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Kent County Council Adult Obesity Needs Assessment

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Glossary

BMI	Body Mass Index
ICB	Integrated Care Board
DH	Department of Health
GP	General Practitioner
HNA	Health Needs Assessment
HWB	Health and Wellbeing Board
JSNA	Joint Strategic Needs Assessment
KID	Kent Integrated Dataset
LTC	Long-term health conditions such as diabetes and lung disease.
NHS	National Health Service
NICE	National Institute for Health and Care Excellence. NICE guidelines are evidence-based recommendations for health and care in England. They cover a range of topics and set out care and services suitable for most individuals, from preventing and managing specific conditions or need, improving health and managing medicines in different settings, to adapting and providing social care to adults and children, promoting and protecting good health and planning and improving the quality of care and broader services and interventions to improve the health of communities.
WSA	Whole Systems Approach - using systems thinking to identify where in the system to align efforts and create a single plan with system wide ownership and responsibilities. A framework that brings stakeholders together to share an understanding of the issues, the nature of the links and relationships between each of them and agree where they will work together to change the system.
Weight management	Both the techniques and underlying physiological processes that contribute to a person's ability to attain and maintain a

	certain weight. Includes the following goals - Primary prevention of excess weight gain; Weight loss (usually completed within three to six months); Prevention of weight regain (from three to six months onwards); Optimising health and reducing risk of disease (whether or not weight loss is achieved).
Wider determinants of health model	A socio-ecological model which illustrates 5 factors that influence health: biological factors, individual lifestyle factors, social and community factors, living and working conditions and wider conditions (Dahlgren G, Whitehead M. Policies and strategies to promote social equity in health. Stockholm, Sweden: Institute for future studies; 1991.)

Executive Summary

The Health Needs Assessment (HNA) aims to outline steps to support the adult population in Kent in maintaining a healthy weight despite competing public health priorities and reduction of public health funding. It provides epidemiological information on adult obesity across Kent, identifies high-risk groups, and analyses data to identify unmet needs, gaps, and inequalities in access to services. Additionally, it presents evidence of effective interventions and informs adult commissioning services on the prevention, identification, and treatment of obesity. Conclusions and key recommendations are proposed based on HNA.

Excess weight can significantly impact health, increasing the risk of chronic diseases such as type 2 diabetes, cardiovascular disease, liver disease, some form of cancers, osteoarthritis and frailty. Obesity can also be a risk factor for depression and low self-esteem, negatively impacting well-being and quality of life while reducing life and health expectancies.

The increasing rate of overweight and obesity in adults in the UK is a national priority with government commitment to tackle obesity. In 2020, the government published an obesity strategy Tackling obesity: empowering adults and children to live healthier lives - GOV.UK (www.gov.uk) with a focus on making healthy choices the easiest choices, while also providing support for individuals to lose weight. In Kent, efforts to address excess weight involve many partners working across the systems in making obesity everybody's business, such as the whole systems approach programme providing the platforms for collaborating with stakeholders across various sectors to promote healthy weight in Kent.

In 2023/24, 64.8% of adults in Kent were classified as overweight or living with obesity similar to England average (64.5%) but higher than the South East (63.2%).

Kent also had a higher obesity rate (25.6%) compared to the South East (24.6%) and slightly lower than England (26.5%).

Obesity is a complex issue influenced by various intersectional factors, including biology, society, culture, environment, and sedentary working patterns. Effectively tackling obesity requires a long-term, large-scale commitment from a wide range of stakeholders including the strategic leaders who play a key part in the determinants of obesity.

National and Local Context

The percentage of adults with excess weight nationally has been steadily increasing from 61.2% in 2016 to 64.5% in 2024, and the obesity rate among adults has also risen from 22.6% in 2016 to 26.5% in 2024.[1] In Kent, there has been a higher trend, with the proportion of adults with excess weight increasing from 61.3% in 2016 to 64.8% in 2024, and the percentage of adults classified as living with obesity increasing from 23.1% in 2016 to 25.6% in 2024.

This increasing trend in obesity poses significant risks to public health, health, and social care. It is linked to many long-term health conditions, impacting individuals' overall health and quality of life and resulting in substantial economic consequences for the nation and individuals. This is particularly concerning, given the ageing population.

There is evidence suggesting that individuals living in the most deprived areas, those with disabilities, some minority ethnic groups, and men are more likely to be overweight. On the other hand, women are more likely to be living with obesity and severe obesity, and the prevalence of obesity increases with age, reaching its peak in the 55 to 64 years age group. The growing number of people living with obesity, along with related health issues and the shifting demographics of the ageing population, underscores the urgent need for targeted interventions at the population level.

Residents in areas of deprivation had higher levels of obesity, with a 15.4% difference in the prevalence of obesity between the most and least deprived quintiles; the gap is higher for women from the most and least deprived areas at 17%. Obesity rates in adults remain highest among those who identified as Black, with 74.8% in the most deprived areas (lowest IMD quintiles) and 34.8% in the least deprived areas (highest IMD quintiles). In comparison, obesity rates among White British adults are 65.3% in the most deprived areas and 27.6% in the least deprived areas. Black and some Asian minority ethnic groups are at cardiometabolic risk at a lower BMI.[2]

[1] Obesity Profile: Short statistical commentary May 2025 - GOV.UK (www.gov.uk)

[2] Obesity: identification, assessment and management (nice.org.uk)

In 2023/24, it is estimated that around 800,000 adults in Kent were overweight or living with obesity, with 64.8% of those aged 18 and over overweight or living with obesity. Excess weight is high across most Kent districts; however, prevalence was higher within Swale, Dartford, Thanet, and Gravesham.
In 2023, the Quality and Outcomes Framework estimates that within the Kent and Medway registered population, 178,056 persons were recorded as living with obesity (11.4%), similar to the national average but higher than the South East regional average (10.3%). Medway and Swale HCP have the highest GP-recorded prevalence of obesity, while West Kent HCP is below the Kent and Medway average.
Nationally, less than one-third of adults (31.3%) consumed five or more portions (80g per portion) of fruit and vegetables daily in 2024, with more women achieving the 5-a-day target than men.
Adult physical inactivity (<30mins a week) was (22.6%) in 2023, similar to 2021/22 (22.3%) and 2015 to 2016 (22.3%). Levels of physical inactivity were the highest in the 75 to 84 (33.2%) and 85 and over (57.3%) age groups and much lower among adults aged between 19 and 64, where the range is from 17.7% to 21.7%. Levels of physical inactivity were higher than Kent in Gravesham and Swale but lower than Kent in Tunbridge Wells.

Between 2020 and 2023, 34.5% of those aged 16 and over met the recommended "5-a-day," higher than 32.9% in England. Kent and England have seen decreases on average over the past three years. Only Dartford and Gravesham are statistically lower than the Kent average, while Canterbury has the highest proportion of people consuming 5 or more fruits and vegetables a day.

Obesity Related Hospital admissions
NHS Digital reports admissions directly attributable to obesity, which are finished admission episodes with a primary diagnosis of obesity. Admissions directly attributable to obesity were higher within Medway & Swale and Dartford, Gravesham & Swanley Health and Care Partnerships (HCPs). Obesity-related admissions were highest in persons resident within the most deprived areas, among the 65+ group in Kent, with rates higher in women compared to men.
This suggests more significant public health needs in Swale, Dartford, Gravesham and Swanley.

Hospital admissions for bariatric surgery
Admissions for primary bariatric procedures for residents of Kent and Medway in 2022/23 were higher than the national average, although both were lower than in 2021/22. The data on these bariatric services came from five NHS trust providers outside of Kent. Most surgeries were performed at Ashford and St. Peter's Hospitals NHS Foundation Trust. Maidstone and Tunbridge Wells NHS Trust has recently started offering bariatric surgeries.
Orlistat is the main item prescribed by GPs for the treatment of obesity. Medway and Swale HCP have the highest rate of items prescribed for the treatment of obesity,

higher than the Kent and Medway average. Medway and Swale HCP has been consistently higher than other HCPs for the five years from 2018/19-2022/23.

Key Findings

- A plethora of evidence indicates that obesity is a significant risk factor for many physical and mental health conditions, as well as impacting quality of life and causing premature deaths.
- The risk of comorbidities increases with higher BMI and even more, exaggerated for people from Black and Asian family backgrounds as they are at risk of type 2 diabetes, cardiovascular diseases and other cardiometabolic diseases at a lower BMI.
- Proportion of adults with excess weight has progressively increased nationally since 2016. However, in Kent, there has been a higher trend, with the proportion of adults with excess weight increasing from 61.3% in 2016 to 64.8% in 2023, and the percentage of adults classified as living with obesity increasing from 23.1% in 2016 to 27.8% in 2023.
- Approximately 800,000 adults in Kent are living with obesity, while weight management services can currently support only around 5,000 individuals across various tiers. The data indicates a consistently increasing prevalence of obesity in Kent and increasing cost of delivering weight management services due to inflation. This underscores the urgent need to support a Whole Systems Approach and to fund more population-targeted programs delivered in the community, workplaces, and schools.
- Obesity is complex and caused by many intersectional factors; the relationship between obesity and indicators of the food and physical activity environment is complex. There is an interplay between exposure, deprivation, and urbanisation. Individual factors (such as socioeconomic position, ethnicity, education and self-efficacy) are likely to impact an individual's exposure to the obesogenic environment – readily available high fat, sugar and salt (HFSS) food and low opportunity or access to areas that enable physical activity. The interplay between obesity and ethnicity is equally complex.
- Recent UK Government policy Government response to the House of Lords Food, Diet and Obesity Committee's report 'Recipe for health: a plan to fix our broken food system' - GOV.UK has identified the increasingly unhealthy food environment as a key driver of the obesity crisis. Recognising the impact of the commercial determinants of health, the government has committed to measures that support a healthier food environment across the UK. In line with this national direction, the Public Health team at KCC has initiated work to implement this approach locally, aiming to create a food environment that enables healthier choices and supports long-term obesity prevention.
- There is a known association between fast food outlets and area deprivation regarding the rate of fast food outlets per 100,000 resident population and the

distance to the nearest fast food outlet. Kent's analysis has shown that fast food outlets are generally closer to residents in urban and deprived areas.

- Access to supermarkets to purchase affordable, healthy food in the context of obesity is complex, but evidence has linked lower education, greater distances to supermarkets, and obesity. In Kent, evidence suggests challenges around supermarket access from greater distances to them and lower household car ownership.
- The relationship between access to greenspace, physical activity, and excess weight is complex. The largest nationally representative study found a counterintuitive relationship between greenspace and excess weight.
- Kent's data analysis shows there is evidence to suggest that greenspace is more accessible in urban and deprived areas. Lack of awareness about the health benefits of green spaces, combined with perceptions of safety and various intersectional factors, may hinder the use of these spaces, particularly among high-risk groups.
- Evidence suggests that the most deprived areas have fewer outdoor physical activity facilities than the least deprived areas. However, Kent's analysis shows that sports facilities are generally closer to where people live in urban areas, but no difference was found by deprivation. Leisure centre usage is closely linked to deprivation, with residents in the most deprived areas facing greater barriers, which further exacerbate health inequalities.
- The action mapping conducted by the Whole Systems Approach team highlights Kent’s strong commitment to supporting individual lifestyle changes in addressing obesity. This focused effort provides a solid foundation for future progress. There is now a valuable opportunity to build on this work by expanding interventions that address the broader influences on health, such as living and working conditions and other wider determinants, to create a more comprehensive and impactful approach.
- Partners across the system have recognised an exciting opportunity to enhance Kent’s weight management pathway by making it more direct and efficient. This improvement would support smoother referrals to weight management services and strengthen collaboration across all levels of care, ultimately leading to more coordinated and effective support for individuals.
- One You Kent Healthy Lifestyle service commissioned by KCC fits into the Tier 1 element of the weight management pathways. This service provides comprehensive support across areas such as nutrition, physical activity, sleep, alcohol reduction, and overall wellbeing. While its broad focus makes it challenging to identify the impact on weight loss, collecting data on users who achieve weight loss is important to demonstrate the service’s effectiveness and contribution to public health outcomes.
- One You Kent Tier 2 weight management services have an opportunity to better engage priority groups particularly those from deprived communities, people with learning disabilities, members of Black, Asian and Minority Ethnic

groups, and men. To maximise impact, it is important that these services are accessible, inclusive, and tailored to meet the unique needs of these seldom-heard groups. These priorities are central to the ongoing transformation and improvement of service delivery.

- Kent offers a wide range of obesity prevention services for adults, reflecting a strong foundation in promoting healthy lifestyles. Building on this, partners have highlighted the opportunity to implement more targeted population-level interventions and to develop a cohesive, strategic approach that connects services across all tiers (1 to 4) of the weight management pathway. There is also strong support for an integrated commissioning model, which would help align efforts, enhance collaboration, and support more effective and sustainable healthy weight outcomes across the county.
- Kent is actively addressing excess weight through a range of interventions, and there is a valuable opportunity to enhance their impact through greater coordination and integration. By aligning efforts within a more comprehensive and holistic framework, we can better support healthy weight outcomes across the population. This includes addressing the needs of both children and adults through a Whole Systems Approach to obesity, combining prevention, clinical pathways, and ensure strong cross-sector collaboration. Continued leadership and partnership across the system will be key to driving sustainable, long-term change.
- Currently, referrals to Tier 3 weight management services can only be made by GPs, with different referral forms used across the various tiers. While this system ensures clinical oversight, it can create delays for individuals who meet Tier 3 criteria but are already engaged with Tier 2 services. These individuals must return to their GP for a referral, which can extend their journey and potentially impact motivation and health outcomes.
  To support improvements in the referral process, Kent County Council continues to engage in constructive discussions with the Kent and Medway Integrated Care Board (K&M ICB) to develop a streamlined, single point of referral covering Tiers 1 to 3. This streamlined approach would empower Tier 2 providers to refer eligible individuals directly to Tier 3 services, reducing delays, easing pressure on primary care, and ensuring timely access to the most appropriate support.

- The recent adult weight management strategic action, created collaboratively by KCC and the Integrated Care Board (ICB), has proposed a joint referral form for Tiers 1 to 3. This initiative includes new referral criteria and establishes a more straightforward weight management pathway in Kent. The goal is to streamline the referral process for GPs and other allied health professionals by directing individuals to the most appropriate service based on their BMI and related health conditions indicated in the form. However, this agreement is being explored with the ICB.

- The growing number of individuals living with obesity, coupled with incentives for GPs to refer patients to weight management services and increased media coverage on weight loss medications, presents challenges in managing referrals and waiting lists. This situation increases the likelihood of inappropriate referrals to Tier 2, including patients with complex obesity and those seeking weight loss medications. With the plan to develop a seamless weight management pathway, new referral criteria have been developed by KCC and plan to increase the awareness on the new referral across the system, there is hope that this will clarify the referral process, ensuring individuals are directed to appropriate services for their needs.

Key Recommendations

Short Term

Create a seamless pathway for individuals accessing weight management services and ensuring continuity of care.	ICB, HCPs, KCC, Commissioners
Train health and social care staff and relevant community workers to enhance their confidence and skills in prevention and management of obesity. Train staff to deliver brief obesity interventions and provide adequate resources to support them.	ICB, HCPs, KCC, Commissioners
Develop and implement an integrated obesity pathway coordinated strategy for managing obesity that integrates weight management and health services with community resources.	ICB, HCPs, KCC, Commissioners
Utilise locally available data and allocate funding and resources for targeted interventions that focus on the needs of high-risk groups.	ICB, HCPs, KCC, Commissioners
Set up mechanism for robust data collection and sharing across systems to track the impacts of weight management interventions on long-term health outcomes.	KCC, ICB, Commissioners, Providers
Develop and disseminate clear guidelines that outline the	KCC, ICB, Commissioners,

eligibility criteria for each tier. Conduct training across the entire system to ensure that all health and social care staff are familiar with these guidelines. Additionally, create plans for regularly updating the guidelines to reflect any changes.	Providers, HCPs WSO team
Implement the joint referral form across all services particularly for Tiers 2 and 3 to streamline referrals and reduce delays in accessing the appropriate level of care. Ensure that Tier 2 providers can directly refer to Tier 3 to prevent unnecessary GP visits and reduce patient drop-off due to demotivation.	KCC, ICB, Commissioners
Provide digital support and online option alongside face-to-face interventions to ensure greatest reach.	KCC, Commissioners Providers
Regularly evaluate the effectiveness of existing obesity interventions and adapt strategies based on findings.	KCC, ICB, Commissioners, Providers
Continue to provide group interventions while still deliver person centred intervention and offer targeted one to one intervention for people with learning disabilities, sever mental health conditions and other complex cases.	KCC, ICB, Commissioners, Providers

Medium Term

An integrated commissioning model to unify efforts across the tiers and encourage healthy weight initiatives across other commissioning services. This model will need a clear strategic direction to integrate all the actions that are necessary, and co-commissioning should be considered.	*Providers,* *District/Borough councils, KCC, Commissioners, ICB/HCPs*
Collaborate with other policy goals such as reducing health inequalities and increasing social inclusion are key, given that the impact of obesity is greatest in disadvantaged groups.	*KCC, ICB, District/Borough councils, providers*
Develop and implement planning policies to promote a healthier food environment through restriction of high-fat, salt, and sugar (HFSS) food advertisements, use of exclusion zones in the opening of new fast food outlets, restricting opening time during school opening hours and making it easier for more people to move, as highlighted in the Tackling obesity: empowering adults and children to live healthier lives - GOV.UK and Using the planning system to promote healthy weight environments.	*KCC, Local authorities, Planning*
Develop and promote weight management interventions	*KCC, ICB,*

tailored to targeting groups at higher risk of obesity and comorbidities, such as individuals from Black, Asian, and minority ethnic communities, those with learning disabilities, men, and residents of deprived areas.	*Commissioners, Providers*
Ensure that sufficient capacity is available across all tiers of weight management services to meet the increasing demand.	*KCC, ICB, Commissioners*
Provide information on available community universal obesity services for Kent residents and encourage their engagements in these services.	*KCC, ICB, Commissioners*
Need for greater integration of weight management services with existing public health commissioned services, such, Healthy Living Centres, Active Kent and others to enhance service delivery and public health outcomes.	*KCC, Commissioners*
Integrating health in all policies into weight management services and monitor the impact on service delivery, impact on weight management outcomes as well as addressing wider determinants of health.	*KCC, Commissioners*

Long term

To effectively address rising obesity rates in Kent, a comprehensive, life-course approach is essential to support both children and adults. Investing in the Whole Systems Approach (WSO) will deliver long-term, sustainable outcomes by integrating prevention, clinical care, and action on wider and commercial determinants of health. Success will depend on strong leadership and collaborative efforts across the entire system.	*KCC, ICP, Commissioners, providers,*
The capacity for a wider range of organisations to contribute to tackling obesity needs to be assessed and mobilised. As part of a whole systems approach to obesity, tackling obesity to be incorporated into ICB and Kent County Council contracts such as, active travel, public transport, food contracts, air quality, adult and social care and more.	*ICB, HCPs KCC, Commissioners*
Examining how GP surgeries and community pharmacies can effectively deliver weight management services is essential for integrating them into the obesity management pathway.	*ICB, KCC, Commissioning*
Tackling obesity effectively requires a place-based approach that addresses the wider determinants of health	*ICP, HCPs, KCC,*

particularly in deprived communities where prevalence is often higher. Integrating health considerations into regeneration and development plans is essential. Strong collaboration between public health and planning teams across Kent will help create healthier environments that promote wellbeing. Sustainable behaviour change also requires a multi-layered approach. Interventions should target both conscious decision-making and non-conscious influences, ensuring equitable impact across communities. Providing personalised risk profiles, for example, requires conscious effort to influence smoking and eating behaviour. The impact of communicating genetic risks of disease on risk-reducing health behaviour: systematic review with meta-analysis | The BMJ By contrast, changing the context or choice architecture within which a behaviour occurs; for example, by increasing the proportion of healthier foods offered, Impact of increasing the proportion of healthier foods available on energy purchased in worksite cafeterias: A stepped wedge randomized controlled pilot trial - PubMed requires less conscious effort by an individual to make healthier decisions. Conscious processes generally make higher demands on people's cognitive, social, and material resources. These resources are not evenly distributed across society, so interventions that rely on them can widen health inequalities.	*Districts and Borough councils, Planning*
Evidence states that policies that solely target individuals will be insufficient and that increasing the number of these types of interventions alone will not be enough to reverse the obesity trend. A considerable and effective population level approach to obesity prevention is needed.	*ICP, HCPs, KCC, Commissioners, Providers*

1. Introduction

1.1 Purpose of the Obesity Needs Assessment

The last Health Needs Assessment in Kent was published in 2015. Another one was written in 2020 but remained unpublished. Given the current challenges and emerging opportunities for healthy weight in Kent, it is crucial to complete the Health Needs Assessment (HNA). This assessment will accurately present the current state of adult obesity in Kent, identify high-risk groups and their associated needs, analyse obesity data and evidence to identify unmet needs and gaps in service provision or wider support for a specific population. The HNA will also make recommendations for improvement. It will highlight the evidence base, including any NICE guidance and

recommendations for care pathways for obesity. The HNA aims to critically analyse available evidence on the effectiveness of obesity interventions and inform commissioning intentions for adults regarding the prevention, identification, and treatment of obesity. Local and national quantitative and qualitative evidence will be analysed to inform a strategic and whole systems approach to address the increasing prevalence of overweight and obesity in Kent adults within a context of various public health needs and priorities, along with reducing budgets. It will provide recommendations for action, including future considerations for commissioners, policymakers, service providers, partnerships, and future strategies for what happens next. This HNA will be shared across the system, including commissioning, service providers, NHS Kent and Medway Integrated Care Board, Whole System healthy weight network, and relevant internal and external stakeholders.

1.2 Outcomes from Previous Needs Assessment

The previous adult obesity needs assessment (2015) identified several key areas for improvement and made some recommendations, some of which have been implemented while a few identified gaps persist. Priorities such as tackling health inequalities and management of long-term health conditions were identified as the drivers for obesity and a need for an integrated commissioning model. There is increasing demand and service pressure due to more people with severe and complex obesity coupled with dwindling public health funding. Therefore, the mobilisation of existing resources and assets to tackle obesity through the organised efforts of society was recommended. The need to roll out health and social care training programmes to be well-placed to provide obesity interventions to their clients was highlighted. Another recommendation made in the previous HNA was to ensure better data sharing across the system enables more robust measurement of outcomes and informs the commissioning of effective interventions based on more accurate calculations of return on investment. We will require new information, new ways of addressing these issues, and other needs that this new HNA will identify and make recommendations for relevant obesity partners.

1.3 Scope of the HNA

The focus of this HNA is on adult excess weight, incorporating the wider concept, such as the Whole Systems Approach to obesity. It is important to note that this HNA will not include underweight, maternal and childhood obesity as recent assessments have already covered those groups. The report will provide a comprehensive description of health needs relating to excess weight among Kent adult population. The adult obesity HNA is set to answer the following questions:

1. What is the current adult obesity picture in Kent, what is the obesity trend, and how is Kent doing compared to regional, national, and similar geographical areas?
2. What are the current obesity services, including community assets in Kent?

3. What is the available evidence on preventing and managing obesity, and are there any unmet needs and gaps in the service provision?
4. What recommendations and action plans should be made to promote healthy weight and weight management in Kent?

1.4 National Strategies and Policies for tackling excess weight among adults.

In England, tackling obesity is a top priority for the government. Various strategies have been developed over the years to tackle obesity since it was first recognised as a public health issue in 1991. In 2020, the government published an obesity strategy Tackling obesity: empowering adults and children to live healthier lives - GOV.UK (www.gov.uk) with a focus on making healthy choices the easiest choices, while also providing support for individuals to lose weight. The strategy is committed to legislate to end the advertisement of foods high in fat, salt or sugar, by restricting volume promotions such as “buy one get one free”, and the placement of these foods in locations intended to encourage purchasing, both online and in physical stores in England.[3]

The NHS Long Term Plan » The NHS Long Term Plan in Chapter 2: More NHS action on prevention and health inequalities set out Key commitments for action that the NHS will take to improve prevention, including tackling obesity. Under this section, what the NHS will do to tackle obesity was outlined, focusing specifically on providing a targeted support offer and access to weight management services in primary care for people with a diagnosis of type 2 diabetes or hypertension with a BMI of 30 and above[4]

The Foresight Report highlights the complexity of obesity as shown in the Obesity System Map.[5] In response, the **Making Obesity Everyone’s Business report** was published, emphasising the need for a Whole Systems Approach to address obesity by local authorities. [6] The guidance for the Whole Systems Approach to Obesity, published in 2019 by Public Health England and Leeds Beckett University[7] , encourages a shift from short-term individual interventions to a longer-term approach involving all partners across the system in addressing obesity.

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[3] House of Commons Library (2023) Available at: Obesity policy in England - House of Commons Library (parliament.uk). (Accessed 18 August 2024).

[4] NHS (2019) The NHS Long Term Plan. Available at: NHS Long Term Plan » The NHS Long Term Plan (Accessed September 2024).

[5] Foresight Tackling Obesities: Future Choices – Obesities System Atlas https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/295153/ 07-1177-obesity-system-atlas.pdf [Accessed 26 November 2019]

[6] Local Government Association. Making obesity everybody’s business: a whole systems approach to obesity. Local Government Association: London, UK. 2017.

[7] Public Health England (PHE). Whole systems approach to obesity: a guide to support local approaches to promoting a healthy weight. 2019 [Online]. https://www.gov.uk/government/publications/whole-systems-approach-to-obesity

The Whole System Approach to Obesity Programme (WSO) was commissioned in Kent in 2020 and rolled out across four Health and Care partnerships (Dartford, Gravesham and Swanley, Swale, East and West Kent (HCPs). The complete report on the Kent WSO programme will be available in section 9 of this HNA.

1.5 Local Strategies and Policies for tackling excess weight among adults

In Kent, tackling obesity is linked to the Council strategy 2022-2026 Framing Kent's Future - Kent County Council. Tackling obesity supports the Council to achieve the priorities set out in Securing Kents Future, by contributing to the achievement of public health outcomes in deprived communities, improving the health of Kent's population and narrowing health inequalities and preventing people from getting long term health conditions associated with obesity which increases demands and costs in Health and Social care.

In addition, many partners have identified helping people maintain a healthy weight, improve their diets and physical activity levels as priority in their strategic plans. The Kent and Medway Integrated Care Strategy focuses on reducing excess weight among adults Kent and Medway Integrated Care Strategy (kmhealthandcare.uk) and included as part of the priority area of the ICS Inequalities, Prevention, and Population Health group and included in the ICS delivery plan. Recently, partners from the ICB and KCC have jointly developed an adult weight strategic action plan aiming to create a more seamless pathway for flow across the tiers. The Active Kent and Medway Move Together strategy aims to promote collaborative working across the systems to increase physical activity levels among the residents of Kent: Move Together - ActiveKent

1.6 Language and weight stigma

This Health Needs Assessment recognises that weight stigma exists in various sectors of society, including health and social care. It is counterproductive and can negatively impact public health. Weight stigma refers to discriminatory actions founded on weight bias, and can include verbal taunts, microaggressions such as eye-rolling and tutting, and physical acts of violence.[8] Weight stigma, bias, and discrimination can be found across different forms of communication and can hurt people across the weight spectrum.[9] Misuse of language can harm individuals' mental health, community attitudes, self-esteem, morale and motivation for seeking treatment.

[8] Bednarek, M., Bray, C., Vanichkina, D.P., Brookes, G., Bonfiglioli, C., Coltman-Patel, T., Lee, K. and Baker, P., 2023. Weight stigma: towards a language-informed analytical framework. Applied Linguistics, p.amad033.

[9] Food Active. (2021) Weight Stigma Resource Hub. Available at: Food Active | Weight Stigma Resource Hub

When discussing healthy weight, it is essential that the narrative remains person-centred and that an individual's body size does not influence how they are treated. To ensure that this report adheres to person-centred language and avoids stigmatisation, where possible, "obesity" and "overweight" will be referred to as "excess weight," and will adhere to person-centred language free from individual blame and stigmatisation. However, when referring to data, the terms "overweight" and "obesity" may be used.

1.7 Defining Excess Weight

People whose weight is higher than what is considered healthy for their height are described as having excess weight. This HNA will use excess weight to illustrate overweight and obesity which are defined by the WHO[10] as excessive or abnormal fat accumulation that may impair health when localised in the intra-visceral and abdominal area.

There are various methods of measuring excess weight however, Body Mass Index (BMI) is considered the most used. Obesity is generally categorised in terms of Body Mass Index (BMI) which is calculated as a person's weight in kilograms divided by the square of the person's height in metres (kg/m2). The NICE classification of adults overweight and obesity based on different BMI cut-offs[11] are shown in table 1 below.

Table 1.1: Adult body mass index classification

BMI Range	BMI Category
Less than 18.5kg/m^2	Underweight
18.5 to <25kg/m^2	Healthy weight
25 to <30kg/m^2	Overweight
30kg/m^2 or more	Obesity
40kg/m^2 or more	Severe obesity

Source: Obesity: identification, assessment and management | Guidance | NICE

People with a South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean family background are prone to central adiposity and their

[10] Obesity (who.int)
[11] Recommendations | Obesity: identification, assessment and management | Guidance | NICE

cardiometabolic risk occurs at a lower BMI. Therefore, NICE [12] recommend using lower BMI thresholds as a practical measure of overweight and obesity for these ethnic minority background. The Classification of overweight and obesity according to the BMI categories in adults from of South Asian, Chinese, other Asian, Middle Eastern, Black African or African- Caribbean family background are shown in Table 1.2 below:

Table 1.2: Classification of overweight and obesity categories in adults from South Asian, Chinese, other Asian, Middle Eastern, Black African or African- Caribbean family background.

Classification	Body Mass Index Range (kg/m^2)
Healthy weight	18.5 - 22.9
Overweight	23 - 27.4
Obesity	27.5 or above

Obesity II and III are usually identified by reducing the thresholds in table 1.1 by 2.5 kg/m^2.

Although BMI is commonly used to measure excess weight, in most adults, NICE[4] recommend that BMI interpretation should be treated with caution in adults with high muscle mass because it may be a less accurate measure of central adiposity in this group.
Additionally, BMI interpretation in people aged 65 and over should be treated with caution by taking into account comorbidities, conditions that may affect functional capacity and the possible protective effect of having a slightly higher BMI when older.

NICE[4] suggests measuring degree of central adiposity based on waist-to-height ratio (WHtR) as more accurate indicator for estimating the health risks[5]. The WHtR is calculated by measuring waist circumference and height in the same units (either both in centimetres
or both in inches). If you know your height in feet and inches, convert it to inches (for example, 5 feet 7 inches is 67 inches). The classification of central adiposity based on WHtR and health risk is shown in Table 1.3 below:

Table 1.3: Classification of central adiposity based on waist-to-height ratio and health risk

Central adiposity	Waist-to-height ratio	Health Risk
Healthy central adiposity	0.4 - 0.49	No increased health risks

[12] Obesity: identification, assessment and management (nice.org.uk)

Increased central adiposity	0.5 - 0.59	Increased health risks
High central adiposity	0.6 or more	Further increased health risks.

The health risks associated with higher levels of central adiposity include type 2 diabetes, hypertension and cardiovascular disease.

Chapter Summary

The Obesity Needs Assessment (HNA) for Kent aims to provide a comprehensive and up-to-date evaluation of adult obesity. This chapter sets the foundation for understanding the complexities of adult obesity in Kent and outlines the need for a strategic, coordinated approach to tackling the issue.

Recommendations:

1. Consider developing an integrated obesity strategy along with a comprehensive action plan that outlines the responsibilities of various partners within the system. Encourage anchor institutions to significantly commit to addressing obesity.
2. Train general practitioners (GPs) and other healthcare professionals to proactively identify and support patients with obesity. Use accurate indicators to estimate health risks and recognize that lower BMI thresholds may be relevant for specific groups, including individuals from Black and Asian backgrounds and those over the age of 65.
3. Health and social care staff and weight management to offer non-stigmatising care to people living with obesity. Additionally, increase public awareness of weight stigma and its negative effects on efforts to combat obesity.

2. Methodology

A thorough search of current literature was carried out to produce this HNA. The UKHSA Knowledge and Library Services and the Kent Public Health Observatory Team provided the obesity related data. Both qualitative and quantitative data from credible sources were evaluated and discussed. To generate a balanced perspective of the adult obesity in Kent topic, this HNA has used a wide variety of sources to encompass a range of perspectives seen below:

- Community perspective through engagement reports, for example, Activ.Mob and the public health service transformation insights reports.
- Corporate perspective through the Framing Kent's Future Council Strategy, One You Kent Service Review and the Kent and Medway Integrated Care Strategy.

- Wider national perspective using epidemiological data from Fingertips (OHID), The Active Lives Survey (Sport England), Quality Outcomes Framework (NHS) and multiple epidemiological studies.

Using a wide variety of sources and types of evidence is a key strength of the methods used within this HNA. There are some weaknesses in the methods used. For instance, the evidence reflecting the perspectives of service users relies on secondary data. Activ Mob was commissioned to gather insights on weight management among individuals taking medications that increase the risk of obesity, as well as among ethnic minorities and post-menopausal women. Another insight from service users, as part of the public health transformation programme, were also included to represent people's voices in this HNA. To save time and costs, these two reports were utilised to reflect the perspectives of the community in this report.
While these insights can be classified as secondary data, they still provide relevant perspectives on excess weight and weight management. However, since the data were not collected specifically for this HNA, it may affect the specificity of the findings. Additionally, there is a time lag between the data collection and the reporting of these findings in this HNA, which could impact the accuracy of the data in reflecting current trends.

3. Current Adult Obesity Picture

This section presents an overview of both national and local indicators of excess weight.

It is important to note that while anyone can develop excess weight, certain groups of people are at higher risk. This includes individuals living with disabilities and mental illnesses, people in deprived neighbourhoods, and Black, Asian, and other minority ethnic groups, who may have an increased risk of comorbidities at lower BMI levels.

Health inequalities exist between groups across different, often overlapping dimensions, including deprivation, geography, protected characteristics, and inclusion health groups (any population group that is socially excluded)[13]. Obesity is associated with health inequalities. It is important to note that while no one is immune to excess weight, some people are at higher risk and have an increased risk of comorbidities at lower BMI classifications. Some local health inequalities obesity data are unavailable; below are the available obesity indicators in Kent.

[13] NICE (2023) Health inequalities briefing Obesity and weight management: a briefing for NICE guideline developers and committee members. Available at: health-inequalities-briefing-2 (nice.org.uk). Accessed 28 August 2024).

3.1 National Excess weight prevalence

The Health Survey for England provides data on the prevalence of obesity in adults (18 years and above) at a national level. It uses self-reported height and weight from the adjusted Active Lives Adult Survey to calculate body mass index (BMI). Some of the key obesity indicators such as age, gender, ethnicity and deprivation are only available at a national level.

- In 2023/24, 64.5% of adults aged 18 and over were overweight or obese, similar to the previous year (64%), with a steady increase from 61.2% in 2016[14].
- The rate of adults living with obesity was 26.5% in 2023/24, almost similar to the previous year (26.2%), with a steady increase from 22.6% in 2016[15].
- The growing number of people living with obesity, combined with related health issues and demographic shifting the aging population, emphasises the urgent need for population targeted interventions.

3.1.2 Excess weight, Age and Gender

- In 2023/24 the prevalence of overweight (including obesity) increases with age up to age 64, reaching its peak in the 55- to 64-year-old group (73.5%), and then decreases in the 65- to 74-year-old and older groups. There is a similar pattern for obesity prevalence which peaks at 32.5% in the 55- to 64-year-old group[16].

- The prevalence of overweight (including obesity) is consistently higher in males than females. Male prevalence was 12.7 percentage points higher than female prevalence in 2015/6 and 10.5 percentage points higher in 2023/24 [17].

- Obesity was higher in males than females until 2020/21[18]. Figure 1 illustrates the prevalence of obesity by gender between 2015/16 – 2023/24.

[14] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[15] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[16] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[17] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[18] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care

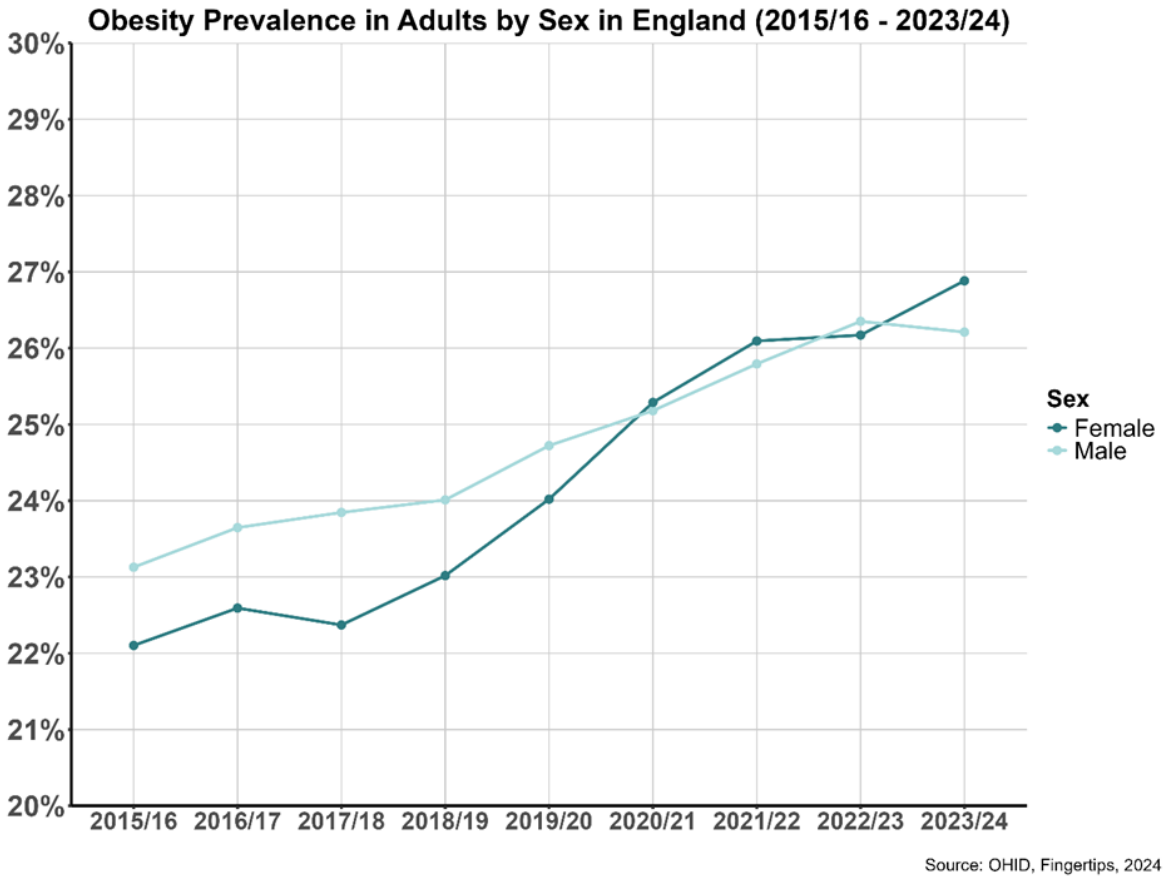

Figure 1: Prevalence of adult obesity by gender between 2015/16 – 2023/24 (Using self-reported height and weight).

3.1.3 Excess weight, Ethnicity and Deprivation

There is a strong association between deprivation, ethnicity and excess weight.

- The prevalence of overweight (including obesity) and obesity in adults remains highest amongst those who identified as Black (73.4% and 33.1% respectively) or White British (65.7% and 27.8% respectively) [19].
- In 2023/24, in the most deprived 10% of the England population, overweight (including obesity) prevalence was 71.2% and obesity prevalence was 37.4%[20].
- The gap in obesity rates between women from the most and least deprived areas was 17%, while for men the deprivation gap was 8%[21] .

[19] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[20] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[21] New analysis reveals stark inequalities in obesity rates across England | The King's Fund

Figures 2a and 2b show that nationally, the prevalence of overweight (including obesity), is highest in those living in the most deprived areas and lowest in those living in the least deprived areas.

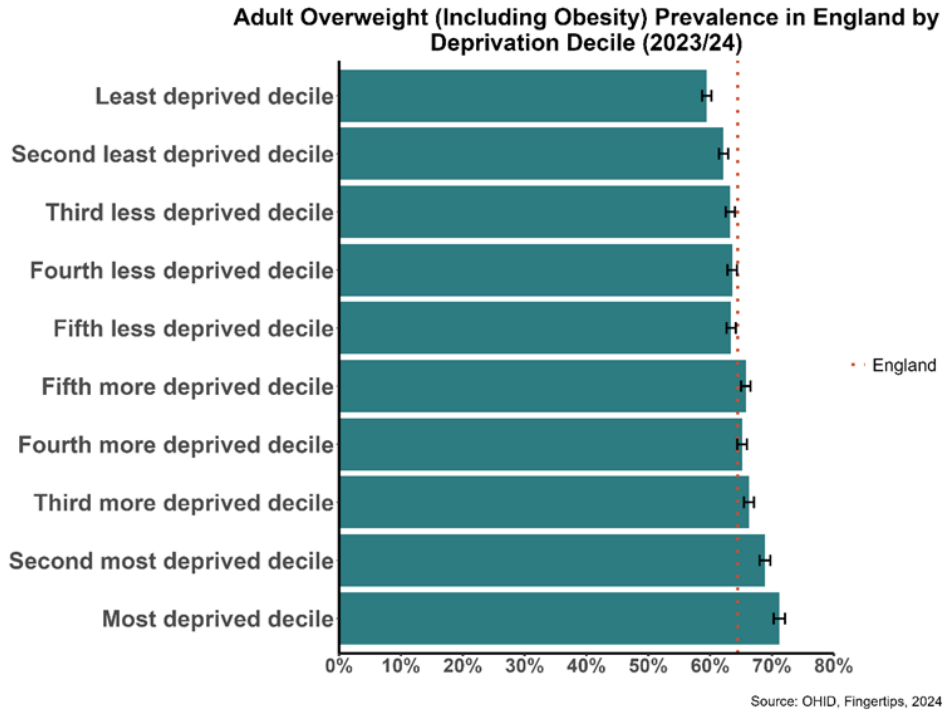

Figure 2a: Prevalence of overweight and obesity by IMD decile, England, 2023/24.

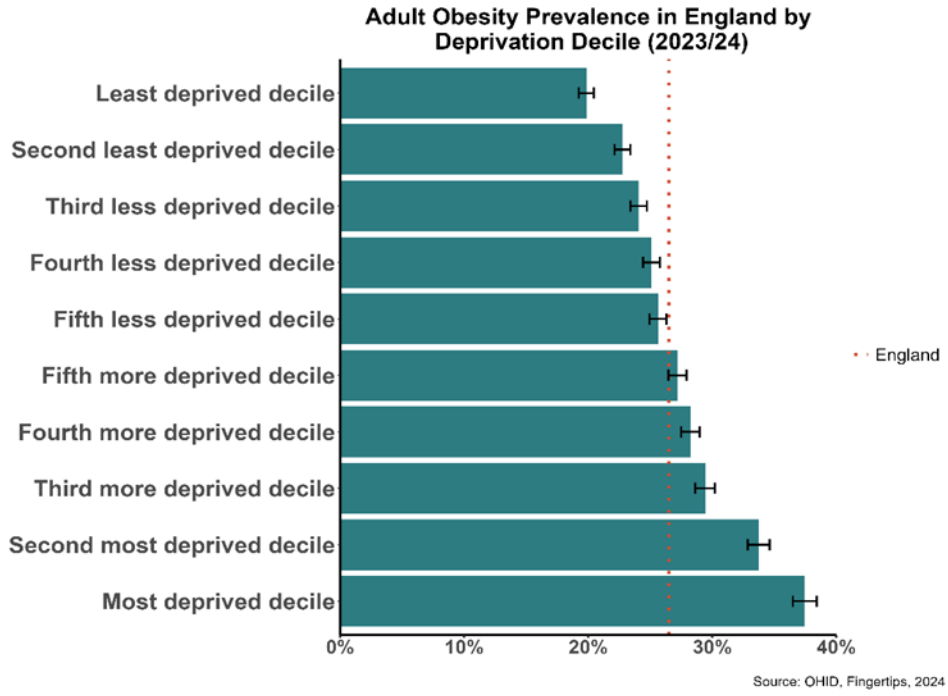

Figure 2b: Prevalence of obesity by IMD decile, England, 2023/24.

