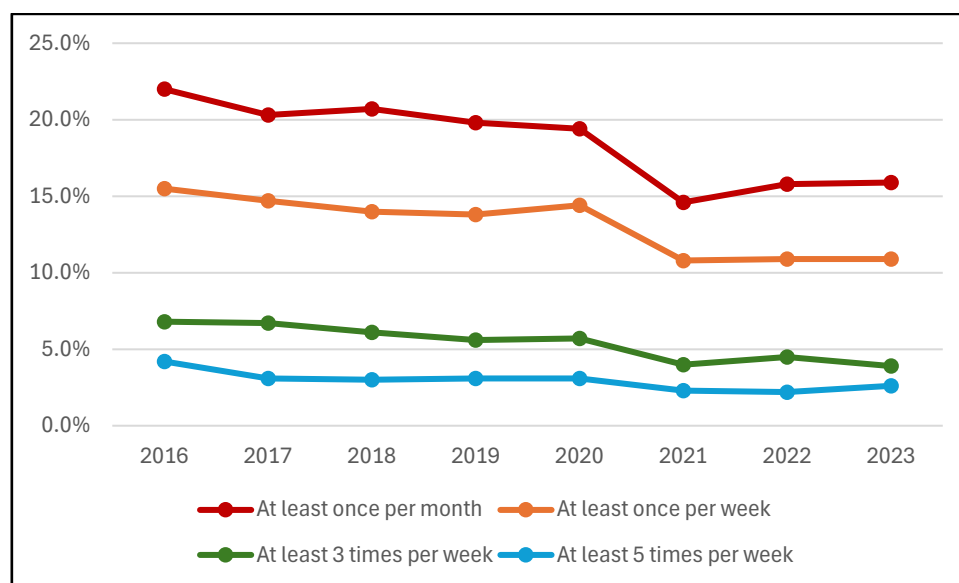


Source: [Active Live Survey](#)

Figure 40 shows the percentage of adults who cycle, where cycling refers to any cycling irrespective of length or purpose, by frequency in Suffolk between November 2016 to November 2023. Results show:

- A downward trend in cycling participation across all frequency categories.
- The percentage of adults cycling at least once per month declined from 22.0% in 2016 to 15.9% by 2023, with a particularly sharp drop occurring between 2020 and 2021.
- Similarly, weekly cyclists decreased from 15.5% to 10.9%, while those cycling at least 3 times weekly fell from 6.8% to 3.9%.
- The most frequent cyclists (5+ times weekly) showed the smallest decline but still decreased from 4.2% to 2.6%.
- The timing of the steepest decline (2020-2021) coincides with the COVID-19 pandemic, suggesting potential contextual factors such as lockdown restrictions, changes in commuting patterns due to remote work, or shifts in transportation preferences.

Figure 40: Percentage of adults who do cycle, by frequency in Suffolk between November 2016 to November 2023



Source: [Active Live Survey](#)

Home working

Home working can contribute to overweight or obesity by reducing incidental physical activity—such as walking to work or moving between meetings—and increasing sedentary time, which can make it harder to maintain a healthy energy balance¹⁸.

Figure 41 presents the percentage of workers that completed work from home, broken down by Suffolk's districts and borough for 2022. The data uses three variables on the Annual Population Survey (APS), where the following four homeworking statuses have been defined:

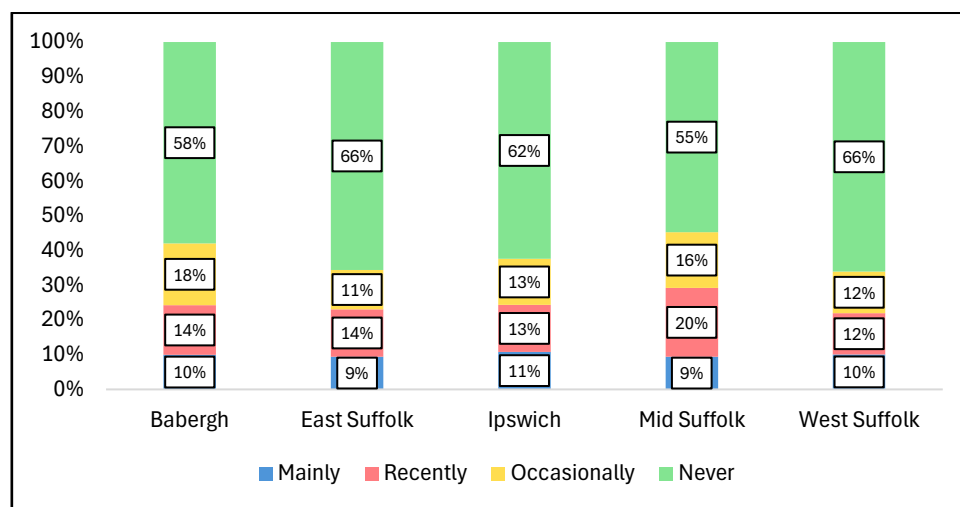
- **Mainly:** those who report their main place of work as “in their own home” as opposed to “home as a base”, “same ground as home” or “another place entirely” (offices, factories, and so on)
- **Recently:** those who do not ‘mainly’ work at home, but reported doing some work at home in the reference week
- **Occasionally:** those who do not ‘mainly’ work at home, and did not report doing any work at home in the reference week, but say they do “ever” work from home
- **Never:** anyone not covered in the groups above

Results show:

- Geographical variations in work-from-home practices throughout Suffolk, with Mid Suffolk demonstrating the most flexible working arrangements (combined 45% of workers using home as a workplace either mainly, recently, or occasionally) and East Suffolk showing the least (34% combined).
- Across all districts, the majority of workers (55-66%) never worked from home, with West Suffolk and East Suffolk showing the highest percentages (66%) in this category.
- Mid Suffolk had the highest percentage of “recently” remote workers at 20%, notably higher than other districts which ranged from 12-14%.
- For occasional home working, Babergh led with 18% of workers, while East Suffolk had the lowest at 11%.

- Those mainly working from home remained relatively consistent across the region (9-11%), with Ipswich showing the highest percentage at 11%.

Figure 41: Percentage of workers that completed work from home, broken down by Suffolk's districts and boroughs, 2020



Source: [OHID](#)

National Diet and Nutrition Survey

The most recent [National Diet and Nutrition Survey](#) presents data for 2019 to 2023. Key findings for adults are shown below:

- The UK government recommends eating at least 5 portions of a variety of fruit and vegetables each day. On average, adults consumed 3.3 to 3.7 portions per day (depending on age). **Less than 1 in 5 adults (17%) met the 5 A Day recommendation.**
- The UK government also recommends that people who eat more than 90g of red or processed meat a day should cut down to 70g. In 2019 to 2023, average consumption of red and processed meat was below 70g per day in all age and sex groups. **Men aged 19 to 64 years ate the most red and processed meat.** On average, men aged 19 to 64 years ate 66g per day but about a quarter (27%) ate more than 90g per day.
- Among adults, **average consumption of sugar-sweetened soft drinks was highest in men aged 19 to 64 years** (108mls per day; highest consumers 768mls per day).
- The UK government recommends that no more than 10% of energy comes from saturated fats. For 2019 to 2023, average intakes exceeded the recommendation. Saturated fats provided 12.6% for adults. Overall, **82% of adults did not meet the recommendations for energy from saturated fats.**
- The UK government recommends that no more than 5% of energy comes from free sugars. Overall, **less than 1 in 5 adults (19%) met the recommendation for energy from free sugars.** Average intakes were 10% for adults.
- Most people do not meet UK government fibre recommendations (at least 30g per day for adults and 15 to 25g per day for children depending on their age). For adults, **96% did not meet the fibre recommendation**
- People in the most deprived IMD group in England tended to have poorer diets,** although this was not consistently seen across all age and sex groups.
- More differences were seen by IMD than by household income in England.**

- Almost three-quarters (72%) of participants reported buying food or drink from the out of home sector (for example cafes, pubs, takeaways) in the last 7 days, with most making purchases 1 to 2 times a week. **77% of adults aged 19 to 64 years reported buying food or drink from the out of home sector.**

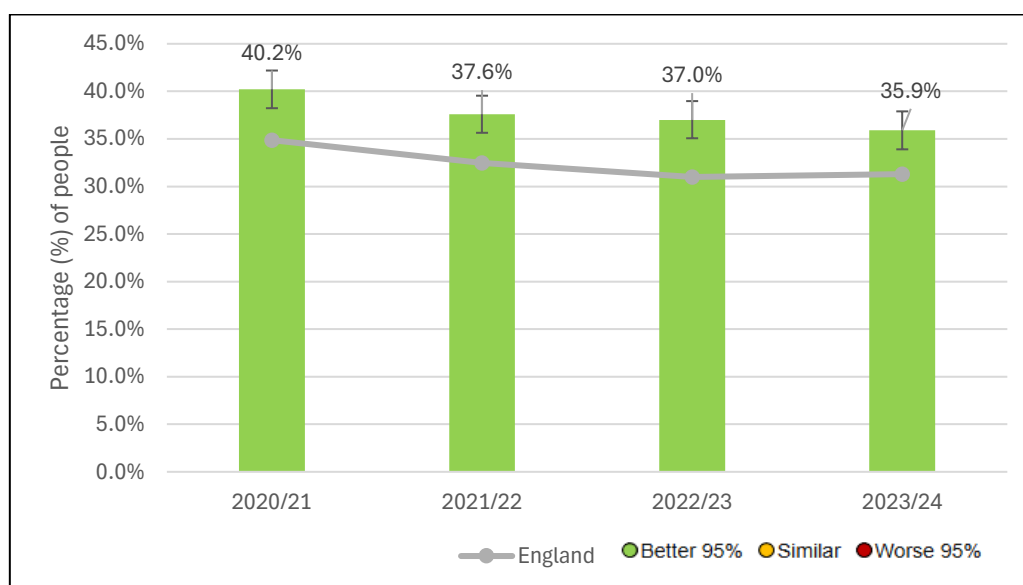
Fruit and vegetable consumption

Fruit and vegetable consumption is important for healthy weight management because they are generally low in calories and fat, high in fibre and water, and can help promote satiety, leading to reduced overall calorie intake. By replacing higher-calorie foods with these nutrient-rich options, individuals can maintain or lose weight more effectively¹⁹.

Figure 42 presents the percentage of adults (16+ yrs) meeting the '5-a-day' fruit and vegetable consumption recommendations in Suffolk between 2020/21 and 2023/24, compared to England. Results show that:

- **Suffolk has been consistently statistically significantly better than the England average across all periods recorded.**
- **Fruit and vegetable consumption is declining in adults.** In 2020/21, 40.2% of Suffolk adults met these recommendations. Most recent data (2023/24) shows that 35.9% of adults are meeting these recommendations, 4.3 percentage points lower than 2020/21. Evidence suggests this trend could potentially be linked to cost of living challenges, as fresh produce prices have increased significantly during this period, forcing many households to prioritise more affordable, often less nutritious food options over fruits and vegetables²⁰.
- Despite Suffolk performing better than the national average, **data still shows that, in Suffolk 2023/24, just under 2 out of 3 (64.1%) adults (16+ yrs) do not meet 5-a-day fruit and vegetable consumption recommendations.**

Figure 42: Percentage of Adults (16+ yrs) meeting the '5-a-day' fruit and vegetable consumption recommendations in Suffolk between 2020/21 and 2023/24 compared to England



Source: [Fingertips](#)

Alcohol consumption

The relationship between alcohol consumption and obesity represents a significant public health concern in the UK. Research shows that alcohol can contribute to weight gain through

multiple mechanisms, including its high caloric density (at 7 calories per gram), its tendency to reduce inhibitions around food choices, and its metabolic effects that can prioritize alcohol processing over fat burning²¹.

Recent data from the [Drinkaware Monitor 2024](#) reveals a growing shift toward moderation, with 90% of UK drinkers now attempting to moderate their consumption (up from 84% in 2018).

Moderation techniques gaining popularity include:

- drink-free days (practiced by 71% of drinkers)
- increased use of zero-alcohol (31%, up from 25% in 2023)
- low-alcohol products (34%, up from 28% in 2023).

These practices likely contribute to reduced caloric consumption, as alcoholic beverages can significantly impact overall energy intake with alcohol containing 7 calories per gram.

Despite these positive trends, 29% of UK drinkers still engage in "risky" drinking patterns, which may contribute to weight management challenges. Additionally, the finding that only 17% of adults correctly identify the recommended 14-unit weekly limit suggests a knowledge gap that could be addressed²².

Comorbidity matrices population health management analytics

This section analyses [PHM data](#).

Mental health

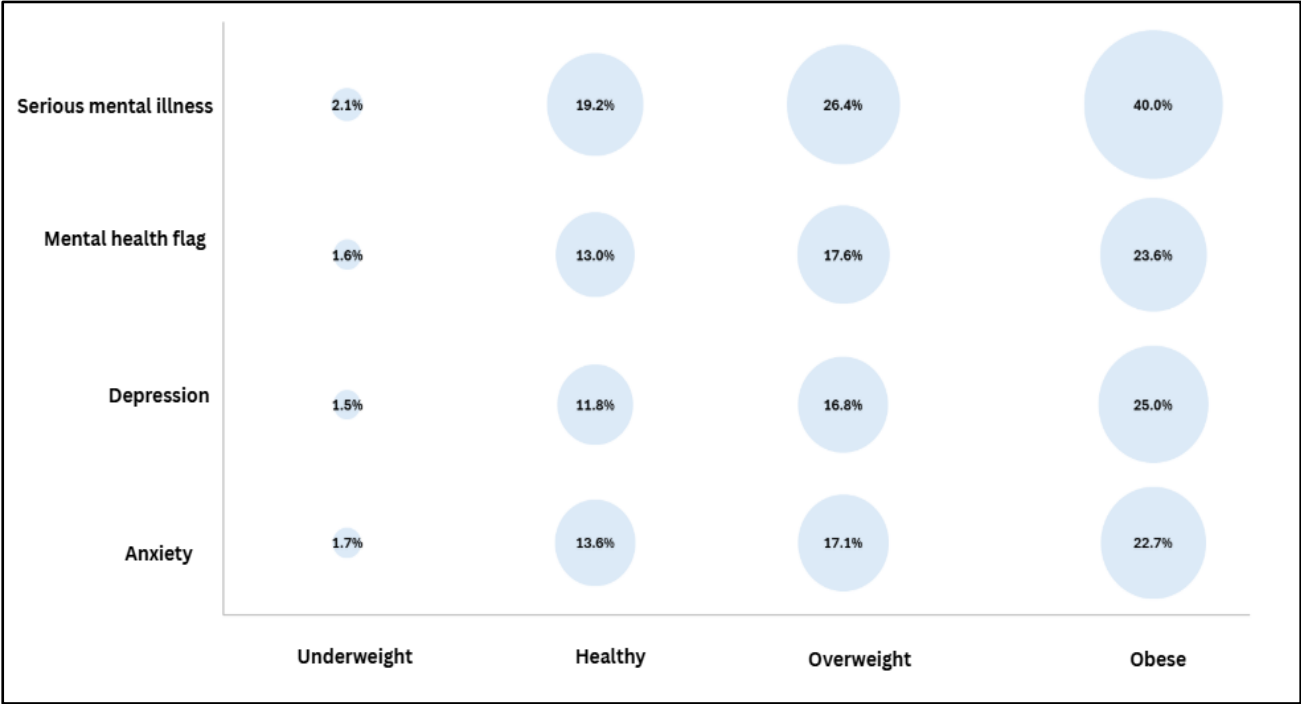
Weight can have a significant impact on mental health, with research suggesting a two-way relationship between weight and mental wellbeing (both poor mental health can contribute to unhealthy weight, and being an unhealthy weight can worsen mental health)²³⁻²⁵.

Figure 43 shows the percentage of patients (18+ yrs) registered to a GP in Ipswich and East Suffolk, or West Suffolk Alliance with one of the listed mental health morbidities, split by BMI classification recorded between January 2024 and December 2024.

Results show that:

- **Patients diagnosed with a serious mental illness are more likely to also be living with overweight or obesity**– of those who have a diagnosed serious mental illness, 2.1% are reported to be living with underweight, this rises to 19.2% with a healthy weight and this then jumps to 66.4% living with overweight or obesity.
- **Similar patterns are shown for depression**– of those who have a depression diagnosis, 1.5% are also living with underweight, rising to 11.8% for those also living with healthy weight and this then jumps to 41.8% also living with overweight or obesity.
- **Patients diagnosed with Anxiety also follows a similar pattern to other mental health conditions** - with lowest percentages of those diagnosed with Anxiety also living with underweight (1.7%), this increases to 13.8% also living with a healthy weight, and this then jumps to 39.8% also living with overweight or obesity.
- A mental health flag indicates if people have one or more of Depression, Anxiety, Low Mood or serious mental illness. Of those adults with a mental health flag, 1.6% are also living with underweight, this rises to 13.0% also living with healthy weight and then jumps to 41.2% of adults with a recorded mental health flag also living with overweight or obesity.

Figure 43: The percentage of patients (18+ yrs) registered to a GP in Ipswich and East Suffolk, or West Suffolk Alliance with one of the listed mental health morbidities split by BMI classification recorded between January 2024 and December 2024



Source: Population Health Management Analytics

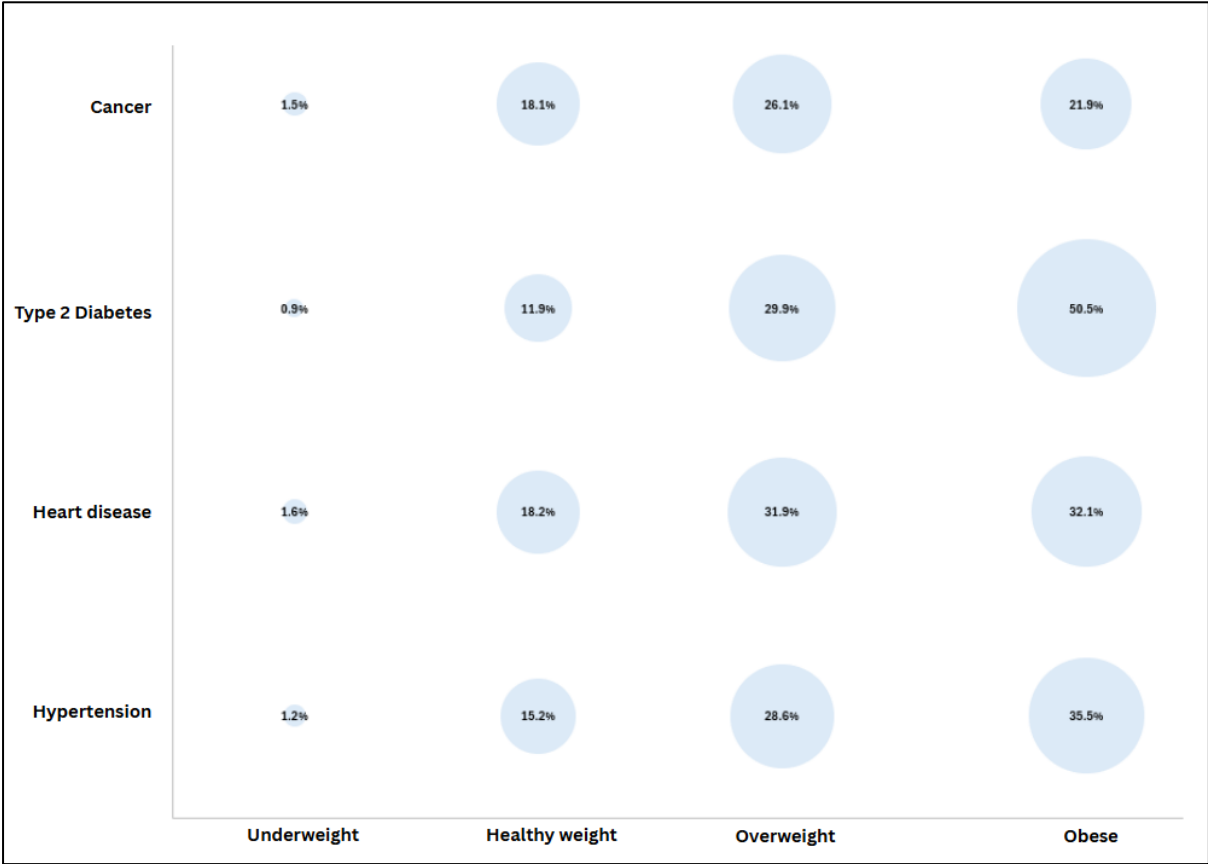
Physical health implications

Being an unhealthy weight can have several physical health implications. An accumulation of an excessive amount of body fat can increase the risk of hypertension, type 2 diabetes and heart disease²⁶. BMI is also associated with cancer risk²⁷, compared to people of healthy weight, those with overweight or obesity are at greater risk of [at least 13 types of cancer](#)²⁸.

Figure 44 shows the percentage of patients (18+ yrs) registered to a GP in Ipswich, East Suffolk, and West Suffolk with one of the listed physical health morbidities, split by BMI classification recorded between January 2024 and December 2024. Results show that:

- **Patients diagnosed with type 2 diabetes are more likely to also be living with overweight or obesity** – of those diagnosed with type 2 diabetes 0.9% are also living with underweight, this rises to 11.9% also living with a healthy weight and jumps to 80.4% also living with overweight or obesity.
- **Heart disease shows a similar pattern** – of those diagnosed with heart disease 1.6% are living with underweight, this increases to 18.2% also living with healthy weight and jumps to 64.0% also living with overweight or obesity.
- **Hypertension demonstrates a similar pattern**- of those diagnosed with hypertension, 1.2% are also living with underweight, rising to 15.2% also living with healthy weight, and jumps to 64.1% also living with overweight or obesity.
- **Cancer percentage shows a similar pattern**- of those diagnosed with cancer, 1.5% are also living with underweight, rising to 18.1% also living with healthy weight and jumping to 48.0% also living with overweight or obesity.

Figure 44: The percentage of patients (18+ yrs) registered to a GP in Ipswich, East Suffolk, and West Suffolk with one of the listed physical health concerns, split by BMI classification recorded between January 2024 and December 2024



Source: Population Health Management Analytics

Older adults (65+ years)

Older adults represent a distinct demographic group with unique physiological, psychological, and social characteristics that significantly impact their healthy weight management. The physiological changes of ageing- including altered metabolism, decreased muscle mass, and changes in fat distribution- transform how weight affects health outcomes in this population. For older adults, healthy weight management encompasses risks of malnutrition, sarcopenia, frailty, and functional decline. Additionally, the relationship between weight and health becomes more complex, as both underweight and obesity present unique risks related to falls, cognitive function, and care dependency. Social factors such as isolation, food access challenges, and changing living arrangements further distinguish weight management needs in this age group. Recognising these age-specific considerations is essential for developing effective support²⁹⁻³².