3.1.4 Excess weight, education and disability

- The prevalence of adults living with overweight (including obesity) was highest in those with no education qualification (69.4%) and lowest in those with level 4 and above qualification (60.9%) in 2023/24.[22] The prevalence of adults living with obesity was also highest in those with no education qualification (35.9%) and lowest in those with level 4 and above qualification (21.9%) in 2023/24.[23]

- The prevalence of overweight (including obesity) was 72.5% among those with disabilities compared with 62.2% for people with no disabilities in 2022/23. Obesity prevalence was also higher among those with disabilities (40.6%) compared to those with no disabilities (22.3%).[24]

3.1.5 Physical activity and inactivity in adults (aged 19 years and over)

Regular physical activity is a key contributor to energy balance and helps prevent excess weight. Being physically active means doing at least 150 moderate intensity equivalent (MIE) minutes of physical activity per week while doing less than 30 MIE minutes per week is classified as physically inactive.

- In 2023/24, 67.4% of adults were physically active nationally. This is similar to 2021/22 (67.3%) and the pre-pandemic level in 2018/19 (67.2%), but higher than 2015/16 (66.1%)[25].
- The proportion of adults who were physically inactive was 22% in 2023/24, which is similar to 2022/23 (22.6%) and 2015/16 (22.3%) [26].
- In England, women are less likely to be physically active than men (64.9% compared to 70.1%) and are more likely than men to be inactive (23.2% compared to 20.5%) [27].
- The proportion of physically active adults is highest in the 19 to 24 age group (72.6%). Rates are similar across all age groups between ages 25 and 74. Rates in the 75-84 and 85+ age groups are significantly lower, 56.2% and 32.4% respectively.
- Figure 3 shows that the proportion of physically inactive adults is highest in the 75 to 84 (31.6%) and 85 and over (54.4%) age groups and much lower among adults aged between 19 and 64, where the range is from 18.0% to 20.8%.[28]

[22] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[23] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[24] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[25] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[26] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[27] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[28] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care

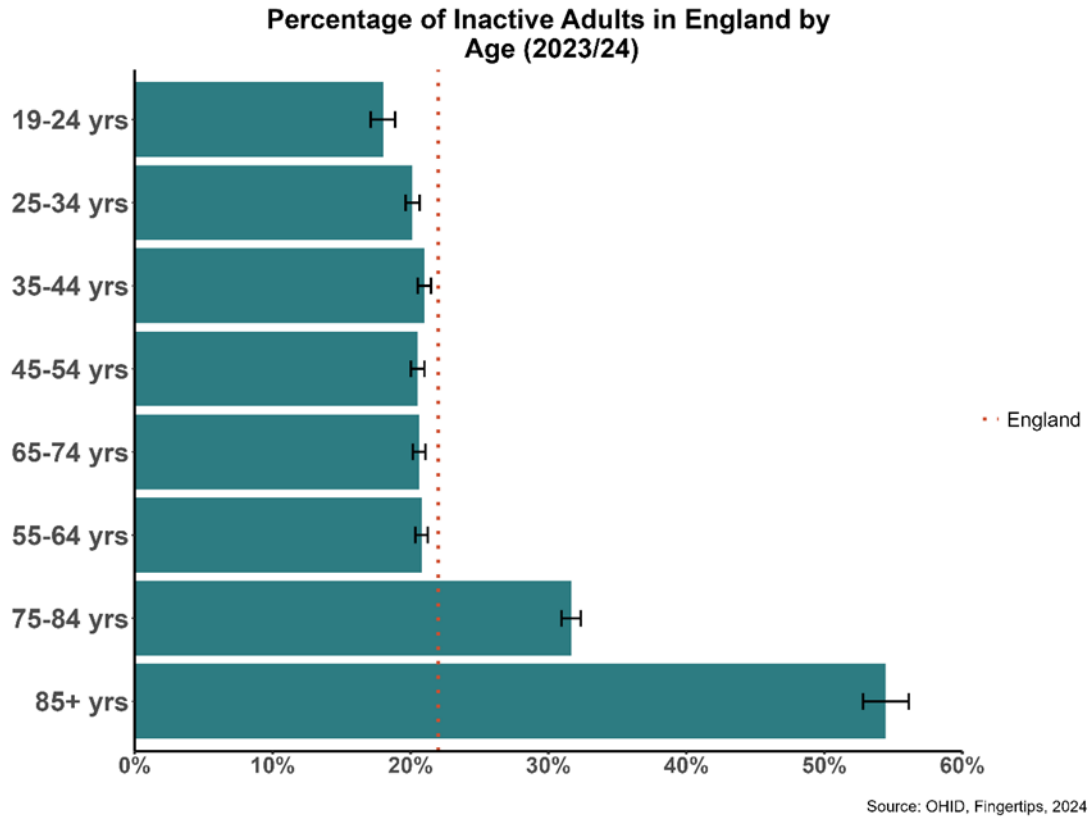

Figure 3. Percentage of physically inactive adults by age, England, 2023/24

3.1.6 Eating at least 5 portions of fruit and vegetables a day among adults (aged 16 years and over)

Consuming a variety of fruits and vegetables as part of a balanced diet is essential for maintaining good health. Evidence shows that eating at least 5 portions of fruits and vegetables daily has significant health benefits including healthy weight. Understanding data, trends, and patterns enable us to make the case for national and local initiatives aimed at creating environments that promote health.

- In England, the percentage of adults reporting that they had eaten at least 5 portions of fruits and vegetables per day was 31.3% in 2023/24. This was lower than the 32.5% reported in 2021/22, and significantly less than the 34.9% in 2020/21. Figure 4 illustrates the percentage of adults eating at least 5 portions of fruit and vegetables a day, by sex.

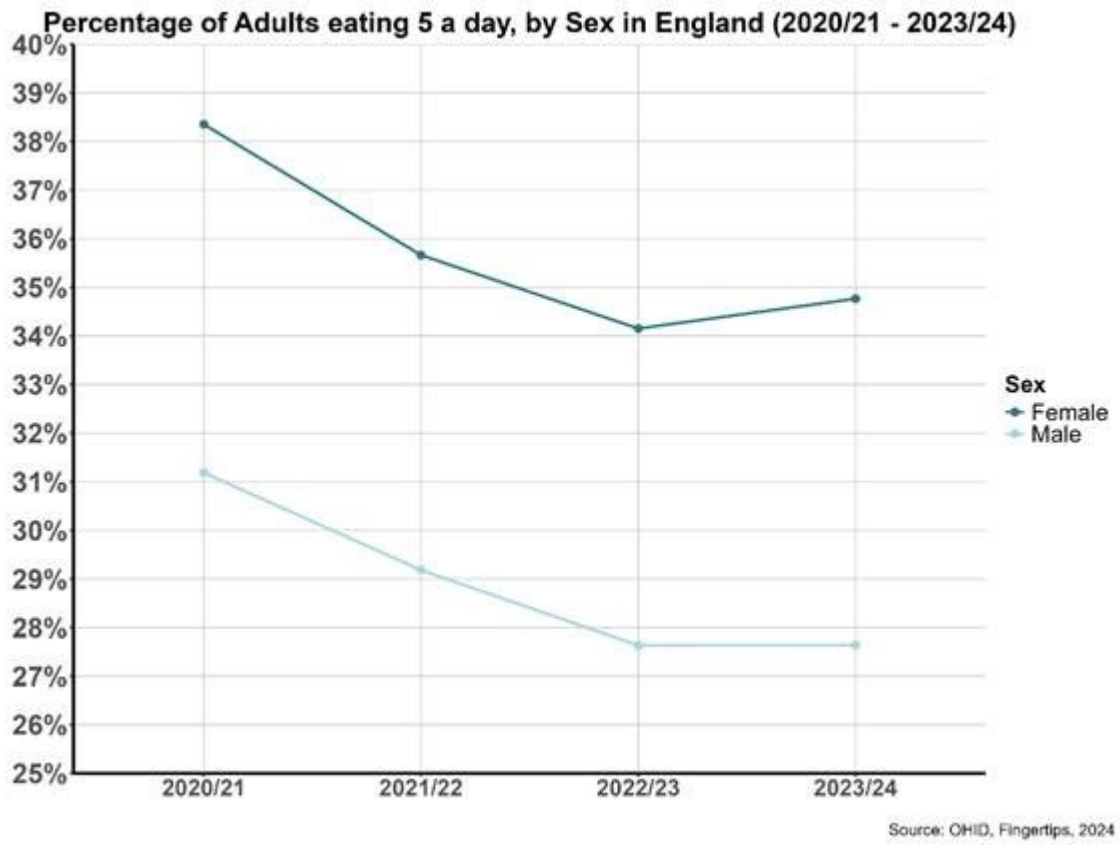

Figure 4: Percentage of adults eating at least 5 portions of fruit and vegetables a day, by sex in England. (for the period 2020-2024)

3.2 The Local Picture – Kent Excess weight prevalence

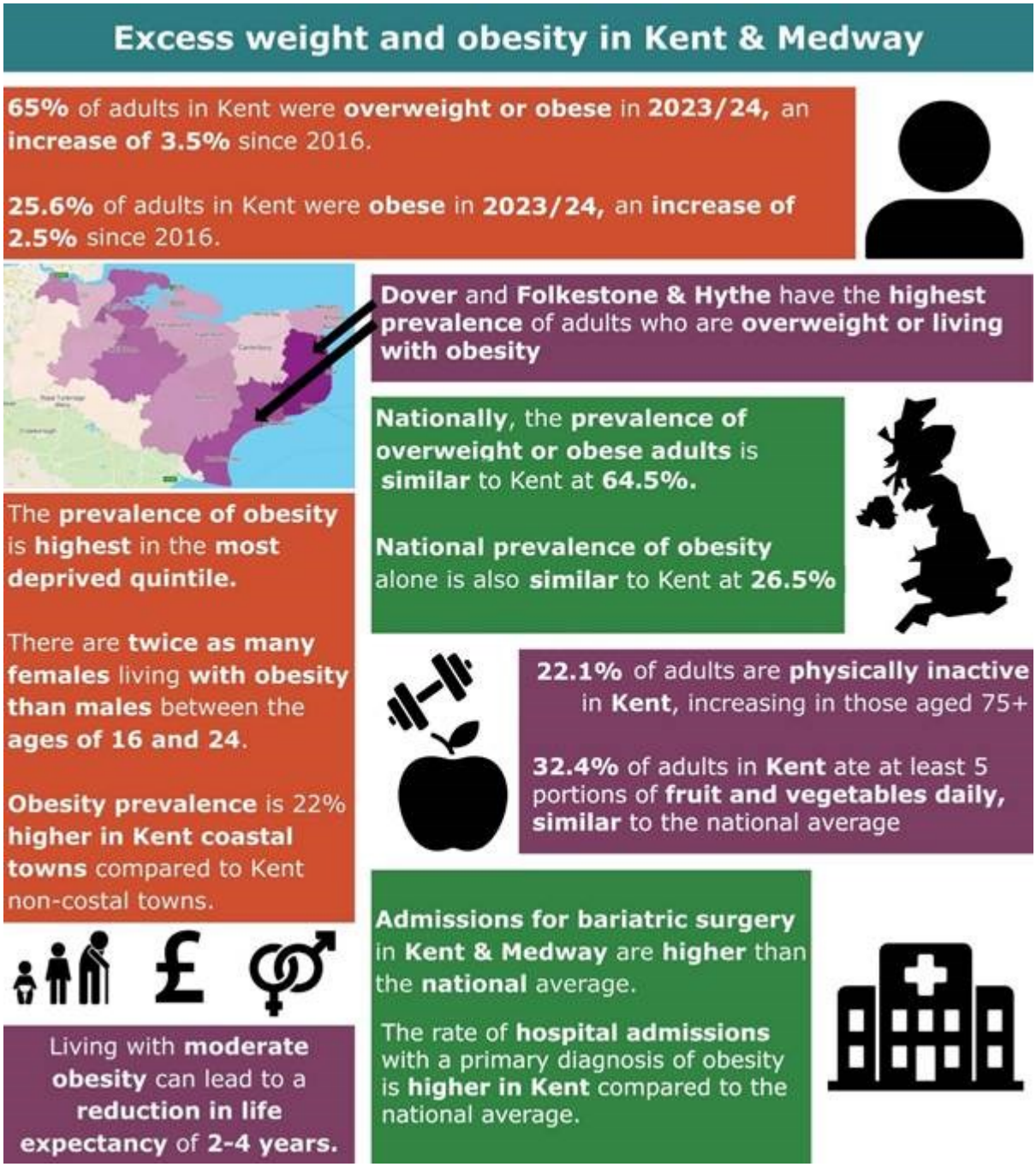

Figure 5. Excess weight and obesity prevalence infographic

The Public Health Outcomes Framework includes an indicator for excess weight (overweight and obesity combined) at a local level using age-standardised and adjusted self-reported height and weight in those aged 18 and over, this is derived from the Sport England Active Lives Survey.

- The percentage of Kent adults (18+) classified as overweight or having obesity was 64.8% in 2023/24, similar to the England average (64.5%) and the South East regional average (63.2%) [29].
- The percentage of Kent adults (18+) classified as having obesity was 25.6% in 2023/24, similar to the England average (26.5%) and the South East regional average (24.6%). Both Kent and England have shown a steady increase since 2016 [30].
- Obesity prevalence in Kent has increased year-on-year since 2015/16 apart from 2022/23 to 2023/24 when it dropped from 27.8% to 25.6% [31]. However, obesity prevalence is a survey estimate with a degree of statistical uncertainty meaning this drop in prevalence should be interpreted with caution. Figure 6 shows the proportion of people in Kent and England who are classed as having obesity in the past 5 years.

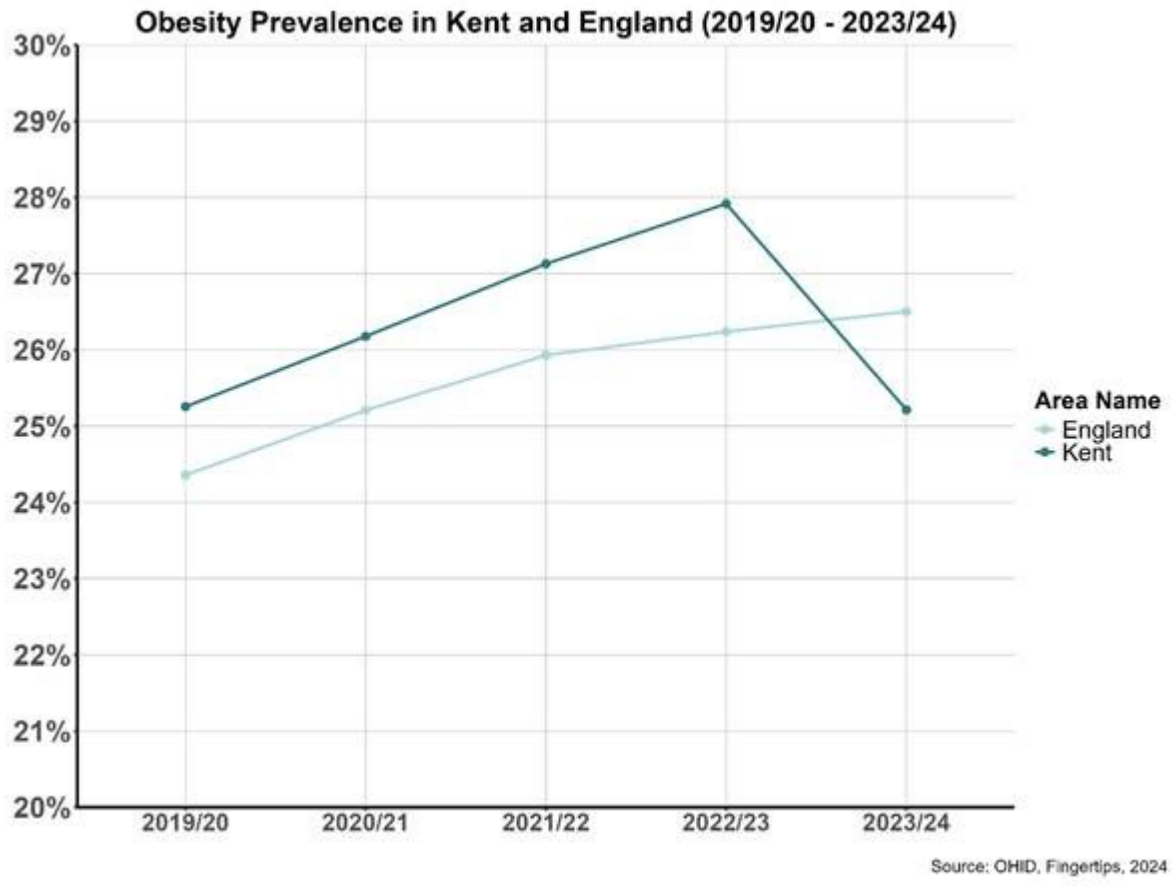

Figure 6: Proportion of people in Kent and England who are classed as having obesity, 2019/20-2023/24

[29] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[30] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care
[31] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care

The Quality & Outcomes Framework (QOF) includes an indicator for obesity as recorded in general practice disease registers in those aged 18 and over. The QOF estimates are based on general practice identification and diagnosis of individuals and rely on accurate and up-to-date GP records, which may not include those not registered with the GP. In addition, the QOF data is likely to be skewed as obesity is often only recorded for those with long-term conditions, so the actual prevalence of obesity is likely to be higher than reported.

- In 2023/24, within the 1,588,084 registered population in the general practices across Kent and Medway ICB, 12.6% was recorded as the prevalence of obesity [32].
- Prevalence in Kent and Medway is similar to the national average but higher than the South East regional average (11.4%)[33].

3.2.1 Excess weight in Kent compared to its nearest statistical neighbours

The Public Health Outcomes Framework indicator for excess weight (overweight and obesity) has been compared to the Chartered Institute of Public Finance and Accountancy (CIPFA) nearest neighbours. These are the benchmark groups of 15 other local authorities that are closest in terms of similarity for a selection of key variables, including population demographic, socioeconomic and mortality indicators.

- Adult overweight (including obesity) prevalence and obesity prevalence in Kent has increased since 2015/16. Not all nearest neighbour local authorities show the same trend; prevalence has not reduced for any nearest neighbour local authorities but has remained stable for some[34].
- Adult overweight (including obesity) prevalence in Kent is 64.8%. Of Kent's nearest neighbour local authorities, Cheshire West and Chester has the lowest prevalence at 61.6%, while Worcestershire has the highest at 67.7%. However, prevalence in Kent is not statistically significantly different to any of its nearest neighbour local authorities. Figure 7 shows the proportion of people aged 18+ years who are classed as overweight or obese in Kent and its 'nearest neighbours' for 2023/24.

[32] Quality and Outcomes Framework, 2023-24 - NHS England Digital
[33] Quality and Outcomes Framework, 2023-24 - NHS England Digital
[34] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care

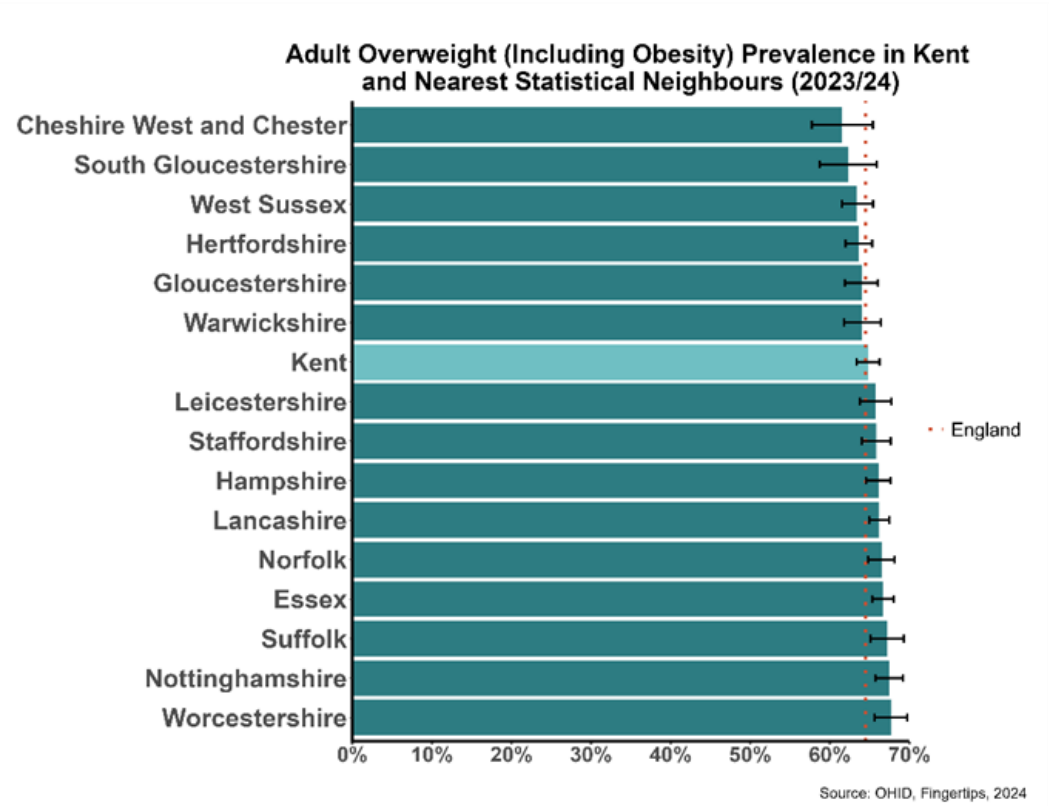

Figure 7: Proportion of adults who are classed as overweight or living with obesity in Kent and its 'nearest neighbours' (2023/24)

- Adult obesity prevalence in Kent is 25.6%. In comparison to its nearest neighbours, Kent prevalence is statistically significantly lower than Nottinghamshire, Norfolk, Worcestershire and Staffordshire. Figure 8 shows the proportion of people in Kent and its 'nearest neighbours' who are classed as obese for 2023/24.

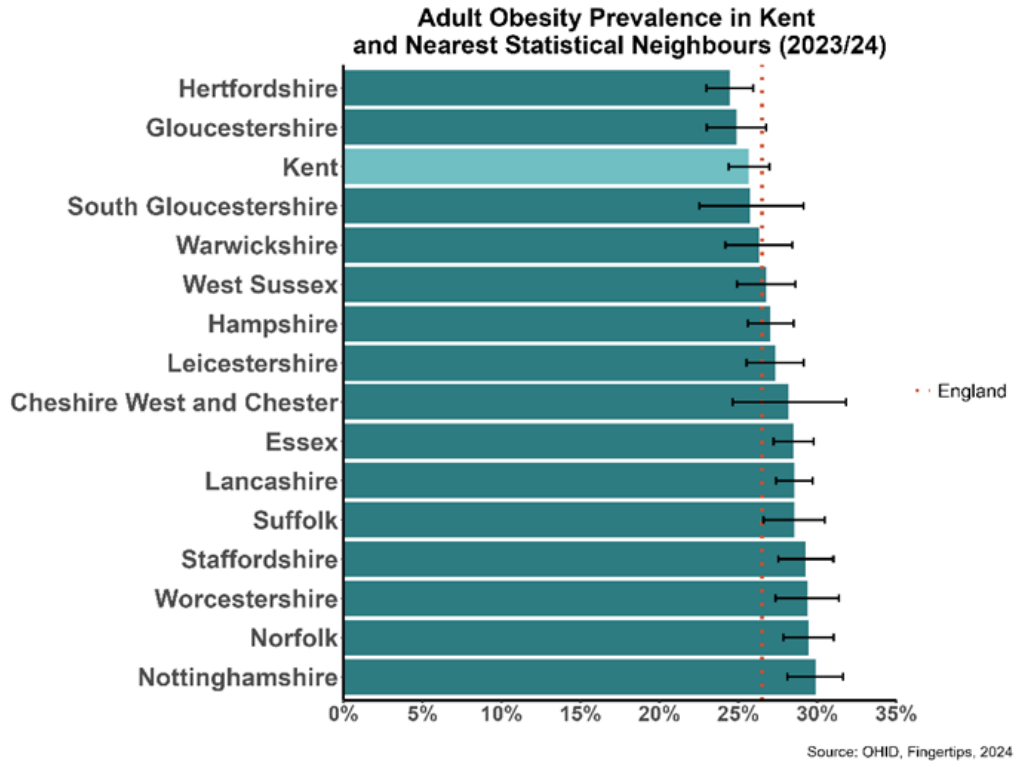

Figure 8: Proportion of people in Kent and its 'nearest neighbours' who are classed as having obesity for 2023/24.

3.2.2 Excess weight by geography in Kent

There is geographical variation in levels of obesity with populations in Kent coastal areas of particular concern. Much of the observed relationship correlates with deprivation and wider determinants.

- In 2021/2022, Obesity prevalence was 22% higher in Kent coastal towns compared to Kent non-coastal towns. To be clear, this does not mean there is an absolute gap of 22% between coastal and non-coastal towns but rather the proportion is 22% higher[35].

- The coastal effect remains after adjusting for demography and deprivation but reduces to 16%. Sheerness and Minster (Swale) had 52% and 54% respectively higher prevalence of obesity compared to non-coastal towns. At the other end of the scale, Hythe and Whitstable had 6% and 5% respectively higher prevalence of obesity compared to non-coastal towns [36].

[35] Kent County Council Annual Public Health Report 2021
[36] Kent County Council Annual Public Health Report 2021

- For 2023/24 Dover had the highest proportion of adults classified as overweight or having obesity with 71.8%, while Sevenoaks is the lowest with 58.6%, a difference of 13.2%. Figure 9 shows the proportion of adults (aged 18+) classified as overweight (including obesity) in the districts of Kent for 2023/24.

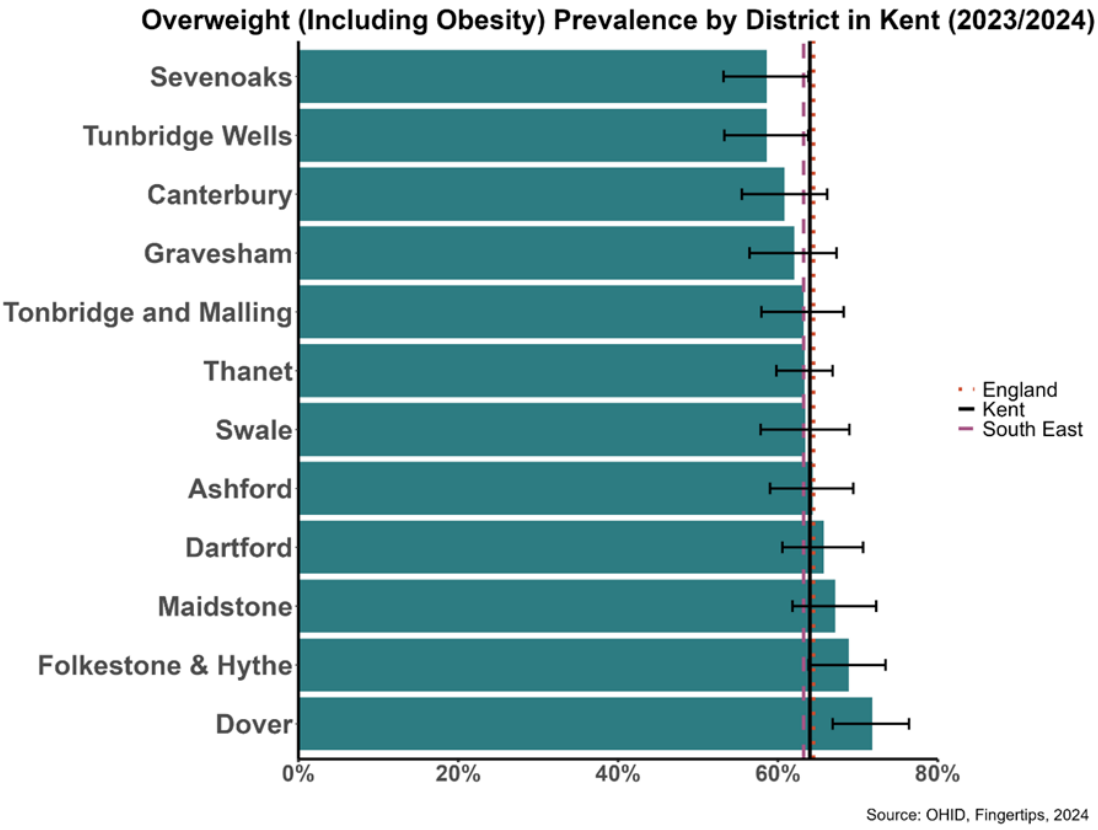

Figure 9: Proportion of adults (aged 18+) classified as overweight (including obesity) in the districts of Kent for 2023/34

- Dover has the highest proportion of adults living obesity at 32% while Tunbridge Wells has the lowest at 17.2%. Figure 10 shows the proportion of people aged 18+ who are classed as having obesity in the districts of Kent for 2023/24

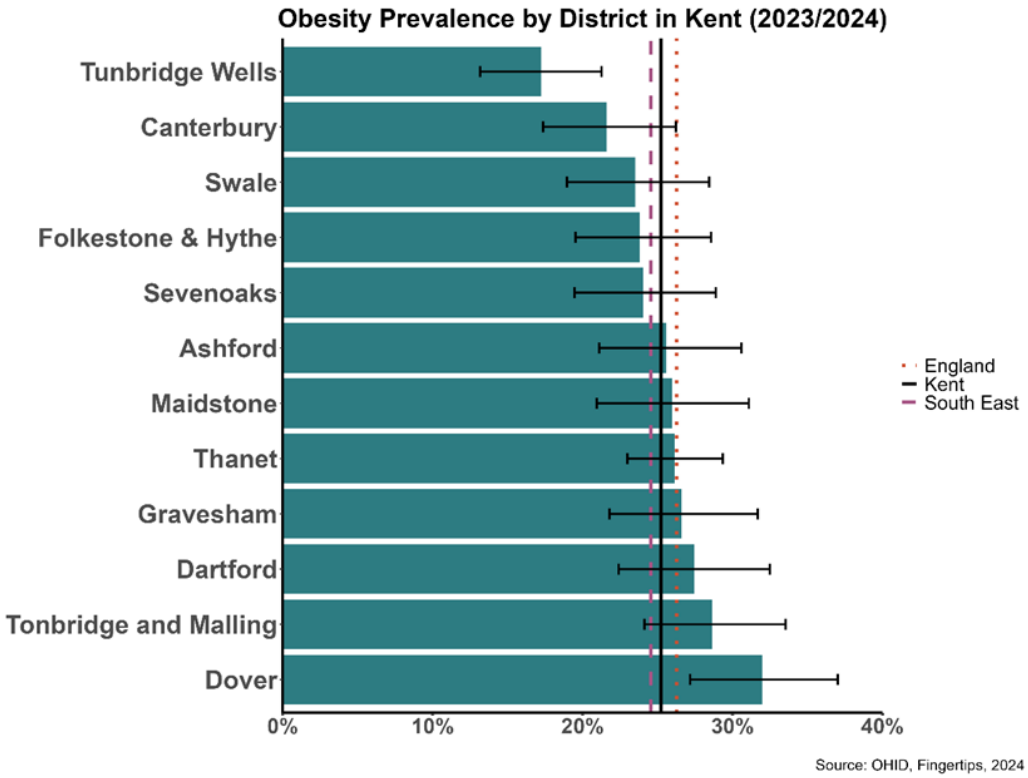

Figure 10: Proportion of adults (aged 18+) classified as obese in the districts of Kent for 2023/34

- Medway and Swale HCP have the highest GP-recorded prevalence of obesity, while West Kent HCP is below the Kent and Medway average. Figure 11 shows the GP-recorded prevalence of obesity by Kent and Medway ICB, 2023/24.

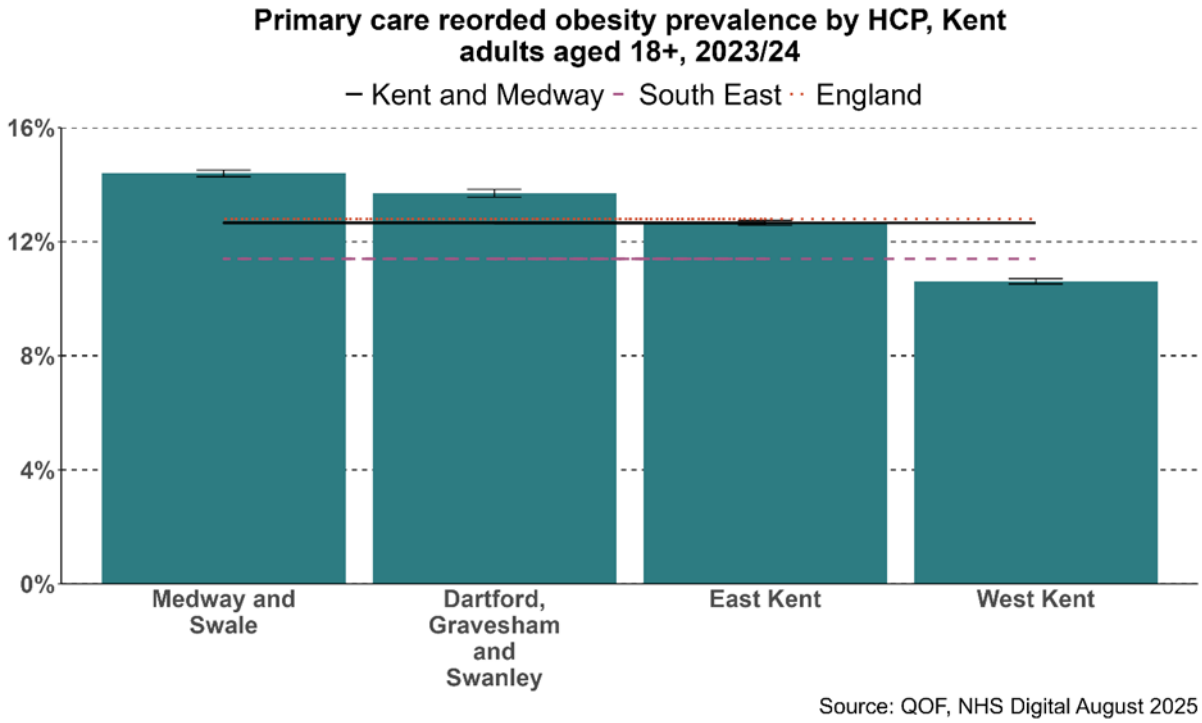

Figure 11: GP recorded prevalence of obesity, by Kent and Medway HCP, 2023/24

3.2.3 Excess weight by age and gender in Kent

- Obesity recorded in primary care does not include the population living with obesity, but it provides the opportunity to analyse characteristics of patients with obesity. Figure 12 shows that in 2023 Kent primary care records, there are twice as many females living with obesity than males between the ages of 16-24 years. This gap reduces from the ages of 25-74 where the obesity levels are relatively comparable between males and females. There is a larger difference in obesity over the age of 75 years with more females living with obesity than males[37].

[37] NHS Kent and Medway Population Segmentation Tool, 2023. Outcomes Based Healthcare Ltd. - Segmentation Dataset

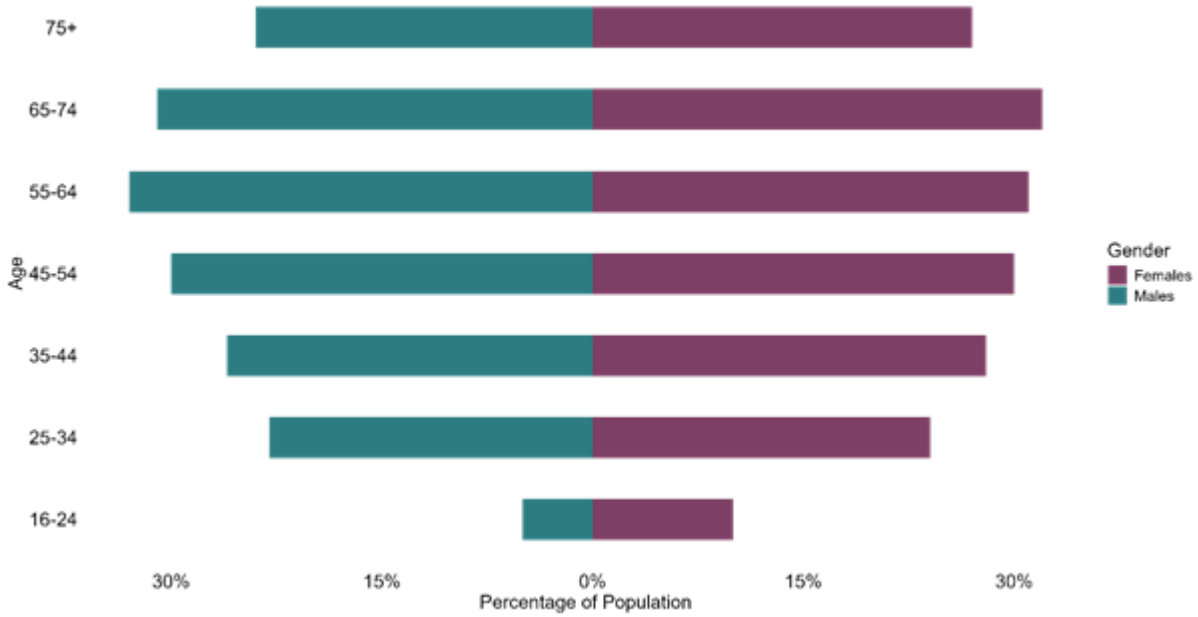

Figure 12: Percentage of adults living with obesity by Age and Gender, Kent and Medway, 2023.

3.2.4 Excess weight by ethnicity and deprivation in Kent

The relationship between obesity and ethnicity is complex, with the interplay of numerous factors affecting health among certain minority ethnic groups. The risk of excess weight is not only higher among some ethnic minority groups; they are also at the higher risks of co morbidities such as type 2 diabetes at lower BMI.

- In Kent primary care records, the highest prevalence of obesity was among those identified as Black at 22.5%, followed by White individuals at 21.1%, and the lowest prevalence was among those identified as Asian at 11.3%.[38] This is according to obesity recorded in primary care so does not reflect the entire obesity population. Those with unknown ethnicity contribute a significant proportion. However, the groups with the highest obesity prevalence in Kent (Black and White) are the same as national survey estimates suggesting that this primary care recorded data may be a good representation of the obese population. Figure 13 shows primary care recorded obesity prevalence by ethnicity in Kent in 2023.

[38] NHS Kent and Medway Population Segmentation Tool, 2023. Outcomes Based Healthcare Ltd. - Segmentation Dataset

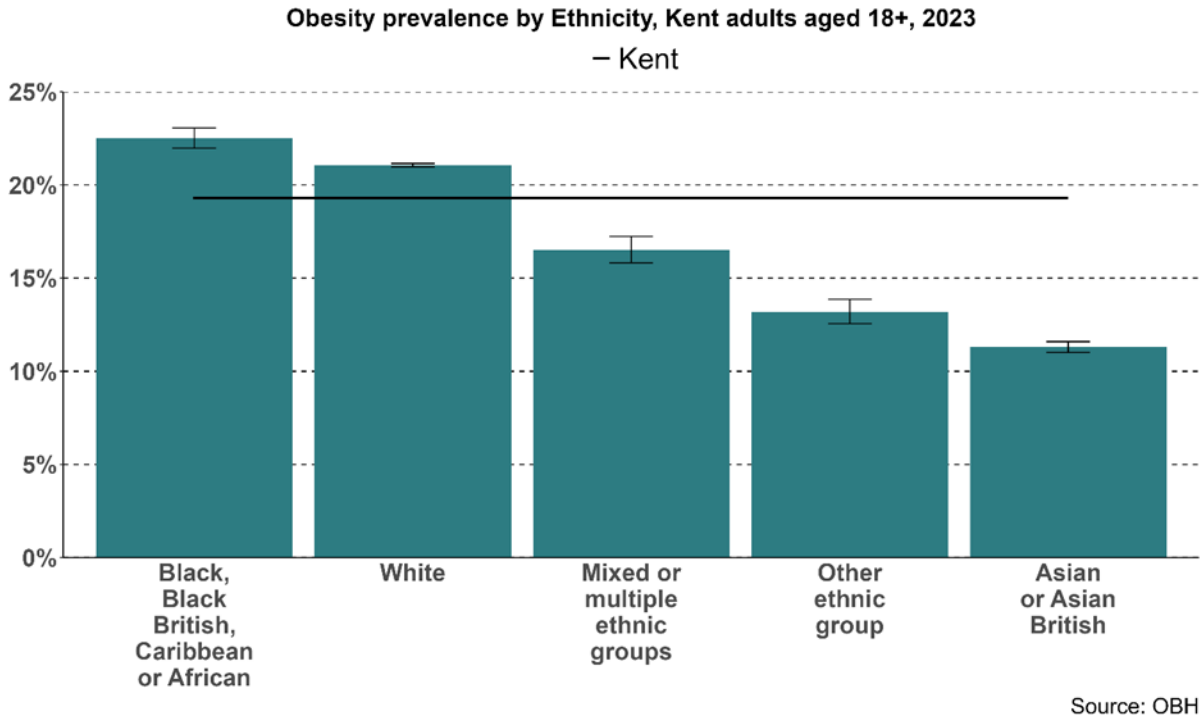

Figure 13: Obesity Prevalence by Ethnicity in Kent, 2023

There is a clear association between socio-economic deprivation and experiencing excess weight. Excess weight prevalence increases with increasing levels of deprivation, and there is a significant difference between the prevalence of excess weight in those with the highest and lowest incomes and socioeconomic groups.

- In 2023/24 in Kent, obesity prevalence was lowest among adults living in the least deprived areas (Quintile 5, 9%) and highest in the most deprived areas (Quintile 1, 14.6%). Figure 14 shows that the gap in prevalence between the most and least deprived has increased since 2019/20. It should be noted that this is according to obesity recorded in primary care so may not reflect the entire obesity prevalence.

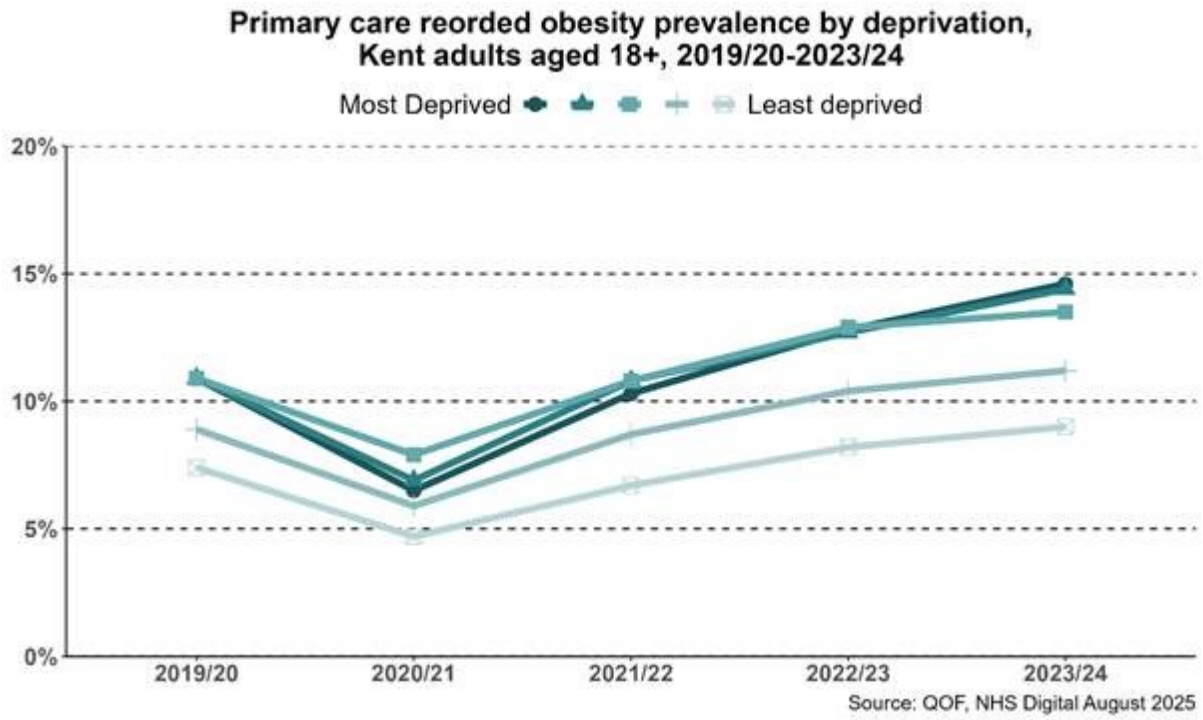

Figure 14: Percentage of adults living with obesity in each Deprivation Quintile, Kent, 2019/20 - 2023/24.

3.2.5 Physical activity and inactivity in adults (aged 18 years and over) in Kent

- Age and gender continue to be factors linked to physical inactivity. In 2021/22, 24.9% of men were physically inactive compared to 28.1% of women [39]

- Physical inactivity increases with age. 20.7% of 16–24-year-olds were physically inactive in 2021/22 compared to 52.1% of those aged 75.[40]

Figure 15 shows areas in the 10% most deprived where areas of high physical inactivity overlap. The Isle of Sheppey in the district of Swale, and areas around the towns of Gravesend, Sittingbourne and Margate have the highest levels of physical inactivity and deprivation combined.

[39] Fingertips | Department of Health and Social Care
[40] Fingertips | Department of Health and Social Care

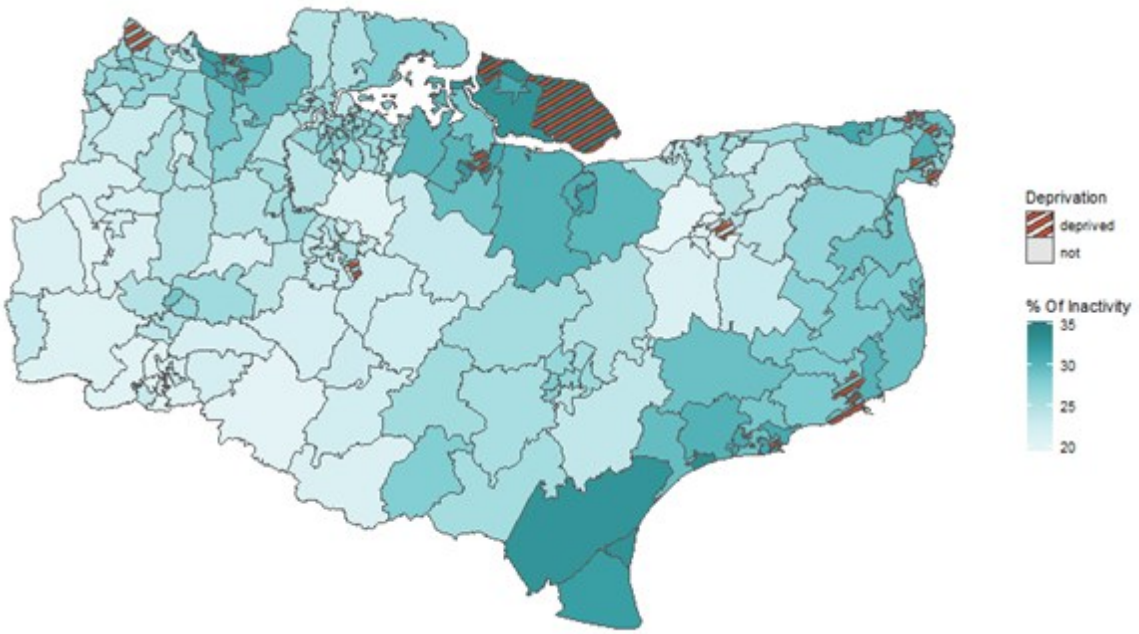

Figure 15: Inactivity Rates Across Kent and Medway MSOAs with Top 10% Deprivation Highlighted, Active Lives Survey, 2021/22.

The National Statistics Socio-economic Classification System (NS-SEC) shown in Table X below was used in official statistics and surveys to provide a detailed analysis of the socio-economic structure of the UK (ONS, 2022).

Table X. National Statistics Socio-economic Classification System (NS-SEC)

NS SEC Code	**Description**
1-2	Managerial, Administrative and Professional Occupations
3	Intermediate Occupations
4	Self-employed and small employers
5	Lower Supervisory and technical occupations
6-7	Semi-routine and routine occupations
8	Long term unemployed and never worked
9	Students

- In all but one of the NS-SEC classes, Kent had higher rates of physical inactivity than England. England had higher rates of physical inactivity than Kent in the long term unemployed and never worked class .[41]

- Rates of physical inactivity varied between the NS-SEC classes, with the lowest rates of inactivity observed in Students and in Managerial, Administrative and Professional Occupations respectively. The highest rates of inactivity were seen in the Semi-routine and routine occupations and the long term unemployed and never worked respectively. Figure 16 shows inactivity rates by NS-SEC in Kent and Medway, and England, 2021/22

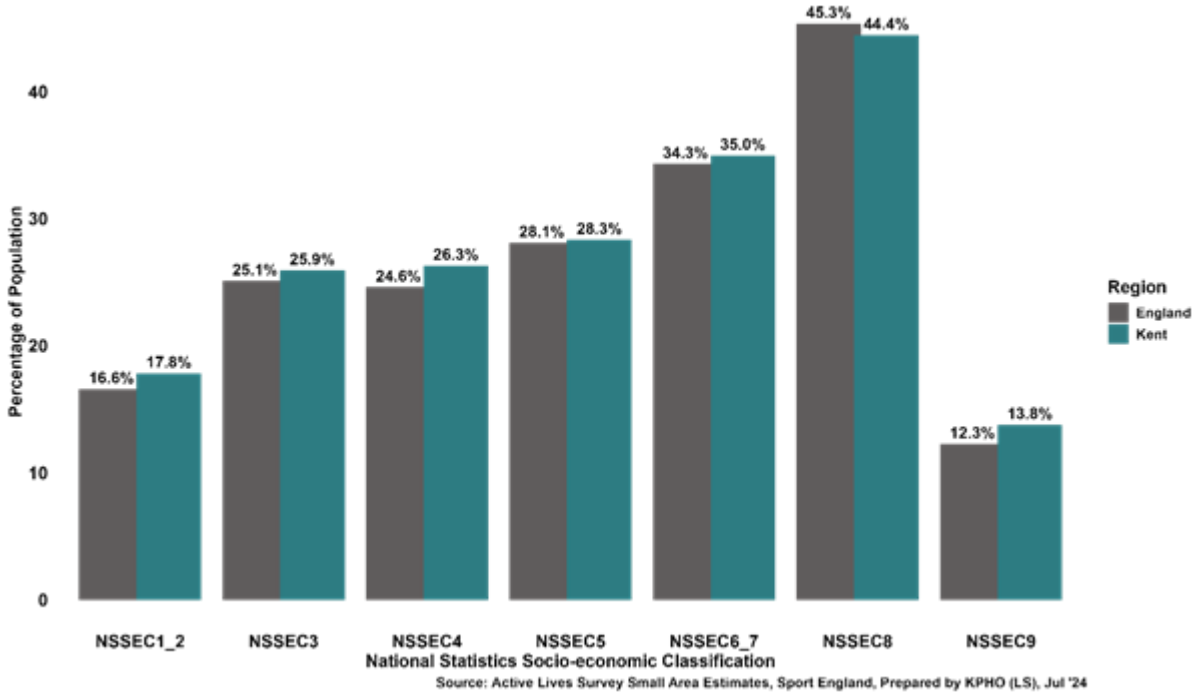

Figure 16: Inactivity Rates by National Statistics Socio-economic Classification (NS SEC) in Kent and Medway, and England, 2021/22.

3.2.6 Eating at least 5 portions of fruit and vegetables a day among adults (aged 16 years and over)

- 32.5% of adults aged 16 and over in Kent eat at least 5 portions of fruit and vegetables a day Kent. This similar to the England average (31.3%) but below the South East regional average (34.6%).
- Figure 17 shows that the percentage of adults aged 16 and eating at least 5 portions of fruit and vegetables a day in Tunbridge Wells is significantly higher than the Kent and South East regional average. Dartford, Gravesham and Swale are below the South East regional average.

[41] Fingertips | Department of Health and Social Care

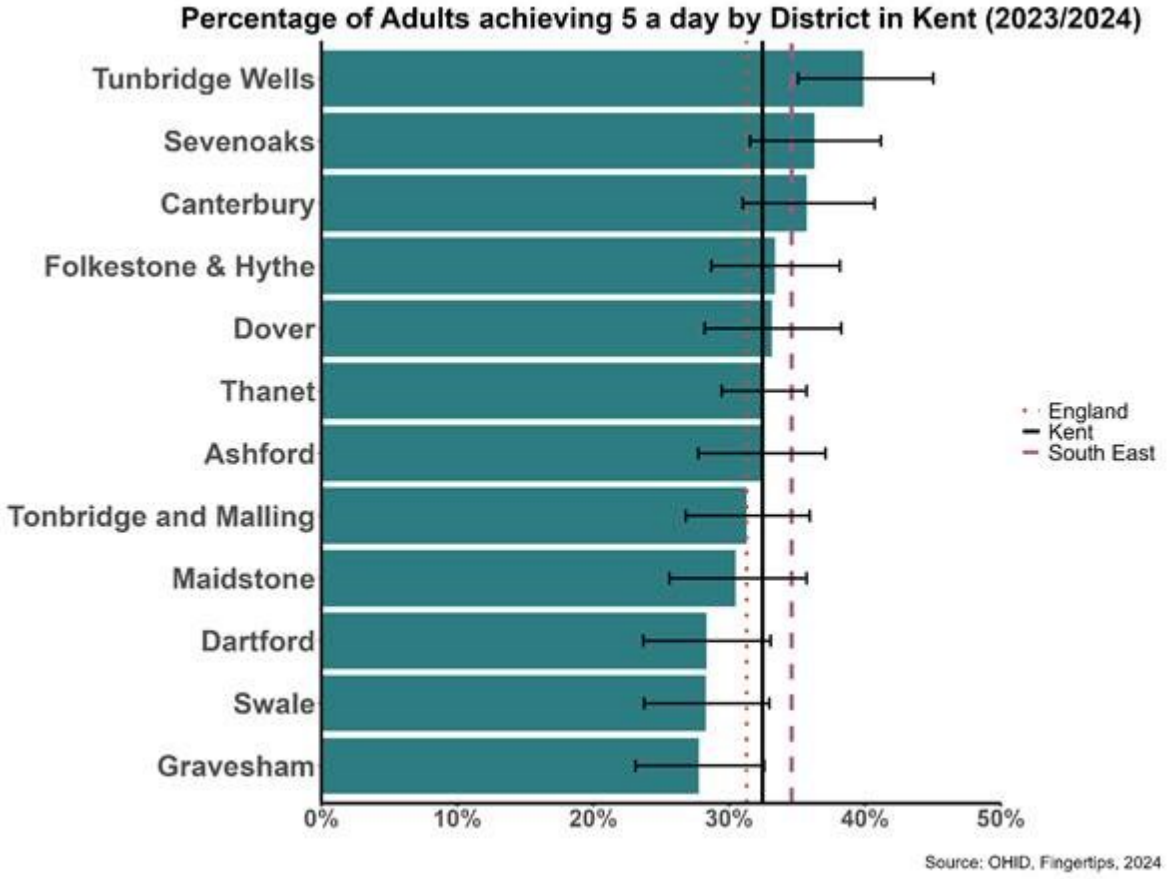

Figure 17. Percentage of adults eating at least 5 portions of fruit and vegetables a day, by district, 2023/24

3.2.7 The Joint Strategic Needs Assessment (JSNA) Cohort Model and Obesity in Kent.

Prevention is a key activity of Public Health, requiring an understanding of the complexities and interdependencies within populations and ecological systems. Population health needs are dynamic and are shaped by systems of socio-economic risk factors as well as the level of access to health and health care services. Systems dynamics modelling is an accepted methodology for portraying the interacting and accumulating processes within systems that affect risk and ultimately health outcomes.

The Joint Strategic Needs Assessment (JSNA) Cohort Model has been developed by Whole Systems Partnership in collaboration with KCC Public Health to model future population health outcomes. The model provides a local evidence base to support Kent Joint Health & Wellbeing Strategy development as well as health care commissioning and planning decisions.

The JSNA Cohort Model segments the population by need, complexity, and severity of health condition. The primary outcome measures of the model are condition incidence, prevalence and deaths. The conditions considered are asthma, coronary heart disease (CHD), chronic obstructive pulmonary disease, diabetes, heart failure (HF), stroke, severe mental illness, severe learning disability, neurological conditions and dementia. For adults the JSNA Cohort Model estimates changes in incidence and deaths related to changes in risk factors in the population. The risk factors considered are cigarette smoking, total cholesterol, systolic blood pressure, body mass index (BMI), physical inactivity and alcohol consumption.
In the JSNA Cohort Model, elevated BMI is considered a risk factor for asthma, CHD, diabetes, heart failure and stroke. Modelling allows for adjustment of risk factors to simulate future 'what if?' scenarios. For example, if mean BMI in the model population cohorts reduced over time, what would be the effect on rates of asthma 20 years later?

Historic trend data shows that the population prevalence of elevated BMI is gradually increasing over time. Table 1 shows the number of cases in the Kent population that would be prevented if the population prevalence of elevated BMI was maintained at the baseline level and did not change over the next ten years according to the historic trend. With the exception of asthma, the number of cases of each condition is lower after ten years when the prevalence of elevated BMI is stable at the baseline level compared to when elevated BMI prevalence is increasing.

Table 1 shows that despite a reduction in the number of cases when elevated BMI prevalence is maintained at baseline level, the percentage prevalence of the conditions is largely unchanged.

Table 1. Number of Kent cases and percentage prevalence of BMI-related conditions at Year 0 and Year 10 when elevated BMI prevalence is maintained at baseline level compared to increasing in accordance with historic trend

	Condition count – Year 0	Condition count – Year 10 – elevated BMI prevalence increasing	Condition count – Year 10 – elevated BMI prevalence stable	Cases prevented if elevated BMI prevalence remains stable	Prevalence – Year 10 – elevated BMI prevalence increasing	Prevalence – Year 10 – elevated BMI stable at baseline prevalence
Asthma	202,715	219,046	219,617	0	12.99	13.02
CHD	52,844	58,013	57,003	1010	3.44	3.38
Diabetes	84,384	100,879	98,099	2780	5.98	5.81
HF	2,756	3,592	3,493	99	0.21	0.21
Stroke	43,039	40,838	40,372	466	2.42	2.40

Table 2 shows the number of cases that would be prevented if the population prevalence of elevated BMI was maintained at the baseline level and did not change over the next twenty-five years according to the historic trend. The number of cases of each condition is lower after twenty-five years when the prevalence of elevated BMI is stable at the baseline level compared to when elevated BMI prevalence is increasing. With the exception of asthma, the percentage prevalence of each condition in the population is also lower after twenty-five years.

Table 2. Number of cases and percentage prevalence of BMI-related conditions at Year 0 and Year 25 when elevated BMI prevalence is maintained at baseline level compared to increasing in accordance with historic trend

	Condition count – Year 0	Condition count – Year 25 – elevated BMI prevalence increasing	Condition count – Year 25 – elevated BMI prevalence stable	Cases prevented if elevated BMI prevalence remains stable	Prevalence – Year 25 – elevated BMI prevalence increasing	Prevalence – Year 25 – elevated BMI stable at baseline prevalence
Asthma	202,715	242,375	243,904	0	13.38	13.44
CHD	52,844	70,867	64,670	6197	3.91	3.58
Diabetes	84,384	123,601	112,737	10864	6.82	6.2
HF	2,756	4,384	3,880	504	0.24	0.22
Stroke	43,039	44,481	41,956	2525	2.46	2.32

Separate to the JSNA Cohort Model, Whole Systems Partnership in collaboration with KCC Public Health has developed a systems dynamic model for the whole systems approach to obesity. This whole system obesity (WSO) model segments the population by age, sex, and BMI category and outputs counts and percentage prevalence in each of the following BMI categories: healthy weight, overweight, obese, severely obese.

The WSO model can be used to simulate the impact of interventions designed to impact the risk factors for becoming overweight or obese. The model takes the input of calorie deficit to calculate how a proposed intervention will affect the number of people in each BMI category.

A preliminary step of evidence gathering is required to estimate the calorie deficit that would be caused by the proposed intervention. A second step is to estimate how many people will realise the calorie deficit due to the proposed intervention. This is initially estimated from published evidence and finally agreed by consensus of stakeholders.

When interventions are implemented as part of the whole system approach to obesity, the measurable results (for example increase in physical activity or reduction

in calorie intake) can be used to refine the WSO model and improve the reliability of the outputs.

There are currently 41 proposed interventions that could be included in the WSO model. Simulating the impact of these interventions will provide evidence for future policy and strategy decisions that will support the achievement of the Kent Joint Health and Wellbeing Strategy target to reduce adult excess weight to 62% by 2028.

Chapter Summary

Excess weight among adults is an increasing concern nationally and locally, with notable differences based on age, gender, ethnicity, and deprivation. Locally, Kent has higher obesity rates (67%) than the national average, and certain areas, such as deprived and coastal regions, show even higher prevalence. and mental health, further exacerbate the obesity problem.

Recommendations

1. Focus on high-risk groups, including those in deprived areas, coastal towns, and ethnic minority populations. Tailored programmes should address the specific needs of these groups through culturally sensitive interventions, campaigns and support services.
2. Utilising the proportionate universalism approach can effectively address the health inequalities linked to obesity and its related issues. This approach ensures that individuals at a higher risk of obesity such as people living with disabilities, mental health illness, minority ethnic groups and people living in deprived areas receive more intensive support, while all adult residents in Kent have access to appropriate interventions.
3. A strategy to tackle obesity needs a comprehensive approach of interventions targeting a broad set of variables at different levels within the system from preconception to adulthood.
4. Weight management services must be designed and delivered in a culturally sensitive manner to effectively engage and meet the needs of those most at risk of obesity. Foster community involvement in the design and delivery of obesity interventions to ensure they are culturally relevant and effective.

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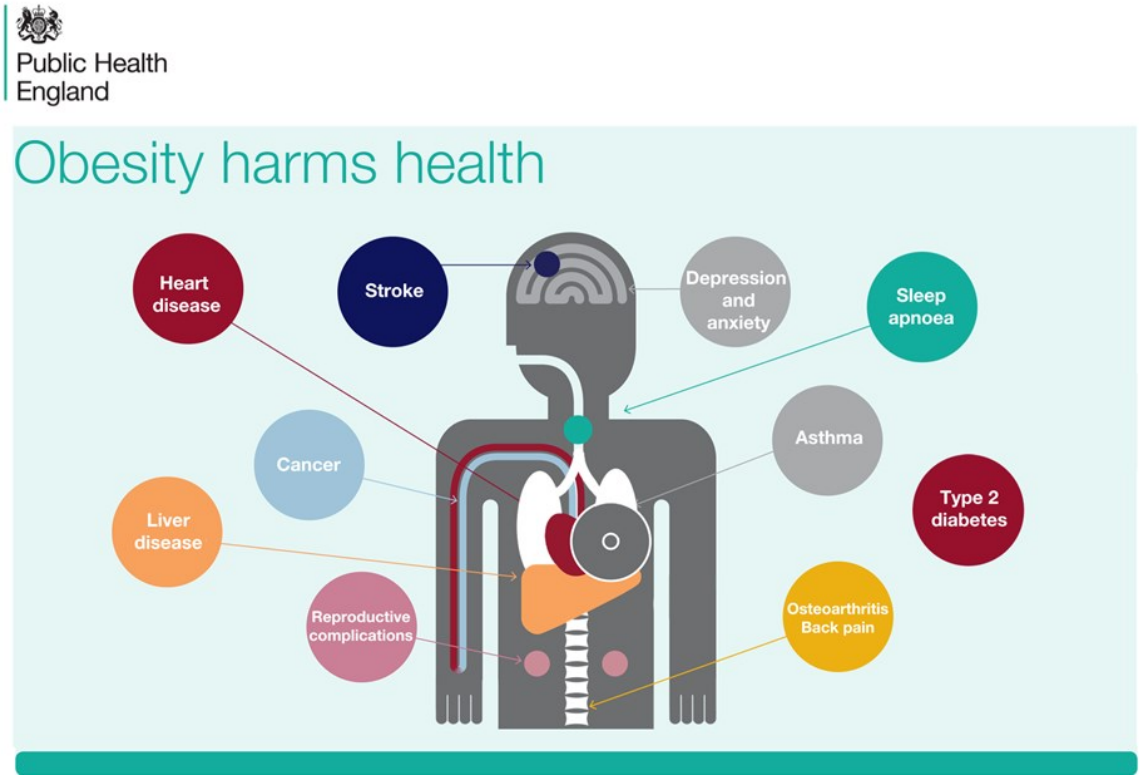
4. What are the Impacts of Excess weight among adults?

Excess weight (overweight and obesity) has serious impacts on physical and mental health, as well as economic and social well-being for individuals, families, society and the entire country. The relationship between excess weight and health conditions is bidirectional, making it challenging to address obesity effectively. Obesity is a common risk factor for numerous chronic diseases, such as type 2 diabetes, other metabolic diseases, cardiovascular disease (especially coronary heart disease and stroke), sleep apnoea, breathing problems, liver disease, a wide range of cancers, and osteoarthritis. This places a heavy burden on health and social care systems, leading to an increased risk of disability and early death for individuals with excess weight. Furthermore, obesity can be a risk factor for mental health problems like depression, and individuals with obesity are more likely to face weight stigma, affecting their self-esteem. Severe obesity can decrease life expectancy by about ten years, similar to the impact of lifelong smoking, and can have a detrimental effect on quality of life and employability. Notably, obesity is most prevalent among the most deprived groups in society. Figure 22 illustrates the effect of obesity on adults' physical health.



Source: [Adult obesity: applying All Our Health - GOV.UK (www.gov.uk)]

Figure 22: The effect of obesity on adults' physical and mental health

4.1 Physical Health Conditions

Type 2 Diabetes Mellitus

Excess weight is the main modifiable risk factor for type 2 diabetes mellitus (T2DM). In England, adults with excess weight are five times more likely to be diagnosed with T2DM than adults of a healthy weight.[42] Currently, 90% of adults with T2DM are overweight or having obesity.[5] A meta-analysis found that increasing BMI predicts T2DM, especially among individuals with early weight gain.[43] Treating obesity is key in the prevention and management of T2DM. Weight loss leads to a significant reduction in the incidence of diabetes in at-risk populations.[44]

Cardiovascular disease

Cardiovascular diseases (CVDs) are the leading cause of mortality worldwide and are the main illnesses associated with severe excess weight. Many studies have demonstrated a relationship between obesity and cardiovascular diseases (stable coronary disease, acute myocardial infarction, heart failure, cardiac arrhythmias, and sudden cardiac death).[45] Heart and circulatory diseases kill 1 in 4 people in the UK. Being overweight can lead to building up of fats in arteries which can cause damage and blockages, which can lead to a heart attack.[46] If this happens in the arteries that carry blood to the brain it can lead to a stroke.

Excess weight increases your risk of experiencing a stroke and over 100,000 in the United Kingdom have strokes each year.[47] Research suggests that each unit increase (approximately 3.2kg) in BMI increases the risk of stroke by 5%.

Studies on heart failure show that 32%–49% of patients suffering from heart failure are having obesity and 31%–40% are overweight. In the case of patients with excess weight, heart failure develops 10 years earlier than in the case of individuals with a normal BMI.[48]

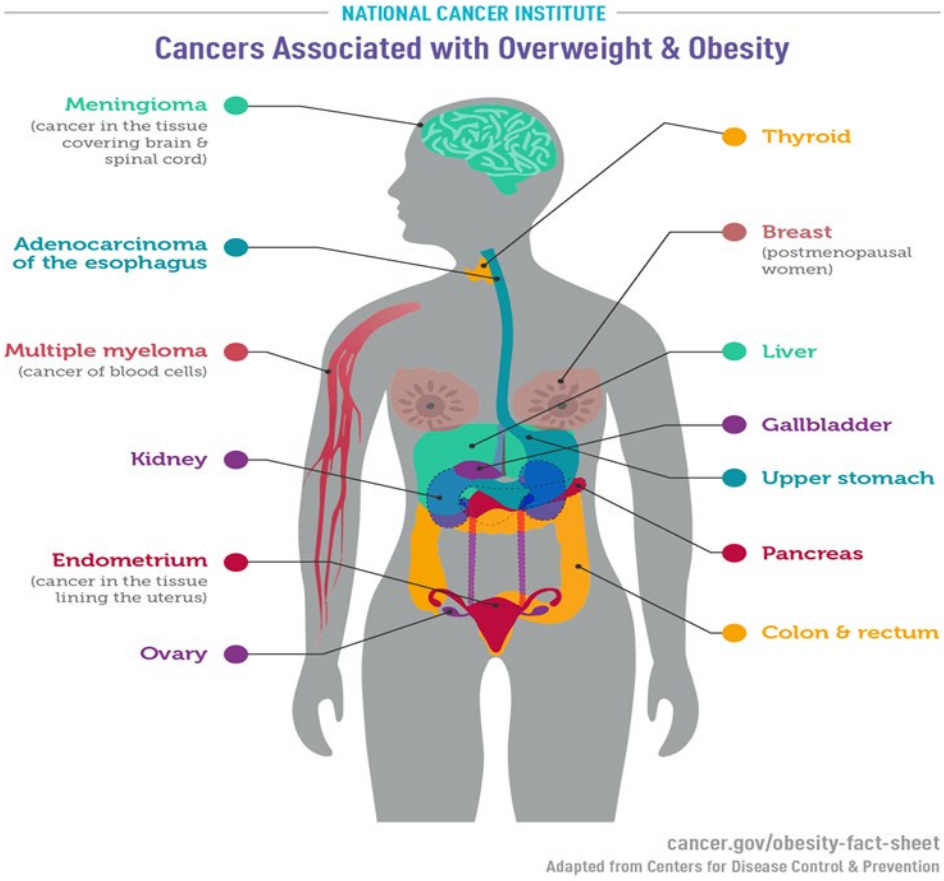
Excess weight accounts for 65% to 75% of the risk for primary hypertension and greater than 70% of the risk for end-stage kidney disease.[49] Chronic hypertension also interacts with obesity-associated metabolic disorders and inflammation to destroy target organs, including the kidneys, further exacerbating hypertension and making it more resistant to therapy. Lifestyle interventions represent the foundation for treating obesity hypertension, although most patients are unable to sustain

[42] Adult obesity and type 2 diabetes (publishing.service.gov.uk)
[43] Quantitative relationship between body weight gain in adulthood and incident type 2 diabetes: a meta-analysis - PubMed (nih.gov)
[44] Obesity and Type 2 Diabetes - StatPearls - NCBI Bookshelf (nih.gov)
[45] The Impact of Obesity on the Cardiovascular System - PMC (nih.gov)
[46] Your weight and heart and circulatory conditions - BHF
[47] Stay a healthy weight | Stroke Association
[48] Obesity and the risk of heart failure - PubMed (nih.gov)
[49] Obesity and Hypertension: Pathophysiology and Treatment - ScienceDirect

adequate weight loss[12]. In 2022/23 Kent recorded approximately, 41% of adults living with obesity were also having hypertension which is the highest among other comorbidities as shown below in figure 24.

Cancer

Having excess weight is the second biggest cause of cancer[50] and increases the risk of 13 different types of cancer such as breast, colorectal, oesophageal, kidney, gallbladder, uterine, pancreatic, and liver cancer[13]. Figure 23 illustrates cancers attributed with overweight and obesity. Excess weight is linked with around 22,800 cases of cancer in the UK every year, that makes it the second biggest cause of cancer in the UK after smoking[12]. Obesity is not only associated with an increased risk of cancer but may also increase the risk of cancer recurrence [51] and increases the risk of dying from cancer and may influence the cancers treatment choices.[52]



Source: Obesity and Cancer Fact Sheet - NCI

Figure 23: Cancers associated with overweight and obesity.

[50] How does obesity cause cancer? | Cancer Research UK

[51] Association of Obesity With Survival Outcomes in Patients With Cancer: A Systematic Review and Meta-analysis - PubMed (nih.gov)

[52] Obesity and Cancer: A Current Overview of Epidemiology, Pathogenesis, Outcomes, and Management - PMC (nih.gov)

Musculoskeletal Disorders

Excess weight has been identified as independent risk factors for musculoskeletal disorders (MSDs) such as arthritis, back pain, neck pain and gout [53] and can be exacerbated by excess weight. The reported prevalence of osteoarthritis and low back pain (LBP) among people living with obesity is 34% and 22%, respectively. [54] It also increases the need for and reduces the health outcomes from joint replacement surgery.[11] Obesity is also closely related to MSK pain and physical dysfunction.

Frailty in older adults

Obesity is often thought of as a sign of strength or protection against frailty, but in reality, carrying excess weight can make people more vulnerable as they age. Obesity-related frailty happens when excess fat replaces muscle, leading to weakness, reduced mobility, and a higher risk of falls and disability. [55] Evidence revealed that overweight and obesity in middle age were associated with significantly higher frailty in older adults, while obesity and underweight in old age were associated with relatively higher frailty in older adults. Early weight control may be beneficial for old age. [56] Progressive inflammation and metabolic changes can increase muscle loss, making everyday tasks like climbing stairs or carrying groceries more difficult. This can leave people trapped in a cycle where moving becomes harder, leading to even more muscle loss and worsening frailty.

Asthma

Patients with excess weight are at increased risk of developing asthma and if developed, tend to have worse asthma control. The risk of severe asthma symptoms and asthma attacks is higher in individuals with excess weight. Metabolic dysfunction is more important than fat mass for asthma in obesity.[57]

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[53] Obesity and osteoarthritis: more complex than predicted! - PMC (nih.gov)

[54] Impact of overweight and obesity on the musculoskeletal system using lumbosacral angles - PMC (nih.gov)

[55] Yuan, L., Chang, M. and Wang, J., 2021. Abdominal obesity, body mass index and the risk of frailty in community-dwelling older adults: a systematic review and meta-analysis. Age and ageing, 50(4), pp.1118-1128.

[56] Sun, Q., Xia, X. and He, F., 2024. Longitudinal association between body mass index (BMI), BMI trajectories and the risk of frailty among older adults: a systematic review and meta-analysis of prospective cohort studies. Archives of gerontology and geriatrics, p.105467.

[57] Obesity and Asthma - PMC (nih.gov)

4.2 Mental health conditions

Having excess weight is associated with poor mental health. A two-way association has been identified between mental health problems and obesity, with conditions such as depression often leading to weight gain and obesity leading to depression.[58] Whilst the perceived stigma and body image issues of weight gain can negatively affect mood, in people with mental health problems, food can be used as a coping strategy, diet can be unhealthy, and low mood can be associated with low physical activity and affect adherence to weight management programmes among people with mental health conditions.

Rates of obesity are even higher in people with severe mental health problems than in the general public, due to the effects of medication, poor diet, alcohol misuse and less active lifestyles.[59] Further, in the UK community, people diagnosed with schizophrenia are reported to have a 2–3 times greater premature mortality rate than the general population, mainly due to cardiovascular disease associated with long-term lifestyle factors such as smoking and obesity.[60] The most recent Mental Health Needs Assessment in Kent illustrates that almost 50% of the people with mental health disorders were diagnosed with obesity.[61]

Figure 24 showing the percentage of adults living with obesity by comorbidities with the five top long-term conditions including hypertension, depression, osteoarthritis, diabetes and asthma. Given these known links between obesity and other long-term conditions, and the impacts it exerts on individuals, family, the health and social care services and nation's economy, there is a clear need to further our aspiration to address the levels of obesity across Kent.

[58] obesity_in_mental_health_secure_units.pdf (publishing.service.gov.uk)

[59] British Medical Association. Recognising the importance of physical health in mental health an intellectual disability: Achieving parity of outcomes, 2014:87

[60] Brown S, Kim M, Mitchell C, et al. Twenty-five year mortality of a community cohort with schizophrenia. The British journal of psychiatry 2010;196(2):116-21

[61] The Kent Observatory (2019) The Menta Health Needs Assessment. Available at: https://www.kpho.org.uk/__data/assets/pdf_file/0019/101854/Mental-Health-NA-Kent-2019.pdf

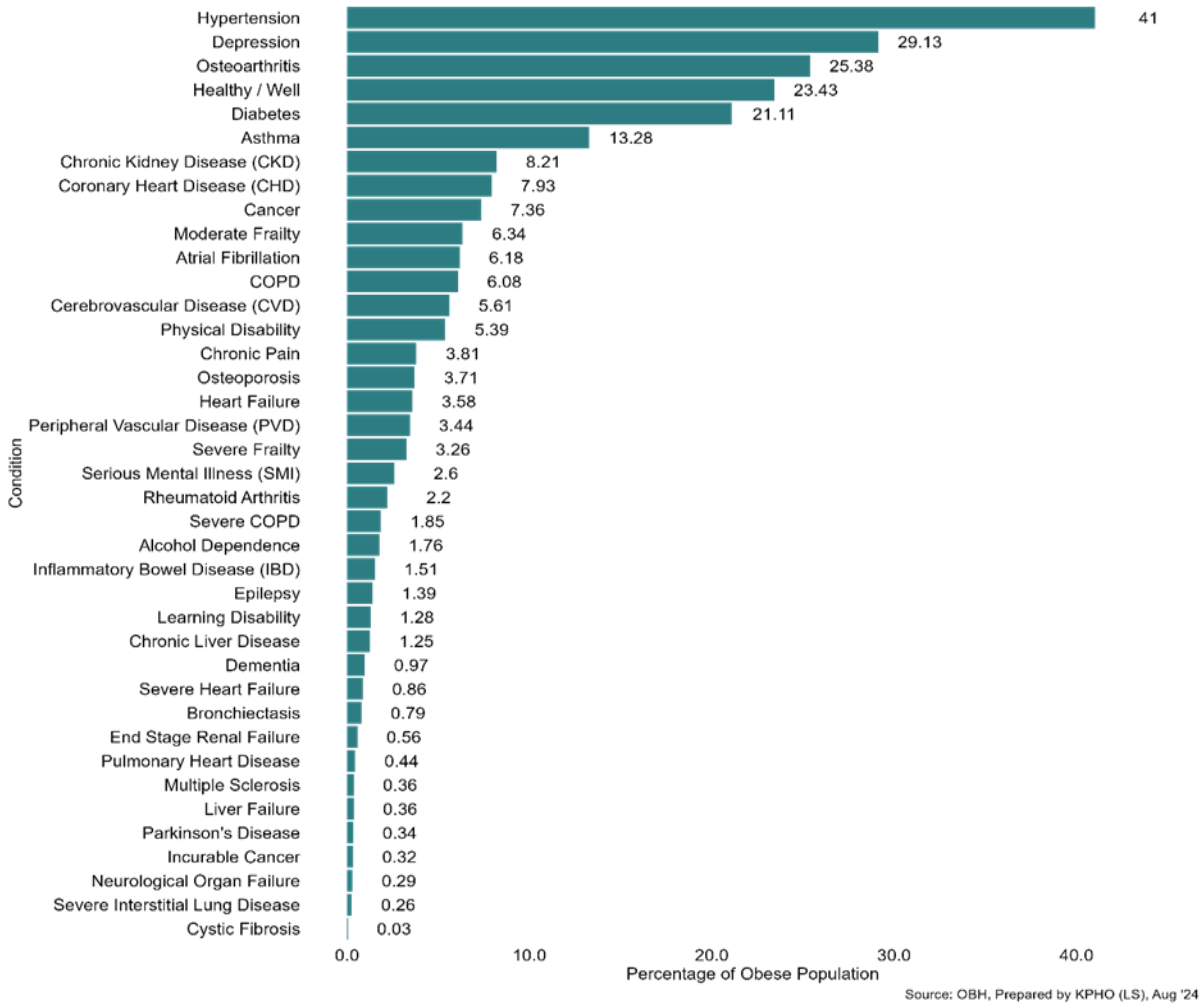
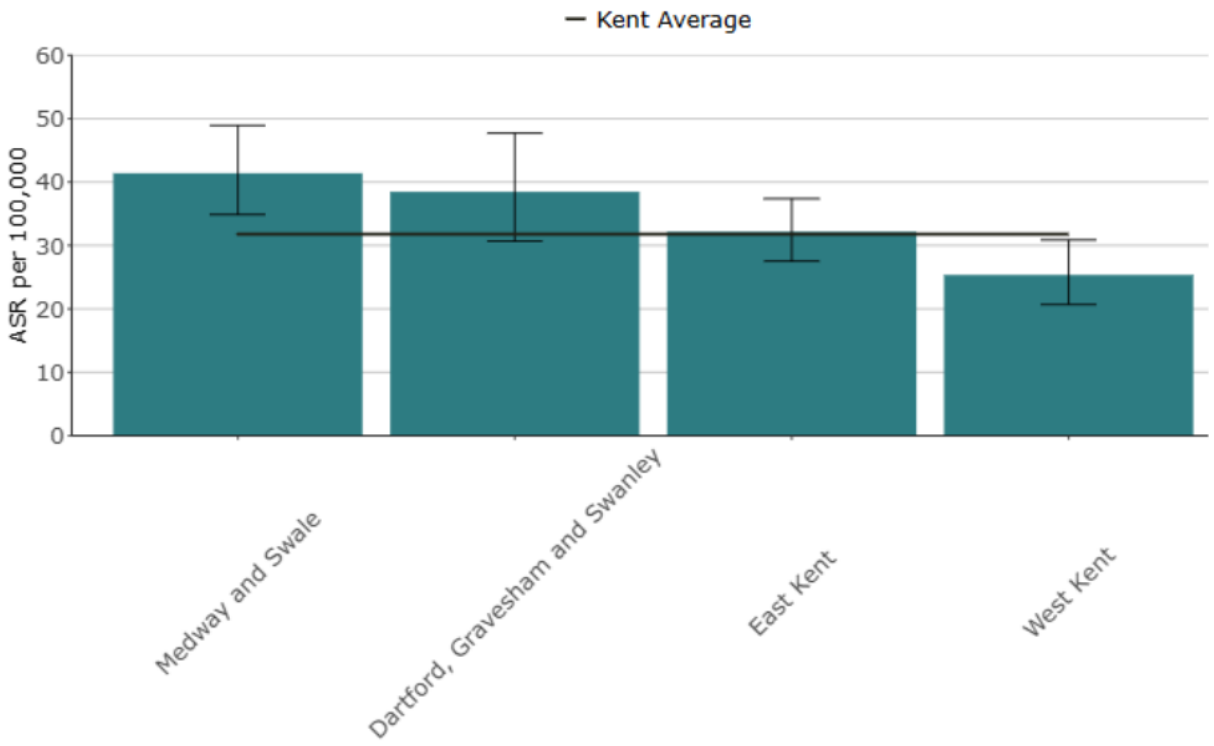


Figure 24: Percentage of Adults living with Obesity and Comorbidities in Kent, 2023.

4.3 Hospitalisations and obesity

Admissions directly attributable to obesity

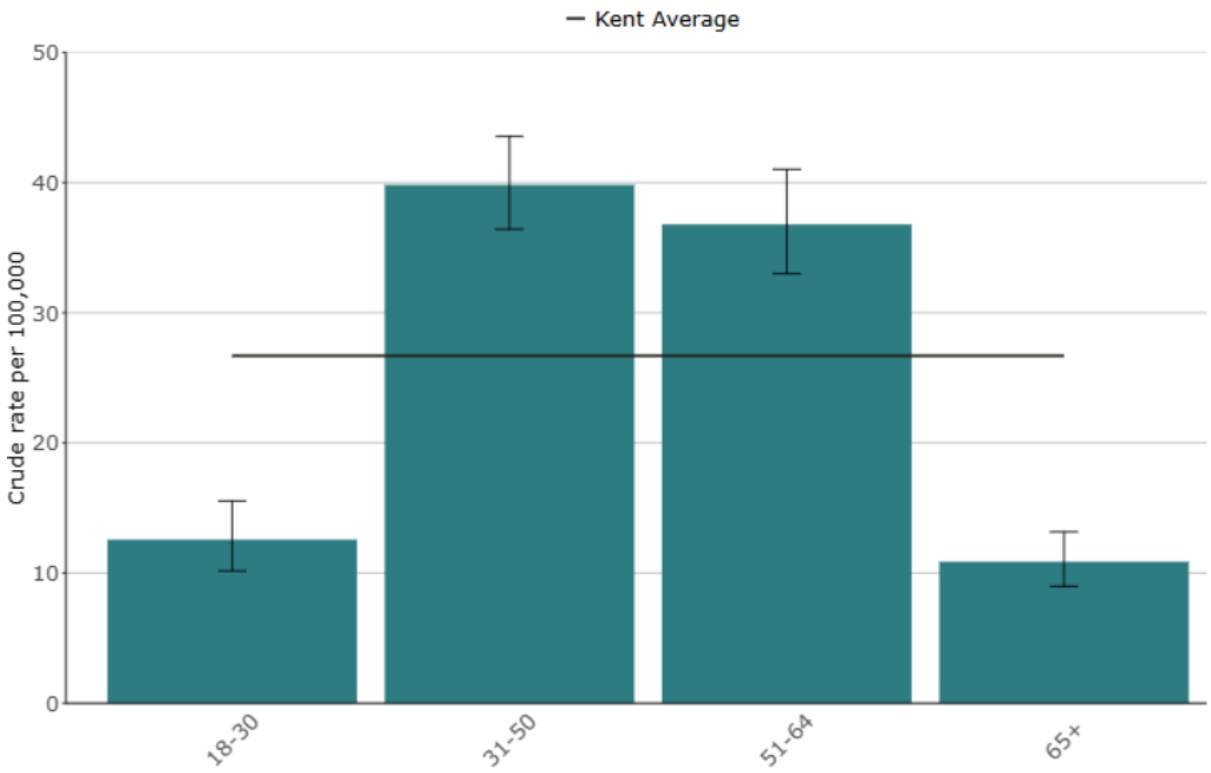
Admissions directly attributable to obesity are finished admission episodes with a primary diagnosis of obesity. Admissions directly attributable to obesity were higher within Medway & Swale HCP in comparison to Kent average. Admissions in West Kent HCP were lower than the Kent average. Figure 25 below shows the obesity admissions (ICD10: E66 primary diagnosis), by Kent HCPs, 2023/24.



Source: HES, July 2025

Figure 25: Obesity admissions (ICD10: E66 primary diagnosis), by Kent HCPs, 2023/24.