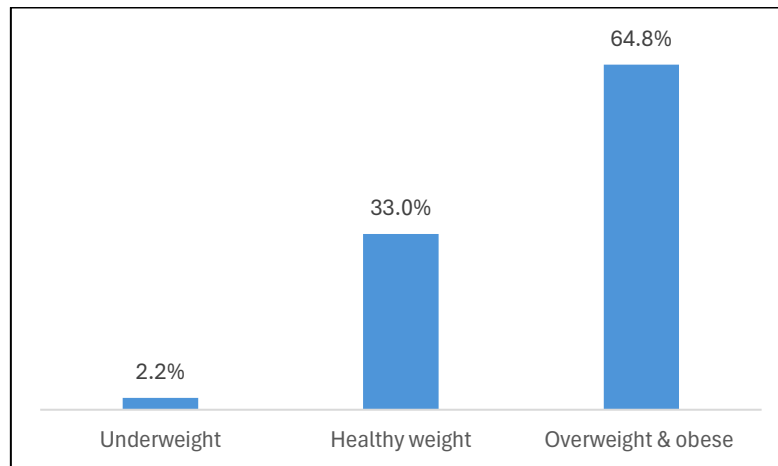
Weight statistics

Figure 45 presents the percentage of older aged patients (aged 65 years and over) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances with a recorded BMI classification as of April 2025. The figure uses [PHM data](#). Results show that:

- 2.2% of these older patients are living with underweight
- 33.0% are living with having a healthy weight
- 64.8% are living with overweight or obesity

This indicates **that nearly two-thirds of the elderly patient population in these Suffolk regions are living with overweight or obesity**, while only about one-third maintain a healthy weight according to BMI standards. A small percentage (2.2%) are living with underweight.

Figure 45: The percentage of older aged patients (aged 65 years and over) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances with a recorded BMI classification as of April 2025



Source: Population Health Management Analytics

Demographic variables

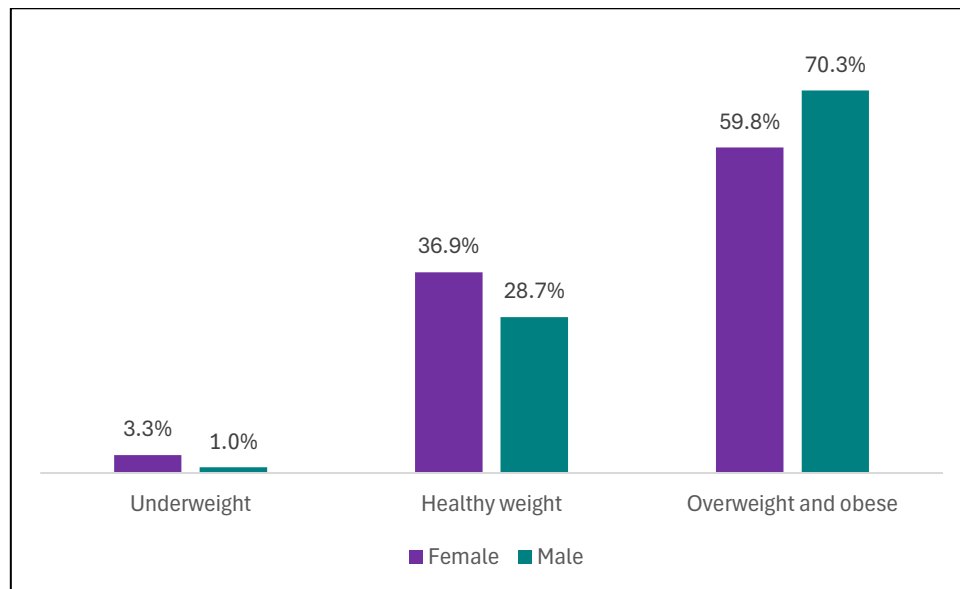
This section examines demographic differences as reported by [PHM data](#). By examining this data through the lens of key demographic factors we can better understand how underweight or overweight and obesity impacts different population groups.

Gender

Figure 46 shows BMI classification data for older patients (65+ years) registered to GPs in Ipswich and East Suffolk, and West Suffolk Alliances as of April 2025, split by gender. Results show that:

- Women are more likely to be living with a healthy weight (36.9%) compared to men (28.7%).
- Women have higher percentages living with underweight (3.3%) compared to men (1.0%). This could suggest potential nutritional or health concerns specific to older women.
- Men have higher percentages living with overweight/obesity (70.3%) compared to women (59.8%), a difference of over 10 percentage points.

Figure 46: The percentage of older aged patients (aged 65+ years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by gender.



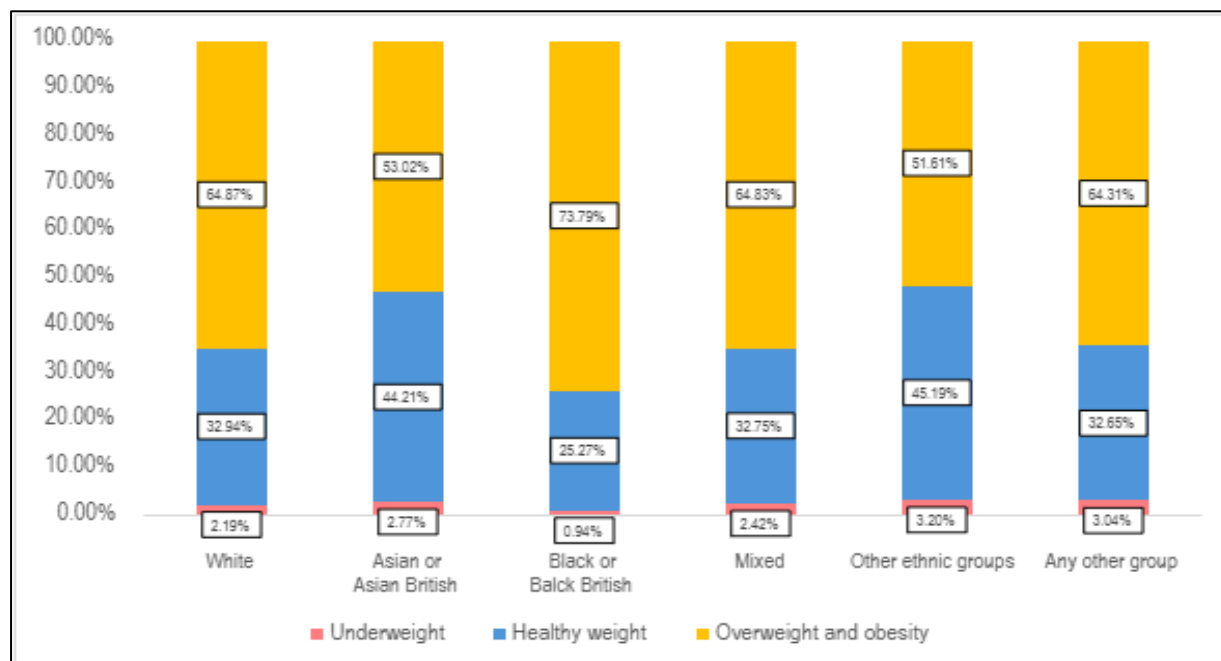
Source: Population Health Management Analytics

Ethnicity

Figure 47 shows the percentage of older adults (aged 65+ years) registered to GPs in Ipswich and East Suffolk, and West Suffolk Alliances with recorded BMI classifications as of April 2025, broken down by ethnicity. Results show that:

- **The percentage of older adults living with overweight or obesity are highest among those who identify as Black or Black British (73.79%).** This is followed by those older adults who identify as White (64.87%), Mixed (64.83%), and "Unknown/anything else" (64.31%).
- **Older adults who identify as Asian or Asian British have a lower percentage living with overweight or obesity (53.02%) compared to other ethnic groups.**
- Older adults who identify as Asian or Asian British have the highest percentage living with a healthy weight (44.21%), followed by those who identify as "Other ethnic groups" (45.19%).
- Older adults who identify as Black or Black British older adults have the lowest percentage living with a healthy weight (25.27%).
- The percentage of older adults who are living with underweight is generally low across all groups, with the highest being in those who identify as "Other ethnic groups" (3.20%) and "any other group" (3.04%).

Figure 47: The percentage of older aged patients (aged 65+ years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by ethnicity



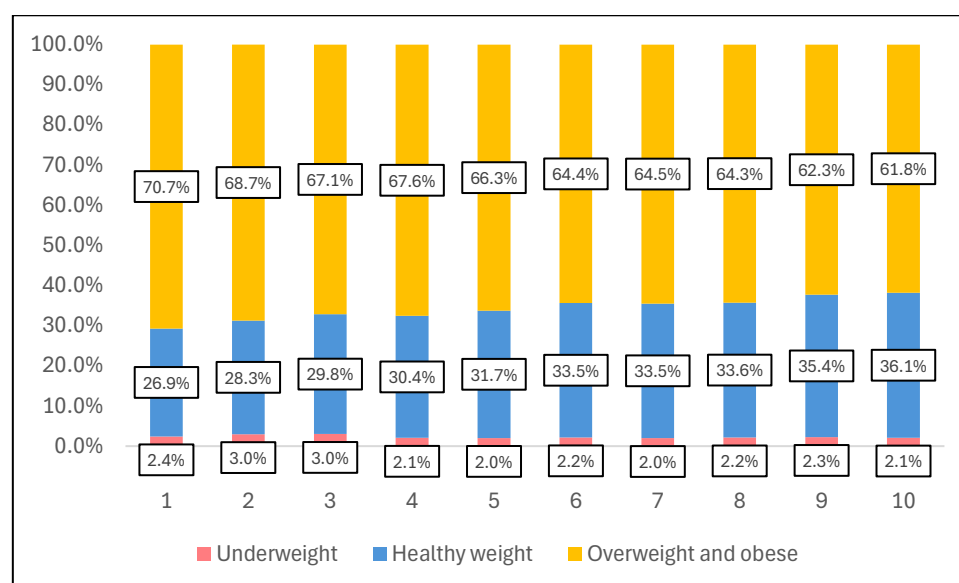
Source: Population Health Management Analytics

Deprivation

Figure 48 shows the percentage of older patients (aged 65+ years) registered to GPs in Ipswich and East Suffolk, and West Suffolk Alliances, with recorded BMI classifications as of April 2025, split by IMD decile. Results show that:

- Older aged patients living with underweight was relatively low across all deciles, ranging from 2.0% to 3.0%, with no clear socioeconomic gradient.
- **There is a socioeconomic gradient across older adults living with a healthy weight status, with a 9.2 percentage point difference between the most and least deprived areas (26.9% vs 36.1%).**
- **There is a socioeconomic gradient in older adults living with overweight and obesity, with an 8.9 percentage point difference between the most and least deprived areas (61.8% vs 70.7%)**
- Across all age groups the percentage of patients, who are living with a healthy weight is lower in the 50% most deprived areas when compared to the 50% least deprived areas, showing this is a widespread socioeconomic problem rather than limited to extreme deprivation.

Figure 48: The percentage of older aged patients (aged 65+ years) registered to a GP in Ipswich and East Suffolk, and West Suffolk Alliances, with a recorded BMI classification as of April 2025, split by IMD decile (1 = Most deprived)



Source: Population Health Management Analytics

Malnutrition

Eating and drinking enough is especially important as individuals age. Being well nourished helps to maintain muscle mass, which in turn improves mobility and reduces falls. It keeps us warm, and gives us energy, as well as being a big mood boost that enables us to continue to do all the things that are important to us³³.

The [National Institute of Health and Care Excellence](#) (NICE) defines a person as being malnourished if they have:

- a body mass index (BMI) of less than 18.5 kg/m²
- unintentional weight loss greater than 10% within the past 3–6 months
- a BMI of less than 20 kg/m² and unintentional weight loss greater than 5% within the past 3–6 months

Research shows that, in the UK, malnourished people see their GP twice as often, have three times the number of hospital admissions and stay in a hospital three days longer than those who are well-nourished³⁴.

Evidence from [Age UK](#) reveals that 1.4 million older people aged 60+ years in England have been eating less since the start of the pandemic and could therefore be at a greater risk of becoming malnourished. 3.7million older people also stated that either they or others in their household have been unable to eat healthy and nutritious food.

Results also showed how lockdowns has left some older people with reduced appetites and less able to shop for, prepare and eat enough good food³³. Nearly half (49%) of people who already having difficulties going to the shops stated this has become harder and two in five (43%) reported they feel less confident or much less confident going to the shops by themselves than they used to. This suggests that there may be a hidden problem of undernutrition and malnourishment in older people³³.

The following section uses [PHM data](#). The malnourishment flag includes any individuals who have been reported to have a nutritional disorder, nutritional marasmus, malnutrition,

undernutrition, high risk of malnutrition, at risk of malnutrition, at increased risk for imbalanced nutrition less than body requirements, at risk for imbalanced nutrition less than body requirements or undernourished. The counts of individuals aged 65 and over with a malnutrition flag reflect the number of unique individuals rather than observation counts. That is, if an individual was observed more than once for malnutrition, the analysis counts that person only once. This count includes observations recorded since 2008. Due to inability to match on dates, the malnutrition flag includes anyone who has ever had the flag and is now 65 and over, even if they no longer have the flag at 65. For example, someone who was flagged at age 60 but no longer has the flag at 65 is still included, as no reference data is available to confirm their status at 65. Individuals with a palliative care flag were excluded from the analysis.

In total, **there has been 246 (0.16%) older aged patients with a malnourishment flag** registered with a GP in Ipswich and East Suffolk, and West Suffolk Alliances) as of April 2025. However, this is likely to be an underestimate.

BAPEN published a report in 2018 titled [Managing malnutrition to improve lives and save money](#). The report highlights that tackling malnutrition requires systematic identification through validated screening tools like 'MUST', followed by evidence-based nutritional support tailored to risk level. For high-risk patients, oral nutritional supplements (1-3 daily) alongside dietary optimisation have proven effective, particularly for those with acute illness or chronic conditions affecting appetite. This approach delivers dual benefits: improved patient outcomes (better strength, fewer complications, enhanced quality of life) and significant cost savings (approximately £65 million annually for England) through reduced hospitalisations and healthcare utilisation³⁴.

Environments

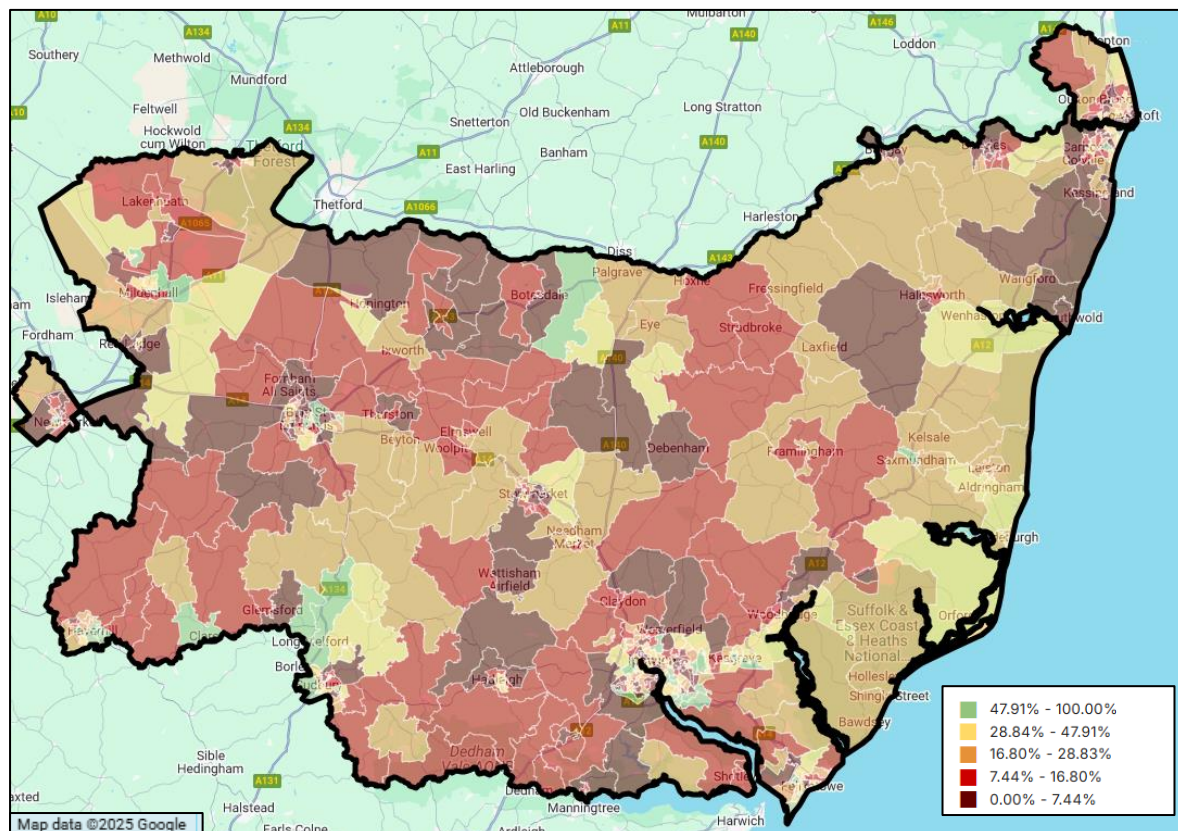
Green Spaces

The physical spaces where people live significantly impact weight management through multiple pathways. Research shows that access to green spaces serve as a protective factor for healthy weight by encouraging physical activity³⁵⁻³⁷.

Figure 49 shows the percentage of households that have access to green space by Lower Super Output Area (LSOA) across Suffolk. Access is defined as availability of a large greenspace (≥ 10 ha) within 1 km, and either a small (≥ 0.5 ha) within 200m or a medium-sized space (≥ 2 ha) within 300m. Within the map green areas within Suffolk have the highest percentage of households with access to greenspace within the LSOA; dark red areas have the least access. Data is only shown for areas within Suffolk. More detail is available in our [Green and blue space profile](#). Results show that:

- A total of 51 LSOAs in Suffolk have **no households** that have access to green space (detailed in table 1 of appendix 1) 20 within West Suffolk, 14 in Ipswich, 12 in East Suffolk, 3 in Mid Suffolk, and 2 in Babergh
- Haverhill East & South in West Suffolk has the highest percentage of households that have access to greenspace at 95.6%. This is followed by Felixstowe Seafront in East Suffolk (82.3%), and Gainsborough, Greenwich & Orwell in Ipswich (77.2%).

Figure 49: Percentage of households with access to Green Space (% Access to Green Space) by LSOAs in Suffolk, 2024



Source: [Local Insight](#)

Fast food outlets

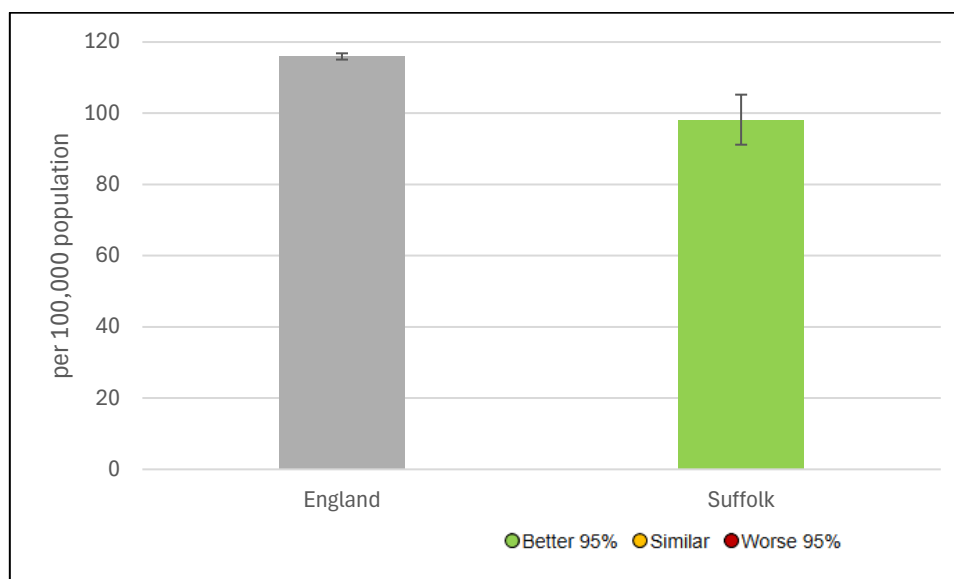
One component of the built up environment is food outlets and the choices they provide. Meals eaten outside of the home tend to be associated with higher calories, and portion sizes tend to be bigger, which can make it more challenging to eat healthily^{38,39}. The neighbourhood food environment is one important modifiable determinant of dietary behaviour and obesity⁴⁰.

The availability of fast food in our environment is one issue, within a complex system⁴¹, which is associated with a range of negative health outcomes and contributes to the obesogenic nature of some of our neighbourhoods. Fast food is more abundantly available in the most deprived areas of England where obesity in children and adults and the associated health conditions, such as type 2 diabetes, hypertension, and heart disease are most prevalent^{42,43}.

Figure 50 presents the number of fast food outlets per 100,000 population in Suffolk compared to England in 2024. This indicator is designed to support understanding of the number of fast food outlets in an area taking the size of the population into account. Results show that Suffolk have 98.0 fast food outlets per 100,000 population), statistically significantly better than the national average (115.9 per 100,000 population). Even with fewer outlets than the national average, Suffolk still has a substantial number of fast food establishments that could impact public health. The indicator does not investigate the specific location of fast food outlets or the quality of these outlets, therefore, there may be variations between different communities, with some areas potentially having much higher densities than others. Further reducing density

could enhance Suffolk's health outcomes, particularly in neighbourhoods with health disparities.

Figure 50: The number of fast food outlets per 100,000 population in Suffolk compared to England, 2024.



Source: [Fingertips](#)

What is being done to support healthy weight management?

National policies and guidance

Fit for the future: The 10 Year Health Plan for England

In the course of this assessments development, the government released its updated 10 year health plan for England: [Fit for the future: The 10 Year Health Plan for England](#).

In this plan the government pledged to “launch a moonshot to end the obesity epidemic”. The approach recognises that “food choices are partly an individual choice, but they are also influenced by our environment” - particularly for children who have limited control. The strategy aims to “make the healthy choice the easy choice” through systemic changes rather than relying solely on individual responsibility⁴⁴.

The 10 Year Health Plan adopts a comprehensive systems integration approach that shifts weight management from hospitals to community-based Neighbourhood Health Services. This strategy extends beyond healthcare through cross-sector partnerships with businesses, employers, and mayors to create healthier environments. The plan introduces "globally unique studies" using genomic insights to identify high-risk individuals and provide proactive support, transforming weight management from reactive treatment to predictive, personalised prevention delivered across integrated community systems.

Below is a summary of the commitments made in the plan related to healthy weight management, a more detailed analysis including outlined potential impact of commitments made can be found in Table 1 in appendix 2.

1. Environmental and regulatory changes

- I. **Food environment reform:** restrict junk food advertising targeted at children, restrict volume price promotions retailers can offer, ban the sale of high-caffeine energy drinks to under-16-year-olds, give local councils stronger powers to block new fast-food outlets near schools, update nutrient profile standards, and continue to drive innovations in the soft drinks industry.
 - II. **Mandatory reporting:** world-first requirement for large food companies to report on healthy food sales with mandatory targets
 - III. **School improvements:** update school food standards
 - IV. **Economic support:** Expanding free school meals so that all children with a parent in receipt of Universal Credit are eligible to receive, and restoration of the Healthy Start scheme value for pregnant women and young children
- 2. Medical Innovation and Treatment Access**
- I. **Obesity management medications:** Expand NHS access to GLP-1 medications (Semaglutide and Tirzepatide) through innovative "pay for impact on health outcomes" partnerships with industry
 - II. **Digital programmes:** Double capacity of NHS Digital Weight Management Programme to 125,000 more people annually
 - III. **Personalised approaches:** Use genomics and AI to identify high-risk individuals and provide targeted interventions
- 3. Prevention and Behaviour Change**
- I. **Physical activity promotion:** Work with the Department for Culture, Media and Sport (DCMS), the government plan to move to a place-based approach to physical activity across Government Departments, to set up a campaign to motivate millions to walk – and where possible to run – on a regular basis. Partner with the Ministry of Housing, Communities and Local Government (MHCLG) and the Department for Digital, Culture, Media and Sport (DCMS) to run a new bidding process, modelled on the UK City of Culture, to name the UK's most physically active community each year.
 - I. **Digital incentives:** New NHS points scheme rewarding healthy choices
 - II. **Community engagement:** Wearable technology trials, especially in deprived areas

A UK government food strategy for England, considering the wider UK food system

In the course of this assessments development, the government published its initial UK food strategy report: [A UK government food strategy for England, considering the wider UK food system](#).

This food strategy aims to deliver a healthier, more affordable, sustainable and resilient food system. It aims to do this by working across government and industry to influence the UK food system as a whole (how it produced as well as consumed). The strategy set out 10 outcomes split into four broad categories listed below

1. Healthier and more affordable food
 - a. An improved food environment that supports healthier and more environmentally friendly sales
 - b. Access for all to safe, affordable, healthy, convenient and appealing food options
2. Good growth

- a. Conditions for the food sector to thrive and grow sustainably, including investment in innovation and productivity, and fairer more transparent supply chains
 - b. Food sector attracts talent and develops skilled workforce in every region
3. Sustainable and resilient supply
 - a. Food supply is environmentally sustainable with high animal welfare standards, and waste is reduced
 - b. Trade supports environmentally sustainable growth, upholds British standards and expands export opportunities
 - c. Resilient domestic production for a secure supply of healthier food
 - d. Greater preparedness for supply chain shocks, disruption, and impacts of chronic risks
4. Vibrant food cultures
 - a. Celebrated and valued UK, regional and local food cultures
 - b. People are more connected to their local food systems, and have the confidence, knowledge and skills to cook and eat healthily

Collectively, these would deliver the vision of an improved food system.

The Government will engage more specifically around the 10 outcomes to agree what change is required, including Government intervention as well as industry commitments, to deliver them. No specific timelines or plan has been solidified. However, the next steps for this food system transformation outlined in the strategy include:

- **Government coordination** - Establish clear, consistent policy direction across all government levels and departments
- **Stakeholder engagement** - Continue working with advisory councils and diverse food system voices on implementation plans
- **Strategy alignment** - Coordinate food strategy with existing frameworks (Land Use, Environment, Decarbonisation, Farming plans)
- **Measurement and regulation** - Develop success metrics and appropriate regulatory support
- **Business support** - Reduce administrative costs by 25% while giving industry time to adapt
- **International integration** - Align with EU negotiations and global food security objectives

To date, the only significant detailed intervention the Government has committed to is on nutrition and health. The NHS 10 year plan has announced the introduction of mandatory reporting for all food businesses on their healthy food sales, a review of the nutrient profiling model (NPM) and ambitions to reduce unhealthy sales in communities. Legislation on mandatory sales reporting is expected to be introduced by the end of this Parliament.

Pre-existing national policies

Recent governments have established multiple strategies and policy plans to address healthy weight management. These plans are distributed across multiple documents and responsibility for delivery lies across numerous government agencies and departments. Table 2 outlines the pre-existing national plans in place prior to the development of the strategies above during the development of this assessment. Table 2 in appendix 2 provides a more detailed description of these commitments to tackling healthy weight management, highlighting any actions completed since publication and their potential impact.

Table 2: Strategies and policy plans addressing healthy weight management in England

Documentation	Summary of action
The NHS Long Term Plan (2019)	This strategic document set out to tackle healthy weight management by committing to provide targeted weight management support, double the funding for the NHS Diabetes Prevention Programme (DPP), develop the NHS Type 2 Diabetes Path to Remission Programme, provide nutrition training to all frontline medical staff and improve hospital food standards.
Tackling obesity: empowering adults and children to live healthier lives (2020)	This policy paper aimed to address healthy weight management by committing to legislate the end of promotion of foods high in fat, salt or sugar (HFSS), ban HFSS products being shown on TV and online before 9pm and restricting volume promotions of HFSS products, launch The Better Health campaign promoting evidence-based tools and apps with advice on how to lose weight and keep it off, consult on the 'traffic light' food label system, offer all primary care networks the opportunity to equip their staff to become healthy weight coaches, and legislate businesses with more than 250 employees to display calorie information of non-prepacked food and soft drinks.
Government food strategy (2022)	This strategic document planned to deal with healthy weight management by committing to launch the Diet and Health Open Innovation Research Club, undertake a programme of randomised control trials on interventions in the food system to encourage and enable healthier and more sustainable diets, review current policy and delivery methods of the School Fruit and Vegetable Scheme, develop new materials for the curriculum to support children leaving secondary school to know at least 6 healthy recipes, make it easier for families to apply for the use of the Healthy Start Scheme, permanently extended entitlement of the free school meals to No Recourse to Public Funds families, continue funding the Holiday Activities and Food Programme, launch a Food Data Transparency Partnership, develop metrics to objectively measure health impacts of food and review front of pack nutrition labelling.

NICE guidelines and the development of obesity management medications

The National Institute for Health and Care Excellence (NICE) provides evidence-based clinical guidelines that establish national standards for healthcare delivery across England, Wales, and Northern Ireland. The current updates in obesity management NICE guidelines include:

In January 2025, NICE revised their guidance on [overweight and obesity management](#).

The guidance covers the prevention and management of overweight, obesity, and central adiposity in children, young people, and adults across various settings. It does not cover pregnancy. Several evidence reviews were used to develop the 2025 recommendations. Table 1 in appendix 3 summarises the key findings of each review.

In August 2025, NICE revised their quality standard QS212 on [overweight and obesity management](#).

The standard replaces QS94, QS111 and QS127 and is based on NG246 and PH49. Eight quality statements were made of which seven were new statements for 2025, these included:

- 1. Adults with a long-term condition have at least annual recording of their BMI and, if they have a BMI lower than 35 kg/m², recording of waist-to-height ratio.**

Healthcare professionals should "seek permission in a sensitive, non-judgmental way before discussing and measuring weight" and "avoid attributing all symptoms to weight (diagnostic overshadowing)".

2. Children and young people aged over 2 years have opportunistic recording of their BMI at key points of contact with a healthcare professional.

Recording can take place "at potentially suitable opportunities such as routine health checks and non-urgent appointments (such as immunisation appointments)".

3. People with a learning disability are supported to access overweight and obesity management services.

The rationale states that "People with a learning disability are at greater risk of obesity than the general population and may need tailored support".

4. Local authorities and healthcare commissioning organisations maintain and give access to an up-to-date list of local and national overweight and obesity management interventions and services.

This ensures "the public know about the services in their area and how to enrol in them".

5. People identified as living with overweight, obesity or central adiposity are given sources of information and details of local and national interventions and services.

This helps ensure people "can engage with the most appropriate interventions and services that meet their needs and preferences".

6. People living with overweight or obesity who are prescribed medicines for weight management receive wraparound care focusing on diet, nutrition and increasing physical activity.

The medicines options include "Tirzepatide, semaglutide, liraglutide, orlistat".

7. People who are stopping medicines for weight management or have completed a behavioural overweight and obesity management intervention are given advice for maintaining changes and support for improving their health and wellbeing.

This helps "prevent weight regain and weight cycling".

Statement eight was updated from 2016:

8. Adults discharged from the bariatric surgery service have follow up at least annually, as part of a shared-care model between specialist weight management services and primary care.

"Lifelong nutritional monitoring and supplementation is important after bariatric surgery to avoid nutritional deficiencies".

Obesity management medications

[Information about weight management services and the availability of weight-related drug treatments in Suffolk and North East Essex](#)

From 23 June 2025, some people living with obesity may be eligible to access Tirzepatide (Mounjaro®) for weight loss purposes in community settings as outlined in [NICE guidelines](#).

For patients in Suffolk and north east Essex, this will be enabled via a Specialist Weight Management Service community outreach model, which is one of the nationally approved delivery models. The community outreach service is not open to new referrals yet as existing patients who were already on the waiting list are being prioritised. The ICB is aiming to enable new referrals later this summer. This service, delivered by East Suffolk and North Essex NHS Foundation Trust (ESNEFT), is a core component of ESNEFT's hospital-led service, the Weight Management and Complex Obesity Service (WMCOS).

Priority patients for the outreach service are those who belong in 'Cohort 1' of the [NHS England Interim Commissioning Guidance](#). These are the patients NHS England consider as having the greatest clinical need and, therefore, only patients from this group will be prioritised in the first year. Please see page 7 of the guidance for the list of priority patients in Cohorts 2 and 3.

Please note that your GP or clinician cannot prescribe obesity management medications. Furthermore, no GP in Suffolk and north east Essex can prescribe these medications for overweight and obesity; they can only be prescribed by the specialist service provider, ESNEFT

A review of evidence on the science behind the efficacy of these medications, the future of weight loss medications and long-term effects can be found in appendix 4. A summary is provided below.

Ozempic

In 2023, the obesity management medications [Semaglutide \(Ozempic/Wegovy\)](#) was approved for NHS use.

Semaglutide is a drug that comes in a pre-filled pen that patients inject themselves with once a week. It helps patients to feel fuller for longer, regulate blood sugar levels and reduce cravings. NICE has recommended the use of the drug together with a reduced-calorie diet and increased physical activity to adults who have at least 1 weight-related comorbidity and a body mass index (BMI) of at least 35kg/m². People with an BMI of between 30-34.9 kg/m², with 1 weight-related comorbidity who are eligible for referral to specialist weight management services could also be prescribed the drug. Semaglutide can only be prescribed for a maximum of two years.

Clinical trials demonstrate significant efficacy:

- Average 15.2% weight reduction over two years (compared to 2.6% placebo)⁴⁵
- Five times higher odds of achieving at least 5% weight loss compared to placebo⁴⁵

Mounjaro

In 2024, the obesity management medications [Tirzepatide \(Mounjaro\)](#) was approved for NHS use.

Similar to semaglutide, Tirzepatide is a drug that comes in a pre-filled pen that patients inject themselves with once a week. It helps patients to feel fuller for longer, regulate blood sugar levels and reduce cravings. Tirzepatide activates two hunger-controlling systems, whereas Semaglutide activates one. Therefore, Tirzepatide can create even stronger feelings of fullness and reduce cravings more than Semaglutide increasing the effectiveness of the drug. NICE has recommended the use of the drug together with a reduced calorie diet and increased physical activity in adults who have at least 1 weight-related medical condition and a body mass index (BMI) of at least 35kg/m². Tirzepatide may be stopped if less than 5% of the starting weight has been lost after 6 months of treatment with the highest dose the person can have with manageable side effects.

Clinical trials show even greater efficacy than Ozempic:

- 16.0-22.5% weight reduction over 72 weeks (depending on dosage)⁴⁶
- Weight reduction of 16.1-23.6 kg (35.5-52.0 lbs)⁴⁶
- Similar eligibility criteria to Ozempic⁴⁶

Limitations and considerations

Despite their effectiveness, these medications are not silver bullets to the obesity epidemic and have important limitations:

- Not suitable for all patients due to administration method and side effects^{45,46}
- High cost (up to £300 per month) with limited NHS availability- which may increase inequality gap⁴⁷.
- Require concurrent behavioural support for nutrition, muscle preservation, side effect management, and mental wellbeing^{45,46}
- Significant weight regain occurs after discontinuation (though net benefits may persist)^{48,49}

Local policy and guidance

The [Suffolk Children's Healthy Weight Strategy 2023-2027](#) builds upon national policy foundations, translating broader government initiatives into coordinated local action adopting a whole system approach across four key priority areas (Move Well, Eat Well, Sleep Well, and The World Around Us) to address childhood healthy weight management across the county.

In March 2025, the Suffolk Children's Healthy Weight Strategy reported significant progress. Current work and successes across each of the four key priorities are listed in table 3.

Table 3: Current work and successes of the Suffolk Children's Healthy Weight Strategy split by the four priority areas

Key priority	Current work and successes
Move well	• A new Schools Active Travel Toolkit and Parents Active Travel Toolkit was launched in September 2024; including the delivery of Bikeability, promotion of the Daily Mile has been strong in 2024 with 24 new schools signing up (5,424 children) and a further 13 schools have re-engaged (2,938 children). • Suffolk now has 9 Junior Parkrun events and in February 2024 Ipswich Beat the Street had 10,903 players covering 68,255 miles. • In 2024 a new booking system Eequ for the Holiday Activities and Food Programme (HAF) was implemented to support families access sessions and monitor engagement; 10,372 children accessed HAF support in 2024.

	• The Source co-produced resource for young people to engage in daily activity to improve emotional wellbeing and mental health, the resource had 19,951 page views in 2024. • The new Suffolk Physical Activity Strategy Move More to Feel Better led by Active Suffolk includes the Healthy Schools Award Scheme, currently in development and is set to launch in September 2025.
Eat well	• Promotion of the national Healthy Start Scheme has been underway, with local literature and short information courses delivered to statutory and voluntary organisations building knowledge and confidence in the scheme to increase applications and uptake. Ipswich Markets are now able to accept vouchers. Suffolk also saw the uptake for the Healthy Start Scheme increase from 61% in March 23 to 77% in March 2024. Each family receives approx. £1,000 over 4 years which estimates this increase to have added a minimum of £600,000 into the pockets of Suffolk families. • Suffolk County Council Children and Young People Community Health (health visiting) have reached stage 3 accreditation, and the Suffolk Neonatal Units are in the early stages of accreditation regarding infant feeding support. This coordinated and focused support has seen Suffolk breastfeeding percentages increase and remain at over 54% percentage at 6-8 weeks in line with the UK average. • The Suffolk Children's Healthy Living service now utilise the culturally appropriate Eatwell Guides for African, Caribbean and South Asian communities. • At the end of 2024, Community Dental Services launched the new supervised toothbrushing project, delivering in Early Years settings, Primary and Secondary schools. Within the first 26 days of delivery and 180 referral received, 180 children and 77 adults have been seen at appointments held within the community, a traveller community and special educational need and disability school provision. • A total of 200 places for the evidence based Health Eating, Exercise and Nutrition in the Really Young (HENRY) course have been accessed or booked on by staff and volunteers, with courses running from January 2024 to April 2025. HENRY training has given staff and volunteers more confidence in communication and approach when supporting families. • In 2024, seven schools engaged with Poverty Proofing the School Day. The ASSET Food Project: Empowering Children for Better Health Outcomes is running across 15 primary schools within ASSET Education trust, a showcase of their work is set to be run in July 2025.
Sleep well	• Working with local charities, Suffolk Family Hub teams are proactively supporting families access the financial and practical resources needed to give every child a safe and suitable place to sleep. Suffolk County Council Sleep Resources are available. • Suffolk Parents can access the Norfolk and Suffolk NHS Psychology in Schools including supporting children with sleep, anxiety, emotions and self-harm and impact of screen time on children's sleep. • Free Solihull online courses are available which parents can access at their own pace, the Solihull Approach to sleep addresses the most common infant and child sleep issues.
The world around us	• The multi-agency partnership group titled 'Children's Healthy Weight Core Group' meets regularly to focus on topics within the strategy and has worked together to create a Theory of Change building on the delivery of the strategy and opportunity to reflect and refresh. • Suffolk social media campaigns have been run to promote messages including Healthy Start, HENRY training and Support Squad for families. 2025 also sees the launch of 'Spotlight on ...' sharing information on key topics within the strategy across the Suffolk System. An online hub resource has been developed sharing the strategy and supporting resources. • Suffolk encourage children's health to be considered in all new planning applications and evidence in all stages of the planning process. An example of this being the adoption of the East Suffolk Healthy Environments Supplementary Planning Document

	(SPD) published in June 2024 recognising childhood obesity within the key challenges. The new National Planning Policy Framework published in December 2024 also brings welcomed guidance regarding hot food takeaways and fast food outlets applications. In 2023 the National Childhood Measurement Programme (NCMP) data and information was added to the Suffolk Observatory Ward Profiles. The Public Health Knowledge, Intelligence and Evidence Team also hold informal sessions for all colleagues across the Suffolk System to support the understanding and access to data to support decision making.
--	---

Additionally, in line with [Tackling obesity: empowering adults and children to live healthier lives \(2020\)](#), Suffolk are currently investigating the potential in embedding a Suffolk approach to external advertising. The proposed policy aims to support the reduction in overweight and obesity levels in children and adults by reducing the visibility of high in fat, sugar or salt (HFSS) products in external advertising spaces.

Healthy weight management services for Suffolk residents

Children and young people healthy weight management services

Healthy Living Service

The [Healthy Living Service](#) (HLS) offers support to children, young people, and their families to help remove the barriers to achieving a healthy weight and lifestyle. This free service offers evidence-based information to support long-term healthier lifestyle goals for the whole family. The service supports families with children aged 0 – 19 (up to age 25 for young people with Special Educational Needs and Disability (SEND)) who are overweight (on the 91st to the 97.9th BMI centile).

The service also supports infant feeding from antenatal onwards. They can help ease some of the worries around healthy eating and healthy living to support parents to be able to raise a happy and healthy child(ren).

The HLS includes one-to-one family work, group work, ‘Fussy Eater’ workshops run by [HENRY](#) and health promotions in the community including free healthy lifestyle sessions. Working collaboratively with the VCFSE sector the service also helps to find the right support for families in the community including digital resources.

Commissioned in October 2023, the Healthy Living Service has supported 267 families to date; 61% of families live in the 20% most deprived areas (IMD deciles 1 and 2). An average of 55% of referrals are received via NCMP identifying children to then offer support to the family.

Complications from excess weight services (CEWS)

Complications from Excess Weight (CEW) clinics are specialised healthcare facilities focusing on children and young people (ages 2-18) experiencing health issues directly linked to severe obesity. These clinics aim to identify the causes of severe obesity, treat associated complications, and coordinate care across various services.

CEW clinics use a holistic approach to treating conditions related to obesity in children and young people (CYP). Clinics in the East of England include:

- Bedfordshire Hospitals NHS Foundation Trust (clinic type: spoke [local organisations looking for unique/specialised services for their patients])

- Cambridge University Hospital Foundation Trust (clinic type: hub [specialist and/or unique service delivered at a small number (or one) location])
- East Suffolk and North Essex NHS Foundation Trust (clinic type: spoke)
- Norfolk and Norwich University Hospital NHS Foundation (clinic type: hub)

The 3 aims of the service are to:

- **Identify** the factors involved in the development of severe obesity. Assessment should be holistic with equal consideration for mental health, physical health and social needs.
- **Treat complications** associated with severe obesity and co-ordinate / refer onto other services where required.
- Consider an **individualised holistic plan**. This may include interventions such as family-based therapy, behavioural coaching, dietary strategies, and mental health support. This aims to address health inequalities by considering culturally appropriate factors and a personalised approach.

To be eligible for CEWS CYP Eligibility

1. CYP aged 2-17 with severe obesity (*BMI >3.5 standard deviations above the mean)
2. Significant obesity-related comorbidity that would benefit from weight loss
3. Family wants help to change lifestyle behaviours

Within Suffolk 25 CYP were seen within the CEW clinic in Quarter 4, with 43 currently on a waiting list. Since the clinic launched in April 2023 they have seen and supported 282 CYP.

There is currently a national evaluation process being undertaken for all CEW clinics across the UK. Currently CEWS is funded by NHS England; however, after April 2026 ICBs will be expected to fund this service. Work with national and regional teams to agree future commissioning of this provision are ongoing.

Obesity management medications

Currently CYP specialist services such as CEW have no access to obesity management medications (GLP-1s) within the service. However, service providers have indicated that there are potential individuals that may benefit from these due to comorbidities. However, limited budget is available within the service to fund these. Access around the country is inequitable. These concerns have been escalated nationally and fed into future commissioning plans.

Considerations for a CYP specialist weight services

In recent months, there has been an increase in the number of CYP living with obesity requiring early intervention and support for their physical and emotional wellbeing. A multi-agency working group, comprising representatives from Essex and Suffolk County Councils, ESNEFT weight management clinicians and bariatric surgery, [HCRG Care Group](#), and Suffolk HLS, has identified a gap in the current weight management service provision, with some CYP falling between the existing healthy living services and the CEWS pathway. This has led to GPs and other professionals identifying CYP in need of help but unable to access the appropriate level of support due to current acceptance criteria.

With this in mind, a business case is currently in development by SNEE ICB for increased psychology and dietetic support (tier 2.5 type offer). Options for wider community support for GPs to refer/signpost CYP and families via our VCSFE will be considered. Additionally, the

opportunities for where the increased clinical capacity could sit are not yet finalised, building additional capacity within the existing provider space is being considered.

The intention of the business case is not to fully replicate the previous tier 3 offer that was available in Suffolk between 2019 and 2021, but to take the learning, outcomes and current context of need for Suffolk's CYP and families, alongside the CEW offer and build this into an affordable provision to complement the already commissioned offers in place.