- The rate of admissions directly attributable to obesity for females was 50 per 100,000 population. This is 5 times higher than the rate for males.
- Admissions for obesity in Kent were highest in the middle age groups, 31-50 years and 51-64 years (39.8 per 100,000 and 36.9 per 100,000) in the 3 years combined 2021/22 to 2023/24. Rates were lower in the youngest and oldest groups, 12.6 per 100,000 in the 18-30 age group and 10.9 per 100,00 in the 65+ group. Figure 26 shows the hospital admissions for obesity in Kent by age group (ICD10: E66 primary diagnosis). Crude rate per 100,000 population, 2021/22-2023/24.

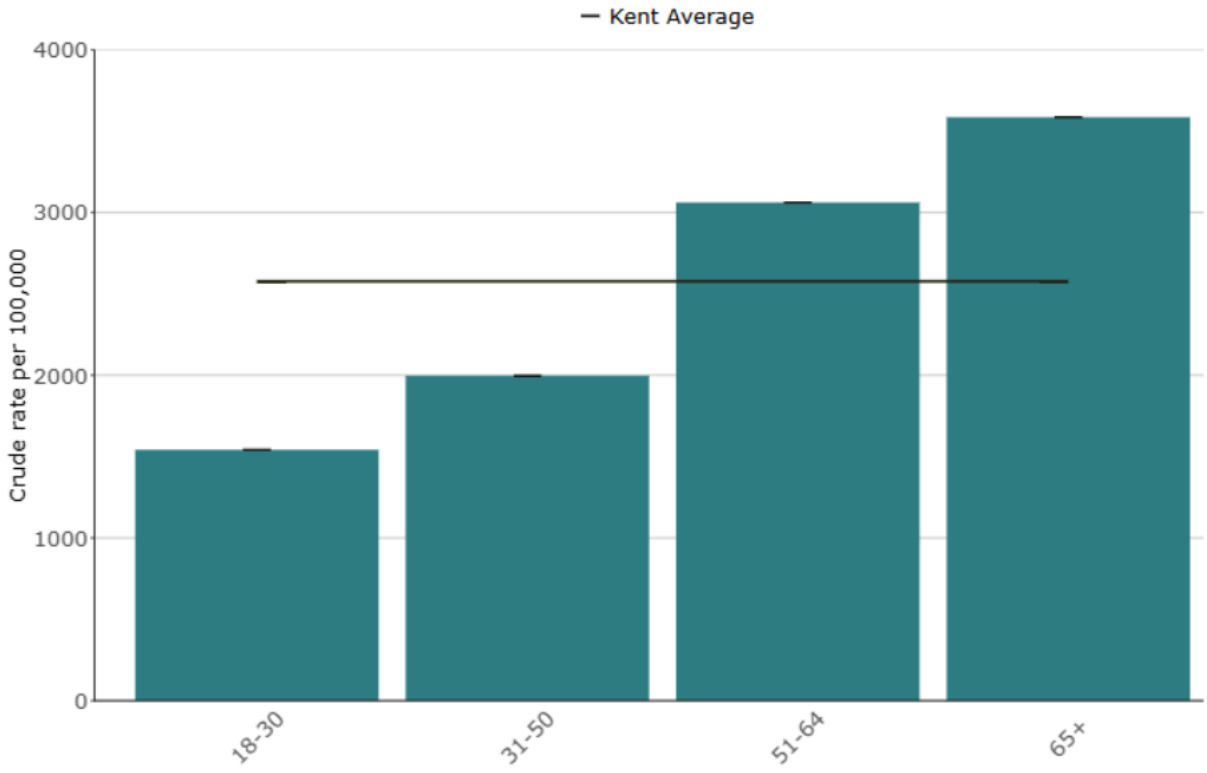


Source: HES, July 2025

Figure 26: Obesity admissions (ICD10: E66 primary diagnosis), by age group, 2021/22-2023/24.

Obesity related admissions (primary or secondary diagnosis)

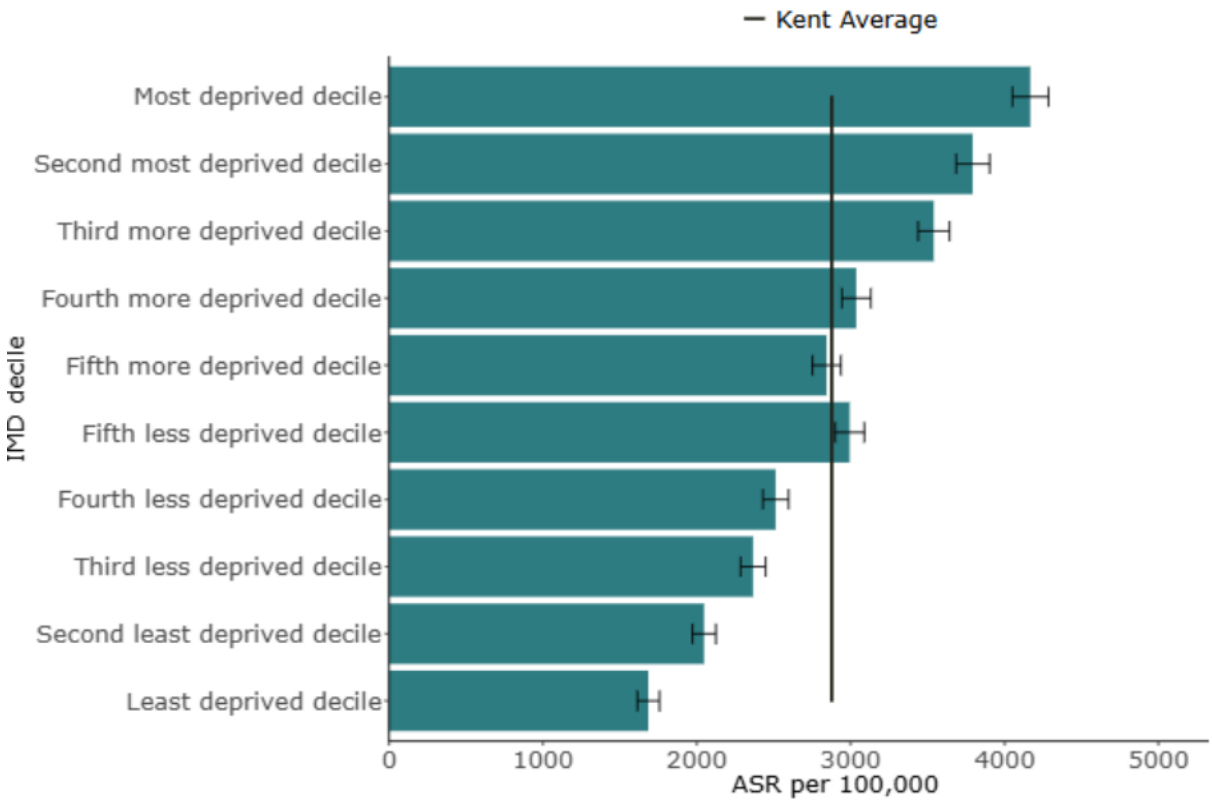
The age distribution of admissions related to obesity is different to that of admissions directly attributable to obesity. Obesity-related admissions in Kent increase by age group, with the highest rate in the 65+ group, 3586.1 per 100,000, compared to 1542.4 per 100,000 in the youngest group (18-30 years) in the 3 years combined period 2021/22 to 2023/24. Figure 27 shows the obesity related admissions in Kent by age group (ICD10: E66 primary or secondary diagnosis). Crude rate per 100,000 population, 2021/22-2023/24



Source: HES, July 2025

Figure 27: Obesity admissions (ICD10: E66 primary or secondary diagnosis), by age group, 2021/22-2023/24.

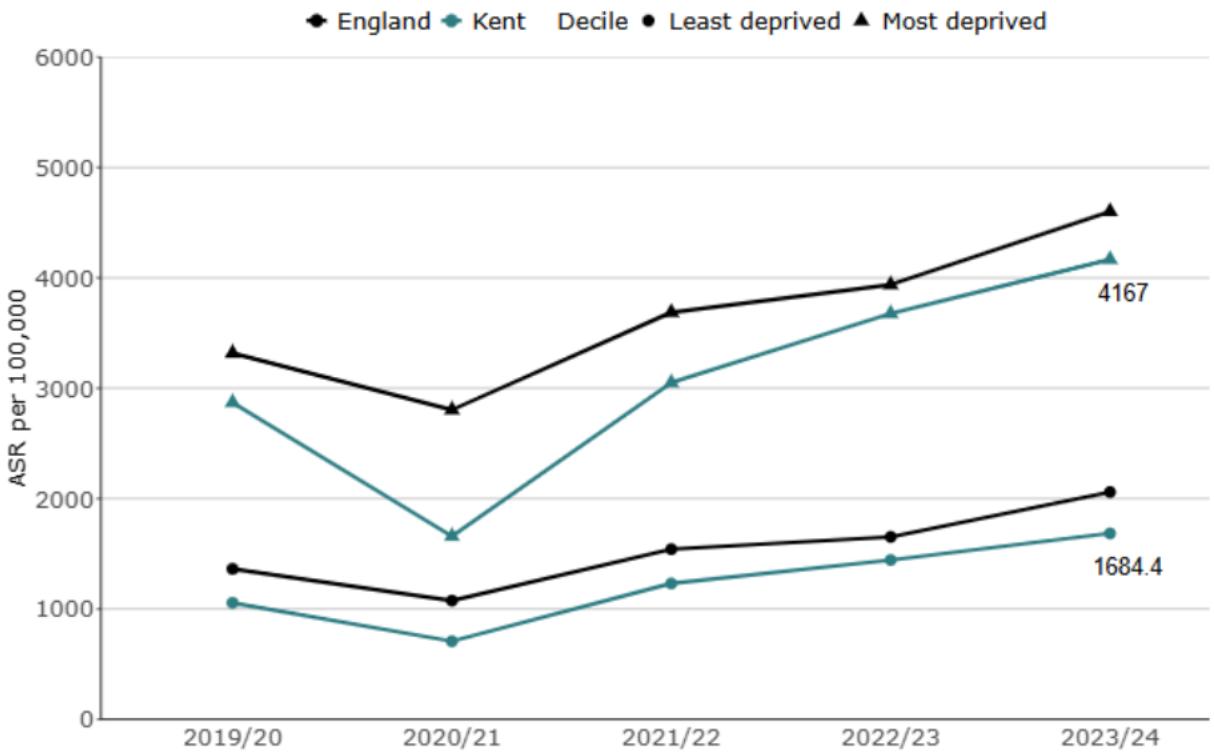
Obesity-related hospital admissions also vary by deprivation. The rates of obesity-related hospital admissions by deprivation decile were higher in the most deprived deciles and lower in the least deprived deciles in the latest year. The highest rate was in the most deprived decile, 4167.0 per 100,000 compared to the Kent average 2878.2 per 100,000 in 2023/24. Figure 28 shows the Obesity related admissions in Kent by IMD deciles (ICD10: E66 primary or secondary diagnosis). Age standardised rate per 100,000 15+ population, 2023/24



Source: HES, July 2025

Figure 28: Obesity admissions (ICD10: E66 primary or secondary diagnosis), by IMD deciles, 2023/24.

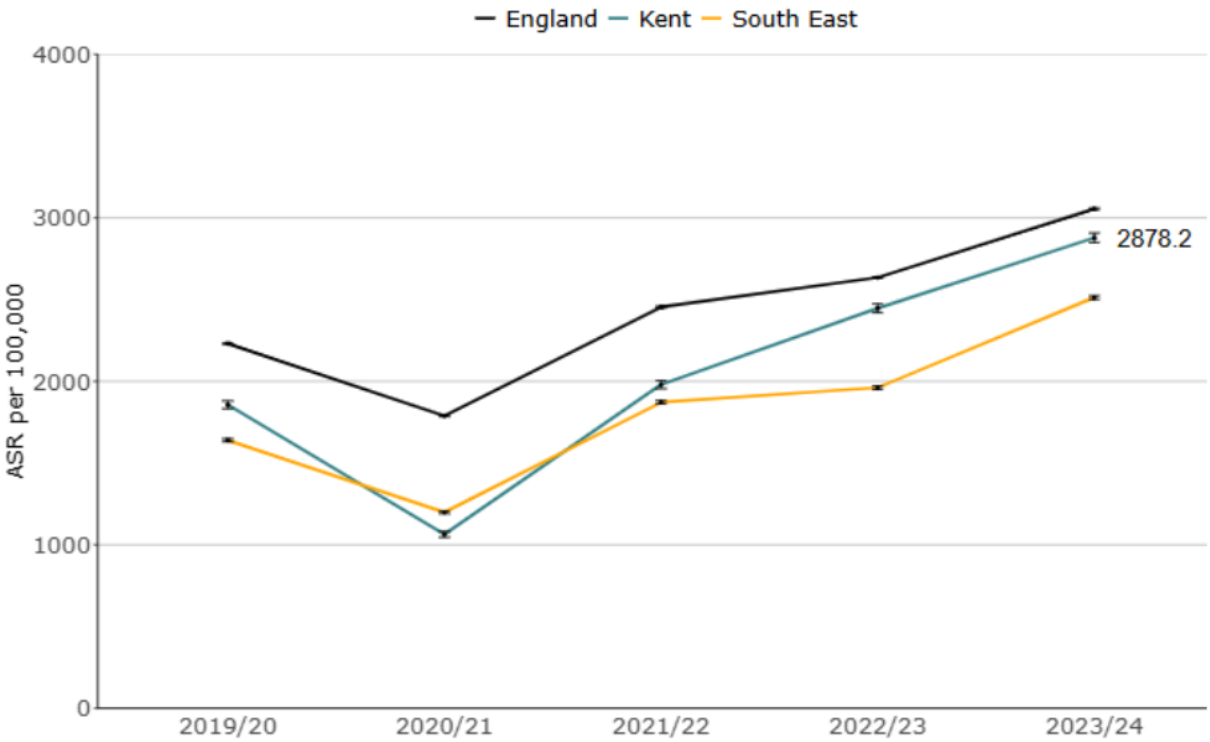
Figure 29 shows that Obesity related admissions in the most deprived group in Kent were more than double the rates in the least deprived group (4167.0 per 100,000 compared to 1684.4 per 100,000) in the latest year. England had higher admission rates than Kent in both the most and least deprived groups over the last 5 years.



Source: HES, July 2025

Figure 29: Obesity related admissions in Kent and England most and least deprived (ICD10: E66 primary or secondary diagnosis) between 2019/20 - 2023/24.

In Kent, obesity related admission rates were higher than the South East region but lower than England in 2023/24. Admission rates in Kent, the South East region and England have all increased since pre pandemic levels.
Figure 30 shows the obesity related admissions in Kent, England and South East region (ICD10: E66 primary or secondary diagnosis). Age standardised rate per 100,000 15+ population, trend 2019/20 - 2023/24.



Source: HES, July 2025

Figure 30: Figure 26 shows the obesity related admissions in Kent, England and South East region (ICD10: E66 primary or secondary diagnosis). Age standardised rate per 100,000 15+ population, trend 2019/20 - 2023/24.

4.4 Mortality

Excess weight is associated with premature deaths with a loss comparable to the effects of lifelong smoking. A population cohort study on association of BMI with overall and cause-specific mortality found that risk mortality began to increase above 21–25 kg/m2 for most outcomes, including all-cause mortality, cardiovascular disease, and cancer.[62] Also, observed a J-shaped association between BMI and all-cause mortality, with lowest mortality at 25 kg/m2.

Obesity does not just affect life expectancy, it also reduces healthy life expectancy and has an impact on people's quality of life, which is attributed to co-morbidities related to excess weight[63].

4.5 Social and economic impacts of living with excess weight

At the societal level, the prevalence of excess weight, affecting above 6 in 10 adults in Kent, places substantial demands on the need for formal and informal social care.

[62] Association of BMI with overall and cause-specific mortality: a population-based cohort study of 3·6 million adults in the UK - The Lancet Diabetes & Endocrinology

[63] Impact of Disability, Psychological Status, and Comorbidity on Health-Related Quality of Life Perceived by Subjects with Obesity | Obesity Facts | Karger Publishers

In the UK, a population-based cross-sectional study using data from the Health Survey for England (HSE) found that a 1 kg/ m² increase in BMI is associated with a 5 percent rise in the odds of needing help with social care among people aged 65 and above living in homes. The study also revealed that the cost of social care for these groups is significantly higher, with the cost of community-based social care for an individual with severe obesity nearly double the cost for a person with a BMI of 23. [64] This underscores the substantial impact of obesity on social care and healthcare costs.

4.6 Weight Loss Medications

The rate of items prescribed for the treatment of obesity in Kent per 1,000 population is consistently lower than the national average but higher than the regional average. The five-year trend in Kent is similar to England with a low of 4.2 per 1,000 population in Kent in 2020/21 and subsequent year-on-year increases. The rate in Kent in 2023/24 was 32.2% lower than the national average. Figure 31 shows the prescription items for the treatment of obesity per 1,000 population, 2019/20 - 2023/24.

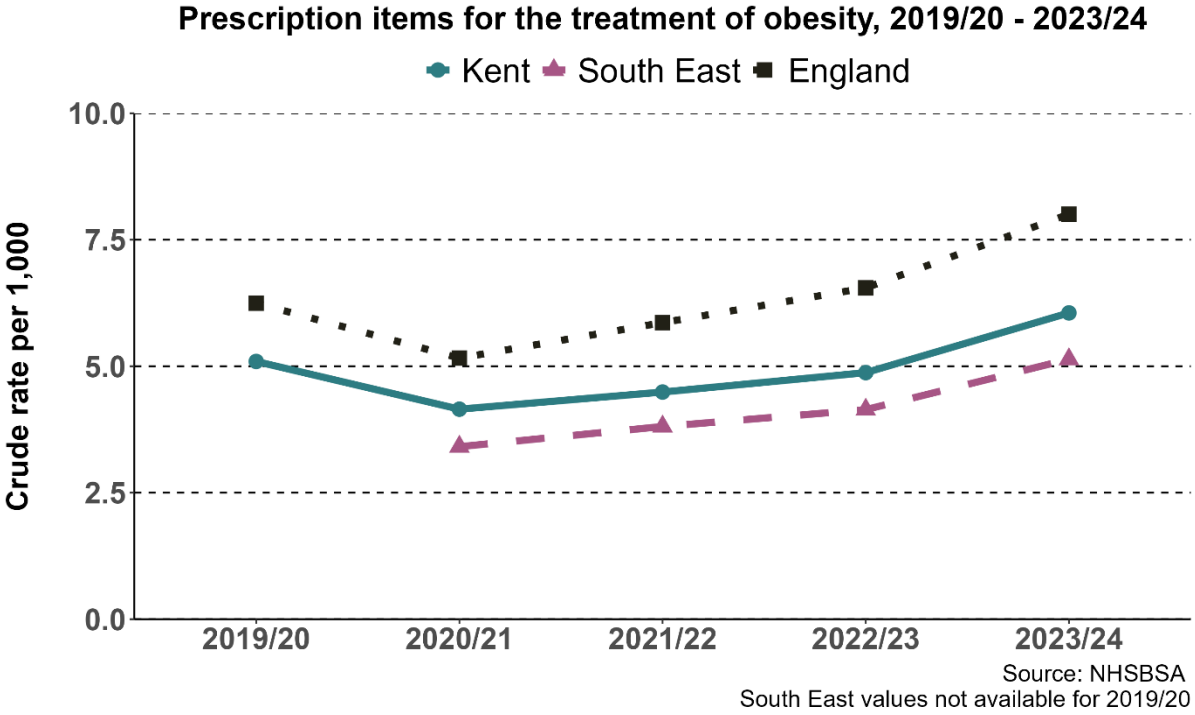


Figure 31: Prescription items for the treatment of obesity, 2019/20 - 2023/24

In Kent, the net ingredient cost was £380,979 in 2024//25, 9% higher than the previous year and highest of the seven years analysed here. Figure 32 below shows

[64] Estimating the variation in need for community-based social care by body mass index in England and associated cost: population-based cross-sectional study | BMC Public Health | Full Text (biomedcentral.com)

that the trend in the net ingredient cost of prescription items for the treatment of obesity in Kent is similar to England and the South East.

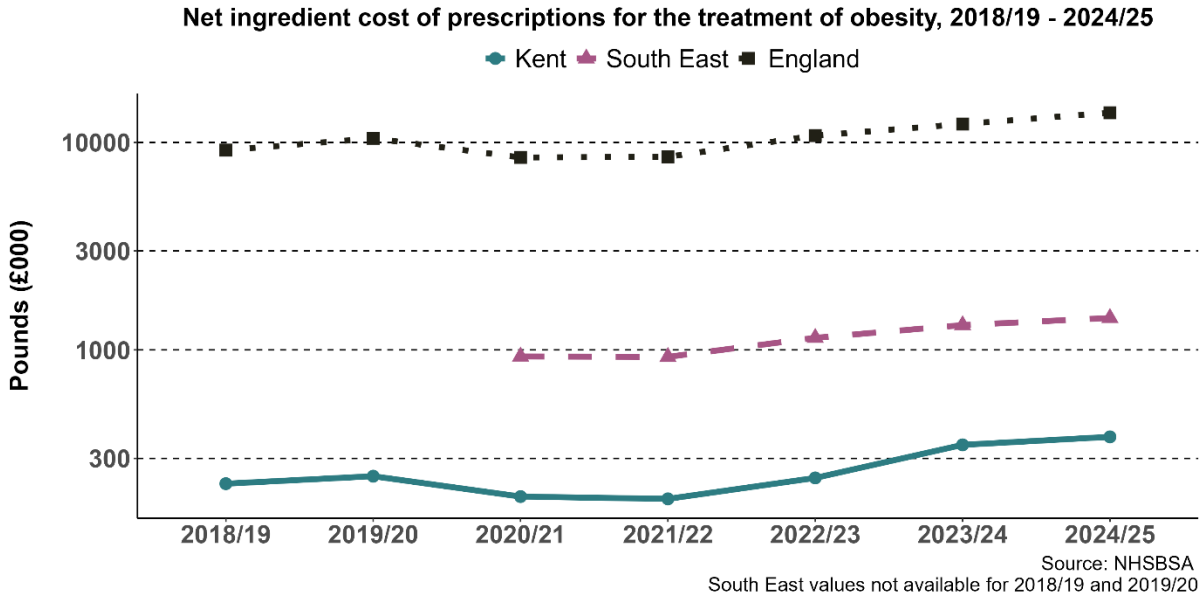


Figure 32: Net ingredient cost of prescriptions for the treatment of obesity, 2018/19 - 2024/25

Prescription items for the treatment of obesity, by HCP, 2023/24

Medway and Swale HCP has the highest rate of items prescribed for the treatment of obesity – 8 per 1,000 population. This is 25.5% higher than the Kent and Medway average. Medway and Swale HCP has been consistently higher than other HCPs and the Kent and Medway average for the five years from 2019/20-2023/24. Figure 33 shows the analysis of the number of Orlistat prescriptions.

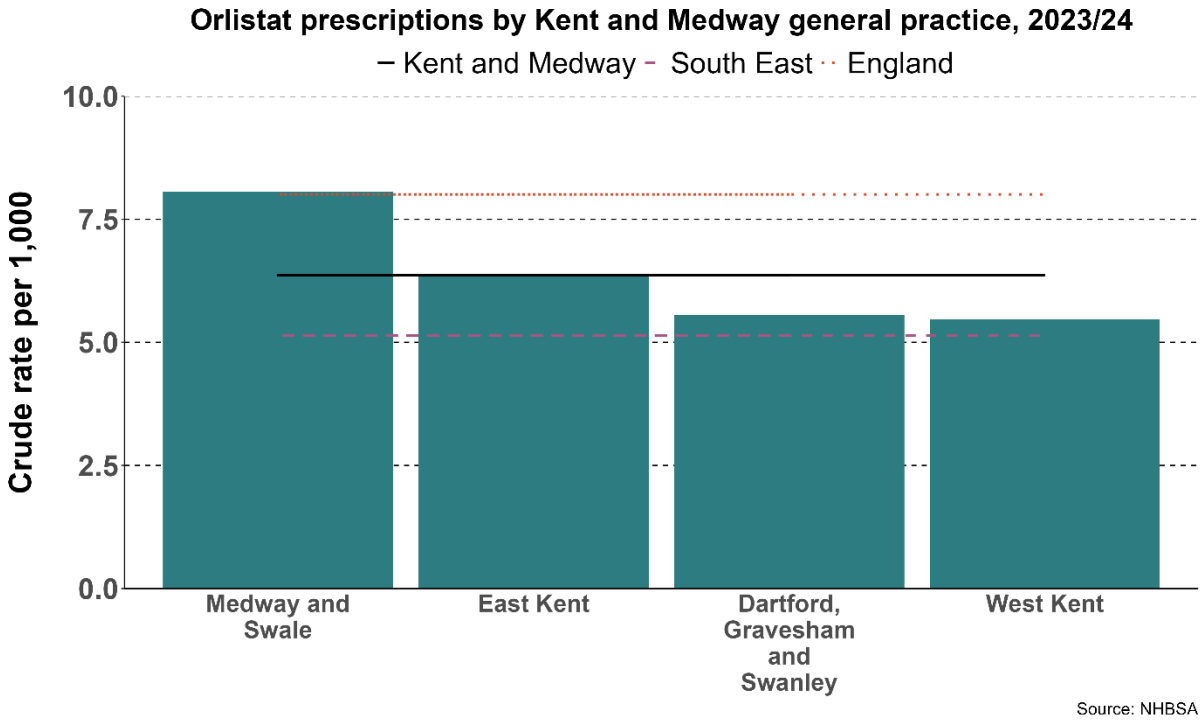


Figure 33: Orlistat prescriptions, 2023/24.

Excess Weight and Social Care

The need for informal care among those aged 60 years and above was 25% higher among those with excess weight compared to their healthy-weight counterparts, leading to an increase in the cost of informal care purely attributable to the upward trend in obesity of almost £200 million per year. [65] The extra cost for community social care adds to the financial burden on local authorities, potentially contributing to over-stretched budgets. [66] Beyond the financial implications and increased need for social care, obesity is also associated with a decreased level of community engagement and social interactions and contributing social isolation.
The rising numbers of people with excess weight, coupled with the cost of associated comorbidities, are leading to a significant financial burden on the NHS. Obesity's impact on economic development is severe, with the cost to broader society in the UK estimated at £27 billion per year, including £6.1 billion spent on treating obesity-related ill health in the NHS in 2014/15. [67] This cost is almost double the cost of treatment for smoking-related problems by the NHS, estimated to be £3.3

[65] The Hidden Costs of Obesity: Implications for Long-Term Care | PSSRU
[66] Social care and obesity | Local Government Association
[67] Health matters: obesity and the food environment - GOV.UK (www.gov.uk)

billion per year. [68] The NHS cost of obesity is forecast to rise to £9.7 billion per year by 2050, with wider costs to society estimated to reach £49.9 billion per year. Figure 33 shows the economic costs of obesity.

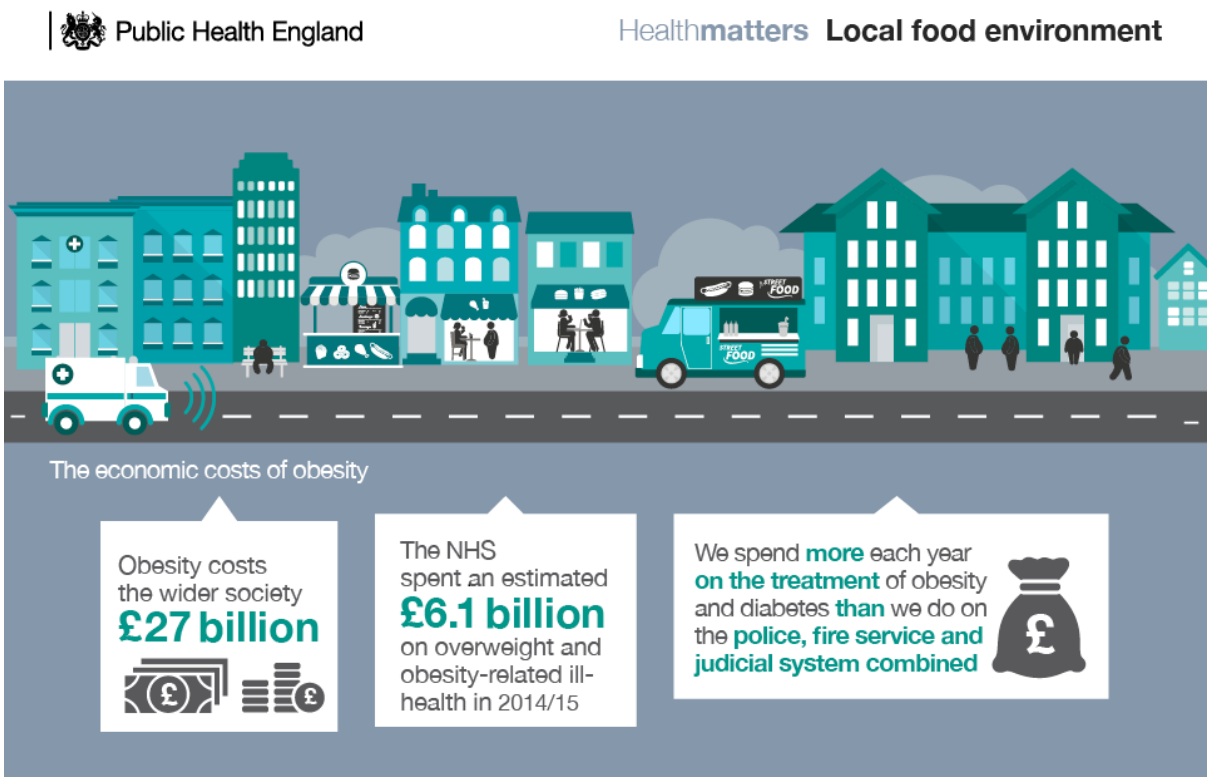


Figure 33. Economic costs of obesity in England infographic.
Source: [Health matters: obesity and the food environment - GOV.UK (www.gov.uk)]

Furthermore, obesity is connected with unemployment and low productivity issues as well since such employees tend to take excess sick leave. Individuals with obesity are also more likely to take four more days off per year due to sickness than people of healthy weight. [69] There is further evidence of a relationship between obesity and increased absenteeism from work for health reasons, including frequent medical appointments. In economic evaluations, indirect costs usually represent the loss of production due to decreased health or disease.[70] Thus, the indirect costs components are absence from work (absenteeism), reduced productivity (presenteeism) while at work, and reduced informal work (e.g., daily activities at home or leisure). [71]

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[68] Davies A and Bhatia T (2015) 'Can the NHS help tackle the UK's obesity epidemic?'. Nuffield Trust comment, 20 March 2015. https://www.nuffieldtrust.org.uk/news-item/can-the-nhs-help-tackle-the-uk-s-obesity-epidemic

[69] Weight Management Topic Guide.pdf (affinityhealthhub.co.uk)

[70] Goettler A, Grosse A, Sonntag D. Productivity loss due to overweight and obesity: a systematic review of indirect costs. BMJ Open 2017;7:e014632. doi:10.1136/ bmjopen-2016-014632

[71] Obesity- attributable costs of absenteeism among working adults in Portugal | BMC Public Health | Full Text (biomedcentral.com)

Figure 34. Health and societal consequences of living with excess weight

Chapter Summary

Excess weight (overweight and obesity) significantly impacts both physical and mental health, along with economic and social well-being. It increases the risk of several chronic diseases, such as type 2 diabetes, cardiovascular diseases (including heart disease and stroke), various cancers, musculoskeletal disorders, asthma, and mental health issues like depression. These conditions can lead to disabilities, reduce life expectancy by up to 10 years, and lower overall quality of life. Furthermore, obesity places an increasing burden on health and social care systems. Addressing obesity is crucial for improving health outcomes, addressing health inequalities, reducing pressure on the NHS and social services, and alleviating the financial burden on individuals and the nation.

Recommendations

1. Conduct regular targeted local campaigns to raise awareness about the health risks associated with excess weight, including its effect in exacerbating the existing long term health conditions.
2. Implement systems for robust data collection and sharing across services to better measure outcomes and inform decision-making. Continuously evaluate the health impacts of obesity interventions and ensure data-driven services across the system.
3. Invest and ensure equitable access to preventative services to promote healthy eating behaviour, physical activity and healthy weight to improve health outcomes.
4. Encourage early obesity and related health conditions identification and management through the health checks programme and other local screening services especially among the high-risk groups.
5. Given these known links between obesity and some long-term conditions, there is a need for a clearer integrated obesity pathway and its defined place in the existing clinical pathways.

5. Complexities and causes of obesity

People develop excess weight as a result of a complex combination of biological and psychological factors combined with environmental and social influences. Excess weight occurs when extra calories, particularly those from foods high in fat and

sugar, are stored in the body as fat[72]. Obesity is a complex issue, cause by many intersectional factors. The Foresight Report (2007) emphasised the complexity of the causes of obesity. The report revealed the interplay between factors such as biological, psychological, environmental, economic and societal influences, all contributing to increasing number of people with excess[73]. The Foresight obesity report (2007) identified over 100 “wider determinants” of obesity encompassing individual, and family eating and physical activity habits, the food and physical activity environments in which people live, work and play; societal influences such as income; education; occupation as well as individual psychology including mental health and wellbeing. Figure 35 below shows the Foresight Obesity System Map.

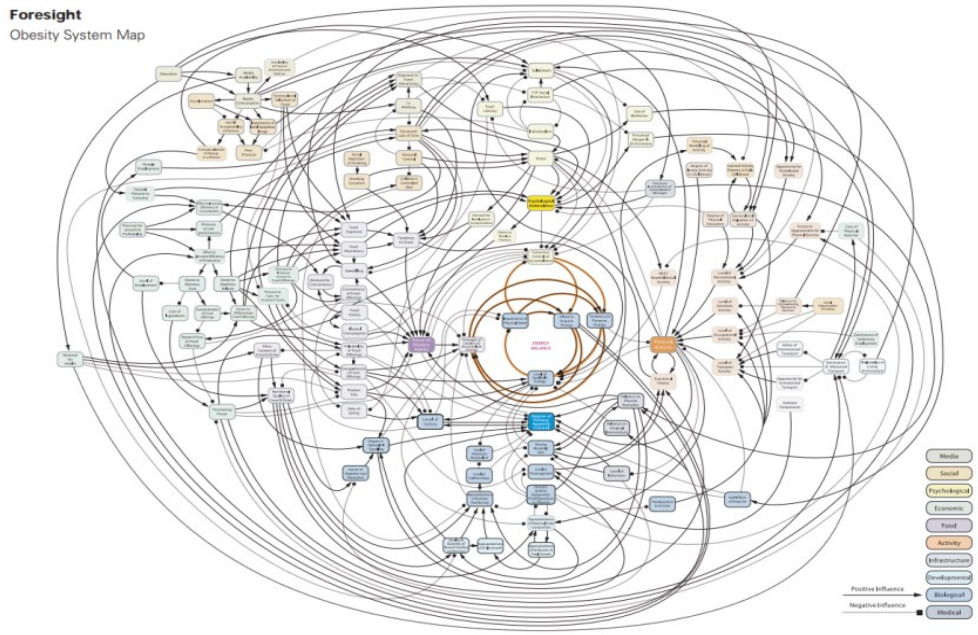

Figure 35: Foresight obesity system map
Source: Tackling Obesities: future choices

The following are the interrelated factors that influence excess weight.

5.1 Complexities and causes of obesity

People develop excess weight as a result of a complex combination of biological and psychological factors combined with environmental and social influences. Excess weight occurs when extra calories, particularly those from foods high in fat and sugar, are stored in the body as fat[74]. Obesity is a complex issue, cause by many intersectional factors. The Foresight Report (2007) emphasised the complexity of the causes of obesity. The report revealed the interplay between factors such as

[72] Obesity - NHS (www.nhs.uk)
[73] Tackling obesities: future choices - project report (2nd edition) (publishing.service.gov.uk)
[74] Obesity - NHS (www.nhs.uk)

biological, psychological, environmental, economic and societal influences, all contributing to increasing number of people with excess[75]. The Foresight obesity report (2007) identified over 100 “wider determinants” of obesity encompassing individual, and family eating and physical activity habits, the food and physical activity environments in which people live, work and play; societal influences such as income; education; occupation as well as individual psychology including mental health and wellbeing.

5.2 The Wider Determinates of Health

The wider determinants of health are various social, economic, and environmental factors influencing individuals' mental and physical health. The complexity of obesity reveals that different social, economic, biological and environmental factors that shape our lives and individual behaviours are driving forces influencing the increasing prevalence of obesity. These drivers have become woven into the fabric of how we live our lives, and evidence that actions addressing the wider determinants of health, which include a range of influences from our education to employment and income, the quality and safety of the built and natural environment, and the places we live and work in are crucial to tackling obesity.[76] The environment we live in makes it difficult for many people to eat healthily and do enough physical activity, which is termed an obesogenic environment and has been blamed for increasing global overweight and obesity prevalence.[77] The obesogenic environment exacerbating the likelihood of obesity in individuals, populations and different settings is related to structural factors limiting the availability of healthy, sustainable food at locally affordable prices, lack of safe and easy physical mobility into the daily life of all people, and absence of adequate legal and regulatory environment.[78]These wider determinants hinder maintaining a healthy weight and can cause variation in people’s ability to follow weight management advice.

5.3 Environment and societal Factors

Social, cultural and economic trends have had a significant impact on our diet and weight and have removed physical activity from much of daily life. Our surrounding environments and choices have changed which has brought corresponding challenges, including the way we eat and exercise.

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[75] Tackling obesities: future choices - project report (2nd edition) (publishing.service.gov.uk)

[76] Health Matters: Addressing the food environment as part of a local whole systems approach to obesity – UK Health Security Agency (blog.gov.uk)

[77] 07-735-obesogenic-environments-review.pdf (publishing.service.gov.uk)

[78] 07-735-obesogenic-environments-review.pdf (publishing.service.gov.uk)

5.3.1 Obesogenic environment

The ‘obesogenic environment’ refers to the role environmental factors play in determining healthy eating and physical activity behaviours, and the obesogenic environment is defined as the sum of influences that the surroundings, opportunities, or conditions of life have on promoting excess weight in individuals or populations.[79] Obesogenic environments cut across and impacts in our everyday lives. Evidence points to the quality of the local environment where people live, play and work as a contributing factor to excess calorie consumption and inactive lifestyles.[80] Availability, access, and promotion of certain foods, particularly those high in fat, sugar, and salt (HFSS), facilitate increased consumption of unhealthy food. Technological advances and the booming takeaway delivery industry have improved access to ‘fast food’ delivered straight to people’s homes at the click of a button, where healthy choices are scarce. Since the time of COVID-19 pandemic, takeaway services have increased exponentially.[81] From the 1920s onwards, the streets we live and play formally became a space designated for cars, with other uses for them deprioritised. As cars became more commonplace in society, they began to dominate public space and public understanding of how space should be used.

The environment can promote physical activity in daily lives, enable active travel to get to work, school or leisure activities, and help people access and choose healthier food options on our high streets, around schools and in our town centres.

The public health team at Kent County Council (KCC) is working with various stakeholders to address the wider determinants of health. The districts and boroughs in Kent have identified priorities to improve population health by aligning them with the Kent and Medway Integrated Care Strategy. Many of these priorities include some elements addressing wider determinants of health. The public health specialists supporting them with this process, creating action plans, and some areas are forming health alliance groups to implement these priorities. This results from an increased collaboration between the public health team, districts, and boroughs.

The public health team is also collaborating with the Growth, Environment, and Transport Team in developing planning and policies for creating healthier environments. These initiatives, which aim to integrate healthy lifestyles into people's

[79] 07-735-obesogenic-environments-review.pdf (publishing.service.gov.uk)

[80] Health Matters: Addressing the food environment as part of a local whole systems approach to obesity – UK Health Security Agency (blog.gov.uk)

[81] The Guardian. (2021). Just Eat takeaway orders soar 76% during six months of COVID restrictions. Available at: https://www.theguardian.com/business/2021/aug/17/just-eat-takeaway-orders-soar-76-during-six-months-of-covid-restrictions

daily lives, are significant contributions to moving away from the obesogenic to a healthy weight environment.
Recently, there has been a shift in recognition of the wider impacts of planning and the transport system on health, and there is a drive to use the design management of streets to promote access to open and green space and reduce the proliferation of fast food outlets and transport planning incorporating cycle lanes and safer payments and improved access to public transport to promote active travel and making more people move more in Kent. However, data show that more needs to be done to achieve the desired goal.

5.4 Effects of the living environment in Kent and Excess weight

5.4.1 Housing

Marmot's Obesity Review 2010, states that 'the individual choices that people make are influenced by the social circumstances in which they live'.[82] Access to good quality housing is essential for individuals' health and well-being, throughout life. The right home environment protects and improves health and wellbeing and prevents physical and mental ill health. The local environment plays an important role in providing access to services, ensuring safety, and offering opportunities for physical activity and accessibility to healthy food. Lack of these aspects can increase the risk of residents having excess weight.

Obesity and housing are linked to housing tenure and deprivation, with individuals in more deprived areas being more likely to be private renters or social tenants. Residents of public housing have rates of chronic diseases and certain health-related behaviours that are two to three times higher than those of individuals not living in public housing. Specifically, the rates of obesity (31.0%), current smoking (34.4%), and insufficient physical activity (61.8%) are higher among public housing residents compared to other urban populations.[83] Housing in these areas often lacks play provision and green space, and residents are more likely to live in neighbourhoods with a high concentration of fast-food outlets.

[82] Marmot M, Allen J, Goldblatt P, Boyce T, McNeish D, Grady M, Geddes I. Fair society, healthy lives: strategic review of health inequalities in England post-2010. 2010. The Marmot Review. London, UK. 2014. https://www.gov.uk/dfid-research-outputs/fair-society-healthy-lives-the-marmot-review-strategic-review-of-health-inequalities-in-england-post-2010

[83] Bowen, D.J., Quintiliani, L.M., Bhosrekar, S.G., Goodman, R. and Smith, E., 2018. Changing the housing environment to reduce obesity in public housing residents: a cluster randomized trial. *BMC Public Health*, *18*, pp.1-9.

It is important for future planning developments to consider elements such as adequate lighting, communal spaces for relaxation and play, and features that promote physical activity, such as good quality cycle lanes and paving. The design of housing estates can play a significant role in encouraging people to be more active, for example, by supporting cycling and walking. Additionally, access to good cooking spaces, shops selling quality foods and fresh fruits and vegetables, to making healthy eating choices easier for the residents. Additionally, accessibility to public services, quality sport and leisure opportunities, including parks and open spaces, are important factors in weight management. Ensuring quality housing promotes a healthy weight and addresses wider determinants of health and inequalities. Enabling quality housing for health and well-being is complex and requires the entire system to work together.

The Kent and Medway Housing Strategy 2025–2030 outlines plan to offer housing that increases access to green spaces, provides more options for active travel, and supports healthier food choices.[84] The WSO team has integrated healthy weight programmes into the KHA Health and Wellbeing Strategy. Recently, the Public Health department at the KCC has funded housing officer position to support the KHA in leveraging quality housing to promote the health and wellbeing of Kent residents, recognising housing as a fundamental element of wider determinants of health.

5.4.2 Number of Food Outlets and Excess Weight

Deprived neighbourhoods in England have five times more fast food outlets than affluent areas[85]. Studies indicate that proximity to numerous fast-food outlets is linked to increased takeaway consumption and higher rates of excess weight, especially among socioeconomically disadvantaged groups.