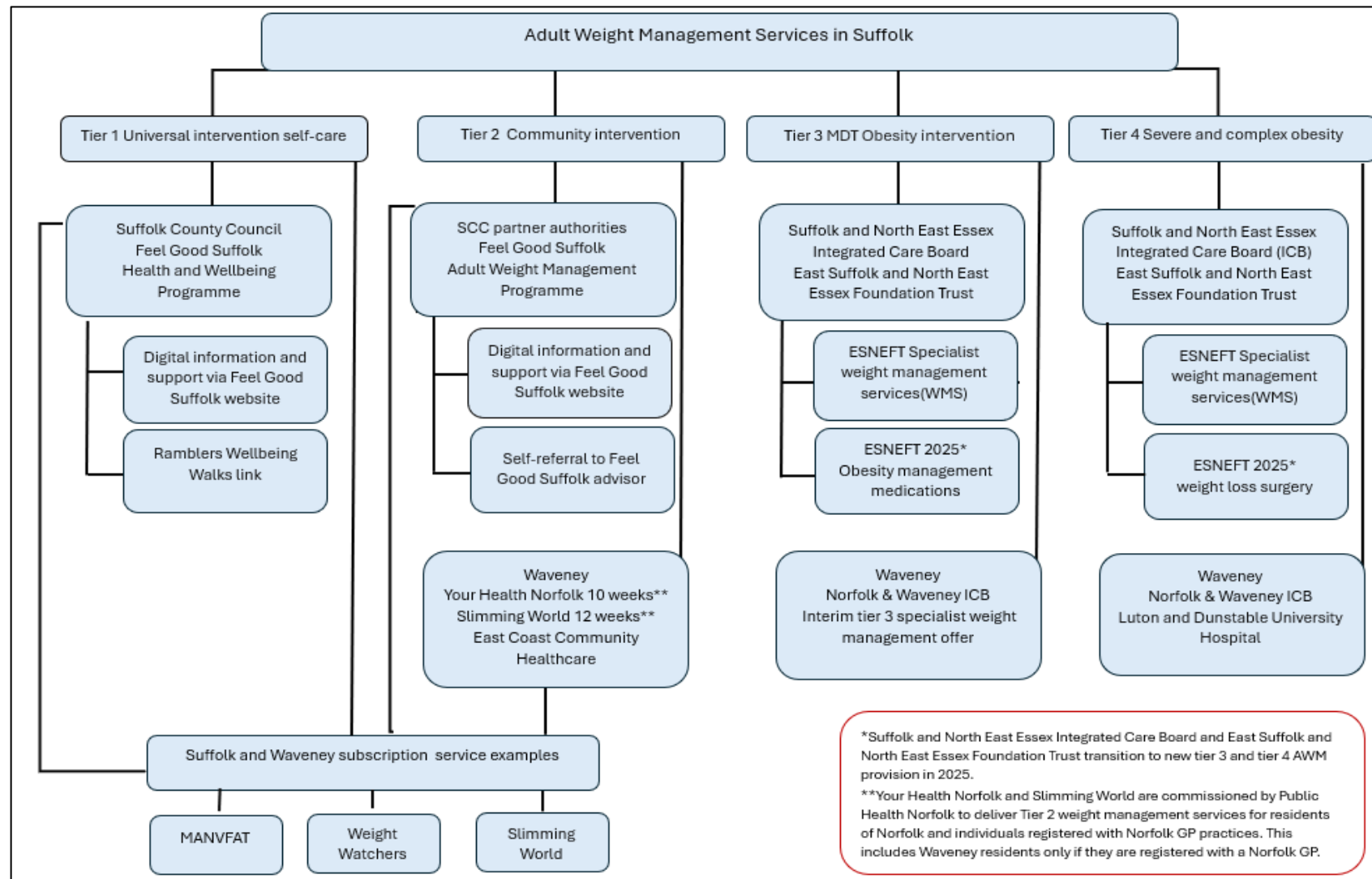
Adult healthy weight management services

Healthy weight management services across Suffolk are split into 4 tiers of services for adults (18+):

- **Tier 1:** focusses on universal interventions such as general health information, guidance on eating better and increasing physical activity. This is accessible to all through the Feel Good Suffolk website.
- **Tier 2:** offers additional community-based diet, nutrition, lifestyle and behaviour change courses of up to 12 weeks duration for individuals through the Feel Good Suffolk service. This service is available to those with a BMI of 30kg/m² or above, or a BMI of 27.5kg/m² or above if from an ethnic minority background or with an existing health condition.
- **Tier 3:** provides specialist multi-disciplinary weight management services for adults with a BMI of 40 or above, 35 or above for those with a weight related health issue such as diabetes. Suffolk and North East Essex ICB are transitioning to a new service in 2025.
- **Tier 4:** covers bariatric and other obesity treatment services. Suffolk and North East Essex ICB are transitioning to a new service in 2025.

Figure 51 shows a breakdown of the adult weight management services currently provided for Suffolk residents.

Figure 51: Adult weight management Service mapping diagram



Tier 1 and Tier 2 services

Feel Good Suffolk

[Feel Good Suffolk](#) (FGS), launched on the 1st of October 2023, is a tier 1 and 2 healthy lifestyle service aimed at supporting Suffolk residents to manage a healthy weight, stop smoking and be more active. The service brings together local councils and health organisations to provide residents with support options that can be adapted to meet different community needs.

The FGS digital platform, managed by Suffolk County Council, is a universal tier 1 offer that provides tips, advice and support to help adults manage their weight. A self-referral link to FGS tier 2 services is available through the platform. Further links to useful NHS resources including Digital Weight Management, the Weight Loss App, Better Health and Diabetes Prevention programmes are embedded within the information.

Suffolk residents aged 18 years and over and with a BMI ranging between 30-40, or 27.5 and above if from an ethnic minority background, or with an existing health condition, receive further tier 2 support through partner organisations Ipswich Borough Council, East Suffolk Council, Babergh and Mid Suffolk Councils and West Suffolk Council. This is outlined in table 4 below.

Table 4: Tier 2 healthy weight management services for Suffolk residents 18+ years with a BMI of 30-40, or 27.5+ (ethnic minority background and/or with an existing condition).

Service	Description
Feel Good Suffolk Healthy Weight Programme	12 weeks of face to face or online support, discussing different topics related to a healthy lifestyle such as nutritional value of food, wellbeing, sleep, and physical activity. FGS Advisors deliver 12 weekly sessions in a group setting and provide peer-to-peer support from others looking to reach a healthy weight. This group programme takes a holistic view in supporting participants to reach and maintain a healthy weight. During the sessions each person is encouraged to make small and manageable healthy lifestyle changes by setting weekly mini goals, questions they have are answered and useful tips and information provided. Help is given to identify and remove any 'barriers' to these changes they may be facing.
Healthy weight (self-guided programme)	The self-guided programme includes 12 pre-recorded, video sessions, delivered by the team of FGS Advisors, each covering a different topic on nutrition, lifestyle factors, wider health & wellbeing, and behaviour change. The videos last between 10-45 minutes, and participants are advised to watch one session a week, at the end of which they are guided to set achievable weekly goals. Each session is supported by suggested further reading, handouts, and videos to support the viewer's journey. Appointments are set with a FGS Advisor at the start, middle and end of the 12-week programme to discuss progress and monitor any challenges participants might have been facing.
Physical Activity (Exercise Referral) only for clients with a BMI below 40 and co-morbidity	The client undertakes a person-centred exercise programme co-designed with an Exercise Referral Practitioner that enables them to access the leisure centre as a member for 12-weeks. Typically, their programme will include swimming, fitness classes (including aquatic) and gym workouts to support their weight loss journey appropriate their level of physical ability and fitness.

Feel Good Suffolk service utilisation

Weight management service data provides valuable insights into healthcare utilisation patterns and populations health needs. This data illuminates the current state of weight-related healthcare services in Suffolk. A detailed analysis can be found in appendix 5. A summary of findings is presented in table 5.

Table 5: Summary of weight-related health care service utilisation in Suffolk

Theme	Summary of findings
Service utilisation and growth	- The service has handled 8,554 cases since launching in October 2023 - East Suffolk accounts for the highest percentage of cases (35.7%), followed by Ipswich (24.5%), West Suffolk (15.4%), and Mid Suffolk (15.0%), with Babergh having the lowest percentage of cases (8.8%). - Monthly new open cases have increased, from 92 in October 2023 to consistently over 325 open cases in the first quarter of 2025, indicating successful service establishment and growing capacity. - The highest concentration of clients is in Felixstowe West (295 clients), while the lowest concentration of clients is in Southwold, Reydon & Wrentham (21 clients).
Referral patterns	- The service has received 8,626 total referrals, nearly evenly split between healthcare referrals (4,061) and self-referrals (4,486). - Self-referral percentages typically exceed healthcare referrals, with self-referrals peaking at 68.7% in March 2024 and reaching 61.7% in March 2025. - Healthcare referrals dominated between July and December 2024, peaking at 63.9% in November 2024. - District and borough variations exist: Babergh, East Suffolk and West Suffolk receive more self-referrals, while Ipswich receive more healthcare referrals, and Mid Suffolk shows a balanced referral source.
Intervention Types	There's been a transition in FGS weight management services during 2024-2025, as clients shifted from predominantly using Slimming World (declining from around 80% to 20% cases applied) to the services group support options, with face-to-face sessions showing the strongest growth (increasing from around 9% to 40% cases applied) and online support also gaining traction (rising from around 12% to 30% cases applied).
Client demographics	- Age distribution shows the highest participation among 50-59 year-olds (23.5%), followed by 40-49 year-olds (19.6%) and 30-39 year-olds (19.0%). - Gender breakdown reveals that over half of clients are female (52.6%), 16.9% are male, 16.6% have not disclosed their gender, 8.4% prefer not to disclose, and 5.2% are categorised as "other". - Ethnicity data shows 79.8% of clients identify as White British, 18.3% belong to ethnic minority groups, and 1.9% prefer not to disclose their ethnicity.

Theme	Summary of findings
	Socioeconomic analysis indicates that moderate deprivation areas (deciles 5-7) account for 37.8% of clients, with the highest concentration in decile 6 (15.8%). Both the most deprived (decile 1, 5.8%) and least deprived areas (decile 10, 6.6%) show lower representation.
Reasons for discharge	The primary reasons for case discharge or closure are inability to contact clients (37.5%) and disengagement (over 25%), while only 13.1% of cases are closed because clients no longer require services.
Quality assurance outcomes	- The average body weight loss using weight management services in Suffolk is 5.7% (target: 3%) 53.2% of cases have lost at least 5% of body weight (target: 30%) 33.5% Suffolk cases are from the 40% most deprived areas (target of 50%) - Weight loss outcomes for clients from the most deprived areas are positive: - Average weight loss in the 40% most deprived areas is 6.2%, exceeding the rest of the population (5.5%). 59.4% of cases in the 40% most deprived areas lost at least 5% body weight, compared to 50.5% in less deprived areas. 12.1% of Suffolk cases are of participants from ethnic minority populations (target of 20%) - Weight loss outcomes by ethnicity show mixed results: - Suffolk-wide, minority ethnic groups achieve similar average weight loss (4.0%) compared to White British participants (4.1%). - For the 5% weight loss threshold, 28.6% of minority ethnic participants achieve this target compared to 39.9% of White British participants across Suffolk.

Further Tiers 1 and 2: Suffolk services

Table 6 provides selected examples of other tiers 1 and 2 services and interventions available for Suffolk residents from Suffolk County Council voluntary and statutory partners.

Table 6: Summary of other tier 1 and 2 adult services/interventions in Suffolk

Name	Description
Suffolk Mind Eating Recovery Service	For adults who are living with an eating disorder or disordered eating this low level, nonclinical service, provides safe supportive weekly sessions over 26 weeks (excluding Waveney). These support groups run face-to-face in the day in Bury St Edmunds and in the evening in Ipswich, virtual meetings are available. The group participants learn about mental health and wellbeing, understanding relationships, maladaptive patterns and interpersonal Cognitive Behavioural Techniques (CBT) to inform coping strategies. There is opportunity to share support with others and reduce any feelings of isolation they may have. Typical eating challenges include anorexia, bulimia (food restriction, food aversion), and binge eating disorders (food addiction, compulsive eating).

Name	Description
Parkrun and Parkwalk	A national programme of free access weekly 5k runs or walks aimed to raise activity levels that has reportedly helped weight loss. Suffolk now has 17 locations for adult park runs across the county and 3000 (including junior run) residents take part every week. Bury St Edmunds hosts a monthly 5K Your Way Walk for individuals, families and friends affected by cancer.
The Healthy Suffolk website	Contains a health finder tool with links to the Feel Good Suffolk weight management services and there is general guidance to keep well and active. The page on movement directs readers to activities across Suffolk including those linked to the local ActivLives charity and library services. A series of Eat Better Guides for small and medium food hospitality enterprises aim to promote healthier eating options across Suffolk cafes, restaurants and take aways, ultimately enhancing the well-being of residents.
NHS Digital Weight Management Programme	Supports adults living with obesity who also have a diagnosis of diabetes, hypertension or both, to manage their weight and improve their health. It is a 12-week online behavioural and lifestyle programme that people can access via a smartphone or computer with internet access. Links are available via Feelgood Suffolk and Ready to Change Step 3 take action sites.
NHS Healthy Living Service	The NHS provide a digital Healthy Living Service for people with Type 2 Diabetes that lists amongst its pages eating well, becoming active and how to look after the body and mind. This is useful information for those on a T2 Diabetes weight loss plan. Healthy Start details advice for families of young children that encourages adults to engage too. For example, Better Health healthier families shows family members of all ages easy ways to eat well and move more.
Voluntary sector activity in Suffolk	The full extent of voluntary sector activity in Suffolk linked to nutrition and adult weight management is difficult to capture. Much of this is in areas of high deprivation and these organisations have the trust of their communities and are well placed to instigate change. Examples Sam's Wellbeing Hub and Café Lowestoft Monday to Friday 09.00-16.00 is part of the Access Community Trust who champion homelessness and provide support for vulnerable individuals, families and communities of all ages. https://accessct.org/sams/ London Road Baptist Church Whitton Life Community Hub is in the heart of the estate working with, in and for the local community. It provides a safe place and listening ear for community members of all ages. Good value meals and snacks, information and support are offered at their café and through the Food Bank Collection point. They have weekly events knit and natter, lunch for the over 60's, family coffee mornings and a Friday, term time only afterschool club. https://londonroad.org.uk/whitton-life/ BME Suffolk Support Group (BSSG) offer 6 programmes across Ipswich, Bury St Edmunds and Mildenhall providing practical support and advice to marginalized ethnic minority families and individuals to help them achieve social integration and maintain general wellbeing. This includes a food bank 3 days a week and community cafe 09.00-15.00 Monday to Friday BME

Tiers 2: Waveney services

- Your Health Norfolk and Slimming World are commissioned by Public Health Norfolk to deliver Tier 2 weight management services for residents of Norfolk and individuals registered with Norfolk GP practices. This includes Waveney residents only if they are

registered with a Norfolk GP. Access to these services is subject to specific eligibility [criteria](#), which must be met by all participants. Slimming World and Your Health Norfolk both offer group support sessions for weight loss. Slimming World offer 12 weeks of sessions focusing on diet and with access to a physical activity programme. [Your Health Norfolk](#) offers sessions over 10 weeks and incorporates a physical activity element (circuit-based classes) as well as sessions on holistic nutrition.

- [East Coast Community Healthcare](#) (ECCH) is a staff-owned social enterprise, providing community-based NHS services to 70,000 registered service users in Norfolk and Suffolk. ECCH's Dietetics Service provides expert help and advice to adults with specific needs to make sure they receive the right nutrition and hydration to maintain or improve their wellbeing. ECCH also have a community-based Diabetes Specialist Nurse team, who provide education and support to patients with diabetes in the Great Yarmouth and Waveney area.

Tiers 1 and 2: Subscription services

Of the many subscription services in Suffolk table 7 provides information about those most represented across the county. It is important to note that it was not possible to include all available tier 1 and 2 subscription services. The approach taken was to consider the perspective of a Suffolk resident seeking weight loss support who is unable to access the Feelgood Suffolk service. While multiple alternatives were identified during the research process, the final selection prioritises services accessible near major population centres including Bury St Edmunds, Ipswich, Haverhill, and Stowmarket. Where local access was not feasible, postal or digital service options were included to ensure broader accessibility.

Table 7: Tier 1 and 2 subscription services available to Suffolk residents

Subscription services	Organisation description of service
Pharmacy weight loss services	Pharmacy weight loss services in Suffolk are fee paying and provide one-on-one consultations with team members trained in weight management to tailor weight loss plans to an individual's needs and health conditions. Nutritional counselling, lifestyle advice and ongoing monitoring are provided alongside weight loss medication in the form of pens, injections or oral. Locations across the county include these pharmacies: Day Lewis Ipswich; Hado Felixstowe; Lords Newmarket and Rainbow Ipswich and Southwold. Lloyds offer an online service and Boots their online doctor service throughout the county.
Private GPs and private clinics	Ipswich weight loss clinic provides weight loss medication given under clinical regulation. This is combined with access to a behaviour change toolkit and support, from a personal health coach and a WhatsApp community. Medication supply and money back guarantees are available with prices starting at £129 which they claim is below the £219 on average charged by pharmacies. Further local available clinics include Anglim health Bury St Edmunds, Cotswold Clinic Woodbridge and Private GP Weight loss services in Chelmsford and Colchester in Essex.
Online	Numan is one example of an online medicated weight loss system. It offers weight loss medication, continuous clinical care and access to experts in nutrition, exercise, and habit formation. Packages start from £125 per month.

Subscription services	Organisation description of service
Slimming World	Slimming World wraps their subscription service around a 3-part model eat real food, get real support and see real results. Service users are encouraged to fill up on healthy tasty foods without counting calories using a stock of recipes, recipe boxes or food range meals. They join a community of 'real slimmers' at a local in person group, online or via an app where tailored activity and weight loss support helps participants reach their target weight and raise fitness levels at their own pace. On reaching their target a follow-on personalised plan is devised to help them maintain at the levels set. Branches in Suffolk and Norfolk include Brandon, Bury St Edmunds, Diss, East Harling, Eye, HinderClay, Ipswich, Ixworth, Stanton, Thetford and Thurston.
WW (formerly Weight Watchers)	WW is a large global brand that in the UK provides a weight loss programme, customised plans and a support system based on behavioural and nutritional science. They aim to avoid 'quick fixes' and promote sustainable weight loss across their points, glucagon-like peptide-1 (GLP-1), and diabetic programmes. All grades of membership include access to the WW app with a barcode scanner for grocery shopping, a dashboard plus food activity and weight trackers. The support of a coach and member communities is available online or face to face at local groups. In person groups local to Suffolk are to be found in Harleston and Diss with a further 2 in Ipswich.
MANvFAT	MANvFAT is an international subscription-based weight loss programme that started as a UK based website and digital magazine. It aims to help men with a BMI of 27.5 and above lose weight, grow their social circle and improve personal wellbeing. Central to the offer is access to weekly Football or Touch Rugby games run by qualified officials and a trained Health and Wellbeing Coach. The model follows the steps weigh before the game, play, lose weight and win rewards for positive changes measured through the weight loss achieved and progress in competitive sport. In Suffolk there are 2 venues, Ipswich and Ipswich North. For Waveney residents a group runs out of Great Yarmouth with further available groups in Norfolk and the other neighbouring counties of Essex and Cambridgeshire.
Jane Plan	Jane Plan is a UK digital programme that offers plans targeted at the amount of weight the subscriber wishes to lose, taking account of lifestyle goals and budget. Meals are chosen from 80 options and delivered at a scheduled time for heating at home. Digital 1-2-1 coaching from a nutritionist and access to a membership hub is available.

Tiers 3 and 4: Suffolk services

Following [NICE guidance](#), Suffolk and North East Essex (SNEE) Integrated Care Board (ICB) are transitioning tiers 3 and 4 patients to a new Weight Management and Complex Obesity Service (WMCOS). This new service will use a local, specialist weight management provider to offer adult residents of Suffolk and North East Essex an initial assessment of their needs to connect

them to the appropriate advice, service(s) and treatments to best meet these needs. View the pathway at [weight management services and available weight-related drugs in SNEE](#).

There will no longer be a requirement for patients to pass incrementally through tiers 1 and 2 before reaching specialist advice at tiers 3 and 4. This will ensure that those individuals most compromised by their obesity receive early weight management support and treatment from the WMCOS. Patients referred for medication, with or without surgery, will be reviewed at 6, 12 and 24 months, whilst those referred for surgery are to be monitored for 5 years following surgery. Those on the existing tier 3 waiting list received this service from April 2025.

The WMCOS includes the use of medicines for overweight, and obesity combined with a package of wrap around care that focuses on diet, nutrition and increased physical activity. Eligible adults are those with a BMI ≥ 40 or a BMI ≥ 35 with a linked co morbidity, or in need of additional support for example a recognised learning disability. The BMI threshold is lowered for people of South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean ethnic backgrounds.

SNEE have contracted East Suffolk and North East Essex Foundation Trust (ESNEFT) to retain existing services, provide support relating to complex obesity and offer an integrated pathway for weight related medications and surgical treatment options alongside a reduced-calorie diet and increased physical activity in adults. To include an integrated single point of access to NICE approved weight related medication Tirzepatide (Mounjaro™) and NHS England delivery models.

Patients awaiting tier 3 weight management services with an out of area provider will be offered the opportunity to be treated locally. NHS prescription charges apply unless exemption has been granted and the ICB will not fund privately acquired courses of Tirzepatide. Semaglutide is available in the short term but only for people currently on the Tier 3 weight management waiting list who have the greatest clinical need.

Obesity management medications: Suffolk

Led by SNEE-ICB the Medicines Optimisation Programme Board (MOPB) team made up of Pharmacists, Pharmacy Technicians, Appliance Nurses and Support Officers is responsible for supporting prescribers and their support staff to ensure prescribing is cost effective, evidence-based, safe and sustainable.

The medications available in WMCOS and approved by the National Institute for Health and Care Excellence (NICE) for the management of overweight and obesity are Semaglutide (Wegovy®) and Tirzepatide (Mounjaro®). GPs are an essential part of the WMCOS model but for now are not prescribers in Suffolk and north east Essex.

This exclusion is contrary to NICE guidance who support the partnership of WMCOS and local GPs in all aspects of the pathway including prescribing. The guidance does caution that given the risks and benefits for the person a weight loss below 5% of the initial weight at 6 months could suggest the need to review and discontinue the treatment option.

Tiers 3 and 4: Waveney services

Norfolk and Waveney ICB are commissioning new specialist weight management support to provide a revised referral service for their patients. In the interim, other [Tier 3 Specialist Weight Management](#) provision is available to eligible patients that meet the following criteria:

- A BMI of $\geq 35 \text{ kg/m}^2$ (usually reduced by 2.5 kg/m^2 for people from Black, Asian and ethnic minority backgrounds) or a BMI between $30\text{-}34.9 \text{ kg/m}^2$ (usually reduced by 2.5 kg/m^2 for people from Black, Asian and ethnic minority backgrounds) who meet the criteria for referral to specialist weight management services in NICE's guideline on obesity
- AND**
- Prioritised in 4 phased cohorts underpinned by '[Guidance for the phased introduction of new medical therapies for weight management: A joint position statement by the Society for Endocrinology and Obesity Management Collaborative UK](#)'. This was developed to lead the phasing in of semaglutide (Wegovy®) and future medical therapies to help clinicians prioritise based on clinical need. Current access will be provided for Phase 1 priority cohort only.

Norfolk and Waveney ICB plan to review their obesity and weight management model of care throughout 2025/26.

Obesity management medications: Waveney

NICE, approved medications for the management of overweight and obesity are available on the local formulary and accessible via specialist weight management services. [Initial information for patients and professionals](#) regarding Tirzepatide is published on the Norfolk and Waveney ICS website. Initially, it will only be available on the NHS to those individuals facing the most significant health risks related to their weight. Approximately 1,210 people could be eligible in year 1 based on the parameters NHS England have provided for prioritising access, and this total is expected to increase significantly year on year as eligibility is widened.

The [Norfolk and Waveney Formulary](#) specifies that from Monday 23rd June 2025, Tirzepatide can be prescribed in primary care for managing overweight and obesity. This will be available for patients who meet the following criteria of having at least 4 of the 5 qualifying health conditions type 2 Diabetes Mellitus, heart disease, high blood pressure, obstructive sleep apnoea and abnormal blood fats plus a BMI of at least 40 (BMI adjusted for ethnicity).

Tier 4 - Adults Bariatric Services

For Waveney, adult bariatric services are provided by [NHS Luton and Dunstable Hospital](#). The NHS provides bariatric services including surgery and post-operative care for up to 2 years following surgery for eligible patients. In most cases, referral requires tier 3 to be completed first. In exceptional cases, where urgent weight loss is required to enable lifesaving treatment such as cancer surgery or transplant, a direct referral can be requested.

Norfolk and Waveney ICB are currently going through a collaborative regional review of the referral form and pathway – particularly with a view to exploring if more patients can be directly referred rather than being required to attend tier 3 services first.

Updated evidence-base: the evolving landscape of healthy weight management

England's population-wide trends show that despite the importance of supporting individuals with healthy weight management and promoting positive personal behaviours, more people are living with higher body weights over time⁵⁰. This trend emphasises a need to consider factors

that influence everyone's weight management journey such as environmental and social influences.

This rapid review explores how our environment and society fundamentally impact our weight outcomes. The review investigates key areas including weight stigma, social determinants of health, environmental influences, and practical implementations of whole system approaches to support sustainable healthy communities. Through this community-centred perspective, the review provides transferable findings to present a more complete picture to how Suffolk can support sustainable healthy weight management across its population.

The full literature review can be found in appendix 6, a summary of findings is provided below.

Weight stigma and bias

Prevalence and Impact

- Weight stigma (negative attitudes and discrimination) and bias (negative judgements) create a system of disadvantage affecting individuals throughout their lifespan^{51,52}.
- Weight stigma manifests across multiple settings including media representation^{53,54}, healthcare^{52,53,55,56}, workplaces^{53,54,57} and family and social environments^{54,59,60}.

Contributing factors

- Oversimplified narratives about weight being solely within individual control (i.e. portraying people with higher body weight as "lazy" or "lacking willpower")^{52,56}.
- "Eat less, move more" messaging ignores the barriers to behaviour change⁵².
- Excessive focus on BMI as a primary health indicator⁵⁶.
- Stigmatising clinical language, practices and environments within healthcare settings⁵⁴
- Cultural "thin ideals" and negative media portrayals⁵⁸.

Implications on health and wellbeing

- **Psychological:** higher rates of depression^{55,61}, anxiety^{55,61}, reduced quality of life^{55,61} and self-esteem⁶¹.
- **Physiological:** elevated stress and cortisol levels, potentially contributing to increased mortality risk and stress-related health issues⁵⁵. For women during pregnancy and postpartum periods it may disrupt mother-infant bonding and create breastfeeding difficulties⁵⁴.
- **Behavioural:** greater weight bias internalisation⁶⁰, emotional eating and disordered eating patterns^{54,61,62}, difficulty engaging in health promoting behaviours, and problematic weight cycling^{55,61}.
- **Healthcare utilisation:** avoidance of healthcare^{53,57,63}, delayed detection of serious conditions⁶³, reduced quality of care⁵³.

Evidence-based recommendations

- Promoting positive messaging and quality contact with people of higher weight⁵⁹. For example, Ilona Maher a US Olympic rugby player, has provided quality contact by using her platform to speak out against weight stigma and body shaming, reaching and inspiring millions of people across the globe⁶⁴.
- Shift from focus on 'losing weight' to promotion of healthy behaviours^{52,55}
- Create environmental changes supporting healthy living^{52,55}.
- Provide education explaining healthy weight management in more detail^{52,55}
- Enact legislation prohibiting weight-based discrimination^{52,55}
- Include voices of people with obesity in public health messaging^{52,55}

Practical frameworks and approaches

- **Weight Stigma Heal Map (WSHP): evaluation tool to identify stigmatising elements in public health materials.**
When applied to Australia's National Obesity Strategy, the WSHM revealed stigmatising elements despite the strategy's aim of reducing weight stigma. This tool enables professionals to identify problematic content, develop fewer stigmatising resources, and quantitatively evaluate weight stigma in health communications⁶⁵.
- **Health at Every Size (HAES): framework shifting focus from weight management to overall wellbeing through body acceptance, intuitive eating, and joyful movement.**
Research demonstrates that HAES interventions improve physiological measures, metabolic parameters and psychological outcomes independent of weight changes, with better long-term adherence than traditional weight loss approaches⁶⁶.
- **Well Now: framework builds upon HAES to incorporate social justice elements**
Well Now framework recognises how weight stigma intersects with other forms of discrimination, addressing access barriers to nutritious food and healthcare, challenging power dynamics in healthcare relationships, and acknowledging socioeconomic influences on eating patterns and body size. Early findings suggest Well Now participants experience benefits to both their health and sense of self-worth⁶⁶.
- **Healthcare improvements:** Training in weight-sensitive communication^{52,56,57}, moving beyond BMI^{52,56}, focusing on health-related quality of life rather than just weight loss^{52,56,63,66}, implementing screening for eating disorders⁵⁶ and creating welcoming healthcare environments⁶³.

Socioeconomic inequalities

Socioeconomic status

- Socioeconomic status (SES) represents one of the most significant and consistent determinants of weight outcomes across populations, with lower SES consistently associated with higher rates of obesity since the 1980s⁶⁷.
- The relationship between SES and weight outcomes is bidirectional, i.e. lower SES can lead to obesity through limited access to healthy foods, fewer opportunities for physical activity, and higher stress, while obesity can also lead to lower SES through employment discrimination and health implications⁶⁷.
- The impact of socioeconomic status on weight begins early in life. Differences in weight outcomes have been documented as early as 3-9 months of age and widen over time, becoming more pronounced at age 11 compared to age 5⁶⁸.

Employment and time factors

- Children with unemployed parents may have up to 2 times higher odds of being overweight/obese⁶⁹.
- Maternal full-time employment has been associated with 46% increased risk of childhood obesity in developing countries⁶⁹.
- Time scarcity from work and school schedules has been shown to limit home cooking and meal planning⁷⁰.
- Reduced sleep duration (associated with longer work hours, low SES, and lower education) may lead to increased body mass⁷¹.

Food environment challenges

- Lower-income neighbourhoods often face "triple jeopardy": food insecurity (limited or uncertain access to nutritionally adequate foods), food deserts (areas lacking affordable, nutritious food options), and food swamps (areas saturated with unhealthy food outlets).

- The economic burden is particularly heavy on low-income households, who would need to spend 45% of their disposable income (70% for households with children) to afford a government-recommended healthy diet²¹.
- Key barriers include high food costs (consistently cited as the primary barrier), transportation challenges, geographic access constraints, percentage of unhealthy food outlets, limited availability of healthy foods, and poor quality and variety of available fruits and vegetables^{70,72}.
- This unequal food landscape creates what researchers have termed the “food insecurity-obesity paradox”. A meta-analysis found that individuals experiencing food insecurity were 50% more likely to have obesity compared to individuals with food security⁷³. Similarly, a longitudinal study showed that children experiencing food insecurity at multiple time points had greater BMI growth compared to consistently food-secure children⁷⁴.

Mechanisms linking food insecurity and obesity

- The “insurance hypothesis” suggests that when food access is inconsistent, the body responds by storing more fat during periods where food is available⁷⁵.
- Food insecure families frequently typically rely on cheaper, energy-dense foods high in fats, sugar, and sodium but low in nutrients, creating “hidden hunger” alongside excess calorie consumption⁷⁵.
- Stress from food insecurity may trigger emotional eating or disrupt eating patterns, and mental health may influence or mediate the relationship between food insecurity and obesity⁷⁵.
- Social vulnerability can affect weight through mental health impacts such as anxiety, depression, and emotional eating, with vulnerable children often using food as a way to cope with stress and anxiety⁶⁹.

Food assistance programmes

- Food parcels from food banks, while providing much-needed calories, frequently exceed energy recommendations while lacking sufficient vitamins and minerals such as vitamin D, calcium and iron⁷⁶.
- Although relying on food banks allows families to afford other essential bills, it frequently means sacrificing fresh food which exacerbates weight gain⁷³.
- Targeted approaches like diabetic-specific food parcels demonstrate that tailoring assistance to nutritional needs can improve outcomes⁷⁶.

The neighbourhood effect

- Research has shown that community-level socioeconomic conditions have an influence on weight outcomes irrespective of individual-level socioeconomic factors- termed the “neighbourhood effect”. A Dutch study found that people living in lower-SES neighbourhoods had significantly higher weight measurements than residents of higher-SES areas, even after controlling for personal factors like individual income, education, and employment⁷⁷.
- Neighbourhood deprivation independently affects body composition trajectories in children. UK research shows disadvantaged children have higher fat mass and fat-to-muscle ratios at age 7, with these disparities widening by adolescence. Even when controlling for family income and education, area deprivation itself correlates with poorer body composition. Adolescents from advantaged areas were also shown to develop more muscle mass over time (when controlling for fat mass)⁷⁸.
- Lower-SES neighbourhoods typically have worse environments regarding food stores, places to exercise, and safety for physical activity, this has been shown to be detrimental for healthy weight management and overall health^{38,69}.

- Environmental factors beyond socioeconomic status shape obesity risk patterns. Research from England demonstrates that childhood obesity rates peak in both deprived urban areas and affluent rural settings, indicating that environmental challenges can impact healthy weight management irrespective of SES classifications⁷⁹.

Environmental influences

The built environment

- Access to green spaces serve as a protective factor for healthy weight by encouraging physical activity^{36–38}.
- Living near recreational facilities for over 2 years is associated with lower obesity rates, with stronger effects for those who had lived at their location for longer⁸⁰.
- Quality of facilities matters more than quantity- access alone is insufficient without support to encourage use⁸¹.
- Facilities offering high-intensity exercise options show stronger association with lower obesity rates, especially in low-income areas⁸¹.
- Better sidewalk access in urban areas correlates with improved weight-related outcomes⁸².
- Workplace neighbourhoods appear less influential for physical activity than residential neighbourhoods⁸³.

Transportation and Commuting

- Active commuters experience lower stress levels, higher life satisfaction, and lower BMI compared to those using other transportation modes⁸⁴.
- Active commuting to schools was associated with more favourable body composition, with particularly pronounced benefits observed in adolescents who actively commuted at least 3.5-4 days per week⁸⁵.

Retail food environments

- Supermarkets don't create health-enabling environments, despite significantly influencing consumer food choices. A high percentage of supermarket shelf space is allocated to unhealthy foods, with unhealthy options frequently placed in high-prominence areas like checkout zones and end-of-aisle displays⁸⁶.
- 37% of UK supermarket promotions are for unhealthy foods²¹.
- 36% of UK food advertising spending goes to confectionery, snacks, and soft drinks (only 2% to fruits/vegetables)²¹
- 74% of baby/toddler snacks with promotional claims in the UK contain medium/high sugar levels²¹.
- 26% of food outlets in England are fast-food outlets, with higher concentrations in deprived areas²¹.

Health impact of food environment

- Research consistently links ultra-processed food consumption with higher LDL cholesterol, higher total cholesterol, higher triglyceride levels, higher diastolic blood pressure, increased BMI, larger waist circumference, and higher body fat percentage⁸⁷.
- Sugar-sweetened beverage consumption shows a consistent dose-response relationship with weight gain, with each additional daily serving associated with 0.07 kg/m² BMI increase in children and 0.42 kg weight gain in adults⁸⁸.
- Living closer to fast-food restaurants associated with 15% higher odds of obesity⁸⁹.
- Fresh fruit/vegetable outlet density and closer supermarkets linked to 10% lower odds of obesity⁸⁹.

Effective interventions to address food environment challenges

- Studies show that restricting the placement of high fat, sugar, and salt (HFSS) foods while promoting healthier alternatives has increased healthier food purchases⁸⁶.
- Financial incentives (10-50% price discounts) significantly increase purchases and consumption of fruits, vegetables, and other healthy foods, while health primes and warning labels can reduce consumption of energy-dense foods and sugar-sweetened beverages⁹⁰.
- One study found that increasing the availability of lower-energy food options led to significantly lower energy consumption (196 fewer calories), with similar effects across socioeconomic positions⁹¹.
- Transport for London's policy restricting HFSS advertisements across its network reduced household purchases of HFSS foods by 6.7% compared to a control region- the benefits were greater for people from lower socioeconomic groups⁹².

School food environments

- Children spend significant time at school and consume up to a third of their daily food there, making school environments important opportunities for nutrition interventions⁹³.
- Schools providing healthier food options reduce the risk of obesity in children⁹⁴.
- Fast food outlets and convenience stores near schools are generally associated with higher obesity rates among Latino, White, and African American students, though with mixed results for Asian students⁹⁵.
- Regular school attendance itself might also help prevent weight gain. A meta-analysis found that children who received no specific obesity intervention but attended school as usual showed only minimal weight changes during the school year⁹⁶.
- Universal Infant Free School Meals (UIFSM) increased school meal uptake by 25 percentage points among young children. Children utilising UIFSM consumed about 9 percentage points less ultra-processed food at lunchtime. Improvements were greatest for children from low-income households, who saw a 19 percentage point decrease in ultra-processed food consumption⁹⁷.
- Exposure to universal free lunches was also shown to reduce obesity percentage and BMI among children aged 4-5 and 10-11, though older children's body weights were shown to be less responsive than younger children's⁹⁸.

Social relationships

Social network influence

- Research found that people tend to be connected to others with similar weight status (called "assortativity"), with social influence playing a significant role in weight gain and weight loss through social norms, social comparison, and social support⁹⁹.
- Children with parents who lack social networks were shown to be at higher risk of obesity, and parental support significantly affected children's obesity risk in adulthood⁶⁹.
- Social support systems can help spread awareness and education, with research highlighting that low-income parents actively seek nutrition-related advice from relatives and friends, which is readily understood and assumed to have high credibility⁷⁰.
- Social networks influence weight management differently across the life course. Research shows that for younger people, social networks increase the impact of external factors and social influences on obesity changes, while for older people, networks dull these effects, this may be due to increased autonomy¹⁰⁰.

Family and caregiver influence

- Family and caregiver health behaviours were shown to directly shape children's nutrition habits, physical activity levels and screen time usage¹⁰¹.

- Parents' eating habits were also shown to directly influence children's food preferences, with children learning what and how much to eat by observing family eating patterns, with parental obesity significantly increasing a child's risk of becoming overweight¹⁰².
- Evidence found that the first 1000 days of life, from conception through age two, is a critical period for establishing lifelong eating patterns, with maternal diet during pregnancy influencing future food preferences¹⁰³.

Parental feeding styles

- Four main approaches identified:
 1. Authoritative: Setting boundaries while respecting child hunger cues
 2. Authoritarian: Using directive strategies, rewards/punishments
 3. Indulgent: Few food boundaries, responsive to hunger cues but lacks structure
 4. Uninvolved: Low responsiveness, few boundaries

Among these, the authoritative style best supports children's self-regulation of eating¹⁰³.

Industry and media influence

Industry influence

- Commercial determinants of dietary behaviour were shown to operate through three key spheres: the political and legal sphere (generating business-friendly regulatory environments), the production and design sphere (optimising processing and cost viability), and the marketing and preference-shaping sphere (increasing brand loyalty and consumer desire)¹⁰⁴.
- Research highlighted a "health halo effect" around unhealthy foods (where unhealthy products gain an undeserved healthy association through sports sponsorship). Industry perspectives positioning sponsorship as corporate social responsibility and part of the solution to obesity¹⁰⁴.
- Industries were found to fund research that often leads to "industry-favourable research findings," creating a biased evidence base that diverts attention away from industry culpability for health problems. Companies establish or fund "industry front groups" that advocate for industry positions while appearing to be independent voices¹⁰⁵.
- A detailed study of Coca-Cola's influence revealed three main pathways: direct financial support to conference organisers, indirect funding through third-party organisations, and direct funding to individual speakers, with this influence often not visible to conference attendees or disclosed in conference materials¹⁰⁷.
- Adolescents themselves recognise six major commercial influences: increased preference for unhealthy food, physical environments saturated with unhealthy food marketing, decreased demand for healthy food, social media influencers promoting unhealthy products, gender differences in body image pressure, and strategic targeting during developmental periods of increasing independence¹⁰⁸.

Food marketing

- Experimental studies demonstrate that children exposed to high-sugar food advertisements consumed significantly more energy (203.3 kJ/48.6 kcal) and sugar (6g) compared to when viewing toy advertisements, with children with dental caries showing a dramatically stronger response (503.3 kJ/120.3 kcal more after food ads)¹⁰⁹.
- Gender was shown to influence food marketing's impact, with boys appearing to be more exposed to food advertising and more influenced to consume unhealthy foods. Boys were shown to be more attracted to products with sports celebrities and interactive features, while girls responded more to aesthetic qualities like packaging colour and design¹¹⁰.

- A Spanish study found that approximately 83% of food advertisements aimed at children promote "nonessential" products with poor nutritional value, with nearly 90% of analysed advertisements failing to comply with Spain's advertising regulatory framework¹¹¹.

Trends over time

Developmental stages and influences

- Weight management was shown to differ at different developmental stages and life transitions:
 - During early childhood, the personal food environment has strong influence—particularly parental feeding practices and sensory development.
 - As children age, the school food environment gains significant influence, peer influence begins to play a larger role, and external food marketing becomes more influential.
 - The transition to adolescence brings increased independence from parents, stronger peer influences, greater social media exposure, and more autonomous purchasing power¹¹².
- Physical activity patterns show distinct trajectories across weight categories during adolescence.
 - Healthy weight children have the highest overall physical activity levels, but this shows a consistent decline with age.
 - Overweight children show the strongest age-related decline in physical activity, while children with obesity have the highest baseline inactivity rates¹¹³.
- The transition out of high school represents a particularly significant period, associated with an average decrease of 7.04 minutes per day of moderate-to-vigorous physical activity (MVPA), with larger decreases among males and those transitioning specifically to university¹¹⁴.
- Employment transitions also impact physical activity, with starting a first job associated with a decrease of 18.7 minutes/day of MVPA in both males and females¹¹⁴.
- For boys who experienced rapid infant weight gain (a known obesity risk factor), meeting physical activity guidelines in childhood could substantially offset their increased risk for adolescent obesity, with approximately 75% of the excess body fat at age 14 associated with rapid infant weight gain attenuated in boys who met MVPA guidelines¹¹⁵.

Stability of health behaviours

- Health behaviours are established early in childhood and tend to persist, making early childhood (0-5 years) a critical period for intervention. Research shows that over 81% of children in healthy clusters at baseline remaining in healthy clusters at follow-up and 75% of children in unhealthy clusters at baseline remaining in unhealthy clusters at follow-up⁶⁸.

Demographic influences

Gender disparities

- The relationship between socioeconomic status and obesity is generally stronger among women than men⁶⁷.
- The magnitude of obesity in females is greater in countries with higher gender inequality⁶⁹.
- Gender differences appear in how social networks influence obesity spread, with individuals primarily influenced by others of the same gender¹⁰⁰.

Racial and ethnic disparities

- Research shows that non-Hispanic Black adults, Hispanic adults, and American Indian/Alaska Native adults have significantly higher obesity rates compared to 96 and Asian Americans, stemming from structural factors including obesogenic neighbourhood

environments, limited access to safe outdoor spaces, inequitable healthcare access, and policies influenced by systemic racism¹¹⁶.

- The relationship between socioeconomic status and weight varies by ethnicity in sometimes counterintuitive ways: White children from deprived families showed higher risks of overweight/obesity than their less deprived counterparts, while Black African/Caribbean children from lower socioeconomic backgrounds demonstrate lower mean BMI than those from more affluent families¹¹⁶.
- Racism has also been shown to create stress that affects hormonal regulation, inflammation, and metabolic functions that may increase obesity risk¹¹⁷.
- Cultural factors significantly influence weight management practices and perceptions of healthy weight. Research shows that Black African-Caribbean and South Asian parents strongly emphasise maintaining traditional cultural diets for their children as part of cultural identity¹¹⁹.

Migrant and refugee challenges

- Migrant and refugee populations face unique challenges in maintaining healthy weight. Refugee children may adopt unhealthy eating habits as they acculturate to new environments, and past food insecurity experiences may lead to overindulgence once food becomes plentiful¹²⁰.
- Migrant children have been shown to face stressors like bereavement, language barriers, culture shock, and lack of acceptance, contributing to higher rates of overweight and obesity compared to native children⁶⁹.

Pregnancy

- Women with higher ultra-processed food consumption during pregnancy have significantly lower intakes of important nutrients and are more likely to experience excessive gestational weight gain¹²¹.
- Environmental factors also play a role, with women living in high-poverty neighbourhoods and areas with high violence rates showing higher risks of excessive weight gain during pregnancy¹²².
- Cultural beliefs and social pressures, such as expectations to "eat for two" and acceptance of larger body shapes, can conflict with healthcare providers' advice, particularly among women of African and Caribbean ancestry¹²³.
- Many cultures view a "chubby" baby as healthy and a sign of good parenting—a perception that can influence early feeding practices¹²⁴.