A UK study found that exposure to takeaway food outlets at home, work, and during commuting was associated with slightly higher consumption of takeaway food, higher body mass index, and greater odds of obesity.[86] Another UK longitudinal study found an association between area deprivation and several fast-food outlets, with tentative evidence that the density of fast-food outlets at the city/town scale is associated with fast food consumption and a relationship between neighbourhood deprivation and excess weight, but no relationship between fast food outlets in the neighbourhood and excess weight.[87] Meanwhile, a study by Griffiths and colleagues provides little

[84] Kent-and-Medway-Housing-Strategy-2025-web.pdf

[85] England's poorest areas are fast food hotspots - GOV.UK

[86] Burgoine, T et al. Does neighborhood fast-food outlet exposure amplify inequalities in diet and obesity? A cross-sectional study. Am J Clin Nutr; 11 May 2016; DOI: 10.3945/ajcn.115.128132.

[87] Green, M.A., Hobbs, M., Ding, D., Widener, M., Murray, J., Reece, L. and Singleton, A., 2021. The association between fast food outlets and overweight in adolescents is confounded by neighbourhood

support for the association between exposure to food outlets and obesity.[88] The relationship between a higher number of fast-food outlets and excess weight is complex, with many intersecting factors.
The study from the Centre for Diet and Activity Research (CEDAR) at the University of Cambridge suggests that policies to improve the food environment in towns and cities could help tackle social inequalities in diet and health. Observed associations between the presence or absence of fast-food outlets and neighbourhood deprivation may support environmental explanations for the higher prevalence of obesity in poor neighbourhoods.

Figure 36 shows associations between the presence or absence of fast-food outlets and neighbourhood deprivation may support environmental explanations for the higher prevalence of obesity in poor neighbourhoods.

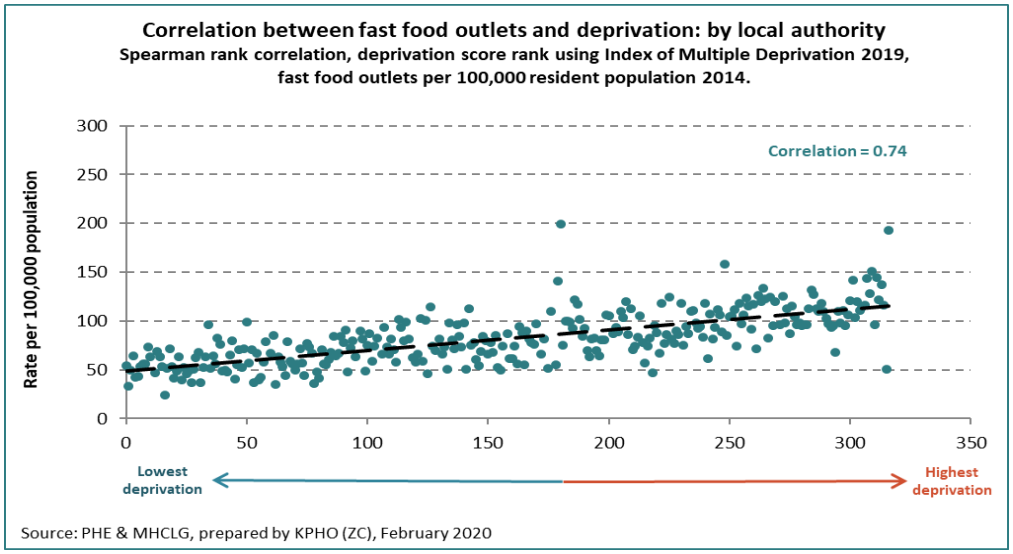

Figure 36: Correlation between fast food outlets and deprivation, by local authority

According to data collected by the Food Standards Agency and analysed by the Office of Health Improvement and Disparities, Kent has 1,608 fast food outlets, which equates to 99.9 per 100,000 population. This is lower than the England rate of 115.9 per 100,000, but higher than the South East regional rate of 91.7 per 100,000.[89]

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deprivation: a longitudinal analysis of the Millennium Cohort Study. International Journal of Environmental Research and Public Health, 18(24), p.13212.

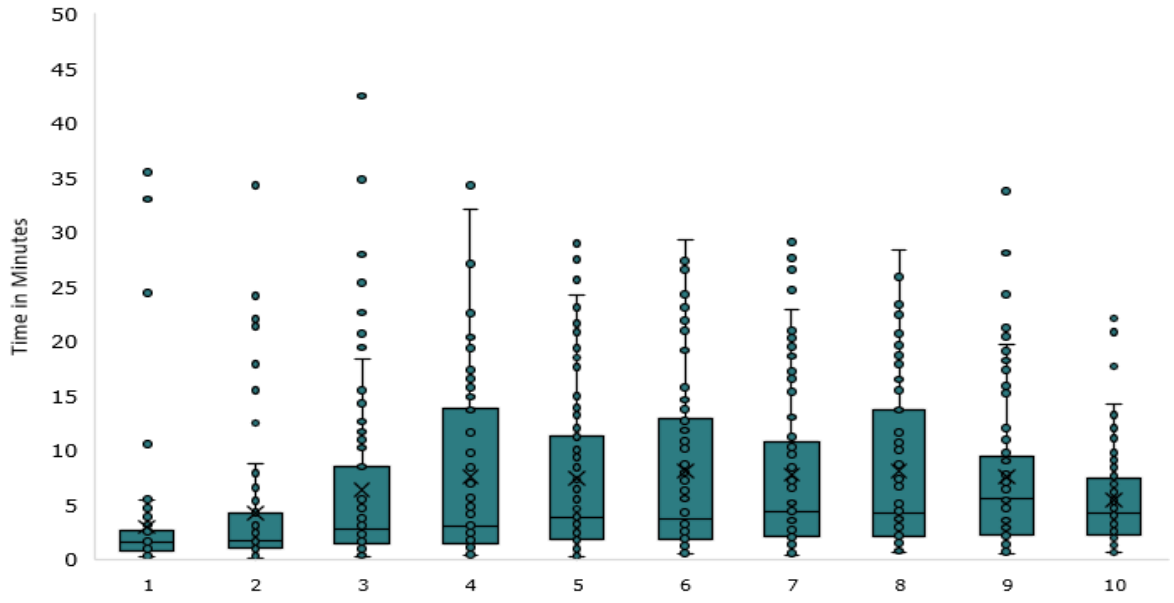
[88] Griffiths, C., Frearson, A., Taylor, A., Radley, D. and Cooke, C., 2014. A cross sectional study investigating the association between exposure to food outlets and childhood obesity in Leeds, UK. International Journal of Behavioral Nutrition and Physical Activity, 11, pp.1-10.

[89] Obesity, physical activity and nutrition - Data | Fingertips | Department of Health and Social Care

The number of fast food outlets per 100,000 population varies across the Kent districts. Thanet has the highest rate (151 per 100,000 population) while Sevenoaks has the lowest rate (72.6) per 100,000 population. Thanet and Folkestone and Hythe have higher rates than the Kent average, while Ashford, Maidstone, Tonbridge and Malling, and Sevenoaks have lower rates.

Figure 37 illustrates the distribution of travel time (in minutes) to the nearest fast food outlet based on the index of multiple deprivation, with 1 representing the most deprived and 10 representing the least deprived.

- Most Deprived (1 + 2): The data shows a compact range of travel times with a few outliers, indicating less variation and a generally shorter time required to reach fast food outlets within these areas.
- Moderately Deprived (3-8): As the level of deprivation increases, there is a general trend towards longer travel times. The boxes become larger, and more outliers appear, suggesting greater variation and some higher travel times.
- Least Deprived (9 + 10): In the least deprived areas the range and outliers decrease but the mean and median remain similar to the other less deprived areas. This suggests generally lower travel times to fast food outlets but still tend to be higher compared to the most deprived.



Source: CDRC, prepared by KPHO (LS), Sept 24

Figure 37: Time to nearest Fast Food Outlet in Kent, by Deprivation Decile

Figure 38 shows the geographic variation in deprivation according to Index of Multiple Deprivation 2019 scores by lower super output area (LSOA).

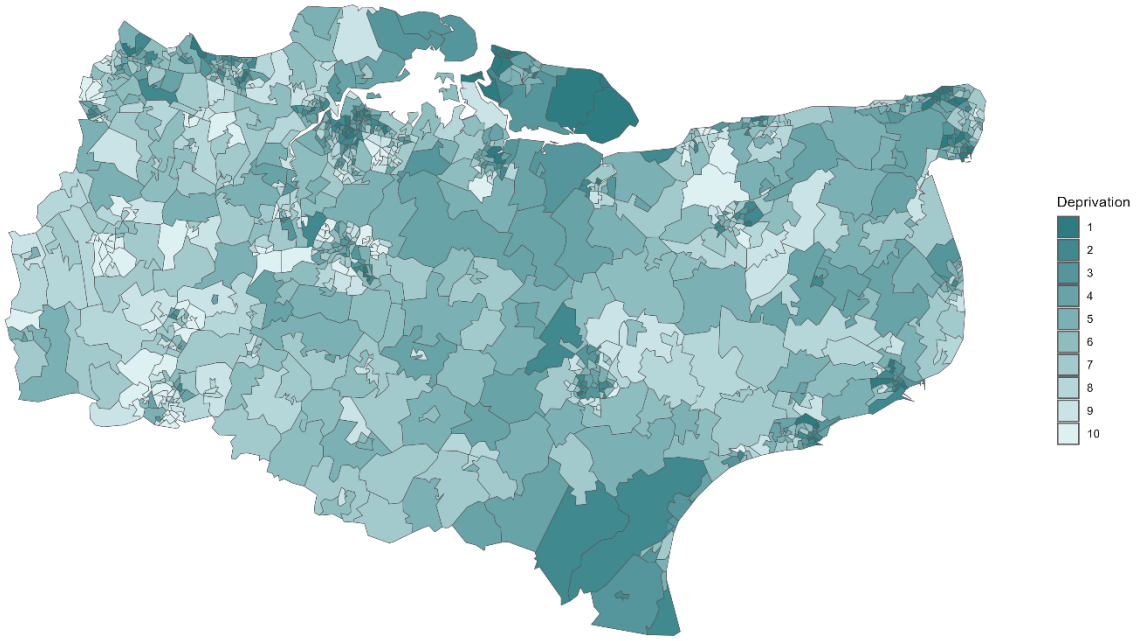


Figure 38: Deprivation Decile Map, Kent and Medway LSOAs

Figure 39 illustrates that fast food outlets are predominantly situated in densely populated areas, as opposed to less densely populated regions. Additionally, there is a higher concentration of fast food outlets in coastal communities compared to the more rural inland areas. Comparison of the deprivation map with the time to nearest fast food outlet map shows significant overlap between higher levels of deprivation and lower times to nearest fast food outlet.

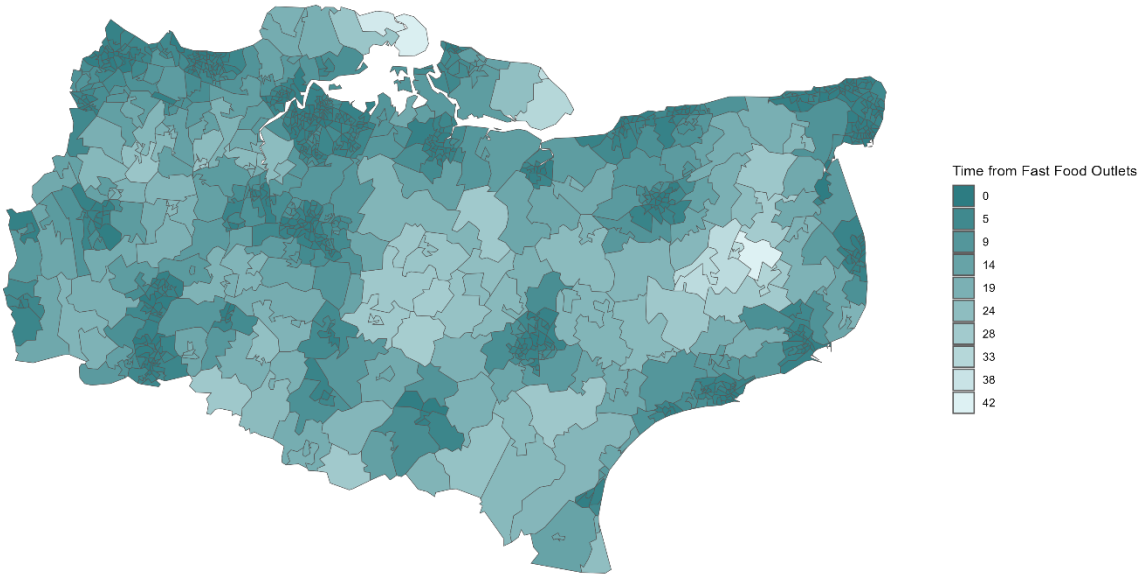
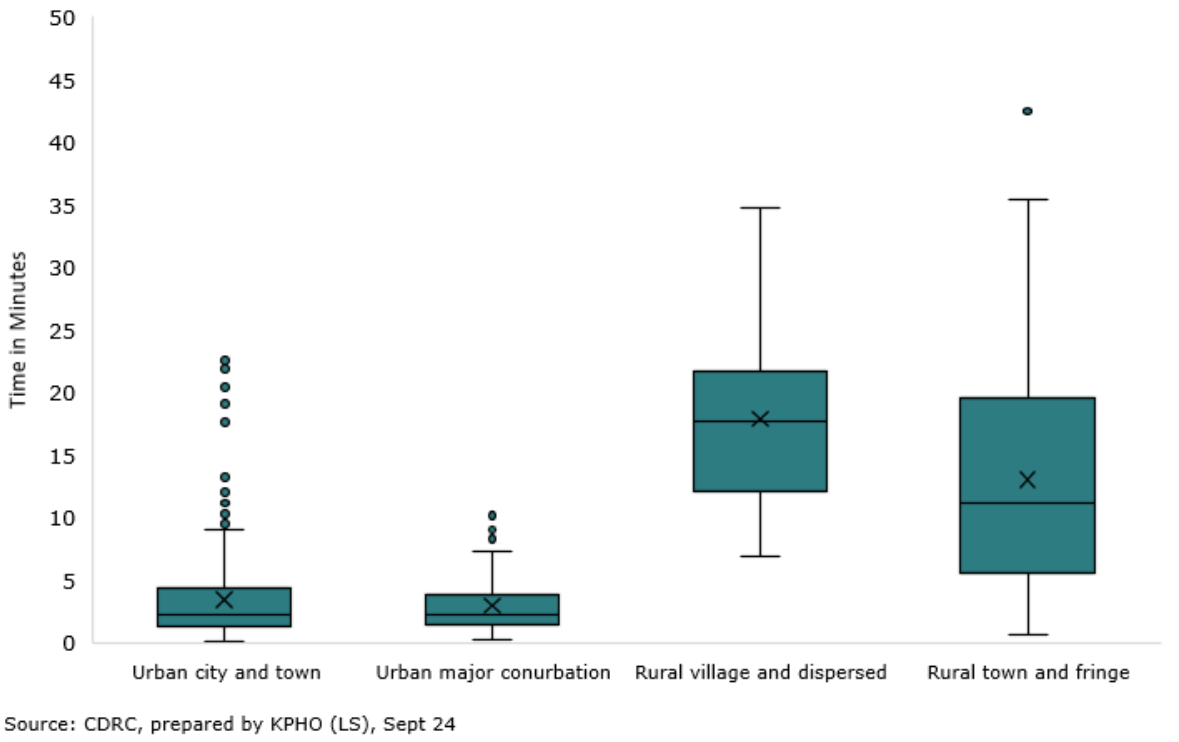


Figure 39: Time to nearest Fast Food Outlet in Kent, by LSOA

Figure 40 depicts the distribution of travel time to the nearest fast food outlet (in minutes) across four distinct types of areas: Urban city and town, Urban major conurbation, Rural village and dispersed, and Rural town and fringe.

- Urban city and town: The data reveals a wide range of travel times, with a median time of approximately 2 minutes and a mean of 4 minutes. There are many outliers indicating significant variation within these areas.
- Urban major conurbation: The median travel time is slightly lower than in Urban city and town, suggesting that individuals in major conurbations generally have shorter travel times to fast food outlets, there are less outliers.
- Rural village and dispersed: This category exhibit a much higher median travel time (approximately 18 minutes) than the other categories, reflecting that residents in rural villages and dispersed areas live further from fast food outlets compared to urban areas.
- Rural town and fringe: The median travel time is lower than Rural village and dispersed (12 minutes) but higher than urban areas.



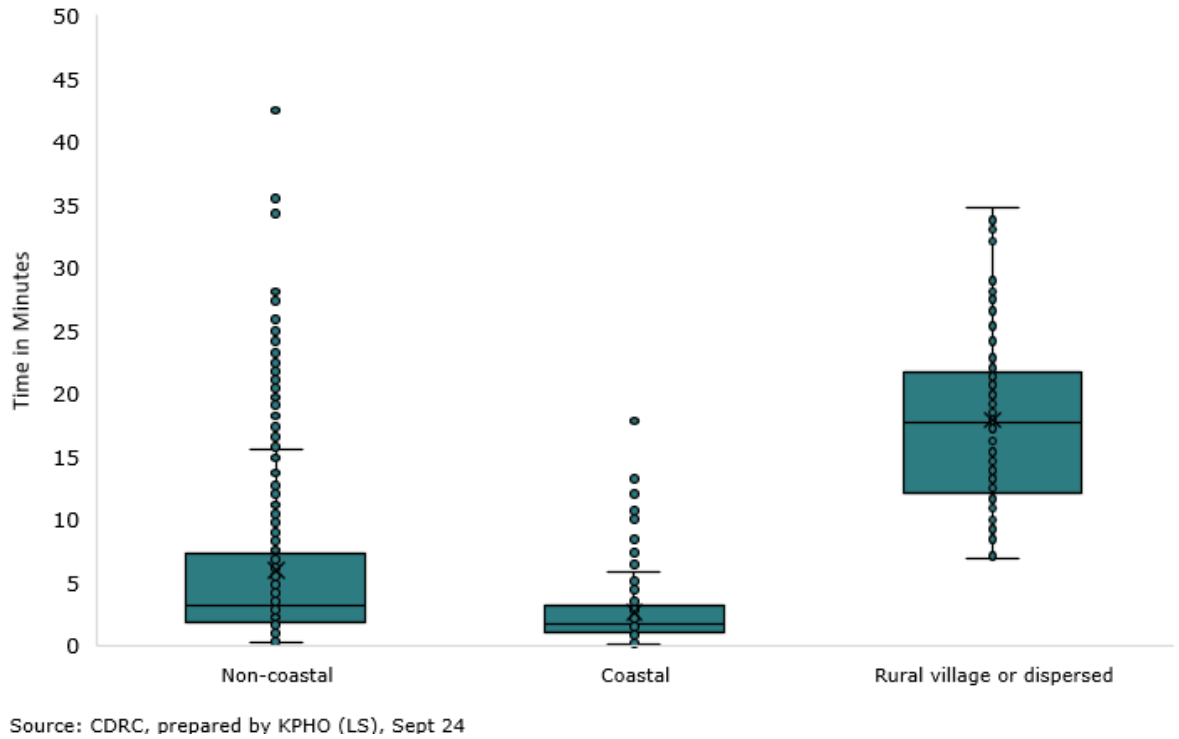
Source: CDRC, prepared by KPHO (LS), Sept 24

Figure 40: Time to nearest Fast Food Outlet in Kent, by Urbanisation

Figure 41 illustrates the distribution of travel time to the nearest fast food outlet (in minutes) across three distinct types of areas: Non-coastal, Coastal, and Rural village or dispersed.

- Non-coastal: The data shows a wide range of travel times with many outliers, indicating more variation in travel time from fast food outlets within these areas.
- Coastal: This category exhibits the smallest range and a few outliers, suggesting variation in travel times.

• Rural village or dispersed: This category displays the largest range with no outliers indicating a wide variation and generally longer travel times than the other areas, shown by the higher mean and median travel time.



Source: CDRC, prepared by KPHO (LS), Sept 24

Figure 41: Time to nearest Fast Food Outlet in Kent, by Coastal/Non-Coastal Classification

5.4.3 Access to supermarket, cost of food and Excess weight

It is widely accepted that food environments in the neighbourhood may interact with personal characteristics to affect individual dietary behaviours and weight status. Neighbourhood food environments consist of various types of food venues, which are normally considered healthy or unhealthy places, depending on the majority of the food provided in each type of venues.[90] Thus, they can affect weight status in both directions.

The high cost of healthier food like fruits, vegetables, and wholegrains makes healthy eating difficult for low-income families, leading to greater reliance on cheaper, energy-dense processed foods. This affordability gap contributes to higher rates of obesity and diet related diseases, especially in deprived areas facing food insecurity. Healthy options cost nearly three times more per calorie than less healthy

[90] Fiechtner L, Kleinman K, Melly SJ, et al. Effects of proximity to supermarkets on a randomized trial studying interventions for obesity. Am J Public Health. 2016;106(3):557-562.

alternatives[91], reinforcing health inequalities and highlighting the need for policies that improve access to affordable, nutritious food.

Greater availability of supermarkets with healthier food options may contribute to reducing the prevalence of obesity. For example, each 1.6-km shorter distance to a supermarket was associated with a decrease of BMI z-score by 0.04 units, [92]. presumably due to greater access to healthier foods in supermarkets compared with in other food venues, such as convenience stores. Half of the included studies indicated a negative association, one fourth reported a positive association, and the remaining one fourth did not find a significant association. [93] Food outlets which sell mostly unhealthy and ultra-processed foods were associated with higher levels of obesity, while fruit and vegetable availability and supermarket accessibility, which enable healthier food access, were related to lower levels of obesity. The regulation of food outlets through zoning laws may not be enough to tackle the burden of obesity. Regulations that focus on increasing the availability of healthy food within stores and ensure overall healthy food environments require further attention.[94]

Figure 42 shows that across Kent, there was a higher percentage of lower super output areas within the lower quarter of supermarket access in urban areas. Interpretation of this suggests that urban areas have challenges around supermarket access from greater distances to, as well as lower household car ownership

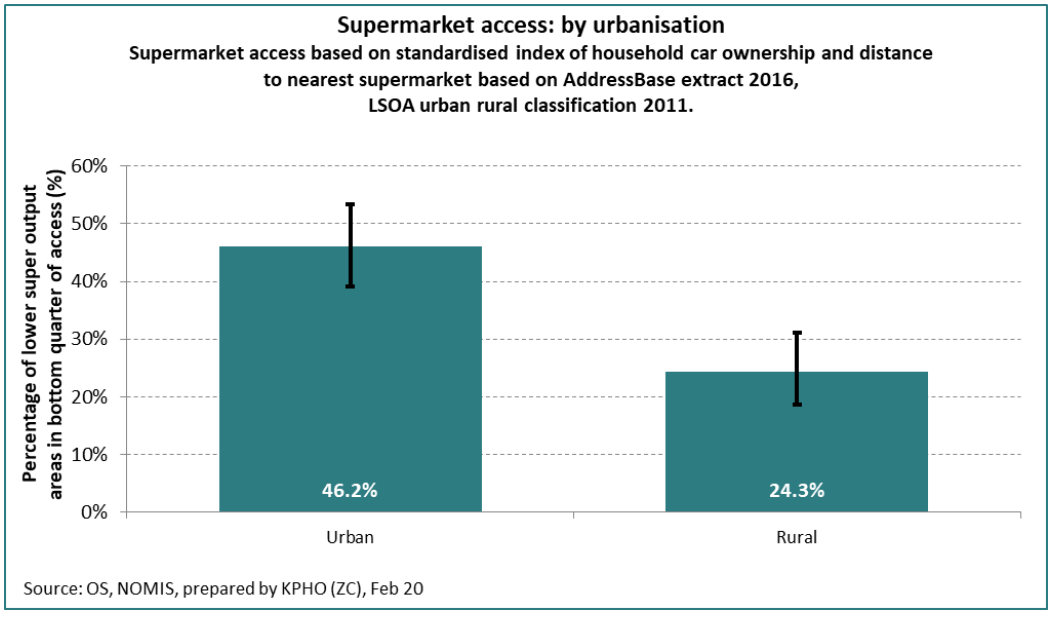


Figure 42: Supermarket access in Kent, by urbanisation

[91] Major report highlights impact of Britain's disastrous food policy | Food Foundation

[92] Obesity - NHS (www.nhs.uk)

[93] Zhou, Q., Zhao, L., Zhang, L., Xiao, Q., Wu, T., Visscher, T., Zhao, J., Xin, J., Yu, X., Xue, H. and Li, H., 2021. Neighbourhood supermarket access and childhood obesity: a systematic review. Obesity reviews, 22, p.e12937.

[94] Pineda, E., Stockton, J., Scholes, S., Lassale, C. and Mindell, J.S., 2024. Food environment and obesity: a systematic review and meta-analysis. MJ Nutrition, Prevention & Health.

There was a higher percentage of lower super output areas within the lower quarter of supermarket access in areas of deprivation. Interpretation of this suggests that more deprived areas across Kent, have challenges around supermarket access from greater distances to, as well as lower household car ownership. Figure 43 shows the supermarket access in Kent, by deprivation.

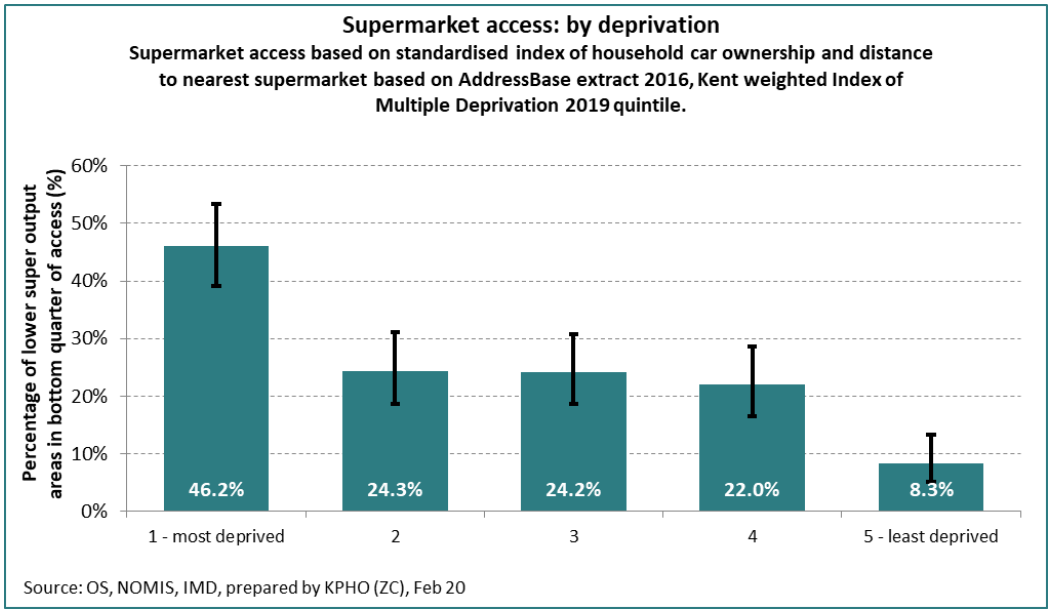


Figure 43: Supermarket access in Kent, by deprivation

The food environment plays an important and often dominant role in food choice, eating patterns, energy intake and ultimately, levels of excess weight. A recently conducted systematic review and meta-analysis found that food outlets which sell mostly unhealthy and ultra-processed foods were associated with higher levels of obesity, while fruit and vegetable availability and supermarket accessibility, which enable healthier food access, were related to lower levels of obesity. The researchers concluded that the regulation of food outlets through zoning laws may not be enough to tackle the burden of obesity. Regulations that focus on increasing the availability of healthy food within stores and ensure overall healthy food environments require urgent attention.[95] The national paper on the food environment and obesity highlights a significant need for action. It acknowledges that there is no one-size-fits-all solution and emphasizes the necessity for a range of interventions at the local level. The PHE toolkit, Strategies for Encouraging Healthier Out of Home Food Provision A toolkit for local councils (publishing.service.gov.uk) made recommendations for increasing opportunities for communities to access healthier food when they are out and about in their local area. Figure 44 shows food and drink environment in England.

[95] Pineda, E., Stockton, J., Scholes, S., Lassale, C. and Mindell, J.S., 2024. Food environment and obesity: a systematic review and meta-analysis. MJ Nutrition, Prevention & Health.

Figure 44: The Food and Drink Environment, PHE

5.4.4 Access to greenspace and excess weight

Green spaces can be categorised as publicly accessible and private natural, agricultural, and urban green areas.[96] Access to green space may influence individuals' physical activity and, consequently, their BMI. However, there is inconsistent evidence regarding the relationship between access to green space and excess weight. This inconsistency may be due to variations in the definition of green space exposure, different measurements of proximity to green spaces, and other influencing factors. A cross sectional study found a small protective effect of greenspace for those living in the greenest areas, although, this relationship was statistically insignificant.[97] Factors such as the perceived acceptability of green spaces, fear of crime, and the walkability of the local environment, including road connectivity, land use, residential density, and traffic exposure, could potentially mediate this relationship.

[96] Pristeri, G., Peroni, F., Pappalardo, S.E., Codato, D., Masi, A. and De Marchi, M (2021) Whose urban green? mapping and classifying public and private green spaces in Padua for spatial planning policies. ISPRS International Journal of Geo-Information, 10(8), p.538.

[97] Cummins S. and Fagg J. (2012) Does greener mean thinner? Associations between neighbourhood greenspace and weight status among adults in England. International Journal of Obesity, 36, 1108-1113

An improved and substantial body of evidence now supports the value of green (and blue) spaces to our health, facilitating an improved understanding of the wider determinants of health, which the natural environment is key. Greenspace is thought to link to health and wellbeing in various ways[98] [99] including promoting active travel and 'green' design aspects in the built environment that can facilitate healthier lifestyles choices [100] [101] [102]

The Accessible Natural Green Space Standards (ANGSt) (2021) is a set of guidelines developed in the United Kingdom to ensure that urban residents have access to natural green spaces. There are different levels of the standards according to the size of accessible green spaces and the time taken to access them. This analysis focuses on two levels of the standards:

1. Doorstep standard: accessible greenspace at least 0.5 hectares in size within 200 metres (less than 5 minute walk)
2. Neighbourhood standard: accessible greenspace at least 10 hectares in size within 1 kilometre (15–20-minute walk)

Analysis of these standards by lower super output area (LSOA) shows the percentage of LSOA area that is covered by the standard.

On average across Kent, 28.3% of LSOA area meets the ANGSt doorstep standard i.e. an average of 28.3% of LSOA area is within 200 metres of an accessible greenspace at least 0.5 hectares in size. By individual LSOA in Kent, the percentage area meeting the ANGSt doorstep standard ranges from 0% to 100%.

Figure 45 shows the average percentage of LSOA area meeting the ANGSt doorstep standard in each district along with the size in hectares of accessible greenspace per 1,000 people3.

Dover has the highest average percentage LSOA area meeting the ANGSt doorstep standard with 33.5%. Tonbridge and Malling has the lowest with 19.6%.

Folkestone and Hythe has the greatest area of accessible greenspace at 1.2 hectares per 1,000 people. Thanet has the smallest with 0.21 hectares per 1,000 people.

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[98] Lovell R, and Depledge, Michael., Health and the natural environment: A review of evidence, policy, practice and opportunities for the future. European Centre for Environment and Human Health University of Exeter Medical School. 2018.

[99] Lovell, R., White, M.P., Wheeler, B., Taylor, T., Elliott, L. (2020) A rapid scoping review of health and wellbeing evidence for the Green Infrastructure Standards European Centre for Environment and Human Health, University of Exeter Medical School. For: Natural England, Department for the Environment, Food and Rural Affairs, Public Health England, and Ministry for Housing, Communities and Local Government, England.

[100] NHS England. Putting Health into Place. Introducing NHS England's Healthy New Towns programme. www.kingsfund.org.uk/sites/default/files/2018-09/putting-health-into-place- nhs-england.pdf. 2019.

[101] Ministry of Housing CaLG. National Design Guide. Planning practice guidance for beautiful, enduring and successful places. Crown Copyright. 2019; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/843468/National_Design_Guide.pdf.

[102] Public Health England. Spatial Planning for Health: An evidence resource for planning and designing healthier places. www.gov.uk/government/publications/spatial-planning-for- health-evidence-review. 2018.

Thanet has a small area of total accessible greenspace (0.21 hectares) but the greenspace tends to be in densely populated areas where LSOA size is relatively small, which explains why the 33.4% average of LSOA area meeting the ANGSt doorstep standard is high in Thanet compared to other districts.

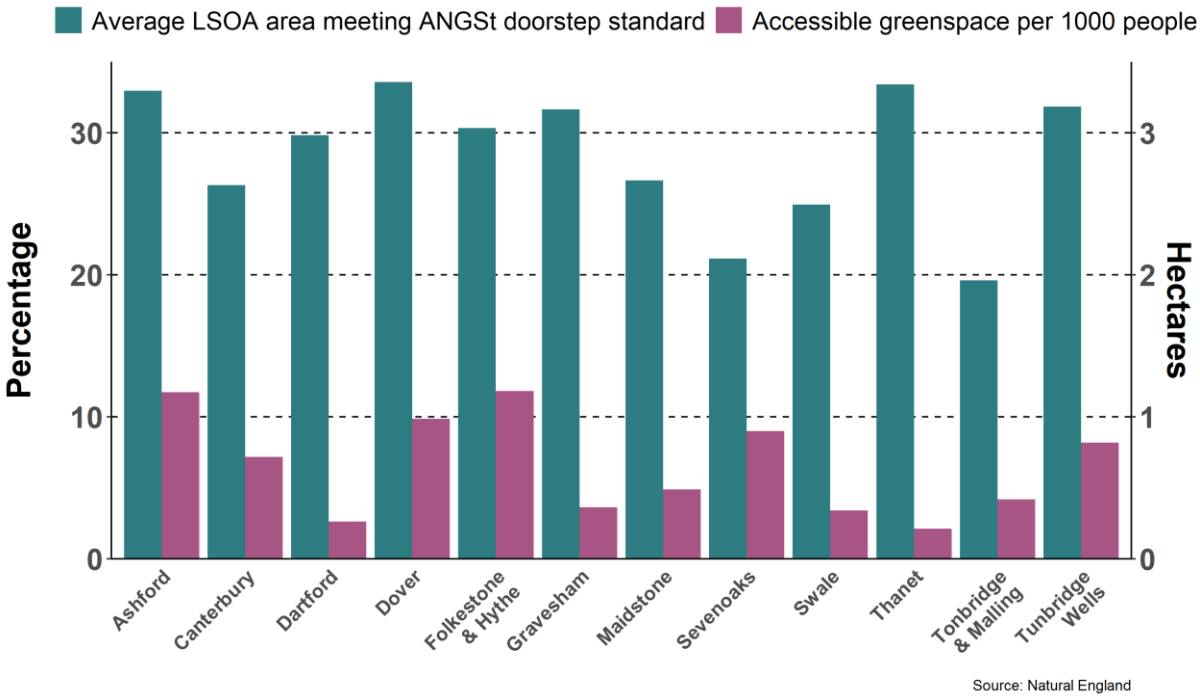


Figure 45. Average LSOA area meeting ANGSt doorstep standard accessible greenspace per 1000 people by districts.

Figure 46 below shows average percentage LSOA area meeting the ANGSt doorstep standard by Index of Multiple Deprivation decile in Kent.
LSOAs in the most deprived decile have an average of 39.8% of the total LSOA area meeting the ANGSt doorstep standard; the three most deprived deciles have the three highest averages. LSOAs in the least deprived decile have the lowest average percentage of LSOA area meeting the ANGSt doorstep standard.

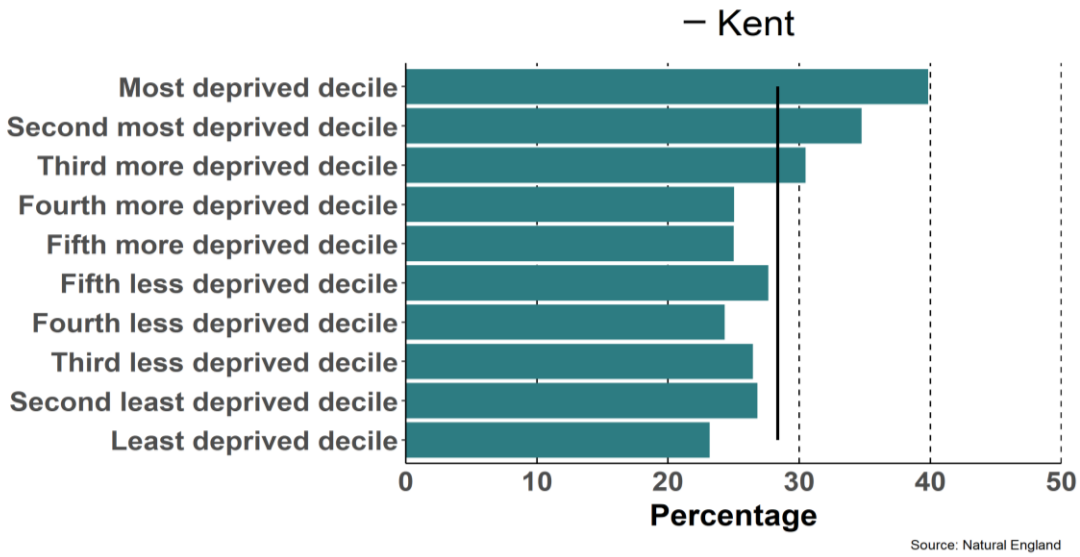


Figure 46: Percentage LSOA area meeting the ANGSt doorstep standard by Index of Multiple Deprivation decile in Kent.

Figure 47 shows LSOAs shaded according to a combination of accessible ANGSt doorstep standard and deprivation (Index of Multiple Deprivation). LSOAs shaded red are defined as least favourable as they have the lowest coverage of greenspace access combined with high deprivation. At the other end of the scale, LSOAs defined as most favourable have the highest coverage of greenspace access combined with low deprivation.

ANGSt doorstep standard

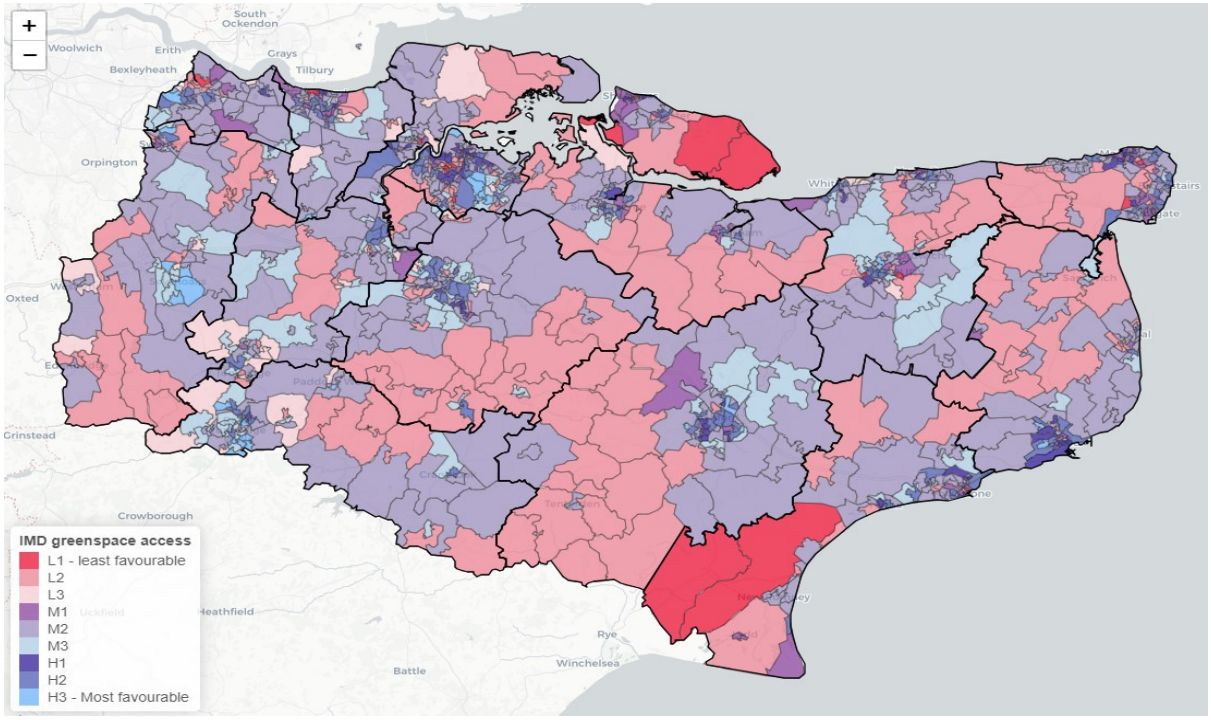


Figure 47. Geographic variation in ANGSt doorstep access and deprivation by LSOA

Lack of awareness regarding the health benefits of green spaces, along with perceptions of safety and various intersectional factors, can negatively affect the utilisation of these areas, particularly for high-risk groups. A key recommendation from the Improving access to greenspace 2020 PHE review is to “Consider local green (and blue) space to be critical assets for maintaining and supporting health and wellbeing in local communities” and another is for local authorities to “work with local NHS systems and professionals, including Sustainability and Transformation Partnerships and ICSs, to promote the role greenspace plays in individual and population health outcomes. This will support the health service’s ambition to take more action to prevent poor health and to use green assets, through initiatives such as social prescribing, as part of the overall plan to achieve this aim. To promote the health and well-being of Kent's population, there is a need for health and social care services, including Voluntary, Community, and Social Enterprise (VCSE) organisations, to enhance access to green spaces. This is especially important for individuals in high-risk groups, and green spaces prescription to be integrated into clinical pathways.

5.4.5 Public and Private Sports Facilities

There is little UK based research exploring the relationship between access to sports facilities, whether this promotes activity and decreases excess weight. The largest nationally representative study to date found lower numbers of outdoor physical activity facilities within the most deprived areas in comparison to the least deprived.[103] However, the findings for indoor physical activity facilities were non-significantly lower within the most deprived areas.[19] It should be noted that sports facilities and structured activity do not exclusively provide opportunity for physical activity, the importance of play from unstructured activity has been recognised.[104] Furthermore, the factors that guide use of sports facilities are likely to be complex.

Figure 48 illustrates the distribution of travel time to the nearest leisure centre (in minutes) across four distinct types of areas: Urban city and town, Urban major conurbation, Rural village and dispersed, and Rural town and fringe.

- Urban city and town: The data shows a wide range of travel times, with the median time around 5 minutes, indicating significant variation within these areas.
- Urban major conurbation: The median travel time is similar to Urban city and town, but with a smaller range and less outliers, suggesting that individuals in major conurbations generally live closer to leisure facilities than their urban counterparts.
- Rural village and dispersed: This category has a higher median travel time than all other categories, reflecting that residents in rural villages and dispersed areas live further than residents from leisure centres compared to urban areas.

[103] Molaodi O.R. et al. (2012) Neighbourhood food and physical activity environments in England, UK: does ethnic density matter? *International Journal of Behavioral Nutrition and Physical Activity*, 9, 75
[104] (2008) *Child: Care, Health and Development*, 34(4), 470-474

- Rural town and fringe: The median travel time is lower than Rural village and dispersed but still higher than urban areas.