A whole systems approach to tackling healthy weight management

Whole Systems Approach

- A whole systems approach (WSA) to obesity is defined as an ongoing, dynamic and flexible way of working that brings together local stakeholders to understand obesity challenges, identify opportunities for change, and collaborate toward sustainable systems changes. This comprehensive approach shows promise for sustainable population health improvements by making healthy weight maintenance more accessible to all^{125–128}.

Implementation Guidance

- Public Health England developed guidance for implementing [WSAs to obesity](#) at the local level^{125,126}. The guidance outlines a six-phase implementation process:
 1. **Set-up:** securing senior leadership support, establishing governance structures and forming a core working team

2. **Building the local picture:** collecting data on obesity percentage, identifying community assets, and mapping current actions
 3. **Mapping the local system:** bringing stakeholders together to create a comprehensive map of the local obesity system and develop a shared vision
 4. **Action:** Prioritising intervention areas and developing aligned action plans
 5. **Managing the system network:** maintaining stakeholder relationships and coordinating implementation
 6. **Reflect and refresh:** monitoring progress, evaluating actions, and adapting the approach overtime
- The evidence-base also identifies then 10 features essential for effective WSAs to obesity prevention. While all 10 features contribute to effectiveness, evidence suggests that not all are necessary to achieve positive health outcomes¹²⁹:
 1. **System identification and boundaries:** Clearly defining the scope of the system being addressed
 2. **Capacity building:** Developing skills and resources within participating organisations
 3. **Creativity and innovation:** Encouraging novel solutions to complex problems
 4. **Establishing relationships:** Building partnerships across different sectors
 5. **Engagement:** Ensuring meaningful involvement of all stakeholders
 6. **Communication methods:** Creating strong channels for information sharing
 7. **Embedding actions and policies:** Integrating initiatives into organisational structures
 8. **Leadership development:** Cultivating leaders throughout the system
 9. **Robust and sustainable approaches:** Creating long-term, adaptable solutions
 10. **Monitoring and evaluation:** Assessing outcomes and adapting accordingly

Facilitators to successful implementation

- The following key facilitators have emerged consistently across successful whole systems initiatives:
 - **Strong leadership and full engagement of partners**
Successful approaches require senior leadership by-in and active participation from multiple stakeholders. Research shows that successful approaches had genuine consortiums of actively engaged partners rather than relying on a single driving force. This leadership must span across different sectors to maintain momentum and integrate core principles into mainstream activities^{127,129,130}.
 - **Community engagement**
Projects achieved the best results when they effectively involved the local community in identifying their needs. Active participation of community members in developing local solutions was critical for ensuring interventions were relevant and appropriate to local contexts^{127,129,131–134}.
 - **Time for building relationships**
Building effective partnerships requires significant investment in developing trust and shared vision. Multiple studies emphasised that long-term commitment to relationship building created foundations for sustainable change^{127,128,135}.
 - **Capacity building**
Capacity building was an area of focus in successful WSA implementations, consistently identified as critical for sustainability. Evidence shows that focus is needed on developing local abilities to understand and address obesity using systems thinking. Successful approaches balanced the pursuit of measurable health outcomes with building sustainable local capability, recognising that lasting change requires not just

short-term intervention success but developing ongoing local competence to address obesity^{127,131,132}.

- **Good governance and shared values**

Clear governance structures and explicit commitment to shared values create a foundation for effective collaboration. This approach was "found to be effective across different types of communities regardless of population size or location"^{127,132,135}.

- **Consistent language across organisations**

Creating and using common terminology helps different sectors communicate effectively. This ensures that all stakeholders share common understanding of WSA terminology^{125,126,130,132}.

- **Policy integration**

Successful approaches embed the WSA within broader policy to integrate it into existing governmental frameworks rather than treating it as a separate initiative^{125–127,129,135}.

Systems mapping and understanding complex interconnections

- Systems mapping has emerged as an effective tool for visualising the complex determinants of healthy weight¹³¹.
- Group Model Building (GMB) workshops were identified as powerful tools to promote a shared understanding of the complexities of obesity in the local context and the need for collective actions¹³¹.
- A central output of the GMB process is the creation of a Causal Loop Diagram (CLD), which visually represents a community's understanding of their local obesity system¹³¹.

Real world applications

- The real-world application of these WSAs include:
 - The Amsterdam Healthy Weight Approach¹³⁰
 - Go-Golborne Initiative^{136,137}
 - A whole system approach to childhood obesity in Brighton¹³⁵
- [6 case studies](#) published by the local government association also offer valuable insights into the challenges and opportunities associated with promoting children's healthy weight using WSAs at the local level¹³⁸.

Sustainable weight maintenance

Psychological factors for success

- Research found that sustainable weight management behaviour was influenced by emotional state, perceived control, personal values, knowledge, skills, and existing habits. Successful weight managers developed effective strategies to handle challenging situations¹³⁹.
- Research showed that those with higher self-confidence were more likely to take self-motivated steps toward maintaining weight loss¹⁴⁰.
- A longitudinal study found that those who successfully maintained their weight loss developed a "maintenance mindset" focused on preventing regain rather than continuing weight loss, demonstrated better emotional regulation, and created effective strategies for managing tempting food situations¹⁴¹.
- Long-term success (5-7 years) was associated with profound identity transformation. Maintenance strategies were shown to stabilise into established routines requiring less conscious effort, and maintenance behaviours become fully integrated into social identity¹⁴².

Habit formation and breaking

- The role of habit formation was emphasised to be particularly significant. Habits consists of three components:

1. environmental cues that trigger the habit (locations, times, emotional states)
 2. mental associations between cues and actions (formed through repetition)
 3. automatic behavioural responses (occurring with minimal cognitive effort).
- Research found that mental associations persist even when behaviours changed temporarily. This may explain why people often revert to old patterns when willpower diminishes or when returning to familiar environments¹⁴³.
 - Research highlighted differences in success when comparing those who just stopped habitual behaviours and those who broke underlying habits. Effective weight maintenance required "habit reversal" techniques¹⁴³.

Support structures

- Support structures were shown to be crucial, with regular supervision, weigh-ins, and check-ins highly valued. When interventions ended, many participants felt 'set adrift' and struggled to maintain weight loss^{140,141}.
- Family, friends, and peer support significantly facilitated weight maintenance, while 'social saboteurs' and cultural norms around food created challenges^{139,140}.
- Positive social support was shown to reduce psychological stress, which improved executive functioning, facilitating healthy habit development-ultimately leading to successful long-term weight maintenance¹⁴⁴.

Environmental factors

- Geographic access to healthy foods, obesogenic food cues, and exercise facilities influenced maintenance. These environmental barriers become more significant during the maintenance phase than during the initial weight loss^{140,145}.
- For bariatric surgery patients, environmental factors play a role in long-term outcomes, though to a lesser extent than non-surgical populations. Living in areas with more fitness facilities, better exercise opportunities, and better "bikeability" was associated with improved weight loss in the short and medium term¹⁴⁶.

Local perspectives and views

No primary data gathering to capture local views was undertaken specifically to inform this health needs assessment. However, previous surveys and resources were used to collate the views and perspectives of the local community and help to give an insight into voice. There are several ongoing local voice projects, including:

- **Suffolk Adult Healthy Weight Survey:** Under development in 2025 this survey aims to capture high level views, barriers and facilitators around the healthy lifestyles of Suffolk residents.
- An **evaluation of the Feel Good Suffolk service** is in initial phases and should be published later this year
- Research utilising Suffolk residents engaged with management services provided by Feel Good Suffolk from the **University of Leeds & University of East Anglia** is currently underway

Local perspectives and views have been gathered through multiple sources of user feedback, including the 2022 Healthy Lives Survey, Children and Young People (CYP) Engagement sessions, Suffolk Children's Healthy Weight Strategy family conversations, Feel Good Suffolk

feedback, and the 2024 My Health Our Future survey. The full analysis is provided in appendix 7, a summary is provided below.

Environmental and societal barriers to healthy weight management

- Environmental and societal factors create substantial obstacles to healthy living that extend beyond personal willpower or motivation.
- Financial barriers consistently appear across all surveys, with participants specifically noting that fresh produce costs significantly more than processed alternatives, creating a structural inequity in access to healthy options.
- This economic disparity is compounded by time poverty, particularly affecting parents juggling work and childcare responsibilities, who report they "don't have time to cut carrots" or prepare healthy meals.
- Transportation challenges, especially in rural areas where car dependency is high due to poor public transport infrastructure, further limit access to services and outdoor spaces.
- Over accessibility of unhealthy options and environments such as food being offered as love, and the contradiction between school environments promoting unhealthy foods while simultaneously encouraging weight management.
- Together, these barriers create a system where making healthy choices requires overcoming significant resource hurdles that disproportionately affect lower-income families.

Public engagement with healthy weight management services

- The evidence revealed that public engagement with healthy living services is heavily influenced by a complex interplay of psychological and practical factors. Health concerns, lifestyle issues, and the desire to support children emerge as primary motivators.
- Individuals were more likely to seek support when they felt ready engage or when they were experiencing health issues or receiving recommendations from health professionals. When asked why individuals demonstrate this 'treatment' mindset rather than a 'preventative' mindset themes such as psychological factors like shame, fear of judgment, pride, lack of confidence, and reluctance to burden others, with many people avoiding help until situations become critical. External obstacles highlight systemic challenges such as healthcare access issues, appointment scarcity, media influences reinforcing stigma, cost concerns, information gaps, and the perception that services prioritise only crisis cases. Individuals also highlighted the 'cliff edge' on some options putting them off engaging with individuals stating they are "Not fat enough" or "BMI too low" to be offered the service requested, therefore would not receive preventative support.
- Face-to-face interaction (81.6%) and group settings (78.6%) significantly outrank digital alternatives, demonstrating that despite technological advances, human connection remains fundamental to health behaviour change.
- Individuals also placed high value on emotional support through non-judgmental staff and group settings. This may reflect a deeper psychological need for community support and social validation when undertaking challenging lifestyle modifications, particularly in areas where individuals may feel vulnerable to judgment.

Emotional impact and language sensitivity

- The data powerfully demonstrates how language and messaging around healthy living services can either facilitate or obstruct engagement.
- Weight-centric terminology creates profound psychological barriers, with words like "BMI," "obesity," and "diet" triggering negative emotional responses including shame and anxiety.
- These emotions are not superficial but highlighted as deeply rooted in experiences of weight stigma, with participants reporting bullying, family criticism, and feelings of worthlessness related to body size.
- The documented psychological impact extends to accessibility, as body image issues prevented nearly one-quarter of young people from socialising and one-fifth from participating in physical activity.
- This emotional dimension reveals how public health messaging focused narrowly on weight rather than wellbeing can inadvertently reinforce barriers to the very behaviours it aims to promote.

Lifelong learning and support

- The analysis shows that knowledge gaps and educational needs persist throughout the lifecycle and differ at different developmental stages.
- Participants expressed confusion about nutritional information, food labelling, portion sizes, and practical cooking skills, indicating that basic health literacy remains challenging despite general awareness of health principles.
- This educational dimension extends to different life stages, with parents needing "information early on" in maternity and at "key stages in child development."
- Individuals who provided general feedback for weight management services from Feel Good Suffolk feedback consistently valued "informative content" and "educational value," with participants describing the knowledge gained as "life changing."
- These findings highlight that effective health education must go beyond simplistic messaging to provide practical, applicable skills that address family-specific barriers and developmental needs, delivered at moments when people are most receptive to change.

Feel Good Suffolk Celebration Events

Feel Good Suffolk held a positive celebration day at Abbeycroft Leisure Centre on January 27, 2025.

A senior FGS advisor spoke on the event highlighting that FGS advisors build unique relationships with clients through weekly phone calls or face-to-face meetings. The celebration day provided an opportunity to meet clients outside of a clinical environment. The informal coffee morning format encouraged open sharing of experiences. Putting "faces to voices" was valuable for advisors who previously only knew some clients through telephone support. Clients demonstrated notable enthusiasm and commitment to their health journeys and Clients who had completed the 12-week weight management course demonstrated continued implementation of what they learned. The event allowed clients to connect with their original hospital referral teams and hospital staff could witness the progress clients had made since initial referrals.

It was a successful event with one advisor commenting:

“I loved the celebration day we organised as it gave me the opportunity to meet some of the people we had helped to stop smoking via telephone support. To have the opportunity to meet in person and have a coffee and a chat was amazing. We also met with some of our weight management clients who had completed the 12-week course, and it was lovely to see how they had implemented what they learned and continued with their health journey after finishing our course. It was an amazing day, and I am looking forward to the next one!”

Attendees also provided positive testimonials and feedback about their experiences, [Case Studies](#) of the successful engagement with the weight management service from Martin Burroughs, 69 years old from Bury St Edmunds and Kerry Buck from the Bury St Edmunds were gathered at the event, demonstrating an effective method to gaining insight into local opinion and celebrating Suffolk successes.

All participants expressed interest in future meetups, and a follow-up event has been scheduled for June 16, 2025, which will include both returning and new clients.

These findings highlight the importance of relationship-building, celebration of achievements, non-clinical support environments, and ongoing community connections in supporting healthy weight management goals.

University of East Anglia eSign study

- The eSign team at the University of East Anglia aim to design, test and implement signposting to weight-management services across the East of England¹⁴⁷.
- The study aimed to understand views of weight-management services within areas of deprivation, and to identify what type of service would be most acceptable.
- Six focus groups were conducted in community settings across Norfolk, Suffolk and Essex using storyboards.
- Analysis is ongoing but preliminary findings illuminate a need for a holistic service which includes ongoing support to promote maintenance of a healthy weight. A need to deliver psychological support alongside more traditional weight-management approaches was desired. Affordability was frequently raised as a barrier and a want for more accessible exercise and nutritional services was expressed. Food tips and healthy recipes were also desired.

What does this mean for Suffolk?

This Health Needs Assessment (HNA) provides a clear picture of Suffolk’s healthy weight challenges and opportunities. It shows that creating lasting improvements require a coordinated approach across three key areas, with implementation proportionate to need across different communities and population groups:

1. Preventing unhealthy weight

- Creating healthier environments where people live, work and learn
- Shifting community perspectives
- Improving how health information is communicated to residents

2. Addressing existing unhealthy weight

- Supporting individuals with personalised approaches
- Supporting effective clinical treatments

- Ensuring access to appropriate weight management services
- 3. Supporting healthy weight maintenance**
- Developing a whole-systems approach that connects and strengthens efforts across the county
 - Providing ongoing behavioural support and wellbeing resources

The evidence suggests that working on all three areas is beneficial. Prevention reduces new cases, addressing treats existing issues, and maintenance support helps people sustain their progress over time. Simply addressing one area isn't enough, the three must be worked on in tandem, if one is left untouched sustainable change will not occur¹⁴⁸. By addressing all three components together, while recognising and responding to the different needs across Suffolk's diverse communities, the county can work toward improvements in community health.

Prevent + Address + Maintain = Sustainable Change

Recommendations

This section sets out integrated evidenced-based recommendations based on the Healthy Weight Needs Assessment (HNA) for Suffolk (2025), combining existing local insights with updated recommendations. These are designed to support approaches across prevention, intervention, and maintenance - while also strengthening action on health inequalities.

Appendix 8 provides an overview of the supporting evidence aligned with each recommendation.

Strategic Overview

The HNA reveals the scale and complexity of unhealthy weight across the life course in Suffolk. Although Suffolk performs statistically better than national averages in some areas, the prevalence of excess weight remains high and is increasing among adults and older people. Inequalities based on deprivation and ethnicity persist.

Sustainable improvement requires action across three key pillars:

1. **Preventing unhealthy weight**
2. **Addressing existing unhealthy weight**
3. **Supporting healthy weight maintenance**

Local Authority Public Health is well positioned to lead on prevention, partnership working, communications, data analysis, service coordination, and advocacy. However, national levers are also essential to unlocking sustainable, equitable progress.

Feasibility within Local Authority Public Health

Most actions outlined in this plan are **realistic and within the sphere of influence of Suffolk County Council's public health and communities' team**. However, they require partnership with:

- Local authorities- District and Borough as well as County Council
- Health partners
- Education
- Planning and transport
- The VCFSE sector

Actions out of our local remit and identified as requiring national-level leadership include:

- Regulation and ongoing monitoring and evaluation of the rollout of obesity management medications
- Auto enrolment for low-income families for Free School Meals
- National advertising restrictions for HFSS foods
- National targets and reporting of health food sales for big food businesses
- National investment in walking/cycling infrastructure
- Lobby for guides and good practice when discussing weight to avoid stigma
- Long-term ringfenced funding for healthy weight work
- Broader access pathways to national healthy weight programmes

The recommendations outlined below are intended for implementation over the next two years, with detailed timelines and milestones to be developed through internal action plans.

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
Prevent	Healthy Environments	Develop local food systems network	Supporting the role out, implementation and utilisation of food mapping that is underway across Suffolk	Public Health & Communities (PH&C), VCFSE, District Councils, Economic Dev
		Local advertising policy	Supporting partners to pilot and adopt the High Fat Salt and Sugar advertising policy on public property	PH&C, Planners, District Councils
		Promote healthy school environments	Recognise and promote food standards across educational environments. This includes exploring the development of a food audit toolkit to support local settings such as schools and community venues	PH&C Education, SCC Schools
	Communications & Stigma	Audit for weight bias and improve inclusivity of language and communications	Review Public Health and Communities services, websites and communications for weight stigma and bias and ensure language is inclusive, updating where it isn't. This includes exploring further evidence around frameworks such as the Health at Every Size and Well Now.	Public Health, Comms, ICB
	Incentives	Explore behaviour-based incentives	Explore the feasibility of implementing appropriate, evidence based and targeted incentives with a local focus, to incentivise behaviours such as daily step goals, supporting sustained engagement in healthier lives	PH&C,
		Promote the Healthy Start Scheme	Identify and engage with those eligible for the Healthy Start Scheme. Ensure residents are aware of the scheme, understand the application process and access finances available	PH&C, VCFSE, District Councils
Address	Equity & engagement	Prioritise deprived areas for outreach	Target resources to the most deprived neighbourhoods – but recognise the reach of unhealthy weight extends beyond the most deprived 20%	PH&C, JSNA Team, VCFSE
		Men's health and weight	Implement evidence-based men's health and weight interventions to improve male participation and long-term engagement with services to reduce the percentage of overweight men across Suffolk	PH&C, FGS Team
		Culturally relevant co-design	Engage diverse communities in co-design of healthy behaviour services, materials and campaign, including translation of key materials and engaging cultural mediators for key populations	PH&C, Equalities Team, VCFSE
		Transitional wellbeing	Focus on maintaining and promoting wellbeing including healthy weight at key transition points of life (i.e. moving from early years through educational settings, moving on past education, transition from CYP healthy weight to adult services, leaving home, perimenopausal and	PH&C, FGS Team

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
			menopausal women, work and mid-life and retirement – specifically older males).	
Maintain	Services	Improve engagement with Feel Good Suffolk	Improve sustainable engagement with Feel Good Suffolk by adapting offers based on user feedback, trialling drop-ins and flexible models, and exploring innovative digital enhancements-such as smarter personalisation and recommendation features (including the use of AI)-to better tailor the experience to individual needs	PH&C, FGS Team
		Follow-up support post-programme	Enhance follow-up support post-programme by trialling peer groups, celebration events, and digital aftercare, and by strengthening the integration of mental health and wellbeing support-building on existing links with the wellbeing service and working towards a more consistent, quality-assured pathway between services	PH&C, Community Groups
	Clinical Support	Monitor obesity management medication use	Develop and promote easy to understand materials tailored to local populations to improve understanding of the safe use, access to, and behavioural support associated with obesity management medications-ensuring these resources are informed by health literacy principles	PH&C, ICB,
	System Leadership	Align weight with broader strategy	Align and integrate latest research and healthy weight initiatives across local government policy and guidance in Suffolk (i.e. planning, transport, economic, environmental policies) and Health and Wellbeing Board priorities in Suffolk	Strategy Leads, PH&C
		Monitor Children's Strategy	Track and report progress on the four pillars of the Children's Healthy Weight Strategy, embedding a continuous improvement approach through regular evaluation, stakeholder feedback, and adaptive action planning	PH&C Children, Strategy Team
	Continuous improvement	Embed learning and evaluation in all programmes	Embed learning, monitoring and evaluation as standard facilitating continuous improvement for all healthy weight services and initiatives	PH&C, Evaluation Team
		Evaluate and learn from obesity management medication implementation	Develop understanding of obesity management medications to facilitate ongoing service improvement and to inform future commissioning decisions	ICB, PH&C, Evaluation Team

Overarching area	Theme	Recommendation	Detailed	Lead/Stakeholders
	Community Voice	Co-production with lived experience	• Ensure engagement and/or co-production with community voices in service and strategy design • Support communities to lead on actions and resources • Implement continuous feedback and improvement mechanisms • Understand more about beliefs, attitudes and barriers to service engagement and explore key transition points for children and young people • Explore tailored engagement approaches for older adults, recognising diverse needs around digital access, mobility, and social connection • Investigate barriers to healthy weight among males, including potential reluctance to engage with services, and co-design approaches that feel relevant, accessible and acceptable	PH&C, VCFSE, Participation Leads