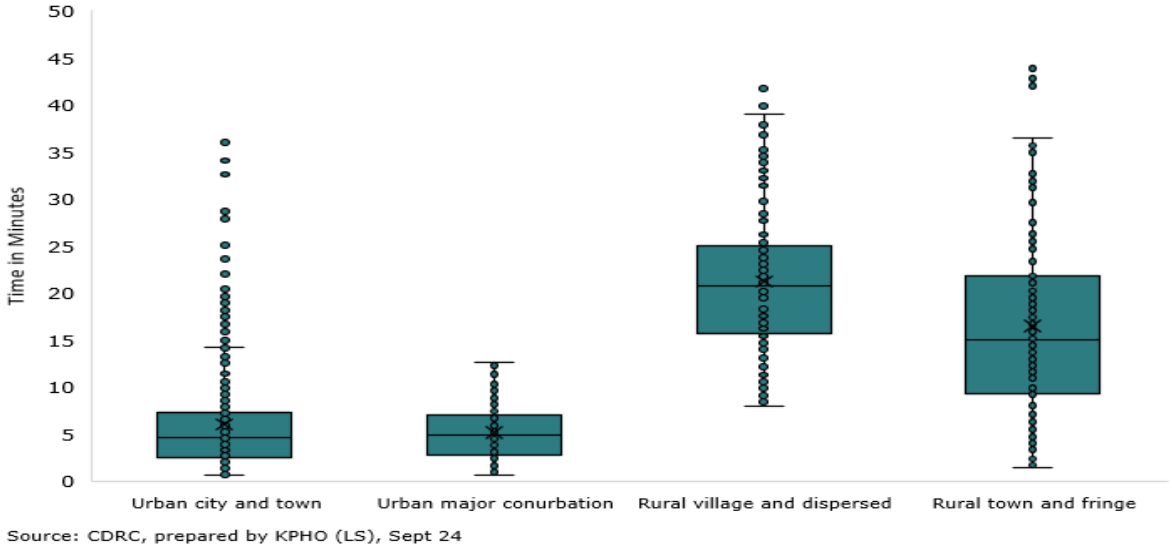


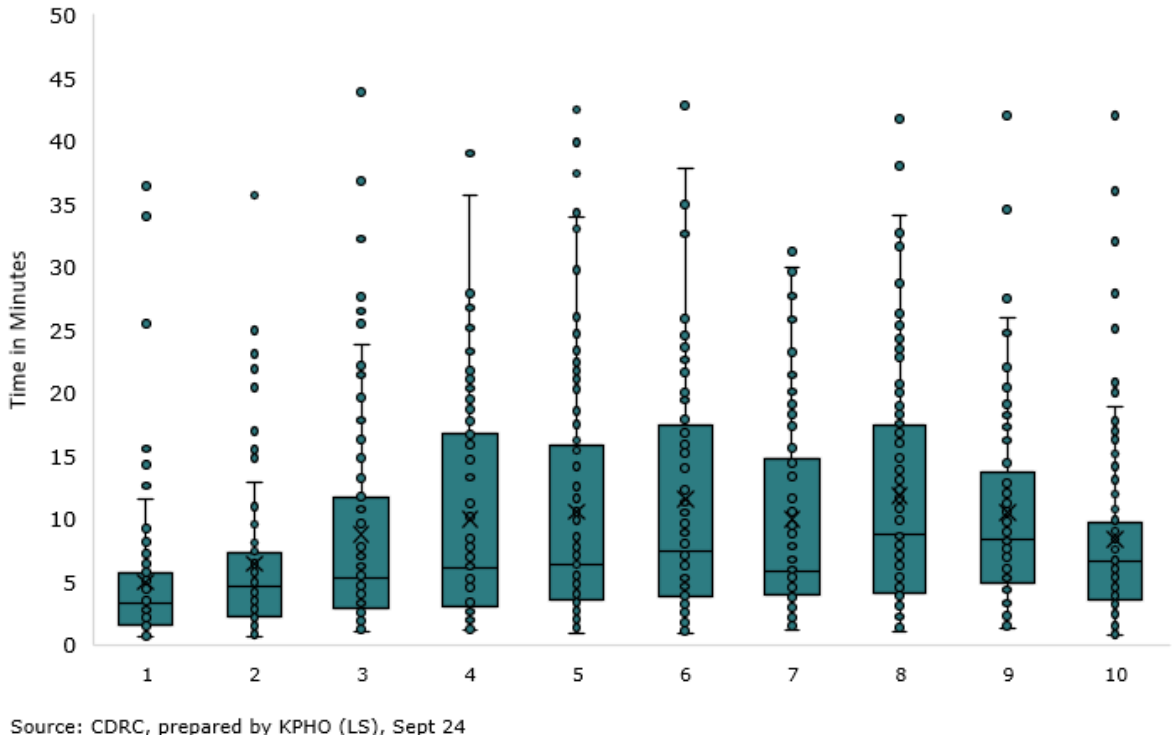
Figure 48: Time to nearest Leisure Centre in Kent, by Urbanisation

Figure 49 illustrates the distribution of travel time (in minutes) to the nearest leisure centres based on the index of multiple deprivation, with 1 representing the most deprived and 10 representing the least deprived.

- Most Deprived (1 + 2): The data shows a compact range of travel times with a few outliers, indicating less variation and a generally shorter time required to reach leisure centres within these areas.

- Moderately Deprived (3-8): As the level of deprivation increases, there is a variation in travel times. The boxes become larger, and more outliers appear, suggesting greater variation and some higher travel times.

- Least Deprived (9 + 10): In the least deprived areas the range and outliers decrease but the mean and median remain similar to the other less deprived areas. This suggests generally lower travel times to leisure centres but still tend to be higher compared to the most deprived.



Source: CDRC, prepared by KPHO (LS), Sept 24

Figure 49: Time to nearest Leisure Centre in Kent, by Deprivation Decile

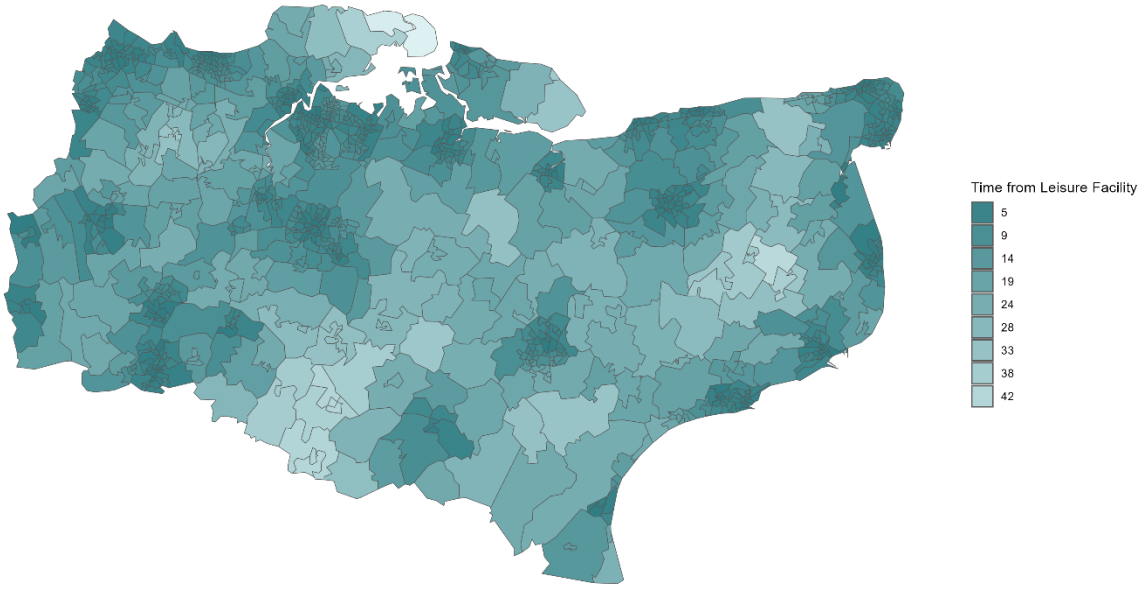


Figure 50. Geographic variation in average time taken to reach a leisure facility, by LSOA

Figure 50 indicates that leisure centres are more evenly distributed across Kent compared to the fast food outlets shown in the fast food outlets map. While there is still a higher concentration of leisure centres in urban and built-up areas, they are more widely dispersed.

5.5 Biological Factor

Genetics, a complex interplay of certain physiological characteristics such as age, gender, medical conditions, medications, and stress, plays a significant role in increasing the risk of excessive weight gain. This can cause metabolic rate to slow down, leading to overweight and Obesity. There is growing evidence that certain genes can increase the risk of an individual to accumulating excessive weight. Single nucleotide polymorphisms (SNP) in the fat mass and Obesity-associated (FTO) gene region are linked to obesity risk. These SNPs influence human appetite and eating behaviour, but interestingly, they do not affect energy expenditure.[105]
Age and gender are significant factors that can make individuals more prone to developing excess weight. The physiological and metabolic changes that occur in women during menopause, because of oestrogen deficiency, have been shown to affect lipid metabolism, energy consumption, insulin resistance, and body fat composition[106]. In 2020/21, obesity increased with age from 8% of adults aged 16 to

[105] Fawcett, K and Barroso, I. (2010) 'The genetics of obesity: FTO leads the way', Trends in genetics, 26(6), pp.266-274.
[106] Obesity and menopause - ScienceDirect

24, to 32% of those aged 65 to 74, before decreasing in those aged 75 and over to 26% in England.[107]
Understanding these influences can foster empathy for those dealing with these challenges and emphases the need to incorporates a compassionate approach in tackling excess weight.

5.6 Health Conditions and Excess weight

There are also some underlying health conditions that can occasionally contribute to weight gain, such as an underactive thyroid gland (hypothyroidism), although these types of conditions do not usually cause weight problems if they are effectively controlled with medicines. Although physiological conditions are attributed to overweight and obesity, other environmental factors can interact with biological conditions and increase the risk of having obesity.

Some medicines can also make people more likely to put on weight, including steroids and some medicines for high blood pressure, diabetes or mental health conditions. The following medication groups may increase the risk of individuals having excess weight.

- Drugs used in diabetes
- Antipsychotics
- Antidepressants
- Epilepsy medicines
- Steroid hormones (e.g. prednisolone and contraceptives)
- Antihypertensives

(NB: some medicines in these classes will cause weight loss.)
The mechanism of weight gain is varied depending on medicines type. Weight gain can be caused by the following:

- Stimulation of appetite
- A decrease in body metabolism
- Alteration in how the body stores and absorbs sugars and minerals
- By causing tiredness and reduction in physical activity

5.7 Psychological Factor

Obesity is not simply down to an individual's lack of willpower. Psychological experiences also play a big role – up to half of adults attending specialist obesity services have experienced childhood adversity[108]. There is a well-established

[107] Obesity prevalence 2021
[108] Hollingsworth, K., Callaway, L., Duhig, M., Matheson, S. and Scott, J. (2012). The association between maltreatment in childhood and pre-pregnancy obesity in women attending an antenatal clinic in Australia. PloS one, 7(12), e51868

association between stress and obesity in adulthood[109]. Exposure to chronic stress, such as financial insecurity, family discord, the stress of being part of a stigmatised group, or mental illness, results in the person's stress response system being constantly activated. The experience of stress increases the risk of excessive weight gain both directly and indirectly[110]. Chronic activation of the stress response system results in greater accumulation of internal body fat (visceral fat), which is a type of body fat stored in the abdomen and surrounding the internal organs[111]. Stress also influences a range of behaviours, such as sensitivity to food cues and cravings that lead to eating more or choosing more calorific-dense foods[112] increasing the risk of individuals having excess weight.

[109] Wardle, J., Chida, Y., Gibson, E., Whitaker, K. & Steptoe, A. (2011). Stress and adiposity: A meta-analysis of longitudinal studies. Obesity, 19(4), 771–778.

[110] Psychological perspectives on obesity: policy, practice and research priorities | BPS

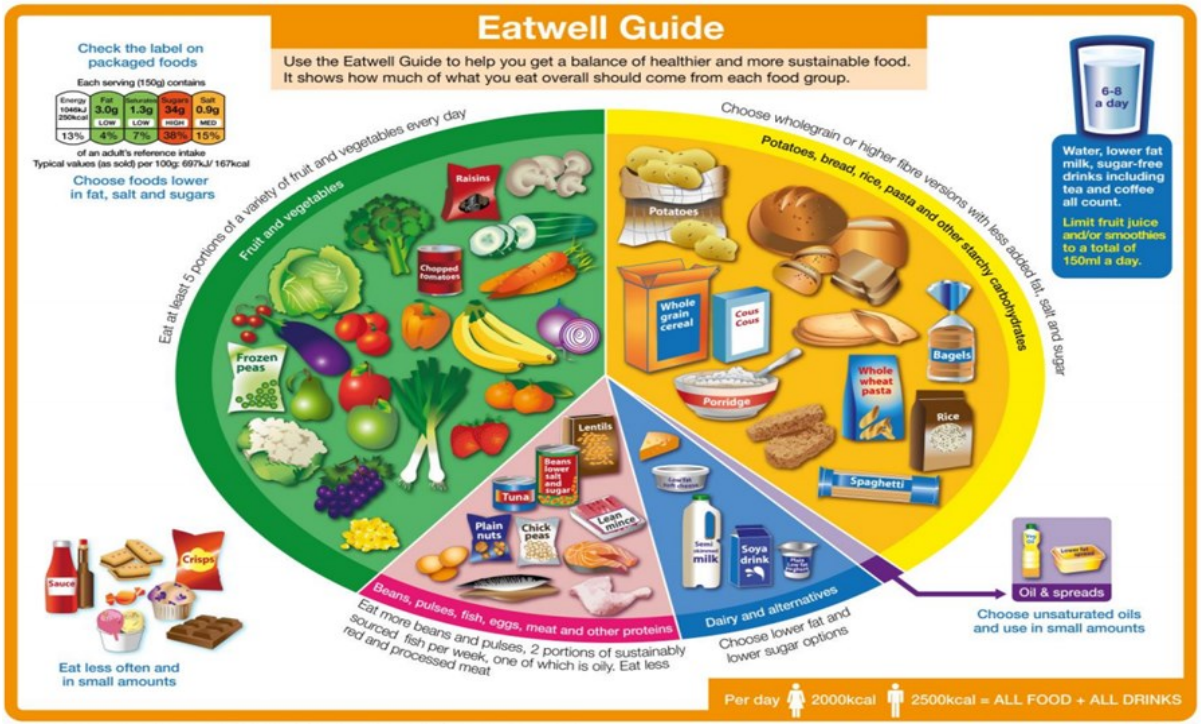
[111] Spencer, S. and Tilbrook, A. (2011). The glucocorticoid contribution to obesity. Stress, 14(3), 233–246.

[112] Yau, Y. and Potenza, M. (2013). Stress and eating behaviors. Minerva Endocrinologica, 38(3), 255–67

5.8 Individuals Risk Factors

5.8.1 Individual Behaviour Risk Factors – Healthy eating and physical activity

Eating a healthy, balanced diet means eating a wide variety of foods in the right proportions and consuming the right amount of food and drink to achieve and maintain a healthy body weight.[113] Evidence shows significant health benefits to eating a balanced diet and getting at least 5 portions of a variety of fruits and vegetables daily. The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet. Figure 51 shows the Eatwell Guide.



Source: [Eatwell Guide (publishing.service.gov.uk)]
Figure 51: The Eatwell Guide

An unhealthy diet, including HFSS foods, can provide excess calories throughout the day stored in the body as fat and build up over time. Alcohol consumption, eating out in restaurants, takeaways, large portion sizes and sugary drink consumption can all be influenced by living in a deprived neighbourhood, knowledge, family and income and contribute in many circumstances to weight gain.[41] A poor diet, with large

[113] Eating a balanced diet - NHS (www.nhs.uk)

amounts of calories from food that's high in fat and sugar, is one of the primary causes of excess weight.[114]

5.8.2 Fruit and vegetable consumption

The NHS recommends eating at least eat at least 5 portions of a variety of fruit and vegetables every day.[115] Emphasis is given on eating more fresh fruits, vegetables, and pulses as one of the goals to prevent chronic diseases.[116] Benefits of fruit and vegetable consumption can included a reduction in the risk of impaired cognitive function[117], Type 2 diabetes[118]; as well as playing an important role in achieving and maintaining healthy weight[119], when combined with reduced fat intake.
The Public Health Outcomes Framework includes an indicator for self-reported fruit and vegetable consumption on a usual day in those aged 16 and over, this is derived from the Sport England Active Lives Survey.

- 32.5% of adults aged 16 and over in Kent eat at least 5 portions of fruit and vegetables a day Kent. This similar to the England average (31.3%) but below the South East regional average (34.6%). Both Kent and England have seen decreases on average over the past 4 years.
- The percentage of adults aged 16 and over eating at least 5 portions of fruit and vegetables a day in Tunbridge Wells is significantly higher than the Kent and South East regional average. Dartford, Gravesham and Swale are below the South East regional average.
- Kent is similar to the nearest neighbours average and ranks 7th out of 16 for the proportion of people eating 5 or more fruits and vegetables a day.

Figure 52 shows the proportion of people aged 16+ who are eating 5 or more fruit and vegetables a day by Kent districts in 2023/24 while figure 53 shows the trend in proportion of people aged 16+ years in Kent and England who consume 5 or more fruit and vegetables a day for the period 2020/21-2023/24. Figure 54 shows the proportion of people

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[114] World Health Organisation. (2020) Healthy diet: Keys to eating well. Keys to a healthy diet. Available at: https://www.who.int/news-room/questions-and-answers/item/healthy-diet-keys-to-eating-well

[115] 5 A Day: what counts? - NHS (www.nhs.uk)

[116] Aune D, Giovannucci E, Boffetta P, et al. Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies. International Journal of Epidemiology 2017;46:1029-1056.

[117] Loef M, Walach H. Fruit, vegetables and prevention of cognitive decline or dementia: a systematic review of cohort studies. J Nutrit Health Aging. 2012 Jul;16(7):626-30. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2696613/

[118] Bazzano L, Li T, Kamudi J, Hu F. Intake of Fruit, Vegetables, and Fruit Juices and Risk of Diabetes in Women. Diabetes Care 2008;31:7:1311-1317.

[119] The Relationship between Vegetable Intake and Weight Outcomes: A Systematic Review of Cohort Studies - PMC (nih.gov)

aged 16+ years who consumed 5 or more fruit and vegetables in Kent and its ‘nearest neighbours in 2023/24.

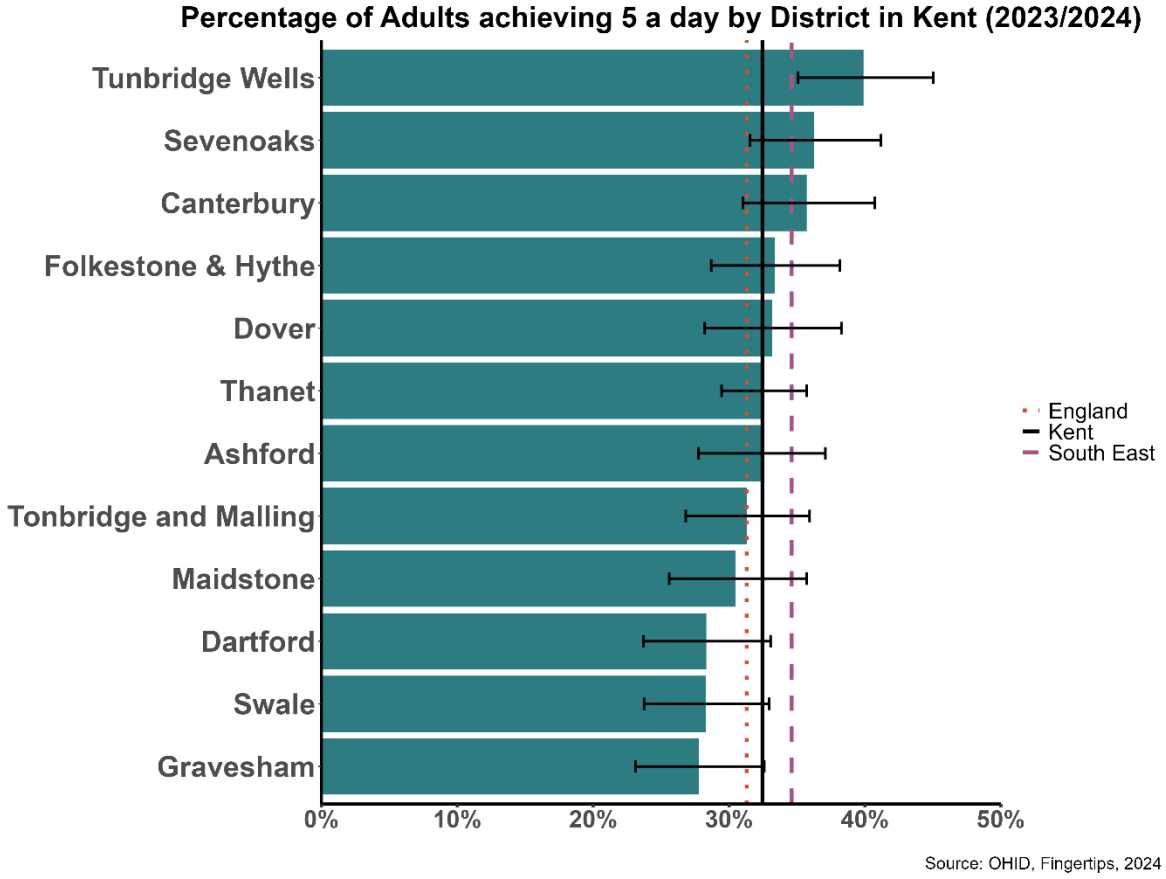

Figure 52: Proportion of people aged 16+ who are eating 5 or more fruit and vegetables a day by Kent districts, 2023/24

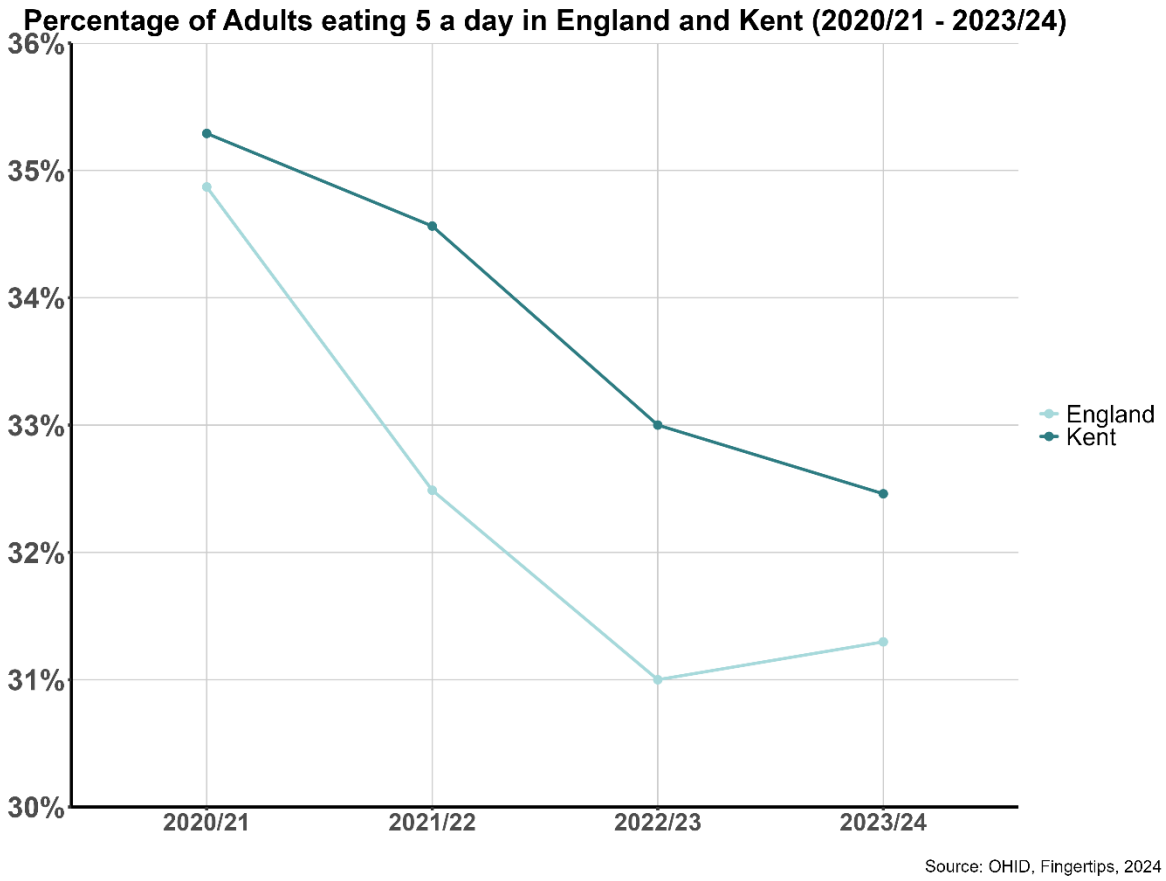

Figure 53: Trend in proportion of people aged 16+ years in Kent and England who consume 5 or more fruit and vegetables a day, 2020/21-2023/24.

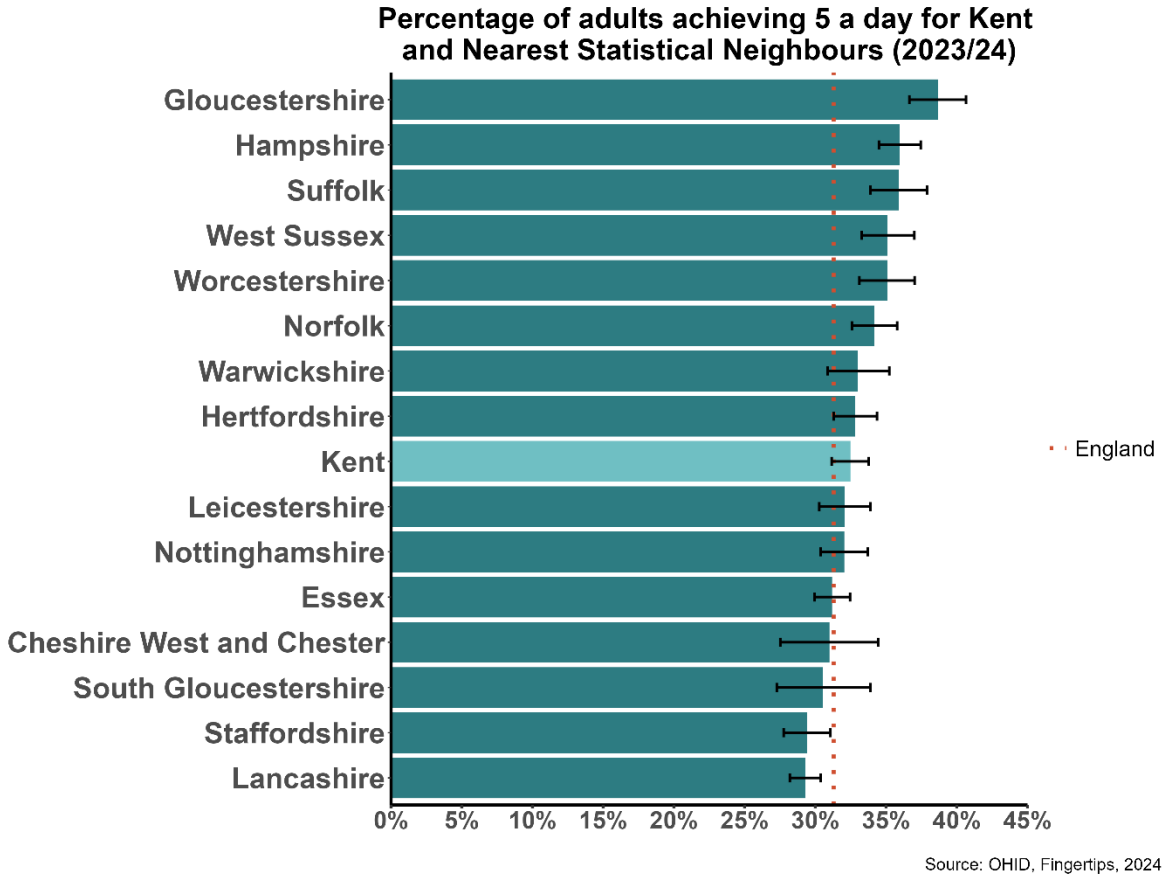

Figure 54: Proportion of people aged 16+ years who consumed 5 or more fruit and vegetables in Kent and its 'nearest neighbours, 2023/24.

5.8.3 Physical activity

When energy consumed is not used, it is stored by the body as fat. The Chief Medical Officer recommends that adults do at least 150 minutes of moderate-intensity aerobic activity, such as cycling or fast walking, every week. [120] Physical activity increases an Individual's total energy expenditure and can support weight maintenance or loss. It must be noted that energy expenditure through physical activity alone is not a simple solution to reducing excess weight. However, it forms a component of daily energy balance. [121]

[120] Department of Health and Social Care. (2019). UK Chief Medical Officers Physical Activity Guidelines. Available at: UK Chief Medical Officers' Physical Activity Guidelines (publishing.service.gov.uk)

[121] Wiklund, P. (2016). The role of physical activity and exercise in obesity and weight management: Time for critical appraisal. Available at: The role of physical activity and exercise in obesity and weight management: Time for critical appraisal - ScienceDirect

The Public Health Outcomes Framework includes an indicator for self-reported physical activity in those aged 19 and over, derived from the Sport England Active Lives Survey.

- In 2023/24 in Kent, 22.1% of adults aged 19 and over were physically inactive, reporting less than 30 minutes moderate intensity physical activity equivalent minutes a week, similar to 22% but higher than the South East region average of 18.9%.
- The percentage of physically inactive adults is higher than the Kent average in Gravesham and Thanet. Tunbridge Wells, Ashford, and Folkestone and Hythe are below the Kent average. 55 shows the proportion of people aged 19+ years classed as physically in active in the districts of Kent, 2023/24.

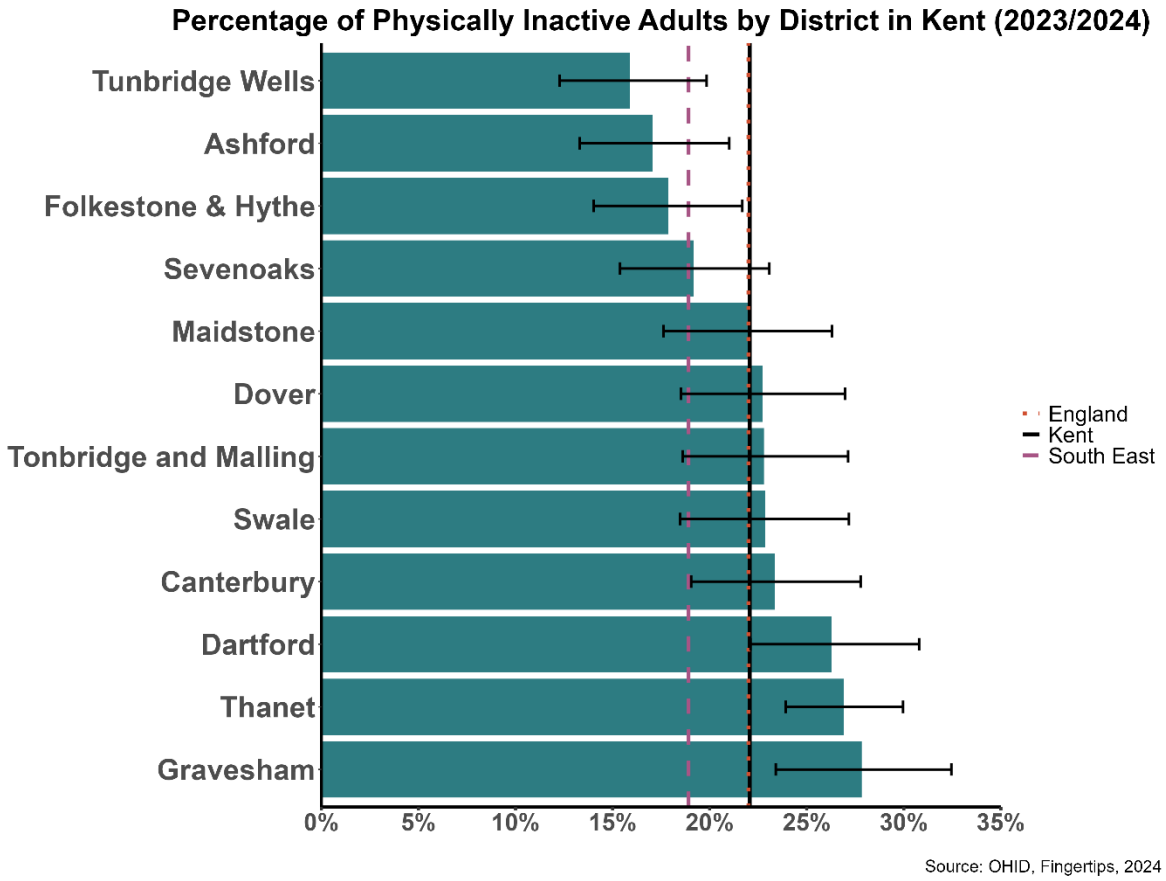

Figure 55: Proportion of people aged 19+ years classed as physically inactive in the districts of Kent, 2023/24

There are real achievable population health gains through more people becoming more active throughout the life course. All planning and development which seeks to reduce obesity and increase physical activity levels in Kent should invest the available resources in a way which seeks to achieve proportionately higher uptake levels across the deprivation gradient. This will ensure that any development or service does not increase but reduce health inequalities.

5.9 Parental, Carer and Family Influences

5.9.1 Maternal Obesity

An increasing number of women of reproductive age are living with excess weight. Pregnant women living with excess weight and their babies are at a higher risk of complications during pregnancy and childbirth. Risks for the mother include impaired glucose tolerance, gestational diabetes, miscarriage, pre-eclampsia, thromboembolism, and death.[122] Pregnant women living with obesity also tend to have poorer perinatal mental health compared to those with a healthier weight.[123] Babies born to mothers living with excess weight face an increased risk of congenital disabilities, preterm birth, being small-for-gestational-age, being larger babies, and perinatal death.[124] These adverse outcomes may lead to longer hospital stays and higher healthcare costs. Furthermore, obesity during pregnancy can have adverse effects on the child's health into adulthood. The data on maternal obesity and further details on its prevention and management are provided in Maternal-Weight-Needs-Assessment-July-2019.pdf (kpho.org.uk).

5.9.2 Parent, Family Influence: Preconception, pregnancy, and breastfeeding

Strone evidence suggesting that the intrauterine environment has significant impact on life course health and inequalities.[125] [126] Maternal obesity can affect pregnancy outcomes and the health of the child. Studies show that maternal obesity, weight gain during pregnancy, and lack of breastfeeding are linked to higher BMI in childhood and a higher risk of obesity in adulthood.[127] Children living with excess weight are at an increased risk of obesity in adulthood, ranging from 15-99%[128], and are also at risk of developing long-term conditions such as lung disease,

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[122] Marchi J, Berg M, Dencker A, Olander EK, Begley C. Risks associated with obesity in pregnancy, for the mother and baby: a systematic review of reviews. Obes Rev.2015;16(8):621-38.
[123] Steinig J, Nagl M, Linde K, Zietlow G, Kersting A. Antenatal and postnatal depression in women with obesity: a systematic review. Arch Womens Ment Health.
[124] Catalano PM, Shankar K. Obesity and pregnancy: mechanisms of short term and long term adverse consequences for mother and child. BMJ. 2017 Feb 08;356:j1. [PMC free article] [PubMed] [Reference list]
[125] Vineis P, Avendano-Pabon M, Barros H, Chadeau-Hyam M, Costa G, Dijmarescu M, Delpierre C, D'Errico A, Fraga S, Giles G, Goldberg M. The biology of inequalities in health: the LIFEPATH project. Longitudinal and Life Course Studies. 2017;8(4):417-39.
[126] Godfrey KM, Barker DJ. Fetal programming and adult health. Public health nutrition. 2001 Apr;4(2b):611-24.
[127] Portela DS, Vieira TO, Matos SM, de Oliveira NF, Vieira GO. Maternal obesity, environmental factors, cesarean delivery and breastfeeding as determinants of overweight and obesity in children: results from a cohort. BMC pregnancy and childbirth. 2015 Dec;15(1):94.
[128] Simmonds M, Llewellyn A, Owen CG, Woolacott N. Predicting adult obesity from childhood obesity: a systematic review and meta-analysis. Obesity reviews. 2016 Feb;17(2):95-107.

cardiovascular disease, type 2 diabetes, and kidney failure that may continue into adulthood. While type 2 diabetes is usually found in adults, there is an increasing number of cases being diagnosed in children. The World Health Organisation considers childhood obesity to be one of the most serious global public health challenges of the 21st century.[129]
An analysis of the National Longitudinal Study of Adolescent Health[130] revealed that adults who were obese as adolescents have a significantly higher risk of developing diabetes compared to those who developed obesity as adults. [131]

5.9.3 Infant feeding practices and obesity

Breastfeeding has been found to generally reduce a child's current and future risk of overweight and obesity. Plethora of evidence suggest that breastfeeding reduced the odds of maternal overweight or obesity. Studies found infant feeding methods (breastfeeding, mixed feeding, formula feeding) and breastfeeding duration, but not the timing of solid foods introduction, were also associated to developing excess weight at infancy stage and predication of adult excess weight and associated comorbidities.[132] The findings provide robust longitudinal evidence to encourage and support extended breastfeeding for childhood obesity prevention.[133] Considering the link between breastfeeding, infant feeding models, and health inequalities, it is crucial to have a comprehensive strategy to address obesity. This strategy should include a range of interventions targeting factors related to obesity from preconception to adulthood. It is important to collaborate with a wider range of stakeholders to promote healthy weight and tackle healthy inequalities to achieve success. A Maternal-Weight-Needs-Assessment-July-2019.pdf (kpho.org.uk) provided evidence and key recommendations on promoting maternal healthy weight in Kent.

Chapter Summary

[129] World Health Organisation (2020) Noncommunicable diseases: Childhood overweight and obesity. Available at: https://www.who.int/news-room/questions-and-answers/item/noncommunicable-diseases-childhood-overweight-and-obesity (Accessed 19 August 2024).
[130] Chantala K, Tabor J. National Longitudinal Study of Adolescent Health. Strategies to Perform a Design-Based Analysis Using the Add Health Data. 1999 Jun.
[131] NICE. Public health guideline [PH47]. Weight management: lifestyle services for overweight or obese children and young people. 2013. [https://www.nice.org.uk/guidance/ph47/chapter/recommendations]
[132] Horta, B.L., Rollins, N., Dias, M.S., Garcez, V. and Pérez-Escamilla, R., 2023. Systematic review and meta-analysis of breastfeeding and later overweight or obesity expands on previous study for World Health Organization. Acta Paediatrica, 112(1), pp.34-41.
[133] Zheng, M., Campbell, K.J., Baur, L., Rissel, C. and Wen, L.M., 2021. Infant feeding and growth trajectories in early childhood: the application and comparison of two longitudinal modelling approaches. International Journal of Obesity, 45(10), pp.2230-2237.

Obesity is a complex issue influenced by various intersectional factors, including biological, psychological, environmental, and social components. The wider determinants of health, including education, employment, and the built environment, play a crucial role in shaping behaviours related to obesity. Additionally, obesogenic environments, characterised by easy access to fast food and limited opportunities for physical activity, contribute to the increasing prevalence of excess weight.

Recommendations:

1. Develop and implement planning policies to promote a healthier food environment through restriction of high-fat, salt, and sugar (HFSS) food advertisements, use of exclusion zones in the opening of new fast-food outlets, and others.
2. Deliver evidence-based programme to encourage local food outlets to offer healthier food options. This may involve collaborating with various food vendors, including hot food takeaways.
3. Develop and implement policies that create environment that makes it easier and safer to move more through active designs, transport plan, Local Cycling and Walking Infrastructure Plans, active travel and relevant others.
4. Provide specific support that is tailored for pregnant women with maternal obesity.
5. Invest and support the implementation of whole systems approach to obesity programme in Kent that involves collaboration across various partners to implement agreed upon actions aiming to reshape the places where people live, work and play so that these places become health environments.

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6. Current Obesity Interventions: What works?

Current literature outlines two key subcategories of interventions used to encourage healthy weight; these include lifestyle/behaviour change and medical interventions (pharmacological and surgical).

6.1 Lifestyle/Behaviour Change Interventions

Behaviour change interventions for adults are an effective way to support those with obesity in managing their weight. Due to the extensive range of existing behaviour change interventions, the COM-B behaviour change wheel framework (Appendix 1) has been used to map these interventions. The original COM-B model outlines three key components: Capability (C), Opportunity (O) and Motivation (M). A breakdown of these components concerning the barriers and interventions to tackle obesity can be seen in Table 3. Healthy weight interventions must target one or more COM components to ensure effective Behaviour (B) change.

Table 4 provides definitions of the COM-B components and links these components to barriers and interventions for achieving a healthy weight based on behavioural change theory.

Component	Capability	Opportunity	Motivation
Definition of the behaviour component	An individual's physical and psychological ability to engage in a behaviour.	The external factors (both physical and social) that promote or make a behaviour possible.	The internal process that governs behaviour includes reflective motivation and automatic motivation.
Example of barriers in relation to the COM-B component	Poor representation of those using lifestyle services can make physically inactive individuals perceive their physical capability (stamina and strength) or psychological capability (e.g. knowledge of exercise techniques) as inadequate to use lifestyle services.	Physical opportunities: enviromental barriers (e.g. fast-food advertising or lack of access to green spaces). Costs (e.g. unaffordable healthy foods and physical ventures like sports). Time constraints e.g. linked to work patterns and family commitments. Social opportunities: Lack of companions, cultural practices/ cultural acceptability.	Persuasive marketing of unhealthy foods can increase automatic motivation to consume these unhealthy products. Environments that enable unfavourable behaviours. For example, busy sedentary occupations may reduce the motivation to be regularly physically active throughout the day.
Examples of Interventions that target the COM-B components.	Training to increase psychological capability to make healthy meals with cooking classes or personal trainers to teach safe exercise techniques. Offer all-activity levels exercise classes, that can build a person's physical capability.	Free exercises classes to override the financial barriers that can reduce opportunity to participate. Providing greater healthier food options in social space- shopping complexes, workplaces, educational institutes. Which could lead to increase cultural acceptability of these foods.	Incentivise favourable behaviours like healthy eating and physical activity- E.g. voucher rewards or prize draws.

*Information sourced to formulate this table include: [134] and [135]

[134] Willmott et al. BMC Public Health (2021) Capability, opportunity, and motivation: an across contexts empirical examination of the COM-B model. Available at; Capability, opportunity, and motivation: an across contexts empirical examination of the COM-B model | BMC Public Health | Full Text (biomedcentral.com)

[135] Health Needs Assessment for Promoting Healthy Weight | Oxfordshire Insight

The Behaviour Change Wheel was later developed based on the COM-B principles and can outline the policies and interventions that can be used to influence behaviour change towards healthy weight. Table 5 provides examples of the various interventions used to support healthy weight, based on the Behaviour Change Wheel intervention functions.

Table 5: Obesity-specific interventions mapped using Behaviour Change Wheel intervention functions.

Intervention	Definition	Example
Environmental Reconstructing	Changing the physical or social context.	Provision of cycle lanes and walking paths.
Modelling	Providing an example for people to aspire to or imitate.	Celebrities to front health campaigns e.g. Marcus Rashford-free school meals.
Enablement	Increasing means/reducing barriers to positive behaviour change.	Health coaching support to improve diet and physical activity.
Training	Imparting skills	Cooking classes
Coercion	Creating an expectation of punishment or cost	Sugar tax, raising the production cost of sugary drinks can be a dis-incentive for producers to add sugar to products.
Incentivisation	Creating an expectation of reward.	Awards to fast food outlets that meet food quality criteria to promote healthier food options.
Persuasion	Using communication to induce positive or negative feelings or stimulate action	Using positive imagery on social media or advertising to motivate people to increase their physical activity levels.
Education	Increasing knowledge or understanding.	Information/ leaflets to promote healthy eating.
Restrictions	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in competing behaviours)	Restrict the advertisement of high fat, salt and sugar foods.