References

1. Methodology and Data Quality - NHS England Digital [Internet]. [cited 2025 May 27]. Available from: <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year/data-quality>
2. National Child Measurement Programme (NCMP) data for the 2020 to 2021 academic year by local authority - GOV.UK [Internet]. [cited 2025 Aug 20]. Available from: <https://www.gov.uk/government/statistics/national-child-measurement-programme-ncmp-data-for-the-2020-to-2021-academic-year-by-local-authority>
3. NCMP data for the 2020 to 2021 academic year by upper tier local authority: short statistical commentary - GOV.UK [Internet]. [cited 2025 Aug 20]. Available from: <https://www.gov.uk/government/statistics/national-child-measurement-programme-ncmp-data-for-the-2020-to-2021-academic-year-by-local-authority/ncmp-data-for-the-2020-to-2021-academic-year-by-upper-tier-local-authority-short-statistical-commentary>
4. Starc G, Strel J. Tracking excess weight and obesity from childhood to young adulthood: a 12-year prospective cohort study in Slovenia. *Public Health Nutr* [Internet]. 2011 Jan [cited 2025 Apr 16];14(1):49–55. Available from: <https://pubmed.ncbi.nlm.nih.gov/20392312/>
5. Serdula MK, Ivery D, Coates RJ, Freedman DS, Williamson DF, Byers T. Do obese children become obese adults? A review of the literature. *Prev Med (Baltim)* [Internet]. 1993 [cited 2025 Apr 16];22(2):167–77. Available from: <https://pubmed.ncbi.nlm.nih.gov/8483856/>
6. Guo SS, Chumlea WC. Tracking of body mass index in children in relation to overweight in adulthood. *Am J Clin Nutr* [Internet]. 1999 [cited 2025 Apr 16];70(1). Available from: <https://pubmed.ncbi.nlm.nih.gov/10393162/>
7. Changes in the weight status of children between the first and final years of primary school - GOV.UK [Internet]. [cited 2025 Apr 16]. Available from: <https://www.gov.uk/government/statistics/changes-in-the-weight-status-of-children-between-the-first-and-final-years-of-primary-school>
8. Physical activity [Internet]. [cited 2025 Aug 12]. Available from: <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
9. What works in schools and colleges to increase physical activity? 2020 [cited 2025 Aug 12]; Available from: www.facebook.com/PublicHealthEngland
10. Active Suffolk – Suffolk children’s activity levels remain stable but significant action is required [Internet]. [cited 2025 Apr 8]. Available from: <https://www.activesuffolk.org/news/2025/01/suffolk-childrens-activity-levels-remain-stable-but-significant-action-is-required>
11. Martínez-Gómez D, Ruiz JR, Gómez-Martínez S, Chillón P, Rey-López JP, Díaz LE, et al. Active Commuting to School and Cognitive Performance in Adolescents: The AVENA Study. *Arch Pediatr Adolesc Med* [Internet]. 2011 Apr 4 [cited 2025 Apr 8];165(4):300–5. Available from: <https://jamanetwork.com/journals/jama-pediatrics/fullarticle/384475>
12. Cooper AR, Wedderkopp N, Wang H, Andersen LB, Froberg K, Page AS. Active travel to school and cardiovascular fitness in Danish children and

- adolescents. *Med Sci Sports Exerc* [Internet]. 2006 Oct 1 [cited 2025 Apr 8];38(10):1724–31. Available from: https://journals.lww.com/acsm-msse/Fulltext/2006/10000/Active_Travel_to_School_and_Cardiovascular_Fitness.6.aspx
13. Why 5 A Day? - NHS [Internet]. [cited 2025 Apr 8]. Available from: <https://www.nhs.uk/live-well/eat-well/5-a-day/why-5-a-day/>
14. The “5-a-day” campaign | Policy Navigator [Internet]. [cited 2025 May 22]. Available from: <https://navigator.health.org.uk/theme/5-day-campaign>
15. Holford A, Rabe B. Universal free school meals and children’s bodyweight. Impacts by age and duration of exposure. *J Health Econ*. 2024 Dec 1;98:102937.
16. Benefits of exercise - NHS [Internet]. [cited 2025 Apr 22]. Available from: <https://www.nhs.uk/live-well/exercise/exercise-health-benefits/>
17. Health matters: physical activity - prevention and management of long-term conditions - GOV.UK [Internet]. [cited 2025 Oct 27]. Available from: <https://www.gov.uk/government/publications/health-matters-physical-activity/health-matters-physical-activity-prevention-and-management-of-long-term-conditions>
18. Sustrans. The Role of Active Travel in Improving Health. 2017 [cited 2025 May 6]; Available from: www.sustrans.org.uk
19. Griffiths ML, Gray BJ, Hodgson K, Davies AR. How does working from home affect health and wellbeing?
20. Nour M, Lutze SA, Grech A, Allman-Farinelli M. The Relationship between Vegetable Intake and Weight Outcomes: A Systematic Review of Cohort Studies. *Nutrients* [Internet]. 2018 Nov 2 [cited 2025 Apr 22];10(11):1626. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6266069/>
21. The Broken Plate 2025 | Food Foundation [Internet]. [cited 2025 Mar 13]. Available from: <https://foodfoundation.org.uk/publication/broken-plate-2025>
22. Traversy G, Chaput JP. Alcohol Consumption and Obesity: An Update. *Curr Obes Rep* [Internet]. 2015 Mar 1 [cited 2025 Apr 22];4(1):122. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC4338356/>
23. Drinkaware Monitor 2024 | Drinkaware [Internet]. [cited 2025 Apr 22]. Available from: <https://www.drinkaware.co.uk/research/drinkaware-monitors/drinkaware-monitor-2024/>
24. Zeiler M, Philipp J, Truttmann S, Waldherr K, Wagner G, Karwautz A. Psychopathological symptoms and well-being in overweight and underweight adolescents: A network analysis. *Nutrients* [Internet]. 2021 Nov 1 [cited 2025 May 27];13(11):4096. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8624115/>
25. Segal Y, Gunturu S. Psychological Issues Associated With Obesity. *StatPearls* [Internet]. 2024 May 2 [cited 2025 May 27]; Available from: <https://www.ncbi.nlm.nih.gov/books/NBK603747/>
26. Weight Management and Mental Health in Wales [Internet]. [cited 2025 May 22]. Available from: <https://www.rcpsych.ac.uk/news-and-features/blogs/detail/the-rcpsych-blog/2025/05/20/weight-management-and-mental-health-in-wales>
27. Cardiovascular disease - NHS [Internet]. [cited 2025 May 27]. Available from: <https://www.nhs.uk/conditions/cardiovascular-disease/>

28. Bhaskaran K, Douglas I, Forbes H, dos-Santos-Silva I, Leon DA, Smeeth L. Body-mass index and risk of 22 specific cancers: a population-based cohort study of 5·24 million UK adults. *Lancet* [Internet]. 2014 Aug 30 [cited 2025 May 27];384(9945):755. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC4151483/>
29. NHS. Obesity [Internet]. 2023 [cited 2025 May 27]. Available from: <https://www.nhs.uk/conditions/obesity/>
30. Ahmed T, Haboubi N. Assessment and management of nutrition in older people and its importance to health. *Clin Interv Aging* [Internet]. 2010 [cited 2025 Apr 22];5:207. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC2920201/>
31. Norman K, Haß U, Pirlich M. Malnutrition in Older Adults—Recent Advances and Remaining Challenges. *Nutrients* [Internet]. 2021 Aug 1 [cited 2025 Apr 22];13(8):2764. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8399049/>
32. Appeadu MK, Bordonni B. Falls and Fall Prevention in Older Adults. *Geriatric Emergency Medicine: Principles and Practice* [Internet]. 2023 Jun 4 [cited 2025 Apr 22];343–50. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK560761/>
33. Palmer AK, Jensen MD. Metabolic changes in aging humans: current evidence and therapeutic strategies. *J Clin Invest* [Internet]. 2022 Aug 15 [cited 2025 Apr 22];132(16):e158451. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9374375/>
34. Age UK. Impact of Covid-19 on older people's mental and physical health: one year on [Internet]. 2021 [cited 2025 Apr 22]. Available from: [https://www.ageuk.org.uk/siteassets/documents/reports-and-publications/reports-and-publications/reports-and-publications/reports-and-publications/impact-of-covid-19-on-older-people-mental-and-physical-health-one-year-on.pdf](https://www.ageuk.org.uk/siteassets/documents/reports-and-publications/reports-and-publications/reports-and-publications/impact-of-covid-19-on-older-people-mental-and-physical-health-one-year-on.pdf)
35. Stratton R, Smith T, Gabe S. Managing malnutrition to improve lives and save money President Elect of BAPEN 3 President of BAPEN. 2018 [cited 2025 Apr 29]; Available from: www.bapen.org.uk
36. Sridhar GR, Gumpeny L. Built environment and childhood obesity. *World J Clin Pediatr* [Internet]. 2024 Sep 9 [cited 2025 Mar 13];13(3):93729. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/39350902>
37. Verde L, Barrea L, Bowman-Busato J, Yumuk VD, Colao A, Muscogiuri G. Obesogenic environments as major determinants of a disease: It is time to re-shape our cities. *Diabetes Metab Res Rev* [Internet]. 2024 Jan 1 [cited 2025 Mar 13];40(1):e3748. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/dmrr.3748>
38. Jessiman PE, Powell K, Williams P, Fairbrother H, Crowder M, Williams JG, et al. A systems map of the determinants of child health inequalities in England at the local level. *PLoS One* [Internet]. 2021 Feb 1 [cited 2025 Mar 11];16(2):e0245577. Available from: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245577>
39. Calorie reduction programme: industry progress 2017 to 2021 - GOV.UK [Internet]. [cited 2025 May 6]. Available from: <https://www.gov.uk/government/publications/calorie-reduction-programme-industry-progress-2017-to-2021>
40. Sugar reduction programme: industry progress 2015 to 2020 - GOV.UK [Internet]. [cited 2025 May 6]. Available from: <https://www.gov.uk/government/publications/sugar-reduction-programme-industry-progress-2015-to-2020>

41. Black C, Moon G, Baird J. Dietary inequalities: What is the evidence for the effect of the neighbourhood food environment? Health Place [Internet]. 2014 May 1 [cited 2025 May 6];27:229–42. Available from: https://www.sciencedirect.com/science/article/abs/pii/S1353829213001317?fr=RR-2&ref=pdf_download&rr=884266335a67642b
42. Clark S, Lomax N, Birkin M, Morris M. A foresight whole systems obesity classification for the English UK biobank cohort. BMC Public Health [Internet]. 2022 Dec 1 [cited 2025 May 6];22(1):1–15. Available from: <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-022-12650-x>
43. Green MA, Hobbs M, Ding D, Widener M, Murray J, Reece L, et al. The association between fast food outlets and overweight in adolescents is confounded by neighbourhood deprivation: A longitudinal analysis of the millennium cohort study. Int J Environ Res Public Health [Internet]. 2021 Dec 1 [cited 2025 May 6];18(24):13212. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8703340/>
44. van Erpecum CPL, van Zon SKR, Bültmann U, Smidt N. The association between the presence of fast-food outlets and BMI: the role of neighbourhood socio-economic status, healthy food outlets, and dietary factors. BMC Public Health [Internet]. 2022 Dec 1 [cited 2025 May 6];22(1). Available from: <https://pubmed.ncbi.nlm.nih.gov/35897088/>
45. FIT FOR THE FUTURE 10 Year Health Plan for England. 2025;
46. Garvey WT, Batterham RL, Bhatta M, Buscemi S, Christensen LN, Frias JP, et al. nature medicine Two-year effects of semaglutide in adults with overweight or obesity: the STEP 5 trial Check for updates. Nature Medicine | [Internet]. 2026 [cited 2025 Apr 23];28. Available from: <https://doi.org/10.1038/s41591-022-02026-4>
47. Jastreboff AM, Aronne LJ, Ahmad NN, Wharton S, Connery L, Alves B, et al. Tirzepatide Once Weekly for the Treatment of Obesity. New England Journal of Medicine [Internet]. 2022 Jul 21 [cited 2025 Mar 31];387(3):205–16. Available from: <https://www.nejm.org/doi/full/10.1056/NEJMoa2206038>
48. NHS gets limited stock of Wegovy weight-loss jab - BBC News [Internet]. [cited 2025 Apr 23]. Available from: <https://www.bbc.co.uk/news/health-66681892>
49. Wilding JPH, Batterham RL, Davies M, Van Gaal LF, Kandler K, Konakli K, et al. Weight regain and cardiometabolic effects after withdrawal of semaglutide: The STEP 1 trial extension. Diabetes Obes Metab [Internet]. 2022 Aug 1 [cited 2025 Apr 23];24(8):1553–64. Available from: <https://pubmed.ncbi.nlm.nih.gov/35441470/>
50. Aronne LJ, Sattar N, Horn DB, Bays HE, Wharton S, Lin WY, et al. Continued Treatment With Tirzepatide for Maintenance of Weight Reduction in Adults With Obesity: The SURMOUNT-4 Randomized Clinical Trial. JAMA [Internet]. 2024 Jan 2 [cited 2025 Apr 23];331(1):38–48. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2812936>
51. Guh DP, Zhang W, Bansback N, Amarsi Z, Birmingham CL, Anis AH. The incidence of co-morbidities related to obesity and overweight: A systematic review and meta-analysis. BMC Public Health. 2009;9.
52. Nutter S, Eggerichs LA, Nagpal TS, Ramos Salas X, Chin Chea C, Saiful S, et al. Changing the global obesity narrative

- to recognize and reduce weight stigma: A position statement from the World Obesity Federation. *Obesity Reviews*. 2024 Jan 1;25(1).
53. Puhl RM, Lessard LM, Himmelstein MS, Foster GD. The roles of experienced and internalized weight stigma in healthcare experiences: Perspectives of adults engaged in weight management across six countries. *PLoS One* [Internet]. 2021 Jun 1 [cited 2025 Mar 17];16(6):e0251566. Available from: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0251566>
54. Hailu H, Skouteris H, Incollingo Rodriguez AC, Galvin E, Hill B. Drivers and facilitators of weight stigma among preconception, pregnant, and postpartum women: A systematic review. *Obesity Reviews*. 2024 May 1;25(5).
55. Westbury S, Oyeboode O, Thijs Van Rens , Thomas , Barber M. Obesity Stigma: Causes, Consequences, and Potential Solutions. *Curr Obes Rep* [Internet]. 1234 [cited 2025 Mar 17];12:10–23. Available from: <https://doi.org/10.1007/s13679-023-00495-3>
56. Ryan L, Quigley F, Birney S, Crotty M, Conlan O, Walsh JC. ‘Beyond the Scale’: A Qualitative Exploration of the Impact of Weight Stigma Experienced by Patients With Obesity in General Practice. *Health Expect* [Internet]. 2024 Jun 1 [cited 2025 Mar 17];27(3):e14098. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11165259/>
57. Lawrence BJ, Kerr D, Pollard CM, Theophilus M, Alexander E, Haywood D, et al. Weight bias among health care professionals: A systematic review and meta-analysis. *Obesity* [Internet]. 2021 Nov 1 [cited 2025 Mar 17];29(11):1802–12. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/oby.23266>
58. Bajorek Z, Bevan S. Obesity Stigma at Work: Improving Inclusion and Productivity. 2020 [cited 2025 Mar 17]; Available from: www.employment-studies.co.uk
59. Standen EC, Ward A, Mann T. The role of social norms, intergroup contact, and ingroup favoritism in weight stigma. *PLoS One* [Internet]. 2024 Jun 1 [cited 2025 Mar 17];19(6). Available from: <https://pubmed.ncbi.nlm.nih.gov/38900716/>
60. Lawrence SE, Puhl RM, Watson RJ, Schwartz MB, Lessard LM, Foster GD. Family-based weight stigma and psychosocial health: A multinational comparison. *Obesity* [Internet]. 2023 Jun 1 [cited 2025 Mar 17];31(6):1666–77. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/oby.23748>
61. Romano KA, Heron KE, Sandoval CM, MacIntyre RI, Howard LM, Scott M, et al. Weight Bias Internalization and Psychosocial, Physical, and Behavioral Health: A Meta-Analysis of Cross-Sectional and Prospective Associations. *Behav Ther*. 2023 May 1;54(3):539–56.
62. Lessard LM, Puhl RM, Himmelstein MS, Pearl RL, Foster GD. Eating and Exercise-Related Correlates of Weight Stigma: A Multinational Investigation. *Obesity* [Internet]. 2021 Jun 1 [cited 2025 Mar 17];29(6):966–70. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/oby.23168>
63. Fruh SM, Graves RJ, Hauff C, Williams SG, Hall HR. Weight Bias and Stigma: Impact on Health. *Nurs Clin North Am* [Internet]. 2021 Dec 1 [cited 2025 Mar 17];56(4):479. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8641858/>
64. Why Body Shaming Has No Place in the Olympics [Internet]. [cited 2025 Apr 1]. Available from: <https://www.obesityaction.org/why->

- body-shaming-has-no-place-in-the-olympics/
65. Willer F. The Weight Stigma Heat Map: A tool to identify weight stigma in public health and health promotion materials. *Health Promotion Journal of Australia* [Internet]. 2024 Apr 1 [cited 2025 Mar 17];35(2):293–302. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/hpja.745>
66. Bessey M, Lordly D. Weight Inclusive Practice: Shifting the Focus from Weight to Social Justice. *Canadian Journal of Dietetic Practice and Research* [Internet]. 2020 Sep 1 [cited 2025 Mar 17];81(3):127–31. Available from: <https://dcjournal.ca/doi/10.3148/cjdpr-2019-034>
67. Autret K, Bekelman TA. Socioeconomic Status and Obesity. *J Endocr Soc* [Internet]. 2024 Sep 26 [cited 2025 Mar 11];8(11):176. Available from: <https://dx.doi.org/10.1210/jendso/bvae176>
68. Blyth F, Haycraft E, Peral-Suarez A, Pearson N. Tracking and changes in the clustering of physical activity, sedentary behavior, diet, and sleep across childhood and adolescence: A systematic review. *Obesity Reviews*. 2025;
69. Iguacel I, Gasch-Gallén Á, Ayala-Marín AM, De Miguel-Etayo P, Luis •, Moreno A. Social vulnerabilities as risk factor of childhood obesity development and their role in prevention programs. *Int J Obes* [Internet]. 2021 [cited 2025 Mar 11];45:1–11. Available from: <https://doi.org/10.1038/s41366-020-00697-y>
70. Ravikumar D, Spyreli E, Woodside J, Mckinley M, Kelly C. Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. 2021 [cited 2025 Mar 11]; Available from: <https://doi.org/10.1186/s12889-021-12414-z>
71. Vera Anekwe C, Jarrell AR, Townsend MJ, Gaudier GI, Hiserodt JM, Cody Stanford F. Socioeconomics of Obesity HHS Public Access. *Curr Obes Rep* [Internet]. 2020 [cited 2025 Mar 11];9(3):272–9. Available from: <http://www.springer.com/gb/open>
72. Madlala SS, Hill J, Kunneke E, Lopes T, Faber M. Adult food choices in association with the local retail food environment and food access in resource-poor communities: a scoping review. *BMC Public Health* [Internet]. 2023 Dec 1 [cited 2025 Mar 12];23(1):1–33. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15996-y>
73. Eskandari F, Lake AA, Rose K, Butler M, O'Malley C. A mixed-method systematic review and meta-analysis of the influences of food environments and food insecurity on obesity in high-income countries. *Food Sci Nutr* [Internet]. 2022 Nov 1 [cited 2025 Mar 11];10(11):3689–723. Available from: <https://pubmed.ncbi.nlm.nih.gov/36348796/>
74. Pierre CS, Ver Ploeg M, Dietz WH, Pryor S, Jakazi CS, Layman E, et al. Food Insecurity and Childhood Obesity: A Systematic Review. *Pediatrics* [Internet]. 2022 Jul 1 [cited 2025 Mar 11];150(1). Available from: <https://pubmed.ncbi.nlm.nih.gov/35694873/>
75. Carvajal-Aldaz D, Cucalon G, Ordóñez C. Food insecurity as a risk factor for obesity: A review. *Front Nutr*. 2022 Sep 26;9:1012734.
76. Oldroyd L, Eskandari F, Pratt C, Lake AA. The nutritional quality of food parcels provided by food banks and the effectiveness of food banks at reducing food insecurity in developed countries: a mixed-method systematic review.

- Journal of Human Nutrition and Dietetics. 2022 Dec 1;35(6):1202–29.
77. van Diepen RJ, van Erpecum CPL, Tabak D, van Zon SKR, Bültmann U, Smidt N. Neighborhood socioeconomic differences in BMI: The role of fast-food outlets and physical activity facilities. *Obesity (Silver Spring)* [Internet]. 2022 Feb 1 [cited 2025 Mar 13];31(2):506. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10107820/>
78. Staatz CB, Kelly Y, Lacey RE, Hardy R. Area-level and family-level socioeconomic position and body composition trajectories: longitudinal analysis of the UK Millennium Cohort Study. *Lancet Public Health*. 2021 Aug 1;6(8):e598–607.
79. Titis E, Di Salvatore J, Procter R. Socio-economic correlates of childhood obesity in urban and rural England. *Public Health Nutr* [Internet]. 2023 Sep 5 [cited 2025 Mar 13];26(9):1815–27. Available from: <https://www.cambridge.org/core/journals/public-health-nutrition/article/socioeconomic-correlates-of-childhood-obesity-in-urban-and-rural-england/9852362C53607505F8135B78C4FF4971>
80. Prados MJ, Nicosia N, Datar A. Impact of built, social, and economic environments on adolescent obesity and related health behaviors. *Obesity*. 2023 Apr 1;31(4):1085–94.
81. Association between the number of physical activity outlets, physical activity intensity opportunities, and obesity prevalence in Aotearoa/New Zealand - ProQuest [Internet]. [cited 2025 Mar 12]. Available from: <https://www.proquest.com/docview/269690311?accountid=48436&sourcetype=Scholarly%20Journals>
82. Irankhah K, Asadimehr S, Ranjbar G, Kiani B, Sobhani SR. The relationship between sidewalk access and weight-related outcomes: a systematic review. *Nutr Food Sci*. 2024 May 13;54(4):732–50.
83. Lin CY, Koohsari MJ, Liao Y, Ishii K, Shibata A, Nakaya T, et al. Workplace neighbourhood built environment and workers' physically-active and sedentary behaviour: a systematic review of observational studies. [cited 2025 Mar 13]; Available from: <https://doi.org/10.1186/s12966-020-01055-x>
84. Useche SA, Llamazares FJ, Marin C. Good for the planet... and for you too? Comparing five travel and health-related outcomes among active, motorized, and public transport commuters. *J Transp Health*. 2024 Sep 1;38:101893.
85. Martin-Moraleda E, Mandic S, Queralt A, Romero-Blanco C, Aznar S. Associations among Active Commuting to School and Prevalence of Obesity in Adolescents: A Systematic Review. *International Journal of Environmental Research and Public Health* 2022, Vol 19, Page 10852 [Internet]. 2022 Aug 31 [cited 2025 Mar 17];19(17):10852. Available from: <https://www.mdpi.com/1660-4601/19/17/10852/htm>
86. Mahony SO, Collins N, Gibney ER, Doyle G. Supermarkets, do they make the healthy choice the easy choice? A review of the healthfulness of the supermarket food environment. *Proceedings of the Nutrition Society* [Internet]. 2025 [cited 2025 Mar 12];12:1–11. Available from: <https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/supermarkets-do-they-make-the-healthy-choice-the-easy-choice-a-review-of-the-healthfulness-of-the-supermarket-food-environment/ACA85577D478DCFBBD60DC48E8E50CFB>
87. Frías JRG, Cadena LH, Villarreal AB, Piña BGB, Mejía MC, Cerros LAD, et al. Effect of ultra-processed food intake on metabolic syndrome components and

- body fat in children and adolescents: A systematic review based on cohort studies. *Nutrition*. 2023 Jul 1;111:112038.
88. Nguyen M, Jarvis SE, Tinajero MG, Yu J, Chiavaroli L, Mejia SB, et al. Sugar-sweetened beverage consumption and weight gain in children and adults: a systematic review and meta-analysis of prospective cohort studies and randomized controlled trials. *Am J Clin Nutr* [Internet]. 2023 Jan 1 [cited 2025 Mar 17];117(1):160–74. Available from: <https://pubmed.ncbi.nlm.nih.gov/36789935/>
89. Pineda E, Stockton J, Scholes S, Lassale C, Mindell JS. Food environment and obesity: a systematic review and meta-analysis. *BMJ Nutr Prev Health* [Internet]. 2024 Jun 27 [cited 2025 Mar 12];7(1):204–11. Available from: <https://nutrition.bmj.com/content/7/1/204>
90. Atanasova P, Kusuma D, Pineda E, Frost G, Sassi F, Miraldo M. The impact of the consumer and neighbourhood food environment on dietary intake and obesity-related outcomes: A systematic review of causal impact studies. *Soc Sci Med* [Internet]. 2022 Apr 1 [cited 2025 Mar 12];299:114879. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8987734/>
91. Langfield T, Jones A, Robinson E. The impact of increasing the availability of lower energy foods for home delivery and socio-economic position: a randomised control trial examining effects on meal energy intake and later energy intake. *British Journal of Nutrition* [Internet]. 2023 Apr 14 [cited 2025 Mar 12];129(7):1280–8. Available from: <https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/impact-of-increasing-the-availability-of-lower-energy-foods-for-home-delivery-and-socioeconomic-position-a-randomised-control-trial-examining-effects-on-meal-energy-intake-and-later-energy-intake/19D7E222C10BE83F893BF9FFD99761B5>
92. Thomas C, Breeze P, Cummins S, Cornelsen L, Yau A, Brennan A. The health, cost and equity impacts of restrictions on the advertisement of high fat, salt and sugar products across the transport for London network: a health economic modelling study. *International Journal of Behavioral Nutrition and Physical Activity* [Internet]. 2022 Dec 1 [cited 2025 Mar 13];19(1):1–12. Available from: <https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-022-01331-y>
93. Pillay D, Ali A, Wham CA. Examining the New Zealand school food environment: what needs to change? *Nutr Res Rev* [Internet]. 2023 Dec 1 [cited 2025 Mar 13];36(2):406–19. Available from: <https://www.cambridge.org/core/journals/nutrition-research-reviews/article/examining-the-new-zealand-school-food-environment-what-needs-to-change/43A0FEDFFF5D33CE6FB1651B70AF3CAF>
94. Gonçalves VSS, Figueiredo ACMG, Silva SA, Silva SU, Ronca DB, Dutra ES, et al. The food environment in schools and their immediate vicinities associated with excess weight in adolescence: A systematic review and meta-analysis. *Health Place*. 2021 Sep 1;71:102664.
95. Matsuzaki M, Sánchez BN, Acosta ME, Botkin J, Sanchez-Vaznaugh E V. Food environment near schools and body weight-A systematic review of associations by race/ethnicity, gender, grade, and socio-economic factors. *Obes Rev* [Internet]. 2020 Apr 1 [cited 2025 Mar 12];21(4). Available from: <https://pubmed.ncbi.nlm.nih.gov/32026567/>
96. Nicholson LM, McLeod Loren D, Reifenberg A, Beets MW, Bohnert AM. School as a Protective Setting for Excess Weight Gain and Child Obesity: A Meta-

- Analysis. *Journal of School Health* [Internet]. 2021 Jan 1 [cited 2025 Mar 14];91(1):19–28. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/josh.12972>
97. Parnham JC, Chang K, Rauber F, Levy RB, Lavery AA, Pearson-Stuttard J, et al. Evaluating the impact of the universal infant free school meal policy on the ultra-processed food content of children's lunches in England and Scotland: a natural experiment. *International Journal of Behavioral Nutrition and Physical Activity* 2024 21:1 [Internet]. 2024 Nov 1 [cited 2025 Mar 12];21(1):1–12. Available from: <https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-024-01656-w>
98. Holford A, Rabe B. Universal free school meals and children's bodyweight. Impacts by age and duration of exposure. *J Health Econ*. 2024 Dec 1;98:102937.
99. Smith NR, Zivich PN, Frerichs L. Social influences on obesity: current knowledge, emerging methods, and directions for future research and practice. *Curr Nutr Rep* [Internet]. 2020 Mar 1 [cited 2025 Mar 13];9(1):31. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC7033640/>
100. Tuson M, Harper P, Gartner D, Behrens D. Understanding the Impact of Social Networks on the Spread of Obesity. *International Journal of Environmental Research and Public Health* 2023, Vol 20, Page 6451 [Internet]. 2023 Jul 26 [cited 2025 Mar 12];20(15):6451. Available from: <https://www.mdpi.com/1660-4601/20/15/6451/htm>
101. Öztürk G, Kolcu M. Are child and parent health behaviors associated with childhood obesity? A descriptive and methodological study. *J Pediatr Nurs*. 2023 Sep 1;72:99–105.
102. EBSCOhost | 160552052 | Association of Childhood Obesity with Obese Parents and Other Familial Factors: A Systematic Review. [Internet]. [cited 2025 Mar 13]. Available from: <https://web.p.ebscohost.com/abstract?site=ehost&scope=site&jrnl=09752366&AN=160552052&h=veMpzdQFp9coVMUgx2qoNXRIQD634BBehYy2Nd9cHrMpOBbxIxRq0Ec0TgKpNg%2fodCVylo%2fY9PRxWtjmT3R7qg%3d%3d&crl=f&resultLocal=ErrCrlnResults&resultNs=Ehost&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d09752366%26AN%3d160552052>
103. Schratz LM, Larkin O, Dos Santos N, Martin C. Caregiver Influences on Eating Behaviors in Children: An Opportunity for Preventing Obesity. *Curr Atheroscler Rep* [Internet]. 2023 Dec 1 [cited 2025 Mar 17];25(12):1035–45. Available from: <https://pubmed.ncbi.nlm.nih.gov/38032429/>
104. Chavez-Ugalde Y, Jago R, Toumpakari Z, Egan M, Cummins S, White M, et al. Conceptualizing the commercial determinants of dietary behaviors associated with obesity: A systematic review using principles from critical interpretative synthesis. *Obes Sci Pract* [Internet]. 2021 Aug 1 [cited 2025 Mar 14];7(4):473–86. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/osp4.507>
105. Carters-White LE, Patterson C, Nimegeer A, Hilton S, Chambers S. Newspaper framing of food and beverage corporations' sponsorship of sport: a content analysis. *BMC Public Health* [Internet]. 2022 Dec 1 [cited 2025 Mar 13];22(1):1–11. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-022-14031-w>
106. Van Den Akker A, Fabbri A, Bertscher A, Gilmore AB, Knai C, Cavill N, et al. Article Industry influence on public health policy formulation in the UK: a

- complex systems approach. *Health Promot Int* [Internet]. 2024 [cited 2025 Mar 13];39:139. Available from: <https://doi.org/10.1093/heapro/daae139>
107. Atli Gunnarsson J, Ruskin G, Stuckler D, Steele S. Big food and drink sponsorship of conferences and speakers: a case study of one multinational company's influence over knowledge dissemination and professional engagement. *Public Health Nutr* [Internet]. 2023 May 1 [cited 2025 Mar 13];26(5):1094–111. Available from: <https://www.cambridge.org/core/journals/public-health-nutrition/article/big-food-and-drink-sponsorship-of-conferences-and-speakers-a-case-study-of-one-multinational-companys-influence-over-knowledge-dissemination-and-professional-engagement/8CDF0FB72D25E36033C459777F336B4F>
108. Chavez-Ugalde Y, De Vocht F, Jago R, White M, Toumpakari Z. Using group model building to frame the commercial determinants of dietary behaviour in adolescence - findings from online system mapping workshops with adolescents, policymakers and public health practitioners in the Southwest of England. *BMC Public Health* [Internet]. 2025 Dec 1 [cited 2025 Mar 13];25(1):144. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-025-21320-7>
109. Kearney J, Fitzgerald R, Burnside G, Higham S, Flannigan N, Halford JCG, et al. Television advertisements for high-sugar foods and beverages: effect on children's snack food intake. *British Journal of Nutrition* [Internet]. 2021 Mar 14 [cited 2025 Mar 14];125(5):591–7. Available from: <https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/television-advertisements-for-highsugar-foods-and-beverages-effect-on-childrens-snack-food-intake/F0DC457534B4AB881924F4CBC4126E3A>
110. Castronuovo L, Guarnieri L, Tiscornia MV, Allemanni L. Food marketing and gender among children and adolescents: a scoping review. *Nutr J* [Internet]. 2021 Dec 1 [cited 2025 Mar 14];20(1):1–16. Available from: <https://nutritionj.biomedcentral.com/articles/10.1186/s12937-021-00706-4>
111. Zambrano RE, Jiménez-Marín G, Galiano-Coronil A, Ravina-Ripoll R, Romero-Rodríguez M, Muela-Molina C, et al. Children, Media and Food. A New Paradigm in Food Advertising, Social Marketing and Happiness Management. *International Journal of Environmental Research and Public Health* 2021, Vol 18, Page 3588 [Internet]. 2021 Mar 30 [cited 2025 Mar 14];18(7):3588. Available from: <https://www.mdpi.com/1660-4601/18/7/3588/htm>
112. Varela P, De Rosso S, Moura AF, Galler M, Philippe K, Pickard A, et al. Bringing down barriers to children's healthy eating: a critical review of opportunities, within a complex food system. *Nutr Res Rev* [Internet]. 2024 [cited 2025 Mar 11];37(2):331–51. Available from: <https://www.cambridge.org/core/journals/nutrition-research-reviews/article/bringing-down-barriers-to-childrens-healthy-eating-a-critical-review-of-opportunities-within-a-complex-food-system/BE7B6223FA96B546ACD7B5C665C97341>
113. Li X, Xiang ST, Dong J, Zhong Y, Zhao S, Xiao Z, et al. Association between Physical Activity and Age among Children with Overweight and Obesity: Evidence from the 2016-2017 National Survey of Children's Health. *Biomed Res Int* [Internet]. 2020 Jan 1 [cited 2025 Mar 17];2020(1):9259742. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1155/2020/9259742>
114. Winpenny EM, Smith M, Penney T, Foubister C, Guagliano JM, Love R, et al.

- Changes in physical activity, diet, and body weight across the education and employment transitions of early adulthood: A systematic review and meta-analysis. *Obesity Reviews*. 2020 Apr 1;21(4).
115. Johnson W, Norris T, De Freitas R, Pearson N, Hamer • Mark, Silvia Costa •. Is the positive relationship of infant weight gain with adolescent adiposity attenuated by moderate-to-vigorous physical activity in childhood? Evidence from the Millennium Cohort Study. *Int J Obes* [Internet]. 2021 [cited 2025 Mar 17];45:84–94. Available from: <https://doi.org/10.1038/s41366-020-00656-7>
 116. Williams MS, McKinney SJ, Cheskin LJ. Social and Structural Determinants of Health and Social Injustices Contributing to Obesity Disparities. *Curr Obes Rep* [Internet]. 2024 Sep 1 [cited 2025 Mar 13];13(3):617–25. Available from: <https://link.springer.com/article/10.1007/s13679-024-00578-9>
 117. Cronin FM, Hurley SM, Buckley T, Mancebo Guinea Arquez D, Lakshmanan N, O’gorman A, et al. Mediators of socioeconomic differences in overweight and obesity among youth in Ireland and the UK (2011-2021): a systematic review. 2021 [cited 2025 Mar 13]; Available from: <https://doi.org/10.1186/s12889-022-14004-z>
 118. Browne NT, Hodges EA, Small L, Snethen JA, Frenn M, Irving SY, et al. Childhood obesity within the lens of racism. *Pediatr Obes* [Internet]. 2022 May 1 [cited 2025 Mar 13];17(5):e12878. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/ijpo.12878>
 119. Cook EJ, Powell FC, Ali N, Penn-Jones CP, Ochieng B, Constantinou G, et al. ‘They Are Kids, Let Them Eat’: A Qualitative Investigation into the Parental Beliefs and Practices of Providing a Healthy Diet for Young Children among a Culturally Diverse and Deprived Population in the UK. *International Journal of Environmental Research and Public Health* 2021, Vol 18, Page 13087 [Internet]. 2021 Dec 11 [cited 2025 Mar 17];18(24):13087. Available from: <https://www.mdpi.com/1660-4601/18/24/13087/htm>
 120. Alsubhi M, Goldthorpe J, Epton T, Khanom S, Peters S. What factors are associated with obesity-related health behaviours among child refugees following resettlement in developed countries? A systematic review and synthesis of qualitative and quantitative evidence. *Obes Rev* [Internet]. 2020 Nov 1 [cited 2025 Mar 17];21(11). Available from: <https://pubmed.ncbi.nlm.nih.gov/32608177/>
 121. Akyakar B, Yildiran H, Bountziouka V. Ultra-processed Food Intake During Pregnancy and its Impact on Maternal Diet Quality and Weight Change: A Systematic Review of Observational Studies. *Curr Nutr Rep* [Internet]. 2024 Dec 1 [cited 2025 Mar 17];13(4). Available from: <https://pubmed.ncbi.nlm.nih.gov/39370494/>
 122. da Silva TPR, Viana TGF, Duarte CK, Inácio MLC, Velasquez-Melendez G, Pessoa MC, et al. Environmental factors associated with excessive gestational weight gain: a meta-analysis and systematic review. *Cien Saude Colet* [Internet]. 2023 Jan 6 [cited 2025 Mar 13];28(1):171–80. Available from: <https://www.scielo.br/j/csc/a/n5HjKV3syYWty5FTRPr3Y8R/?lang=en>
 123. Moore AP, Flynn AC, Adegboye ARA, Goff LM, Rivas CA. Factors Influencing Pregnancy and Postpartum Weight Management in Women of African and Caribbean Ancestry Living in High Income Countries: Systematic Review and Evidence Synthesis Using a Behavioral Change Theoretical Model.

- Front Public Health [Internet]. 2021 Feb 17 [cited 2025 Mar 17];9:637800. Available from: www.frontiersin.org
124. Chatham RE, Mixer SJ. Cultural Influences on Childhood Obesity in Ethnic Minorities: A Qualitative Systematic Review. *Journal of Transcultural Nursing* [Internet]. 2020 Jan 1 [cited 2025 Mar 17];31(1):87–99. Available from: <https://journals.sagepub.com/doi/10.1177%2F1043659619869428>
125. Whole systems approach to obesity - GOV.UK [Internet]. [cited 2025 Mar 11]. Available from: <https://www.gov.uk/government/publications/whole-systems-approach-to-obesity>
126. Whole systems approach to obesity: a guide to support local approaches to achieving a healthier weight | Local Government Association [Internet]. [cited 2025 Mar 11]. Available from: <https://www.local.gov.uk/publications/whole-systems-approach-obesity-guide-support-local-approaches-achieving-healthier>
127. Bagnall AM, Radley D, Jones R, Gately P, Nobles J, Dijk M Van, et al. Whole systems approaches to obesity and other complex public health challenges: a systematic review. [cited 2025 Mar 11]; Available from: <https://doi.org/10.1186/s12889-018-6274-z>
128. Lobczowska K, Banik A, Forberger S, Kaczmarek K, Kubiak T, Neumann-Podczaska A, et al. Social, economic, political, and geographical context that counts: meta-review of implementation determinants for policies promoting healthy diet and physical activity. *BMC Public Health* [Internet]. 2022 Dec 1 [cited 2025 Mar 13];22(1):1–17. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-022-13340-4>
129. A whole systems approach to obesity prevention: a rapid synthesis of evidence to inform the Northern Ireland Obesity Prevention Strategy Policy Project Board | Institute of Public Health [Internet]. [cited 2025 Mar 11]. Available from: <https://www.publichealth.ie/news/whole-systems-approach-obesity-prevention-rapid-synthesis-evidence-inform-northern-ireland>
130. Sawyer A, den Hertog K, Verhoeff AP, Busch V, Stronks K. Developing the logic framework underpinning a whole-systems approach to childhood overweight and obesity prevention: Amsterdam Healthy Weight Approach. *Obes Sci Pract*. 2021 Oct 1;7(5):591–605.
131. Li B, Alharbi M, Allender S, Swinburn B, Peters R, Foster C. Comprehensive application of a systems approach to obesity prevention: a scoping review of empirical evidence. *Front Public Health*. 2023 Aug 8;11:1015492.
132. Jayasinghe S, Soward R, Dalton L, Holloway TP, Murray S, Patterson KAE, et al. Domains of Capacity Building in Whole-Systems Approaches to Prevent Obesity—A “Systematized” Review. *International Journal of Environmental Research and Public Health* 2022, Vol 19, Page 10997 [Internet]. 2022 Sep 2 [cited 2025 Mar 11];19(17):10997. Available from: <https://www.mdpi.com/1660-4601/19/17/10997/htm>
133. Wopereis TM, Dijkstra C, Wierda JJ, Rongen FC, Poelman MP. RESEARCH Open Access Systems thinking for local food environments: a participatory approach identifying leverage points and actions for healthy and sustainable transformations. *Health Res Policy Syst* [Internet]. 2024 [cited 2025 Mar 12];22:101. Available from: <https://doi.org/10.1186/s12961-024-01199-3>
134. Maitland N, Wardle K, Whelan J, Jalaludin B, Creighton D, Johnstone M, et

- al. Tracking implementation within a community-led whole of system approach to address childhood overweight and obesity in south west Sydney, Australia. BMC Public Health [Internet]. 2021 Jun 26 [cited 2025 Mar 11];21(1):1233. Available from: <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-021-11288-5>
135. Salm L, Nisbett N, Cuming K, Hrynick T, Lulache A, Macgregor H. A whole system approach to childhood obesity: how a supportive environment was created in the city of Brighton and Hove, United Kingdom. Food Secur [Internet]. 2023 [cited 2025 Mar 11];15:919–35. Available from: <https://doi.org/10.1007/s12571-023-01361-9>
136. Bijlani C, Vrinten C, Junghans C, Chang K, Lewis E, Mulla U, et al. Changes in diet and physical activity following a community-wide pilot intervention to tackle childhood obesity in a deprived inner-London ward. [cited 2025 Mar 11]; Available from: <https://doi.org/10.1186/s12889-024-18192-8>
137. Gadsby EW, Hotham S, Eida T, Lawrence C, Merritt R. Impact of a community-based pilot intervention to tackle childhood obesity: a “whole-system approach” case study. [cited 2025 Mar 11]; Available from: <https://doi.org/10.1186/s12889-020-09694-2>
138. Towards a healthy weight: Local government action to improve children’s health | Local Government Association [Internet]. [cited 2025 Mar 11]. Available from: <https://www.local.gov.uk/publications/towards-healthy-weight-local-government-action-improve-childrens-health#case-studies>
139. Poltawski L, Van Beurden SB, Morgan-Trimmer S, Greaves C. The dynamics of decision-making in weight loss and maintenance: A qualitative enquiry. BMC Public Health [Internet]. 2020 Apr 28 [cited 2025 Mar 18];20(1):1–11. Available from: <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-020-08664-y>
140. Tay A, Hoeksema H, Murphy R. Uncovering Barriers and Facilitators of Weight Loss and Weight Loss Maintenance: Insights from Qualitative Research. 2023 [cited 2025 Mar 18]; Available from: <https://doi.org/10.3390/nu15051297>
141. Thom G, Lean MEJ, Brosnahan N, Algindan YY, Malkova D, Dombrowski SU. ‘I have been all in, I have been all out and I have been everything in-between’: A 2-year longitudinal qualitative study of weight loss maintenance. Journal of Human Nutrition and Dietetics [Internet]. 2021 Feb 1 [cited 2025 Mar 18];34(1):199–214. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/jhn.12826>
142. Spreckley M, Seidell J, Halberstadt J. Perspectives into the experience of successful, substantial long-term weight-loss maintenance: a systematic review. Int J Qual Stud Health Well-being [Internet]. 2021 Jan 1 [cited 2025 Mar 18];16(1). Available from: <https://www.tandfonline.com/doi/abs/10.1080/17482631.2020.1862481>
143. Gardner B, Richards R, Lally P, Rebar A, Thwaite T, Beeken RJ. Breaking habits or breaking habitual behaviours? Old habits as a neglected factor in weight loss maintenance. Appetite. 2021 Jul 1;162:105183.
144. Haywood D, Lawrence BJ, Baughman FD, Mullan BA, Haywood D, Lawrence BJ, et al. A Conceptual Model of Long-Term Weight Loss Maintenance: The Importance of Cognitive, Empirical and Computational Approaches. International Journal of Environmental Research and Public Health 2021, Vol 18, Page 635 [Internet]. 2021 Jan 13 [cited 2025 Mar 18];18(2):635. Available

- from: <https://www.mdpi.com/1660-4601/18/2/635/htm>
145. Koball AM, Rooney BL, Kallies KJ, Wissink DM. The role of food and activity environment in a bariatric surgery population: impact on postoperative weight loss. *Surg Obes Relat Dis* [Internet]. 2022 Mar 1 [cited 2025 Mar 12];18(3):365–72. Available from: <https://pubmed.ncbi.nlm.nih.gov/35016840/>
146. Cornejo-Pareja I, Molina-Vega M, Gómez-Pérez AM, Damas-Fuentes M, Tinahones FJ. Factors Related to Weight Loss Maintenance in the Medium–Long Term after Bariatric Surgery: A Review. *Journal of Clinical Medicine* 2021, Vol 10, Page 1739 [Internet]. 2021 Apr 16 [cited 2025 Mar 18];10(8):1739. Available from: <https://www.mdpi.com/2077-0383/10/8/1739/htm>
147. Brown T, Naughton F, Tham N, Khadjesari Z. eSign preliminary focus group findings,. School of Health Sciences, University of East Anglia. 2025.
148. Walugembe DR, Sibbald S, Le Ber MJ, Kothari A. Sustainability of public health interventions: Where are the gaps? *Health Res Policy Syst* [Internet]. 2019 Jan 15 [cited 2025 May 28];17(1):1–7. Available from: <https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-018-0405-y>