6.2 Medical Interventions

Medical interventions are often considered when lifestyle/behaviour interventions alone do not improve an individual's weight. The most common surgical interventions used for those experiencing severe obesity include: “Roux-en-Y gastric bypass (RYGB), laparoscopic sleeve gastrectomy (SG), and adjustable gastric banding

(AGB)" [136]. Bariatric surgery can offer rapid weight loss and improvement to obesity –related conditions. But these interventions can come with post- operative complications including nutritional deficiencies, infections, leaking from organs involved or blood clots.[137] Within the first 5 years following bariatric surgery it is common for patients to require follow-up input, further surgical input, and hospitalisations.[137]

Pharmacological interventions to tackle obesity, can be beneficial to support sustained weight loss .[138] These medications are generally recommended in the NICE (National Institute for Care and Excellence) guidelines, to those with a BMI greater than 30 kg/m or a BMI greater than 28 kg/m if there is the presence of weight-related risk factors. [139] There is a large range of weight-loss medications, to name a few "Semaglutide, metformin, and liraglutide are popular in the study of their effect on obesity". There have been varying degrees of adverse effects noted with the use of these medications and a lack of evidence observing the long-term safety of these medications.[140] Therefore, these medications should be prescribed with caution and regular monitoring.

6.3 Summary of the Effectiveness of the Obesity Interventions

As discussed above there are a range of lifestyle/behavioural interventions (examples noted in Figure X and Y), and medical interventions used to support weight loss. Lifestyle interventions are foundational and the consideration of additional support through medical Interventions may be necessary for certain individuals. The BMJ (British Medical Journal) best practice guidelines highlights this principle of starting with lifestyle interventions that focus on diet and exercise, then consider further adjuncts (e.g. psychological therapy, medication, surgery) if appropriate.[141] The effectiveness of each intervention category can be seen in Table 6.

Table 6: Obesity interventions effectiveness. Information within this figure was gathered from BMJ Best Practice Guidelines (2024),

Category	Intervention	Timing of intervention	Effectiveness	Sustainability of weight change
Lifestyle interventions	Dietary changes and Increase physical activity	Dietary changes - 1st. Increase physical activity -	Diet and exercise alone typically produces a modest decrease (5% to 10%) in body weight over	Relapse rate can reach beyond 50%, depending on the length of the follow-up

[136] Scoping review of obesity interventions: Research frontiers and publication status - PMC (nih.gov)
[137] Weight-loss Surgery Side Effects - NIDDK (nih.gov)
[138] Scoping review of obesity interventions: Research frontiers and publication status - PMC (nih.gov)
[139] Recommendations | Obesity: identification, assessment and management | Guidance | NICE
[140] Pharmacologic Therapy for Obesity - StatPearls - NCBI Bookshelf (nih.gov)
[141] Obesity in adults - Symptoms, diagnosis and treatment | BMJ Best Practice

		Plus	the short term.	period.
Psychological interventions	Psychological therapy	Adjunct	Adding psychological therapy to diet and exercise can produce a small but statistically significant increase in weight loss.	long-term durability of the weight loss is poor.
Medical interventions	Pharmacotherapy	Adjunct	Modest short-term efficacy but a high attrition rate and a lack of long-term efficacy. Newer drugs approved for long-term use (e.g., semaglutide) are more effective, but adverse effects are still common).	Evidence suggests that patients may regain weight and see reversal of cardiometabolic improvements if treatment is stopped.
Medical interventions	Surgical therapy	Adjunct	Bariatric surgery has the best efficacy, and should be considered for patients with more severe obesity, or patients with obesity and persistent poorly controlled weight-related comorbidities despite non-surgical attempts at management.	Studies have found all bariatric procedure types were associated with sustained weight loss.

6.4 Obesity Interventions that Address Health Inequalities

Tackling health inequalities is a priority locally in Kent and nationally, demonstrated in the Kent Joint Health and Wellbeing Strategy (2021) and Public Health England Strategy 2020-2025. To not exacerbate health inequalities, it is important to consider the type of intervention for the target group/s. Therefore, this section will include the Kent community voice via insights from the Kent County Council, Adult Healthy Lifestyles Final Report (2024)[142] and information gathered from a literature review to establish effective interventions that consider groups with protected characteristics.

Age

Some of the barriers noted for older adults in Kent utilising healthy lifestyle schemes is that they reported feeling as though services like gyms are" not for them", nor are the exercise options suitable to their level of physical activity[143]. Some older adults expressed difficulties with using digital lifestyle scheme platforms due to low digital skills[144]. Literature suggests that co-produced materials with the target communities, like older adults/ older adults from specific ethnic groups, can increase inclusion in healthy lifestyle schemes[145]. Ensuring that the material includes representative images and languages to increase an individual's self-belief (psychological capability) to take part in healthy lifestyle schemes.
A recent literature review of US and European evidence found that there are unique barriers to a nutritionally healthy intake in those >65 years of age compared to the general population.[146] These barriers include a lack of cooking skills, resistance to change, health-related barriers (e.g., vision impairments or gastrointestinal tract disease), changes in social support, eating alone/loneliness, lack of knowledge of the food services available, and impaired mobility (e.g., difficulty getting to food sources). Considering these barriers is important when adapting interventions to meet older adults' needs effectively. Commissioning services like social prescribing or volunteer networks can enable more bespoke, hyper-local support options delivered within community settings, so that support is individualised to address these barriers[147].

The high cost of healthy food is a major barrier to healthy eating noted by older and younger adults[148]. Examples of interventions that aim to mitigate this cost barrier

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[142] Kent County Council, Adult Healthy Lifestyles Final Report (2024
[143] Insight Report
[144] Insight Report
[145] Insight report and Lit R/V- Co-designing community-level integral interventions for active ageing: a systematic review from the lens of community-based participatory research | BMC Public Health | Full Text (biomedcentral.com)
[146] *Miller A, Steinle N (2020) Barriers to Healthy Eating in the Elderly; A National and Global Perspective. J Hum Nutr Food Sci 8(1): 1130.*
[147] Kent County Council, Adult Healthy Lifestyles Final Report (2024
[148] Briazu *et al. BMC Public Health* (2024) 24:1770 https://doi.org/10.1186/s12889-024-19259-2

include fruit and vegetable prescription projects[149] now seen in multiple locations in the UK[150], which subsidises the purchase of fruit and vegetables by low-income families, or similar schemes like the Healthy Start vouchers, which facilitate healthy diets. These interventions not only have the potential to improve the diet of parents and children utilising these vouchers, but they can also promote long-lasting healthy eating habits. Braune, Adams, and Winpenny's longitudinal study highlights that parental intake of healthy foods is positively associated with their child's consumption of healthy foods, which is maintained up until the age of 30[151]. A flaw of these fruit and vegetable prescription interventions is that they mostly focus on individuals with young families, which excludes older and younger adults who do not have children. However, there are smaller projects that address this flaw, such as the Fresh Street Community initiative in Plymouth and Reading, that ensure inclusive eligibility criteria for healthy food vouchers.

There are barriers and facilitators to healthy weight management found more uniquely in young adults, including peer influence on dietary behaviours through face-to-face interactions and social media[152]. This can present as a barrier, as research shows that when young adults observe unhealthy behaviours in peers, they appear increasingly prone to replicate these unhealthy behaviours[153].This is explained through social cognitive theory and has been linked to when young adults meet new people and explore their identities; they replicate the behaviours of others around them to gain confidence, acceptance, and inclusion. Peer influence also facilitates healthy weight management, where individuals observing their peers eating healthily encourages them to partake in healthy eating habits, too. This suggests that interventions for young adults may benefit from using social platforms to promote healthy living messages where there is a large presence of peer influence.

Another key barrier unique to young adults is that there has been a generational decline in meal planning and preparing skills being role-modelled and taught[154]. This has been linked to a reduction in food technology classes, the changing position of women in the homes and a growingly obesogenic environment[155]. Interventions that aim to improve young adult's skills and knowledge to plan and prepare economical, convenient and nutritious meals. However, this upskilling can come at a time and financial cost, which could be a further barrier. To prevent future young adults from

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[149] Briazu *et al. BMC Public Health* (2024) 24:1770 https://doi.org/10.1186/s12889-024-19259-2

[150] Where we work - Alexandra Rose

[151] Braune, T., Adams, J. & Winpenny, E. M. 2024. **Exploring the changing association between parental and adolescent fruit and vegetable intakes, from age 10 to 30 years**. *medRxiv.* 26. https://dx.doi.org/10.1101/2024.01.26.24301777

[152] **https://doi.org/10.1111/obr.12472**

[153] **https://doi.org/10.1111/obr.12472**

[154] **https://doi.org/10.1111/obr.12472**

[155] **https://doi.org/10.1111/obr.12472**

experiencing the same lack of skills, it would be advisable to make Food Preparation and Nutrition education compulsory in the national curriculum.

Ethnicity

Some of the barriers to healthy lifestyle schemes faced by ethnic monitories in Kent include not feeling represented by the staff that deliver the healthy lifestyle services or represented by the service users that take up the service[156]. Also, some participants from ethnic minority backgrounds in the KCC engagement research reported feeling culturally misunderstood by service providers and reported language barriers impeding their engagement with the schemes offered[157]. Addressing these barriers requires engagement with the community to co-design culturally appropriate services and marketing material, this is so the services can feel more inclusive to those from ethnic minority groups and facilitate the clear transmission of health messages in languages understood by various communities.

Research has identified a few further successful methods of engaging ethnic minority communities in health promotion activities; these are discussed below. One successful method to increase engagement includes targeting certain populations or places to promote healthy lifestyle messages. For example, target nutrition interventions for older women in the South Asian community, as research shows, they often take a leading role in preparing meals for the household[158]. Another example is targeting food catering outlets as a location to share nutritional interventions to reach the Chinese community in the UK. Given the evidence that shows many Chinese people “work long, irregular hours in the catering sector”, providing interventions in the workplace could negate the challenges of lack of time to attend nutrition intervention sessions[159].

EA second effective method of engaging ethnic minority communities is to involve community leaders, religious leaders, and trusted community/health workers from the same ethnic background in the design and rollout of health promotion activities. This ensures that interventions suit the community they aim to serve and improves

A final effective method of engaging ethnic minority communities is by using outreach activities in key gathering locations within the ethnic minority community. For example, positive stories have been obtained by members of the Nepalese community who accessed healthy lifestyle services through outreach activity at a

[156] Kent County Council, Adult Healthy Lifestyles Final Report (2024
[157] Insight Report
[158] Diets of minority ethnic groups in the UK: influence on chronic disease risk and implications for prevention - Leung - 2011 - Nutrition Bulletin - Wiley Online Library
[159] Diets of minority ethnic groups in the UK: influence on chronic disease risk and implications for prevention - Leung - 2011 - Nutrition Bulletin - Wiley Online Library

Nepalese community centre in Folkestone. Other places to consider when promoting healthy lifestyle schemes include places of worship[160] and social groups.

Sex and Gender

There is a growing interest in research to investigate which interventions are most effective for females and males, particularly with consideration for menopause status and pregnancy. Systematic reviews of this topic have highlighted minimal strong evidence to suggest that lifestyle interventions should be sex-specific[161] [162]. For example, a review of the current evidence suggests that behavioural healthy weight interventions may not need to be tailored for an individual's menopause status[163]. Recent qualitative research of Kent female participants may help further understand this phenomenon. Most of the women within this Kent study expressed awareness of tier-one healthy weight interventions but reported that their biggest challenge was lacking motivation. When probed about what would increase their motivation to engage with healthy weight interventions, most participants responded that their motivation would increase if their GP told them they needed to manage their weight to improve their health or well-being. These findings from the Kent study show that the healthy lifestyle intervention itself was not highlighted as something that needed to be tailored; instead, it was emphasised that health experts helping them understand menopause and advising them to utilise the service would have a greater impact on engaging them in existing services.

Research shows that targeted weight management interventions across the three stages, pre-pregnancy, prenatal, and postpartum, are modestly effective compared to standard care[164]. This is because tailored programmes can more appropriately support the physiological changes and needs of the individual at the stage of their pregnancy. For example, NICE guidelines do not recommend weight loss programmes (for instance, Slimming World) to individuals in the prenatal stage as it could be harmful to the unborn child; instead, adjusted healthy eating and physically active advice should be given[165]. Whereas, weight loss programmes are promoted to

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[160] Places of worship can be health promotion spaces for faith-based black, Asian and minority ethnic (BAME) communities | Evidence-Based Nursing (bmj.com)

[161] Williams RL, Wood LG, Collins CE, Callister R. Effectiveness of weight loss interventions--is there a difference between men and women: a systematic review. Obes Rev. 2015 Feb;16(2):171-86. doi: 10.1111/obr.12241. Epub 2014 Dec 11. PMID: 25494712; PMCID: PMC4359685.

[162] Sharkey T, Whatnall MC, Hutchesson MJ, Haslam RL, Bezzina A, Collins CE, Ashton LM. Effectiveness of gender-targeted versus gender-neutral interventions aimed at improving dietary intake, physical activity and/or overweight/obesity in young adults (aged 17-35 years): a systematic review and meta-analysis. Nutr J. 2020 Jul 30;19(1):78. doi: 10.1186/s12937-020-00594-0. Erratum in: Nutr J. 2020 Aug 26;19(1):90. doi: 10.1186/s12937-020-00605-0. PMID: 32731865; PMCID: PMC7393713.

[163] Thomson, Zoe O. APD; Kelly, Jaimon T. APD, PhD; Sainsbury, Amanda PhD; Reeves, Marina M. AdvAPD, PhD. Weight loss outcomes in premenopausal versus postmenopausal women during behavioral weight loss interventions: a systematic review and meta-analysis. Menopause 28(3):p 337-346, March 2021. | DOI: 10.1097/GME.0000000000001684

[164] https://doi.org/10.1016/j.midw.2016.09.017

[165] www.nice.org.uk/guidance/ph27

those pre and post-pregnancy, particularly for those preparing for pregnancy, as it can reduce complications during pregnancy and childbirth, such as pre-eclampsia, miscarriage, maternal death, gestational diabetes or hypertension[166]. It is recommended for healthy weight interventions to include a combination of diet and exercise support that take into account the individual's social and financial circumstances.

There is a noted gender discrepancy in those taking part in weight management services. For example, all providers of the OYK service reported a low uptake of healthy weight services by men[167]. This could be explained by research showing that men have a lower health consciousness and perceive healthy eating as a lower priority compared to women, which could be linked to historic gender norms where men take on a machismo and laid-back outlook on healthy eating to promote a masculine identity and detach from femininity[168] whereas patriarchal values could have fuelled greater health consciousness among women to maintain their attractiveness and uphold their appearance-based worth[169]. These gender differences in attitudes and beliefs could be used to reach those who underutilise healthy weight services. For example, engaging more young men with messaging that focuses on masculine-driven motivators like physique. Health promotion messages could promote amending diet to include healthy alternatives and promote physical activity to support the venture to improve physique.

Chapter Summary

The key interventions for weight loss include lifestyle/behaviour change and medical interventions (pharmacological and surgical). It is important to consider the type of intervention for the target group/s to avoid exacerbating health inequalities.

Recommendations:

1. Engaging the community to co-design, age and culturally-appropriate services and promotional material.
2. Consider a variety of methods of the provision of healthy weight services to ensure wide inclusion.
3. Consider commissioning services that enable more personalised support (for example, through social prescribing or voluntary services.
4. Health professionals to signpost these services with a tailored expression of the importance of healthy weight management specific to the individual.

Community Voice

[166] www.nice.org.uk/guidance/ph27
[167] One You Kent Review – Lifestyle and Healthy Weight Services December 2022
[168] https://doi.org/10.1016/j.midw.2016.09.017
[169] https://doi.org/10.1016/j.midw.2016.09.017

The Kent Public Health team explored the local community's voice through a recent insight report completed in July 2024. The method used in this insight report included 183 online surveys, 10 interviews, 28 focus groups, and 92 pop-ups. A total of 313 residents were engaged across the county.

Key findings from this report can guide future commissioning and service provision decisions on adult healthy lifestyle programmes. Key themes extracted from this insight report include:

- Access issues as a barrier to seeking support.
- How services are delivered and communicated.
- Lack of information and signposting.
- Attitudes and beliefs.
- How people want to receive support.

The community expressed various issues with access to healthy lifestyle services. Some included financial and time constraints, which both reduce individuals' physical opportunities to partake in these services. These time constraints were noted as related to parenting commitments and/or work responsibilities.

“can't afford to spend a lot of money. It would be good to have places we can go and exercise for a reasonable cost”

This insight report highlighted that greater flexibility in the provision of healthy lifestyle services (e.g., a range of different times, locations, and styles of provision) would enable increased engagement in the services.

“Being able to see someone outside of working hours”

“Using different platforms to use services- social media, face to face, telephone”

Providing the services in a range of methods can ensure that those who lack digital skills or do not have access to technology devices are not excluded from the weight management services. This was a particular barrier noted in the older Nepalese community, where paper-written communication in a native language or face-to-face outreach events could encourage greater community engagement with the services.

“Everything has gone digital and people in our community lack the skills to use computers or smart phones”.

The flexibility in the range of methods used to provide the healthy lifestyle service also supports those who experience severe mental illness and/or neurodiversity; this is because apps or web chat functions remove some of the communication challenges with face-to-face or over-the-phone communication for those who are

neurodivergent. Also, some participants with mental illness highlighted a preference for online support due to the unpredictability of their condition.

“Everything is by phone which is difficult for autistic people - a bad line or accent can make it hard to understand”.

“If you've got anxiety, you're not going to want to go to a massive gym indoors with loads of people there”.

Regarding the lack of information and signposting, participants reported difficulty finding information about the healthy lifestyle service. What added to the challenge was that they felt professionals were unaware of these services to signpost. With insight into the participant's experience, two recommendations have been formed to promote healthy lifestyle services through community-centred communication routes, for example, Facebook groups, community centres, shops and many more community venues. The second recommendation was to raise awareness among professionals of the healthy lifestyle services offered and referrals.

“There's not enough information out there. You can't find anything online”.

“My GP knows I've put on weight, but I've not been offered anything”.

Some participants' attitudes and beliefs acted as a barrier to accessing healthy lifestyle services. For example, some older adults and adults who are overweight expressed the perception that the leisure centre setting is not a place for them as it's for really fit and slim individuals.
A further example is participants from ethnically diverse groups expressed not feeling the services are meant for them due to a lack of diversity represented in the delivery staff, as a result of not feeling culturally understood. This was a similar experience for those with serious mental health illnesses and/or autism who reported not feeling understood by the delivery staff. Therefore, it is important for advertisements to cater to different audiences by using inclusive language and images, that shows that the service is are suitable for marginalised groups.

“There's no way in the world I would go to the gym. I wouldn't walk up as a 70 year old and feel comfortable - it's not for me, it's alien to me”.

“You need specific advertising; make it clear services are for people with mental health conditions”.

Lastly, some participants reported previous negative experiences of healthy lifestyle support related to perceived negative attitudes from the delivery staff and access difficulties. The participants, therefore, highlighted that future healthy lifestyle support

should be delivered by staff who are nonjudgmental, understanding, consistent, reliable, and motivational. While offering services in a range of methods: face-to-face/online and group/individual, to cater to a range of groups.

Chapter Summary

The Kent Insight Report is a useful tool for understanding the Kent community's perspective on some of the barriers and enablers to their participation in healthy weight services. Barriers include financial restriction, time constraints, communication and service delivery methods lacking inclusivity, personal attitudes/beliefs, difficulties getting referrals and or signposting. Enables include using a range of delivery methods of the healthy lifestyle service and ensuring staff who deliver the service are nonjudgmental, understanding, consistent, reliable, and motivational.

Recommendations:

1. Offer healthy weight services in a range of methods, face-to-face/online and group/individual, to cater to a range of groups at a range of times of day.
2. Use various methods to communicate information about healthy weight services (including online, Facebook, community centres, shops and many more community venues).
3. Raise awareness of the healthy weight service offer and its referrals among frontline professionals.
4. Engage the community to co-design the healthy weight services and promotion material especially among the high-risk groups.

7. Overview of obesity services in Kent

In Kent, various partners, including but not limited to those mentioned below, play a crucial role in addressing excess weight. These partners include various departments within KCC, districts and boroughs, parish councils, NHS, large employers, the voluntary and community sector, and others. They work collaboratively to maximise community assets and helping people to achieve healthy weight.

7.1 Excess weight Prevention and Early Intervention services

There are several obesity related services and resources available for Kent residents which could be categorised as Tier 1 weight management commissioned or co funded by Public Health in Kent County Council. A range of services are available promoting physical activity, healthy eating behaviour and healthy weight in Kent.

NICE guidance[170] recommends that services should include both top-down approaches such as planning cycle routes and food procurement specifications; and bottom-up approaches such as running activities in local parks[143].

7.2 Digital/Online Applications

Kent residents can access online apps through the Better Health and OYK webpages. These are apps that promote physical activity and healthy eating along with other lifestyle behaviours. Examples include the '**Couch to 5k**' app which encourages running, offering people manageable running workouts which gradually increase in intensity. The '**Easy meals**' app provides recipes that are easy, delicious and healthy that can be searched by mealtime and allows shopping list creation. The '**Active 10**' app helps people incorporate brisk 10-minute walks into their day and helps people find ways to get active at work. The '**Drink Free Days**' app aims to support users to save money, feel healthier, lose weight and assists them to reduce alcohol intake and get practical support to maintain it.

7.3 Health Walks

Health Walks are offered as part of OYK services provided by the KCHFT and district and borough councils (Dartford, Gravesham, Sevenoaks, Tonbridge and Malling, Tunbridge Wells and Maidstone). These free weekly walks are offered for all ages to reduce sedentary behaviour and are led by friendly trained volunteer walk leaders. They are suitable for people recuperating from illness or those who engage in little or no physical activity. They run for a duration of about 45 minutes to one hour and between one and two miles long; and leave from local accessible central locations such as leisure centres or a local library. The walk routes are pre planned and walkers just need to turn up and enjoy. They help people to experience the outdoors, meet new people and improve physical health and wellbeing. Table 7 shows the health walks data by district, 2023/24.

Table 7: Number of Health walks delivered in Kent, 2023/24

Metric	Total
Number of Health Walks Delivered	2,140
Number of Health Walks Attendances	28,391

The table above displays data for health walks across Kent for the year 2023/24. Although the number of participants is not available, it can be inferred from the attendance data that a considerable number of people took part in these walks. However, it is uncertain how these walks impacted weight loss. Physical inactivity

[170] Obesity prevention (nice.org.uk)

and a sedentary lifestyle are linked to obesity. Health Walks are a key component of Kent's approach to promoting physical activity as part of adult obesity prevention. In the reporting period, a total of 2,140 walks were delivered across the county, with 28,391 attendances recorded. These figures highlight the reach and engagement of the programme in supporting healthier lifestyles through accessible, community-based activity.

NICE recommends using multiple interventions, such as increasing physical activity levels and adopting healthy eating habits, to achieve weight loss. Research indicates that improvements in cardiometabolic health for people with obesity can be attained through increased physical activity, even without significant weight loss.[171]

Health in All Policies as part of OYK services provided by districts

The OYK services provided by district councils focus on implementing Health in All policies. This approach emphasises public health within district council policies and aims to create a healthier community. District providers form Health Action Teams, contribute to local strategies, and deliver the OYK service. Although the direct impact on weight loss may not be measured, it is important to note that focusing on Health in All policies is one of the reasons why the delivery of OYK services is directed to the district councils. This ensures continued support for health promotion and addressing the wider determinants of health. It is crucial to recognise the key role of OYK services in the districts and consider offering a similar programme in East Kent, especially since KCHFT providers are currently NHS organisations. However, none of this work is currently happening in the East Kent where KCHFT delivers OYK services. There is a need to measure the impacts of Health in All policies, understand how it relates to weight management, and assess its demand on the delivery of weight management programme.

Healthy Living Centres

In Kent, there are five Healthy Living Centres (HLCs) located in Maidstone, Dartford, the Island of Sheppey, Gravesend and Thanet. These centres are co-funded by their respective districts and KCC public health. These centres aim to promote community development in deprived areas by aligning with national and academic understanding, focusing on building community assets, and reaching communities at greater risk of poor health outcomes. The HLCs offer space to community services and assets related to public health, providing interventions for healthy eating, physical activities, healthy weight, and referrals to One You Kent weight management services. A recent review of the HLCs and public health transformation programme suggests the need to strengthen impact measurement, data gathering, and engagement approaches tailored to different communities to achieve desired public health outcomes. Offering integrated services could enhance the public health function of the HLCs.

[171] Physical activity in the management of obesity in adults: A position statement from Exercise and Sport Science Australia - Journal of Science and Medicine in Sport (jsams.org)

Active Kent and Medway – Physical Activity

Active Kent and Medway (AKM) is committed to creating environments that promote and support physical activity for people of all ages, backgrounds, and abilities. The objectives of Active Kent and Medway focus on allocating resources to tackle inactivity and reduce inequalities faced by those from deprived areas, people living with a disability or long-term health condition, and individuals within ethnically diverse communities, including older people. The service aims to make it easier for everyone to lead a more active lifestyle by supporting various initiatives and funding community projects related to physical activity throughout the county. AKM has supported over 40 organisations with projects targeting disabled individuals and those with long-term health conditions, as well as increased access to sports clubs and organizations through the Everyday Active Small Grant, all of which align with public health priorities.

Since 2021/22, about one-third of the funding for Active Kent and Medway has been provided by Public Health, with the remainder coming from Sport England. The Memorandum of Understanding (MOU) agreed between the Public Health Team and AKM is linked to the service outcomes, and achievements are monitored through quarterly reports provided by AKM. The new Move Together Strategy, coordinated by AKM, aims to bring together stakeholders from a wide range of sectors to collaborate in supporting and encouraging more people to engage in physical activity and tackle barriers faced by high-risk groups. The 2024/25 MOU supports collaborative efforts between public health and AKM to drive transformation and identify areas for improvement and growth. The Public Health Transformation programme is shifting towards aligning AKM service with other public health services such as OYK, Healthy Living Centres, and others relevant services, aiming for an integrated approach that will help shape future agreements and areas of focus.

Other Excess Weight related interventions in Kent

The are various excess weight related interventions available in Kent; an intervention is any project or initiative currently active in Kent that aims to promote healthy eating, physical activity, or is related to healthy weight. These interventions fall under Tier 1 weight management. The WSO team recently conducted a comprehensive mapping exercise on Kent obesity assets between July and August 2024. Full result of the asset mapping is provided in Appendix 2.

Adults Weight management services and pathways in Kent

Weight management services are multi-component interventions that include programmes, courses, clubs and groups provided by a variety of providers in Kent. The aim is to help people to lose weight and to become more physically active, eating healthy diets in order to reduce the risk of obesity-related conditions. Weight management services offer support for individuals with a BMI of ≥ 30 kg/m^2 and lower BMI threshold by 2.5 kg/m^2 for individuals of South Asian, Chinese, other

Asian, Middle Eastern, Black African or African- Caribbean family background because they are at cardiometabolic risk at a lower BMI.[172] People must be referred to appropriately tailored support depending on the obesity severity. The weight management pathway in Kent is tailored along the four-tiered UK Obesity Care pathway, as shown in figure 56.

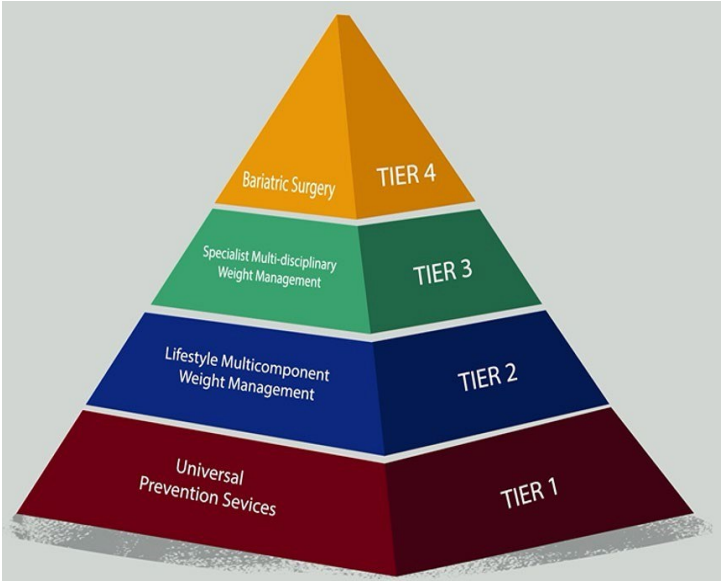


Figure 56: hierarchy of Adults Weight management services.

Tier 1 services are universal interventions that focus on prevention and reinforcement of healthy eating and physical activity messages and engage individuals advocating improvement of their health and wellbeing. They may include public health and national campaigns, providing brief advice and interventions to prevent obesity such as physical activity classes and healthy cookery classes.

In Kent, Tier 1 weight management services are delivered through the One You Kent (OYK) Healthy Lifestyles programme, which takes a holistic approach to improving adult health. The service empowers individuals to make sustainable lifestyle change by supporting smoking cessation, healthier eating habits, increased physical activity, reduced alcohol consumption, and improved financial wellbeing all of which contribute to effective weight management.

In 2023/24, 6,681 people accessed these services. Additional support was provided through referrals to relevant health and wellbeing services, ensuring a more integrated and person-centred approach to care.

[172] Obesity: identification, assessment and management (nice.org.uk)

A recent review highlighted the need to better capture outcomes, particularly weight loss achievements. This enhancement is now part of the Public Health Service Transformation Programme and embedded in Kent's new adult weight management strategic action, developed in partnership with NHS Kent & Medway ICB and KCC Public Health. Further details on Tier 1 interventions are available in the Kent referral criteria booklet (Appendix 3).

Tier 2 Healthy Weight services are usually community-based using behavioural change techniques over a 12-week course of interventions to help individuals set and achieve manageable goals around physical activity, diet and lifestyle weight management advice. Weight management services delivered in the community led by a health care professional (e.g. dietician) trained in obesity. This may also include additional support by commercial weight management services. These commercial programmes will be well defined with scientific leadership and with clear protocols.

In Kent, Tier 1 and Tier 2 are commissioned by the KCC and delivered by Kent Community Health Foundation Trust (KCHFT) in East Kent and the six Borough/District Councils in West Kent (Maidstone Borough Council, Tonbridge & Malling Borough Council, Tunbridge Wells Borough Council, Sevenoaks District Council, Dartford District Council and Gravesham Borough Council).

OYK weight management services are broadly based upon A guide to delivering and commissioning tier 2 adult weight management services publishing.service.gov.uk) and Weight management: lifestyle services for overweight or obese adults (nice.org.uk) with some modifications to meet local needs and capacity demands. They offer face-to-face and online group sessions, and some users may receive one-on-one sessions based on their individual needs. The KCC has provided guidance to reduce the use of one-on-one sessions for weight loss, as group settings tend to yield better outcomes and value for money, with exceptions for special cases. The interventions last for 12 weeks and are held annually once enough people have signed up to form a group. Follow-up sessions take place at 26 and 52 weeks to assess long-term impact. Any health and social care staff can refer individuals to the service, and individuals can also self-refer by completing a form via Healthy weight - Kent County Council

Some providers subcontract weight management services. For instance, Maidstone Borough Council commissions one provider operate its weight service. One of these providers is Maidstone Leisure Centre, which offers a 12-week in-person programme, followed by the option for individuals to self-fund access to the leisure centre facilities at a discounted rate. Additionally, Maidstone has commissioned a digital weight service which commenced in June 2023.

At the Tier 2 level, a nationally commissioned digital weight management programme is available for eligible local people. Further information about this national offer for

our local residents can be found at: NHS England » How to access the programme. Additionally, other Tier 2 offers can be found in the new Kent weight management referral booklet in Appendix 3.

Table 8: Kent Tier 1(lifestyle services) and Tier 2 weight management services

Districts	Lifestyle	Healthy weight
Ashford	KCHFT	KCHFT
Canterbury	KCHFT	KCHFT
Dartford	KCHFT/DBC	DBC
Dover	KCHFT	KCHFT
Folkestone	KCHFT	KCHFT
Gravesham	KCHFT/GBC	GBC
Maidstone	KCHFT	Maidstone
Sevenoaks	Sevenoaks	Sevenoaks
Swale	KCHFT	KCHFT
Thanet	KCHFT	KCHFT
Ton and Mal	Ton and Mal	Ton and Mal
T- Wells	T Wells	T Wells

Tier 3 weight management services are specialist services for patients with severe and complex obesity, providing an intensive level of support to patients through a multi-disciplinary team (MDT) including a physician, consultant or GP with Special Interest in obesity; specialist obesity nurse, a specialist dietitian; psychologist and physical activity specialist. The programme offers weight management and behaviour change support delivered over a 12-24-month period; and are key in preparing individuals who may be considering bariatric surgery. There will be access to a full range of medical specialists as required for co-morbidity management. NICE (2023)[12] recommends that the people to consider for referral to tier 3 services if:

- the underlying causes of overweight or obesity need to be assessed.
- the person has complex disease states or needs that cannot be managed adequately in tier 2 (for example, the additional support needs of people with learning disabilities).
- conventional treatment has been unsuccessful.
- drug treatment is being considered for a person with a BMI of more than 50 kg/m2.
- specialist interventions (such as a very-low-calorie diet) may be needed
- surgery is being considered.

In Kent, tier 3 is commissioned by the ICB and delivered by TBC Healthcare for eligible people in Kent. TBC Healthcare offer a fully comprehensive clinically led service with a psychological focus, incorporating dietetic, activity and behaviour change support, and a recognised NHS treatment pathway for preparation and referral to weight loss surgery. These services provide a face-to-face service specialist intervention for over a 12-month period. This service also delivers access to weight management medication and prepare patients for bariatric surgery has a cap of 790 patients and there has been a recurrent waiting list for access. According to TBC Healthcare:

- Around 50% of referrals come in wanting bariatric surgery, of which on average 35% transition for assessment in tier 4.
- Patients accessing this service, on average lose 8.5% of weight; around 95% improve their well-being (according to the Rosenberg self-esteem scale).[173]

Tier 4 weight management services are highly complex and specialised intervention that includes bariatric surgery, pharmaceutical, dietetic and psychological support for carefully selected patients with severe and complex obesity with comorbidities. Tier 4 weight management services are defined by NHS England[174] as 1:1 management provided by specialist obesity medical and surgical MDTs with access to a full range of medical specialists as required. All surgical procedures take place in tier 4. There are several different types of weight loss surgery. They are all usually done under general anaesthetic using laparoscopic surgery, but they each work in a slightly different way. NICE (2023)[12] recommends referral to tier 4 should be considered if they:

- have a BMI of 40 kg/m2 or more, or between 35 kg/m2 and 39.9 kg/m2 with a significant health condition that could be improved if they lost weight
- and for people of South Asian, Chinese, other Asian, Middle Eastern, Black African or African- Caribbean family background using a lower BMI threshold (reduced by 2.5 kg/m2) to account for the fact that these groups are prone to central adiposity and their cardiometabolic risk occurs at a lower BMI.
- agree to the necessary long-term follow up after surgery (for example, lifelong annual reviews).

In Kent, there are five trusts in London that provide Tier 4 weight management services, while Maidstone and Tunbridge Wells NHS Trust is the only local provider.

[173] NHS SCW (2024) Kent and Medway Policy Recommendation and Guidance Committee: Bariatric surgery for obesity. Unpublished.
[174] NHS England (2016) Appendix 9 Guidance for Clinical Commissioning Groups (CCGs): Service Specification Guidance for Obesity Surgery . Available at: Microsoft Word - Appendix 9 New Service Spec CCG Guidance210516 (england.nhs.uk) (Accessed 23 September 2024).

- As per NICE guidance[12], service providers including local authorities and providers of lifestyle weight management programmes, should ensure adults that are identified as overweight or obese and those with comorbidities are offered a referral to a locally commissioned suitable lifestyle weight management programme.
- Healthcare professionals including practice nurses, dietitians and GPs should offer adults that are identified as obese or overweight who have comorbidities, a referral to a locally commissioned lifestyle weight management programme.

- Commissioners including local authorities, NHS England and ICBs should ensure that adults that are identified as overweight or having obesity and those with comorbidities are offered a referral to a locally commissioned lifestyle weight management programme ensuring there is sufficient capacity to meet demand. Table 8 below illustrates the number of admissions for primary bariatric procedures, Kent and Medway residents. 5 NHS Trusts with the highest admission counts, 2023/24.

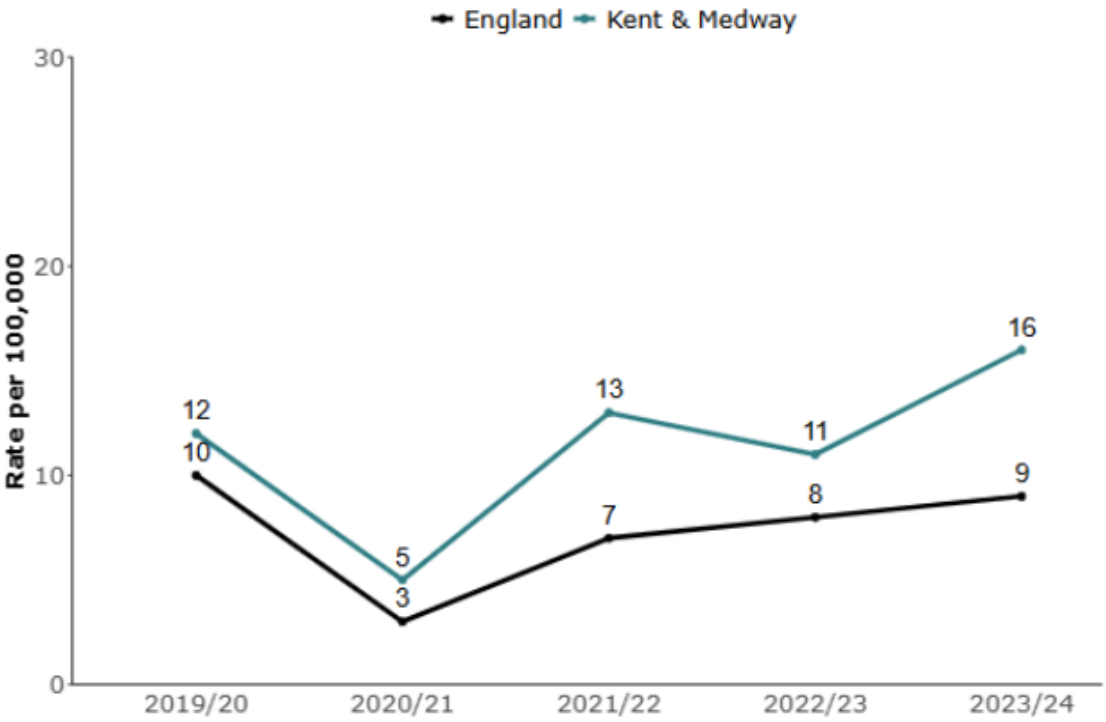
Table 9: Admissions for primary bariatric procedures, Kent and Medway residents. 5 NHS Trusts with the highest admission counts, 2022/23.

Provider	Count
Ashford and St Peter's Hospitals NHS Foundation Trust	85
King's College Hospital NHS Foundation Trust	75
Maidstone and Tunbridge Wells NHS Trust	55
Lewisham and Greenwich NHS Trust	35
University Hospitals Sussex NHS Foundation Trust	25

Source: Hospital Episode Statistics

Figure 57 illustrates the primary bariatric procedure rate, Kent and Medway ICB of residence, rate per 100,000, 2019/20 - 2023/24.

Primary bariatric procedure rate, Kent and Medway ICB of residence, rate per 100,000, 2019/20 – 2023/24



Source: National obesity audit – Bariatric surgical procedures dashboard

Figure 57. Primary bariatric procedures, Kent and Medway ICB of residence, rate per 100,000, 2019/20 - 2023/24.

The new weight management referral booklet in Appendix 3 provides comprehensive details on available Kent Tier 1–4 adult weight management services and the referral criteria.

One You Kent Tier 2 Weight Management Programme Outcomes

Figure 58 shows One You Kent Weight management Programme Engagement and Completion for 2023/24

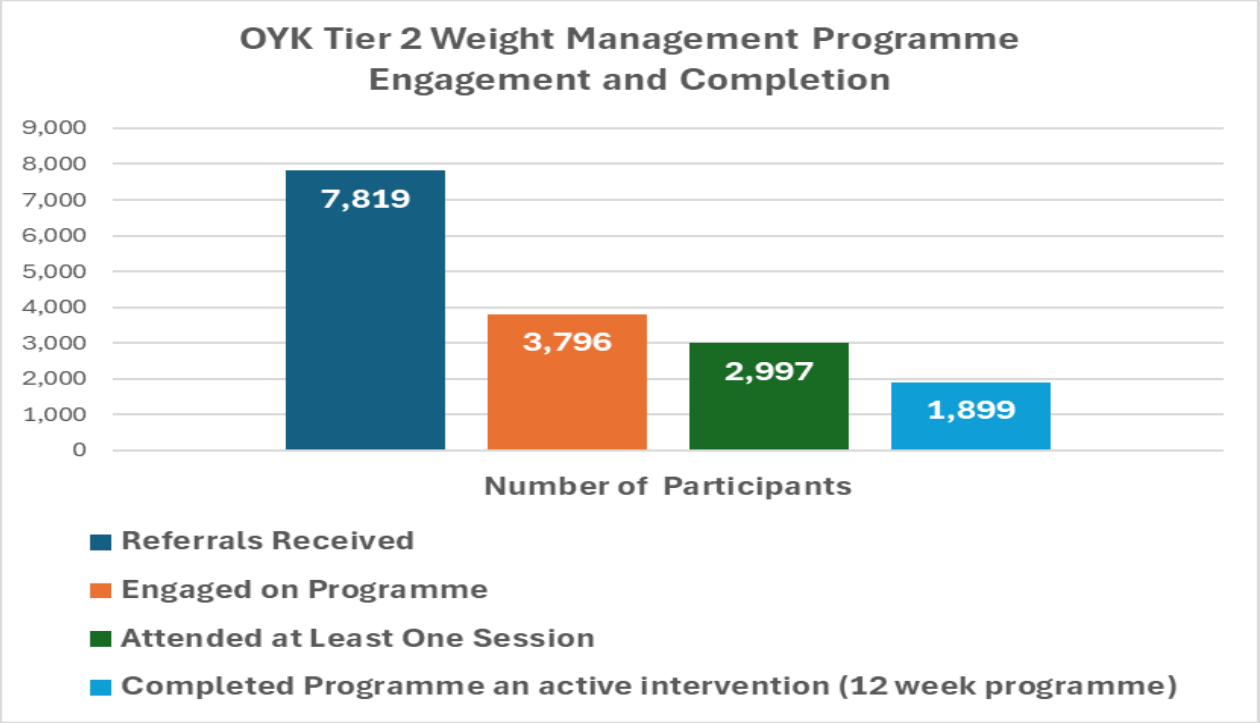
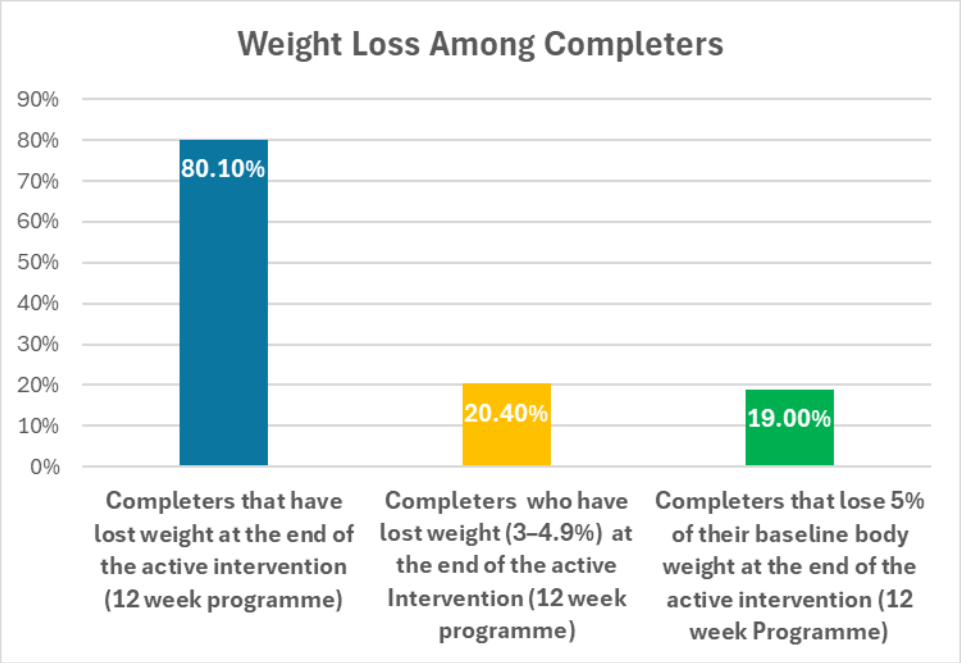


Figure 58 illustrates that less than half (48.5%) of individuals referred to the Tier 2 Weight Management Programme in Kent went on to engage with it. This suggests potential barriers at the point of entry, such as limited awareness, low motivation, accessibility challenges, or issues with referral quality. However, among those who attended at least one session, 63.3% completed the full 12-week Programme indicating strong retention once participants are engaged.

The significant drop off between referral and engagement presents a clear opportunity to strengthen communication, streamline referral processes, and enhance initial support to encourage participation. Understanding these conversion rates is essential for raising awareness of the Tier 2 service criteria, particularly among health and social care professionals, to improve the quality and appropriateness of referrals.

To address this, the Kent County Council Public Health team has developed a clearer, updated set of weight management referral criteria. Plans are already underway to actively share and embed these criteria within primary care settings, with the aim of supporting a more effective and targeted referral system.

One You Kent Tier 2 Weight Management Programme – Weight Loss Among Participants



Figures 59 show outcomes for individuals who completed a 12-week Tier 2 weight management intervention. The data shows:

- 80.1% of programme participants experienced weight loss by the conclusion of the active intervention, nearly twice the 43% observed at the national level in England[175].
- 20.4% achieved a moderate weight loss of 3–4.9% of their baseline body weight.
- 19.0% of participants experienced a clinically significant weight loss of ≥5%, compared to 16% in England. This amount of weight loss is linked to health improvements such as lower risk of type 2 diabetes, cardiovascular disease, and better metabolic indicators.

A high proportion of programme completers (80.1%) achieved weight loss, highlighting the programme's effectiveness in supporting initial behaviour change. Notably, 19% reached the clinically significant threshold of ≥5% weight loss, which is associated with meaningful health benefits. While this indicates strong potential, it also suggests that some participants may benefit from more intensive or sustained support to maximise outcomes.

These results reflect short-term progress. Without continued follow-up, there is a risk of weight regain, which could limit long-term impact. Ensuring that individuals most at risk of obesity-related conditions are not only referred but also supported to complete the programme is essential for achieving equitable and lasting health improvements.

[175] Adult tier 2 weight management services: short statistical commentary September 2023 - GOV.UK

Even modest weight loss can significantly reduce the risk of comorbidities. For example, a 5–10% reduction in body weight is linked to improvements in blood pressure, HDL cholesterol, and prevention of type 2 diabetes in those with impaired glucose tolerance [176].

One You Kent Tier 2 Weight Management Programme – Priority Groups

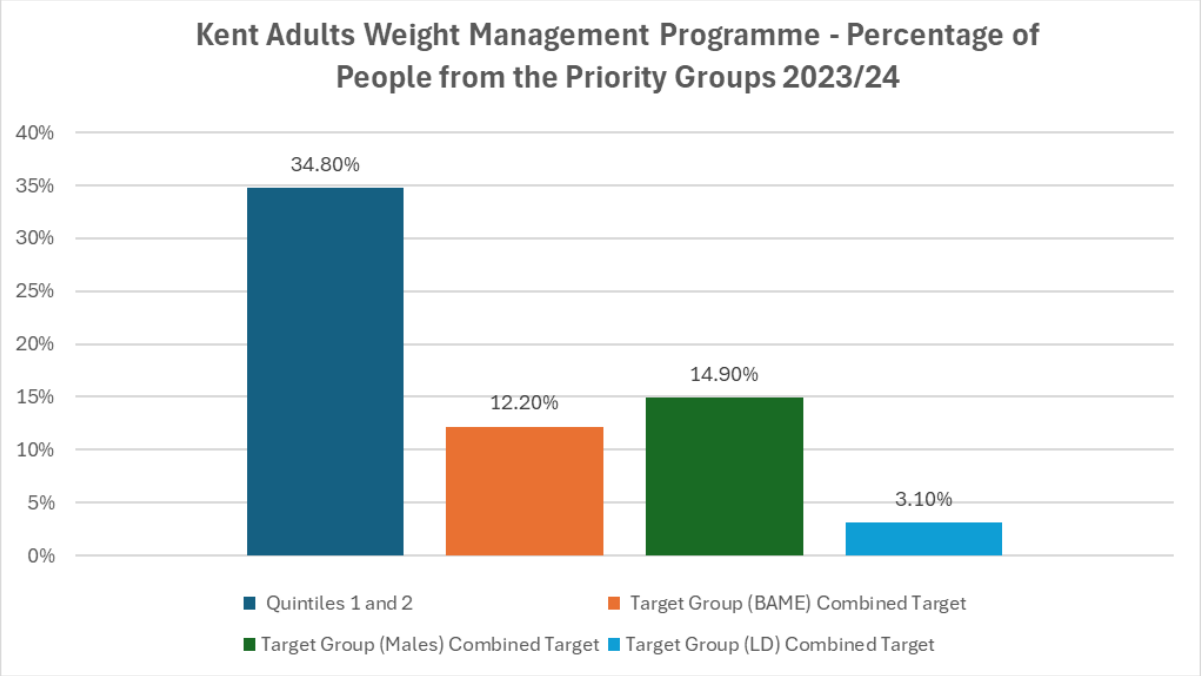


Figure 60 above shows the percentages of people from the Priority groups who participated in the OYK Tier 2 weight management programme in 2023/24.

The above data reflect the demographic reach of the Programme, focusing on the inclusion of key priority groups. The data highlights the proportion of participants from groups identified as having higher risk or greater need in relation to obesity and weight-related health outcomes. The OYK service specification outlines the Priority groups that should be targeted in accordance with OHID recommendations. These groups include individuals living in deprived community areas, specifically the 88 Lower-Level Super Output Areas (LSOA) in deciles 1, 2, 3, and 4 (Quintiles 1 & 2), individuals from black, Asian, and minority ethnic backgrounds, males, and individuals with learning disabilities.

Percentage of participants from Quintiles 1 & 2 in OYK weight management service

Obesity is closely associated with socioeconomic deprivation and is a key contributor to health inequalities. As such, individuals living in the most deprived areas (Quintiles 1 and 2) are identified as a priority group within the Kent Adults Weight Management

[176] Weight Loss and Improvement in Comorbidity: Differences at 5%, 10%, 15%, and Over - PMC (nih.gov)

Programme. Providers are expected to monitor and report on their engagement with this group, ensuring their performance reflects the demographic profile of their service area.

In 2023/24, 34.8% of programme participants in Kent came from the most deprived areas (Quintiles 1 and 2), compared to 26% nationally in England. This is a positive indicator of the programme's reach into communities experiencing the highest levels of socioeconomic disadvantage and demonstrates alignment with public health priorities to reduce health inequalities across Kent.

Percentage of people from black, Asian and minority ethnic group family background (BAME) in OYK weight management service

The OHID guidance includes the percentage of BAME as part of outcome measurement for Tier 2 weight management, but each local area has the discretion to set their own target. The target is still being monitored in Kent, but a specific target has not been confirmed yet.

Participants from Black, Asian, and Minority Ethnic (BAME) backgrounds made up 12.2% of the total in Kent, which is lower than the 15% reported nationally in England. While this indicates some level of engagement, there remains significant scope to improve representation particularly given the disproportionate impact of obesity-related conditions on some ethnic groups. People from BAME communities face higher risks of obesity and cardiometabolic conditions at lower BMI thresholds, yet they continue to be underrepresented in weight management services relative to their needs.

Percentage of Males in OYK weight management service

Historically, it has been noted that there is an underrepresentation of males in the OYK weight management programme. Males represented 14.9% of participants. This is consistent with national trends showing lower male engagement in weight management services. Studies indicate that a programme specifically for men, conducted in professional football club settings, could be effective in addressing male obesity[177]. Targeted strategies may be required to address this gender gap.

Percentage of people living with learning disability in OYK weight management service

People with learning disabilities are at greater risk of obesity and are a key target group for weight management services. However, only 3.1% of programme participants

[177] Football Fans in Training: the development and optimization of an intervention delivered through professional sports clubs to help men lose weight, become more active and adopt healthier eating habits | BMC Public Health | Full Text (biomedcentral.com)

identified as having a learning disability, suggesting potential access barriers and the need for more inclusive service design.

During the COVID-19 pandemic, OHID funding enabled Kent County Council to pilot targeted weight management services for underrepresented groups, including men (e.g. Man v Fat), ethnic minorities, and people with learning disabilities. These pilots showed improved engagement from these groups. However, the services ended when the grant funding ceased.

While the programme is successfully reaching individuals from deprived communities, further efforts are needed to improve uptake among ethnic minority groups, men, and people with learning disabilities. Tailored interventions, culturally appropriate materials, and inclusive referral pathways will be key to addressing these gaps and ensuring equitable access.

Chapter Summary

Kent has established a comprehensive 4-tiered weight management pathway; with tiers 1 and 2 commissioned by the KCC and Tiers 3 and 4 commissioned by the Kent and Medway ICB. These services are supported by a wide range of community services and resources, demonstrating a strong commitment to tackling obesity across the county. This diverse provider landscape brings valuable local expertise and tailored approaches, though there is an opportunity to enhance coordination and consistency to ensure equitable access for all residents. By strengthening integration and focusing efforts to better engage the priority groups will help advance health equity and ensure that everyone benefits from the support available.

Recommendations:

1. Establish a streamlined, integrated referral system across Tiers 1–3 using a single platform to ensure continuity of care. Provide training for health, social care, and community staff to build confidence in delivering brief interventions and making high-quality referrals.
2. Offer flexible delivery formats and address barriers such as digital exclusion, and childcare. Tailor interventions and campaigns to better engage high-risk groups, including ethnic minorities, men, people with learning disabilities, and those in deprived areas.
3. Implement stratified care pathways based on individual needs and readiness to change. Use behavioural strategies and peer support to improve retention and provide follow up support beyond the 12-week programme to help sustain weight loss.

4. Use local data to target resources effectively and monitor long-term outcomes. Establish robust systems for data collection and sharing to track progress and inform continuous service improvement.
5. Collaborate with primary care, social prescribing, and community organisations to improve outreach and referrals. Promote shared care planning and ensure services are culturally appropriate and community informed.

7.4 Kent Obesity Service Gaps

Kent is actively addressing obesity through a strong 4-tiered weight management pathway. However, several key gaps and opportunities have been identified to enhance impact and equity:

1. System Coordination

- A joint referral form for Tiers 2 and 3 (KCC and ICB) is in development to streamline access and improve coordination.
- Clearer referral pathways are needed to manage rising demand, especially with increased awareness and access to weight loss medications.

2. Inclusive and Targeted Support

- Services are being tailored to better engage priority groups, including deprived communities, ethnic minorities, men, and people with learning disabilities.
- Gender-specific programmes and flexible, community-based sessions are more likely to improve male engagement.

3. Capacity and Outcomes

- Tier 2 services need enhanced multidisciplinary support to meet complex needs.
- Expanding capacity in Tiers 2 and 3 is essential to meet growing demand.

4. Workforce and Digital Innovation

- Training initiatives like *Making Every Contact Count* are empowering staff to support behaviour change.
- Expanding digital support alongside in-person care increases reach and accessibility.

5. Healthy Environments

- Workplaces, especially in health and social care, are key settings for promoting healthy lifestyles.
- Targeted programmes are addressing physical activity gaps for people with disabilities and severe obesity.

6. Whole Systems Approach

- Cross-sector collaboration (e.g. planning, transport, housing, schools) is vital to create environments that support healthy choices and active living.

7. Data and Evaluation

- Improved data sharing, with consent, will enhance service delivery and track outcomes.
- Integrated systems will support continuous improvement and evidence-based decision-making.

Chapter Summary

Kent offers a wide range of dedicated initiatives to address obesity, including a comprehensive four-tiered weight management service. While many interventions effectively support individual lifestyle changes, there is a valuable opportunity to strengthen the focus on the root causes of obesity such as the obesogenic environment, socioeconomic factors, and wider determinants of health. Enhancing coordination across services and investing in robust data collection and sharing will help demonstrate the long-term impact of interventions and support more integrated, outcome-driven approaches to improving public health.

Recommendations:

1. There is a need for a more comprehensive approach across all obesity services to effectively address obesity. Establish a direct referral system between Tier 2 and Tier 3 services to avoid unnecessary patient journeys and delays in accessing appropriate weight management services, thereby improving patient outcomes.
2. Ensure that the universal Tier 1 services collect weight-related data and report the impacts of these interventions on public health outcomes for better evaluation of their effectiveness.
3. Ensure the weight management services and campaigns are tailored to meet the local population's needs, considering accessibility and inclusivity based on diversity, disability, and literacy levels.
4. Create a clearer obesity pathway that is well understood by health professionals, social care providers, and the public, and establish a plan for regular updates.
5. Encourage joining up of services such as mental health, social isolation, weight management, transport, planning and physical activity to pool resources and promote healthy weight in a holistic way.

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8. Whole Systems Approach to Tackling Obesity: Chapter Summary

8.1 Addressing the root causes by taking a whole systems approach

Addressing obesity requires more than individual behaviour change which calls for a broader, system-wide response that makes healthy choices easier and more accessible for everyone. While education and personal responsibility remain important, the environments in which people live, work, and play have a profound influence on their ability to maintain a healthy weight.

The Foresight *Report (2007)* [178] emphasised the need for tackling the wider systems that shape diet and physical activity. This approach has since evolved into what is now known as the Whole Systems Approach (WSA) to obesity, which recognises the complex, interconnected drivers of excess weight and the need for coordinated, multi-sector solutions.

In 2017, Public Health England (now the Office for Health Improvement and Disparities, OHID) commissioned research to support local authorities in adopting this approach. The evidence base has grown steadily, with successful examples from cities like Amsterdam and regions such as Victoria, Australia, showing measurable improvements in childhood obesity through long-term, integrated action[179] [180].

In 2019, OHID published national guidance outlining how local authorities can lead the development of a whole systems approach[181]. The Association of Directors of Public Health has published guidance on What Good Healthy Weight for all ages Looks Like[182] outlining seven principles considered as key elements for a systems approach, along with a short-term self-assessment matrix intended to serve as a proxy indicator for changes in population obesity levels.

1. Strong systems leadership
2. A long-term, integrated approach
3. Health-promoting environments
4. Active community engagement
5. A focus on reducing inequalities
6. A life course perspective

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[178] Foresight Tackling Obesities: Future Choices – Obesities System Atlas https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/295153/ 07-1177-obesity-system-atlas.pdf [Accessed 26 November 2019]

[179] Amsterdam Healthy Weight Programme - Sociaal Domein

[180] The percentage of children in Amsterdam aged two to eight with overweight or obesity fell from 21% in 2012 to 18.7% in 2017. From 2012-2015, no additional budget was allocated to the programme, in 2015 annual funding of €2.5 million was assigned to the programme

[181] Public Health England. 2019. Whole systems approach to obesity A guide to support local approaches to promoting a healthy weight

[182] What-Good-Healthy-Weight-Looks-Like.pdf

7. Ongoing monitoring, evaluation, and innovation

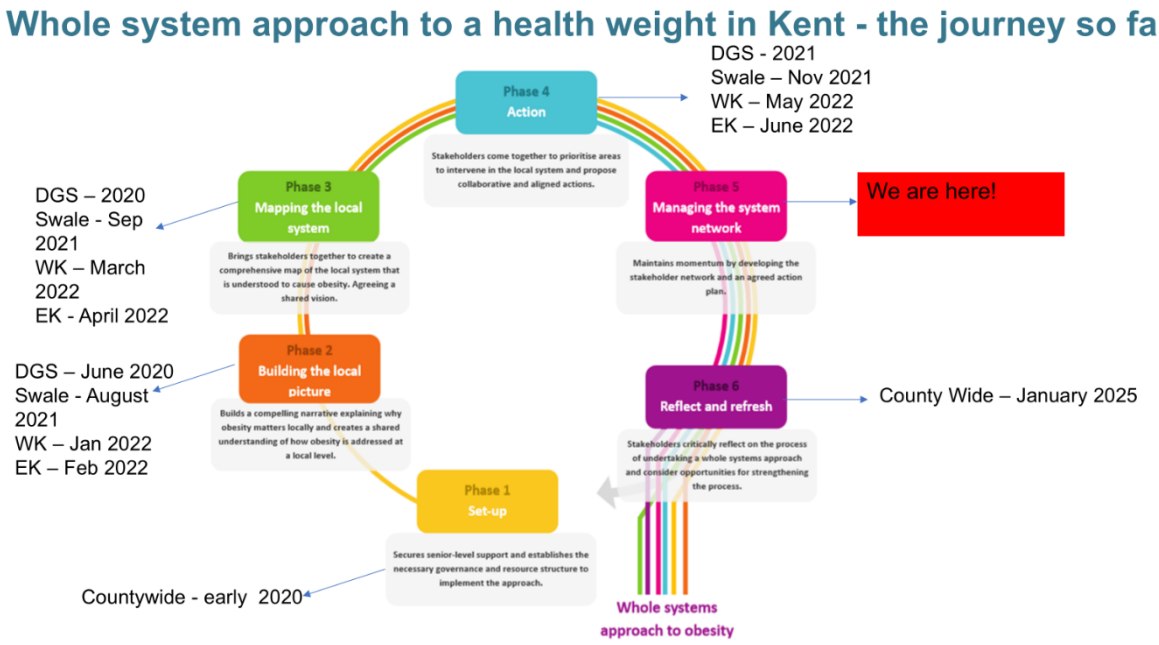
These principles provide a practical framework for local areas to assess progress and guide action. By embedding these values into local strategies, communities can create environments that support healthier lives and reduce obesity in a sustainable, inclusive way.

8.2 Whole Systems Approach to obesity Programme in Kent

The public health team of Kent County Council (KCC) rolled out the Whole Systems Approach to obesity Programme (WSO) Programme in four Health and Care Partnerships (HCPs): Dartford, Gravesham & Swanley (DGS), Swale, West and East Kent. The programme aims to create an environment and culture that encourages and enables everyone in Kent to achieve and maintain a healthy weight by adopting a healthy lifestyle. The Whole Systems Approach is a flexible and dynamic way of working that responds to complexity of obesity. It allows local stakeholders, including communities, to come together and share an understanding of the challenges they face. By assessing how the local system is functioning, stakeholders can identify the areas where change is most needed. They can then agree on actions and work together in an integrated manner to bring about sustainable, long-term system change.[5]

Since 2020, the programme has brought together stakeholders from over 80 organisations, including government, private and Voluntary and Community Sectors (VCS) Organisations, to work collaboratively and implement agreed-upon actions to tackle the issues of excess weight and promote the health and well-being of people living in Kent. The WSO team collaborating with a wide range of stakeholders to map the existing community assets, identify local causes, and implement agreed upon actions to promote healthy eating, physical activity and healthy weight among the population of Kent. The WSO team reports to the Kent and Medway Prevention workstreams (ICB Prevention Board) and Core Working Group, which provide strategic leadership for the programme. In February 2022, the stakeholders proposed changing the name of the programme to "Whole Systems Approach to a Healthy Weight" to give it a more positive connotation. This proposal was approved at the meeting of the Core Working Group.

The programme follows the guidance of Public Health England (now known as the Office for Health Improvement and Disparities, OHID). The WSO programme guideline details six step-by-step implementation processes. Figure 61 shows the six phases of the Kent WSO journey.



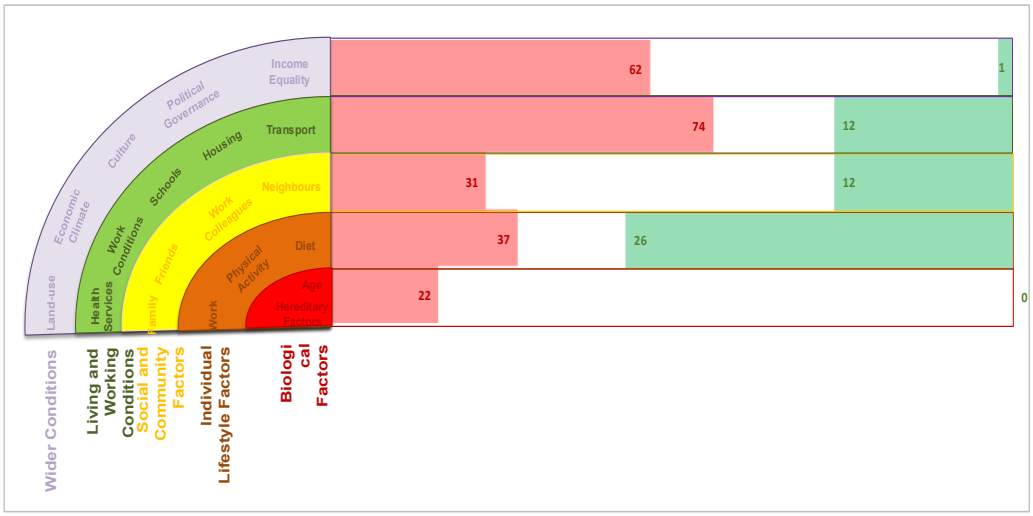
Phase 1- setup phase: It was conducted at a countywide level. It ensured funding, appropriate governance, and senior-level buy-in for the program. The remaining five phases were undertaken in each healthcare provider (HCP) area.

Phase 2: Building the local picture: In phase 2, 8 action mapping workshops across Kent were put together with over 150 stakeholders brought from a wider sector to complete the mapping of the current obesity actions. The current actions were mapped against the five factors within the Dahlgren and Whitehead (1991) wider determinant of health model. The action mapping results revealed a discrepancy in current actions on obesity and perceived causes of obesity. For example, majority of the current obesity actions focused on the individual lifestyle factors while living, working and wider conditions were identified as

major causes of obesity as shown in Figure 62.

DGS Action Mapping Results

Current Actions Mapped Against the Perceived Causes of Obesity

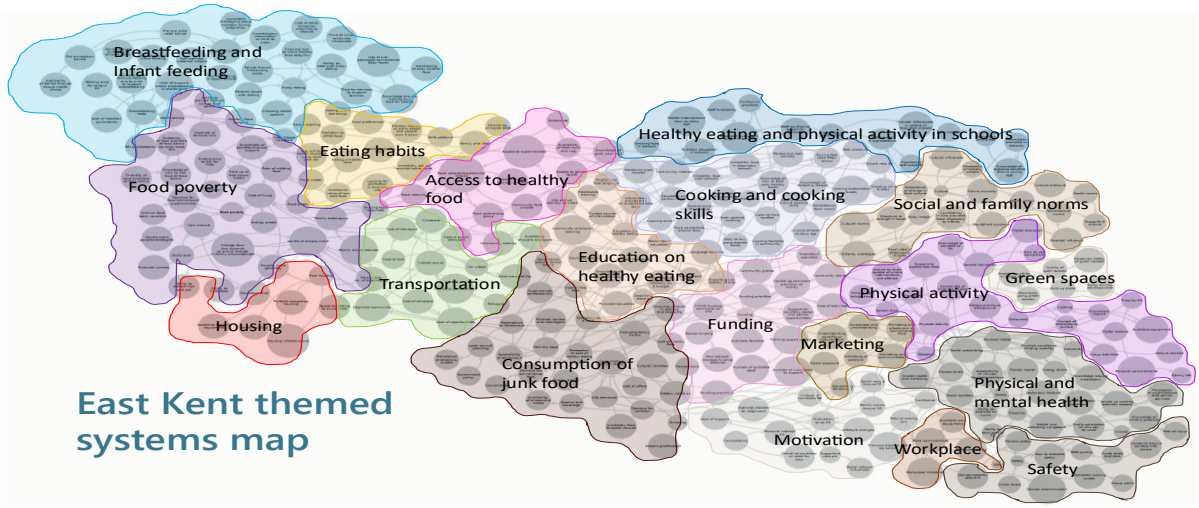


The diagram shows the perceived causes of obesity linked to the wider determinants of health and current actions contributing to tackle excess weight.

51 Actions
226 Causes

Phase 3 – Mapping the Local System: A total number of 10 system mapping workshops were conducted, with at least two workshops held in each project area. The stakeholders who attended these workshops identified the causes of obesity in their local areas and developed vision statements accordingly. Collated systems maps were created from the stakeholders' exercises at the workshops. A thematic analysis was then conducted to formulate themes on the local causes of obesity. Existing actions identified in phase 2 were overlaid onto the systems maps to help identify gaps and areas for future actions. Figure 58 is an example of a collated systems map on the local causes of obesity.

Figure 63: East Kent collated systems map



Phase 4 - Action Planning: During Phase 4 of the initiative in Kent to tackle obesity, stakeholders participated in action planning workshops. These workshops aimed at identifying the local causes of obesity and suggesting actions to promote a healthy weight and wellbeing for the population of Kent. The action plans were formulated through a thorough process with input from the core working group, ensuring they were evidence based and feasible.

Phase 5 – Managing the System Network: The Kent WSO program is currently at stage 5, and 6 subgroups have been formed. Stakeholders were given the option to choose one or more subgroups according to their preference, and the subgroups are held quarterly. Figure 64 shows the 6 subgroups and examples of actions being implemented.

Maternal, Early Years & Education	• Pre & Post natal education - Breastfeeding Promotion & promoting healthy messages • Healthy Start Vouchers & Free School Meals • Training Health Professionals • Healthy Early Years & School Approach, inc. Active Travel in School • HAF & Youth Hubs
Healthy Communities & Workplaces	• Grow your own • Cost of living • Physical Activity • Community engagement • Workplace Health
Physical Activity, Environment & Transport	• Increase use of leisure centres & open spaces - access to low-cost activities • Active Travel & Physical activity in schools • Transport policies & Active Travel – LCWIP • Access to Green & Blue spaces
Primary & Secondary Healthcare	• Clear healthy weight pathway • Consistent messaging across the system • PCN Staff Training • Health walks & signposting
Policy & Planning	• Use planning policy and supplementary plans to promote physical activities and healthy eating • Fast food restrictions; Strategy on healthy environment & advertising policy (HFSS) • Planning of new developments, - new and quality open spaces
Marketing & Communication	• Campaigns and marketing to promote healthy eating and physical activities; • increase awareness of available resources; services and offers; • Targeted campaign; Social Media; workplace and wellbeing websites

Before the WSO programme was launched in Kent, there were numerous efforts to prevent and manage obesity. However, these services were mostly targeted at individuals, and many organisations working in silo with lesser focus on addressing the root causes of obesity. In recognition of the obesity complexity and the fact that individual interventions may not effectively tackle obesity the WSO team is working with wider stakeholders from many organisations to implement agreed upon actions and promoting working across the systems to tackle obesity.

The WSO team, in close collaboration with the stakeholders, has been implementing the agreed-upon actions to promote physical activity, healthy eating, and healthy weight across the life course, as well as promoting the overall health and well-being of the Kent population. The implementation of actions began between December 2021 and August 2022, depending on the project timelines in each area. Since then, the WSO programme has accomplished tremendous achievements; among these are the notable achievements listed below:

- The WSO team, in collaboration with the transport team in Kent County Council, has included the HFSS (high in fat, salt, and sugar) food advertisement restriction into the policy for real-time information (RTI) displays on Kent buses. This policy prohibits the advertisement of unhealthy foods. It will be applied to all new real-time information displays at Fastrack bus stops in the DGS area and throughout the county.

- The WSO team collaborated with the University of Greenwich to incorporate the Whole Systems Approach (WSO) and weight stigma into healthcare practitioners pre- and postgraduate training curriculum.

- The WSO team initiated the integration of healthy weight agenda into various strategies and priorities, including leisure centres, Kent Housing Health and Well-being, school sustainability, Local Children's Partnership groups (LCPG) and the Kent food partnership strategy.

- The WSO team worked with two organisations in Kent to cocreate culturally sensitive healthy eating resources and raise awareness among ethnic minority groups. Over 50 ethnic minority individuals participated in the programme.

- Supported new cooking classes and training on slow cookers for over 80 ethnic minority individuals and residents in deprived communities.

- An animation was created to raise awareness of healthy eating, physical activity, and weight. It was shared for display in three community hospitals, covering over 200 viewers. The same will be shared on the GP digital screens across Kent.

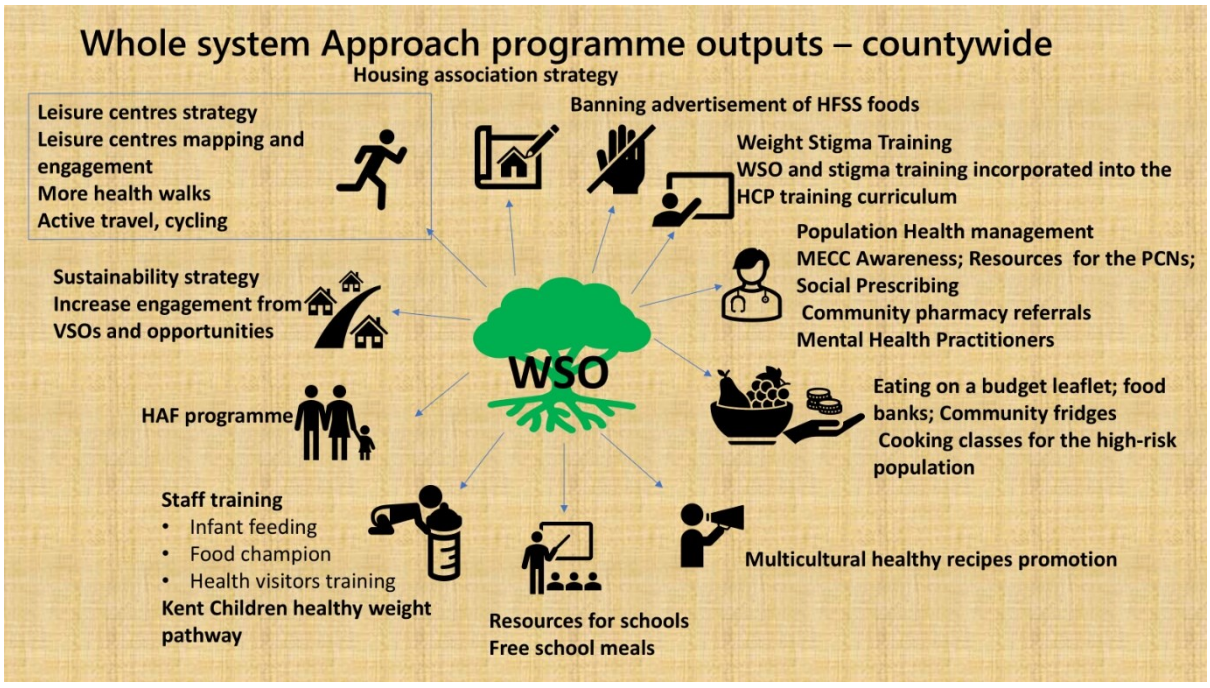
- WSO officers delivered weight stigma training sessions across Kent for over 60 staff, including mental health practitioners, social prescribers, education personnel, GPs, and early-year staff.

- Additional, five new health walks across Kent including high risk groups and new health walks in partnership with Mencap and Peppercorns.

- The WSO team supported workplaces such as NHS hospitals to promote physical activity, healthy eating, and healthy weight among staff. This includes promoting cycling in partnership with communities like Stone Parish Council and Darrent Valley Hospital. Worked with Kent and Medway NHS and Social Care Partnership Trust have developed initiatives to improve staff health, including providing better food options at the staff canteen and vending machines.

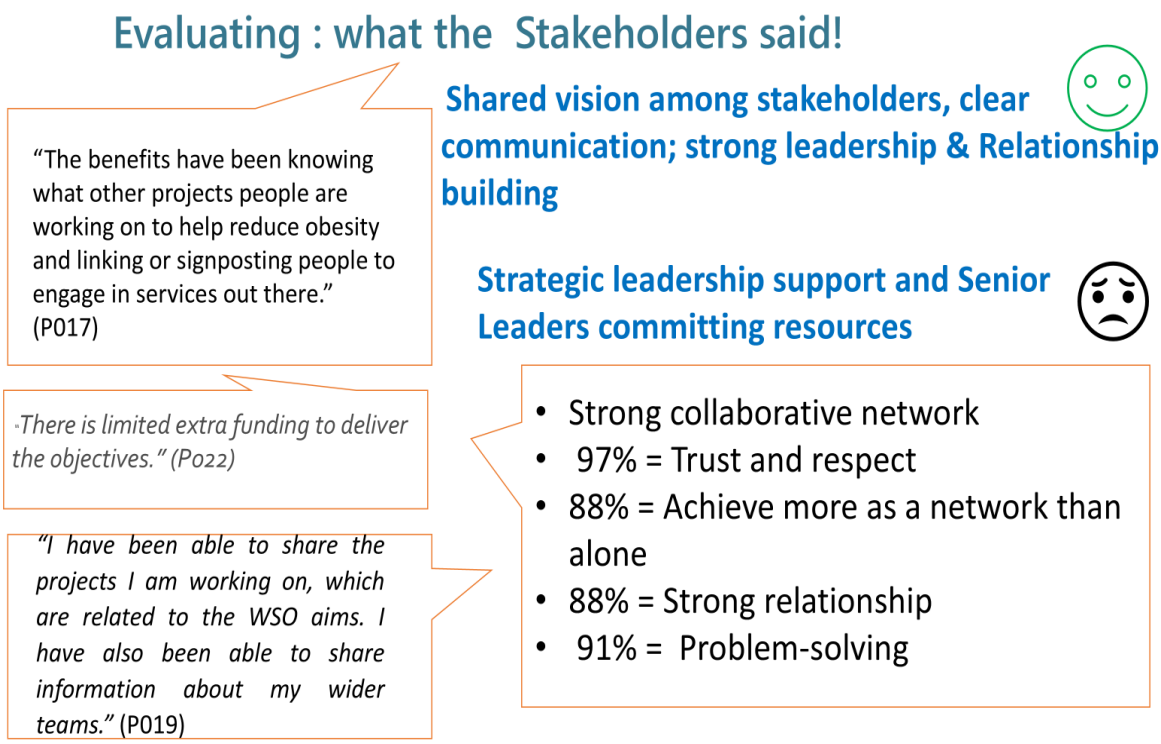
- In collaboration with the healthy weight manager at the KCHFT, the nutrition guideline for early years was delivered to the early years staff in the DGS area. Positive impacts have been recorded from the pilot project, resulting in the expansion of this training across Kent.

- The WSO team developed and shared resources on available physical activity, healthy diets and healthy weight local services with the GP surgeries across Kent.



Although the WSO programme is a long-term approach to address obesity in local areas; it is unlikely to see the immediate impact on the obesity prevalence. However, the guide recommends using the Logic model to evaluate the impact of the programme by

measuring the success on the crucial elements of the programme such as stakeholder's engagements, governance, leadership, relationship and network building, and others. The University of Kent was commissioned to undertake the WSO programme evaluation to assess the programme implementation and explore the range of levers and opportunities to influence relevant local partnerships and interventions in Kent. Overall impressions from the report suggest that there is a strong leadership, that there is shared vision among the stakeholders, clear communication and good relationship building. Most respondents felt that as stakeholders they could achieve more as a network than alone (87.9%), felt valued as members (90.9%), and can justify committing time to participate in the workshops and network meetings (87.9%).



KCC has rolled out the whole systems approach obesity programme across Kent. The WSO team works with a diverse range of stakeholders to identify existing community resources, local causes of obesity, and carry out agreed-upon actions that promote healthy eating, physical activity, and healthy weight among the residents of Kent. The programme has achieved significant success in fostering networking opportunities, sharing knowledge, and enhancing skills. However, the evaluation report for the WSO programme highlighted some key challenges, including insufficient funding and low strategic leadership support. The WSO programme is not a quick fix; it requires long-term commitment and support from decision-makers, adequate funding, and improved engagement across various systems.

8.2 Conclusion

Kent continues to see a steady rise in the number of adults living with excess weight, with prevalence currently above the national average. While this presents a public health challenge, it also offers a valuable opportunity to strengthen and innovate our approach to healthy weight. Some areas in Kent, particularly those affected by

deprivation and coastal influences, experience higher obesity rates highlighting the importance of targeted, place-based solutions.

A range of interventions is already underway across the county to support individuals in achieving and maintaining a healthy weight. However, to create lasting impact, a shift in approach is needed to address the broader social and environmental factors influencing health.

The *Marmot Review (2010)* underscores the importance of tackling the social gradient in health by supporting everyone, while placing greater emphasis on those most disadvantaged. While universal interventions remain essential, they must be complemented by targeted efforts that reach those at greater risk of poor health outcomes.

Traditional behaviour-focused interventions such as those promoting diet and physical activity are often more accessible to individuals who are already health-conscious, typically from more advantaged backgrounds. To ensure equity, it is vital that future strategies are designed with health inequalities in mind, ensuring that services are inclusive, accessible, and responsive to the needs of all communities.

By embracing a more holistic, inclusive, and community-led approach, Kent can lead the way in reducing obesity and improving the health and wellbeing of all its residents.

9. Commissioning Intentions – Advancing Healthy Weight in Kent

The needs assessment presents a valuable opportunity to strengthen Kent's approach to adult obesity. While prevalence is increasing, this highlights the importance of delivering tailored, evidence-based weight management services that reflect local needs. By adopting a **proportionate universalism** approach, resources can be focused where they are most needed, while ensuring support is available to all.

9.1 Creating a Clear and Accessible Pathway

There is a strong opportunity to enhance the adult weight management pathway by making it more streamlined and user-friendly. Establishing clear referral criteria, a unified referral platform, and a seamless service structure will improve access and navigation for both professionals and residents. Raising awareness of available services and how to access them will empower individuals to make informed, healthy choices.

9.2 Maximising Integration and Collaboration

Integrating weight management services with other public health initiatives—such as Healthy Living Centres, Active Kent, and community-based programmes—will enhance service delivery and improve outcomes. Promoting awareness of Tier 1 universal services and encouraging community engagement will help residents make the most of the support available.

9.3 Embedding a Whole Systems Approach

Recognising obesity as a complex issue with multiple interrelated causes, Kent's commissioning strategy embraces a **whole systems approach**. This means addressing the wider determinants of health, leveraging community assets, and ensuring services are inclusive, accessible, and sustainable.

9.4 Empowering the Workforce

Training is a key enabler of success. Expanding initiatives like *Making Every Contact Count (MECC)* and Healthy Conversation Skills will equip frontline staff with the confidence and tools to support residents in achieving and maintaining a healthy weight. Training should also promote compassionate, stigma-free conversations and awareness of local services.

9.5 Inclusive and Responsive Commissioning

Commissioning should reflect the diverse needs of Kent's population. This includes ensuring services are accessible to people in coastal and deprived areas, ethnic minority communities, individuals with disabilities (especially learning disabilities), and underrepresented groups such as men and young people. There is also an opportunity to strengthen maternity and youth-focused services.

9.6 Collaborative Commissioning and Evaluation

Closer collaboration between Kent County Council (KCC) and the Integrated Care Board (ICB) will be key to delivering a joined-up, effective system. Shared learning, co-commissioning, and robust data collection will support continuous improvement and ensure services are responsive to local needs. Embedding evaluation and research into commissioning models will help demonstrate impact and guide future investment.

9.7 Creating Supportive Environments

All partners have a role to play in shaping healthier environments. This includes promoting access to nutritious food, supporting active travel, embedding health into planning and design, and leading by example through NHS and local authority policies.

9.8 Building a Connected System

Moving towards a more holistic, integrated model will ensure services are better aligned and more responsive. Data-sharing agreements, regular benchmarking, and the sharing of best practices will support a more connected and effective system.

9.9 Strategic Planning for the Future

With finite resources, it's essential to clearly define service priorities, delivery models, and target populations. The Public Health Transformation Programme has already laid strong foundations by developing new service specifications that enhance integration and cost-effectiveness, particularly for high-risk groups.

9.10 Data-Driven and Person-Centred

Local data, including insights into obesity-related inequalities, will be vital for tailoring services and targeting resources where they are most needed. With appropriate consent, data sharing can improve understanding of service use and outcomes, supporting more personalised and impactful care.

9.11 Sustaining Progress Through Long-Term Investment

To build on the progress already made, continued investment in population-level interventions and a long-term, strategic obesity plan is essential. Ongoing support for the Whole Systems Approach (WSO) will ensure Kent remains at the forefront of innovative, community-led solutions to promote healthy weight and wellbeing.

10. Call to Action / Recommendations

10.1 Policy Recommendations

1. **Whole Systems Approach**
   Invest in a long-term, place-based Whole Systems Approach that brings together partners across sectors to create environments that support healthy weight and wellbeing.
2. **Compassionate Approach**
   Promote a positive, inclusive narrative around healthy weight that is free from stigma and bias, encouraging engagement and empowerment for all individuals.
3. **Healthy Places Policy**
   Implement policies that create supportive environments for healthier living by:
   a. Expanding equitable access to green, blue, and open spaces.
   b. Embedding health into transport and planning policies to promote active travel.
   c. Designing spaces that encourage physical activity.

d. Reducing exposure to high-fat, salt, and sugar (HFSS) food advertising.
e. Supporting healthier food options and limiting the density of fast-food outlets.

10.2 Approach Recommendations

1. **Comprehensive Obesity Strategy**
   Develop and implement an integrated obesity strategy with a clear, actionable plan that engages anchor institutions and aligns with the wider healthy weight agenda.
2. **Tailored Interventions for High-Risk Groups**
   Apply a proportionate universalism approach to deliver culturally appropriate, targeted support for high-risk groups, including those from deprived areas, ethnic minority backgrounds, individuals with disabilities, and those with mental health conditions.

10.3 Service Provision Recommendations

1. **Strengthen and Integrate Services**
   Create a clear, seamless referral pathway across all tiers (1–4) to ensure services are accessible, equitable, and easy to navigate for both professionals and the public.
2. **Enhance Community Engagement and Co-Design**
   Involve communities in the design and delivery of services to ensure they are inclusive, culturally relevant, and responsive to local needs.
3. **Train and Equip Health and Social Care Staff**
   Expand training programmes such as *Making Every Contact Count (MECC)* and weight stigma awareness to empower staff to have supportive, informed conversations and confidently refer individuals to appropriate services.
4. **Raise Awareness through Campaigns**
   Launch targeted, locally tailored campaigns using inclusive messaging and trusted channels to increase awareness and engagement, particularly among high-risk groups.
5. **Robust Data Management and Research**
   Establish a consistent system for data collection, monitoring, and evaluation to inform service improvements and support evidence-based decision-making. Invest in both local and national research to better understand effective interventions and emerging trends